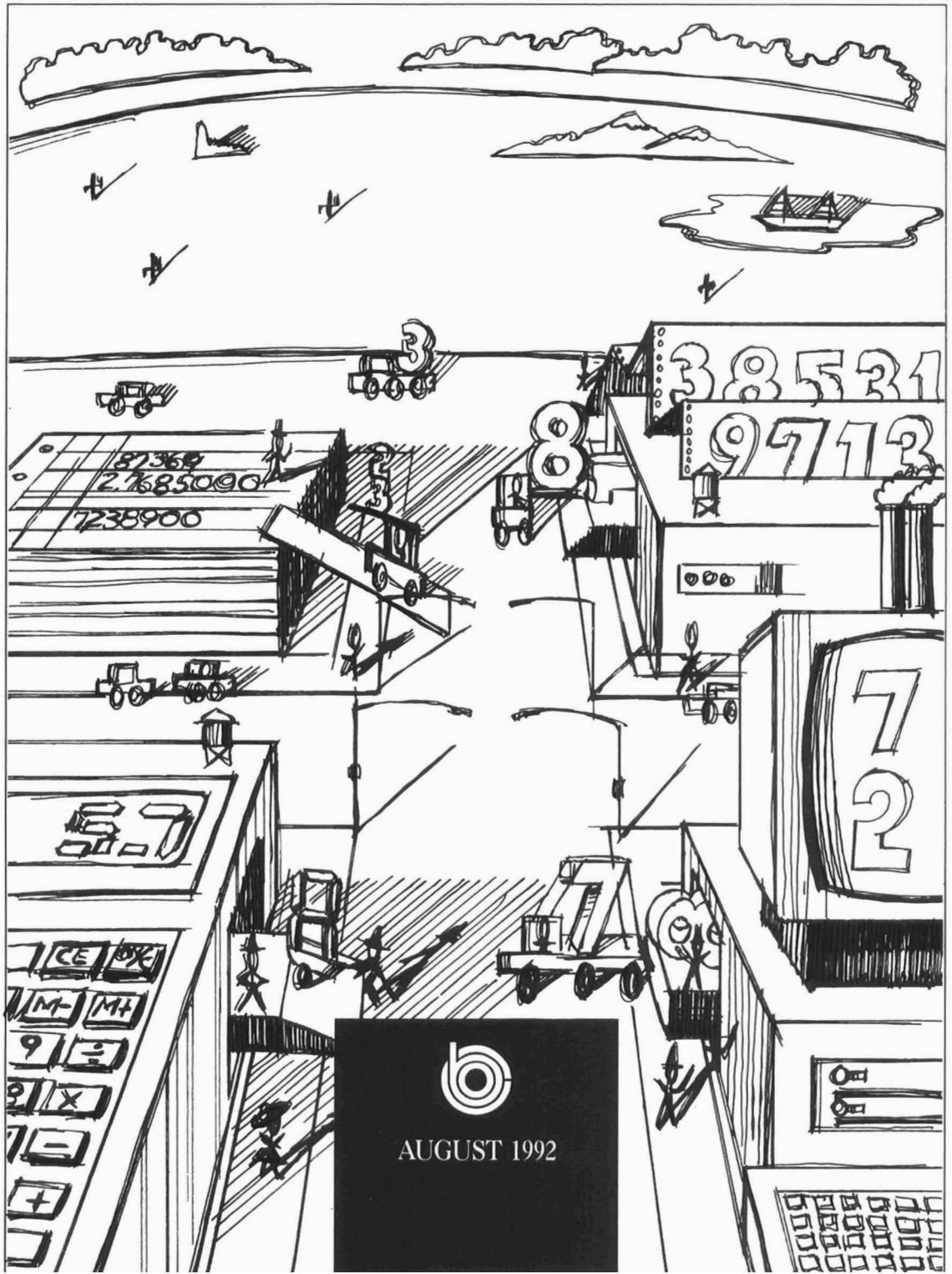
CONGRESS OF THE UNITED STATES
CONGRESSIONAL BUDGET OFFICE

AN

The Economic and Budget Outlook

UPDATE



AUGUST 1992

THE ECONOMIC AND BUDGET OUTLOOK: AN UPDATE

A Report to the
Senate and House
Committees on the Budget

As Required by Public Law 93-344

The Congress of the United States
Congressional Budget Office

NOTES

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

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

Data from the national income and product accounts in this volume do not reflect the July 30, 1992, revisions.

Details in the text and tables of this report may not add to totals because of rounding.

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 periodically. It satisfies the requirement of section 202(f) of the Congressional Budget Act of 1974 to submit periodic reports to the Committees on the Budget with respect to fiscal policy. It also satisfies the requirement of section 254(f) of the Budget Enforcement Act of 1990 to provide a sequestration update report regarding the status of the discretionary spending limits, pay-as-you-go requirements, and maximum deficit amounts. 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 Fiscal Analysis Division under the direction of Robert Dennis and John F. Peterson. Trevor Alleyne wrote Chapter 1, and Robert Arnold carried out the economic forecast. Victoria Farrell, Douglas R. Hamilton, Kim J. Kowalewski, Joyce Manchester, Angelo Mascaro, Matthew Salomon, John Sturrock, Frank Russek, and Christopher Williams provided background analysis. Research assistance was provided by Laurie Brown, Dan Covitz, Blake Mackey, Mark McMullen, Michael Simpson, and Patricia Wahl.

The baseline outlay projections were prepared by the staff of the Budget Analysis Division under the supervision of C.G. Nuckols, Paul N. Van de Water, James Horney, Michael Miller, Charles Seagrave, and Robert Sunshine. The revenue estimates were prepared by the staff of the Tax Analysis Division under the supervision of Rosemary D. Marcuss and Richard A. Kasten. Kathy A. Ruffing wrote Chapter 2. James Horney prepared Appendix A, and Matthew Salomon prepared Appendix B. Paul N. Van de Water wrote the summary of the report.

Paul L. Houts and Sherry Snyder edited the report. Christian Spoor provided editorial assistance during production and coordinated the graphics. The authors owe special thanks to Jeanne Burke, Marion Curry, Dorothy Kornegay, Verlinda Lewis, L. Rae Roy, Denise Thomas, and Simone Thomas, who assisted in the preparation of the report. Kathryn Quattrone and Martina Wojak prepared the report for publication.

Robert D. Reischauer
Director

August 1992

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Summary

Continued easing of monetary policy during the past 12 months has edged the U.S. economy out of recession to the verge of a sustained recovery. Yet, even if growth does not stall, as it did in mid-1991, the recovery is likely to be more modest than past recoveries.

The Congressional Budget Office (CBO) projects that the federal budget deficit will reach $314 billion in fiscal year 1992--up from last year's record of $269 billion but well below previous estimates. The improvement in the budget outlook is only superficial, however, and stems largely from delays in approving additional funds to clean up the savings and loan mess. The deficit will shrink modestly over the next two or three years as the temporary effects of the recession and spending for deposit insurance fade away. But, by 1997, if no action is taken to reduce spending or raise taxes, the deficit will return to current levels.

The Economic Outlook

During the first half of the year, employment growth has been weak, and the economy has required additional monetary stimulus to keep growth alive. The Federal Reserve has cut the federal funds rate on several occasions, and the three-month Treasury bill rate has fallen below 4 percent for the first time in 20 years. CBO expects that the recovery will be able to sustain itself from now on without further monetary easing.

Forecast for 1992 and 1993

In CBO's current forecast, real economic growth averages 2.5 percent in the four quarters of 1992 and 3.2 percent in 1993 (see Summary Table 1). By the end of 1993, the projected level of real gross domestic product (GDP) is the same as CBO forecast in January, although the timing of growth is different. CBO also foresees slightly less growth in 1992 and somewhat more in 1993 than does the Administration or the *Blue Chip* consensus of private forecasters, but these other forecasts predated July's weak employment report and drop in interest rates.

The projected growth for 1992 and 1993 is only half the rate that normally occurs in the first two years of an economic recovery. This time, however, the economy must struggle to work off various imbalances that developed during the 1980s. Federal fiscal policy is constrained by record-high deficits. State and local governments are making painful cutbacks to keep operating budgets in balance. Office and commercial construction is weak in the face of sky-high vacancy rates. With the end of the Cold War, the defense industry is shrinking. Families are attempting to pare their debt burdens by reducing their spending. And many businesses are cutting their work forces as part of efforts to reduce costs and increase productivity.

Summary Table 1.
Short-Term Economic Forecasts for 1992 and 1993

	Actual 1991	Forecast 1992	Forecast 1993
Fourth Quarter to Fourth Quarter (Percentage change)			
Nominal GDP			
CBO Summer	3.3	5.3	6.3
Administration	3.3	5.8	6.3
Blue Chip	3.3	5.8	6.3
CBO Winter	3.2	5.9	6.6
Real GDP			
CBO Summer	0.3	2.5	3.2
Administration	0.3	2.7	3.0
Blue Chip	0.3	2.8	3.1
CBO Winter	0	2.8	3.3
Consumer Price Index[a]			
CBO Summer	3.0	3.3	3.4
Administration	3.0	3.1	3.3
Blue Chip	3.0	3.3	3.6
CBO Winter	3.0	3.4	3.6
Calendar-Year Averages (Percent)			
Civilian Unemployment Rate			
CBO Summer	6.7	7.5	6.8
Administration	6.7	7.3	6.6
Blue Chip	6.7	7.2	6.7
CBO Winter	6.7	6.9	6.4
Three-Month Treasury Bill Rate			
CBO Summer	5.4	3.6	3.7
Administration	5.4	3.9	4.7
Blue Chip	5.4	3.8	4.4
CBO Winter	5.4	4.4	5.1
Ten-Year Treasury Note Rate			
CBO Summer	7.9	7.1	6.9
Administration	7.9	7.3	7.0
Blue Chip[b]	7.9	7.4	7.6
CBO Winter	7.9	7.1	7.1

SOURCES: Congressional Budget Office; Office of Management and Budget, *Mid-Session Review* (July 24, 1992); Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators* (July 10, 1992).

NOTE: The *Blue Chip* forecast is an average of 50 private forecasts.

a. The consumer price index for all urban consumers.

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

Such anemic growth will not permit a rapid drop in unemployment, but it is also unlikely to rekindle inflation. In CBO's forecast, unemployment averages 7.5 percent in 1992 and 6.8 percent in 1993. The consumer price index rises by 3.3 percent in 1992 and 3.4 percent in 1993 on a fourth-quarter-to-fourth-quarter basis.

Short-term interest rates are expected to remain low for the rest of this year but will turn up again in 1993 after the recovery is clearly under way. Long-term rates are likely to rise slightly from July's levels in light of huge federal deficits at home, large demands for investment capital abroad, and fears of a resurgence of inflation.

Projections for 1994 Through 1997

CBO does not attempt to forecast cyclical fluctuations in the economy more than two years into the future. So, beyond 1993, the projections are based on trends in the labor force,

Summary Table 2.
CBO's Medium-Term Economic Projections (By calendar year)

	1991	1992	1993	1994	1995	1996	1997
Nominal GDP (Billions of dollars)							
CBO Summer	5,673	5,924	6,288	6,657	7,032	7,415	7,801
CBO Winter	5,671	5,931	6,337	6,714	7,104	7,520	7,961
Real GDP (Billions of 1987 dollars)							
CBO Summer	4,849	4,942	5,095	5,239	5,374	5,503	5,623
CBO Winter	4,845	4,924	5,100	5,237	5,370	5,509	5,652
Real GDP (Percentage change)							
CBO Summer	-0.7	1.9	3.1	2.8	2.6	2.4	2.2
CBO Winter	-0.8	1.6	3.6	2.7	2.5	2.6	2.6
Implicit GDP Deflator (Percentage change)							
CBO Summer	3.6	2.5	3.0	3.0	3.0	3.0	3.0
CBO Winter	3.7	2.9	3.2	3.2	3.2	3.2	3.2
CPI-U (Percentage change)							
CBO Summer	4.2	3.2	3.4	3.4	3.4	3.4	3.4
CBO Winter	4.2	3.3	3.6	3.6	3.6	3.6	3.6
Unemployment Rate (Percent)							
CBO Summer	6.7	7.5	6.8	6.1	5.9	5.7	5.6
CBO Winter	6.7	6.9	6.4	6.2	6.0	5.9	5.7
Three-Month Treasury Bill Rate (Percent)							
CBO Summer	5.4	3.6	3.7	4.8	5.4	5.5	5.6
CBO Winter	5.4	4.4	5.1	5.2	5.4	5.5	5.6
Ten-Year Treasury Note Rate (Percent)							
CBO Summer	7.9	7.1	6.9	6.9	7.0	7.1	7.1
CBO Winter	7.9	7.1	7.1	7.1	7.1	7.1	7.1

SOURCE: Congressional Budget Office.

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

productivity, and saving. Although these trends change only slowly, CBO continually updates its view of the long-run outlook to reflect the recent performance of the economy, new demographic projections, and other developments.

Over the 1994-1997 period, CBO projects that the substantial economic slack left by the recession will be gradually eliminated through growth in real GDP that averages 2½ percent a year (see Summary Table 2). By comparison, potential output grows at an annual rate of only 2 percent. CBO has slightly reduced its estimate of long-run potential growth since last winter in light of the recent revisions to the national income and product accounts, which lowered the rate of growth of productivity during the 1980s. The projected level of real GDP in 1997 is half a percent below CBO's previous projection.

The reduction in inflation purchased by the recession is expected to endure, and real (inflation-adjusted) interest rates will also remain below prerecession levels. CBO projects that inflation in the consumer price index will remain at 3.4 percent during the 1994-1997 period, the same rate as in 1993. The three-month Treasury bill rate is projected to reach 5.6 percent in 1997, when the 10-year government note rate will average 7.1 percent. CBO has slightly increased its projections of long-run real interest rates since last winter in the face of increases in projected federal deficits and foreign demands for capital.

The Budget Outlook

The current budget situation is, in part, the legacy of the budget summit agreement of 1990. The budget agreement included a total of almost $500 billion in deficit reduction measures for fiscal years 1991 through 1995, and it established procedures to assure that future legislation would not undo those savings. If the deficit failed to come down despite these measures, however, the agreement did not mandate any further cuts in spending or increases in taxes.

Although initial projections, including CBO's, suggested that the budget agreement was likely to get the deficit under control in a few years, that prospect quickly vanished. The agreement has held. But a stubbornly sluggish economy, a shortfall in tax revenues, and unexpectedly rapid growth in federal benefit programs--primarily Medicare and Medicaid--have left the federal deficit stuck near $300 billion for the next few years and heading upward in the second half of the decade.

The Outlook for the Deficit

Under current fiscal policies, CBO projects that the federal deficit will swell to $314 billion in the current fiscal year and $331 billion in 1993, before shrinking temporarily in 1994 and 1995 (see Summary Table 3). The deficit will then resume rising again, reaching $290 billion in 1997 and exceeding $500 billion in 2002.

CBO's baseline budget projections assume that current laws and policies affecting tax revenues and mandatory spending remain unchanged. Discretionary spending (that is, spending controlled by annual appropriations) in 1993 through 1995 is assumed to be held to the limits established in the Budget Enforcement Act. These caps require that discretionary outlays be cut roughly 10 percent in real terms between 1992 and 1995. CBO assumes that discretionary outlays will grow at the same pace as inflation after 1995.

Two transitory factors obscure the long-run trends in the budget deficit. First, spending for deposit insurance is highly volatile but has little short-run effect on the economy. Deposit insurance outlays reached a staggering $66 billion in 1991, but fell back to $13 billion this year as a result of delays in funding the savings and loan cleanup. When the necessary funds are provided, deposit insurance spending will shoot up again. Later, deposit insurance spending will turn negative when pro-

ceeds from selling the assets of previously failed institutions exceed the spending required to resolve new failures. These ups and downs do not faze credit markets or alter interest rates, however, because deposit insurance spending is an exchange of assets that does not affect total demand in the economy.

Second, the budget responds to the state of the economy. If the economy moves into recession, tax revenues shrink, and outlays for unemployment insurance and other benefits rise. As the economy recovers, the process reverses itself. Because these changes happen without legislative action, they are called automatic stabilizers.

The standardized-employment deficit removes the effects of deposit insurance and the business cycle from the deficit totals and is the best measure of the budget's effect on the economy. By this measure the deficit shows little improvement, falling from $232 billion (3.8 percent of potential GDP) in 1992 to $212 billion (3.0 percent of potential GDP) in 1995. By 1997, the standardized-employment deficit is projected to be about the same fraction of potential GDP as in 1992.

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

	1991	1992	1993	1994	1995	1996	1997
			In Billions of Dollars				
Total Deficit	269	314	331	268	244	254	290
Deficit Excluding Deposit Insurance and Desert Storm Contributions	246	306	282	251	239	261	307
Standardized-Employment Deficit[a]	190	232	223	214	212	240	291
Deficit Excluding Social Security and Postal Service	321	364	388	336	322	340	383
			As a Percentage of GDP				
Total Deficit	4.8	5.4	5.3	4.1	3.5	3.5	3.8
Deficit Excluding Deposit Insurance and Desert Storm Contributions	4.4	5.2	4.6	3.8	3.4	3.6	4.0
Standardized-Employment Deficit[a,b]	3.3	3.8	3.5	3.2	3.0	3.3	3.7
Deficit Excluding Social Security and Postal Service	5.7	6.2	6.3	5.1	4.6	4.6	5.0
Memorandum:							
Gross Domestic Product	5,627	5,848	6,193	6,566	6,937	7,318	7,705

SOURCE: Congressional Budget Office.

a. Excluding deposit insurance and contributions of allies for Operation Desert Storm.

b. Shown as a percentage of potential gross domestic product.

Changes in the Projections

CBO has reduced its estimate of the 1992 deficit from $368 billion last winter to $314 billion today, with almost all of the revision stemming from delays in deposit insurance funding (see Summary Table 4). In the long run, however, the revisions to the economic assumptions and the changes in projections of revenues and entitlement spending have upped the amount of the deficits.

Changes in budgetary policies have had a negligible effect on the projected deficits. In May, the Congress rescinded $8 billion in previous appropriations, including $7 billion in defense programs deemed superfluous after the end of the Cold War. These rescissions are estimated to reduce discretionary outlays by some $2 billion in 1992. Because discretionary spending is governed by the caps set in the Budget Enforcement Act, the rescissions will make it easier to meet the caps in 1993 and thereafter. By themselves, however, they do not put spending on a lower course. In July, the Congress cleared the third extension of unemployment benefits enacted since the beginning of the recession. By CBO's estimation, this bill will increase the deficit by $1 billion over the 1992-1993 period. The Office of Management and Budget is more optimistic than CBO, however, and estimates that the legislation will reduce the deficit slightly over the same period.

Changes in CBO's economic assumptions have virtually no effect on the budget projections through 1995, but add $7 billion to the deficit in 1996 and $20 billion in 1997. In the first few years, the projected levels of real economic activity are little different from CBO's winter forecast. Inflation and short-

Summary Table 4.
Changes in CBO's Deficit Projections (By fiscal year, in billions of dollars)

	1992	1993	1994	1995	1996	1997
Winter Baseline Deficit	368	336	267	203	189	236
Changes						
Policy changes	-1	a	1	a	-1	-1
Economic assumptions						
Revenues[b]	1	12	13	11	16	30
Net interest	-2	-11	-10	-5	-2	-1
Other outlays	2	1	-3	-5	-8	-9
Subtotal	1	1	-1	a	7	20
Technical reestimates						
Revenues[b]	-1	3	6	7	8	6
Deposit insurance	-51	-18	-13	24	38	11
Medicare	1	4	4	5	6	6
Other major benefits	2	3	4	5	5	5
Net interest	-1	-1	-1	a	3	6
Other outlays	-3	2	1	a	a	a
Subtotal	-54	-7	1	41	60	34
Total	-53	-5	1	41	66	54
Summer Baseline Deficit	314	331	268	244	254	290

SOURCE: Congressional Budget Office.

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

a. Less than $500 million.

b. Revenue losses are shown as positive numbers because they increase the deficit.

term interest rates are lower, but these changes reduce revenues and outlays by roughly equal amounts. By 1996 and 1997, however, the reduction in real GDP and the rise in real interest rates will combine to raise the deficit.

Most of the changes in the budget outlook over the past six months stem neither from legislation nor from updated economic assumptions. Revisions to the estimates of spending for deposit insurance constitute the largest of these other changes, which are labeled technical reestimates. A slowdown in the pace of activity by the Resolution Trust Corporation (RTC), prompted this year by delays in providing the necessary funds, has caused CBO to stretch out its estimate of spending to resolve insolvent thrift institutions. Compared with CBO's previous estimates, RTC spending changes little in total over the 1992-1997 period but is lower through 1994 and higher thereafter. CBO's estimate of noninterest spending by the Bank Insurance Fund has been pared by $6 billion over six years.

The remaining technical reestimates are individually smaller but total some $20 billion per year in the longer run. Estimated revenues have been reduced, primarily on account of new data showing that income and payroll tax liabilities have grown more slowly than incomes. Increases in hospital admissions for the elderly have boosted Medicare spending. And spending for several other benefit programs, notably Social Security disability insurance, is also outpacing earlier estimates.

The Role of Deposit Insurance

As specified in the Budget Enforcement Act, CBO's baseline budget projections assume that the federal government will meet its deposit insurance commitments in full and will close insolvent institutions as quickly as possible. If the necessary funds are not provided in a timely fashion, however, the projections may have to be revised substantially, as happened last winter and is again the case.

The current projections assume that RTC will receive another infusion of spending authority before the Congress adjourns in the fall and that RTC outlays will total $35 billion

Summary Table 5.
Effect of Further Delay in Deposit Insurance Funding (By fiscal year, in billions of dollars)

	1992	1993	1994	1995	1996	1997
Spending by the Resolution Trust Corporation[a]						
Baseline Assuming Funding in Late Fiscal Year 1992	-5	35	12	4	b	-7
Baseline Assuming Funding in Mid-Fiscal Year 1993	-5	b	37	14	7	-4
Total Deficit						
Baseline Assuming Funding in Late Fiscal Year 1992	314	331	268	244	254	290
Baseline Assuming Funding in Mid-Fiscal Year 1993	314	296	293	254	261	293

SOURCE: Congressional Budget Office.

a. Or its successor.

b. Less than $500 million.

in fiscal year 1993 (see Summary Table 5). But what if funding is delayed again?

If no new funding is provided until the new Congress meets next year, net RTC spending in 1993 could be nil. The missing outlays would spill over into later years, and the ultimate cost of resolving insolvent thrifts would rise as zombie institutions are kept alive and incur additional losses. The deficit would be little different four or five years out, but it would not rise in 1993, and it would barely fall in 1994.

Conclusion

The economic and budget outlook is much the same as it was six months ago. The economy still struggles to shed the shackles of recession, and the federal government still faces a string of $300 billion budget deficits.

The economic and budgetary problems are not independent. The explosion of government borrowing since 1981 has come at the expense of public and private investment, thereby impairing the economy's productivity and growth. Moreover, the huge deficits have precluded the use of countercyclical fiscal policy as a tool for stimulating the economy.

Deficit reduction can improve the long-run outlook for living standards, but it will entail difficult political choices and a lower level of consumption in the short run. The initial hardship could be reduced, however, if a credible and consistent long-run deficit reduction policy is combined with an easier monetary policy. Financial markets will have to be convinced early in the process that the difficult decisions to cut specific programs and raise particular taxes are being made if the transitional costs of deficit reduction are to be kept low. Then, lower interest rates can ease the redirection of resources away from public and private consumption and toward investments that enhance productivity.

Chapter One

The Economic Outlook

Signs of genuine recovery appeared in the first quarter of 1992, and indeed the economy grew at a 2.2 percent annual rate during the first half of the year. However, by midyear disturbing news, especially the large increase in the unemployment rate--coupled with the lack of any strong evidence that a self-sustaining recovery had begun--raised a warning flag that the economy might stall, repeating the disappointing pattern of 1991. Nevertheless, the Congressional Budget Office (CBO) forecasts that the recovery will continue and will soon become self-sustaining, although remaining quite modest by historical standards.

CBO's Economic Forecast

CBO's forecast that the recovery will continue is based largely on the Federal Reserve's easing of monetary policy since late last year. This factor is likely to have most of its effect in the next half year. If, as CBO assumes, those actions have been sufficient, the recovery will gather steam, raising incomes and improving expectations. It is by no means certain, however, that the monetary easing that has occurred so far has been sufficient to keep the recovery going.

CBO's current forecast, like its January 1992 forecast, indicates more torpid growth than usual after a recession (see Table 1 and Figure 1). The primary reason is that the economy of the United States is struggling with a number of long-term adjustments. Those adjustments include reductions in the federal deficit imposed by the Budget Enforcement Act of 1990, retrenchment in such sectors as defense and commercial real estate, corporate restructuring to achieve reductions in labor costs, and reduction of debt by overextended households and businesses.

CBO expects that the growth in real gross domestic product (GDP), averaging 2.5 percent in the four quarters of 1992 and 3.2 percent in 1993, will be only about half the rate that normally occurs in the first two years of a recovery. As a result, the unemployment rate will fall only gradually. Because of the mild pace of the recovery, however, inflation will not rise from its current rate. Also, short-term interest rates are expected to remain flat for the rest of the year and then rise gradually in 1993, once the recovery is solidly under way.

In 1992, the main contributors to growth will be the interest-sensitive sectors: producers' durable equipment, consumer durables, and residential investment. Net exports will worsen because of the weakness in the economies of the foreign industrial countries. Because the commercial real estate sector has substantial excess capacity, investment in nonresidential structures is also expected to be weak.

The sectors that are forecast to contribute to growth in 1992 are expected do so again in 1993, this time supported by increased growth

in inventories and exports. Toward the end of 1992, declining inventory-to-sales ratios and a more stable growth of sales are expected to trigger a rebuilding of inventories that will continue into 1993 and make investment in inventories an important contributor to economic growth for that year.

Growth in exports is expected to strengthen in 1993, benefiting from increased economic activity in the industrial countries as well as from the depreciation of the dollar that took place in the middle of 1992. However, as economic growth in the United States picks up, the demand for imports will also strengthen, and thus net exports are not likely to improve during the year. Aside from the growth of imports, the main restraints on growth are fiscal: both the decline in federal defense spending, which will accelerate over the next 18 months, and retrenchments by state and local governments will restrain overall economic growth during the forecast period.

The rest of this chapter will first review the recent performance of the economy, discussing the reasons for expecting the current recovery to be slower than past recoveries. Then, the chapter will analyze some of the major factors underlying the outlook: monetary and fiscal policy, and foreign economic developments. Next, the chapter will describe CBO's projections through 1997, and then close with a discussion of the risks in the outlook.

Long-Term Adjustments Are Holding Back the Recovery

Despite continued easing of monetary policy by the Federal Reserve during the last half of 1990 and throughout 1991, the economy still does not show any convincing signs that the transition to self-sustaining growth has oc-

Table 1.
The CBO Forecast for 1992 and 1993

	Actual 1991	Forecast 1992	Forecast 1993
Fourth Quarter to Fourth Quarter (Percentage change)			
Nominal GDP	3.3	5.3	6.3
Real GDP[a]	0.3	2.5	3.2
Implicit GDP Deflator	3.0	2.7	3.0
Fixed-Weighted GDP Price Index	3.4	3.0	3.2
CPI-U[b]	3.0	3.3	3.4
Calendar-Year Averages (Percent)			
Civilian Unemployment Rate	6.7	7.5	6.8
Three-Month Treasury Bill Rate	5.4	3.6	3.7
Ten-Year Treasury Note Rate	7.9	7.1	6.9

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

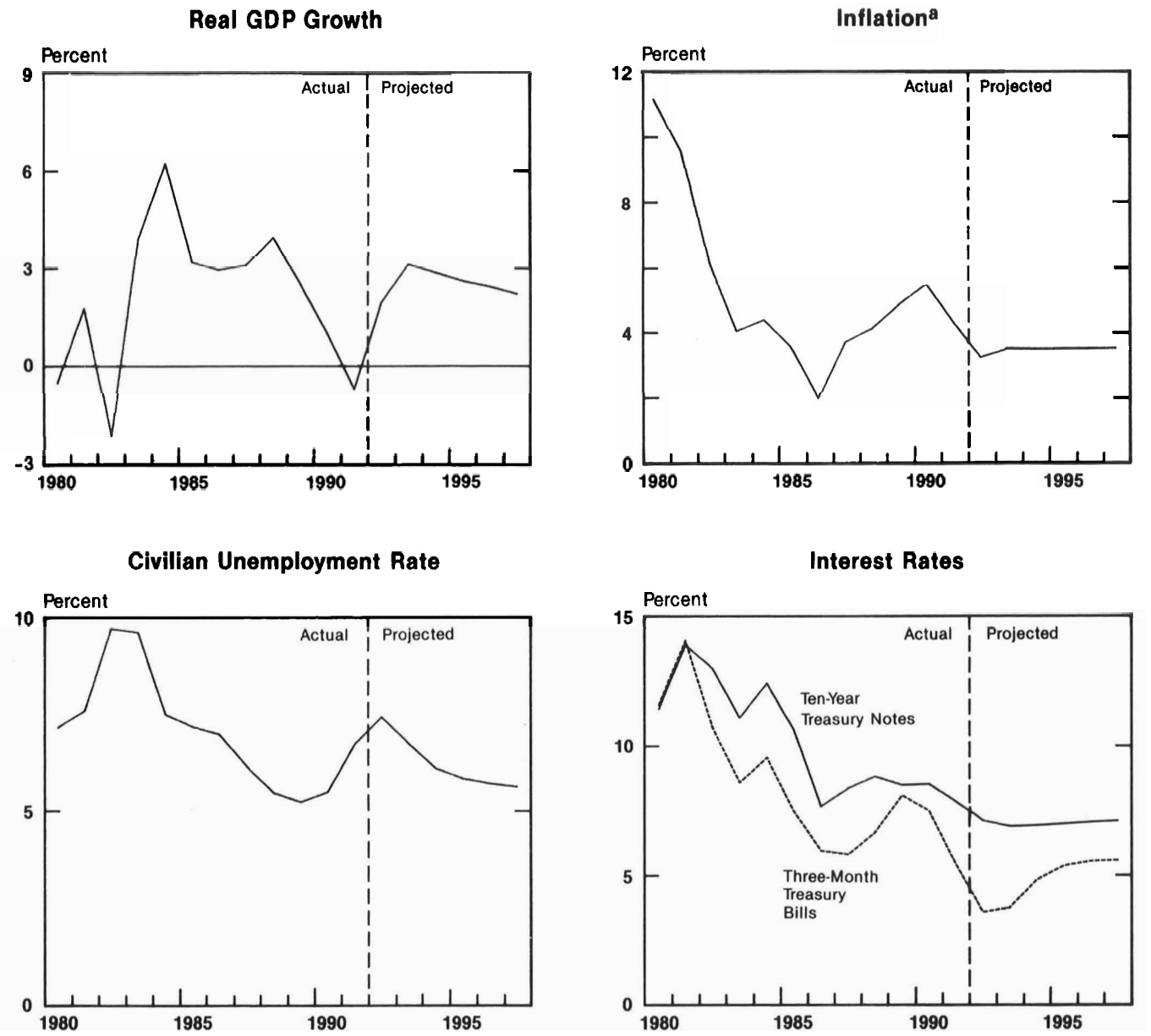
a. In constant 1987 dollars.

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

curred. In a replay of the events of mid-1991, the economy grew rapidly for a few months early this year but again has slipped to a growth rate that is insufficient to reduce the unemployment rate (see Box 1).

In a typical self-sustaining recovery, the economy reinforces its own growth--further stimulus from monetary or fiscal policy is not necessary for the economy to grow rapidly, and indeed interest rates usually rise.

Figure 1.
The Economic Forecast and Projection



SOURCES: Congressional Budget Office; 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.

Strength in an initial group of sectors creates a boost for other sectors, which in turn further bolsters that initial group, and so on. Low interest rates, inherited from the recession, stimulate demand for housing and consumer durable goods. That demand then encourages firms in those sectors to boost production and build their inventories. Such action in turn will require a larger work force, or increased spending on plant and equipment, or both, to raise output. Higher levels of employment in the construction industry and in the manufacture of consumer durable and capital goods strengthen growth in personal income, which leads to a further strengthening of the demand for housing and consumer goods. The recovery usually quickly reaches a rate that allows the Federal Reserve to turn from getting the

Box 1.
What Stage of the Business Cycle Is the Economy In?

The behavior of the economy over the past two years has been remarkably different from any other time in the postwar period. Hesitant stops and starts in spending, lackluster growth in employment, surprisingly low short-term interest rates, stubbornly high long-term rates, depressed consumer and business confidence, and unusual movements in the monetary aggregates all seem to defy explanation. Not surprisingly, there is some confusion about what phase of the business cycle the economy is in. Some feel that an economic recovery has not begun, while others say the economy has been in recovery for more than a year. Indeed, the official arbiter of the business cycle, the National Bureau of Economic Research (NBER), has not ruled whether the last recession has in fact ended.

Business cycles look like waves, with the peaks representing high points of overall economic activity and the troughs representing low points. Between the troughs and peaks, the growth of overall economic activity is strong. Economic *recovery* is the period of transition from the weakness of recession to a strong, self-sustaining growth. Usually, by the time overall economic activity returns to the level it had reached at the previous peak, the recovery is complete: indeed, economists often use the quarter when activity reaches its previous peak level as a shorthand way to mark the end of the recovery and the beginning of the next phase of the business cycle, the *expansion*. In an expansion, the economy is expected to show a solid upward momentum.

The phrase "overall economic activity" is deliberately vague: the stages of a business cycle are marked by movements in a wide and diverse range of economic activities. Accordingly, there is no single objective measure of the cycle, and the official designation of cyclical peaks and troughs by the NBER must, in the end, depend on expert judgments based on developments in many sectors of the economy. The NBER typically makes these judgments many months after the fact, when the data are more complete and the underlying trends more certain.

Although the NBER has not determined the date of the last trough, CBO has provisionally estimated that it occurred in the second quarter of 1991; in this report, that date is used to mark the trough. The preliminary estimate of GDP for the second quarter of 1992 suggests that economic activity has grown nearly up to its level at the previous business cycle peak, reached, according to the NBER, in the third quarter of 1990; thus, by the economists' shorthand measure, the recovery should be almost complete.

CBO uses these dates for the latest trough and recovery phases provisionally: the NBER is the final arbiter. More important, the last year hardly seems like a recovery. In the past, by the time GDP neared its previous peak, the recovery was progressing under its own power. That has not happened in the past year: instead, the recovery has been sustained by repeated easings by the Federal Reserve. Thus, although the economy has certainly grown over the past year, in a more meaningful sense the recovery has not yet begun.

economy out of recession toward maintaining a monetary environment that will support growth without accelerating inflation.

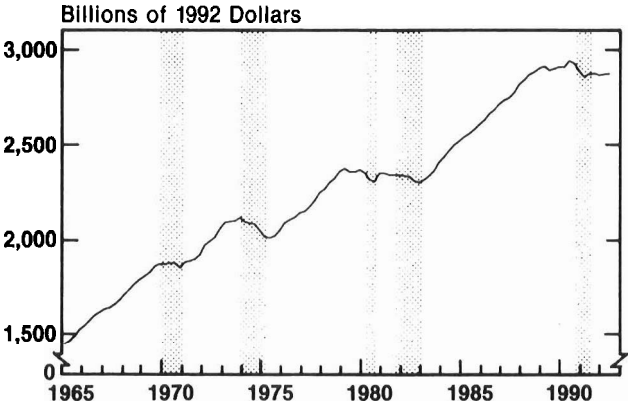
The past year has not conformed to the typical pattern of recovery. The economy has grown in fits and starts over the past five quarters and has required additional doses of monetary easing to fend off stagnation. The economy first appeared to gain momentum in early 1991, but economic activity dissipated later in the year as construction weakened and imports rose rapidly. In response, the Federal Reserve lowered the discount rate by a full percentage point in December. The economy seemed to be on the road to recovery a second time when housing starts and spending on consumer goods rose sharply in the first quarter of this year. However, these sectors slowed dramatically during the second quarter, and no other sectors stepped in to pick up the slack. The resulting lull in growth spurred the Federal Reserve to reduce short-term interest rates again in mid-April and in early July.

The two episodes of momentarily increasing aggregate demand share a characteristic that probably played a large role in the failure of the recovery to sustain itself: real income from employment failed to pick up. Employment has yet to show any significant rebound from the economy's low point in the second quarter of 1991, and increases in hours worked have been smaller than usual. Total wages have only just kept up with price increases (see Figure 2). Consumption accounts for 70 percent of overall demand and must play a large role in any recovery. Consumption is, however, unlikely to show sustained growth without growth in real wage income.

CBO believes that the economy's sluggish performance over the past year stems largely from the cumulative effect of a number of long-term adjustments that, so far, have substantially offset the attempts of the Federal Reserve to stimulate the economy. These adjustments will continue to restrain economic growth in the short run, resulting in a recovery that is tepid by historical standards. These adjustments include the efforts of the federal and state and local governments to rein in spending, demographic changes that will limit the growth of residential investment, the gradual elimination of excess capacity in the commercial real estate market, the continued restructuring by firms to reduce costs and improve productivity, the downsizing of the defense industry, and adjustments of balance sheets by households.

Efforts by the federal and state and local governments to rein in spending will cause fiscal policy to be less stimulative during the early stages of this recovery than it was in some past recoveries. With respect to the federal government, adherence to the constraints of the Budget Enforcement Act of 1990 should result in reductions in the federal budget deficit over the next three years. Because of this, CBO expects a moderate fiscal stimulus in 1992 to end in 1993. In addition, many state and local governments still face serious budget difficulties. These problems have restrained employment growth and wage increases in this sector and have led to significant tax increases.

Figure 2.
Aggregate Real Wages

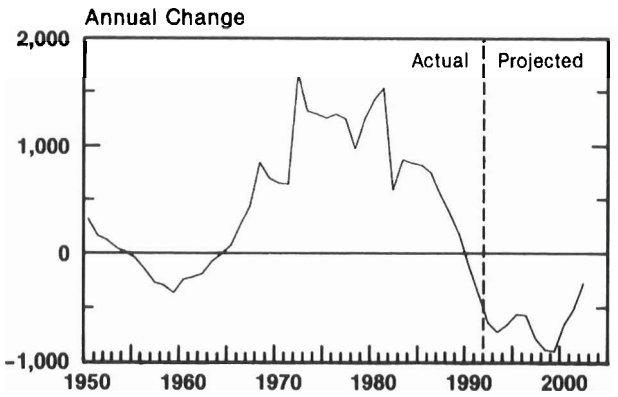


SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics.

NOTE: Shaded areas indicate recessions. The last shaded bar assumes that the second quarter of 1991 will be designated the official trough of the recession.

The contribution of the housing sector to the recovery is expected to be less than in past recoveries because *demographic changes will limit the growth of residential investment.* In the first two years of the average postwar recovery, residential investment has grown at an annual rate of 12.2 percent. In this recovery, housing starts have already risen sharply. This growth translates into strong growth in residential investment in the first half of 1992, and it will continue to support employment for several more months. However, the age structure of the population has also been changing, and this shift is expected to limit further growth in housing starts and in residential investment. After increasing throughout the previous 25 years, the demographic group most likely to be first-time homebuyers--that is, the population between the ages of 25 and 34--began to decline in 1990. In the 1990s, the size of this group is expected to be about 1 percent lower than its average for the 1980s (see Figure 3). As a result, the housing industry will have to accommodate fewer first-time homebuyers. Investment in multi-family housing is also growing much slower than in previous recoveries, mainly because this sector has significant excess capacity.

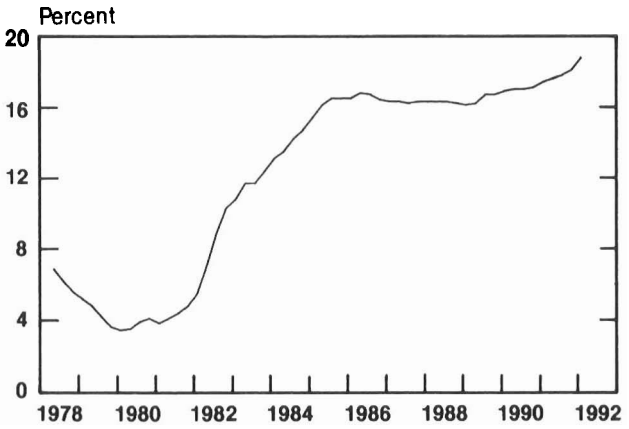
Figure 3.
First-Time Homebuying Population



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of the Census.

NOTE: First-time homebuying population is defined as the population between the ages of 25 and 34.

Figure 4.
Downtown Office Vacancy Rate



SOURCES: Congressional Budget Office; CB Commercial Real Estate Group, Inc.

Office and commercial construction usually play a role in the second rather than the first year of a recovery; this time that role will be diminished because of *the need to eliminate excess capacity in offices and retail space.* The 1980s saw massive overbuilding in this sector, encouraged both by changes in the tax law and by favorable lending terms arising from competition among financial institutions. Vacancy rates are now very high--almost 20 percent nationwide, in the case of offices--and this excess capacity will have to be absorbed before new construction takes place on a significant scale (see Figure 4). The weakness of this sector will dampen the growth of employment in the construction industry.

Although many new jobs will be created as economic growth picks up, this recovery is also expected to see an unusually large number of job losses. The two main reasons for the large turnover in jobs are the *corporate restructuring programs designed to reduce costs and improve productivity,* and the *downsizing of the defense industry.* This higher-than-normal turnover in jobs will dampen the overall growth in employment during the recovery, thereby holding down the growth in overall personal income and, hence, spending on consumption.

Over the past year, many large corporations have announced plans to reduce significantly the size or the growth of their work force as part of efforts to reduce costs and increase productivity. Increased domestic and international competition is inducing some of the cost-cutting. Also, oversupply and overborrowing in the retail trade sector during the 1980s have led to many bankruptcies and consequently to weakness in retail employment. In the financial sector, continuing consolidation because of the problems that banks and savings and loans are having, as well as troubles in the insurance industry (primarily related to its real estate investments), will also constrain growth in employment.

Probably the most important factor contributing to the expected large job turnover during the next few years will be the downsizing of the defense industry. With the end of the Cold War, a much smaller defense industry is needed, and the downsizing is already under way. CBO has estimated that the loss of jobs in the defense sector will exceed 800,000 by 1995, including the elimination of about 330,000 jobs related to defense in the private sector, 360,000 military jobs, and 130,000 civilian jobs in the Department of Defense.[1]

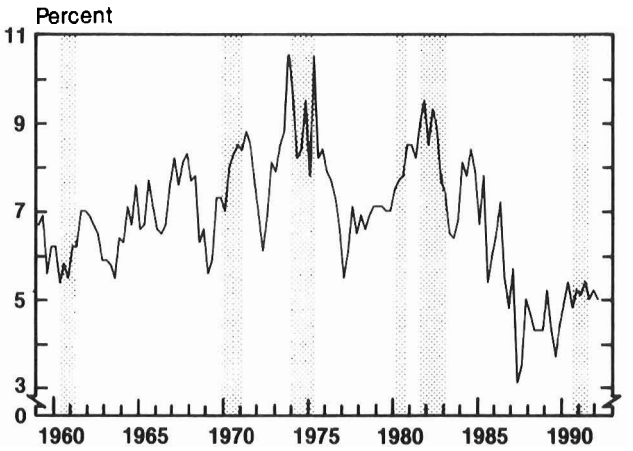
After a decade in which they took on debt at an exceptional pace, *households need to reduce their debt and improve their balance sheets.* This need is expected to restrain household borrowing and spending, despite the lower interest rates that have accompanied the monetary easing by the Federal Reserve. If households restrain their borrowing, growth in spending on consumption will be more moderate during this recovery than in the past.

Increased demand for loans has played an important role in financing consumption during previous recoveries. During a recession, the personal saving rate usually rises as consumers become more cautious and try to reduce their debt burdens. Then, after strengthening their balance sheets during the downturn, households usually boost consumption in the early stages of a recovery by reducing their saving rates and increasing borrowing (see Figure 5).

In the 1990-1991 recession, this general pattern was broken. The personal saving rate rose relatively little during the recession and, although households began to repair their balance sheets, the process does not appear to be complete. Thus, the boost to consumption that a lower saving rate and more borrowing normally provide is expected to be smaller during this recovery than in past recoveries.

Although the ratio of debt service to income has dropped significantly over the past year, it is still very high compared with pre-1985 levels (see Figure 6). The decline in this ratio reflects more an improvement in household liquidity than a decline in household indebtedness--the result of lower interest rates and rolling debt over into longer maturities. Household debt increased by 4.6 percent in 1991, faster than personal disposable income, which increased by 3.9 percent. Although con-

Figure 5.
Personal Saving Rate

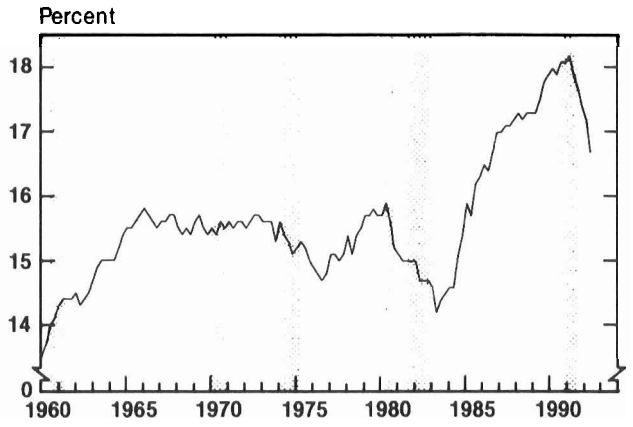


SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

NOTE: Shaded areas indicate recessions. The last shaded bar assumes that the second quarter of 1991 will be designated the official trough of the recession.

1. Congressional Budget Office, *The Economic Effects of Reduced Defense Spending* (February 1992), pp. 17-18.

Figure 6.
Estimated Household Debt Repayment Burden



SOURCES: Congressional Budget Office; Federal Reserve Board.

NOTES: The household debt repayment burden is composed of scheduled principal and interest payments on home mortgage and consumer debt (as estimated by the Federal Reserve Board) as a percentage of disposable personal income.

Shaded areas indicate recessions. The last shaded bar assumes that the second quarter of 1991 will be designated the official trough of the recession.

sumer credit decreased by 1.5 percent in 1991, it was more than offset by increases in other forms of household debt. Home equity loans, for example, grew by more than 10 percent in 1991. Households have increasingly favored home equity lines of credit over other forms of credit, in large part because they carry lower interest rates and have longer maturities, and because (unlike nonmortgage debt) interest payments are tax deductible on balances up to $100,000.

Firms also ran up unprecedented amounts of debt in the 1980s and have taken steps to improve their balance sheets by increasing retained earnings and by raising equity capital. Further restructuring of firms' balance sheets is not expected to be as important to the strength of the recovery as the borrowing restraint by households. During the early stages of a recovery, firms tend to finance the bulk of their investments out of retained earnings. Loan demand plays a relatively small role and thus is not crucial to the pace of the recovery.

Monetary Policy Is Supporting the Recovery

The Federal Reserve has faced a thorny policy dilemma during the past year. It has clearly wanted to get a sustained recovery going and has been willing to ease monetary policy to attain that result. However, at the same time, it has been mindful of doing too much and reigniting expectations of inflation.

The fundamental difficulty the Federal Reserve faces is that it must respond to economic information as it comes in, but its actions affect the economy only with a lag of uncertain length. Thus, the Federal Reserve must continually guess whether its past actions have been sufficient to set the economy on a self-sustaining path or whether additional easing will be necessary. Unfortunately, during this atypical recovery, the economy has not provided a clear and consistent signal of where it is headed. In retrospect, the Federal Reserve was probably too cautious during late 1990 and most of 1991. But the economic indicators and forecasts of that time did not suggest that monetary easing was insufficient. Moreover, the Federal Reserve has been hampered by distortions that have afflicted the various measures of monetary policy.

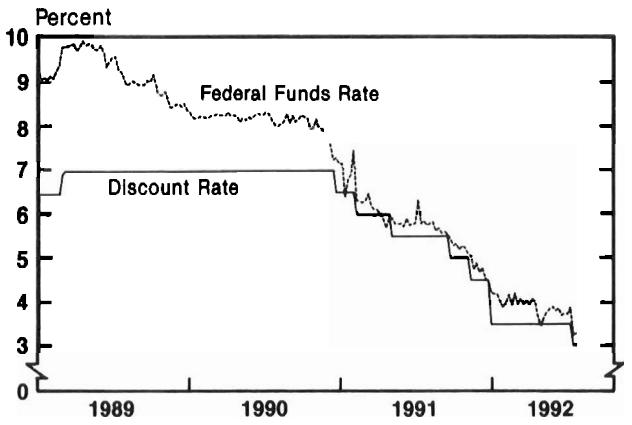
CBO's forecast assumes that the Federal Reserve will not have to ease policy further in the near future; it also assumes that the economy will respond only tepidly to the actions already undertaken. As a result, short-term interest rates are expected to remain close to current levels for the remainder of the year and to rise only slowly in 1993. That is an unusual cyclical pattern--short-term interest rates generally rise quite sharply at the beginning of recovery from recession--but it is

consistent with the likely sluggishness of the recovery. Long-term interest rates are expected to rise slightly from their current levels.

Policy Actions to Reduce Interest Rates

The Federal Reserve, after cautiously lowering interest rates through 1990 and most of 1991, has taken a somewhat bolder stance since the end of last year. Between the third quarter of 1990 (the cyclical peak) and early December 1991, the federal funds rate had been lowered by almost 4 percentage points--in frequent, usually small, increments--to 4½ percent. In late December, the Federal Reserve cut its target for the federal funds rate by half a percentage point, and followed that action by a one-quarter-point cut in April and another half-point cut in early July (see Figure 7). Even so, the most recent moves of the Federal Reserve were substantially less dramatic than those taken in previous recessions, in which cuts in interest rates were fewer but of greater magnitude.

Figure 7.
Federal Funds and Discount Rates



SOURCES: Congressional Budget Office; Federal Reserve Board.

NOTE: Federal funds rate expressed as weekly average.

The increased boldness of monetary policy action in the last nine months, relative to that in 1990 and 1991, improves the economic outlook for two reasons. First, bolder moves increase the likelihood that the Federal Reserve is leading, rather than following, the market--that is, it is more likely that lower short-term rates reflect monetary easing instead of just the weakness of money demand during a period of economic weakness. Second, a strategy of cautiously reducing interest rates risks creating expectations that more cuts will be on the way. Potential borrowers who believe further cuts are to come are encouraged to postpone their purchases and their borrowing for a few weeks or months in order to take advantage of the expected lower rates in the future. Bolder rate moves can avoid creating these one-sided expectations and thus increase the effectiveness of rate cuts.

The failure of long-term rates to fall significantly further illustrates the Federal Reserve's policy dilemma. Although the actions so far have reduced the short-term rates to among their lowest levels in many years, long-term rates have fallen a surprisingly small amount (see Figure 8). The spread between short-term and long-term interest rates is now as wide as it has been in 27 years. Because long-term rates are thought to affect investment decisions more than short-term rates, current high real long-term rates may be blocking the recovery. Monetary policy actions that change short-term rates generally have a smaller effect on long-term rates, since the financial markets often perceive that actions taken now are likely to be reversed later. But in past periods of economic weakness, long-term rates have fallen much more than they have recently. Several factors may be contributing to the inertia in long-term rates:

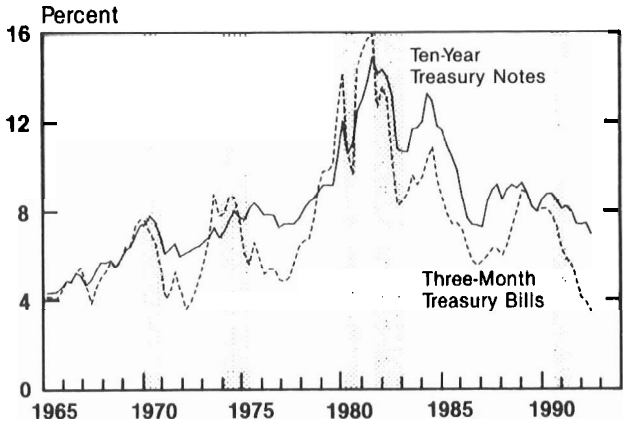
- Belief that real interest rates will be unusually high in the mid-1990s and beyond;
- Belief that inflation will rise in the United States;

- Belief that the inflation risks are asymmetrical.

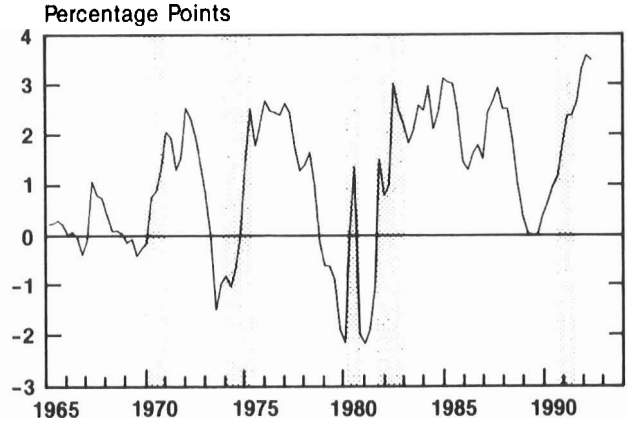
For some time, CBO has incorporated in its projections of *real interest rates* a rough assessment of the effect of the seemingly intractable federal deficits and of future foreign capital demands by firms and governments in Europe, Latin America, the newly industrializing countries of Asia, and possibly the former Soviet republics. That assessment suggests that long-term interest rates in the second quarter of 1992 were close to levels that would be plausible in the mid-1990s, under current fiscal policies. Those same arguments imply, however, that interest rates should have been lower during the recent period of economic weakness than they will be in the mid-1990s, when the economy is assumed to be operating close to its potential. Long-term interest rates fell about 0.4 percentage points during July, after CBO's forecast was prepared. It is too soon, however, to know whether this latest drop will persist.

Figure 8.
Interest Rates

Rates for Ten-Year Treasury Notes and Three-Month Treasury Bills



Spread Between Long- and Short-Term Interest Rates[a]



SOURCES: Congressional Budget Office; Federal Reserve Board.

NOTES: The last data point, the third quarter of 1992, is estimated by the Congressional Budget Office.

Shaded areas indicate recessions. The last shaded bar assumes that the second quarter of 1991 will be designated the official trough of the recession.

a. Ten-year Treasury notes minus three-month Treasury bills.

Some forecasters expect that *inflation will rise in the United States* as the recovery proceeds. Experience suggests that higher inflation is unlikely to occur soon: it has generally fallen for about two years after the start of a recovery, even when recoveries were much more vigorous than is expected this time. In CBO's projection, economic activity does not reach the level likely to provoke higher inflation at any time through 1997. But financial markets may have other views. Investors might believe that the Federal Reserve's caution in easing monetary policy in the recession foreshadows an equally cautious tightening once expansion gets under way. If so, the risk remains that inflation might begin to rise in the near future. Also, some investors may be looking beyond 1997 and may be concerned that the federal budget deficit will never be adequately dealt with, leading to the possibility that some large part of the deficit might eventually be monetized.

Even if investors do not believe that increased inflation is the most likely outcome, they may still be reluctant to invest in long-term bonds--raising long-term rates--because of a perceived *asymmetry of inflation risks.* With inflation currently around 3½ percent, it is hard to believe that inflation will drop by 3 percentage points or more in the next 10 years--but not at all hard to believe that it might rise to around 6 percent. The asymmetry arises because policymakers are un-

likely to pursue reductions in inflation far enough to reach a measured rate of zero, which implies that most prices, correctly measured, would be falling.

Price measures generally overstate inflation because they do not adequately account for improvements in quality. Many goods and services--from stereos to health care--are now of much better quality than before. Correctly measuring the improvement in quality is difficult; incorrectly measuring the improvement will lead to an overstatement of inflation. For this reason, Chairman Greenspan of the Federal Reserve has suggested a goal of reducing measured inflation not to zero, but to a level that plays little role in economic decisions.

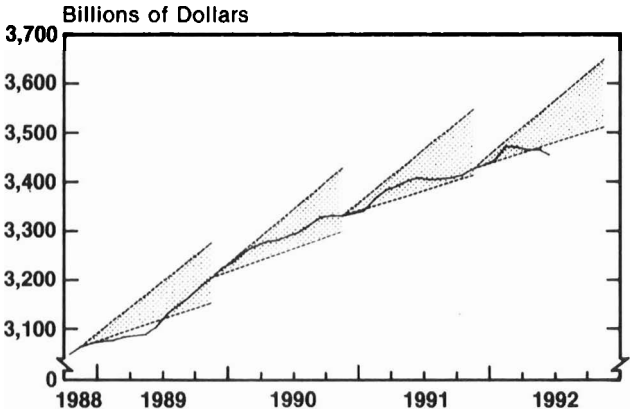
Monetary Aggregates

Because of the difficulty of interpreting movements in interest rates, analysts use monetary aggregates to gain additional insight into the stance of monetary policy. These measures are also clouded, but they are generally consistent with the view that monetary policy has eased.

The most closely watched monetary aggregate, M2, has moved sluggishly throughout the whole period of economic weakness since 1989 (see Figure 9). Its growth picked up early this year following the reduction of the federal funds rate in December 1991, but preliminary evidence suggests that it stalled again in June, helping to precipitate the Federal Reserve's actions in early July. In real terms, M2 has increased only 0.6 percent in the past year.

However, the weakness of growth in M2 is probably an unreliable indicator of the current stance of monetary policy. It undoubtedly reflects, in large part, the continued weakness of demand for loans in the economy. With businesses and households holding back their demands for new loans and paying off existing loans as well, banks and thrifts have less need for deposits that ordinarily add to the growth

Figure 9.
M2 Versus Target Ranges



SOURCES: Congressional Budget Office; Federal Reserve Board.

NOTE: Shaded areas indicate target ranges. In 1989 and 1990, the range for M2 was 3 percent to 7 percent. The range was 2.5 percent to 6.5 percent in 1991 and remains the same in 1992.

M2 consists of the nonbank public's holdings of currency, traveler's checks, checking accounts, small (less than $100,000) time and savings accounts, money market deposit accounts held at depository institutions, most money market mutual funds, overnight repurchase agreements, and overnight Eurodollar accounts held by U.S. residents.

of M2 during a recovery. Interest rates on some time deposits initially fell as the result of many insolvent savings and loan institutions being resolved. These institutions had offered unusually high rates to attract deposits and stave off bankruptcy.[2] More recently, deposit rates fell as banks responded to a declining demand for loanable funds, and to the need to restore profits and improve weak capital positions.

The sharp increase in the spread between interest rates on bonds and those on time deposits encouraged depositors to shift out of time deposits, which appear in M2, and into

2. See Congressional Budget Office, *The Economic Effects of the Savings & Loan Crisis* (January 1992); and John B. Carlson and Sharon E. Parrott, "The Demand for M2, Opportunity Cost, and Financial Change," in Federal Reserve Bank of Cleveland, *Economic Review*, vol. 27, no. 2 (1991).

bond and equity funds, which do not. This shift has been substantial and helps to explain why M2 growth has been so low. Flows into bond and equity funds tripled from $30 billion in 1990 to $94 billion in 1991.

Some analysts, who are concerned that the Federal Reserve may already have eased too much, point to the very rapid growth of M1, a narrower measure of the money supply that includes only the most liquid forms of money (cash, demand deposits, and traveler's checks). Historically, however, the relationship between M1 and GDP is much looser than that between M2 and GDP. Moreover, in the decade of the 1980s, the changing regulations and structure of the financial industry made the growth of M1 more difficult to interpret than that of M2. The recent strong growth of M1 could also be temporary. The strong growth reflects, in part, the narrowing of the difference between interest rates on demand deposits, which are included in M1, and those on time deposits, which are not. That narrowing reduces the cost of keeping money in its most liquid forms. As the recovery progresses, that difference is likely to increase, and the growth of M1 could slow.

To summarize, the lack of growth in real M2 seems to suggest that monetary policy has not eased, but that probably reflects both the weakness of the demand for money and the unusual spread between long-term and short-term rates. The strong growth in M1 seems to point to a vigorous monetary stimulus, but that measure is probably exaggerated and its growth is likely to be reversed as the recovery grows stronger. Allowing for these factors, monetary policy seems to have provided a moderate amount of stimulus to an economy that, because of a number of structural impediments, has shown an unusual degree of resistance.

When Will Monetary Easing Stimulate Stronger Economic Growth?

If there has been a monetary stimulus, why has the economy not responded more strongly? One part of the answer is simply that the burden imposed on monetary policy is a heavy one: it has to overcome the structural impediments that have already been discussed.

Second, it may be too early to expect significant results. As was mentioned earlier, monetary easing affects the economy only with a lag of uncertain and variable length, and much of the easing occurred fairly recently. The Federal Reserve's bolder actions of last December might not add to growth until the third quarter of 1992: its additional easing in April and July 1992 may not show up in increased aggregate demand until the fourth quarter of the year, or even later.

A third set of reasons for the lack of response to date concerns the changes in the U.S. financial system. The financial system now has many more participants than before, with a much smaller share of the loan business going to the traditional banks and thrifts. As a result, the Federal Reserve's actions, which directly affect only the banks and thrifts, reach a smaller proportion of the financial markets and must rely on a series of indirect links to affect the remainder of the financial services industry.

The effects of monetary actions may also take longer to show up because of the changed routes of monetary influence on the real economy.[3] For example, changes in financial markets may have increased the influence of monetary policy on net exports and reduced its influence on residential construction. At the same time, because it takes longer for the effects of lower interest rates to be transmitted through the net export channel than through the housing channel, monetary policy may take longer to work.

Before the 1980s, changes in interest rates would bring about dramatic swings in housing construction and, as a result, monetary policy's influence went largely through this chan-

3. See Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1993-1997* (January 1992), pp. 79-81.

Table 2.
The Fiscal Policy Outlook (By fiscal year, in billions of dollars)

	1991	1992	1993	1994	1995	1996	1997
Total Budget Deficit	246	306	282	251	239	261	307
Standardized-employment deficit	190	232	223	214	212	240	291
Cyclical deficit	55	75	59	37	27	21	16

SOURCE: Congressional Budget Office.

NOTE: These measures of fiscal policy exclude outlays for deposit insurance and contributions for Operation Desert Storm.

nel. In the last decade, however, innovations in financial markets have greatly muted the response of housing construction to changes in interest rates. The most important market innovations have been the federal laws removing the ceilings on rates that banks and thrifts can pay on deposits, the spread of mortgage-backed securities, and the growth in the availability and popularity of adjustable-rate mortgages. At the same time, the move toward flexible exchange rates, the increased integration of world capital markets, and the increased importance of international trade have made net exports a much more important channel of monetary policy.

Fiscal Policy Plays Little Role

Fiscal policy will shift from modest stimulus in 1992 to slight restraint in 1993, little different from CBO's March 1992 projections.[4] In contrast, the medium-term outlook indicates more federal dissaving than was reported in March, which will absorb private saving and tend to reduce private capital formation.

Under CBO's baseline assumptions, the federal deficit (excluding deposit insurance payments and Desert Storm contributions) will be $306 billion in fiscal year 1992 and $282 billion in fiscal year 1993 (see Table 2). Thereafter, CBO projects this deficit to decline to a level of $239 billion in 1995, before rising again in 1996 and 1997, once the Budget Enforcement Act expires (see Chapter 2). Throughout the 1992-1997 period, however, federal debt held by the public is expected to rise relative to potential GDP, even when working capital to finance thrift resolutions is omitted (see Figure 10).

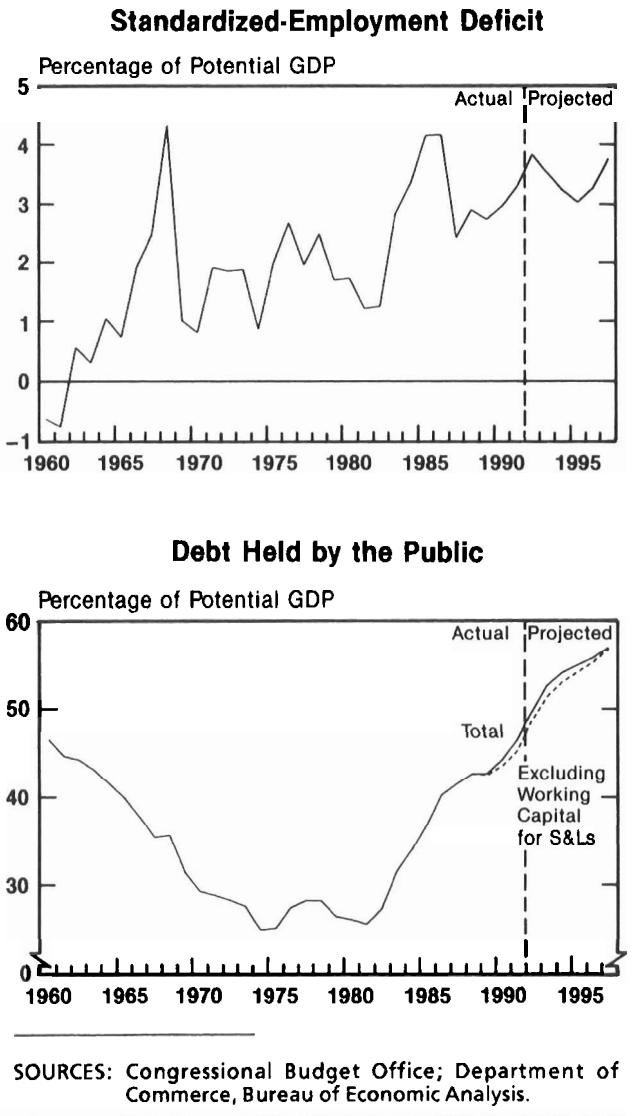
Fiscal Policy Over the Short Term

To assess the amount of discretionary fiscal stimulus (or restraint) the federal sector provides, analysts prefer to use the change in the *standardized-employment deficit* rather than the change in the total deficit. The standardized-employment deficit is expected to increase by 0.5 percent of potential GDP in 1992 and then decrease by 0.3 percent of potential GDP in 1993.

The standardized-employment deficit excludes both the effect of cyclical economic fluctuations (since those reflect the way that the economy affects the budget rather than the reverse), as well as outlays for deposit insurance and the contributions for Operation Desert Storm. Cyclical effects include increased outlays for unemployment insurance as a result of a rise in the number of unemployed persons and reduced tax revenues because of depressed incomes during a recession. Outlays for deposit insurance are removed because they

4. See Congressional Budget Office, *Analysis of the President's Budgetary Proposals for Fiscal Year 1993* (March 1992), Appendix A.

Figure 10.
Standardized-Employment Deficit and Debt-to-GDP Ratio



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

mainly represent an exchange of assets, neither directly increasing aggregate demand nor increasing the income or wealth of the private sector.[5] Contributions for Operation Desert Storm are also removed because they do not reduce aggregate demand even though they are an offset to budget outlays: rather they represent a means of financing federal spending without raising taxes or borrowing from the public.

CBO's current estimates of the standardized-employment deficit are subject to more uncertainty than usual. Those estimates depend, in part, on the gap between actual GDP and the estimated value of potential GDP. As discussed later in this chapter, estimates of potential GDP are particularly uncertain at present because of the difficulty in interpreting recent developments in the labor force. The *levels* of the standardized-employment deficit reported in Table 2 could thus be revised substantially in future reports. However, an assessment of the stance of fiscal policy, which depends on *changes* rather than the levels of that deficit, is unlikely to be greatly affected.

Recent Developments

Two major fiscal policy debates took place in the Congress this year. Early in the year, there was a debate over whether fiscal policy should be eased to stimulate the economy further; then the debate turned to a proposed amendment to the Constitution that would have required a balanced budget every year (or a supermajority in the Congress in order to approve a deficit). In the end, little came of the move to provide more fiscal stimulus, and the balanced budget amendment failed to pass in either the House or the Senate.

Fiscal Action to Revive the Economy. As economic activity slowed at the end of last year, a heated debate ensued over whether fiscal policy should be used to stimulate the economy, especially given the already large size of the fiscal deficit. CBO discussed the pros and cons of this issue in its January 1992 report, concluding that additional fiscal stimulus was unlikely to work fast enough to affect the economy until late this year, and even then the short-term gains in economic activity had to be weighed against the possible longer-term losses from lower potential economic growth.[6]

5. See Congressional Budget Office, *The Economic and Budget Outlook: An Update* (August 1991), pp. 9-14.

6. See Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1993-1997*, pp. 81-89.

Both the Congress and the President developed plans to increase spending temporarily or to provide tax relief to businesses and households in ways that would not be in violation of the Budget Enforcement Act. Ultimately, the executive and legislative branches were unable to agree on a course of action, and the measures that were actually taken had little economic impact. The only stimulus provided was from a reduction in withholding for those households in the lower- and middle-income brackets--an initiative by the Administration that did not require Congressional approval. CBO's estimates suggest that about half of this stimulus was offset by individuals who filled out new W-4 forms to have their withholding maintained at its previous level (see Chapter 2). Legislative action--including an extension of federal unemployment insurance benefits, emergency assistance to Los Angeles and Chicago, and a rescission of some funds previously appropriated for defense--was, on balance, neutral.

The Balanced Budget Amendment. No sooner had the debate on fiscal action to revive the economy died down when it was replaced by a new debate over whether there should be an amendment to the Constitution to require a balanced budget every year. Although reducing the budget deficit is an important objective, the mere passage of such an amendment in the Congress would not of itself guarantee a balanced budget. It would first have to be ratified by three-quarters of the states; even then, the President and the Congress would still have to make difficult decisions about spending cuts and tax increases. In 1990, some cuts in the deficit were enacted and more were planned under the Budget Enforcement Act. But such cuts, while restraining the growth of the deficit, have proved insufficient to balance the budget.

The requirement to balance the budget every year also has an intrinsic disadvantage: it would sharply limit the federal budget's role in stabilizing the economy. The automatic increase in the federal budget deficit in recessions and its decline during economic expansions has in the past greatly moderated the cyclical fluctuations in economic activity.

Fiscal Policy Over the Medium Term

CBO's outlook for fiscal policy beyond 1993 now shows a larger standardized-employment deficit throughout the period than was reported in March, implying a greater drain on private saving and a less favorable environment for private business investment. In 1997, the deficit is estimated to be 3.7 percent of potential GDP, up from the 3.1 percent reported in March. This revised outlook is not the result of new policy actions that will increase the deficit. Rather, it reflects technical reestimates of revenues and outlays (described in Chapter 2) and revised economic assumptions--including a downward revision in the estimated level of potential GDP. The implication of the revised medium-term fiscal outlook is that stronger policy actions than are currently in place will be necessary in order to bring about a significant long-term decline in the deficit.

Foreign Economic Developments Will Eventually Help Growth

The depth and duration of the downturns in the economies of the foreign industrial countries have been more severe than most analysts expected, and this slower growth has weakened the performance of U.S. exports. However, foreign economic growth and hence U.S. exports are likely to pick up in 1993.

For the 1994-1997 period, economic growth of the major trading partners is expected to be more than 1 percentage point higher than economic growth in the United States. This rise will tend to improve U.S. net exports and the current-account deficit. However, much of

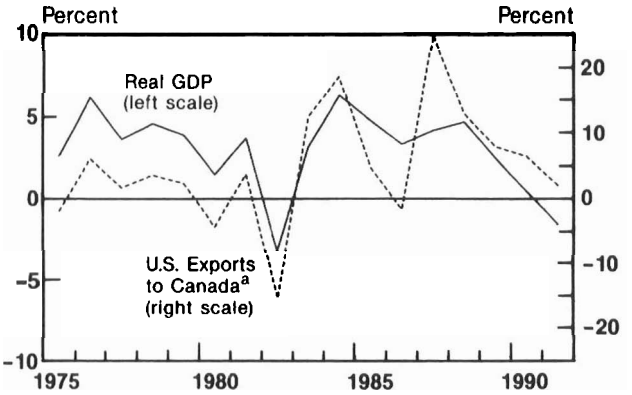
the beneficial effect of the difference in economic growth on U.S. net exports is offset because people in the United States tend to spend proportionately more of their income on imports than foreigners spend on U.S. goods.

CBO expects that the depreciation of the real exchange rate that occurred in the middle of this year will boost U.S. net exports toward the end of this year and into 1993. That boost will be partly reversed in later years, however, since the real exchange rate is expected to appreciate mildly from now through 1997. Foreign long-term rates are expected to fall relative to U.S. long-term rates, and this drop will cause the dollar to strengthen as investors seek dollar-denominated assets. The higher real exchange rate implies a slight decline in the competitiveness of U.S. goods. That decline will help keep real net exports and the current-account balance from improving significantly throughout the forecast and projection period. As a percentage of GDP, both real net exports and the current-account balance are likely to be relatively stable.

The Underlying Factors Determining the Foreign Economic Outlook

Strong growth in Canada beginning late this year is expected to boost U.S. exports next year. Other external developments that are expected to have an important effect on the economic outlook for the United States are the process of German unification, its implications for German monetary and fiscal policy, and also for monetary policy in the European Community (EC); the continued weakness in asset prices and in private-sector confidence in some industrial countries (especially Japan and the United Kingdom) after asset prices plummeted from their previously overinflated levels; and finally, the strong growth of domestic demand in the newly industrializing countries, which should continue to provide a welcome offset to the weakness in the developed world.

Figure 11.
Growth of Canadian GDP and U.S. Exports to Canada



SOURCES: Congressional Budget Office; Organization of Economic Cooperation and Development; Department of Commerce, Bureau of Economic Analysis and Bureau of the Census.

a. Nominal merchandise exports to Canada divided by the deflator for all U.S. merchandise exports.

Strong Growth in Canada. Forecasters expect real GDP to grow about 4 percent in 1993, which would make Canada one of the fastest growing industrial countries for that year.[7] Strong growth in Canada bodes well for U.S. exports (see Figure 11). Canada is the United States' most important trading partner, having accounted for about 22 percent of U.S. merchandise exports over the past five years. Canada is now emerging from a recession, one that was more severe than that experienced by the United States. Extremely tight monetary policy, designed to combat strong inflationary pressures in the economy, pushed the economy into recession in 1990. The economy began to grow again early this year, and the recovery is expected to pick up steam late this year.

German Unification. In the long run, German unification should help the economies of western Germany and the rest of Europe, as

7. See *Consensus Forecasts* (London: Consensus Economics, Inc., July 6, 1992).

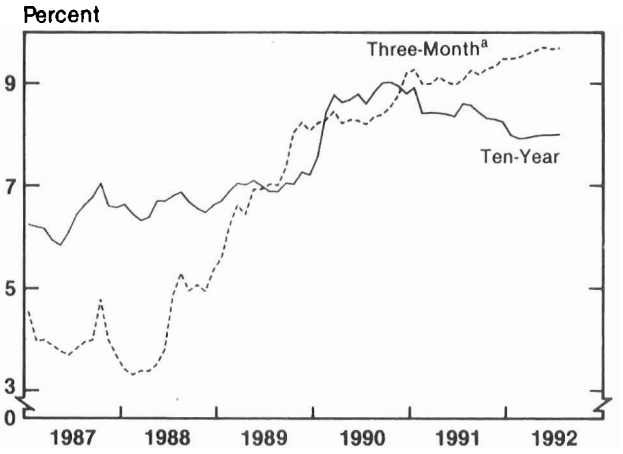
the extensive restructuring in eastern Germany bolsters Germany's demand for imports, and as the work force in eastern Germany is harnessed to increase the supply of goods and services in Europe. So far, however, unification has severely complicated the task of balancing monetary and fiscal policies and may currently be weakening the short-term outlook in the countries of the EC.

The process of unification has required huge transfers from western to eastern Germany and resulted in a correspondingly huge and unsustainable increase in the federal government deficit, which reached 4.5 percent of GNP in 1991. Initially, unification also caused a large increase in the western German money supply in order to convert eastern German assets from ostmarks to deutsche marks (though at the insistence of the Bundesbank this conversion was severely limited). As a result, the German current account moved quickly from a large surplus (DM76 billion in 1990) to a large deficit (DM33 billion in 1991), and fears of inflation raised long-term interest rates during 1990 (see Figure 12).

Policies to correct these imbalances have been put in place. Throughout 1991 and 1992--in order to head off an upturn in inflation--the Bundesbank has sought to bring the money supply back in line with the productive capacity of the economy and has progressively tightened monetary policy. The latest action was in early July, when the Bundesbank raised the discount rate by three-quarters of a point to 8.75 percent, its highest value since 1931. In its effort to bring the deficit under control, the German government last year imposed sizable tax increases and cuts in public expenditures, and more are scheduled to come into effect in 1992 and 1993. The government's plan calls for the deficit to drop to 2.5 percent of GNP by 1995.

These policy moves have reduced long-term interest rates and cut the German current-account deficit. They have also weakened western Germany's economy and seem likely to do the same to its partners in the EC. Long-

Figure 12.
German Interest Rates



SOURCES: Congressional Budget Office; Federal Reserve Board.

NOTE: The last data point, July 1992, was estimated by the Congressional Budget Office.

a. German interbank rate.

term interest rates have fallen by 0.6 percentage points in Germany since mid-1991, reflecting both smaller federal borrowing and reduced expectations of inflation. Moreover, the German current-account deficit fell to around DM9.6 billion (annual rate) in the first quarter of 1992. Western Germany's GNP, which grew by 4.7 percent in 1990, is likely to achieve growth of only around 1.2 percent in 1992, according to recent projections.[8]

The economies of other EC countries are also affected by the policies of Germany--particularly its monetary policies. Monetary policies were tightened in much of the industrial world several years ago in response to widespread inflationary pressures. The tightness continues now in the EC largely as a consequence of the desire to maintain fixed exchange rates in the European Monetary System (EMS). The EMS specifies a set of fixed exchange rate parities for the currencies of the EC member countries, with the German mark acting somewhat like the reference or base

8. See *Consensus Forecasts*.

currency. Because changes in interest rate differentials between countries are often the most important factors accounting for movements in exchange rates, actions in Germany to keep interest rates high must be matched by the other EMS countries in order to avoid changes in their exchange rate parities with Germany. Tight monetary policy in the EC has resulted in short-term interest rates exceeding long-term rates in France and the United Kingdom, as well as in Germany.

Until Germany's fiscal tightening in 1991, its imports helped support the economies of its neighbors and partly offset the effects of higher interest rates. The reduction of Germany's fiscal deficit has, however, led to a sharp reduction in its imports. For the time being, therefore, Germany's unification is probably weakening rather than strengthening European economies.

Weak Markets for Foreign Assets. Like the United States, both the United Kingdom and Japan experienced economic expansions during the 1980s in which real estate prices became unsustainably high. The ultimate decline in prices of assets has required painful adjustments by banks, firms, and households and has dampened confidence and spending in the private sector.

In Japan, the price of land and other assets declined sharply after a rapid inflation in the price of assets in the late 1980s. The Nikkei stock market index, as of July 15, 1992, was some 56 percent below its record high of December 1989. Declining prices for land and equity have put many Japanese banks in a weak financial position and have forced them to restrain lending sharply. This development, together with the fact that new equity issues are unlikely to attract much interest in such a depressed stock market, has also sharply restrained the growth of spending for investment by the business sector and has caused a marked slowdown in overall economic activity. Japan's economic growth for 1992 is likely to be at its lowest point since 1974.

Some analysts are concerned that the problems of Japanese banks could spill over to the U.S. economy if these banks are forced to restrict their lending here. This concern arises because, in the late 1980s, Japanese banks aggressively expanded operations in the United States and in Europe and rapidly increased their share of total U.S. lending. For example, between 1986 and 1990, Japanese banks accounted for 45 percent of all new growth in bank assets in California. However, the U.S. banking system is now quite liquid, and it should be able to supply whatever increase in credit is required, whether the result of increasing domestic demand for credit or of a further retrenchment by Japanese banks.

Strong Growth in the Newly Industrializing Countries. CBO expects economic growth in Latin America and in Asia's newly industrializing countries to be strong throughout the forecast and projection periods. This growth will have a positive impact on the performance of U.S. net exports and, in the short run, will partially offset the negative impact of lower-than-expected growth in the industrial countries.

Despite the recent weakness in the Mexican stock market, there has been a strong rise in optimism over the past year and a half regarding the economic prospects of Mexico and the rest of Latin America. This optimism has been buoyed by new agreements to reduce the debt of some of the larger countries, as well as by talks about a North American Free Trade Agreement (and even a wider, western hemispheric free-trade area). Most important, however, policymakers in Latin America are now perceived to have a serious commitment to fiscal discipline, reduced government intrusion in the economy, and free trade. Economic growth is on the rebound after a decade of stagnation; capital inflows have flooded these economies, financing huge increases in imports, especially from the United States. Mexico's merchandise imports from the United States have increased from $24.7 billion in 1989 to an annual rate of $38.7 billion so far for 1992.

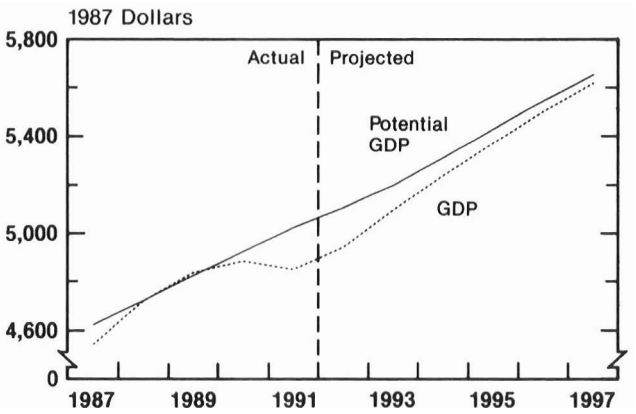
Economic growth in Asia's newly industrializing countries was propelled mainly by export growth in the 1980s. In the 1990s, however, domestic demand is likely to be the main source of growth, and this shift will increase the rate of growth for imports, some of which will come from the United States. There are plans for huge increases in residential investment and also in public infrastructure, an area that has long been neglected and that can no longer support the growing economy.

The Projections for 1994 Through 1997

Over the medium term, CBO projects real GDP to grow at an average annual rate of 2.5 percent, which is about one-half of one percentage point greater than CBO's estimate of the growth of potential output. That rate of growth means that, by 1997, the gap between actual and potential real GDP will be at its historical average of 0.6 percent of potential real GDP (see Figure 13). During the recession this gap widened and, because of CBO's forecast of a mild recovery, the gap is still expected to be large at the end of 1993. As a result, actual output can grow at a higher rate than potential output between 1994 and 1997. Even though the economy is growing faster than its potential rate, inflation is not likely to rise as long as the gap persists. Therefore, the rate of inflation is projected to remain unchanged throughout the period.

CBO's projections for the 1994-1997 period do not reflect an underlying forecast of economic fluctuations. Rather, the projections stem from an analysis of trends in fundamental economic variables, including the labor force, national saving, and productivity. These variables are then used to project the potential level of real GDP. The projection of actual GDP for 1997 is then derived using the historical relationship between the actual and potential values. The intervening years are interpolated.

Figure 13.
Closing the Gap: GDP Versus Potential GDP



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

The Projection for Growth

CBO's projection for growth in real GDP over the medium term is modest by historical standards. The primary reason is that actual growth will be constrained by the slow growth of the economy's potential output. CBO estimates that the average annual growth of potential output for the 1990-1997 period is 2.0 percent, well below the average of 3.0 percent for the 1953-1991 period, and even below the 2.4 percent average of the 1980s. Most of the slowing in the growth of potential GDP is the result of slower projected growth in the labor force.

The current projection for average annual growth in potential real GDP over the 1990-1997 period is 0.1 percentage point below that described in CBO's January report. For that report, CBO estimated the effects on trends in fundamental economic variables of the December revisions to the national income and product accounts (NIPA) data made by the Department of Commerce. The complete set of revised data, which are incorporated in the current projection, reveal underlying growth in labor productivity during the 1980s that is slower than previously thought.

The Projection for Inflation

The lower rates of inflation inherited from the recession continue through the projection period. CBO projects that inflation in the consumer price index (CPI) will remain at a 3.4 percent annual rate during the 1994-1997 period, the GDP deflator will grow at a 3.0 percent annual rate, and the fixed-weighted GDP price index will grow at about a 3.1 percent annual rate. The difference between the growth rate of the CPI on the one hand and the GDP price measures on the other stems primarily from the projected decline in the price of computers. Falling computer prices restrain the growth of the GDP price measures relative to the CPI because computers make up a significant share of GDP. However, they have only a very small weight in the market basket of goods and services used to calculate the CPI.

The Projection for Interest Rates

Interest rates in the projection period are expected to be only slightly higher than their levels at the end of the forecast period. In

Table 3.
Medium-Term Economic Projections for Calendar Years 1992 Through 1997

	Actual	Forecast		Projected			
	1991	1992	1993	1994	1995	1996	1997
Nominal GDP (Billions of dollars)	5,673	5,924	6,288	6,657	7,032	7,415	7,801
Nominal GDP (Percentage change)	2.9	4.4	6.1	5.9	5.6	5.4	5.2
Real GDP (Percentage change)	-0.7	1.9	3.1	2.8	2.6	2.4	2.2
Implicit GDP Deflator (Percentage change)	3.6	2.5	3.0	3.0	3.0	3.0	3.0
Fixed-Weighted GDP Price Index (Percentage change)	3.9	2.8	3.2	3.2	3.1	3.1	3.1
CPI-U (Percentage change)	4.2	3.2	3.4	3.4	3.4	3.4	3.4
Unemployment Rate (Percent)	6.7	7.5	6.8	6.1	5.9	5.7	5.6
Three-Month Treasury Bill Rate (Percent)	5.4	3.6	3.7	4.8	5.4	5.5	5.6
Ten-Year Treasury Note Rate (Percent)	7.9	7.1	6.9	6.9	7.0	7.1	7.1
Tax Bases (Percentage of GDP)							
Corporate profits	5.4	6.4	6.8	6.9	6.7	6.6	6.5
Other taxable income	21.4	20.6	20.6	21.0	21.1	21.3	21.4
Wage and salary disbursements	49.5	49.2	49.2	49.3	49.4	49.4	49.5
Total	76.3	76.2	76.6	77.1	77.3	77.3	77.4

SOURCE: Congressional Budget Office.

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

1997, the three-month Treasury bill rate is projected to be 5.6 percent, and the 10-year Treasury note rate is projected to be 7.1 percent. The 1997 value of the short-term rate adjusted for inflation is projected to be 2.2 percent, and the long-term rate adjusted for inflation is projected to be 3.7 percent. This projection leaves inflation-adjusted interest rates in 1997 below their average level during the period just before the recession, but not as low as they were during the 1960s.

CBO projects inflation-adjusted interest rates based on factors that affect the supply and demand for capital. The projection for 1997 reflects a slight improvement in the supply-demand balance compared with the late 1980s, though not to a level as favorable as it was during the 1960s. When compared with the late 1980s, the lower domestic demand for capital in 1997 is more than offset by lower domestic rates of public and private saving in that year. In addition, the unification of Germany, the integration of Europe, and the modernization of Eastern Europe and the former Soviet republics will continue to add to demand in world capital markets. CBO estimates that the developments in Europe

Table 4.
Medium-Term Economic Projections for Fiscal Years 1992 Through 1997

	Actual	Forecast		Projected			
	1991	1992	1993	1994	1995	1996	1997
Nominal GDP (Billions of dollars)	5,627	5,848	6,193	6,566	6,937	7,318	7,705
Nominal GDP (Percentage change)	3.1	3.9	5.9	6.0	5.7	5.5	5.3
Real GDP (Percentage change)	-0.8	1.4	2.9	3.0	2.6	2.4	2.2
Implicit GDP Deflator (Percentage change)	3.9	2.5	2.9	3.0	3.0	3.0	3.0
Fixed-Weighted GDP Price Index (Percentage change)	4.2	2.9	3.2	3.2	3.1	3.1	3.1
CPI-U (Percentage change)	5.1	3.1	3.4	3.4	3.4	3.4	3.4
Unemployment Rate (Percent)	6.5	7.3	7.0	6.2	5.9	5.8	5.7
Three-Month Treasury Bill Rate (Percent)	6.0	3.9	3.5	4.6	5.3	5.5	5.6
Ten-Year Treasury Note Rate (Percent)	8.1	7.2	6.9	6.9	7.0	7.0	7.1
Tax Bases (Percentage of GDP)							
Corporate profits	5.4	6.1	6.7	6.9	6.8	6.6	6.5
Other taxable income	21.6	20.8	20.6	20.9	21.1	21.3	21.4
Wage and salary disbursements	49.6	49.3	49.2	49.2	49.4	49.4	49.5
Total	76.6	76.1	76.5	77.0	77.2	77.3	77.4

SOURCE: Congressional Budget Office.

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

alone have already boosted real interest rates by between 0.5 percent and 1 percent.[9] Increased capital demand in the large Latin American countries will also add to world capital demand. The net effect is to leave inflation-adjusted interest rates slightly below their levels of the late 1980s.

Forecast Comparisons and Risks

CBO's forecast for the next year and a half is similar to the consensus. Furthermore, the projected level of real GDP for 1997, the end of the projection period, is close to the midpoint of the range of private forecasts. CBO recognizes, however, that there are important risks associated with both the near-term forecast and CBO's estimates of medium-term growth.

Comparison of CBO's Current Forecast with Other Forecasts

The level of GDP by the end of 1993 is the same in the current CBO forecast as was forecast in CBO's January 1992 report, but the pattern of growth over 1992 and 1993 has changed. Growth was more rapid in the last quarter of 1991 and the first quarter of this year than the last forecast anticipated. Also, the forecast for growth between mid-1992 and the end of 1993 has been lowered. Growth over the next year and a half has been reduced because the expected self-sustaining recovery has not yet taken place.

The unemployment rate is higher in the current forecast, largely because growth in the labor force has recently rebounded more quickly than anticipated. Another reason is that job growth is slower relative to GDP growth than expected. Short-term interest rates are much lower in the current forecast--the result of actions by the Federal Reserve over the past seven months that had not been expected.

The current CBO forecast for real GDP in 1992 is also similar to the July 1992 *Blue Chip* consensus survey. The dramatic economic news of early July--the sharp increase in the unemployment rate and the Federal Reserve easing--has not yet been fully incorporated into the forecasts that make up the *Blue Chip*, so the usefulness of this *Blue Chip* as a standard of comparison is limited. Future surveys may show lower real growth for 1992, lower interest rates, and a higher unemployment rate.

The major differences between CBO's current forecast and the Administration's July 1992 midsession forecast also appear to be largely the result of the news of early July. The Administration's forecast was prepared before the latest easing of monetary policy and, as result, its forecast of short-term interest rates in 1992 is higher than CBO's. The Administration's forecast of real growth is slightly higher and the unemployment rate is lower than CBO's forecast. For 1993, the Administration's forecast of short-term rates is about 1 percentage point higher than CBO's, but other aspects of the forecasts for 1993 are similar.

Risks to the Near-Term Forecast

The main risk to the short-term forecast arises from the difficulty of accurately assessing the effects on the economy of the long-term adjustments discussed earlier in the chapter. Other identifiable risks include the possibility of either slower or faster recovery in Europe, and the possibility of renewed efforts to speed up the reduction of the federal deficit.

9. Although Eastern Europe and the former Soviet republics will require enormous amounts of capital to modernize their economies, actual capital flows are likely to be relatively small during the projection period. These economies, currently attempting major structural reforms, are not yet in a position effectively to absorb large capital inflows. For a detailed discussion of how developments in Europe will affect the United States, see Congressional Budget Office, *How the Economic Transformations in Europe Will Affect the United States* (December 1990).

Table 5.
Comparison of Forecasts for 1992 and 1993

	Actual 1991	Forecast 1992	Forecast 1993
	Fourth Quarter to Fourth Quarter (Percentage change)		
Nominal GDP			
CBO current	3.3	5.3	6.3
Blue Chip	3.3	5.8	6.3
Administration	3.3	5.8	6.3
CBO January 1992	3.2	5.9	6.6
Real GDP[a]			
CBO current	0.3	2.5	3.2
Blue Chip	0.3	2.8	3.1
Administration	0.3	2.7	3.0
CBO January 1992	0.0	2.8	3.3
Implicit GDP Deflator			
CBO current	3.0	2.7	3.0
Blue Chip	3.0	3.0	3.2
Administration	3.0	3.0	3.2
CBO January 1992	3.2	3.1	3.2
Consumer Price Index[b]			
CBO current	3.0	3.3	3.4
Blue Chip	3.0	3.3	3.6
Administration	3.0	3.1	3.3
CBO January 1992	3.0	3.4	3.6
	Calendar-Year Averages (Percent)		
Civilian Unemployment Rate			
CBO current	6.7	7.5	6.8
Blue Chip	6.7	7.2	6.7
Administration	6.7	7.3	6.6
CBO January 1992	6.7	6.9	6.4
Three-Month Treasury Bill Rate			
CBO current	5.4	3.6	3.7
Blue Chip	5.4	3.8	4.4
Administration	5.4	3.9	4.7
CBO January 1992	5.4	4.4	5.1
Ten-Year Treasury Note Rate			
CBO current	7.9	7.1	6.9
Blue Chip[c]	7.9	7.4	7.6
Administration	7.9	7.3	7.0
CBO January 1992	7.9	7.1	7.1

SOURCES: Congressional Budget Office; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators* (July 10, 1992); Department of Commerce, Bureau of Economic Analysis; Office of Management and Budget, *Midsession Review* (July 24, 1992).

NOTE: The *Blue Chip* forecasts through 1993 are based on a survey of 50 private forecasters, published on July 10, 1992.

a. In constant 1987 dollars.

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

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

The magnitude and the timing of the *effects of the long-term adjustments* are difficult to assess. Clearly, forecasters underestimated how much these adjustments would retard the recovery so far, and it is possible that even the forecast for tepid economic growth underestimates the influence of these factors. Conversely, the recent improvement in balance sheets, the long hiatus in construction activity, and other developments might have set the stage for a more normal recovery. Historical relationships provide less of a guide to the timing of the adjustment of the economy to extraordinary events--such as the massive changes in financial institutions in recent years--than to more normal changes.

One aspect of the long-term adjustments--determining how much households believe they need to repair their balance sheets--creates a particularly large risk. Relatively minor changes in the borrowing or saving decisions by households could easily change the growth of real GDP by a percentage point. If consumers are willing to reduce their saving rate more than anticipated in the next few quarters, the economy could grow at a 4 percent rate during 1993, which would still be considered moderate for a recovery. Alternatively, greater caution on the part of households could result in growth rates that are below 2 percent.

The stimulus from Europe could be weaker than currently thought. For example, continuing inflationary pressures in Germany could cause the Bundesbank to maintain its policy of monetary tightness longer than is now expected. This change would occur if German fiscal policy was not tight enough--in the opinion of the Bundesbank--to reduce inflationary pressures on the economy. Prolonged tight money in Germany would lengthen the economic sluggishness in Europe and worsen the prospects for U.S. exports.

Alternatively, European countries could decide to adopt a monetary policy independent of Germany's and lower their interest rates. If this were to happen, economic activity could pick up faster than expected, improving the outlook for U.S. exports. There is some dissatisfaction in Europe (especially in France and the United Kingdom) with what is perceived to be the subordination of European economic interests to the narrower concerns about German inflation by the Bundesbank. As a result, European central banks could stop taking their cues from the Bundesbank; after all, there is no formal treaty that gives the Bundesbank the authority to dictate European monetary policy. However, such a move by European central banks seems unlikely at this time because it would give the appearance that they were unable to adhere to a unified monetary policy and could seriously damage the prospects for the proposed European Monetary Union.

Efforts to reduce the budget deficit faster than currently anticipated could also affect CBO's projections. Although proposals for balanced budget amendments were defeated in the Congress earlier this year, many observers feel that the question of substantial reductions in the federal deficit will be revisited next year. This issue is likely to be raised again because the deficit will remain high through 1995, even if the Budget Enforcement Act is adhered to, and the federal deficit is forecast to rise after 1995.

A credible and smoothly implemented plan to eliminate the budget deficit over five to 10 years beginning in 1994 would be likely to reduce real interest rates, thereby stimulating interest-sensitive sectors and offsetting some of the effects of government spending cuts and tax increases. During the 1994-1997 period, real GDP is likely to be lower than it would have been without deficit reduction. However, by the early part of the next decade, real GDP is likely to be higher than without the plan.

The decline in the deficit might encourage the Federal Reserve to loosen monetary policy in an effort to minimize the temporary decline in aggregate demand during the early years of planned reductions in the deficit. CBO believes that the amount of monetary easing required to keep real GDP from falling would not be unprecedented and, in any case, would

not produce unacceptable inflationary pressures. These results depend on the mixture of spending cuts and tax increases chosen; but the general story of lower interest rates, and a temporary reduction in aggregate demand that could be offset by noninflationary monetary easing, would still remain.

Risks to the Medium-Term Projection

The projection for the level of real economic activity in 1997 depends almost entirely on CBO's estimate of the long-run growth of potential GDP, and the calculation of this estimate is subject to a great deal of uncertainty. Uncertainties always loom regarding future growth in the labor force, the long-run growth in productivity, and the future rates of saving and investment. However, the recession and other recent events have made the estimation even more difficult than usual.

The major factors that have complicated the estimation of potential GDP growth recently are:

- The extent to which the fall in labor force participation during the recession was a temporary, cyclical event, or an indication of a lower participation rate over the long term;
- The long period of slow growth, which makes it more difficult to determine the appropriate period for estimating the underlying growth in productivity;
- The greater uncertainty about future saving rates, and the degree to which the United States will have to compete with foreign demands for capital to finance domestic investment; and
- The extent to which regulatory changes such as the Clean Air Act may reduce the measured rate of growth for potential GDP.

The first two factors are related to the normal difficulty of determining long-term economic trends when the economy is just emerging from a recession. However, this normal difficulty is exacerbated by the behavior of labor force participation rates and the prolonged period of slow growth in recent years. *Labor force participation rates* for teenagers, women, and men 55 and older were much lower during this past recession than expected. The low rates for teenagers and women were probably related to some of the unique characteristics of this recession. In particular, the retailing industry has been adjusting to large debt loads and an oversupply of outlets. As a result, total employment in retailing has fallen since 1990. The lack of jobs in retailing may have discouraged participation in the labor market, and this may have had a disproportionate effect on teenagers and women, who make up the majority of the work force in this industry. This "discouraged-worker effect" may not have been fully reflected in the survey of discouraged workers if many of the affected individuals did not consider themselves strongly attached to the labor force.

CBO has assumed that virtually all of the weakness in participation rates, though unusually large, was a cyclical phenomenon. This assumption implies that the estimate of the growth of potential GDP is higher than if a significant part of the weakness was attributed to a change in behavior that will persist for the long term. The rebound in the growth of the labor force in the last few months provides support for CBO's assumption, but a great deal of uncertainty regarding the future growth of the labor force remains.

The *long period of slow growth*, which started before the official onset of the recession, also makes it difficult to distinguish long-term trends from more temporary, business-cycle-related events. The U.S. economy grew slowly during 1989 and early 1990, before the recession began. That slow growth reflected monetary policy and the long-term

adjustments that were discussed in a previous section--adjustments that are not strictly business cycle events but that will not continue to occur indefinitely. In its estimation of potential economic growth, CBO has included the slow growth before the business cycle peak of July 1990. However, this procedure may turn out to be either unduly pessimistic or optimistic, depending on whether the slow period of growth was given too much or too little weight in the estimation process.

Uncertainty regarding *saving and investment in the United States* was great during the 1980s and will continue in the 1990s. Since private saving rates are low and government dissaving is high, the net national saving rate of the United States is near postwar lows. CBO has assumed that the net national saving rate will move up slightly between now and 1995, largely because of the rise in the personal saving rate that usually occurs in the expansion phase of the business cycle and because of some improvement in the federal deficit.

However, saving could improve more. Some analysts have argued that members of the baby-boom generation will have to increase saving in order to provide for their retirement or for their children's college expenses. Also, some analysts may assume that the federal deficit will be reduced more than current policy implies.

Another risk is that the rest of the world's demand for capital could be either much greater or less than currently estimated. Investment in the United States has to compete with the rest of the world for financial capital. If desired worldwide investment is strong relative to desired worldwide saving, U.S. investors may have to pay higher real interest rates than CBO has assumed in its projections.

The *regulatory requirements* of the Clean Air Act will force producers to adopt new procedures and to invest more in reducing pollution. Although any initial expenditures in investment are included in GDP as currently measured, the stream of benefits that flows from such investments is not included in GDP. Therefore, the diversion of investment funds into these areas will reduce the potential rate of growth of measured GDP, and some analysts maintain that the effect will be significant. It does not appear likely that the new regulations could have a large effect, but CBO has not fully assessed the impact of the regulations, and thus it remains a risk for the medium-term projection.

The risks described in the preceding paragraphs certainly do not exhaust all the possible sources of error, but they are the main ones that can be identified. In order to give some idea of the overall uncertainty of the projections--including both the identified and unidentified risks--CBO turns to the historical record of variability in growth over similar periods. Real GDP is projected to be about $5,620 billion in 1997, and CBO estimates that there is a two-in-three chance that this projection will be within $340 billion, or 6 percent, of the actual value. The range of private forecasts is much narrower: the bulk of the projections fall within the range of plus or minus 2 percent of CBO's projection, with CBO's close to the midpoint.

Chapter Two

The Budget Outlook

Earlier this year, many budget experts predicted that the federal deficit in 1992 would near a staggering $400 billion. This will not happen. Instead, the Congressional Budget Office (CBO) now estimates the 1992 deficit will be $314 billion--a new record, but $53 billion less than CBO forecast last winter.

Despite this dramatic shift, there has been little fundamental change in the budget outlook since CBO last reported in March. The drop in 1992's projected deficit is less than meets the eye and carries few favorable portents. The biggest revision is in deposit insurance, a volatile category of spending. CBO has once again updated its expectations about the timing and duration of the savings and loan cleanup, but has trimmed its estimates of the problem's overall cost only modestly. Thus, lower outlays in 1992 imply greater spending later. Otherwise, CBO has not greatly changed its projections of spending and revenues. A flurry of budget-related legislation in this Congressional session has had little impact on the budget totals. CBO still expects the deficit to settle into a stubborn, long-run level of nearly 4 percent of gross domestic product (GDP) even after the temporary effects of the recession and high deposit insurance spending wane. Crucially, this projection assumes continued compliance with 1990's Budget Enforcement Act, which sets a lid on discretionary spending and prevents policymakers from increasing the deficit (on balance) through revenue or entitlement action. Failure to comply would make the outlook even worse.

This chapter sketches CBO's updated view of the budget outlook and summarizes why CBO has changed its forecast of revenues and spending since last March. It reviews the second year of compliance with the Budget Enforcement Act and explains why the act--the biggest deficit reduction package ever--now causes so much grumbling. Special sections review the role of trust funds in the budget and the outlook for deposit insurance spending. CBO's new estimates are contrasted with the Administration's, issued in mid-July. The chapter concludes by casting budget estimates in the framework of the national income and product accounts used by economists.

The Deficit Outlook

CBO estimates that the total deficit will rise from $314 billion in 1992 to $331 billion next year, then dip to $244 billion by 1995 before climbing again (see Table 6). For more than two decades, budget documents have emphasized this comprehensive measure of the federal government's fiscal activities. As stated most forcefully by a blue-ribbon panel in 1967, the budget should reflect all the money that

Table 6.
The Deficit Outlook Under Current Policies (By fiscal year)

	Actual 1991	1992	1993	1994	1995	1996	1997
			In Billions of Dollars				
Total Deficit Assuming Discretionary Caps	269	314	331	268	244	254	290
Deficit Excluding Deposit Insurance and Desert Storm Contributions	246	306	282	251	239	261	307
Standardized-Employment Deficit[a]	190	232	223	214	212	240	291
On-Budget Deficit (Excluding Social Security and Postal Service)	321	364	388	336	322	340	383
Memoranda:							
Deposit Insurance	66	13	49	17	5	-7	-16
Desert Storm Contributions	-43	-5	0	0	0	0	0
Off-Budget Surplus							
Social Security	54	51	58	67	77	86	94
Postal Service	-1	-1	-1	b	1	0	-1
Total, Off-Budget Surplus	52	50	57	68	78	86	93
			As a Percentage of GDP				
Total Deficit Assuming Discretionary Caps	4.8	5.4	5.3	4.1	3.5	3.5	3.8
Deficit Excluding Deposit Insurance and Desert Storm Contributions	4.4	5.2	4.6	3.8	3.4	3.6	4.0
Standardized-Employment Deficit[a, c]	3.3	3.8	3.5	3.2	3.0	3.3	3.7

SOURCE: Congressional Budget Office.

a. Excludes deposit insurance and Desert Storm contributions.

b. Less than $500 million.

c. Expressed as a percentage of potential GDP.

the federal government injects into the economy by spending and collects in taxes.[1] Concealing some activities by placing them outside the official budget hinders those who want to know the government's total role in the economy, and may distort policy decisions by putting some programs on a favored footing. Financial markets, too, keenly watch the supply of net new securities that must be borrowed; this supply closely tracks the total deficit.

But to illuminate long-run budget trends, it is useful to set aside some transitory factors from the budget totals. As Table 6 shows, *deposit insurance* spending is quite high in the early 1990s but is expected to shrivel and finally turn negative as proceeds from selling assets dominate the totals by 1996. Although the deposit insurance pledge has proved costly for the government, annual cash flows badly misstate the size and timing of this guarantee's economic impact. Deposit insurance payments do not make their recipients richer, but simply acknowledge that many of the assets underlying their deposits were squandered through bad investment decisions by mana-

1. *Report of the President's Commission on Budget Concepts* (1967).

gers of savings and loan institutions or banks. (Furthermore, some of today's deposit insurance outlays--the portion known as working capital--are not wholly lost, but will be recovered as assets are sold.)[2] Deposit insurance costs are treated with relative equanimity by credit markets because the government drains funds by selling Treasury securities but simultaneously reinjects them by making payments to depositors or to acquiring institutions.

Even more transitory are the budgetary effects of *Desert Storm contributions* from allied nations (chiefly Saudi Arabia, Kuwait, and Japan), which brought in $43 billion in 1991 and $5 billion in 1992 but have now stopped. A deficit that strips out deposit insurance spending and Desert Storm contributions thus provides a useful measure of the budget's fundamental condition. As Table 6 shows, this deficit's peaks and valleys are less pronounced than those of the total deficit. But like the conventional deficit, it also paints a bleak long-run picture.

The budget and the economy are closely intertwined. When the economy is performing anemically, revenues are depressed, and spending for some programs (such as unemployment benefits) is swollen. Yet another measure of the deficit, the standardized-employment deficit, strips out these *cyclical factors*. It is typically used by economists to describe just how stimulative--or tight--the government's fiscal stance is. In 1992, the weak economy explains roughly $75 billion (or one-fourth) of the deficit, but this explanation fades as recovery continues. Thus, every single measure of the deficit discussed so far--the total deficit, the deficit excluding deposit insurance, and the standardized-employment deficit--converges at about 4 percent of GDP in 1997.

Finally, a deficit with official status but little economic meaning is the on-budget deficit. This figure excludes two wholly dissimilar activities: the transactions of the Social Security trust funds (Old-Age and Survivors Insurance and Disability Insurance) and the Postal Service. The Social Security funds are the biggest of many federal trust funds, and a special section later in this chapter argues that any budget measure that ignores such huge programs is badly skewed.

2. Congressional Budget Office, *The Economic Effects of the Savings & Loan Crisis* (January 1992).

Changes in the Budget Outlook Since March

CBO last presented its budget projections in March 1992, in conjunction with its analysis of the President's budgetary proposals. Changes since that time stem from three causes: new legislation, the economic forecast, and other factors (technical revisions). The latter dominate (see Table 7).

Policy Changes

Constrained by the Budget Enforcement Act (BEA), legislation enacted since last March has had little total impact on the budget outlook. On the *pay-as-you-go* front--the regime governing revenues and entitlement programs--two major pieces of legislation have been enacted. The first (the Unemployment Compensation Amendments of 1992) extended unemployment benefits in the recession's wake (the third such extension in a year, this one expiring next March) and made some permanent liberalizations in the program at states' options. It was financed by changes in rules governing quarterly tax payments by corporations, by a withholding tax on certain pension distributions (two changes that do not affect taxpayers' liabilities but only speed up their payments), and by the extension of a provision eliminating personal exemptions for upper-income taxpayers (previously slated to expire in 1995). The other major legislation on the pay-as-you-go tally is the reauthorization of guaranteed student loans and other higher education programs (the Higher Edu-

Table 7.
Changes in CBO Budget Projections Since March (By fiscal year, in billions of dollars)

	1992	1993	1994	1995	1996	1997
			Revenues			
March 1992 Estimate	1,088	1,173	1,262	1,340	1,413	1,490
Policy Changes (Pay-as-you-go)	a	4	a	a	1	1
Economic Assumptions	-1	-12	-13	-11	-16	-30
Technical Reestimates	1	-3	-6	-7	-8	-6
Total	a	-11	-19	-17	-23	-35
Current Estimate	1,088	1,162	1,242	1,323	1,390	1,455
			Outlays			
March 1992 Estimate	1,455	1,510	1,529	1,543	1,602	1,726
Policy Changes[b]						
Mandatory spending (Pay-as-you-go)	1	3	1	a	a	a
Discretionary appropriations	1	a	a	a	0	0
Rescissions	-2	0	0	0	0	0
Subtotal	-1	4	1	a	a	a
Economic Assumptions						
Net interest	-2	-11	-10	-5	-2	-1
Benefits and discretionary spending	2	1	-3	-5	-8	-9
Subtotal	a	-11	-14	-10	-10	-10
Technical Reestimates						
Deposit insurance[c]	-51	-18	-13	24	38	11
Defense	-6	0	0	0	0	0
Medicare	1	4	4	5	6	6
Other benefit programs	2	3	4	5	5	5
Net interest[c]	-1	-1	-1	a	3	6
Other	3	2	1	a	a	a
Subtotal	-52	-10	-5	34	52	29
Total	-53	-17	-18	24	42	19
Current Estimate	1,402	1,493	1,511	1,567	1,644	1,745
			Deficit			
March 1992 Estimate	368	336	267	203	189	236
Policy Changes[b]						
Revenues and mandatory spending (Pay-as-you-go)	1	a	1	a	-1	-1
Other (Discretionary spending)	-2	a	a	a	0	0
Economic Assumptions	1	1	-1	a	7	20
Technical Reestimates	-54	-7	1	41	60	34
Total	-53	-5	1	41	66	54
Current Estimate	314	331	268	244	254	290

SOURCE: Congressional Budget Office.

a. Less than $500 million.

b. Includes additional debt service costs.

c. Adjusted for changes in interest paid by two deposit insurance agencies--the Bank Insurance Fund and the Resolution Trust Corporation--to the Treasury. These payments are intrabudgetary and do not affect the deficit.

cation Amendments of 1992), which was roughly deficit-neutral. Appendix A shows CBO's complete pay-as-you-go scorecard for this Congressional session.

Although the 13 regular appropriation bills for fiscal year 1993 are still in the legislative pipeline, the Congress has adopted other bills that affect *discretionary programs.* In May, the Congress passed a package of rescissions that erased previously approved budget authority (the authority to commit money) in a host of programs. In total, the bill rescinded $8 billion in budget authority: $7 billion in defense, $0.6 billion in subsidized housing, and $0.3 billion for other domestic programs. Budget authority takes some time to translate into outlays, and CBO estimates that only $2.5 billion of the $8 billion in budget authority rescinded will be realized as outlay savings in 1992. The rest will be staggered over future years. Because discretionary spending is governed by caps set in the BEA, the rescissions will make it easier to meet future years' caps but do not themselves put spending on a permanently lower path. Thus, Table 7 shows no savings beyond 1992. In June, the Congress passed and the President signed a supplemental appropriation for emergency needs (permissible under the BEA). The bill granted aid to riot-stricken Los Angeles and to Chicago in the wake of its flood, and boosted funding for the summer jobs program.

What Didn't Happen. As already noted in Chapter 1, the last six months have witnessed a flurry of budget-related legislative activity. But several measures that might have significantly changed the budget outlook foundered at some stage before enactment. In his State of the Union address, the President challenged the Congress to come up with an economic stimulus package within 100 days. On March 20, the Congress polished off work on a tax bill that accepted a few of the President's proposals; modified others (including faster depreciation for investment, liberalized treatment of capital gains and individual retirement accounts, and tax relief for families with children); rejected some outright (such as a credit for first-time homebuyers); and--to avoid increasing the deficit--raised taxes on the well-to-do (not part of the President's package). In total, the bill would have trimmed the deficit by $2 billion in 1992 and by $13 billion over the 1992-1997 period. The President vetoed the bill. A few elements may resurface in a tax bill now wending its way through the Congress, spurred by the expiration of several temporary tax provisions on June 30.

Proponents of tearing down the walls separating defense and domestic spending failed earlier this year to get the approval of their fellow Members. Fiscal year 1993 is the last year that the Budget Enforcement Act clamps separate lids on defense, international, and domestic discretionary spending. Some say that the defense caps are much higher than justified in light of the Cold War's end; they advocate shifting some of the money to domestic purposes. The opposing camp argues that defense savings ought to go for deficit reduction. The latter viewpoint prevailed.

And in this year's most dramatic budget debate, the House failed to muster the necessary two-thirds vote to add a balanced budget amendment to the Constitution. Had it passed both the House and Senate, the amendment would have required a balanced budget two years after ratification by the states. The amendment itself changed no tax law or spending provisions; it was silent on what steps would be taken to move toward a balanced budget.

The Budget Resolution. In May, the Congress wrapped up a concurrent budget resolution that will guide committees' actions on the fiscal year 1993 budget. Most notably, the budget resolution calls for defense appropriations well under the allowable cap in 1993. Specifically, the resolution permits defense discretionary appropriations of $278 billion, $11 billion below the allowable caps and $4 billion below the President's request. Because budget authority affects outlays with a lag, actual outlay savings are smaller. Domestic appropriations would be at the cap's levels. The resolution proposes spending up to $1 billion

in defense funds for needs that have long been classified as domestic: job retraining, aid to school districts with many military dependents, and so forth. The resolution did not call for any tax law changes, and it set a goal of $2 billion a year in entitlement savings without assigning responsibility for achieving them to any specific program or committee.

Economic Changes

Revisions to the economic outlook barely affect CBO's deficit outlook through 1995 because they dampen the revenue and spending estimates by nearly identical amounts. But CBO's review of the economy's past performance, as discussed in Chapter 1, points to marginally weaker growth in the long run, which widens the deficit after mid-decade.

Revenues are down since they track changes in GDP and, hence, taxable income. CBO has shaved its estimates of future GDP. The bulk of the revision stems from lower inflation throughout the entire 1992-1997 period; but as noted, CBO has also trimmed its estimate of real growth after 1995. (In 1997, of the $30 billion revenue loss ascribed to economic factors in Table 7, more than two-thirds is attributable to lower inflation.) The exception to the general pattern of lower taxable incomes is corporate profits, which have proved more buoyant than expected.

But lower inflation and lower interest rates generate savings on the spending side of the budget, offsetting the loss in revenues. The biggest savings in the next few years come from lower interest rates, especially short-term rates. CBO now expects 91-day Treasury bill rates to average just 3.7 percent in calendar year 1993, almost 1½ percentage points below CBO's previous forecast. Such low interest rates affect the budget powerfully; about one-fourth of the marketable debt is in short-term securities (with maturities of one year or less) that adjust quickly to prevailing market rates. Of course, most of these savings from lower interest rates fade by 1997 as short-term rates head back up into the 5½ percent range. CBO's outlook for Treasury note and bond rates (which affect about three-quarters of the debt) is hardly changed over the five-year period. Lower inflation generates savings in many spending programs--chiefly benefit programs such as Social Security--and, by 1997, slices $9 billion from the deficit (see Table 7). In sum, changes in the economic outlook hardly affect the deficit through 1995 but worsen it modestly thereafter.

Technical Revisions

Changes in budget projections that are not traceable to legislation or to new economic assumptions are dubbed technical. In a now-familiar story, deposit insurance--a notoriously volatile category of spending--dominates the technical reestimates. Downward revisions to this category total $51 billion in 1992, $18 billion in 1993, but just $8 billion over the entire 1992-1997 period (see Table 7).

As this pattern strongly suggests, a chief revision simply involves the timing of outlays. The Resolution Trust Corporation (RTC), in charge of the savings and loan cleanup, for all practical purposes saw its authority to commit funds expire on April 1. Since then, it has been limited to drawing down a few billion dollars left over from previous legislation plus money coming in from sales of assets. In its baseline, CBO assumes that the funding drought ends this fall before the Congress adjourns. CBO has also scaled back its estimate of how many institutions the RTC or its successor will mop up each year, stretching out the task through 1998. The upshot is that projected RTC spending is revised down through 1994 but up thereafter.

Revisions to another deposit insurance account, the Bank Insurance Fund (BIF), also reduce outlays for a few years. CBO has shaved (by about 10 percent) its estimate of the losses that the BIF will incur as it tackles failed commercial banks. The remainder of the revision stems primarily from a pared-back estimate of how much working capital

the BIF will need as it carries out resolutions. Working capital is money needed temporarily by the deposit insurance agencies to acquire assets that they will sell, akin to a business's inventory. Hence, lower disbursements now are matched by lower receipts in the future. A later section discusses CBO's outlook for deposit insurance spending.

Other technical revisions pale next to deposit insurance. On balance, they add $10 billion to $20 billion a year to the deficit in 1993 through 1997 and come mostly from three sources: revenues, Medicare, and other benefit programs. Liabilities for social insurance taxes and individual income taxes (which together represent four-fifths of revenues) have lagged behind the apparent growth in incomes this year, and CBO has pruned $6 billion to $8 billion a year from its revenue projections as a result. Revenues are nevertheless holding up nicely in 1992 because of two temporary timing factors. Evidence suggests that many taxpayers acted to offset the liberalized withholding schedule that the President announced in his State of the Union address. The revenue loss in 1992 now appears to be roughly half as big as CBO and the Administration first thought. And corporate income tax collections are responding faster than expected to the rebound in profits.

On the spending side, Medicare's Hospital Insurance program is witnessing a surge in hospital admissions after several years of declining or stable admissions. And several other benefit programs--mainly Social Security disability benefits, the Supplemental Security Income program, food stamps, and the earned income tax credit--together face several billion dollars of extra spending a year, assuming that recent trends persist.

The Updated Outlook

Federal revenues climb from $1,088 billion in 1992 to $1,455 billion in 1997 in CBO's new outlook (see Table 8). As a share of GDP, they inch up from 18.6 percent in 1992 to 18.8 percent next year and level off at around 19 percent thereafter. In 1992, revenues' share of GDP is dampened by the recession and by the liberalization in income tax withholding tables. The latter's impact wanes after 1992 as lower collections are offset by smaller refunds; thus, revenues climb modestly as a percentage of GDP. They peak at 19.1 percent in 1995 and then drift down as several legislated tax increases expire. The government's major sources of revenue--led by individual income taxes and social insurance contributions--are listed in Table 8.

In the Budget Enforcement Act and its predecessors, policymakers drew distinctions between several broad categories of spending. Discretionary spending--defense, international, and domestic--is funded annually in appropriation acts. The Budget Enforcement Act set dollar caps on discretionary programs through 1995, and CBO's baseline assumes compliance with these caps. In total, the caps freeze discretionary outlays at roughly $540 billion through 1995--which translates into rapid shrinkage in these programs' share of GDP. (There are an infinite number of ways to slice up the discretionary pie, and a later section sketches some of the possible tradeoffs.) In 1996 and 1997, after the caps expire, CBO simply preserves discretionary spending at 1995's real level, permitting it to grow by 3.4 percent a year.

By far the biggest category of spending is entitlement and other mandatory programs, which automatically make payments to applicants who meet certain criteria (such as age, low income, or family status). Congress does not control these programs directly through annual appropriations, but indirectly by setting eligibility rules and payment formulas. These programs already top $700 billion and 12 percent of GDP, and their share of GDP keeps mounting over the 1992-1997 period. Because this category is so huge, its composition is detailed further in Table 9. About one-fifth of this spending is means-tested, paid to beneficiaries who must prove their eligibility based on income or assets (and, often, age or family status as well); the fast-growing Medicaid program, a joint federal and state

Table 8.
Baseline Budget Projections, Assuming Compliance with Discretionary Spending Caps (By fiscal year)

Category	Actual 1991	1992	1993	1994	1995	1996	1997
				In Billions of Dollars			
Revenues							
Individual income	468	474	508	545	585	620	654
Corporate income	98	100	112	121	127	131	133
Social insurance	396	414	441	471	500	528	553
Other	92	100	101	105	110	111	115
Total	1,054	1,088	1,162	1,242	1,323	1,390	1,455
On-budget	760	785	840	899	958	1,004	1,049
Off-budget	294	303	322	343	365	386	406
Outlays							
Defense discretionary	320	305	297	a	a	a	a
International discretionary	20	20	21	a	a	a	a
Domestic discretionary	195	216	226	a	a	a	a
Subtotal	535	541	543	536	537	555	574
Mandatory spending, excluding deposit insurance	633	717	763	803	853	906	979
Deposit insurance	66	13	49	17	5	-7	-16
Net interest	195	200	204	223	244	263	284
Offsetting receipts[b]	-106	-68	-67	-69	-72	-74	-76
Total	1,323	1,402	1,493	1,511	1,567	1,644	1,745
On-budget	1,081	1,149	1,228	1,235	1,280	1,345	1,432
Off-budget	242	253	265	276	287	300	313
Deficit	269	314	331	268	244	254	290
On-budget deficit	321	364	388	336	322	340	383
Off-budget surplus	52	50	57	68	78	86	93
Debt Held by the Public	2,687	3,000	3,326	3,597	3,847	4,107	4,403

(Continued)

SOURCE: Congressional Budget Office.

program, leads this pack. The remaining entitlement dollars go to beneficiaries who do not have to satisfy means tests. Social Security is by far the biggest, followed by the smaller but faster-growing Medicare program. Smaller retirement and disability programs (chiefly for federal civilian and military retirees and railroad retirees), unemployment compensation (boosted in 1992 and 1993 by the recession and by three separate legislative liberalizations), and other programs (including veterans' benefits and farm price supports) make up the remaining entitlements.

Rapid growth in entitlement spending has spawned initiatives to control its growth through formulas labeled entitlement caps. In their generic form, such formulas would limit annual growth in entitlement spending to the sum of three factors: caseload growth, overall inflation (as measured by the consumer price index), plus a fixed additional percentage. A recent CBO staff memorandum outlines reasons for the growth in entitlement spending and potential problems with such mechanical formulas.[3] How would the aggregate limits apply to individual programs? How would they operate in recessions, when some outlays (such as unemployment benefits) are supposed to rise disproportionately? How would they

3. Congressional Budget Office, "Mandatory Spending: Trends and Sources of Growth," CBO Staff Memorandum (July 1992).

Table 8.
Continued

Category	Actual 1991	1992	1993	1994	1995	1996	1997
			As a Percentage of GDP				
Revenues							
Individual income	8.3	8.1	8.2	8.3	8.4	8.5	8.5
Corporate income	1.7	1.7	1.8	1.8	1.8	1.8	1.7
Social insurance	7.0	7.1	7.1	7.2	7.2	7.2	7.2
Other	1.6	1.7	1.6	1.6	1.6	1.5	1.5
Total	18.7	18.6	18.8	18.9	19.1	19.0	18.9
On-budget	13.5	13.4	13.6	13.7	13.8	13.7	13.6
Off-budget	5.2	5.2	5.2	5.2	5.3	5.3	5.3
Outlays							
Defense discretionary	5.7	5.2	4.8	a	a	a	a
International discretionary	0.4	0.3	0.3	a	a	a	a
Domestic discretionary	3.5	3.7	3.6	a	a	a	a
Subtotal	9.5	9.3	8.8	8.2	7.7	7.6	7.5
Mandatory spending, excluding deposit insurance	11.3	12.3	12.3	12.2	12.3	12.4	12.7
Deposit insurance	1.2	0.2	0.8	0.3	0.1	-0.1	-0.2
Net interest	3.5	3.4	3.3	3.4	3.5	3.6	3.7
Offsetting receipts[b]	-1.9	-1.2	-1.1	-1.0	-1.0	-1.0	-1.0
Total	23.5	24.0	24.1	23.0	22.6	22.5	22.7
On-budget	19.2	19.7	19.8	18.8	18.4	18.4	18.6
Off-budget	4.3	4.3	4.3	4.2	4.1	4.1	4.1
Deficit	4.8	5.4	5.3	4.1	3.5	3.5	3.8
On-budget deficit	5.7	6.2	6.3	5.1	4.6	4.7	5.0
Off-budget surplus	0.9	0.9	0.9	1.0	1.1	1.2	1.2
Debt Held by the Public	47.8	51.3	53.7	54.8	55.5	56.1	57.1

a. Discretionary spending caps are specified by category through 1993 and in the aggregate for 1994 and 1995. Projections for 1996 and 1997 assume that spending grows at the rate of inflation after 1995.

b. Includes contributions from allied nations for Operation Desert Storm of $43 billion in 1991 and $5 billion in 1992.

deal with program quirks (for example, the fact that some programs may make 11, 12, or 13 payments in a given year, depending on the timing of weekends and holidays)? And most fundamentally, do such formulas represent an unwillingness to come to grips with the fast-growing health care programs and to make tough trade-offs between access to care, cost control, and quality? Some simple arithmetic using the data in Table 9 confirms that the surge in entitlements is essentially a health care phenomenon; Medicare and Medicaid combined grow by an average of 12 percent a year in 1992 through 1997, even as most other major benefit programs grow by 5 percent to 6 percent a year.

Other types of spending include offsetting receipts (fees and other collections that are treated as negative spending rather than as revenues), deposit insurance, and net interest. Interest is the only category besides entitlements that stakes out a growing share of GDP over the five-year horizon. With interest rates remaining relatively subdued, the growth in net interest spending can be traced straight to the burgeoning debt. Debt held by the public--funds the government has borrowed to finance its cumulative deficits--mounts from $3 trillion at the end of 1992 to $4.4 trillion in 1997 (see Table 8). As a share of GDP, debt tops 57 percent in 1997. Not since the mid-1950s, when most of the debt reflected borrowing dur-

Table 9.
CBO Baseline Projections for Mandatory Spending, Excluding Deposit Insurance (By fiscal year, in billions of dollars)

	Actual 1991	1992	1993	1994	1995	1996	1997
Means-Tested Programs							
Medicaid	53	68	80	89	100	113	126
Food Stamps[a]	20	23	24	24	24	24	25
Supplemental Security Income	15	18	19	22	22	22	26
Family Support	14	16	17	17	18	19	19
Veterans' Pensions	4	4	4	4	4	4	4
Child Nutrition	6	6	6	7	7	8	8
Earned Income Tax Credit	5	8	9	10	13	13	14
Stafford Loans[b, c]	5	2	3	3	3	3	3
Other	2	3	3	3	4	4	4
Total	122	147	164	179	195	209	230
Non-Means-Tested Programs							
Social Security	267	285	302	318	336	354	374
Medicare	114	130	146	162	180	201	223
Subtotal	381	415	447	480	516	555	596
Other Retirement and Disability							
Federal civilian[d]	37	37	39	42	44	50	54
Military	23	24	26	27	28	30	31
Other	4	5	5	5	5	5	5
Subtotal	64	67	70	74	78	84	90
Unemployment Compensation	25	37	32	26	26	26	27
Other Programs							
Veterans' benefits[c, e]	14	16	16	18	17	16	18
Farm price supports[c]	10	10	12	10	8	9	9
Social services	6	5	6	5	5	5	5
Credit reform liquidating accounts	0	8	5	2	-1	-8	-5
Other	11	12	12	10	9	9	10
Subtotal	41	51	51	44	38	31	37
Total	511	570	600	624	658	697	749
Total							
All Mandatory Spending, Excluding Deposit Insurance	633	717	763	803	853	906	979

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 nondefense discretionary spending, and Medicare premium collections as offsetting receipts.

a. Includes nutrition assistance to Puerto Rico.

b. Formerly known as guaranteed student loans.

c. Program affected by credit reform beginning in 1992

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

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

ing World War II, has the debt been so large in relation to the nation's economy.

Total outlays sink from 24.0 percent of GDP in 1992 to 22.6 percent in 1995, then level off. This shrinkage stems wholly from two categories, discretionary spending and deposit insurance, even as entitlements and net interest spending continue to press ahead. Viewed in tandem, these revenue and outlay trends explain why the deficit narrows (in relation to GDP) through mid-decade but then stops. In fact, the deficit begins to widen again in the late 1990s. CBO typically projects the budget outlook for just five years. But recognition of the deficit's long-run stubbornness and the search for a multiyear budget package have focused attention on the longer-run outlook. Thus, CBO offers a streamlined extrapolation of its budget projections through the year 2002 (see Box 2). Soberingly, this broad-brush picture suggests that the deficit will not wither of its own accord but will instead get steadily worse.

The Budget Enforcement Act's Second Year and a Look Ahead

The Omnibus Budget Reconciliation Act (OBRA) was adopted in late 1990, cementing the agreements that were reached in that fall's budget summit between the Administration and Congressional leaders. OBRA chopped nearly $500 billion from projected deficits over the 1991-1995 period. A key section of OBRA, known as the Budget Enforcement Act, contained budget process reforms that were meant to lock in these savings and bar action that could swell the deficit.

The BEA set up two regimes: *discretionary spending caps* governing annual appropriations and *pay-as-you-go rules* governing mandatory spending and revenues. The former set dollar ceilings on both budget authority (the authority to commit funds) and outlays (actual spending) funded in appropriation acts. The latter require that, in the aggregate, legislation affecting mandatory spending (such as Medicare or unemployment compensation) and revenues not add to the deficit. Of course, deficit reduction is permitted. The act allows the Congress and the Administration to suspend some of its provisions during economic slumps, but policymakers did not use this escape hatch during the recent recession. The act also permitted extra spending in the case of emergencies, specifically naming Operation Desert Shield as an example.

The Congress and the Administration have hewed remarkably well to this fiscal discipline for almost two years, confounding some expectations. There has been no proliferation of emergencies; apart from Operations Desert Shield and Desert Storm, only a few cases (including disasters as varied as the Kurdish tragedy, the Los Angeles riot, and Chicago's flood) have earned this sobriquet. Discretionary spending in 1991 and 1992 complied with the caps. Bills that are now in the pipeline for fiscal year 1993 have been directed to comply with the domestic caps and come well under the defense lid. On the pay-as-you-go front, three separate extensions of unemployment compensation in the recession's wake have now been adopted; at the Administration's insistence, none were labeled an emergency but instead were largely financed by revenue hikes or cuts in other spending.

Of course, compliance has not been entirely free of controversy, and CBO reports have touched on some contentious issues. The law names the Administration's Office of Management and Budget (OMB) as its official scorekeeper, though CBO must make independent reports on compliance. On the discretionary spending front, the BEA provided for upward or downward adjustments to caps based on inflation and other specific factors. CBO believes that OMB has interpreted these rules to allow more discretionary spending than the law permits. Because of differences in CBO's and OMB's economic and technical assumptions, several pieces of legislation (notably the

Box 2.
The Ten-Year Budget Outlook

In the late 1980s, budget experts cherished the belief that the deficit would eventually sink to acceptable levels if policymakers merely refrained from making matters worse. Revenues grow in step with the economy, the logic went; most outlays keep pace with inflation, which was lower; eventually, the gap would close. But CBO's 10-year budget projections suggest otherwise. Under current policies, after the mid-1990s, the deficit is expected to start climbing in dollar terms and--more worrisome--as a percentage of gross domestic product (GDP). By 2002, the deficit tops $500 billion and 5 percent of GDP (see table below).

CBO expects that, under current policies, revenues would in fact keep up with GDP. Revenues are a steady 19 percent of GDP in 1998 through 2002, as a slim rise in individual income taxes over the five-year haul offsets small declines in a few other sources.

But spending grows faster than revenues. Outlays climb by 1.5 percent of GDP between 1997 and 2002. The pattern is far from uniform; some categories grow faster than GDP and others just keep up or lag behind. The government's big health care programs--Medicare and Medicaid--continue to soar, and together they represent 6.1 percent of GDP in 2002 (versus 4.5 percent in 1997 and 3.4 percent today). Net interest outlays inch up from 3.7 percent of GDP in 1997 to 4.2 percent in 2002. Social Security benefits stay just below 5 percent of GDP. In 2002, the final year of this projection, the big demands that the baby-boom generation will place on Social Security and Medicare will still lie more than five years away. Most other spending categories roughly preserve their 1997 shares. A sole exception is discretionary spending--defense, international, and domestic. These programs are assumed, in the baseline, merely to keep up with inflation once

The Budget Outlook Through 2002 (By fiscal year)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
					In Billions of Dollars						
Revenues	1,088	1,162	1,242	1,323	1,390	1,455	1,534	1,612	1,693	1,779	1,870
Outlays											
Discretionary	541	543	536	537	555	574	594	614	635	656	679
Mandatory											
Social Security	285	302	318	336	354	374	394	415	438	462	487
Medicare	130	146	162	180	201	223	247	274	305	339	378
Medicaid	68	80	89	100	113	126	142	160	180	202	227
Civil Service and Military Retirement	58	60	64	67	73	77	81	85	89	93	95
Other	176	176	170	169	166	180	185	191	198	204	211
Subtotal	717	763	803	853	906	979	1,049	1,125	1,209	1,300	1,398
Deposit insurance	13	49	17	5	-7	-16	-20	-20	-14	-12	-10
Net interest	200	204	223	244	263	284	303	325	350	378	410
Offsetting receipts[a]	-68	-67	-69	-72	-74	-76	-79	-83	-86	-90	-93
Total	1,402	1,493	1,511	1,567	1,644	1,745	1,845	1,962	2,093	2,233	2,384
Deficit	314	331	268	244	254	290	311	350	400	454	514
Deficit Excluding Deposit Insurance and Desert Storm Contributions	306	282	251	239	261	307	331	369	414	466	524
Debt Held by the Public	3,000	3,326	3,597	3,847	4,107	4,403	4,720	5,075	5,481	5,941	6,461

(Continued)

Box 2.
Continued

the Budget Enforcement Act's caps expire in 1995. They therefore dwindle gradually as a share of GDP, from 7.5 percent in 1997 (already a postwar low) to 6.9 percent in 2002.

As large deficits persist, the debt held by the public soars to nearly 66 percent of GDP, up from 51 percent today. Clearly, the growth in debt propels net interest spending; interest rates--the other big factor in the equation--are assumed to remain flat after 1997.

Last March, CBO estimated that the deficit in 2002 would reach $423 billion, or 4.1 percent of GDP. Why has the horizon clouded over? The deterioration stems mainly from lower GDP, diminished revenues, and interest costs on the additional borrowing.

Economic assumptions are integral to these projections. In the 1998-2002 period, CBO posits that real economic growth will be 2 percent a year. The unemployment rate is 5.6 percent, down very slightly from the 1997 level. Short-term interest rates (as measured by three-month Treasury bills) and longer-term rates (such as 10-year Treasury notes) stay at 5.6 percent and 7.1 percent, respectively. Inflation chugs along at 3.4 percent.

Five-year budget projections are very uncertain, and 10-year projections are even more so. The big question marks include assumptions about overall economic performance (chiefly real economic growth and interest rates). Others concern the outlook for particular sectors or programs: the prospect for a continued surge in use of medical care, the size and timing of outlays for deposit insurance, and so forth. Despite these uncertainties, CBO's projections clearly challenge the reassuring notion that the deficit will eventually go away of its own accord.

The Budget Outlook Through 2002 (By fiscal year)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
						As a Percentage of GDP					
Revenues	18.6	18.8	18.9	19.1	19.0	18.9	19.0	19.0	19.0	19.0	19.0
Outlays											
Discretionary	9.3	8.8	8.2	7.7	7.6	7.5	7.3	7.2	7.1	7.0	6.9
Mandatory											
Social Security	4.9	4.9	4.9	4.8	4.8	4.8	4.9	4.9	4.9	4.9	4.9
Medicare	2.2	2.4	2.5	2.6	2.7	2.9	3.1	3.2	3.4	3.6	3.8
Medicaid	1.2	1.3	1.4	1.4	1.5	1.6	1.8	1.9	2.0	2.2	2.3
Civil Service and Military Retirement	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Other	3.0	2.8	2.6	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.1
Subtotal	12.3	12.3	12.2	12.3	12.4	12.7	13.0	13.2	13.5	13.9	14.2
Deposit insurance	0.2	0.8	0.3	0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1
Net interest	3.4	3.3	3.4	3.5	3.6	3.7	3.7	3.8	3.9	4.0	4.2
Offsetting receipts[a]	-1.2	-1.1	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-0.9
Total	24.0	24.1	23.0	22.6	22.5	22.7	22.8	23.1	23.4	23.8	24.2
Deficit	5.4	5.3	4.1	3.5	3.5	3.8	3.8	4.1	4.5	4.8	5.2
Deficit Excluding Deposit Insurance and Desert Storm Contributions	5.2	4.6	3.8	3.4	3.6	4.0	4.1	4.3	4.6	5.0	5.3
Debt Held by the Public	51.3	53.7	54.8	55.5	56.1	57.1	58.3	59.7	61.4	63.4	65.6

SOURCE: Congressional Budget Office.

a. Includes contributions from allied nations for Operation Desert Storm.

extensions of unemployment insurance) were less costly in OMB's view than in CBO's. And policymakers have financed some initiatives through "savings" that are less than meet the eye because they mostly change the timing of revenues or outlays. (Examples are accelerating tax payments without changing taxpayer liabilities, counting all at once the savings from enhanced loan collections that would in fact occur over many years, and so forth.) Nevertheless, most disagreements have concerned a few billion dollars over five years--a small amount in an era of $300 billion annual deficits.

So why, after less than two years, is there such widespread discontent with the BEA? Unhappiness with the act stems from two quite contradictory arguments. One camp claims that the BEA is not tough enough. Another argues that it is too tough, especially on the discretionary spending front.

"It's Not Tough Enough"

Those who believe the BEA is not tough enough point to the government's huge and stubborn deficit. CBO now projects that, even after the temporary effects of the recession and high deposit insurance spending fade, the federal deficit will be stuck at around 4 percent of GDP for the foreseeable future.

But this was not expected when the BEA was passed; in fact, after the BEA's adoption, CBO told policymakers that--after a few years of record-shattering deficits--the budget would be nearly balanced by mid-decade. What went awry? The culprits are traced in Table 10, which spells out why the deficit outlook has changed since CBO first tallied up the summit's achievements.

Contrary to some glib analyses, deposit insurance is not responsible; the huge costs of resolving the savings and loan fiasco were recognized at the time of the budget summit, though funding interruptions and other factors have whipsawed the timing of outlays. The table clearly shows, too, that policy actions--that is, decisions to cut taxes or boost spending--have contributed negligibly to the deterioration. Operation Desert Storm, liberalized tax withholding, extended unemployment benefits, and a few emergencies have had no appreciable effect on the long-run deficit outlook.

Instead, the major culprits behind the deficit's deterioration are economic and technical in nature, and by 1997, the latter outweigh the former by a factor of about two to one. Weak revenues, soaring outlays for health care programs, and higher interest costs on the extra debt are chiefly to blame.

Thus, the BEA--which was supposed to balance the budget in five years--was, in hindsight, not ambitious enough. Yet that is hardly the fault of its drafters, and complaints that the BEA is not tough enough could be best silenced by passing another big deficit reduction package.

"It's Too Tough"

A second complaint about the BEA is that it is too restrictive--in particular, that it has put discretionary spending in a straitjacket. The act set spending caps for 1991 through 1993 on three separate clusters of discretionary spending--defense, international, and domestic--and barred moves to shift money from one category to another. Many people now argue that the defense caps are too generous because they preceded the breakup of the Soviet Union. Advocates of additional domestic spending have tried, but failed, to line up enough votes to shift money from defense to domestic purposes in 1993.

Discretionary Choices in 1993. Appropriation bills in 1993 are still governed by three separate caps on defense, international, and domestic spending. The dollars are parceled out to the subcommittees responsible for the 13 regular bills. In 1993, the caps permit defense budget authority of as much as $289 bil-

lion. By following its own budget resolution, the Congress would appropriate less (about $278 billion). By way of comparison, 1992's appropriations (excluding Desert Storm-related funds) were about $284 billion once the Congress wrapped up its rescission package, and 1990's funds were about $303 billion.

On the domestic front, the caps essentially freeze aggregate appropriations at 1992's levels. Thus, programs will face a real decline of about 3½ percent in 1993.

Discretionary Choices in 1994 and Beyond. In 1994 and 1995, all discretionary programs must vie for a single dollar ceiling that actually lies below 1993's limit. This cap will force bruising competition among many programs. There are many possible outcomes, and Table 11 sketches three.

CBO projects that the caps on discretionary budget authority will be $510 billion in 1994 and $516 billion in 1995, down from 1993's $518 billion. (These figures differ slightly

Table 10.
Changes in CBO Deficit Projections Since the 1990 Budget Summit (By fiscal year, in billions of dollars)

	1991	1992	1993	1994	1995
December 1990 Projection	253	262	170	56	29
Economic Changes					
Revenues	-31	-58	-63	-67	-75
Outlays	1	-5	-24	-27	-19
Deficit	32	53	39	40	56
Technical Changes					
Revenues	-24	-34	-35	-34	-31
Outlays					
Deposit insurance[a]	-28	-98	18	55	29
Medicaid, Medicare, and other major benefit programs	12	38	50	54	62
Debt service	-1	-1	6	17	29
Other	-5	6	5	8	6
Subtotal	-22	-55	79	135	126
Deficit	2	-21	114	169	157
Policy Changes					
Revenues[b]	-1	-5	2	-1	-1
Outlays					
Desert Storm spending[c]	23	13	6	2	1
Desert Storm contributions	-43	-5	0	0	0
Other	1	7	5	1	0
Subtotal	-19	15	10	3	1
Deficit	-19	20	8	3	2
Total	15	52	161	212	215
Current Projection	269	314	331	268	244

SOURCE: Congressional Budget Office.

NOTE: The December 1990 projections appeared in Congressional Budget Office, "The 1990 Budget Agreement: An Interim Assessment," CBO Paper (December 1990).

a. Excludes changes in estimated interest paid by two deposit insurance agencies (the Resolution Trust Corporation and the Bank Insurance Fund) to the Treasury. These payments are intrabudgetary and do not affect the deficit.

b. Includes administrative changes (not requiring legislation) adopted in early 1992 to liberalize withholding tables and change required reserve ratios for banks. These changes are now estimated to depress revenues by $7 billion in 1992, $3 billion in 1993, and by less than $1 billion a year thereafter.

c. Estimated; Desert Storm outlays are not segregated from other defense outlays.

Table 11.
Complying with the Discretionary Caps: Three Scenarios (By fiscal year, in billions of dollars)

	1993	1994	1995	1996	1997
Budget Authority Needed to Preserve 1993 Resources					
Defense	289	299	311	322	335
International	23	22	23	24	25
Domestic	206	214	221	235	248
Total	518	535	555	581	608
Discretionary Caps[a]	518	510	516	533	551
Required Reductions	0	-25	-39	-48	-57
Scenario 1: Accommodate President's Defense Request					
Defense	282	283	286	287	292
International	23	22	22	23	24
Domestic	206	206	208	223	236
Total	511	510	516	533	551
Scenario 2: Follow the Approach in the 1993 Budget Resolution[b]					
Defense	278	281	281	281	281
International	22	22	22	22	22
Domestic	206	208	214	232	250
Total	506	511	517	535	553
Scenario 3: Derive All Savings from Defense					
Defense	289	274	271	274	278
International	23	22	23	24	25
Domestic	206	214	221	235	248
Total	518	510	516	533	551

SOURCE: Congressional Budget Office.

NOTE: All scenarios assume compliance with the 1993 caps.

a. The Budget Enforcement Act imposes discretionary spending caps through 1995. The 1996 and 1997 figures are simply the 1995 numbers adjusted for inflation.

b. The budget resolution appears to violate the caps slightly in 1994 and beyond. However, this occurs only because CBO has projected a reduction of $1 billion to $2 billion a year in the caps based on its new economic forecast, which was not available to the Congress when it adopted the budget resolution.

from the official caps cited in Appendix A because they include previews of a few adjustments that have yet to be made--chiefly for lower inflation.) The top panel of Table 11 shows the budget authority--the currency of the appropriation process--that would be necessary if policymakers wanted to spend all that the caps permit in 1993 and preserve those resources (in real terms) thereafter. Instead, to comply with the caps, the appropriators must chop $25 billion and $39 billion from these amounts in 1994 and 1995, respectively.

The pain can be shared by defense, international, and domestic spending in any number of ways. If policymakers opted to fund the defense program set out in the President's 1993 budget, all three categories--defense, domestic, and international--could be roughly frozen at 1993's levels for two more years (Scenario 1). Real resources, then, would shrink by about 3 percent to 4 percent a year across the board.

A middle path is sketched by the 1993 budget resolution recently adopted by the Congress (Scenario 2). This resolution, which will guide 1993 appropriations, caps defense appropriations at $278 billion in 1993 and envisions them at $281 billion a year thereafter--several billion dollars below the President's request. This approach would still mandate a near-freeze on domestic spending in 1994 and a small thaw in 1995 (about equal to the rate of inflation). Finally, policymakers could choose to preserve domestic and international programs at 1993's levels in real terms; in this case, all savings would come from defense (Scenario 3), driving it $10 billion to $15 billion a year below the President's request.

What do these scenarios say about the BEA's toughness? They suggest that the discretionary spending caps are stern but not impossible to meet. However, those who argue that domestic discretionary spending (which includes programs as disparate as space and science, education and social services, and infrastructure and environmental spending) has been starved over the past decade find little solace in the BEA, which undeniably frustrates major expansions in spending.

The Budget Enforcement Act expires after fiscal year 1995 and might come up for revision much sooner. The newly elected Congress and President next year will face the need to raise the federal government's borrowing limit (see Box 3). This unpopular task has sometimes served as a vehicle for deficit reduction and budget process reforms over the past decade, and 1993 may witness another round.

Trust Funds in the Projections

The federal government runs more than 150 programs through trust funds, ranging from the giant (such as Social Security and Medicare) to the tiny (such as the Vaccine Injury Compensation Trust Fund). In isolation, trust funds run surpluses as their earmarked income exceeds their spending. Combined, these surpluses grow from $96 billion in 1992 to $140 billion in 1997 (see Table 12).

But do these surpluses have any useful economic meaning? Some policymakers and commentators claim that trust funds mask the "true deficit," their term for the federal funds deficit (the figure that excludes all trust fund surpluses). This deficit is estimated at $410 billion in 1992 and $430 billion in 1997.

But trust fund surpluses reflect diverse types of income. All trust funds collect earmarked income: some from the public (such as payroll taxes and premiums) but the rest from intrabudgetary transfers. Without the latter, trust funds would run enormous deficits, not surpluses; that is, their income would not cover benefit or other costs. These transfers from the general fund grow from $193 billion in 1992 to $273 billion in 1997 (see Table 12). They are dominated by interest on trust fund balances ($79 billion in 1992), federal govern-

ment contributions on its employees' behalf to retirement funds ($67 billion), and a large subsidy to Medicare's Supplementary Medical Insurance program, sufficient to pay about three-fourths of that program's costs ($39 billion). Clearly, transferring this money from the general fund to trust funds does not change the total deficit or the need to borrow from the private economy by one penny. But it does fuel the popular notion that trust funds are "self-supporting."

But even more compelling, economists and policymakers cannot afford to use a deficit

Box 3. The Debt Ceiling

The current ceiling on public debt, enacted after the 1990 budget summit, is $4,145 billion. The Treasury is likely to hit this ceiling in early 1993. Exactly when is a matter of avid interest to budget-watchers. Several times in the past, the distasteful task of raising the debt ceiling has spurred action to reduce the deficit and reform the budget process. The original Balanced Budget and Emergency Deficit Control Act of 1985 (better known as Gramm-Rudman-Hollings), its successor in 1987, and 1990's Budget Enforcement Act all coincided with interruptions in the debt ceiling.

CBO's estimate of debt subject to limit through fiscal year 1993 is shown in the table below. Debt subject to limit far exceeds debt held by the public (a more useful measure of what the government owes), mainly because it includes the holdings of Social Security and other government trust funds.

CBO Baseline Projections
of Debt Subject to Limit
(By fiscal year, in billions of dollars)

	1992	1993
Debt Subject to Limit, Start of Year	3,569	3,976
Changes		
Deficit	314	331
Trust fund surplus	96	108
Other	-3	-11
Total	407	429
Debt Subject to Limit, End of Year	3,976	4,405

CBO estimates that on September 30, the debt subject to limit will be about $3,976 billion--$169 billion below the statutory limit. If borrowing and other transactions were spread evenly over the year, the current ceiling would carry the government almost halfway through fiscal year 1993. In fact, transactions that affect the debt are strongly seasonal and lumpy. The Treasury usually borrows heavily during the October-December quarter because revenues are seasonally low. (No major individual income tax deadlines occur in that quarter.)

For debt-watchers, key dates will be December 31 and February 15. On December 31, the Treasury pays trust funds a big chunk of interest income and also issues several notes (auctioned to investors a week or two earlier). Last year, the two transactions added $32 billion and $6 billion to the debt. On February 15, the Treasury settles a big package of notes and bonds (also auctioned a week or two before); last year this package added $15 billion to the debt. Given the lumpiness of these transactions, it seems unlikely that the government would hit the limit before December 31 or much after February 15. A key source of uncertainty is the passage of a Resolution Trust Corporation funding bill and the resulting pattern of outlays.

The Congress has passed a budget resolution for 1993 with a proposed debt ceiling of $4,461 billion. Under House rules, this debt ceiling was automatically deemed to have passed the House without the need for a separate vote. It now lies before the Finance Committee in the Senate. Later this year, the Treasury will have to decide whether to ask the Committee to move on this ceiling or on some other request. Of course, one or more short-term ceilings are always a possibility.

measure that deliberately ignores much of the government's activity. The programs listed in Table 12 account for roughly 40 percent of the government's revenues and outlays. Decisions regarding them have never been made in isolation. Like all government programs, they involve taking money from one group and making payments to another, and their trust fund label alone ought not to give them special status in the competition for scarce resources.

What about the argument that the trust fund surplus--most of which comes from retirement-related programs--represents money that should be put away to fund future obligations? According to this view, the government ought to run a balanced federal funds budget while squirreling away the trust fund surplus. Put plainly, advocates promote an overall federal surplus. The desirability of aiming for a surplus as the long-run target of federal fiscal policy is debatable. But what is surely wrong is the simplistic view that the federal government should try to "fund" its retirement programs just like state and local governments do.

The analogy falters because state and local governments run nothing like Social Security and Medicare. These programs are universal social insurance programs, covering nearly the whole population. State and local governments, in contrast, fund retirement plans for their employees (teachers, law enforcement officials, and so forth). The analogy, if any, is to the government's civil service and military retirement programs. Employee pension plans are a form of deferred compensation, akin to industry pensions; and--at about 4 percent of outlays and 1 percent of GDP--the federal government's staff retirement programs appear quite manageable. Social Security and Medi-

Table 12.
CBO Projections of Trust Fund Surpluses (By fiscal year, in billions of dollars)

	1992	1993	1994	1995	1996	1997
Social Security	51	58	67	77	86	94
Medicare	16	10	8	7	4	-1
Military Retirement	13	12	10	9	9	8
Civilian Retirement[a]	24	27	28	30	29	30
Unemployment	-13	-2	4	6	7	7
Highway and Airport	2	1	b	b	-1	-1
Other[c]	2	2	2	2	2	2
Total Trust Fund Surplus	96	108	119	130	136	140
Federal Funds Deficit[d]	-410	-439	-388	-374	-391	-430
Total Deficit	-314	-331	-268	-244	-254	-290
Memorandum:						
Net Transfers from Federal Funds to Trust Funds	193	202	211	229	250	273

SOURCE: Congressional Budget Office.

a. Civil Service Retirement, Foreign Service Retirement, and several smaller funds.

b. Less than $500 million.

c. Primarily Railroad Retirement, employees' health insurance and life insurance, Hazardous Substance Superfund, and various veterans' insurance trust funds.

d. Assumes that discretionary spending reductions are made in non-trust-fund programs.

care, in contrast, represent a more general system of intergenerational transfer. Benefits received by most retirees far exceed the value of past contributions made in their behalf. In the next century, the nation's ability to pay Social Security and Medicare benefits will depend not on the paper balances of these funds but rather on the nation's economic base (GDP) and its ability to tap that base through taxes. "Drawing down" the funds' balances simply means that Social Security and Medicare will present their claim on current income and production. A larger GDP means more resources available for all, both workers and retirees; an ailing economy will embitter the competition for resources, regardless of the balances in the fund.

Thus, an intelligent strategy for preparing for the baby boom's and later cohorts' retirement focuses not on storing up balances in the trust funds but on boosting economic growth. One element in such a growth strategy might be carefully focused federal investment spending. But the major burden must fall on deficit reduction and the resulting spur to private investment. Trimming the deficit will involve cutting spending, raising taxes, or both. It matters little whether the spending and taxes are labeled trust funds or general funds.

Deposit Insurance in the Projections

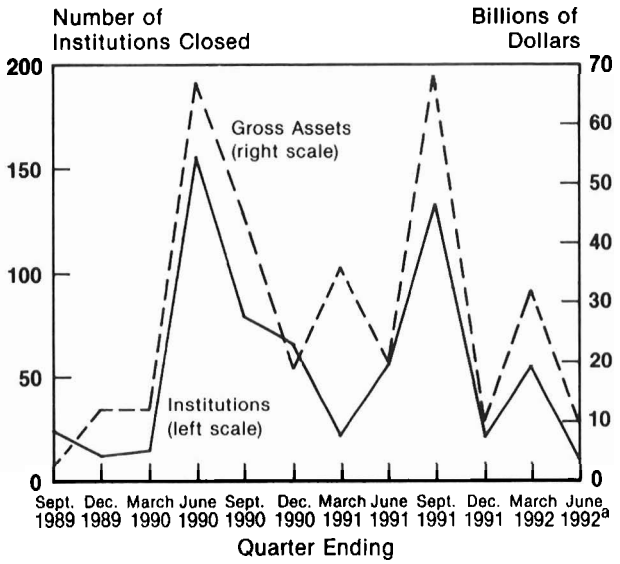
Deposit insurance cost the government little before the late 1980s, as premiums and other income comfortably covered spending. But prescient observers warned that trouble was brewing, as the government relaxed regulation and as managers of high-flying institutions made risky investments (knowing that if catastrophe hit, the government would reimburse their depositors). The costs of this policy hit home in the second half of the 1980s as the savings and loan sector began presenting the government with a giant tab whose total size is still unclear. In the past two years, concern has also spread about the government's potential costs of deposit insurance for commercial banks.

Savings-and-Loan-Related Costs

A plan to clean up the problems of the savings and loan sector was passed in 1987 but proved to be woefully underfunded. It was followed by the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) in August 1989. Resources provided in FIRREA were also inadequate. Twice (in March and December 1991), legislators had to approve extra funds. The latest such extension expired on April 1. Since then, the Resolution Trust Corporation has had to crimp its activities. With its funding interrupted, the RTC can take institutions into conservatorship but generally cannot resolve them (that is, close them or arrange a merger with a healthier institution) except in the rare case in which this can be done at no cost. The RTC can, however, continue to sell assets from its huge inventory of performing and nonperforming loans, foreclosed real estate, securities, and so forth.

The RTC's caseload, whether measured by number of institutions or asset size, has fluctuated greatly as the funding spigot has been turned on and off (see Figure 14). CBO's baseline estimate of RTC spending assumes that the RTC receives new funds before the Congress adjourns this fall. Deposit insurance is a mandatory obligation of the government; having promised to protect insured depositors, the government must honor its promises. Recognizing this, the Budget Enforcement Act provided that legislation that merely funds this commitment does not count on the pay-as-you-go scorecard and therefore does not demand offsetting tax increases or spending cuts. Both CBO and OMB have, for the past few years, highlighted the full cost of honoring deposit insurance commitments rather than unrealistically limiting their projections to funds actually approved to date. Solid evidence exists, in fact, that delayed funding boosts the eventual cost of resolution, as sick institutions stay in business and incur losses that the govern-

Figure 14.
Caseload of the Resolution Trust Corporation, by Quarter



SOURCES: Congressional Budget Office; Resolution Trust Corporation.

NOTE: The RTC began operations in August 1989.

a. Data for the most recent quarter include April and May 1992 only.

ment will eventually pay. The Administration estimates that each day without funds adds about $6 million to the eventual resolution cost. A CBO study of the forbearance policy (a strategy of deliberate delay in closing insolvent institutions) concluded that it added dearly to ultimate costs in the 1980s.[4]

The RTC's cash flows chiefly include *losses*, which are funds that the RTC will not recover, and *working capital*, which the RTC expects to recoup eventually from the sale of assets. Of course, the exact split between losses and working capital will not be known for years, when the last asset is sold. Total RTC outlays are expected to be negative in 1992 because of the prolonged funding drought (see Table 13). If, as CBO assumes, the RTC gets new funds this fall, its outlays would bounce back up in 1993 and 1994, then shrink again as proceeds from asset sales begin to dwarf new spending. If, instead, the Congress delays funding until next spring, the RTC's entire timetable will be pushed back once more. In that event, CBO estimates that RTC outlays would be lower by $35 billion in 1993 but higher by $25 billion in 1994 and by a total of $20 billion in 1995 through 1997, as shown in Summary Table 5.

CBO assumes that the RTC or a successor will deal with a heavy caseload through 1998, and that the resulting receipts from asset sales will keep flowing into government coffers for many years thereafter. For activities spread out over so many years, the most useful measure of cost is the *present value* of all cash flows. By convention, this calculation states the total tab in 1990 dollars (recognizing that a dollar expended or received in 1993 or 2000 is worth less than a dollar in 1990). Working capital is effectively excluded because it is recovered. Such calculations are universally used to analyze long-lasting financial flows, and they use interest rates to express far-flung dollars in comparable terms. By this yardstick, CBO estimates the cleanup's cost at $135 billion. Sobering as this figure is, it actually represents a glimmer of good news: CBO's former estimate was about $155 billion. This modest reduction reflects some encouraging trends in what is left of the savings and loan industry. Institutions that are not in government hands are earning modest profits. CBO credits this to a temporarily favorable interest rate environment, to the purge of high-flying institutions that made it hard for responsible thrifts to compete, and to beefed-up regulation brought about by recent legislation (starting with FIRREA and ending with the Federal Deposit Insurance Corporation Improvement Act of 1991).

CBO estimates that, over the life of the RTC or its successor, 1,400 institutions will have left the industry--most of them at government expense. Under current law, the RTC is supposed to stop accepting new cases in October 1993, bequeathing the job of future resolutions

4. **Congressional Budget Office, "The Cost of Forbearance** During the Thrift Crisis," CBO Staff Memorandum (June 1991).

to the Savings Association Insurance Fund (SAIF). RTC's lease on life, though, has already been extended once. Although Table 13 shows the RTC continuing to accept cases and incur losses after 1993, this assumption is not crucial to CBO's projections. The size of the job does not depend on whether the RTC, the SAIF, or another agency is handling it. About 650 institutions were resolved by the RTC through May 1992; another 200 have so little

Table 13.
Outlays for Deposit Insurance in the Baseline (By fiscal year, in billions of dollars)

	Estimate 1991	1992	1993	1994	1995	1996	1997
Savings-and-Loan-Related							
Resolution Trust Corporation[a]							
Insurance losses[b]	38	9	23	15	12	11	7
Working capital							
Disbursements	56	22	46	33	27	21	12
Receipts	-34	-39	-37	-40	-40	-35	-28
Interest costs	3	3	3	4	4	4	3
Receipts from Resolution Funding Corporation (REFCORP)	-12	0	0	0	0	0	0
Total Budget Outlays	51	-5	35	12	4	c	-7
Total Including REFCORP	63	-5	35	12	4	c	-7
FSLIC Resolution Fund	9	10	2	c	c	c	c
Savings Association Insurance Fund	c	c	-1	-1	-1	-1	-1
Bank-Related and Other							
Bank Insurance Fund							
Losses	7	8	12	10	9	6	5
Working capital	10	10	15	13	11	8	6
Liquidations	-5	-6	-9	-11	-13	-13	-13
Net interest	c	c	1	1	2	2	1
Premiums and other	-4	-4	-6	-7	-7	-8	-8
Total	7	9	13	6	2	-5	-8
Other[d]	c	c	c	c	c	c	c
Total							
Total Budget Outlays for Deposit Insurance	66	13	49	17	5	-7	-16
Total Including REFCORP	78	13	49	17	5	-7	-16

SOURCE: Congressional Budget Office.

NOTE: Budget outlays reflect the treatment of the Resolution Funding Corporation and a predecessor, the Financing Corporation (shell corporations created solely to borrow funds for savings and loan resolutions), as government-sponsored enterprises. This treatment permits their borrowing to reduce the deficit. CBO has long viewed this treatment as inappropriate. The estimates assume the provision of additional resources to the Resolution Trust Corporation beyond those available under current law.

a. Or its successor.

b. Includes up to $500 million per year in administrative costs.

c. Less than $500 million.

d. Primarily National Credit Union Share Administration.

capital that they are nearly certain to fail; and the prognosis for the rest (about 550 institutions) is much more uncertain, as explained below.

With 650 institutions resolved to date, the RTC has tackled less than half of its potential caseload (but nearly two-thirds of its total estimated losses). Precise caseload estimates, though, are treacherous. By definition, the institutions that are left are the marginal cases. A few may recover, and many more might exit the industry entirely or find a merger partner at little or no cost to the government. Right now, the Office of Thrift Supervision (OTS) is slow to shut down some weak institutions, opting instead to work with them in developing business plans that might bring their capital up to acceptable standards. The OTS has recently indicated that the RTC's caseload will be about 800 or more institutions--but the OTS figure is through 1993 and cannot be compared directly with CBO's.

Ultimately, CBO foresees a healthy thrift industry that is drastically slimmer than its former self. Thrift institutions totaled about 2,000 at the end of 1991--down by half since 1980 and by one-third since 1987. Of the more than 1,100 departures in 1987 through 1991, more than 800 were resolved at government expense, either by the Federal Savings and Loan Insurance Corporation (FSLIC) or by the RTC. Of the remaining 2,000, CBO expects another 500 to 700 departures of thinly capitalized institutions, leaving 1,300 to 1,500 survivors that are reasonably healthy, profitable, and adequately capitalized.

Another agency involved in the savings and loan cleanup is the FSLIC Resolution Fund, which inherited the books of FSLIC when that fund was closed down in 1989. This fund's outlays will taper off markedly after 1992 (see Table 13). The total cost (in 1990 dollars) of FSLIC and its successor fund is put at $60 billion, which--added to CBO's $135 billion estimate of RTC's cost--brings the total tab for the savings and loan crisis to $195 billion.

Commercial Banks

The Bank Insurance Fund insures deposits in the troubled commercial bank sector. CBO expects BIF's outlays to total $9 billion this year and peak at $13 billion in 1993 before declining. The flows of losses, working capital, liquidations, interest costs, and other outlays (mostly premiums) that underpin this estimate are shown in Table 13. On the bright side, CBO believes that these flows can be managed comfortably within resources already provided to the BIF--that is, $30 billion in direct borrowing from the Treasury for losses incurred, plus borrowing from the Treasury's Federal Financing Bank for working capital. CBO judges that the BIF will be able to repay this borrowing from future premium income and liquidations. Premium increases in January 1993 and January 1994 (to 28 cents and 30 cents, respectively, per $100 of assessable deposits) are assumed in CBO's projections.

While the banking industry is undergoing consolidation as measured by number of institutions, its asset base continues to grow (in sharp contrast to thrift institutions). CBO judges that the sector is really two separate industries: a group of roughly 10,600 banks that appear reasonably well capitalized and made profits in the first quarter of 1992, and another group of 1,600 institutions that had meager capital, lost money in the first quarter, or both. A strong capital base is the government's first line of defense--a well-capitalized institution can absorb a few years of losses before the government must step in. The most precariously capitalized banks (the 1,000 or so with equity-to-asset ratios of less than 6 percent) represent 8 percent of all banks but about 37 percent of the industry's assets. CBO assumes that institutions holding about one-quarter of the assets in this

troubled group will fail in the next four years at the BIF's expense. The projections, of course, are highly sensitive to assumptions about a few big failures.

A Comparison with the Administration's Projections

On July 24, the Administration published its midsession review of the budget. The Administration has slashed its 1992 deficit projection drastically; last winter, the Office of Management and Budget projected a 1992 deficit of $400 billion but has now trimmed about $70 billion from that figure, mainly because of lower deposit insurance spending. The Administration projects deficits in 1992 through 1994 that are higher than CBO's--but the reverse is true in later years. The main sources of disagreement are shown in Table 14, which compares the Administration's current services estimates (that is, excluding the Administration's relatively modest policy initiatives and its proposed cap on entitlement growth) with CBO's new baseline.

The Administration projects slightly weaker revenues than does CBO in 1992. After 1992, the opposite prevails; CBO envisions weaker revenues principally because it expects less robust economic growth. Deposit insurance is a bone of contention, especially in 1995 and beyond because CBO assumes a more prolonged cleanup and higher costs. The midsession review does not reveal the Administration's estimate of the total cost of the savings and loan cleanup; in its last official projection, the Administration anticipated losses of $90 billion to $130 billion (in 1989 dollars) for the RTC and its successor, vis-à-vis CBO's $135 billion figure (in 1990 dollars). OMB has

Table 14.
OMB Midsession Review Versus CBO Baseline (By fiscal year, in billions of dollars)

	1992	1993	1994	1995	1996	1997
OMB Midsession Review Deficit (Current services basis)	327	342	286	225	230	272
Differences						
Revenues[a]	-8	6	12	7	16	15
Outlays						
Deposit insurance						
Savings-and-loan-related[b]	4	-7	-7	36	16	9
Bank Insurance Fund	-2	-3	-3	-3	c	-3
Subtotal	2	-11	-10	33	16	5
Medicaid and Medicare	-4	-3	-9	-14	-20	-28
Net interest	1	-6	-7	-2	4	11
Other	-3	3	-5	-5	9	15
Total	-4	-17	-30	13	8	4
Deficit	-13	-11	-18	19	24	19
CBO Baseline Deficit	314	331	268	244	254	290

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

a. Reductions in revenues are shown with a positive sign because they increase the deficit.

b. Includes Resolution Trust Corporation, Savings Association Insurance Fund, and FSLIC Resolution Fund.

c. Less than $500 million.

slashed its estimate of Bank Insurance Fund spending since last February but remains slightly gloomier than CBO.

Both CBO and OMB agree that health care programs will continue to soar, but OMB foresees no slackening whatsoever in Medicaid's growth over the 1993-1997 period while CBO attributes some of the cost spiral to short-term factors (such as states' adoption of strategies to boost the federal matching payment) that will taper off. CBO's interest rates (especially short-term Treasury bill rates) are below OMB's through 1994 but above them thereafter, and disagreements over net interest spending roughly mirror this pattern. In sum, CBO is more optimistic than OMB about the short-term outlook for the deficit but more pessimistic about the long run.

The Federal Sector of the National Income and Product Accounts

The projections presented so far in this chapter use categories--revenues by source, outlays by category, total deficits--familiar to policymakers. Economists, though, use another approach for describing the government's activities. The national income and product accounts (NIPAs) are designed to measure gross domestic product and income. The NIPAs recast the federal government's activities in a way that helps trace its dealings with other sectors--including consumers, businesses, and state and local governments--and, ultimately, its role in the total economy.

Just a handful of major differences distinguish NIPA receipts and expenditures from their budget analogues (see Table 15). *Netting and grossing differences* move selected items from the spending to the receipts side of the NIPAs, or (rarely) the other way around. Most of these items are receipts recorded as negative outlays in the budget because they are voluntary or business-type in nature (for example, Medicare premiums and deposit insurance premiums) or intrabudgetary (government contributions for its employees' retirement). Budget revenues measure collections that stem from the government's taxing power and thus omit such voluntary payments. The NIPAs, which seek a more comprehensive measure of collections from all sources, shift them from the expenditures to the receipts side. This shift does not affect the deficit.

In contrast, *lending and financial exclusions* do cause the NIPA deficit to diverge from its budget counterpart. From economists' standpoint, transactions that merely reflect the transfer of existing assets or liabilities (either physical or financial) do not represent current income or production. Foremost among these adjustments is the cost of resolving insolvent financial institutions. *Geographic exclusions* remove transactions with Puerto Rico, the Virgin Islands, and a few other areas from the economic statistics. *Other adjustments* primarily reflect timing adjustments for defense purchases, corporate income taxes, and benefit or salary checks that might go out a few days early (or late) as normal payment dates bump into weekends or holidays. Recently, this category has also contained a large, downward adjustment (of about $5 billion) in NIPA interest costs with no obvious explanation; the Bureau of Economic Analysis may erase this adjustment, but when and how is not clear.

In sum, the NIPA deficit differs from its budget counterpart primarily because of lending and financial differences (see Table 15). Thus, the NIPA deficit strongly resembles the total deficit excluding deposit insurance--a measure oft-stressed by CBO in its budget reports as a good, simple measure of the government's underlying fiscal condition.

The NIPA categories divide federal receipts according to their source and expenditures according to their purpose or destination. These categories are shown in Table 16. The major categories of receipts are fairly straightforward, describing the type of collection. The expenditure categories are more complex,

Table 15.
Relationship of the Budget to the Federal Sector of the National Income and Product Accounts (By fiscal year, in billions of dollars)

	Actual 1991[a]	1992	1993	1994	1995	1996	1997
			Receipts				
Revenues (Budget Basis)[b]	1,054	1,088	1,162	1,242	1,323	1,390	1,455
Differences							
Netting and grossing							
Government contributions for employee retirement	48	51	54	57	60	63	66
Medicare premiums	12	13	15	17	20	21	22
Deposit insurance premiums	7	7	9	10	11	11	11
Other	-1	-1	-2	-1	-2	-3	-4
Geographic exclusions	-2	-2	-2	-3	-3	-3	-3
Other	-4	-7	4	4	1	1	5
Total	60	61	77	84	86	89	97
Receipts (NIPA Basis)	1,114	1,149	1,239	1,326	1,409	1,479	1,553
			Expenditures				
Outlays (Budget Basis)[b]	1,323	1,402	1,493	1,511	1,567	1,644	1,745
Differences							
Netting and grossing							
Government contributions for employee retirement	48	51	54	57	60	63	66
Medicare premiums	12	13	15	17	20	21	22
Deposit insurance premiums	7	7	9	10	11	11	11
Other	-1	-1	-2	-1	-2	-3	-4
Lending and financial transactions							
Deposit insurance	-66	-16	-53	-21	-9	2	10
Other	-12	-11	-10	-7	-4	2	-2
Defense timing adjustment	5	4	4	3	3	3	2
Geographic exclusions	-7	-8	-8	-8	-9	-9	-10
Other	2	-7	-4	-8	-5	-2	-5
Total	-12	32	4	42	64	86	91
Expenditures (NIPA Basis)	1,311	1,434	1,496	1,552	1,630	1,730	1,837
			Deficit				
Deficit (Budget Basis)[b]	269	314	331	268	244	254	290
Differences							
Lending and financial	-77	-27	-63	-28	-13	4	9
Defense timing adjustment	5	4	4	3	3	3	2
Geographic exclusions	-5	-5	-6	-6	-6	-6	-7
Other	6	-1	-8	-12	-6	-3	-10
Total	-72	-29	-73	-42	-22	-3	-6
Deficit (NIPA Basis)	197	285	257	226	222	251	284

SOURCE: Congressional Budget Office.

a. Actuals were published in Department of Commerce, *Survey of Current Business* (March 1992).

b. Includes Social Security and the Postal Service.

Table 16.
Projections of Baseline Receipts and Expenditures Measured by the National Income and Product Accounts (By fiscal year, in billions of dollars)

	Actual 1991[a]	1992	1993	1994	1995	1996	1997
			Receipts				
Personal Tax and Nontax Receipts	476	477	517	554	594	629	664
Corporate Profits Tax Accruals	103	113	125	135	141	146	151
Indirect Business Tax and Nontax Accruals	76	79	85	90	93	91	94
Contributions for Social Insurance	459	480	513	548	581	613	644
Total	1,114	1,149	1,239	1,326	1,409	1,479	1,553
			Expenditures				
Purchases of Goods and Services							
Defense	326	315	308	315	323	333	346
Nondefense	120	131	136	143	149	154	161
Subtotal	446	447	444	458	472	487	507
Transfer Payments							
Domestic	535	595	627	659	705	753	803
Foreign	-27	7	12	12	13	13	14
Subtotal	509	601	639	672	718	767	816
Grants-in-Aid to State and Local Governments	147	170	190	204	218	235	253
Net Interest	185	189	193	213	233	251	270
Subsidies Less Current Surplus of Government Enterprises	24	27	31	31	30	32	35
Required Reductions in Discretionary Spending	n.a.	n.a.	n.a.	-26	-41	-41	-44
Total	1,311	1,434	1,496	1,552	1,630	1,730	1,837
			Deficit				
Deficit	197	285	257	226	222	251	284

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

a. Actuals were published in Department of Commerce, *Survey of Current Business* (March 1992).

however, in their relation to GDP. Defense and nondefense purchases of goods and services enter directly into GDP. Other categories (chiefly transfers, grants, and interest) contain payments to individuals or to state and local governments. Ultimately, these payments may enter GDP as consumption, as state or local purchases, or as yet another category of demand depending on how recipients use the funds.

As emphasized earlier in this chapter, policymakers must comply with discretionary spending caps in future years but may do so in any number of ways. The final line in Table 16 depicts these unspecified savings in 1994 and beyond. The savings cannot be assigned to particular NIPA categories but are most likely to come from defense and nondefense purchases and grants.

Appendixes

Appendix A

Sequestration Update Report

The Budget Enforcement Act of 1990 amended the Balanced Budget and Emergency Deficit Control Act of 1985 to add new enforcement procedures for direct (mandatory) spending, receipts, and discretionary spending for fiscal years 1991 through 1995. 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. These 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 maximum deficit amount.

This appendix provides the required information.

Discretionary Sequestration Report

CBO's estimates of the limits on discretionary spending in the three categories--defense, international, and domestic--for fiscal years 1992 and 1993 and changes to the limits are shown in Table A-1. Table A-2 gives CBO's estimates of the limits on total discretionary spending for fiscal years 1994 and 1995 and changes to those limits.

The estimates provided in this report differ from those in the preview report published in *The Economic and Budget Outlook: Fiscal Years 1993-1997* in January 1992 for two reasons. The estimates have been revised to reflect differences between the estimates in CBO's preview report and the spending limits specified in the Office of Management and Budget's (OMB's) preview report in February 1992, and to reflect legislation enacted since the issuance of the CBO preview report.

The Budget Enforcement Act requires both CBO and OMB to calculate the changes in the discretionary spending limits specified in the act. OMB's estimates of the limits are controlling 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. Acknowledging OMB's statutory role, CBO uses the spending limits contained in the most recent OMB sequestration report as the starting point for the adjustments to the limits made in this report.

In total, the 1993 spending limits for the three discretionary categories estimated in the CBO preview report were below the OMB estimates by more than $3 billion in budget authority and $4 billion in outlays. CBO's

Table A-1.
CBO Estimates of Discretionary Spending Limits for Fiscal Years 1992 and 1993 (In millions of dollars)

	1992		1993	
	Budget Authority	Outlays	Budget Authority	Outlays
Defense Discretionary				
Limits in CBO's January 1992 Preview Report	301,717	308,180	287,415	294,360
Adjustments				
Economic and technical differences from OMB's February 1992 preview report	100	1,132	1,620	2,479
Emergency 1992 appropriations enacted in the 102nd Congress, 2nd session	0	0	0	0
Special budget authority allowance resulting from domestic emergency appropriations	0	0	0	0
Adjusted Limits	301,817	309,312	289,035	296,839
International Discretionary				
Limits in CBO's January 1992 Preview Report	22,165	19,831	21,272	19,931
Adjustments				
Economic and technical differences from OMB's February 1992 preview report	5	2	227	79
Emergency 1992 appropriations enacted in the 102nd Congress, 2nd session	0	0	0	
Special budget authority allowance resulting from domestic emergency appropriations	1	1	0	0
Adjusted Limits	22,171	19,834	21,499	20,010
Domestic Discretionary				
Limits in CBO's January 1992 Preview Report	203,071	213,727	203,367	222,585
Adjustments				
Economic and technical differences from OMB's February 1992 preview report	-345	1,378	1,169	1,835
Emergency 1992 appropriations enacted in the 102nd Congress, 2nd session	1,102	565	0	435
Special budget authority allowance resulting from domestic emergency appropriations	1	1	0	0
Adjusted Limits	203,829	215,671	204,536	224,855

SOURCE: Congressional Budget Office.

NOTE: OMB = Office of Management and Budget.

estimates of the aggregate caps in 1994 and 1995 were below OMB's estimates by similar amounts. A number of factors accounted for these differences, but by far the most important was the different method used in adjusting the limits for inflation as required by the act. Because actual inflation has been below the levels anticipated when the Budget Enforcement Act was adopted, the specified adjustment lowered the limits. CBO applied the adjustment to all discretionary spending. OMB, however, applied it only to nonpersonnel costs, resulting in a smaller reduction in the limits.

In addition, the limits on 1993 domestic discretionary spending have been increased to reflect the enactment of two appropriation bills providing more than $1 billion in emergency funding (primarily for disaster assistance for Los Angeles and Chicago and for summer jobs). The 1994 and 1995 aggregate caps have been increased by the amount of outlays that will flow from the emergency appropriations in those years.

No fiscal year 1993 appropriation bills had been enacted by the time this report went to press. Although it is not possible to determine whether appropriations eventually enacted will fall within the spending limits, all Congressional action taken so far--adoption of the 1993 budget resolution, the allocations of discretionary spending under section 602 of the Congressional Budget Act, and action in the House and Senate on individual appropriation bills--has been consistent with the limits.

Pay-As-You-Go Sequestration Report

If changes in direct spending programs or in governmental receipts enacted since the Budget Enforcement Act increase the cumulative deficits (through the end of the budget year), 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 overage.

As in the case of the discretionary spending limits, the Budget Enforcement Act requires both CBO and OMB to estimate the net increase in the deficit resulting from direct spending or receipt legislation, but OMB's estimates are controlling in determining whether a sequestration is required. CBO therefore adopts the net change in the deficit specified for each fiscal year in OMB's most

Table A-2.
CBO Estimates of Total Discretionary Spending Limits for Fiscal Years 1994 and 1995 (In millions of dollars)

	1994		1995	
	Budget Authority	Outlays	Budget Authority	Outlays
Limits in CBO's January 1992 Preview Report	512,039	533,709	518,634	537,113
Adjustments				
Economic and technical differences from OMB's February 1992 preview report	3,273	3,985	3,437	4,080
Emergency 1992 appropriations enacted in the 102nd Congress, 2nd session	0	100	0	1
Adjusted Limits	515,312	537,794	522,071	541,194

SOURCE: Congressional Budget Office.

NOTE: OMB = Office of Management and Budget.

recent final sequestration report as the starting point for the CBO reports. Table A-3 shows CBO's estimate of the cumulative change in the deficit resulting from direct spending and receipt legislation enacted since the Budget Enforcement Act, assuming OMB's estimates of changes in the deficit resulting from legislation enacted through the end of the first session of the 102nd Congress.

CBO estimates that legislation enacted in the second session of the 102nd Congress has increased the deficit by $3,411 million in fiscal year 1992 and reduced it by $209 million in 1993. These amounts, added to the cumulative (through 1993) deficit reduction of $2,231 million estimated by OMB in its January 1992 final report, yield a net increase in the deficit of $971 million. The estimated increase would be even larger if CBO used its own January 1992 estimate of only $1,010 in cumulative deficit reduction as the starting point in the calculation. In any case, no pay-as-you-go sequestration is anticipated at this time because official OMB estimates indicate a net cumulative decrease in the deficit of $707 million. OMB's estimate differs from CBO's largely because OMB's estimate of the deficit increase resulting from two unemployment compensation bills enacted this year was more than $1.7 billion lower than CBO's estimate.

Table A-3.
Budgetary Effect of Direct Spending and Receipt Legislation Enacted Since the Budget Enforcement Act (By fiscal year, in millions of dollars)

Legislation	1992	1993	1994	1995
OMB January 1992 Final Sequestration Report Total[a]	-1,095	-1,136	-476	-1,005
Emergency Unemployment Compensation Extension (P.L. 102-244)[b]	2,706	100	-100	500
American Technology Preeminence Act (P.L. 102-245)	c	c	c	c
Technical Correction to Food Stamp Act (P.L. 102-265)	c	c	c	c
White House Commemorative Coins (P.L. 102-281)	0	-26	-1	1
Extend Expiring Veterans' Programs (P.L. 102-291)	-3	-1	0	0
Unemployment Compensation Amendments (P.L. 102-318)[b]	980	-154	794	338
Transfer of Certain Naval Vessels (P.L. 102-322)[b]	-2	-5	-6	-5
Higher Education Amendments (P.L. 102-325)	-270	-123	10	27
Total Change in the Deficit Since the Final Report	3,411	-209	697	861
Total Change in the Deficit Since the Budget Enforcement Act	2,316	-1,345	221	-144

SOURCE: Congressional Budget Office.

NOTES: The following bills affected direct spending or receipts but did not increase or decrease the deficit in any year through 1995: Additional Membership on Library of Congress Trust Fund Board (P.L. 102-246); Medicaid Waiver for the Dayton, Ohio, Area Health Plan (P.L. 102-276); Generic Drug Enforcement Act (P.L. 102-282); Food Assistance Programs Flexibility (P.L. 102-289); Copper Spur Land Exchange (P.L. 102-293); Copyright Amendments Act (P.L. 102-307); Extend Medicaid Waiver for Tennessee Primary Care Network (P.L. 102-317); ADAMHA Reorganization Act (P.L. 102-321); and Remove Certain Easement Requirements Under the Conservation Reserve Program (P.L. 102-324).

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

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 aggregate changes in the deficit resulting from bills enacted through the end of the first session of the 102nd Congress, readers are referred to the list of those bills included in Table 4 of the *OMB Final Sequestration Report to the President and Congress for Fiscal Year 1992*.

b. Reductions in receipts are shown with a positive sign because they increase the deficit.

c. Less than $500,000.

A number of bills that would affect direct spending or receipts have passed the House or the Senate but are not included in the pay-as-you-go calculations because they have not yet been enacted. Among these bills, the Comprehensive National Energy Policy Act (H.R. 776) and the Revenue Act of 1992 (H.R. 11) have the largest potential effects on the pay-as-you-go calculations. Other bills that could affect these calculations, such as the Mickey Leland Childhood Hunger Relief Act (H.R. 1202 and S. 757), have been reported from committee and are awaiting consideration.

Deficit Sequestration Report

The Budget Enforcement Act establishes annual deficit targets through 1995. At least in 1993, however, the targets are irrelevant. There are two reasons for this. First, when the President's budget for fiscal year 1993 was submitted, OMB was required to adjust the deficit targets for revised economic and technical assumptions, the costs of emergency legislation, and other adjustments to the discretionary caps. Second, the assumptions used by OMB in preparing the President's budget must be used by OMB for all subsequent calculations that year. Therefore, even if the budgetary outlook deteriorates after the President's budget is submitted, as long as the discretionary spending limits and pay-as-you-go requirements are met, the deficit targets will be said to have been reached. The President has the option to adjust the maximum deficit amount for all economic and technical changes when he submits the fiscal year 1994 and 1995 budgets. If he chooses not to exercise that option, it would be possible for the maximum deficit amounts to be exceeded, triggering a sequestration to eliminate the excess deficit.

The Budget Enforcement Act provides that the estimated maximum deficit amounts equal the projected on-budget baseline deficits, assuming that discretionary spending is held to the adjusted limits, minus any net deficit increases or decreases resulting from direct spending or receipt legislation. CBO's current estimates of the maximum deficit amounts, using the economic and technical estimating assumptions described elsewhere in this volume, are shown in Table A-4. These figures exclude changes in the deficit resulting from enacted pay-as-you-go legislation, as well as assumed prospective adjustments to the 1993 discretionary spending limits for the special budget authority allowances and to the 1994 and 1995 limits for the differences between anticipated and actual inflation in 1992 and 1993. They also include Social Security administrative costs that are off-budget but are covered by the Budget Enforcement Act discretionary spending limits as a result of OMB's interpretation of the act. As a result,

Table A-4.
CBO Estimates of Maximum Deficit Amounts (By fiscal year, in billions of dollars)

	1993	1994	1995
CBO Estimate as of January 23, 1992	391	339	286
Enactment of Emergency Discretionary Appropriations	a	a	a
Economic and Technical Changes	-1	1	43
CBO Estimate as of August 13, 1992	390	340	329

SOURCE: Congressional Budget Office.

a. Less than $500 million.

they differ slightly from the on-budget deficits shown in the rest of this report.

Since the January sequestration preview report, CBO's estimates of the maximum deficit amount have decreased by $1 billion for 1993 and increased by $1 billion for 1994 and $43 billion for 1995 (see Table A-4). Less than $500 million of the change in any year is attributable to the enactment of legislation. The remaining changes result from economic and technical reestimates. These reestimates for 1995--the only year with large reestimates--are similar in size to the economic and technical changes in the total deficit discussed in Chapter 2 and stem from the same factors.

Appendix B

Comparison of the CBO and Administration Economic Forecast Records

Overall, the Congressional Budget Office's economic forecasts have been slightly better than the Administration's for the 13 forecasts made between 1978 and 1990. Although both CBO and the Administration have tended to err toward optimism in their forecasts for a two-year horizon (the period that is most important in estimating the budget-year deficit), the Administration's forecast errors have typically been larger than CBO's. Neither forecaster's average errors, however, are large enough to be significant in a statistical sense.

This appendix compares CBO forecasts with the corresponding forecasts of the Carter, Reagan, and Bush Administrations. Forecasts issued in early 1978 through early 1990 are included. The forecasts made in early 1991 cannot be included because 1992 is not yet complete.

The forecast comparison uses three important summary measures of forecast performance: the mean error, the mean absolute error, and the root mean square error.[1] The first measure, the simple average of all the errors, indicates the bias of the forecasts. In this measure, the underestimates and overestimates will offset each other, thereby showing whether the forecasts overestimate or underestimate on average. The second measure, the mean absolute error, indicates the average size of the overestimates and underestimates without regard to sign. The root mean square error also shows the size of the error without regard to sign, but it gives greater weight to larger errors. The mean absolute error and the root mean square error are alternative measures of forecast accuracy.

A less important measure of forecast performance used here compares the forecasts of CBO and the Administration by the number of times one or the other was the more accurate of the two. Such rankings could be misleading, however, because they do not measure how much better each forecast was on average. For example, if one forecaster does only marginally better than another on numerous occasions but much worse in a few years, the ranking measure would improperly indicate that the first forecaster was the better of the two. Therefore, the forecast rankings mentioned below should be interpreted with caution.

This appendix considers two time periods. The period of most interest for deficit forecasters is the two-year forecast horizon. Both the Administration and CBO publish forecasts in January or February for the budget year that begins in the following October. An economic forecast that is accurate for not only the months leading up to the budget year but also the months of the budget year itself will provide the basis for an accurate forecast of the deficit. A second time period--four years--is used to examine the accuracy of longer-term projections of real growth in gross national product (GNP).

1. The mean absolute error is the average of all errors without regard to arithmetic sign. The root mean square error is calculated by first taking the square of all errors, then taking the square root of the average of the squared errors.

The Two-Year Forecast Horizon

For the two-year forecast horizon, CBO has a better record for forecasting real GNP growth and the short-term interest rate that is adjusted for inflation. There was little difference, however, between the accuracy of the Administration and CBO forecasts of the inflation rate and the nominal short-term interest rate.

CBO's edge in forecasting real GNP growth gave it an advantage in forecasting the deficit because real growth is the most important variable for minimizing errors in forecasting deficits. Forecasting inflation, nominal GNP growth, and nominal interest rates accurately is less important for deficit forecasting now than it was in the late 1970s and the early 1980s. Given current law and the level of the national debt, inflation increases both revenues and outlays by similar amounts. Revenues increase because taxes are levied on nominal incomes, profits, and transactions. Outlays increase because various entitlement programs are indexed to inflation and because nominal interest rates increase, and therefore federal debt service increases, when inflation rises.[2]

Real GNP Growth

CBO had a slightly better record than the Administration for the two-year horizon in forecasting real GNP growth, the single most important variable for forecasting the deficit (see Table B-1). Although, on average, both forecasters tended to overestimate growth in real GNP, the optimistic bias was small. The average errors were 0.3 percentage points for CBO and 0.7 percentage points for the Administration. The root mean square errors were 1.2 percentage points for CBO and 1.6 percentage points for the Administration. CBO's forecast was closer to the true value in nine of the 13 periods, the Administration's forecast was better in two, and the two forecasters had equal errors in two of the periods (see Table B-5).

Forecast errors tend to grow larger when the economy is more unstable. This tendency can be clearly seen in the forecasts of growth in real GNP by comparing the large errors for the 1981-1983 period, when the economy went through the most severe recession of the postwar period, with the smaller errors recorded for subsequent years. The recent recession accounts for the large forecast errors for the 1990-1991 period.

Note that real GNP in 1982 dollars is used as the basis for this analysis of forecast errors. The Commerce Department recently switched to a 1987-dollar measure for real GNP, and it has published the history of real GNP in 1987 dollars. The 1982-dollar measure is more appropriate for this analysis, however, because it more closely approximates the measure of real growth that CBO and the Administration were trying to predict.

CPI Inflation

There is little difference in the records for forecasting the average annual growth of the consumer price index (CPI) over the two-year horizon (see Table B-2). Both organizations underestimated future inflation in their 1978, 1979, and 1980 forecasts, and both tended to overestimate inflation in their forecasts during the period from 1981 through 1986. The average measures of bias and accuracy are virtually the same for CBO and the Administration. CBO was closer to the true value in seven of the 13 periods, and the Administration was closer in six.

2. 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 1993-1997* (January 1992), p. 37.

Nominal Short-Term Interest Rates

CBO's record is slightly better than the Administration's for nominal short-term interest rates over the two-year horizon (see Table B-3). Overall, CBO had a smaller downward bias in forecasting interest rates than the Administration. CBO was closer to the true value in eight of the 13 periods, and the Administration was closer in five.

Short-Term Interest Rates Adjusted for Inflation

CBO had a better forecasting record for short-term interest rates adjusted for inflation. The inflation-adjusted rate used in this discussion is the three-month Treasury bill rate less the growth rate of the consumer price index. The growth of the CPI is measured on the basis of the average annual rate from the fourth quarter of the preceding year to the fourth quarter

Table B-1.
Comparison of CBO and Administration Two-Year Forecasts of the Rate of Real GNP Growth (By calendar year, errors in percentage points)

	Actual		CBO		Administration	
	1987 Dollars	1982 Dollars	Forecast	Error[a]	Forecast	Error[a]
1978-1979	3.8	3.9	3.9	0	4.7	0.8
1979-1980	1.1	1.1	2.6	1.5	2.9	1.8
1980-1981	0.5	0.9	0.5	-0.4	0.5	-0.4
1981-1982	-0.4	-0.3	1.9	2.2	2.6	2.9
1982-1983	0.7	0.5	2.1	1.6	2.7	2.2
1983-1984	4.9	5.2	3.4	-1.8	2.6	-2.6
1984-1985	4.4	5.1	4.7	-0.4	4.7	-0.4
1985-1986	2.8	3.0	3.3	0.3	3.9	0.9
1986-1987	2.9	3.1	3.1	0	3.7	0.6
1987-1988	3.5	3.9	2.9	-1.0	3.3	-0.6
1988-1989	3.2	3.5	2.4	-1.1	2.9	-0.6
1989-1990	1.8	1.7	2.5	0.8	3.2	1.5
1990-1991	0.2	0.2[b]	2.0	1.8	2.8	2.6
Mean Error	n.a.	n.a.	n.a.	0.3	n.a.	0.7
Mean Absolute Error	n.a.	n.a.	n.a.	1.0	n.a.	1.4
Root Mean Square Error	n.a.	n.a.	n.a.	1.2	n.a.	1.6

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

NOTES: Actual values are the two-year growth rates for real gross national product (GNP) last reported by the Bureau of Economic Analysis, not the first reported values. Forecast values are for the average annual growth in real GNP over the two-year period. The forecasts were issued in January of the initial year of the period. Errors are forecast values minus actual values; thus, a positive error is an overestimate.

n.a. = not applicable.

a. Calculated using data in 1982 dollars.

b. Real GNP for the fourth quarter of 1991 was estimated by CBO.

of the second year of the period. Because CBO had forecast the price index for urban consumers (CPI-U), and the Administration, until early 1992, had forecast the price index for urban wage earners and clerical workers (CPI-W), two actual interest rates, adjusted for inflation, are given in the table and used for analyzing forecast accuracy (see Table B-4).

CBO's errors were smaller than the Administration's for all of the error statistics. Both CBO and the Administration had an optimistic bias; that is, they forecast lower interest rates, adjusted for inflation, than actually occurred on average, but the Administration's bias was greater. The Administration's mean absolute and root mean square errors were also larger, and CBO was closer to the actual value in eight of the 13 periods (see Table B-5).

Note that the optimistic biases throughout the 1980s are greater than those indicated by the average of the entire period. Short-term interest rates, adjusted for inflation, were higher in the 1980s than in previous decades. Most forecasters failed to anticipate this departure from historical norms.

Table B-2.
Comparison of CBO and Administration Two-Year Forecasts of the CPI Inflation Rate
(By calendar year, errors in percentage points)

	Actual		CBO		Administration	
	CPI-U	CPI-W	Forecast	Error	Forecast	Error
1978-1979	9.4	9.5	6.0	-3.4	6.0	-3.5
1979-1980	12.4	12.5	8.1	-4.3	7.4	-5.1
1980-1981	11.9	11.9	10.1	-1.8	10.5	-1.4
1981-1982	8.2	8.1	10.5	2.3	9.7	1.6
1982-1983	4.6	4.5	7.2	2.6	6.6	2.1
1983-1984	3.8	3.3	4.8	1.0	4.8	1.5
1984-1985	3.9	3.5	5.0	1.1	4.5	1.0
1985-1986	2.7	2.5	4.1	1.4	4.2	1.7
1986-1987	2.8	2.6	3.8	1.0	3.8	1.2
1987-1988	3.9	3.8	4.0	0.1	3.3	-0.5
1988-1989	4.4	4.4	4.7	0.3	4.2	-0.2
1989-1990	5.1	5.0	4.9	-0.2	3.8	-1.2
1990-1991	4.8	4.6	4.1	-0.7	4.0	-0.6
Mean Error	n.a.	n.a.	n.a.	0	n.a.	-0.3
Mean Absolute Error	n.a.	n.a.	n.a.	1.6	n.a.	1.7
Root Mean Square Error	n.a.	n.a.	n.a.	2.0	n.a.	2.1

SOURCES: Congressional Budget Office; Office of Management and Budget; 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. CBO forecast the CPI-U (for all urban consumers). The Administration forecast the CPI-W (for urban wage earners and clerical workers). The forecasts were issued in January of the initial year of the period. Errors are forecast values minus actual values; thus, a positive error is an overestimate.

n.a. = not applicable.

The Longer Horizon

The Administration's errors for real GNP growth for the more distant future, measured here as four years ahead, were larger than CBO's. Although this does not directly affect the estimates of the budget-year deficit, accuracy in the longer term is obviously important for budget 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 indicates that its projection is based on the adoption of the President's budget, and, in recent years, CBO has considered its projections an indication of the average future performance of the economy if major historical trends prevail. Neither forecaster attempts to anticipate cyclical fluctuations in the projection period.

In the few years that are available for comparison, the Administration's projections had an upward bias of 1.2 percentage points for the average annual rate of real GNP growth over four-year periods, and CBO had an upward bias of 0.6 percentage points (see Table B-6 on page 70). These biases resulted in large part

Table B-3.
Comparison of CBO and Administration Two-Year Forecasts of Nominal Short-Term Interest Rates (By calendar year, errors in percentage points)

		CBO		Administration	
	Actual	Forecast	Error	Forecast	Error
1978-1979	8.6	6.5	-2.1	6.1	-2.5
1979-1980	10.8	8.4	-2.4	8.2	-2.6
1980-1981	12.8	9.5	-3.3	9.8	-3.0
1981-1982	12.4	13.3	0.9	10.0	-2.4
1982-1983	9.7	12.6	2.9	11.1	1.4
1983-1984	9.1	7.1	-2.0	8.0	-1.1
1984-1985	8.5	8.8	0.3	8.1	-0.4
1985-1986	6.7	8.5	1.8	8.0	1.3
1986-1987	5.9	6.8	0.9	6.9	1.0
1987-1988	6.2	5.7	-0.5	5.5	-0.7
1988-1989	7.4	6.5	-0.9	5.3	-2.1
1989-1990	7.8	7.5	-0.3	5.9	-1.9
1990-1991	6.5	7.1	0.6	6.1	-0.4
Mean Error	n.a.	n.a.	-0.3	n.a.	-1.0
Mean Absolute Error	n.a.	n.a.	1.5	n.a.	1.6
Root Mean Square Error	n.a.	n.a.	1.8	n.a.	1.8

SOURCES: Congressional Budget Office; Office of Management and Budget; Federal Reserve Board.

NOTES: Values are the average of the three-month Treasury bill rate for the two-year period. The forecasts were issued in January of the initial year of the period. Errors are forecast values minus actual values; thus, a positive error is an overestimate.

n.a. = not applicable.

from the inability of the projections made in January 1978, 1979, and 1980 to anticipate the recessions of 1980 and 1982. In subsequent years, 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 both CBO and the Administration is also largely the result of errors in projections made during the first three years. CBO had a definite edge in the projections made in January 1981 and 1982 and a lesser edge in later years. CBO's projection of four-year real GNP growth was more accurate than the Administration's for every one of the 11 periods compared here.

Table B-4.
Comparison of CBO and Administration Two-Year Forecasts of the Short-Term Interest Rate Adjusted for Inflation (By calendar year, errors in percentage points)

	Actual		CBO		Administration	
	Based on CPI-U	Based on CPI-W	Forecast	Error	Forecast	Error
1978-1979	-2.1	-2.2	0.5	2.6	0.0	2.2
1979-1980	-1.8	-1.9	0.5	2.3	1.3	3.2
1980-1981	1.8	1.9	0.0	-1.8	0.1	-1.8
1981-1982	5.4	5.6	3.5	-1.9	1.2	-4.4
1982-1983	5.8	6.0	5.8	0	6.2	0.2
1983-1984	5.4	5.9	2.3	-3.1	3.3	-2.6
1984-1985	4.7	5.1	3.8	-0.9	3.6	-1.5
1985-1986	4.3	4.7	4.3	0.0	3.7	-1.0
1986-1987	3.0	3.2	2.8	-0.2	2.9	-0.3
1987-1988	1.8	1.8	1.3	-0.5	1.0	-0.8
1988-1989	2.9	3.0	2.2	-0.7	1.2	-1.8
1989-1990	2.4	2.5	2.6	0.2	2.3	-0.2
1990-1991	1.9	2.1	2.8	0.9	2.1	0
Mean Error	n.a.	n.a.	n.a.	-0.2	n.a.	-0.7
Mean Absolute Error	n.a.	n.a.	n.a.	1.2	n.a.	1.5
Root Mean Square Error	n.a.	n.a.	n.a.	1.5	n.a.	2.0

SOURCES: Congressional Budget Office; Office of Management and Budget; Federal Reserve Board; Department of Labor, Bureau of Labor Statistics.

NOTES: Values are for the three-month Treasury bill rate less the respective forecast for inflation as measured by the change in the consumer price index (CPI). CBO forecast the CPI-U (for all urban consumers). The Administration forecast the CPI-W (for urban wage earners and clerical workers). The change in the CPI for the two-year periods is measured as the average annual rate from the fourth quarter of the preceding year to the fourth quarter of the second year of the period. The forecasts were issued in January of the initial year of the period. Errors are forecast values minus actual values; thus, a positive error is an overestimate.

n.a. = not applicable.

The Use of Statistics on Forecast Accuracy

For a number of reasons, the statistics on errors reported here may not predict the accuracy of future forecasts. First, the sample of 13 forecasts for the two-year period is relatively small, and the difference between the accuracy of CBO's forecasts and those of the Administration is not statistically significant, given the small size of the sample. As a result, the historical record alone cannot decisively indicate which forecast will do better. Second, the procedures and purposes of each organization's forecasts have changed over the period and may change in the future. For example, in the late 1970s, CBO characterized its long-term projection as a goal for the economy, whereas now CBO considers it a projection that will prevail on average if the economy continues to reflect historical trends. Third, an institution's ability to forecast may change over time. Last, forecast errors increase when the economy is more volatile. When the economy undergoes a recession, both CBO's and the Administration's forecast errors tend to be larger than the averages of the 13 forecasts examined here.

Table B-5.
Ranking of CBO and Administration Two-Year Forecasts, Calendar Years 1978-1990

	Number of Times a Forecaster Had a Smaller Error		
	CBO	Administration	Ties
Growth in Gross National Product	9	2	2
Inflation as Measured by the Consumer Price Index	7	6	0
Nominal Short-Term Interest Rates	8	5	0
Inflation-Adjusted Short-Term Rates	8	3	2

SOURCE: Congressional Budget Office.

Table B-6.
Comparison of CBO and Administration Longer-Term Projections of Real GNP Growth
(By calendar year, errors in percentage points)

	Actual		CBO		Administration	
	1987 Dollars	1982 Dollars	Forecast	Error[a]	Forecast	Error[a]
1978-1981	2.1	2.4	4.6	2.2	4.8	2.4
1979-1982	0.4	0.4	3.5	3.1	3.7	3.3
1980-1983	0.6	0.7	2.0	1.3	2.6	1.9
1981-1984	2.2	2.4	2.6	0.2	3.7	1.3
1982-1985	2.5	2.7	2.8	0.1	3.8	1.1
1983-1986	3.8	4.1	3.6	-0.5	3.3	-0.8
1984-1987	3.6	4.1	4.1	0	4.3	0.2
1985-1988	3.2	3.5	3.3	-0.2	4.0	0.5
1986-1989	3.0	3.3	3.3	0	3.8	0.5
1987-1990	2.6	2.8	3.0	0.2	3.5	0.7
1988-1991	1.7	1.8[b]	2.5	0.7	3.4	1.6
Mean Error	n.a.	n.a.	n.a.	0.6	n.a.	1.2
Mean Absolute Error	n.a.	n.a.	n.a.	0.8	n.a.	1.3
Root Mean Square Error	n.a.	n.a.	n.a.	1.2	n.a.	1.6

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

NOTES: Actual values are the four-year growth rates for real gross national product (GNP) last reported by the Bureau of Economic Analysis, not the first reported values. Forecast values are for the average annual growth in real GNP over the four-year period. The forecasts were issued in January of the initial year of the period. Errors are forecast values minus actual values; thus, a positive error is an overestimate.

n.a. = not applicable

a. Calculated using data in 1982 dollars.

b. Real GNP for the fourth quarter of 1991 was estimated by CBO.

Appendix C

Major Contributors to the Revenue and Spending Projections

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

Revenue Projections

Mark Booth	Corporate income taxes, Federal Reserve System earnings
Maureen Griffin	Social insurance contributions, excise taxes, estate and gift taxes
Katherine Johnson	Excise taxes, NIPA receipts
Matthew Melillo	Excise taxes, NIPA receipts
Linda Radey	Excise taxes
John Stell	Customs duties, miscellaneous receipts
David Weiner	Individual income taxes

Spending Projections

Defense, International Affairs, and Veterans' Affairs

Eugene Bryton	Defense
Kent Christensen	International affairs
Raymond Hall	Defense
Barbara Hollinshead	Defense
William Myers	Defense
Mary Helen Petrus	Veterans' compensation and pensions
Amy Plapp	Defense
Kathleen Shepherd	Veterans' benefits
Lisa Siegel	Defense
Joseph Whitehill	International affairs

Human Resources

Wayne Boyington	Civil Service Retirement, Railroad Retirement
Paul Cullinan	Social Security
Cathy Ellman	Civil Service Retirement, Railroad Retirement
Alan Fairbank	Hospital Insurance
Scott Harrison	Medicare
Jean Hearne	Medicaid
Lori Housman	Medicare
Julia Isaacs	Food stamps, foster care, child care

Deborah Kalcevic	Education
Lisa Layman	Medicare
Josh Leichter	Social service programs, Head Start
Cory Oltman	Unemployment insurance, training programs, veterans' education
Pat Purcell	Supplemental Security Income, Medicaid
Connie Takata	Public Health Service
John Tapogna	Aid to Families with Dependent Children, child support enforcement

Natural and Physical Resources

Philip Bartholomew	Deposit insurance
Michael Buhl	General government
Kim Cawley	Energy, pollution control and abatement
Patricia Conroy	Community and regional development, general government
Peter Fontaine	Energy
Mark Grabowicz	Science and space, justice
Theresa Gullo	Water resources, conservation, and land management
James Hearn	General government, Agricultural Credit Insurance Fund, Outer Continental Shelf receipts
David Hull	Agriculture
Thomas Lutton	Deposit insurance
Mary Maginniss	Deposit insurance
Eileen Manfredi	Agriculture
Ian McCormick	Agriculture
Marjorie Miller	Transportation, Federal Housing Administration
Deborah Reis	Recreation, water transportation
Mitchell Rosenfeld	Air transportation, justice, Postal Service
Brent Shipp	Housing and mortgage credit
John Webb	Commerce, disaster relief

Other

Janet Airis	Appropriation bills
Edward Blau	Appropriation bills
Karin Carr	Budget projections
Betty Embrey	Appropriation bills
Kenneth Farris	Computer support
Glen Goodnow	Authorization bills
Alice Grant	Appropriation bills
Leslie Griffin	Civilian agency pay, historical data
Vernon Hammett	Computer support
Ellen Hays	Other interest
Sandra Hoffman	Computer support
Jeffrey Holland	Net interest on the public debt, national income and product accounts
Richard Krop	Civilian agency pay, historical data
Terri Linger	Computer support
Fritz Maier	Computer support
Kathy Ruffing	Treasury borrowing, interest, and debt
Robert Sempsey	Appropriation bills

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