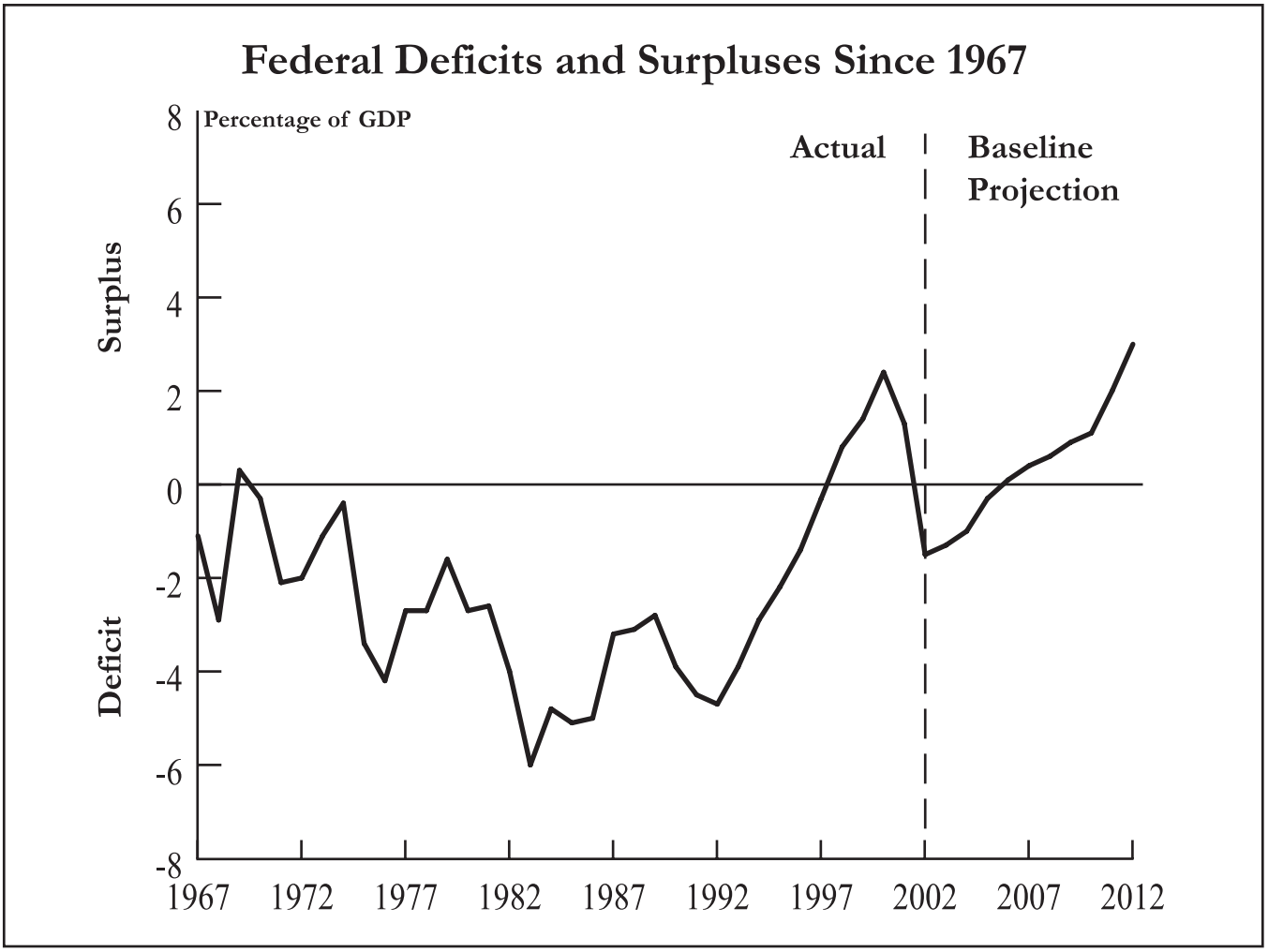
CONGRESS OF THE UNITED STATES
CONGRESSIONAL BUDGET OFFICE

AN

The Budget and Economic Outlook

UPDATE



A REPORT TO THE SENATE AND
HOUSE COMMITTEES ON THE BUDGET

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A

CBO

STUDY

The Budget and Economic Outlook: An Update

August 2002

The Congress of the United States ■ Congressional Budget Office

Notes

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

Unless otherwise indicated, all years referred to in Chapter 2 are calendar years, and all years in the rest of the report are federal fiscal years (which run from October 1 to September 30).

Some of the figures in Chapter 2 use shaded vertical bars to indicate periods of recession. The bars extend from the peak to the trough of each recession. The end of the most recent recession has not yet been determined by the National Bureau of Economic Research, the organization charged with that duty. CBO has assumed that it occurred at the end of calendar year 2001.

Data for real gross domestic product are based on chained 1996 dollars.

Preface

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

The baseline spending projections were prepared by the staff of CBO's Budget Analysis Division under the supervision of Robert Sunshine, Peter Fontaine, Janet Airis, Thomas Bradley, Kim Cawley, Paul Cullinan, Jeffrey Holland, and Jo Ann Vines. The revenue estimates were prepared by the staff of the Tax Analysis Division under the supervision of Thomas Woodward, Mark Booth, and David Weiner.

The economic outlook presented in Chapter 2 was prepared by the Macroeconomic Analysis Division under the direction of Robert Dennis. John F. Peterson, Robert Arnold, and Eric Warasta carried out the economic forecast and projections. David Brauer, Ufuk Demiroglu, Tracy Foertsch, Douglas Hamilton, Juann Hung, Kim Kowalewski, Mark Lasky, Angelo Mascaro, Shinichi Nishiyama, Benjamin Page, Frank Russek, Robert Shackleton, John Sturrock, and Christopher Williams contributed to the analysis. Tumi Coker, John McMurray, and Eric Warasta provided research assistance.

CBO's Panel of Economic Advisers commented on an early version of the economic forecast underlying this report. Members of the panel are Andrew B. Abel, Michael J. Boskin, Barry P. Bosworth, Robert G. Dederick, William C. Dudley, Martin Feldstein, Robert J. Gordon, Robert E. Hall, N. Gregory Mankiw, Allan Meltzer, William Niskanen, William D. Nordhaus, June E. O'Neill, Rudolph G. Penner, James Poterba, Michael Prell, Robert Reischauer, Alice Rivlin, Joel Slemrod, and Martin B. Zimmerman. Dale Jorgenson and Christopher Carroll attended the panel's meeting as guests. Although CBO's outside advisers provided considerable assistance, they are not responsible for the contents of this report.

Jeffrey Holland wrote the summary. Mark Booth, Ellen Hays, and Adaeze Enekwechi wrote Chapter 1. Christopher Williams was the lead author for Chapter 2. Barry Blom wrote Appendix A.

Christine Bogusz, Leah Mazade, and Christian Spoor edited the report under the supervision of John Skeen. Marion Curry, Linda Lewis Harris, and Denise Jordan assisted in its preparation. Kathryn Winstead prepared the report for publication, and Annette Kalicki produced the electronic versions for CBO's Web site.

Dan L. Crippen
Director

August 2002

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Summary

The budget deficit expected for this year has grown and the surpluses anticipated for the coming decade have diminished under the Congressional Budget Office's (CBO's) new baseline projections. A sharp decline in tax revenues coupled with double-digit growth in spending will produce a deficit of about $157 billion in fiscal year 2002, CBO estimates. If current tax and spending policies are maintained, deficits are likely to persist for a few years before giving way to small surpluses. Between 2003 and 2009, those annual deficits and surpluses would generally equal less than 1 percent of the nation's gross domestic product (GDP) and roughly balance out. For the 10-year period from 2003 through 2012, CBO's baseline projects a total surplus of $1.0 trillion. However, most of that amount would be realized after 2010, when the tax cuts enacted last year are scheduled to expire.

CBO constructs its baseline according to rules specified in law. Basically, those rules involve extending current laws and policies into the future and estimating their effect on the budget. The resulting baseline projections serve as a neutral benchmark that lawmakers can use to measure the effects of proposed changes in revenue and spending policies.

Those projections should be viewed cautiously, however. They are not intended to be a forecast of future outcomes. Indeed, actual budget figures will almost certainly differ from CBO's baseline projections because of future economic developments, legislative actions, and technical errors in estimating.

The Budget Outlook

After four consecutive years of budget surpluses, CBO is projecting a series of gradually declining deficits for 2002 through 2005 under current policies (*see Summary Table 1*). Those deficits add up to about $450 billion —or about 1 percent of GDP. The surpluses projected

Summary Table 1.

The Budget Outlook Under Current Policies

(In billions of dollars)

	Actual 2001	2002	2003	2004	2005	2006	2007	Total, 2003-2007	Total, 2003-2012
On-Budget Surplus or Deficit (-)	-34	-314	-315	-299	-246	-209	-190	-1,259	-1,513
Off-Budget Surplus[a]	161	157	170	188	207	224	242	1,031	2,527
Total Surplus or Deficit (-)	**127**	**-157**	**-145**	**-111**	**-39**	**15**	**52**	**-229**	**1,015**

Source: Congressional Budget Office.

a. Off-budget surpluses comprise surpluses in the Social Security trust funds as well as the net cash flow of the Postal Service.

Summary Table 2.

Changes in CBO's Baseline Projections of the Surplus Since March 2002

(In billions of dollars)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total, 2003-2007	Total, 2003-2012
Total Surplus as Projected in March 2002	5	6	61	111	135	175	213	263	309	454	653	489	2,380
Changes													
Revenues													
Legislative	-43	-40	-30	-4	15	16	16	13	10	7	4	-43	7
Economic	*	-22	-35	-32	-20	-10	1	10	20	31	41	-119	-16
Technical	-104	-61	-61	-62	-61	-62	-66	-72	-74	-74	-75	-307	-668
Total	**-146**	**-124**	**-126**	**-98**	**-66**	**-56**	**-50**	**-49**	**-45**	**-36**	**-30**	**-469**	**-678**
Outlays													
Discretionary spending													
Supplemental appropriations	6	23	23	25	26	27	28	28	28	30	30	123	268
Other	-4	-2	-3	-4	-4	-3	-2	-2	-1	*	2	-16	-19
Subtotal	2	21	19	21	22	24	25	26	28	30	32	108	250
Debt service	1	13	23	27	33	40	49	57	64	71	78	136	456
Other	13	-6	4	5	-1	4	*	-2	-5	-7	-9	5	-18
Total	**16**	**28**	**47**	**52**	**54**	**68**	**75**	**81**	**87**	**95**	**102**	**249**	**688**
Total Effect on the Surplus	**-162**	**-151**	**-173**	**-150**	**-120**	**-123**	**-124**	**-130**	**-132**	**-131**	**-131**	**-718**	**-1,366**
Total Surplus or Deficit (-) as Projected in August 2002	-157	-145	-111	-39	15	52	88	133	177	323	522	-229	1,015
Memorandum:													
Changes in Outlays Because of Supplemental Appropriations, by Type of Discretionary Spending													
Defense	5	15	14	14	14	15	15	16	16	17	17	73	153
Nondefense	1	7	8	10	12	12	13	13	13	13	14	50	116

Source: Congressional Budget Office.

Note: * = between -$500 million and $500 million.

for the following few years are relatively small, averaging 0.5 percent of GDP from 2006 through 2009. (By comparison, the surpluses recorded from 1998 through 2001 averaged 1.5 percent of GDP.) For the 2003-2012 period, the baseline projects a cumulative surplus of $1.0 trillion, of which $845 billion occurs in 2011 and 2012. Over those 10 years, the Social Security trust funds are projected to accumulate a surplus of $2.5 trillion, while the rest of the budget records a deficit totaling $1.5 trillion.

The total surplus projected for the 2003-2012 period is nearly $1.4 trillion smaller than CBO estimated in March, when it published its previous baseline (*see Summary Table 2*). That change is almost equally divided between reductions to revenue estimates and increases in spending estimates.

CBO is projecting $678 billion less in federal revenues for the 10-year period than it did in March. Much of that reduction reflects tax collections so far in 2002,

which have been much lower than anticipated. CBO will not have data to analyze the sources of that shortfall until later this year, but both temporary and permanent factors were probably involved. Among the temporary factors, the drop in the stock market seems likely to have reduced tax receipts from realizations of capital gains. In addition, taxpayers appear to have paid more of their taxes than usual through withholding in 2001 and less in final payments in 2002. But the drop in revenues went far beyond what can be explained either by such temporary factors or by the reported weakness of incomes during the recent recession. That additional shortfall could persist and possibly even grow over time.

CBO has raised its projection of federal spending during the 2003-2012 period by a similar amount: $688 billion. More than one-third of that increase stems from enactment of the 2002 Supplemental Appropriations Act for Further Recovery From and Response to Terrorist Attacks on the United States, which provided $24 billion in additional budget authority in 2002.[1] Under the rules of the Deficit Control Act, baseline projections must assume that annual appropriations for discretionary programs will continue at the current level, with increases for the rates of inflation projected each year. As a result, enactment of those supplemental appropriations causes discretionary outlays in CBO's baseline to rise by a total of $268 billion from 2003 through 2012.

About two-thirds of the increase since March in projected outlays over the 10-year period stems from higher projections of federal interest costs (because of the reduction in revenue estimates and the increase in other outlays). By 2012, debt held by the public is projected to total $2.7 trillion, more than double the $1.1 trillion figure in the March baseline. As a result, interest payments are projected to be $456 billion higher over 10 years than CBO estimated in March.

1. The supplemental appropriation law also included $5.1 billion in budget authority that was designated by the Congress as contingent emergency funding. That money would have become available only if the President had agreed to the designation. Because he did not make that designation, the money was not released and therefore is not included in CBO's projections.

The Administration also recently updated its baseline budget estimates.[2] CBO and the Office of Management and Budget (OMB) anticipate similar budget totals for this year, but their projections diverge—sometimes significantly—for the following 10 years. Some of that divergence reflects the timing of the two sets of estimates. The economic forecast underlying OMB's current-services estimates was completed before the stock market dropped precipitously and the Bureau of Economic Analysis revised economic data for the past three years. Also, the Administration's budget projections were prepared before enactment of the recent supplemental appropriation law.

OMB is projecting a deficit of $71 billion for 2003 and a tiny surplus ($1 billion) for 2004, whereas CBO's baseline projections do not show a surplus until 2006. For the 10-year period, OMB estimates a cumulative surplus of $2.3 trillion—nearly $1.3 trillion greater than CBO's projection.

That difference in the cumulative surplus is almost equally attributable to differences in projections of revenues and of outlays. Most of the variation in revenue projections occurs because CBO is forecasting slower growth of GDP and its major income component, wage and salary disbursements, through 2005. CBO's higher spending projection for the 2003-2012 period mostly reflects the supplemental appropriation law and higher debt-service costs.

The Economic Outlook

CBO believes that the economy will continue its modest recovery this year and strengthen next year. Real (inflation-adjusted) GDP is forecast to grow by 2.3 percent in calendar year 2002 and by 3.0 percent in 2003 (*see Summary Table 3*). A moderate but steady rise in consumer spending will continue to provide the foundations for that growth—augmented, CBO estimates, by the rapid upswing in federal spending in 2002 and by a

2. See Office of Management and Budget, *Mid-Session Review, Budget of the United States Government, Fiscal Year 2003* (July 15, 2002).

gradual recovery in corporate spending by the end of the year, which will continue through 2003.

The unemployment rate is expected to remain around 6 percent until the second half of 2003 but then decline slightly. Inflation, as measured by the consumer price index for all urban consumers, is projected to rise from 1.7 percent this year to a still-modest 2.4 percent in 2003. Interest rates on 10-year Treasury notes are expected to average 4.9 percent in 2002 and 5.4 percent in 2003.

The persistence and strength of the economic recovery are uncertain, however. A major question is whether the large drop that the stock market has experienced since March will depress consumption and investment. Other

Summary Table 3.

CBO's Current and Previous Economic Projections for Calendar Years 2002 Through 2012 (Corrected, August 26, 2002)

	Forecast		Projected Annual Average	
	2002	2003	2004-2007	2008-2012
Nominal GDP (Billions of dollars)				
August 2002	10,429	10,912	13,414[a]	17,358[b]
March 2002	10,521	11,092	13,639[a]	17,532[b]
Nominal GDP (Percentage change)				
August 2002	3.4	4.6	5.3	5.3
March 2002	3.1	5.4	5.3	5.1
Real GDP (Percentage change)				
August 2002	2.3	3.0	3.2	3.1
March 2002	1.7	3.4	3.2	3.1
GDP Price Index (Percentage change)				
August 2002	1.1	1.6	2.0	2.1
March 2002	1.4	2.0	2.0	2.0
Consumer Price Index[c] (Percentage change)				
August 2002	1.7	2.4	2.5	2.5
March 2002	1.8	2.5	2.5	2.5
Unemployment Rate (Percent)				
August 2002	5.9	5.9	5.3	5.2
March 2002	6.1	5.9	5.2	5.2
Three-Month Treasury Bill Rate (Percent)				
August 2002	1.7	2.9	4.9	4.9
March 2002	2.2	4.5	4.9	4.9
Ten-Year Treasury Note Rate (Percent)				
August 2002	4.9	5.4	5.8	5.8
March 2002	5.0	5.5	5.8	5.8

Source: Congressional Budget Office.

Notes: The March 2002 values for GDP and its components are based on data from the national income and product accounts before the July 2002 revision. However, some of the numbers for March 2002 in the printed version of this table were inadvertently drawn from CBO's January forecast. They are corrected here.
Percentage changes are year over year.
Year-by-year economic projections for calendar years 2002 through 2012 appear in Appendix B.

a. Level in 2007.
b. Level in 2012.
c. The consumer price index for all urban consumers.

unknowns about the economy include the extent to which the collapse in investment that occurred during the recent recession eliminated companies' excess capacity and the implications of volatility in the confidence of businesses, consumers, and investors.

CBO's economic projections for years after 2003 have changed little since March. Real GDP is still estimated to grow at an average rate of 3.2 percent a year through 2012. The projections for inflation, unemployment, and interest rates are also virtually the same as in March. As a result, the updating of CBO's economic outlook has had little overall effect on the budget projections for the 2003-2012 period.

CHAPTER

1

The Budget Outlook

The Congressional Budget Office (CBO) estimates that total federal spending and revenues will produce a deficit of $157 billion in fiscal year 2002 (which ends September 30). Under CBO's new baseline projections, which assume that current tax and spending policies remain unchanged, the federal government would run a slightly smaller deficit, $145 billion, in 2003 (*see Table 1-1*). After that, the budget outlook gradually improves through 2010, with projected deficits and surpluses that are relatively modest, both in dollar terms and as a percentage of the nation's gross domestic product (GDP). Projected surpluses rise sharply in 2011 and 2012 because the baseline assumes that the tax cuts enacted last year expire in 2010, as scheduled. As a result, more than 80 percent of the projected surplus for the 2003-2012 period accrues in the last two years.

Those baseline projections are not intended to be a forecast of future budgetary outcomes; they are simply meant to serve as a neutral benchmark that lawmakers can use to measure the effects of proposed changes in revenue and spending policies. The baseline is constructed according to rules set in law. CBO applies those rules—and its best judgment about how the economy and other factors would affect federal revenues and spending under existing laws and policies—to develop its projections of future surpluses or deficits.

In its previous baseline, published in March in *An Analysis of the President's Budgetary Proposals for Fiscal Year 2003*, CBO projected surpluses of $5 billion for 2002 and $6 billion for 2003 under the policies in effect at the end of February. On March 9, as that report was going to press, the President signed into law the so-called economic stimulus act (Public Law 107-147). At that time, CBO updated its baseline projections to incorporate the effects of that legislation, which it estimated would eliminate the projected surpluses and result in deficits of $46 billion in 2002 and $40 billion in 2003. Beyond 2003, surpluses were projected to rise steadily, reaching $653 billion by 2012. Although the updated deficit and surplus figures were included in that report (in Box 1 on page 2), the detailed supporting tables did not reflect the effects of the stimulus package. This report, therefore, compares CBO's new baseline projections with the ones that were presented in detail in the March report.

Since the end of February, the budget picture has shifted significantly: projected surpluses have declined sharply, and deficits are now envisioned through 2005. For the 2003-2007 period, the budget total has changed from a $489 billion surplus to a $229 billion deficit under current policies. For the 2003-2012 period, the total projected surplus has dropped from $2.4 trillion to $1.0 trillion. Roughly half of that $1.4 trillion decline over 10 years results from lower projections of revenues; the other half reflects increases in projected outlays.

Actual budgetary outcomes are virtually guaranteed to differ from CBO's baseline projections for two reasons. The first involves the rules under which CBO must construct its baseline. CBO does not predict future legislation—indeed, any attempt to incorporate future legislative changes in the baseline would undermine its usefulness as a way to measure the effects of such

Table 1-1.

The Budget Outlook Under Current Policies

(In billions of dollars)

	Actual 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total, 2003-2007	Total, 2003-2012
On-Budget Surplus or Deficit (-)	-34	-314	-315	-299	-246	-209	-190	-173	-147	-122	4	185	-1,259	-1,513
Off-Budget Surplus[a]	161	157	170	188	207	224	242	262	280	299	319	337	1,031	2,527
Total Surplus or Deficit (-)	**127**	**-157**	**-145**	**-111**	**-39**	**15**	**52**	**88**	**133**	**177**	**323**	**522**	**-229**	**1,015**
Memorandum:														
Social Security Surplus	163	160	171	188	206	224	242	262	280	299	319	337	1,031	2,527
Postal Service Outlays	2	3	1	*	-1	0	0	0	0	0	0	0	*	*
Total Surplus or Deficit (-) as a Percentage of GDP	1.3	-1.5	-1.3	-1.0	-0.3	0.1	0.4	0.6	0.9	1.1	2.0	3.0	-0.4[b]	0.7[b]

Source: Congressional Budget Office.

Note: * = between zero and $500 million.

a. Off-budget surpluses comprise surpluses in the Social Security trust funds as well as the net cash flow of the Postal Service.
b. Cumulative surplus or deficit as a percentage of cumulative GDP over this period.

changes. However, future legislation will certainly alter the paths of federal spending and revenues. The second reason involves the uncertainty of forecasting. The U.S. economy and the federal budget are highly complex and are affected by many economic and technical factors that are difficult to predict.[1] In view of that uncertainty, the outlook for the budget can best be described not as a single row of numbers but as a range of possible outcomes around those numbers. That range widens as the projection extends: hence, 10-year projections are more uncertain than five-year projections.

The Outlook for 2002

The budget situation has changed dramatically over the past year. In 2001, the federal government recorded a surplus of $127 billion (1.3 percent of GDP). For this year, CBO projects a deficit of $157 billion (1.5 percent of GDP)—the first deficit since 1997 (*see Figure 1*). The swing from surplus to deficit was caused by a decline in revenues combined with sharp growth in spending.

Revenues are expected to fall in 2002 for the second year in a row. CBO projects this year's decrease at $131 billion, or 6.6 percent—the largest annual drop, in percentage terms, since 1946. Receipts from individual income taxes account for the bulk of the expected decline in revenues, falling by $127 billion, or about 13 percent. Those receipts were especially low during the recent tax-filing season. Taxpayers made much smaller final payments and received substantially greater refunds for tax year 2001 than they had the previous year. In contrast, revenues from social insurance taxes (such as payroll taxes for Social Security and Medicare) are expected to increase in 2002 by $8 billion, or slightly more than 1 percent. However, corporate tax receipts and other sources of revenue are projected to decline this year by about $12 billion, or 4 percent.

While revenues dwindle, outlays in 2002 are projected to rise by $153 billion, or 8 percent, from last year's level. CBO expects outlays for discretionary programs (the part of the budget whose spending levels are set anew each year in appropriation acts) to grow by $84 billion—or 13 percent—this year. Outlays for entitlements and other mandatory programs are projected to rise by $105 billion, or 10 percent. Those increases will be partly offset by a decline in the government's net

1. For a more detailed discussion of the uncertainty in forecasting and the implications for budget projections, see Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2003-2012* (January 2002), Chapter 5.

interest payments of $36 billion, or 17 percent—a decline caused largely by the drop in interest rates over the past year. Excluding net interest on the public debt, spending will grow by about 11 percent in 2002, CBO estimates.

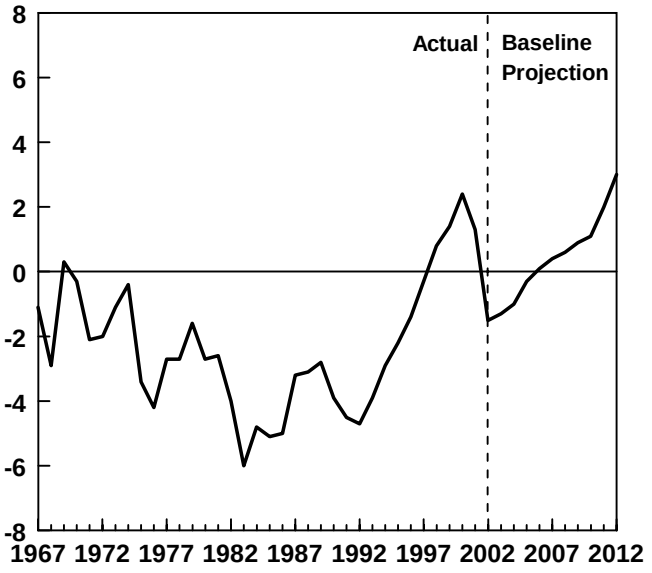
Lawmakers have significantly boosted defense appropriations, in part because of the war on terrorism. As a result, CBO projects that defense outlays will rise by $43 billion this year, from $306 billion to $349 billion. In addition, nondefense discretionary outlays—driven mostly by increases in spending for education, transportation, the administration of justice, health research, and public health programs—are projected to grow by nearly the same amount, from $343 billion last year to $384 billion in 2002.

On the mandatory side of the budget, Medicaid spending is expected to rise by $18 billion, or 14 percent, this year. That rapid increase may be attributable to rising costs for prescription drugs and greater enrollment in Medicaid because of the sluggish economy, the expansion of eligibility requirements in some states, and increased outreach efforts by states to recruit participants. (That spending increase is also reflected in state budgets, which have worsened significantly in the past year.) In addition, the weakened economy has caused a significant jump in applications for unemployment benefits. As a result, CBO anticipates that unemployment spending will nearly double in 2002—to $51 billion from $28 billion last year.

Figure 1-1.

Total Deficits and Surpluses as a Share of GDP, 1967-2012

(Percentage of GDP)



Source: Congressional Budget Office.

The Outlook for 2003 Through 2012

CBO projects that revenues will begin to rise again after 2002, going from 18.0 percent of GDP this year to 19.2 percent in 2010 (*see Table 1-2*). As a result, if current tax and spending policies are maintained, deficits are projected to diminish and surpluses are projected to emerge, reaching 1.1 percent of GDP by 2010. After that, projected surpluses spike upward as last year's tax cuts expire, rising to 3.0 percent of GDP by 2012. If those tax cuts, as well as other tax provisions scheduled to expire, were extended, the surplus in 2012 would be nearly 2 percentage points lower as a share of GDP than projected in the baseline (*see Box 1-1 on page 6 for more details*).

Under current laws and policies, total outlays as a share of GDP would decline gradually for the next 10 years—from 19.5 percent of GDP in 2002 to 17.5 percent in 2012. Although mandatory spending grows at about the same rate as GDP in the baseline, discretionary spending is assumed to grow at the rate of inflation and thus more slowly than GDP. Net interest spending is also projected to decline as a percentage of GDP once the budget shows a surplus again.

According to the Balanced Budget and Emergency Deficit Control Act of 1985, CBO's baseline must assume that discretionary spending will continue at the current level ($734 billion in budget authority for 2002), with annual increases for the projected rates of inflation—the GDP deflator and the employment cost index (ECI) for wages and salaries. Thus, the baseline assumes that discretionary budget authority will total $755 billion in

Table 1-2.

CBO's Baseline Budget Projections

	Actual 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total, 2003-2007[a]	Total, 2003-2012[a]
							In Billions of Dollars							
Revenues														
Individual income taxes	994	868	934	988	1,054	1,117	1,190	1,273	1,364	1,462	1,669	1,845	5,282	12,894
Corporate income taxes	151	146	147	165	214	236	248	259	268	279	292	306	1,009	2,414
Social insurance taxes	694	702	735	776	819	863	907	950	995	1,045	1,098	1,153	4,099	9,341
Other	152	144	147	155	158	166	168	175	182	178	184	217	794	1,730
Total	**1,991**	**1,860**	**1,962**	**2,083**	**2,244**	**2,381**	**2,513**	**2,658**	**2,809**	**2,965**	**3,243**	**3,521**	**11,184**	**26,379**
On-budget	1,484	1,345	1,422	1,516	1,649	1,756	1,855	1,966	2,081	2,199	2,438	2,675	8,198	19,556
Off-budget	508	515	540	567	595	626	658	692	728	766	805	846	2,986	6,823
Outlays														
Discretionary spending	649	733	782	803	827	845	864	889	912	936	965	983	4,121	8,807
Mandatory spending	1,008	1,113	1,161	1,200	1,248	1,309	1,386	1,471	1,560	1,657	1,771	1,853	6,305	14,616
Net interest	206	170	164	191	208	213	212	209	204	195	183	164	987	1,941
Total	**1,864**	**2,017**	**2,107**	**2,195**	**2,283**	**2,366**	**2,461**	**2,569**	**2,676**	**2,788**	**2,920**	**2,999**	**11,413**	**25,364**
On-budget	1,517	1,659	1,737	1,815	1,895	1,964	2,046	2,139	2,228	2,321	2,433	2,489	9,457	21,068
Off-budget	347	358	370	379	388	402	416	430	447	467	486	510	1,955	4,296
Surplus or Deficit (-)	**127**	**-157**	**-145**	**-111**	**-39**	**15**	**52**	**88**	**133**	**177**	**323**	**522**	**-229**	**1,015**
On-budget	-34	-314	-315	-299	-246	-209	-190	-173	-147	-122	4	185	-1,259	-1,513
Off-budget	161	157	170	188	207	224	242	262	280	299	319	337	1,031	2,527
Debt Held by the Public	3,320	3,504	3,676	3,805	3,862	3,865	3,829	3,757	3,639	3,476	3,167	2,658	n.a.	n.a.
Memorandum:														
Gross Domestic Product	10,032	10,324	10,773	11,343	11,927	12,562	13,239	13,953	14,699	15,476	16,288	17,140	59,844	137,399
							As a Percentage of GDP							
Revenues														
Individual income taxes	9.9	8.4	8.7	8.7	8.8	8.9	9.0	9.1	9.3	9.4	10.2	10.8	8.8	9.4
Corporate income taxes	1.5	1.4	1.4	1.5	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.7	1.8
Social insurance taxes	6.9	6.8	6.8	6.8	6.9	6.9	6.8	6.8	6.8	6.8	6.7	6.7	6.9	6.8
Other	1.5	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.2	1.2	1.1	1.3	1.3	1.3
Total	**19.8**	**18.0**	**18.2**	**18.4**	**18.8**	**19.0**	**19.0**	**19.0**	**19.1**	**19.2**	**19.9**	**20.5**	**18.7**	**19.2**
On-budget	14.8	13.0	13.2	13.4	13.8	14.0	14.0	14.1	14.2	14.2	15.0	15.6	13.7	14.2
Off-budget	5.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	4.9	4.9	5.0	5.0
Outlays														
Discretionary spending	6.5	7.1	7.3	7.1	6.9	6.7	6.5	6.4	6.2	6.0	5.9	5.7	6.9	6.4
Mandatory spending	10.1	10.8	10.8	10.6	10.5	10.4	10.5	10.5	10.6	10.7	10.9	10.8	10.5	10.6
Net interest	2.1	1.7	1.5	1.7	1.7	1.7	1.6	1.5	1.4	1.3	1.1	1.0	1.6	1.4
Total	**18.6**	**19.5**	**19.6**	**19.3**	**19.1**	**18.8**	**18.6**	**18.4**	**18.2**	**18.0**	**17.9**	**17.5**	**19.1**	**18.5**
On-budget	15.1	16.1	16.1	16.0	15.9	15.6	15.5	15.3	15.2	15.0	14.9	14.5	15.8	15.3
Off-budget	3.5	3.5	3.4	3.3	3.3	3.2	3.1	3.1	3.0	3.0	3.0	3.0	3.3	3.1
Surplus or Deficit (-)	**1.3**	**-1.5**	**-1.3**	**-1.0**	**-0.3**	**0.1**	**0.4**	**0.6**	**0.9**	**1.1**	**2.0**	**3.0**	**-0.4**	**0.7**
On-budget	-0.3	-3.0	-2.9	-2.6	-2.1	-1.7	-1.4	-1.2	-1.0	-0.8	*	1.1	-2.1	-1.1
Off-budget	1.6	1.5	1.6	1.7	1.7	1.8	1.8	1.9	1.9	1.9	2.0	2.0	1.7	1.8
Debt Held by the Public	33.1	33.9	34.1	33.5	32.4	30.8	28.9	26.9	24.8	22.5	19.4	15.5	n.a.	n.a.

Source: Congressional Budget Office.

Notes: n.a. = not applicable; * = between zero and 0.05 percent of GDP.
For details about changes from CBO's previous baseline, see Table 1-6.

a. Numbers in the bottom half of the column are shown as a percentage of cumulative GDP over this period.

2003 and will rise by 2.4 percent to 2.8 percent a year thereafter.[2]

Although CBO's baseline for discretionary spending must follow the rules prescribed by the Deficit Control Act, alternative assumptions can illustrate how sensitive budget projections are to the growth rate of discretionary spending (*see Table 1-3 on page 8*). For example, assuming that such spending increases at the same rate as nominal GDP through 2012 (an average of 5.2 percent per year) would eliminate the cumulative 10-year surplus projected in CBO's baseline. Continuing the spending growth of recent years would worsen the budget outlook even more. Alternatively, if discretionary spending was frozen at the 2002 level with no increases for inflation, the projected 10-year surplus would be more than $1 trillion higher than in the baseline.

By far the largest spending category in the budget is entitlements and other mandatory programs. Under current law, spending for that category would grow at an average annual rate of 5.2 percent through 2012. That growth is fueled by spending for Social Security, Medicare, and Medicaid, which together account for more than three-quarters of mandatory outlays (*see Table 1-4 on page 10*). Those three programs, which amounted to 8.0 percent of GDP last year, are projected to reach 9.1 percent of GDP in 2012.

Interest costs remain a sizable portion of the federal budget, even though they have been shrinking for several years. Debt held by the public is projected to increase for the next few years to pay for annual budget deficits. Nevertheless, net interest payments are projected to fall from $206 billion in 2001 to $170 billion this year and $164 billion in 2003 because of the recent decline in short-term interest rates (*see Table 1-5 on page 11*). After that, a projected rise in interest rates combined with continued federal borrowing pushes projected net interest spending back up—reaching about $213 billion in 2006 and 2007. For the rest of the 10-year period, net interest payments are projected to decline gradually, reflecting higher surpluses and the resulting lower levels of publicly held debt.

Recent Changes to the Budget Outlook

When CBO periodically revises its baseline projections, it divides the changes into three categories based on their cause: recently enacted legislation, changes to CBO's outlook for the economy, and other, so-called technical factors that affect the budget (*see Table 1-6 on page 12*).[3]

Revisions to CBO's March baseline have lowered revenue projections by a total of $678 billion for the 2003-2012 period, largely because of technical reestimates. Outlay projections for that period have risen by a total of $688 billion, mostly as a result of legislation enacted since February and the effects of all revisions on debt-service costs.

The Department of Commerce's Bureau of Economic Analysis recently released its annual revisions of the national income and product accounts (NIPAs). Those revisions are incorporated in CBO's new economic and budget projections. Among other changes, the bureau lowered its estimates of wages and salaries and of corporate book profits in calendar year 2001 by about $175

2. Discretionary budget authority for 2002 includes approximately $44 billion that was provided in two supplemental appropriation laws during the year. As required by baseline rules, that supplemental spending is extended through 2012 and also grows at the projected rates of inflation.

3. Those categorizations should be interpreted with caution. For example, legislative changes reflect CBO's best estimates of the future effects of laws enacted since the previous baseline; but if a new law proves to have different effects from the ones in CBO's initial estimate, those differences will appear as technical reestimates in later revisions to the baseline. The distinction between economic and technical reestimates is similarly imprecise. CBO classifies economic revisions as those resulting directly from changes in the components of CBO's economic forecast. Changes in other factors related to the performance of the economy—such as the level of capital gains realizations—are shown as technical reestimates. Despite those imperfections, classifying and tracking reestimates of revenues and spending as either legislative, economic, or technical is useful to evaluate the reasons for a changing budget outlook.

Box 1-1.

The Expiration of Revenue Provisions

The scheduled expiration of various revenue provisions has an important impact on the budget outlook for the next 10 years.[1] Three items in last year's tax-cut legislation, the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA), are scheduled to end on or before December 31, 2006. The rest—which represent the bulk of the law's budgetary cost—expire on December 31, 2010. In addition, the economic stimulus law enacted in March 2002 established several new tax cuts for businesses that, in most cases, end over the next three years. Many other provisions of the tax code, enacted before EGTRRA, are scheduled to expire over the next decade.

By law, the Congressional Budget Office's (CBO's) baseline budget projections must assume that almost all of the expiring tax provisions end as scheduled. (The only exception is for expiring excise taxes dedicated to trust funds.) An alternative measure of the long-term budgetary effects of current policy could assume that all of those expirations do not occur as scheduled but rather that the provisions are immediately and permanently extended. Under those assumptions, the Joint Committee on Taxation (JCT) and CBO estimate that federal revenues would be $956 billion lower during the 2003-2012 period than projected in CBO's baseline (*see the table at right*).

Over half ($553 billion) of the estimated decline in revenues from extending all expiring tax provisions would result from extending EGTRRA. About three-quarters of that cost would occur in 2011 and 2012, immediately after most of the provisions of the law are scheduled to expire, although some effects would occur earlier. Extending the changes that the law made to estate and gift taxes could reduce revenues as early as 2003, because if taxpayers knew that those changes would become permanent in 2011, some might postpone making taxable gifts that they would otherwise have made over the decade.

A more limited alternative measure would assume that all expiring tax provisions were extended except the ones created by the economic stimulus law, which were not intended to be permanent. (Those provisions include allowing businesses to take an additional first-year depreciation deduction, expanding the ability of unprofitable firms to receive refunds of past taxes paid, and targeting tax benefits to the area of New York City damaged on September 11, 2001.) If all but those expiring provisions were extended, JCT and CBO project, federal revenues would be $693 billion lower during the 2003-2012 period.

1. It can also be expected to affect the economy, but only some of those effects are reflected in the estimates presented here.

billion.[4] Those changes, however, did not significantly affect CBO's projections of revenues or outlays. CBO had already largely anticipated the income revisions on the basis of tax collections in 2001. In addition, those revisions did not cause CBO to alter its projections of overall economic growth, the primary determinant of revenue growth.

The Effects of Recent Legislation

Laws enacted since CBO completed its March baseline have reduced projected revenues and raised spending. Nearly $60 billion of the $162 billion increase in this year's projected deficit is attributable to legislation enacted since the end of February. A similar share—roughly 40 percent—of the decline in the cumulative surplus for the 2003-2012 period results from newly enacted legislation, mostly on the spending side of the budget.

Revenues. Altogether, recent legislation has caused CBO to lower its revenue projection for 2002 by $43 billion but to increase its projection for the following 10 years by a total of $7 billion. The most significant legislative change to revenues was the enactment of the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147), commonly called the economic stimulus package. That law provides temporary tax relief for businesses and

4. For more information about the NIPA revisions, see Box 2-4 in Chapter 2. For a comparison of the federal sector of the NIPAs with the federal budget, see Appendix A.

Box 1-1.

Continued

Effects on Revenues of Extending Expiring Tax Provisions (In billions of dollars)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total, 2003-2007	Total, 2003-2012
Provisions in the Economic Growth and Tax Relief Reconciliation Act of 2001												
Provisions expiring in 2010	-1	-1	-2	-2	-3	-3	-3	-4	-125	-228	-9	-371
Provisions expiring before 2010[a]	n.a.	n.a.	-3	-12	-18	-22	-27	-29	-33	-37	-33	-181
Subtotal	-1	-1	-5	-15	-20	-25	-29	-33	-157	-265	-43	-553
New Provisions in the Economic Stimulus Law[b]	-1	-6	-35	-43	-38	-34	-30	-28	-26	-25	-122	-264
Other Expiring Tax Provisions[c]	*	-1	-5	-9	-14	-18	-20	-22	-25	-27	-29	-140
Total Effect on Revenues	**-1**	**-8**	**-45**	**-67**	**-72**	**-77**	**-79**	**-83**	**-208**	**-317**	**-194**	**-956**
Memorandum:												
Total Effect on Revenues Excluding the Economic Stimulus Law	-1	-2	-10	-24	-34	-43	-49	-56	-182	-292	-72	-693

Sources: Congressional Budget Office; Joint Committee on Taxation.

Notes: n.a. = not applicable; * = between zero and $500 million.

These estimates assume that the expiring provisions are extended immediately rather than when they are about to expire. The provisions are assumed to be extended at the rates or levels existing at the time of expiration. In addition, the estimates include interactions between provisions, which are most significant in 2011 and 2012. The estimates do not include effects on debt-service costs.

a. Includes the increased exemption amount for the alternative minimum tax (expires in 2004), the deduction for qualified education expenses (expires in 2005), and the credit for individual retirement accounts and 401(k)-type plans (expires in 2006).

b. The Job Creation and Worker Assistance Act of 2002. New provisions in that law that are scheduled to expire include special depreciation-expensing allowances for certain property, a five-year carryback of net operating losses, and tax benefits for the area of New York City damaged in the September 11 terrorist attacks. These estimates do not include provisions in the law that had existed and been extended in previous years. The effects of extending those provisions yet again are included in the line for other expiring tax provisions.

c. Includes numerous provisions, such as the tax credit for research and experimentation.

extends unemployment benefits for individuals.[5] Most of the law's revenue provisions became effective immediately, or were retroactive to 2001, but are set to expire within the next three years.

The main provision of the law lets businesses take an additional first-year depreciation deduction of 30 percent of the value of qualified property purchased between September 11, 2001, and September 11, 2004. That change allows businesses to accelerate depreciation into the year a property is placed in service and then take smaller depreciation deductions in later years. In addition, the law temporarily expands the ability of unprofitable corporations to receive refunds of taxes they paid in the past, as well as extending some expiring tax provisions. In total, CBO and the Joint Committee on Taxation estimate that the law will reduce revenues by $114 billion between 2002 and 2005 but increase revenues by $85 billion over the 2006-2012 period. Over the entire 11 years, therefore, P.L. 107-147 is estimated to decrease revenues by a total of $30 billion.

Enactment of the Trade Act of 2002 (P.L. 107-210) has reduced projected revenues through 2012 by another $6 billion. About half of that reduction stems from a tax credit for health insurance costs that is being offered to workers who lose their jobs because of expanded trade.

5. For more information about the economic stimulus law, see Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 2003* (March 2002), Box 1.

Table 1-3.

CBO's Projections of Discretionary Spending Under Alternative Assumptions

(In billions of dollars)

	Actual 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total, 2003-2007	Total, 2003-2012
Baseline (Discretionary Spending Grows at the Rate of Inflation After 2002)[a]														
Budget Authority														
Defense	332	361	369	378	387	398	408	419	430	442	454	466	1,939	4,151
Nondefense	332	373	386	395	405	416	427	438	449	461	474	487	2,029	4,338
Total	**664**	**734**	**755**	**773**	**792**	**813**	**835**	**857**	**880**	**903**	**928**	**953**	**3,968**	**8,489**
Outlays														
Defense[b]	306	349	368	376	387	393	399	413	424	436	452	456	1,922	4,103
Nondefense	343	384	414	428	440	452	465	476	488	500	514	527	2,198	4,703
Total	**649**	**733**	**782**	**803**	**827**	**845**	**864**	**889**	**912**	**936**	**965**	**983**	**4,121**	**8,807**
Discretionary Spending Grows at the Rate of Nominal GDP After 2002														
Budget Authority														
Defense	332	361	377	388	397	408	419	430	441	453	465	478	1,989	4,257
Nondefense	332	373	390	419	452	486	523	563	605	648	695	742	2,271	5,524
Total	**664**	**734**	**767**	**807**	**849**	**894**	**943**	**993**	**1,046**	**1,102**	**1,160**	**1,220**	**4,260**	**9,781**
Outlays														
Defense[b]	306	349	374	385	396	403	410	424	435	447	463	467	1,967	4,203
Nondefense	343	384	416	442	475	509	546	584	625	667	713	760	2,387	5,735
Total	**649**	**733**	**789**	**827**	**871**	**911**	**955**	**1,008**	**1,060**	**1,114**	**1,175**	**1,227**	**4,354**	**9,938**
Discretionary Spending Grows at the Average Annual Rate Recorded from 1998 Through 2002 (8.5 percent)														
Budget Authority														
Defense	332	361	392	425	461	500	543	589	639	693	752	816	2,320	5,808
Nondefense	332	373	405	440	477	518	562	609	661	717	778	844	2,401	6,012
Total	**664**	**734**	**797**	**864**	**938**	**1,018**	**1,104**	**1,198**	**1,300**	**1,410**	**1,530**	**1,660**	**4,721**	**11,820**
Outlays														
Defense[b]	306	349	384	412	448	481	518	566	614	666	727	780	2,244	5,597
Nondefense	343	384	424	457	493	532	575	621	669	723	781	843	2,481	6,118
Total	**649**	**733**	**807**	**869**	**941**	**1,014**	**1,094**	**1,187**	**1,284**	**1,389**	**1,507**	**1,623**	**4,725**	**11,715**
Discretionary Spending, Excluding Supplemental Appropriations for 2002, Grows at the Rate of Inflation After 2002[a,c]														
Budget Authority														
Defense	332	361	351	360	369	379	389	399	410	421	433	445	1,848	3,956
Nondefense	332	373	357	366	375	385	395	405	416	427	439	451	1,877	4,016
Total	**664**	**734**	**708**	**725**	**744**	**763**	**784**	**805**	**826**	**848**	**872**	**896**	**3,725**	**7,972**
Outlays														
Defense[b]	306	349	356	360	369	374	380	394	404	415	431	434	1,839	3,917
Nondefense	343	384	404	411	418	426	436	446	457	468	481	494	2,095	4,441
Total	**649**	**733**	**760**	**770**	**787**	**800**	**817**	**839**	**861**	**884**	**911**	**928**	**3,934**	**8,358**

(Continued)

Table 1-3.

Continued

(In billions of dollars)

	Actual 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total, 2003-2007	Total, 2003-2012
Discretionary Spending Is Frozen at the Level Enacted for 2002														
Budget Authority														
Defense	332	361	361	361	361	361	361	361	361	361	361	361	1,804	3,609
Nondefense	332	373	376	375	375	375	375	375	375	375	375	375	1,877	3,752
Total	**664**	**734**	**737**	**736**	**736**	**736**	**736**	**736**	**736**	**736**	**736**	**736**	**3,681**	**7,361**
Outlays														
Defense[b]	306	349	363	362	364	360	357	360	360	360	363	357	1,806	3,606
Nondefense	343	384	408	416	419	421	423	417	417	416	416	416	2,087	4,169
Total	**649**	**733**	**771**	**778**	**783**	**781**	**780**	**777**	**777**	**776**	**779**	**773**	**3,893**	**7,775**
Memorandum:														
Debt-Service Cost on Differences from Baseline														
Growth at rate of nominal GDP	n.a.	n.a.	*	1	3	6	11	17	25	36	48	63	21	209
Growth at 8.5 percent	n.a.	n.a.	*	3	8	16	28	44	65	91	123	162	55	539
Growth excluding supplementals	n.a.	n.a.	*	-2	-4	-7	-10	-13	-16	-20	-24	-28	-22	-123
Frozen at the 2002 level	n.a.	n.a.	*	-1	-3	-6	-11	-17	-24	-34	-45	-58	-21	-199

Source: Congressional Budget Office.

Notes: n.a. = not applicable; * = between -$500 million and $500 million.

In CBO's projections, discretionary outlays are generally higher than budget authority because of spending from the Highway Trust Fund and the Airport and Airways Trust Fund, which is subject to obligation limitations in appropriation acts. The budget authority for such programs is provided in authorizing legislation and is not considered discretionary. Another reason why outlays exceed budget authority is that they include spending from appropriations provided in previous years.

a. Using the inflators specified in the Deficit Control Act (the GDP deflator and the employment cost index for wages and salaries).

b. When October 1 (the beginning of the fiscal year) falls on a weekend, certain federal payments due to be made on that date are shifted into September. Consequently, military personnel who are normally paid twice a month will be paid 25 times in 2005 and 2011 and 23 times in 2007 and 2012.

c. The Department of Defense and Emergency Supplemental Appropriations Act for Recovery from and Response to Terrorist Attacks on the United States, Fiscal Year 2002 (P.L. 107-117) and the 2002 Supplemental Appropriations Act for Further Recovery From and Response to Terrorist Attacks on the United States (P.L. 107-206) provided $44 billion of supplemental budget authority for 2002. This scenario does not extend those emergency appropriations beyond 2002 but includes the outlays resulting from them.

Outlays. CBO projects that outlays will be $16 billion higher in 2002 and $534 billion higher over 10 years because of laws enacted since the previous baseline. Five pieces of legislation account for the majority of those spending increases.

The 2002 Supplemental Appropriations Act for Further Recovery From and Response to Terrorist Attacks on the United States (P.L. 107-206) provides $24 billion in additional discretionary budget authority for 2002.[6] Over half of that funding, $13.3 billion in budget au-

6. P.L. 107-206 also included $5.1 billion in budget authority that the Congress declared contingent emergency funding. To activate that funding, the President also had to declare those appropriations as emergency requirements and accept the entire amount of the contingency. (Otherwise, none of the funding would have become available.) On August 13, the Administration announced that it would not declare those appropriations as emergency requirements, thus eliminating the $5.1 billion in budget authority.

Table 1-4.

CBO's Baseline Projections of Mandatory Spending, Including Offsetting Receipts

(In billions of dollars)

	Actual 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total, 2003-2007	Total, 2003-2012
Means-Tested Programs														
Medicaid	129	147	155	166	180	196	213	232	253	276	301	329	911	2,302
State Children's Health Insurance	4	4	4	5	5	5	5	5	5	5	5	5	24	50
Food Stamps	19	22	24	24	25	25	26	27	28	29	29	30	124	267
Supplemental Security Income	27	31	32	33	37	36	35	39	41	43	48	43	173	386
Family Support[a]	25	26	26	26	26	26	26	26	26	26	26	26	129	258
Veterans' Pensions	3	3	3	3	4	3	3	3	3	3	4	4	16	34
Child Nutrition	10	10	11	11	11	12	12	13	13	14	14	15	57	126
Earned Income and Child Tax Credits	27	34	35	35	35	39	39	39	40	41	44	31	183	378
Student Loans	-2	4	4	5	5	5	5	6	6	6	6	6	24	52
Foster Care	6	6	7	7	7	8	8	8	9	9	9	10	36	81
Total, Means-Tested	**248**	**286**	**300**	**315**	**335**	**354**	**372**	**398**	**423**	**451**	**487**	**499**	**1,677**	**3,934**
Non-Means-Tested Programs														
Social Security	429	452	474	494	516	542	571	602	637	675	717	762	2,596	5,989
Medicare	238	253	263	273	292	306	331	357	384	412	446	474	1,465	3,538
Subtotal	667	705	737	767	807	848	902	958	1,021	1,088	1,163	1,236	4,061	9,527
Other Retirement and Disability														
Federal civilian[b]	53	56	59	62	65	68	71	75	78	82	86	90	326	737
Military	34	35	36	37	38	39	40	41	42	43	44	44	189	402
Other	5	6	6	6	6	6	6	6	6	7	7	7	30	63
Subtotal	93	97	101	105	109	113	118	122	126	132	136	141	545	1,202
Unemployment Compensation	28	51	50	43	39	40	42	44	45	47	49	51	214	450
Other Programs														
Veterans' benefits[c]	20	25	28	29	32	31	30	33	34	35	38	34	150	324
Department of Defense health care	0	0	6	7	7	8	8	9	10	10	11	12	36	89
Commodity Credit Corporation Fund	22	15	19	18	17	15	14	12	11	11	10	10	84	137
Social services	5	5	5	5	5	5	5	5	5	5	5	5	24	48
Universal Service Fund	5	5	6	6	6	6	6	7	7	7	7	7	31	65
Other	13	16	12	11	10	11	11	12	13	14	14	15	56	123
Subtotal	65	66	75	75	78	77	75	77	79	81	86	83	380	787
Total, Non-Means-Tested	**853**	**918**	**964**	**990**	**1,033**	**1,078**	**1,136**	**1,201**	**1,271**	**1,348**	**1,434**	**1,512**	**5,201**	**11,966**
Offsetting Receipts														
Offsetting Receipts	**-93**	**-91**	**-103**	**-104**	**-120**	**-123**	**-123**	**-128**	**-134**	**-142**	**-150**	**-158**	**-572**	**-1,284**
Total														
Mandatory Spending	**1,008**	**1,113**	**1,161**	**1,200**	**1,248**	**1,309**	**1,386**	**1,471**	**1,560**	**1,657**	**1,771**	**1,853**	**6,305**	**14,616**
Memorandum:														
Mandatory Spending Excluding Offsetting Receipts	1,101	1,205	1,264	1,305	1,368	1,432	1,509	1,599	1,694	1,798	1,921	2,011	6,877	15,900

Source: Congressional Budget Office.

Note: Spending for the benefit programs shown above generally excludes administrative costs, which are discretionary.

a. Includes Temporary Assistance for Needy Families and various programs that involve payments to states for child support enforcement and family support, child care entitlements, and research to benefit children.

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

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

Table 1-5.

CBO's Baseline Projections of Federal Interest and Debt

(In billions of dollars)

	Actual 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total, 2003-2007	Total, 2003-2012
Net Interest Outlays														
Interest on the Public Debt (Gross interest)[a]	360	331	326	367	402	425	443	461	478	493	506	513	1,963	4,415
Interest Received by Trust Funds														
Social Security	-69	-77	-85	-93	-104	-116	-129	-143	-158	-175	-192	-211	-526	-1,404
Other trust funds[b]	-75	-75	-68	-71	-75	-79	-84	-88	-93	-98	-103	-109	-377	-868
Subtotal	-144	-153	-153	-164	-179	-195	-212	-231	-251	-273	-295	-319	-903	-2,272
Other Interest[c]	-9	-8	-9	-12	-15	-16	-18	-20	-22	-25	-27	-30	-70	-195
Other Investment Income[d]	0	*	*	-1	-1	-1	-1	-1	-1	-1	-1	-1	-3	-7
Total (Net interest)	206	170	164	191	208	213	212	209	204	195	183	164	987	1,941
Federal Debt (At end of year)														
Debt Held by the Public	3,320	3,504	3,676	3,805	3,862	3,865	3,829	3,757	3,639	3,476	3,167	2,658	n.a.	n.a.
Debt Held by Government Accounts														
Social Security	1,170	1,330	1,500	1,688	1,894	2,118	2,360	2,622	2,902	3,201	3,520	3,857	n.a.	n.a.
Other government accounts[b]	1,280	1,324	1,384	1,479	1,590	1,713	1,842	1,976	2,113	2,255	2,403	2,563	n.a.	n.a.
Total	2,450	2,654	2,884	3,167	3,484	3,830	4,202	4,598	5,015	5,457	5,924	6,419	n.a.	n.a.
Gross Federal Debt	5,770	6,157	6,560	6,972	7,346	7,695	8,031	8,354	8,654	8,933	9,090	9,077	n.a.	n.a.
Debt Subject to Limit[e]	5,733	6,120	6,528	6,944	7,324	7,673	8,010	8,333	8,633	8,913	9,070	9,058	n.a.	n.a.
Federal Debt as a Percentage of GDP														
Debt Held by the Public	33.1	33.9	34.1	33.5	32.4	30.8	28.9	26.9	24.8	22.5	19.4	15.5	n.a.	n.a.

Source: Congressional Budget Office.

Note: * = between -$500 million and zero; n.a. = not applicable.

a. Excludes interest costs of debt issued by agencies other than the Treasury (primarily the Tennessee Valley Authority).
b. Principally Civil Service Retirement, Military Retirement, Medicare, and Unemployment Insurance.
c. Primarily interest on loans to the public.
d. Earnings on private investments by the Railroad Retirement Board.
e. Differs from gross federal debt primarily because most debt issued by agencies other than the Treasury is excluded from the debt limit. The current debt limit is $6,400 billion.

thority, goes to the Department of Defense (DoD) to prosecute the war against terrorism and support other defense operations. Major recipients of the law's nondefense funding include the Transportation Security Administration, the Federal Emergency Management Agency, foreign aid programs, and federal transit grants.

CBO estimates that about $6 billion of the funding provided by P.L. 107-206 will be spent in 2002; the rest will be spent over the next few years. Of the $6 billion that will be spent this year, about $5 billion stems from appropriations to DoD.

Under the rules of the Deficit Control Act, CBO's baseline projections must assume that annual appropriations for discretionary programs continue at the current level, with increases each year for the projected rates of inflation. As a result, enactment of P.L. 107-206 causes discretionary outlays in CBO's baseline to increase by a total of $268 billion from 2003 through 2012.

Table 1-6.

Changes in CBO's Baseline Projections of the Surplus Since March 2002

(In billions of dollars)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total, 2003-2007	Total, 2003-2012
Total Surplus as Projected in March 2002	5	6	61	111	135	175	213	263	309	454	653	489	2,380
Changes to Revenue Projections													
Legislative	-43	-40	-30	-4	15	16	16	13	10	7	4	-43	7
Economic	*	-22	-35	-32	-20	-10	1	10	20	31	41	-119	-16
Technical	-104	-61	-61	-62	-61	-62	-66	-72	-74	-74	-75	-307	-668
Total Revenue Changes	**-146**	**-124**	**-126**	**-98**	**-66**	**-56**	**-50**	**-49**	**-45**	**-36**	**-30**	**-469**	**-678**
Changes to Outlay Projections													
Legislative													
Discretionary	6	23	23	25	26	27	28	28	29	30	30	123	268
Mandatory													
Farm bill	2	8	10	10	10	9	8	8	8	7	7	48	86
Trade act	*	*	1	1	1	1	1	1	1	1	1	3	6
Stimulus package	8	4	*	*	*	*	*	*	*	*	*	4	3
Spectrum auctions	0	3	*	1	-2	-2	0	0	0	0	0	-1	-1
Debt service	*	3	8	12	14	16	18	21	23	26	29	54	171
Other	*	*	*	*	*	*	*	*	*	*	*	*	*
Subtotal, mandatory	10	18	19	23	23	24	27	29	31	34	37	107	265
Subtotal, legislative	16	40	42	48	49	51	55	58	60	64	67	230	534
Economic													
Discretionary	*	-2	-4	-5	-4	-4	-3	-3	-2	-1	1	-19	-28
Mandatory													
Social Security	0	-1	-3	-4	-5	-6	-7	-8	-10	-11	-12	-18	-66
Unemployment insurance	-5	-4	*	-1	*	*	*	*	*	*	*	-5	-6
Net interest	1	-15	-12	-5	-1	*	*	*	*	*	*	-33	-34
Debt service	*	*	*	1	2	2	2	1	-1	-3	-5	5	-1
Other	*	-1	-1	-1	-1	-1	-1	-1	*	*	1	-4	-6
Subtotal, mandatory	-4	-21	-15	-9	-5	-6	-7	-9	-11	-14	-17	-55	-113
Subtotal, economic	-5	-23	-19	-13	-9	-10	-11	-12	-14	-14	-16	-74	-141
Technical													
Discretionary	-4	1	*	1	1	1	1	1	1	1	1	3	9
Mandatory													
Medicare	5	2	-1	-2	-3	-4	-5	-6	-7	-8	-10	-8	-43
Debt service	1	10	15	14	16	21	29	36	41	48	55	77	286
Other	3	-3	9	5	1	8	5	5	5	5	4	20	43
Subtotal, mandatory	8	10	24	17	14	25	30	35	39	44	49	90	286
Subtotal, technical	4	11	24	18	15	26	31	36	40	45	50	93	295
Total Outlay Changes	**16**	**28**	**47**	**52**	**54**	**68**	**75**	**81**	**87**	**95**	**102**	**249**	**688**
Total Impact on the Surplus	**-162**	**-151**	**-173**	**-150**	**-120**	**-123**	**-124**	**-130**	**-132**	**-131**	**-131**	**-718**	**-1,366**
Total Surplus or Deficit (-) as Projected in August 2002	-157	-145	-111	-39	15	52	88	133	177	323	522	-229	1,015
Memorandum:													
Total Legislative Changes	-59	-80	-71	-53	-34	-35	-39	-44	-51	-57	-63	-273	-527
Total Economic Changes	5	1	-16	-18	-11	*	12	22	33	45	57	-45	125
Total Technical Changes	-108	-72	-85	-79	-76	-88	-97	-108	-114	-119	-125	-400	-964

Source: Congressional Budget Office.

Note: * = between -$500 million and $500 million.

The new farm law—the Farm Security and Rural Investment Act of 2002 (P.L. 107-171)—will increase mandatory outlays by about $2 billion this year and $86 billion over the 2003-2012 period, CBO estimates. The law amends and extends major programs of the Department of Agriculture that deal with farm income support, land conservation, food assistance, trade promotion, rural development, research, forestry, and energy.[7]

The Trade Act of 2002 establishes procedures under which trade agreements are considered by the Congress on a parliamentary fast track, which bans amendments and allows only an up-or-down vote. The law also extends cash benefits and training to new categories of workers displaced because of imports, expands the length of unemployment coverage, and provides a refundable tax credit covering 65 percent of the cost of health insurance (55 percent for people receiving payments from the Pension Benefit Guaranty Corporation). CBO estimates that the law will add about $1 billion a year to outlays from 2004 through 2012.

The Job Creation and Worker Assistance Act will raise outlays by $8 billion in 2002 and $4 billion in 2003, CBO estimates, mostly for temporary emergency assistance to people whose regular unemployment benefits have run out. The law grants long-term unemployed workers up to 13 weeks of emergency compensation regardless of their state's unemployment rate. In some states with especially high unemployment rates, those workers could receive an additional 13 weeks of benefits.

The 2002 Auction Reform Act (P.L. 107-195) repealed most of the statutory deadlines for the Federal Communications Commission to auction licenses for use of the electromagnetic spectrum. Although the law is expected to have little net effect over the 2003-2012 period (increasing offsetting receipts by less than $1 billion), CBO estimates that it will change the timing and amount of offsetting receipts likely to be collected over the next five years. Relative to the March baseline, auction proceeds are now projected to be lower during the 2003-2005 period but higher in 2006 and 2007.

In all, the legislation enacted since CBO's previous baseline will reduce projected surpluses by $59 billion this year and by a total of $356 billion over the 2003-2012 period (excluding effects on debt service). Those changes will necessitate more government borrowing throughout the 10-year period, so outstanding debt will be higher than it otherwise would have been. As a result, CBO estimates, added interest payments on federal debt because of the recent legislative changes will be small in 2002 but will total $171 billion over the 2003-2012 period—bringing the total impact of legislation enacted since the end of February to $527 billion over those 10 years.

The Effects of Economic Changes

Changes in the economy since March have prompted CBO to revise its economic outlook, lowering its forecast for inflation, unemployment, and short-term interest rates and raising its projection for growth of nominal income (income not adjusted for inflation) after 2005. (For a detailed discussion of CBO's new economic forecast, see Chapter 2.) Those changes affect projections of both revenues and outlays. Unlike legislative and technical changes, economic revisions to the baseline brighten the budget picture—reducing this year's deficit by $5 billion and increasing the projected surplus for the 2003-2012 period by $125 billion (*see Table 1-6)*.

Revenues. Changes in the economic outlook have a negligible effect on the revenue projection for 2002 and decrease projected revenues for the 2003-2012 period by $16 billion. That relatively small reduction over 10 years, however, includes more-substantial changes in certain years.

The new economic forecast implies lower revenues from 2003 through 2007 than CBO projected last March but higher revenues beginning in 2008. Slower projected growth of nominal income in 2003 through 2005 reduces revenue projections for those years: by $22 billion, $35 billion, and $32 billion, respectively. Thereafter, nominal income is projected to grow faster than previously anticipated. As a result, the revenue reductions

7. For most programs, the law covers fiscal years 2002 through 2007. For many of those programs, however, the baseline includes costs through 2012, as required by the Deficit Control Act.

shrink for 2006 and 2007 and, by 2008, give way to increases in projected revenues, which grow to $41 billion by 2012.

Outlays. Changes in the outlook for such economic variables as inflation, unemployment, and interest rates lower CBO's 10-year spending projection by $141 billion. One-fifth of that decrease involves discretionary spending; most of the effect is on mandatory programs.

For projecting discretionary spending, the Deficit Control Act specifies the measures of inflation to be used: the GDP deflator and the ECI for wages and salaries. Thus, projections of discretionary spending are highly sensitive to assumptions about the future values of those measures. CBO's current projections for the GDP deflator are slightly lower each year than they were in March. In addition, its projections for the growth rate of the ECI are 0.9 percentage points lower for 2003 and 0.2 percentage points lower for 2004; after that, the ECI is projected to grow slightly faster than in the previous forecast. Those changes in projected inflation rates reduce discretionary outlays in the new baseline by $2 billion to $5 billion per year through 2010 and by lesser amounts thereafter—for a total reduction of $28 billion over 10 years.

Unlike discretionary spending, mandatory outlays in CBO's baseline are determined by provisions of permanent law enacted up to the time the projection is made. Changes in CBO's economic forecast reduce projections of mandatory spending by a total of $113 billion for the 2003-2012 period. Social Security and unemployment insurance are the two mandatory programs most affected by the revised economic forecast.

CBO's projection for Social Security spending over the 2003-2012 period is $66 billion lower than in the March baseline (out of a total projected cost for the program of nearly $6 trillion over those 10 years). The largest factor contributing to the change is a decrease in CBO's forecast for the growth of wages, which reduces the projected growth of Social Security benefits for future recipients. In addition, lower projections for inflation reduce CBO's estimates of the cost-of-living adjustment (COLA) made to Social Security benefits each year. Compared with those in the March baseline, COLAs are now expected to be smaller in 2003 and 2004, decreasing total Social Security payments by an estimated $1.4 billion in 2003 and $2.2 billion in 2004.

Other, much smaller income-security programs receive mandated cost-of-living adjustments and are similarly affected by CBO's revised forecast for inflation. They include Railroad, Civil Service, and Military Retirement; Supplemental Security Income; and veterans' compensation and pensions.

COLAs are not the only federal payments affected by the economy; payments of unemployment compensation are linked to the unemployment rate. CBO has lowered its forecast of the unemployment rate for 2002 from 6.0 percent to 5.8 percent and raised its forecast of the unemployment rate for 2004 from 5.4 percent to 5.6 percent. (The rates projected for 2003 and the years beyond 2004 are the same as in CBO's previous forecast.) On net, those revisions reduce projected payments of unemployment benefits by $5 billion this year, by $4 billion in 2003, and by small amounts thereafter.

Lower projections for short-term interest rates drive projected net interest payments below the levels in the March baseline. CBO has reduced its forecast of the interest rate on three-month Treasury bills in 2003 from 4.0 percent to 2.4 percent. The forecast for next year's rate on 10-year Treasury notes has decreased by a much smaller amount, from 5.3 percent to 5.2 percent. Those changes reduce the projection for federal net interest costs by $15 billion for 2003 and $12 billion for 2004. (By middecade, CBO's projections for interest rates return to their previous long-term level—4.9 percent for three-month bills and 5.8 percent for 10-year notes.)

Overall, revisions to CBO's economic forecast lower projected revenues by $16 billion over the decade but reduce outlays by $140 billion (excluding debt service), thus raising projected surpluses. However, because those revisions reduce surpluses in the near term and increase them in later years, the net impact on debt service over the 10-year period is very small.

The Effects of Technical Changes

Technical changes represent all other modifications to the baseline not directly related to enacted legislation or to revisions in the variables in CBO's economic forecast. About $108 billion of the $162 billion drop in 2002 is driven by technical changes, almost all of them to the revenue projections (*see Table 1-6*). For the succeeding 10 years, technical reestimates lower the total projected surplus by $964 billion, of which close to 70 percent represents changes in revenue projections.

Revenues. Nearly all of the cumulative change to CBO's revenue projections since March involves technical revisions. Those changes reduce projected revenues by $104 billion this year and by $668 billion over the 2003-2012 period. The revisions are largely prompted by recent information on total tax collections.

So far this year, receipts from both individual and corporate income taxes have been lower than CBO projected in March. Total income appears to be growing at the expected rate, although from a lower base, so revisions to CBO's revenue projection for this year cannot be classified as economic reestimates. Instead, the sharp downward revision for 2002 that is not attributable to recent legislation—just over $100 billion—represents technical reestimates. Information about the sources of individual income responsible for this year's weakness in tax receipts will not become available until later in the year.

Although detailed data are lacking, CBO believes that some of the decline in both individual and corporate income tax receipts this year is likely to prove temporary. An analysis of individual tax receipts suggests that taxpayers paid an unusually large percentage of their 2001 tax liabilities in withholding and estimated payments, meaning that less was paid in 2002 when taxpayers filed their returns.[8] One reason is that taxpayers may have set their 2001 withholding and estimated payments at a level consistent with the higher bonuses and capital gains realizations they experienced in previous years. Thus, by year's end, their payments proved to be too high when bonuses and capital gains turned out to be smaller than in previous years. In addition, to the extent that weakness in earnings occurred unevenly throughout the year, taxpayers may have paid withholding at a higher marginal rate than would have been the case if their earnings had been steady during the year. In either case, tax receipts would have been lower in 2001 and higher in 2002 had that unusual payment pattern not occurred.

Part of CBO's downward technical reestimate to projected individual receipts for 2002—roughly $25 billion—reflects that phenomenon. CBO expects withholding and estimated tax payments to return to a more normal pattern for tax years 2002 and beyond, making that $25 billion of weakness in this year's receipts temporary. In addition, about $10 billion of CBO's $30 billion downward technical reestimate to 2002 corporate receipts is considered a one-time event, resulting from recent court cases and from the tax cuts in the economic stimulus law. As a result, the downward technical reestimate to revenues for 2003 is smaller than the one for this year ($61 billion versus $104 billion).

Some of the decline in receipts in 2002 probably represents unexpectedly weak realizations of capital gains in calendar year 2001. Capital gains realizations are not part of national income or GDP, but individuals and corporations must pay taxes on them. Consequently, capital gains realizations can grow more rapidly or fall more precipitously than national income, resulting in changes in revenue that are proportionally greater or smaller than changes in overall economic activity. CBO's analysis indicates that rapid growth of capital gains realizations from 1995 to 1999 explained about 30 percent of the increase in individual income tax receipts as a share of GDP during those years, so capital gains realizations may be playing a major role in the decrease in receipts this year as well. Information about the amount of capital gains realizations for 2001 reported on tax returns will not be available until later this year.

Despite their volatility, capital gains are not big enough to plausibly explain all of the weakness in receipts this year. In its January and March 2002 baselines, CBO projected liabilities of $100 billion from capital gains

8. For more information about changes in revenues since 2001, see Congressional Budget Office, *Where Did the Revenues Go?* CBO Revenue and Tax Policy Brief (August 13, 2002).

Table 1-7.

Comparison of CBO's August 2002 Baseline and OMB's July 2002 Current-Services Estimates

(In billions of dollars)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total, 2003-2007	Total, 2003-2012
CBO's August 2002 Baseline													
Revenues	1,860	1,962	2,083	2,244	2,381	2,513	2,658	2,809	2,965	3,243	3,521	11,184	26,379
On-budget	1,345	1,422	1,516	1,649	1,756	1,855	1,966	2,081	2,199	2,438	2,675	8,198	19,556
Off-budget	515	540	567	595	626	658	692	728	766	805	846	2,986	6,823
Outlays													
Discretionary	733	782	803	827	845	864	889	912	936	965	983	4,121	8,807
Mandatory	1,113	1,161	1,200	1,248	1,309	1,386	1,471	1,560	1,657	1,771	1,853	6,305	14,616
Net interest	170	164	191	208	213	212	209	204	195	183	164	987	1,941
Total	2,017	2,107	2,195	2,283	2,366	2,461	2,569	2,676	2,788	2,920	2,999	11,413	25,364
On-budget	1,659	1,737	1,815	1,895	1,964	2,046	2,139	2,228	2,321	2,433	2,489	9,457	21,068
Off-budget	358	370	379	388	402	416	430	447	467	486	510	1,955	4,296
Surplus or Deficit (-)	**-157**	**-145**	**-111**	**-39**	**15**	**52**	**88**	**133**	**177**	**323**	**522**	**-229**	**1,015**
On-budget	-314	-315	-299	-246	-209	-190	-173	-147	-122	4	185	-1,259	-1,513
Off-budget	157	170	188	207	224	242	262	280	299	319	337	1,031	2,527
OMB's July 2002 Current-Services Estimates													
Revenues	1,868	2,035	2,180	2,369	2,475	2,595	2,727	2,865	3,011	3,256	3,505	11,653	27,017
On-budget	1,353	1,495	1,611	1,761	1,837	1,924	2,025	2,129	2,235	2,441	2,652	8,628	20,110
Off-budget	515	540	569	608	638	670	703	736	776	815	852	3,025	6,907
Outlays													
Discretionary	733	759	783	802	817	833	855	875	896	921	936	3,995	8,477
Mandatory	1,114	1,168	1,203	1,258	1,320	1,388	1,471	1,557	1,652	1,761	1,832	6,336	14,609
Net interest	171	179	193	192	187	180	171	159	146	130	107	931	1,644
Total	2,018	2,106	2,179	2,253	2,324	2,401	2,496	2,591	2,694	2,812	2,875	11,262	24,730
On-budget	1,661	1,739	1,799	1,863	1,923	1,985	2,065	2,141	2,222	2,319	2,357	9,309	20,413
Off-budget	358	367	380	389	401	415	431	450	472	493	518	1,953	4,317
Surplus or Deficit (-)	**-150**	**-71**	**1**	**117**	**151**	**194**	**231**	**273**	**317**	**444**	**630**	**392**	**2,286**
On-budget	-308	-244	-187	-102	-86	-61	-41	-12	13	122	296	-681	-303
Off-budget	157	173	189	219	237	255	272	286	304	322	334	1,072	2,590

(Continued)

realizations in tax year 2001. Those projections already incorporated a 20 percent drop in realizations from the 2000 level, largely because of the fall in the stock market. Analysts now know that the distribution of capital gains from mutual funds fell steeply in 2001—reportedly by about 80 percent. However, total gains realizations differ from mutual fund gains. Although stocks are the principal component of mutual funds, they account for only half of taxable capital gains, with the rest coming from other capital assets, such as real estate. Consequently, total gains probably fell less than gains from mutual funds did.

Beyond 2002, CBO's March forecast reflected a further gradual decline in capital gains realizations, anticipating that they would revert to their long-term relationship with GDP. Since CBO has not changed its view of that long-term relationship, a decline in revenues because of lower capital gains realizations in the short run will diminish over the course of the projection period.

Table 1-7.

Continued

(In billions of dollars)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total, 2003-2007	Total, 2003-2012
						Difference (CBO minus OMB)							
Revenues	-8	-72	-97	-126	-93	-81	-70	-56	-46	-13	16	-469	-638
On-budget	-8	-72	-95	-112	-81	-69	-59	-48	-36	-3	22	-430	-554
Off-budget	*	*	-2	-13	-12	-12	-11	-8	-10	-10	-6	-39	-84
Outlays													
Discretionary	-1	23	20	24	28	31	35	37	40	44	47	126	329
Mandatory	*	-7	-3	-9	-11	-2	*	3	5	10	21	-32	7
Net interest	-1	-15	-2	16	25	32	38	44	49	54	56	56	298
Total	-2	2	16	31	43	61	73	84	94	108	124	151	634
On-budget	-2	-2	17	32	42	60	74	87	99	115	133	148	655
Off-budget	*	3	-1	-1	1	*	-1	-3	-5	-7	-9	3	-21
Surplus or Deficit	**-7**	**-74**	**-113**	**-156**	**-136**	**-142**	**-143**	**-140**	**-140**	**-121**	**-108**	**-620**	**-1,272**
On-budget	-6	-71	-112	-144	-123	-129	-133	-135	-135	-118	-111	-578	-1,209
Off-budget	*	-3	-1	-12	-13	-13	-10	-5	-5	-3	3	-42	-63

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

Note: * = between -$500 million and $500 million.

Other factors may help explain this year's drop in revenues and may also affect revenues in the future. It is possible that the income reported by individual and corporate taxpayers on their tax returns for 2001 and the income earned during the first half of this year may turn out to be lower than what is currently reflected in the national income and product accounts (despite the recent revisions to those accounts). That difference could explain part of the unexpected weakness in revenues in 2002. In addition, if income grows at the same pace as in CBO's forecast but starts from a lower level, it will produce a similar decline in receipts in future years.

A full understanding of the weakness in this year's receipts requires data from tax returns, which are not processed until after the receipts are counted. Many individual returns—especially those of high-income taxpayers, who pay much of the revenue—are not filed until later in the year because of filing extensions. A complete picture of the income on which people pay taxes, therefore, is often not available for more than a year after the tax year ends. Nevertheless, given the likelihood that a large part of the revenue weakness in 2002 will turn out to be from sources that CBO considers permanent, CBO has reduced its revenue projections for technical reasons by $60 billion to $75 billion each year from 2003 through 2012.

Outlays. The single largest technical revision to projected outlays—an upward reestimate of $286 billion over 10 years—reflects additional debt-service costs, mostly stemming from the technical changes that reduce projected revenues. Other technical revisions to CBO's spending projections largely offset each other, leaving a net reestimate of a similar amount ($295 billion for the 2003-2012 period).

For discretionary spending, the largest technical changes apply to the current fiscal year. Those revisions, which chiefly reflect new information about spending so far this year, decrease projected discretionary outlays by nearly $4 billion in 2002. For the 2003-2012 period, other technical adjustments raise projected discretionary spending by a total of $9 billion.

Although the revisions for 2002 affect nearly all budget functions, the largest involves defense outlays, which are now projected to be about $4 billion lower than CBO previously estimated (excluding additional spending from the supplemental appropriations). This year, spending has grown more slowly than anticipated for a number of defense programs—primarily military medical care and other operation and maintenance activities. Outlays for defense procurement and military pay have been higher than expected, but those increases are partly offset by lower-than-expected spending for research programs and military construction.

In the mandatory category, CBO has increased its estimate of Medicare outlays this year by $4.5 billion because of higher-than-anticipated spending since February. For the following 10 years, however, CBO has reduced its projections of Medicare spending by a total of $43 billion. Specifically, it has lowered the spending projections for home health care and skilled nursing facilities because of updated analyses of the relationship between the use of post-acute-care services and the incidence of disabilities and hospitalizations among Medicare enrollees. That reduction is partly offset by a net increase in CBO's projection for physician payments over 10 years, which reflects a recently announced change in the method for adjusting components of the Medicare economic index for increases in productivity. Over the 2003-2012 period, such revisions to Medicare are offset by projected increases in spending for other mandatory programs.

CBO's Baseline Compared with OMB's Current-Services Estimates

The Administration's Office of Management and Budget (OMB) published its annual *Mid-Session Review* of the President's budget on July 15. In that report, OMB updated its baseline budget projections (also known as current-services estimates) and its economic assumptions for 2003 through 2012. Because its estimates were prepared before CBO's, they do not reflect the precipitous drop in the stock market, the Bureau of Economic Analysis's revisions of economic data for the past three years, or the recently enacted supplemental appropriation law, P.L. 107-206.

The two agencies' baseline budget projections are similar for this year but diverge, sometimes significantly, for the succeeding 10 years (*see Table 1-7 on page 16)*. Both OMB and CBO estimate a deficit for 2002—OMB projects a figure of $150 billion, close to CBO's estimate of $157 billion. (Almost all of the difference is attributable to the supplemental appropriation law.) After that, OMB projects a deficit of $71 billion for 2003 and a tiny surplus ($1 billion) for 2004, whereas CBO's baseline projections do not show a surplus until 2006. For the 10-year period, OMB projects a cumulative surplus of $2.3 trillion, compared with CBO's projection of $1.0 trillion.

Revenues over the 2003-2012 period are $638 billion higher in OMB's baseline than in CBO's, a difference of 2.4 percent. The bulk of the difference—all but roughly $50 billion—results from differences in the two agencies' economic projections. In particular, CBO projects slower growth of GDP and its major income component, wage and salary disbursements, through 2005.

On the spending side, CBO projects $634 billion more in outlays over 10 years than the Administration does, a difference of 2.6 percent. However, enactment of P.L. 107-206 between the time that OMB prepared its current-services estimates and CBO produced its new baseline accounts for much of the difference in projections of discretionary spending. Adjusted for that law, CBO's projection of discretionary outlays is not much higher than OMB's over the 2003-2012 period.

For mandatory spending programs, CBO projects $7 billion more in outlays over 10 years than the Administration does, or just 0.05 percent. However, that small difference masks some larger variation for specific programs. For example, CBO is projecting $121 billion more in spending for Medicare over the 10-year period than the Administration estimates; but its projection of spending for Medicaid over 10 years is $85 billion lower than the Administration's.

The combination of lower revenues and higher spending in CBO's baseline produces larger projections of federal debt. That difference is the main reason that projected

net interest costs over the 2003-2012 period are $298 billion higher in CBO's baseline than in OMB's.

The Long-Term Outlook

Although the budget outlook has deteriorated since March, CBO still projects that surpluses would return within the next several years if current policies remained the same. The outlook for the economy over the coming decade is favorable—with real economic growth of more than 3 percent a year, on average, declining unemployment, and stable prices.

The longer term, however, remains problematic. Without changes to federal programs for the elderly, the aging of the baby-boom generation will cause a historic change in the United States' fiscal position. The demographics are inexorable: the number of people of retirement age will nearly double over the next 30 years (from 36 million to almost 69 million), while the number of workers will grow by only 15 percent. Little can be done to change that phenomenon. All of those future retirees are alive today, as are most of the people who will be working then. Only a change in immigration policy can drastically alter the U.S. workforce over the next 30 years. In addition to those demographic factors, costs per enrollee in federal health care programs are likely to grow much faster than inflation.

As a result, the amount that the government spends on its major health and retirement programs (Medicare, Medicaid, and Social Security) is projected to consume a substantial portion of what the government now spends on the entire budget. Consequently, either taxes on the next generation of workers will need to rise dramatically, spending on other federal programs will have to be cut severely, or federal borrowing will soar (although capital may be scarce because other countries are likely to face similar or even worse budget problems because of their own demographic changes).

Beyond 2030, those pressures will intensify as longevity continues to increase and health costs continue to grow. Simply weathering the baby-boom surge would not be enough to restore federal fiscal policy to its recent norms. Only reforming programs for the elderly before the baby boomers retire and enacting policies to enhance economic growth could mitigate the demands on future generations.

CHAPTER

2

The Economic Outlook

The Congressional Budget Office believes that the economy will continue its modest recovery this year and will return to more robust growth next year. Real (inflation-adjusted) gross domestic product is expected to grow by 2.3 percent in calendar year 2002 and by 3.0 percent in 2003 (*see Table 2-1 and Figure 2-1*). However, the unemployment rate may not fall very far below 6 percent until the second half of 2003. Price inflation as measured by the consumer price index for all urban consumers (CPI-U) is projected to rise from 1.7 percent this year to a modest 2.4 percent in 2003. Interest rates on 10-year Treasury notes are expected to average 4.9 percent in 2002 and 5.4 percent in 2003.

The persistence and vigor of the recovery are uncertain. A big question is the impact of the stock market's large drop since March, which risks depressing consumption and investment by more than the effects incorporated in the current forecast. Other major unknowns are the extent to which the collapse in investment during the recession has eliminated businesses' excess productive capacity, and the prospects for and implications of volatility in business, consumer, and investor confidence. Foreign demand also remains uncertain. Overlaying these concerns are the evident risks of further terrorist acts and a widening of the war on terrorism.

CBO's medium-term projections, spanning the period 2004 through 2012, have changed little since March, and what changes there have been largely result from the annual July revision to the national income data maintained by the Bureau of Economic Analysis (BEA). CBO still expects the growth of real GDP to average 3.2 percent over the period. But because the July revision lowered the estimated level of real GDP in 2001, CBO's new projection of the level in 2012 is $12,844 billion, or almost 1 percent below its earlier estimate. The shares of national income devoted to wages and salaries and to profits—categories that are taxable at high rates and thus produce substantial revenues—are also smaller than those CBO projected in March.

Recent Economic Developments

The economy is still adjusting to the repercussions of the boom in investment of the late 1990s. Expectations of surges in output, profits, and income, fostered in part by genuine gains in productivity, inflated corporate stock prices and boosted investment by businesses to ever-higher levels. Consumer spending also grew rapidly in response to a solid expansion in real income and burgeoning gains in stock market wealth, and the personal saving rate fell by approximately half. As those economic indicators reached unsustainable levels, stock prices began to fall in 2000, and spending plans were cut back. Inventories of unsold goods built up quickly, forcing businesses to reduce spending further and to cut their prices. In the first quarter of last year, the economy entered a recession.

The slowdown turned out to be relatively mild, in large measure because fiscal and monetary policymakers took vigorous and timely action to bolster the economy. The personal income tax rebates in the late summer and fall of 2001 pushed up disposable personal income and supported consumer spending. The Federal Reserve lowered

Table 2-1.

CBO's Current and Previous Economic Projections for Calendar Years 2002 Through 2012 (Corrected, August 26, 2002)

	Actual	Forecast		Projected Annual Average	
	2001	2002	2003	2004-2007	2008-2012
Nominal GDP (Billions of dollars)					
August 2002	10,082	10,429	10,912	13,414[a]	17,358[b]
March 2002	10,206	10,521	11,092	13,639[a]	17,532[b]
Nominal GDP (Percentage change)					
August 2002	2.6	3.4	4.6	5.3	5.3
March 2002	3.4	3.1	5.4	5.3	5.1
Real GDP (Percentage change)					
August 2002	0.3	2.3	3.0	3.2	3.1
March 2002	1.2	1.7	3.4	3.2	3.1
GDP Price Index (Percentage change)					
August 2002	2.4	1.1	1.6	2.0	2.1
March 2002	2.2	1.4	2.0	2.0	2.0
Consumer Price Index[c] (Percentage change)					
August 2002	2.8	1.7	2.4	2.5	2.5
March 2002	2.9	1.8	2.5	2.5	2.5
Unemployment Rate (Percent)					
August 2002	4.8	5.9	5.9	5.3	5.2
March 2002	4.8	6.1	5.9	5.2	5.2
Three-Month Treasury Bill Rate (Percent)					
August 2002	3.4	1.7	2.9	4.9	4.9
March 2002	3.4	2.2	4.5	4.9	4.9
Ten-Year Treasury Note Rate (Percent)					
August 2002	5.0	4.9	5.4	5.8	5.8
March 2002	5.0	5.0	5.5	5.8	5.8
Tax Bases (Percentage of GDP)					
Corporate book profits					
August 2002	6.6	5.9	6.1	8.2	8.3
March 2002	7.1	6.9	7.2	7.9	8.1
Wages and salaries					
August 2002	49.1	48.3	48.4	48.4	48.4
March 2002	50.0	49.8	49.9	49.3	48.9
Tax Bases (Billions of Dollars)					
Corporate book profits					
August 2002	670	611	666	1,166[a]	1,408[b]
March 2002	720	730	803	1,101[a]	1,425[b]
Wages and salaries					
August 2002	4,951	5,034	5,282	6,498[a]	8,408[b]
March 2002	5,098	5,243	5,538	6,695[a]	8,565[b]

Source: Congressional Budget Office.

Notes: The March 2002 values for GDP and its components are based on data from the national income and product accounts before the July 2002 revision. However, some of the numbers for March 2002 in the printed version of this table were inadvertently drawn from CBO's January forecast. They are corrected here.

Percentage changes are year over year.

Year-by-year economic projections for calendar years 2002 through 2012 appear in Appendix B.

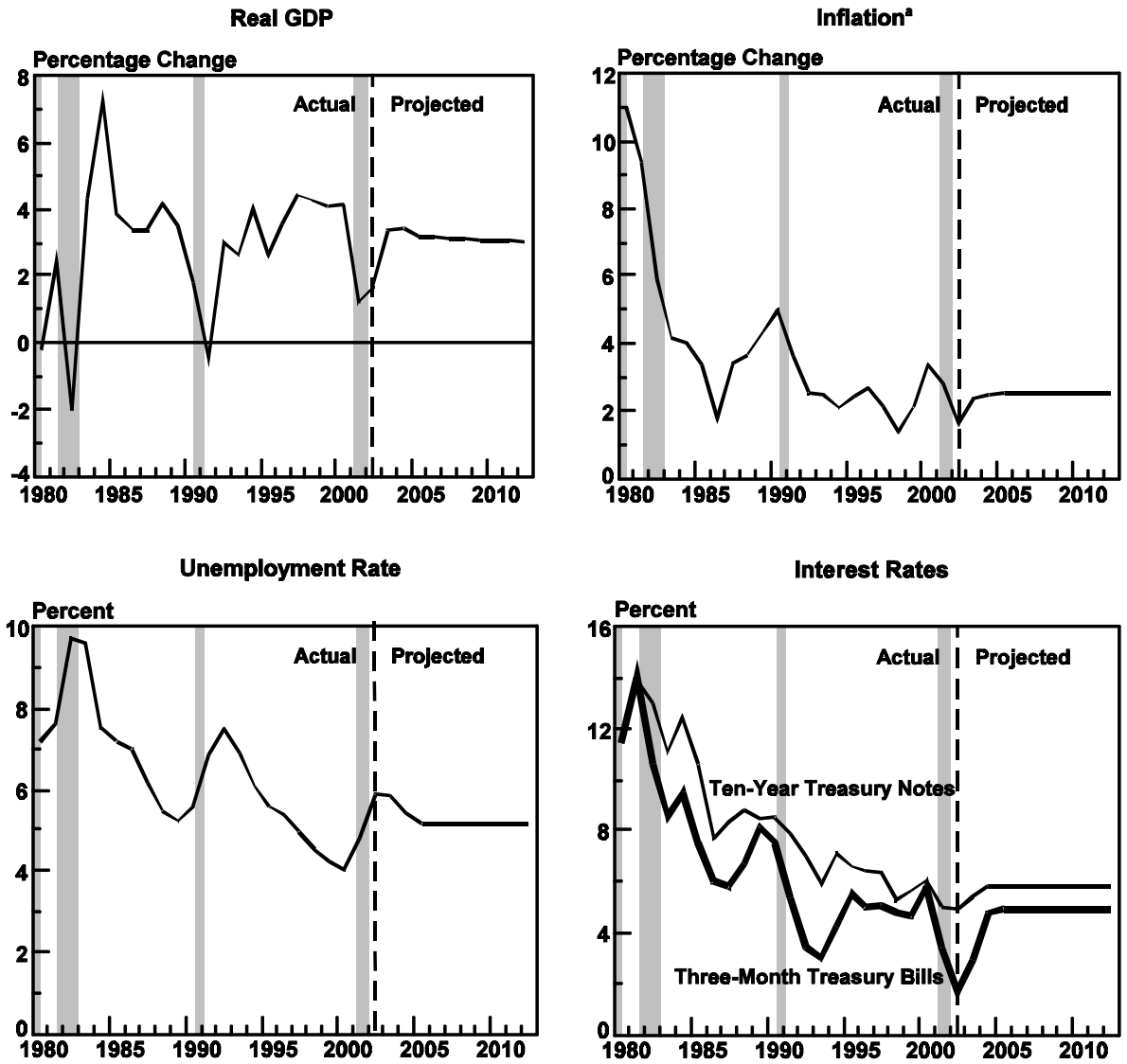
a. Level in 2007.

b. Level in 2012.

c. The consumer price index for all urban consumers.

Figure 2-1.

The Economic Forecast and Projections



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

Notes: All data are annual values; percentage changes are year over year.

The trough of the latest recession is assumed to be at the end of 2001.

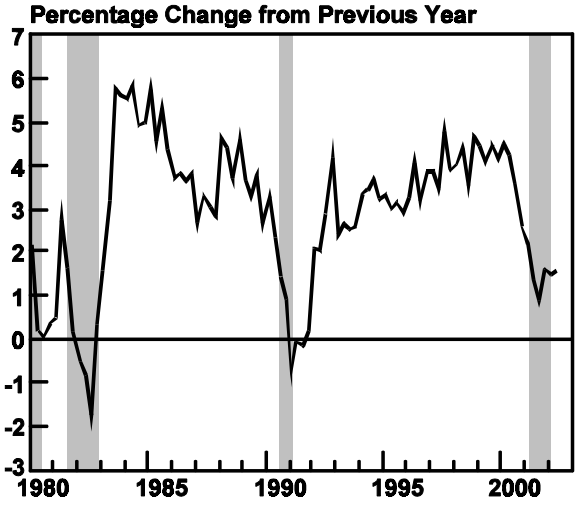
a. The change in the consumer price index for all urban consumers, applying the current methodology to historical price data (CPI-U-RS).

its target for the federal funds interest rate (the overnight rate for banks' loans to other banks) from 6.5 percent at the end of 2000 to 1.75 percent in December of last year, and market rates fell in turn. Interest rates on conventional fixed-rate home mortgages in particular fell to very low levels, and the drop spurred home sales and raised mortgage refinancing to record high levels. Lower interest rates had little effect on businesses' investments in plant and equipment, however, because firms—especially those in the information technology sector—had created excess capacity during the boom.

The economy began to turn around late last year. Consumer spending on motor vehicles increased dramatically, responding to low-interest financing offers from auto manufacturers—which then sharply reduced their inventories and boosted output. Real federal spending on national defense, homeland security, and disaster recovery also climbed rapidly in the aftermath of the terrorist attacks in September. Nevertheless, the growth of total final demand during the recovery has remained weak (*see Figure 2-2*). Measured as real final sales (output minus inventory investment), real final demand rose at an average annual rate of only 2.1 percent from the third quarter of 2001 to the second quarter of this year—well below estimates of the pace at which the economy's productive capacity can expand. Excluding government spending, real private final demand has been weaker still, rising by only 1.3 percent (measured as an annual rate) during the same period.

Figure 2-2.

Real Final Demand



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

Note: Real (inflation-adjusted) final demand is real GDP minus the real change in business inventories.

Since the first quarter of this year, dwindling confidence in the durability of the recovery and the reliability of corporate financial reporting has threatened to derail the expected economic upturn. Stock price indexes fell by more than 20 percent from March to July, reducing consumer wealth by upwards of $2 trillion and raising the cost of capital for businesses. Combined with additional uncertainty about the likelihood of future terrorist attacks and military action, the drop in stock prices over the past five months is likely to restrain consumers' and businesses' spending in the near term.

Financial Conditions and Monetary Policy

The financial environment appears less likely, on balance, to encourage economic activity in the near term than CBO expected last March. Partially offsetting the slower spending caused by the decline in the stock market will be monetary policy that is "easier" (more stimulative) than anticipated and the recent, unexpected fall in the dollar. The Federal Reserve has kept the overnight federal funds rate exceptionally low (1.75 percent) since December 11, 2001. And the drop in the dollar should help U.S. firms compete with foreign producers. Nevertheless, the net effect of financial developments since March is still negative.

One way to assess overall financial conditions is to use an index, such as the one calculated by Macroeconomic Advisers (a private forecasting firm), to combine the stance of monetary policy with a quantitative assessment of the channels through which it operates (*see Figure 2-3*). The index draws on statistical relationships between GDP and financial variables such as interest rates, exchange rates, and stock market measures. Currently, it suggests that despite the Federal Reserve's policies, financial conditions today are not much better than they were at the beginning of 2001, because most of the strengthening effect of the decline in short-term interest rates has been offset by the drop in the stock market. In addition,

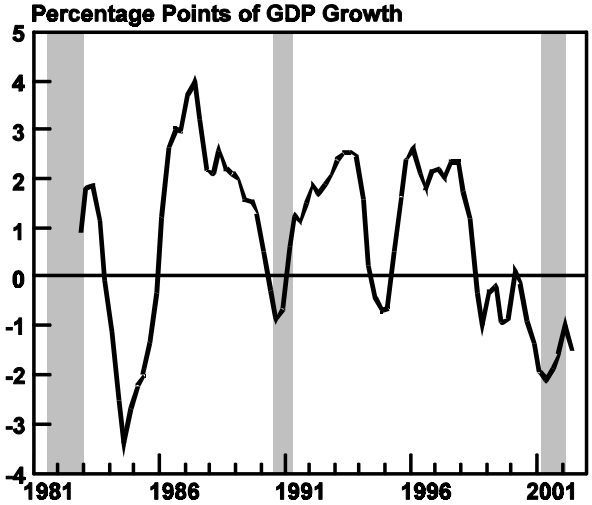
the power of monetary policy to stimulate interest-sensitive expenditures may be limited if the demand for consumer durable goods is already largely satisfied and businesses remain cautious about capital spending.

The Stock Market. Stock price indexes have not only fallen substantially this year—back to levels that were last seen in 1997—but they have also been quite volatile. For example, Standard & Poor's index of 500 stocks (the S&P 500) lost about one-quarter of its value from the end of March to early August, erasing what the market had regained in the aftermath of the terrorist attacks. Investors may have reassessed their assumptions about the prospects for earnings, particularly in high-technology sectors, in the light of recent economic news and revelations of accounting irregularities. Some analysts see gains ahead for stocks, but others continue to ponder whether, despite the declines, stocks are still valued on the high side (*see Box 2-1*).

Interest Rates. The financial markets' expectations of near-term strength in the economy have soured, and concerns about the riskiness of many businesses have risen. In response, many investors have turned to the relative safety of low-risk bonds, which has pushed up bond prices and brought down the rates of return that they pay. Thus, long-term interest rates on low-risk government and investment-grade bonds have drifted down from their levels in March. However, some business borrowers—particularly firms whose bonds are considered non-investment-grade, or more risky—must continue to include a sizable risk premium in their rates in order to find investors (*see Figure 2-4*). Bigger premiums are also required for the debt of corporations that are suspected of unreliable financial reporting or are thought to be facing downgrades in their bonds' ratings.[1] Because of the increases in risk premiums, few businesses have seen their cost of borrowing fall by as much as the rate on 10-year government notes.

Figure 2-3.

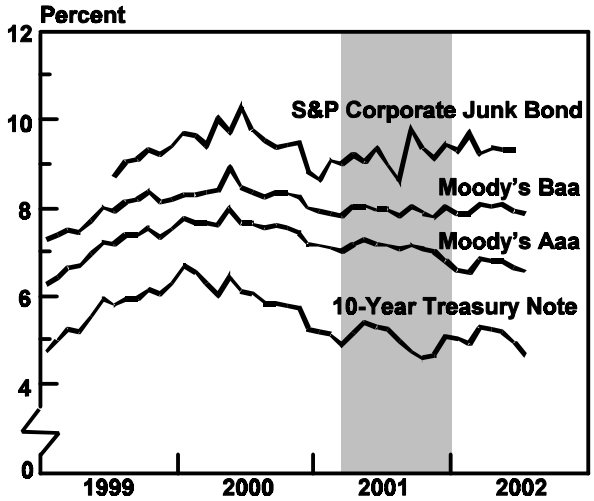
An Index of Monetary and Financial Conditions



Sources: Congressional Budget Office; Macroeconomic Advisers, LLC.
Note: The index measures how financial variables such as interest rates, stock prices, and the stock market affect the growth of real (inflation-adjusted) GDP.

Figure 2-4.

Rates on Treasury Notes and Corporate Bonds



Sources: Congressional Budget Office; Federal Reserve Board; Standard & Poor's.
Note: Aaa is Moody's highest investment-grade bond; Baa is Moody's lowest investment grade. The grade on Standard & Poor's corporate junk bond is BB+.

1. Private companies, such as Moody's, Standard & Poor's, Fitch, and others, provide ratings of corporations and of state, local, and national governments that investors can use to judge the riskiness of bonds and other liabilities issued by those borrowers. The higher the rating, the less likely is the borrower to default on the liability; a downgrade in the rating means that the likelihood of default has increased.

Box 2-1.

Gauging Stock Market Wealth

Large swings in stock prices, such as those occurring this year, can appreciably affect the growth rate of the economy over the two-year period of the Congressional Budget Office's forecast. Stock market wealth, as a large part of household wealth, affects how much consumers spend; stock prices also influence the investment decisions of corporations. The nature and magnitude of those effects will depend on whether the recent sharp fall in stock prices is seen as temporary or relatively permanent and on whether prices continue to drop or reverse course.

But the great volatility in stock prices and dramatic rise and subsequent fall of broad stock market measures have left most observers wondering if any view of where stock prices are headed can be taken seriously. Stock valuations gauge the returns to the investor: the standard notion is that the expected return from holding stocks should approximate the expected return from holding default-free securities (such as Treasury debt) over the same period, plus a "risk premium" to compensate for the possible default of the stock issuer and other risks associated with owning stocks. The expected return to investors in any period consists of the dividends they anticipate from the firm's earnings combined with the appreciation in the stock's price that they hope will result from the company's fruitful reinvestment of its retained earnings (earnings less dividends).

Historically, support for that standard method of valuation is found in the approximately similar trends of stock prices, earnings, and (until recently) dividends (see the figure). Thus, changes in the current value of a company's stock should vary directly with altered views about its prospective earnings and dividends and inversely with changes in interest rates and the risk premium attached to the stock. As the recent revelations about accounting and management irregularities have affirmed, investors' valuations will depend heavily on information about any event—including but not limited to news about earnings—that bears significantly on a company's prospects.

Although analysts might agree on the elements of the standard view, they often disagree strongly on how the elements fit together to determine stock prices. For example, economists differ widely about the ratio of stock prices to earnings —the P/E ratio—that should prevail over long periods. Their disagreements imply broadly contrasting ideas about the overall value of stock market wealth. Robert Shiller, a professor at Yale University, has concluded from his research that stock prices will eventually adjust to an average P/E ratio just shy of 15 over the long run.[1] That assessment gains credibility from Shiller's accurate prediction, in 1996, of an eventual collapse in stock prices.

By contrast, Jeremy Siegel, of the Wharton School of the University of Pennsylvania, has concluded that a P/E value in the low 20s is now more appropriate; his opinion is based on today's lower transaction costs, low inflation, and favorable tax rates for capital gains.[2] Applying his hypothesis to earnings would imply that stock prices should be more than 33 percent higher than the level suggested by Shiller. In even greater contrast, Kevin Hassett and James Glassman of the American Enterprise Institute suggest that higher P/Es, arguably three to five times higher than those already mentioned, could prevail should investors come to believe that long-term stock returns were potentially as safe as the returns on assets such as bonds.[3]

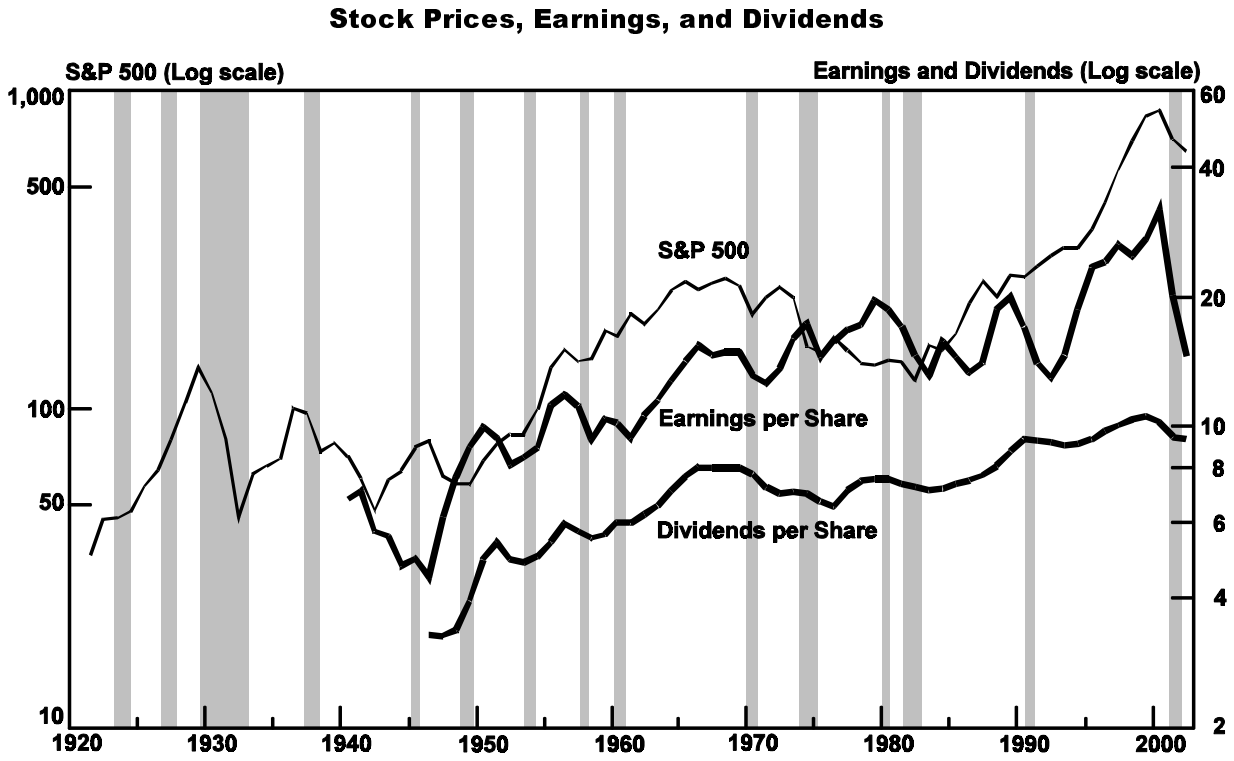
1. For more details, see John Y. Campbell and Robert J. Shiller, "Valuation Ratios and the Long-Run Stock Market Outlook: An Update," NBER Working Paper No. 8221 (Cambridge, Mass.: National Bureau of Economic Research, April 2001).

2. Siegel discusses his ideas in "Stocks Are Still an Oasis," *Wall Street Journal*, July 25, 2002.

3. See James Glassman and Kevin Hassett, *Dow 36,000: The New Strategy for Profiting from the Coming Rise in the Stock Market* (New York: Crown Publishing Group, 1999).

Box 2-1.

Continued



Source: Congressional Budget Office based on data from Standard & Poor's and the Department of Labor's Bureau of Labor Statistics.

Notes: Values are deflated by the consumer price index. S&P500 = Standard & Poor's index of 500 stocks.

Analysts can also disagree about how to measure prospective earnings. Studies of long-run trends have typically used observed earnings, measuring the P/E ratio as the stock's price relative to 12 months of "trailing" earnings (from the previous 12 months). However, analyses of short-term movements have focused on expected earnings (estimated, for example, by using earnings projections over the next 12 months) to gauge whether stock prices are at an "appropriate" level. In mid-2002, the so-called trailing P/E ratio for Standard & Poor's index of 500 stocks was 47 percent higher than the "expected" measure, raising the perplexing question for investors of whether future earnings forecasts were too optimistic or current stock prices too low.

Recently, however, more serious questions about the veracity of earnings statements have accentuated the stock market's decline. A reliable measure of earnings is necessary for judging whether stock values are appropriate; unreliable earnings measures and even allegedly fraudulent circumventions of accounting standards have led to several prominent corporate debacles that hurt not only the stocks of those companies but the stocks of other firms that investors thought resembled them. If the stock market's recent decline reflects in part an adjustment to lower, more-accurate measures of earnings, that decline might not be fully reversed.

Expected Monetary Policy. Given the question marks currently dotting the economic landscape, financial markets do not expect the Federal Reserve to raise its target for the federal funds interest rate until early 2003. In testimony before the Congress in July, Federal Reserve Chairman Alan Greenspan indicated the readiness of the Federal Open Market Committee to limit the risks of a further downturn for the economy by maintaining an accommodative stance "pending evidence that the forces inhibiting economic growth are dissipating enough to allow the strong fundamentals to show through more fully."[2] That policy position remains a crucial underpinning to hopes of a continuing economic recovery.

Fiscal Developments

At the federal level, fiscal developments have supported the economy's recovery from recession, but the stimulative contribution of the state and local sector is declining as their budget situations deteriorate. Legislative action on an economic stimulus package this year added to the fiscal boost already present in the federal budget. Indeed, shortfalls in April's revenue collections suggest that the additional stimulus provided by the automatic stabilizers (discussed later) may have been greater than was previously thought, although the data required to fully analyze the weakness in revenues are not yet available. Similar declines in revenue collections by states and localities are likely to spur additional tax hikes and cuts in spending to meet balanced-budget requirements in most jurisdictions.

Government purchases of goods and services have helped bolster GDP growth in recent quarters. After shrinking during most of the 1990s, real federal spending on goods and services accelerated in 2001, spiking in the fourth quarter in the aftermath of September 11. Purchases then grew rapidly in the first half of 2002—measured at an annual rate, by 7.4 percent; that growth was concentrated in the defense sector. Next to residential investment, federal spending has been the fastest-growing component of output thus far this year, outstripping real consumer spending, which rose at an annual rate of 2.5 percent in the first half, and fixed nonresidential investment, which declined by more than 3 percent. Despite the increasingly constrained budgets of many states and localities, there is little evidence yet that they have sharply reduced their spending.

Federal Fiscal Stimulus. Since the downturn, the economy has benefited from fiscal stimulus that has been both unusually large and timely. Tax rebates began in July 2001, only four months after the official start of the recession in the previous March. (In other recessions, lags in recognizing the need for stimulus and in the legislative process delayed stimulative action until the recovery was already under way.) Additional stimulus came from emergency spending in the wake of the terrorist attacks and from lower rates of withholding from paychecks this year—part of a series of tax rate cuts enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001, or EGTRRA (Public Law 107-16). More recently, in March of this year, the economy received a fiscal boost from the Job Creation and Worker Assistance Act (P.L. 107-147), which extended benefits for unemployed workers and enacted tax incentives to spark business investment.

In addition to being more timely than in past recessions, the stimulus provided by the federal budget during 2001 and 2002 was larger. The increase in the federal deficit, for example, which reflects legislation and other factors (including the budgetary effects of the business cycle), averaged about 1 percent of GDP per year during previous downturns.[3] By contrast, the overall shift from surplus to deficit during 2001 and 2002 will probably average about 2 percent of GDP, almost half of which resulted from legislative action.

The economic impact of changes in the federal budget is uncertain. But even though observers disagree about the effectiveness of fiscal stimulus in general and of some of the recently enacted provisions in particular, most ana-

2. Statement of Alan Greenspan, Chairman, Federal Reserve Board, before the Senate Committee on Banking, Housing, and Urban Affairs, July 16, 2002.

3. For a recent description of fiscal stimulus based on specialized measures, see Congressional Budget Office, *The Standardized Budget and Other Adjusted Budget Measures* (April 2002), available at www.cbo.gov.

lysts view those fiscal developments as helping limit the recession and strengthen the recovery by affecting supply as well as demand. The supply-side effects on work and investment are generally thought to be smaller in the short run than in the long run, but the temporary nature of the recent investment incentives will add to the short-term economic boost. In the end, however, the stimulus's impact on the supply of labor and capital will largely depend on how it is financed. In general, if it is ultimately financed by reducing federal spending, supply-side effects will be enhanced; but if current tax cuts are financed by raising future taxes, the stimulus could have adverse supply-side effects.

In addition to legislative stimulus, the federal budget has provided some support for private spending both this year and last through the so-called automatic stabilizers —the automatic decline in tax liabilities and increase in transfers to individuals (mostly unemployment insurance benefits) that occur during economic downturns.[4] The recent weakness in revenues indicates that the automatic stabilizers may be playing a significant role.

Other factors in addition to legislation and the automatic stabilizers affect the size of the federal surplus or deficit and its change from one year to the next. They include the effects on revenues of the falling stock market and a decline in the share of taxable income subject to the top marginal tax rates. Also part of the picture are the temporary effects of overwithholding on tax liabilities for 2001 (and the subsequent bulge in tax refunds in the spring of 2002), as well as the provision in EGTRRA that shifted $23 billion of corporate tax payments from fiscal year 2001 to fiscal year 2002. Because some of those factors will probably have little impact on growth over the short run, the change in the total budget surplus or deficit may overstate the amount of fiscal stimulus in 2002.

State and Local Governments. States and localities provided some fiscal stimulus in 2001, particularly following September 11. But this year and next, their actions may instead be a drag on growth as deteriorating revenues force them to cut spending and raise taxes to meet balanced-budget requirements. States had some flexibility in balancing their budgets for fiscal year 2002 (which ended in June for most states) and were able to maintain spending, even as revenues weakened, by using rainy-day funds, tobacco settlements, and the like. But they also cut some spending and in certain instances passed revenue-raising measures (totaling nearly $7 billion). Now that flexibility is rapidly disappearing. Although real state and local purchases of goods and services grew by 4.6 percent in the first quarter of 2002, they declined by more than 1 percent in the second. Going forward, combinations of cuts in spending and new tax increases will further scale back what those jurisdictions contribute to short-term growth.

International Developments

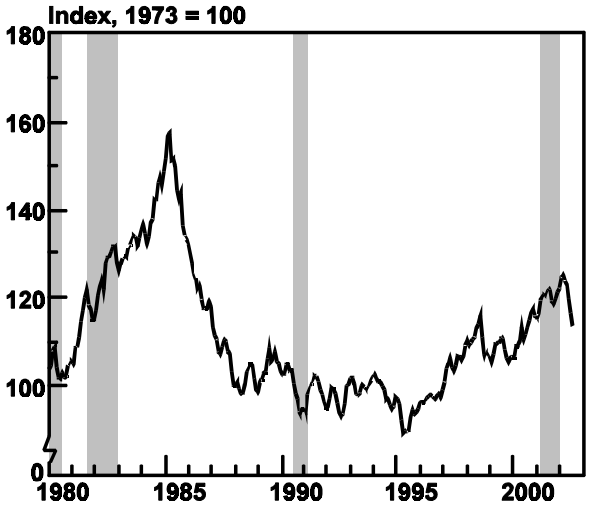
The biggest recent change for the United States in the international economic environment has been the broad-based decline in the dollar, which ended its long upward climb that began in 1995 (*see Figure 2-5*). Measured by an index that weights countries' currencies according to their share in U.S. trade, the dollar exchange rate has fallen by about 8 percent since its peak in March of this year.

The dollar has retreated relative to almost all major currencies, depreciating against the euro, the British pound, the Canadian dollar, the Japanese yen, and other major Asian currencies. (The notable exceptions are the Mexican peso and the currencies of other Latin American countries.) Thus far, the dollar's turnaround has had little impact on consumer prices, trade, or interest rates. Foreign recoveries have lagged behind the U.S. eco-

4. One way to understand how automatic stabilizers sustain consumer spending is to observe that many financial obligations of taxpayers, such as mortgage payments, do not decline when people lose their job. But people's federal tax liabilities drop (more than proportionately to their reduced income because of the progressive tax structure), and more people qualify for federal payments for unemployment insurance and other programs. During a recession consumers have more disposable income to spend, as a result of the falling tax liabilities and rising federal payments, than they would if taxes and benefits did not change. See Congressional Budget Office, *The Standardized Budget*, for additional detail.

Figure 2-5.

The Effective Exchange Rate



Sources: Congressional Budget Office; JP Morgan.

nomic upturn, so it is no surprise that the nation's current-account deficit widened during the first half of this year.[5] The trade deficit, which is the main component of the current-account deficit, also increased (*see Figure 2-6*). Reaching $390 billion, or 3.9 percent of GDP (measured on an annual basis) in the last quarter of 2000, the trade deficit ebbed to $294 billion (2.9 percent of GDP) by the third quarter of last year, as U.S. businesses slashed their inventories of imported goods during the recession. But the recovering economy lifted it in the first half of this year to an average of $340 billion. Now, once again, the trade deficit is above 3 percent of GDP, and rising.

Many analysts welcomed the dollar's drop, having long argued that it needed to adjust downward to help lower the current-account deficit and put external debt on a more sustainable path. There is a risk that the dollar's slide could accelerate, but such an event seems unlikely (*see Box 2-2*).

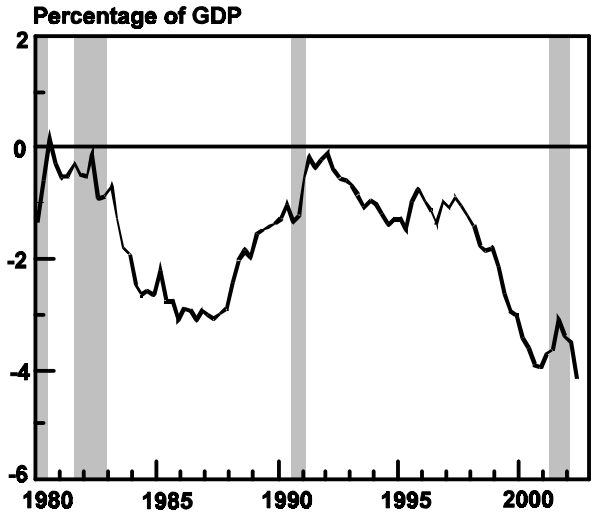
The upturn in the United States has helped foreign economies emerge from last year's slump. But so far, the recovery abroad is patchy and likely to remain modest in the near term. Much of it depends on strong U.S. demand for foreign goods and services. Yet the dollar is depreciating, which makes foreign goods more expensive here than they would be with a strong dollar. That factor, combined with low U.S. demand for all investment goods (including imported ones), suggests that the foreign economic recovery will be weak.

The economies of the United States' North American neighbors are at different stages of the business cycle. Growth in Canada has been sufficiently strong that the Bank of Canada has raised its interest-rate target three times since mid-April. In contrast, the Mexican economy was still contracting in the first quarter of 2002.

Europe's growth potential has long been constrained by demographics, the slow pace of structural reforms in its labor markets, and the inflexibility of fiscal and monetary policies. Now, the falling European equity markets and weaker-than-expected U.S. growth are likely to further dampen its already lackluster rally. In addition, the appreciation of the euro since March, while helping to avert further monetary tightening, is hurting the area's recovery by curbing growth in net exports.

Figure 2-6.

Net Exports as a Share of GDP



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

Note: A drop in net exports (the difference between exports and imports as measured in the national income and product accounts) indicates a rising trade deficit.

5. See Box 2-2 for a definition of the current-account balance.

Box 2-2.

The Dollar May Continue to Decline

Many analysts agree that the dollar may finally be making a long-awaited downward adjustment under the weight of the United States' large current-account deficit and net international debt and that it is likely to continue its slide in the foreseeable future.[1] The dollar has depreciated against a broad range of currencies, which suggests that the cause of its recent drop lies more with the dollar itself—or with the U.S. economy—than with particular foreign economies. If the dollar's recent retreat is a response to changes in economic fundamentals, it could be more persistent than a change based on more-ephemeral factors.

The U.S. economy's current-account deficit reflects net borrowing from overseas, and it is unclear how the dollar's decline will affect future foreign lending. If foreign investors judge that the dollar is now more favorably valued, they may be more willing to lend to the United States. But expectations of further declines might discourage prospective lenders, especially when combined with new, lower estimates of the potential return on capital invested in the United States and newly raised doubts about the transparency and accuracy of U.S. corporate finances. Some analysts argue that if foreign lenders and investors pull back, the outcome could be a sharp collapse in confidence, leading to an undesirably rapid fall in the dollar.

But the nation's economic fundamentals do not point to such a sharp decline. Inflationary pressures are low because the U.S. economy is still operating with underused capacity that forestalls unmet demand. Consequently, the dollar is not likely to decline much as a result of fears about inflation. In addition, with short-term interest rates at their lowest levels in 40 years, anxiety about even lower rates could not cause the dollar to fall very far.

Another reason that the dollar is unlikely to collapse is that the recovery in foreign economies still depends on the locomotive power of U.S. growth. The recovery in most foreign economies is still fragile. Europe's rebound is held back by a cautious economic policy and structural rigidities, whereas Japan's economy is weighed down by deflation and massive nonperforming bank loans. Among other Asian economies, recovery is not widespread; in Latin America, the crisis in Argentina is spilling over to other countries. Moreover, although the U.S. stock market has plummeted, its foreign counterparts are not much better off.

In sum, international investors do not as yet have a wide array of alternatives that are superior to U.S. assets. The dollar's downward adjustment, all things considered, is likely to be gradual rather than disruptively abrupt.

1. The current-account balance is the net revenues that arise from a country's international sales and purchases of goods and services plus net international transfers (public or private gifts or donations) and net factor income (primarily capital income from foreign property owned by residents of that country minus capital income from domestic property owned by nonresidents).

The economic comeback in Asia is not uniformly reassuring either. Rebounds in exports are lifting some Asian economies, most notably South Korea's, out of last year's slump. And thanks to its currency's fixed tie to the depreciating dollar, China's exports have received a boost, helping offset the drag of depressed consumer demand in that country. But in Japan, the absence of major policy changes means that domestic demand continues to be weighed down by the continuing banking crisis, entrenched deflation, and pervasive insecurity about the economy. The export-led rebound that was recorded in the first quarter is showing signs of fizzling as both the dollar and the U.S. recovery weaken. Meanwhile, Hong Kong is still gripped by both recession and deflation, and Taiwan is struggling toward a solid upturn.

Economic conditions are most bleak in South America. A number of countries—most notably, Argentina, Brazil, and Venezuela—are still in recession, and their currencies are under pressure. As a result, investors' perceptions of the region's riskiness have heightened. Argentina, which is well into its fourth year of recession, saw real GDP contract further in the first quarter of this

year. Brazil's currency has dropped sharply, and its bond yields have soared. Uruguay's newly floated currency has also plunged while its banking system now verges on collapse. It remains unclear whether the International Monetary Fund's recent approval of a $30 billion loan to Brazil can help stabilize the region's economic conditions.

Labor Markets

One strong indication that the U.S. recession is over is that the labor market has steadied in recent months after the loss of nearly 1.8 million jobs over the year that began with the downturn in March 2001. Unemployment, which tends to lag behind output during a recovery, is about 2 percentage points above its recent lows in 2000. Because output bounced back somewhat faster than expected through the first half of 2002, the unemployment rate has risen by less than CBO forecast last March. However, the rate is still expected to peak at a low level compared with its highs in the last three recessions. Overall declines in payrolls during the slowdown were on a par with those in other mild downturns, and so far, increases in payrolls have also been comparable. Nominal wages and salaries grew moderately in the first half of 2002 after slumping in 2001. Real labor income also turned up in 2002.

Recent employment and unemployment data suggest that although the economy is not falling back into recession, the recovery remains tentative. By midyear, job losses had slowed markedly; however, demand for labor appears to be in a holding pattern. Average weekly hours and overtime hours rose during June, particularly in manufacturing, but fell back in July. On balance, payrolls have so far recorded only small increases. Hiring in the temporary help sector, sometimes seen as a precursor of rising permanent employment, has edged upward, but surveys of businesses' intentions reinforce the impression that employers are still reluctant to hire.

The pattern of employment across industries is mixed and reflects the composition of output growth. The sharp decline in employment in manufacturing—much of it linked to the fall in investment—appears to be almost arrested. Despite an upturn in spending, travel-related employment has not begun to recover from the effects of September 11's terrorist attacks. Employment in construction has waned by much less than in almost all past recessions, and steep drops seem unlikely over the rest of this year.

Firms continue to cut costs in an attempt to rebuild profits, and that strategy could have led to the unusually strong growth of labor productivity—averaging 8 percent, measured annually—that was recorded in the fourth quarter of 2001 and the first quarter of this year. One interpretation of the recent trends in productivity and payrolls is that the winter's surge in productivity allowed firms to increase output without having to hire more workers. But the winter's rapid pace could not be sustained: productivity grew at an annual rate of 1.1 percent in the second quarter, confirming the view that firms will have to employ more labor to meet the rise in demand forecast through 2003.

Since March, nominal wages and salaries have grown moderately. Year-over-year growth, as measured by the employment cost index, fell below 4 percent in the first quarter of 2002 but then regained its 4 percent pace in

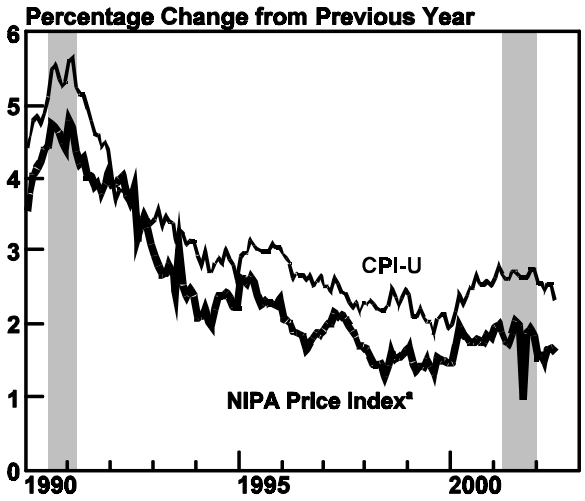
Figure 2-7.

The Employment Cost Index for Private Industry Workers

Sources: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

Figure 2-8.

Measures of Core Consumer Price Inflation



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

Notes: Core measures exclude food and energy prices.

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

a. The personal consumption price index from the national income and product accounts.

the second (*see Figure 2-7*). The rate's climb back to that level reflects faster growth in wages and salaries and in the cost of health benefits. Total compensation in the nonfarm business sector of the economy showed no sign of acceleration, rising at an annual rate of 3.6 percent in both the first and second quarters of 2002.

Inflation

Inflation appears to be contained. Although energy prices pushed up the overall rate of inflation in the first half of 2002, the core rate as measured by the consumer price index for all urban consumers (excluding food and energy prices) has generally ranged between 2 percent and 3 percent since 1994 and has remained within that band so far this year (*see Figure 2-8*). Another measure of core consumer price inflation, the price index for personal consumption expenditures excluding those for food and energy, was only 1.6 percent for the year ending in June, less than the core CPI-U rate of 2.3 percent.[6]

Accelerating prices for medical care and rents prevented the core rate from declining, as it usually does in recessions. Medical care inflation as measured by the CPI-U has risen steadily over the past four years and is now about 4.5 percent. The growth of rents has also quickened, and, because people spend so much of their income on housing, is a major reason that the core rate did not decline last year (and actually increased slightly relative to the rate in 2000).

The currently low rate of inflation reflects the facts that the economy has no shortage of capacity to meet demand and that the mild recovery promises to exhaust that capacity only slowly. Furthermore, the strong recent gains in productivity and slower growth of hourly labor costs have held down the rise of unit labor costs over the past four quarters. The drop in the dollar since March will lift the price of imports but probably not by much because of the excess capacity abroad and the desire of importers to maintain their market shares in the United States.

Corporations

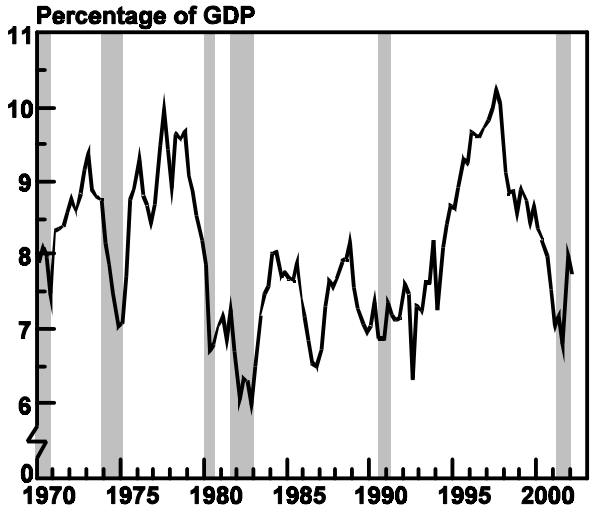
The corporate sector is beginning a slow recovery. The near-term forecast for business investment, however, is clouded by doubts about the accuracy of firms' past accounting practices and the outlook for profits and stock prices. The higher cost of raising investment capital in the stock and debt markets and restrained growth in final demand, both of which stem from the plunge in the value of stocks, will limit firms' investment plans.

Corporate Profits and Business Confidence. Despite the high-profile stories of corporate scandals, the overall health of the business sector has continued to improve since March. Less than a year ago, corporate finances looked bleak. The share of GDP claimed by profits had been contracting before the recession from its largest point in mid-1997, but the recession squeezed it further.

6. The rate based on personal consumption expenditures is more comprehensive than the rate based on the CPI-U.

Figure 2-9.

Economic Profits



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

Note: Economic profits are corporate profits from current production—that is, adjusted for changes in the value of inventories and for capital depreciation.

That drop sent the GDP share of economic profits (profits from current production, adjusted for changes in the value of inventories and for depreciation of capital) below its levels in the 1980 and 1990 recessions. Now, economic profits, which reflect corporations' underlying economic profitability, have risen from their recent lows (*see Figure 2-9*).

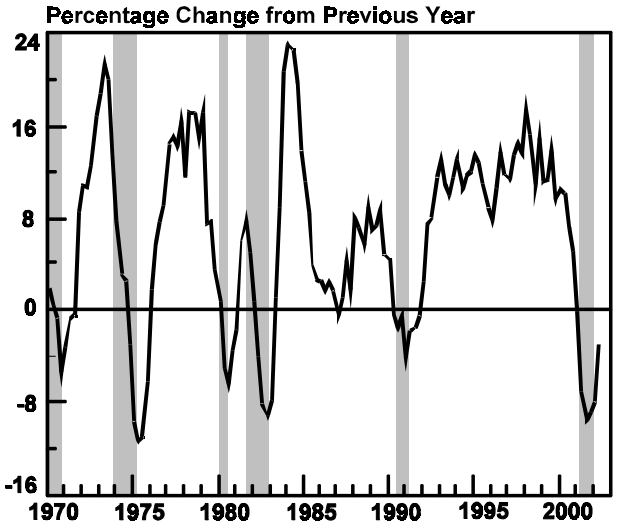
The confidence of businesses and investors remains a major factor in the prospects for corporate capital spending, and a less confident outlook could lead to actual outcomes that are weaker than those CBO has forecast—in other words, pose a downside risk to the forecast. Some surveys of business executives this year reportedly found corporate leaders more pessimistic than business economists about the economy's future. And fears about the integrity of corporate reporting, even if exaggerated or misplaced, together with volatility in the financial markets, may result in more businesses postponing decisions on capital expenditures.

Business Fixed Investment. Business investment has probably started to recover, but growth is still significantly below the extraordinarily high rates seen in the late 1990s (*see Figure 2-10*). Real spending on equipment and software stabilized around the first of the year and then turned up slightly in the second quarter. Although most analysts anticipate a continuing recovery, investment spending could yet stall, or even drop, in the face of weak demand; a higher cost of capital; and the risk of further negative shocks, such as oil-price hikes or terrorist acts.

Some of the determinants of businesses' capital spending are improving, despite the persistent wariness toward investment that many firms have shown. Historically, the primary driver of business fixed investment has been an increased demand for goods and services. On that front, domestic demand is likely to continue to recover, even though the pace of consumption may slacken in response to the drop in stock prices. Moreover, real exports have grown rapidly this year. Also pointing to improved growth of business spending are estimates suggesting that much or most of firms' excess capacity has now been worked off.

Figure 2-10.

Real Spending on Business Equipment and Software



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

Changes in the tax code have also been facilitating a recovery of capital spending. The Job Creation and Worker Assistance Act of 2002 provides a boost by allowing firms, until September 2004, to reduce their taxable income by taking an additional first-year depreciation deduction of 30 percent of their equipment investments.

Nevertheless, the recovery of corporate capital spending is tentative. Orders are still running below shipments, which may mean that shipments will decline further. If consumer demand drops in the wake of reduced wealth, businesses may determine that the growth of demand they can expect does not warrant new capital expenditures. That possibility is a major downside risk to CBO's forecast. And even if demand holds up, the pickup in investment spending could dwindle if businesses continued to act cautiously.

Developments in financial markets have, on balance, worked against the recovery of business investment. In particular, declines in stock prices have raised the cost of capital and may encourage firms to give profits back to shareholders as dividends (or share repurchases) rather than retain their earnings and use them to buy plant and equipment. However, companies with strong business plans and good credit ratings still have access to funds from the debt markets. And problems that weak companies with poor prospects may face in obtaining credit need not be symptomatic of a general credit crunch.

In the high-technology sector, output in some industries has rebounded along with the outlook for capital spending. Real spending on computers has climbed smartly, as has the production of semiconductors. By contrast, the communications sector is still mired in difficulties stemming from excess capacity (*see Box 2-3*). When and by how much that sector might recover are still uncertain.

Investment in nonresidential construction is still weak, its usual condition early in an economic recovery (*see Figure 2-11*). Although the building of hospitals is an exception, other nonresidential construction continued to fall through the first half of 2002; given the downward momentum, overall spending on business structures may continue to drop for much of 2002. Such investment is expected to rebound slowly but only after vacancy rates fall. As yet, commercial vacancy rates are still rising.

Box 2-3.

Continuing Problems for Telecommunications Firms

An upturn is not yet in sight for the communications sector. The origins of its problems probably lie in the failed expectations of many businesses for extraordinarily rapid growth in the demand for broadband internet and wireless services, which many telecommunications firms had counted on to bolster their bottom lines. In addition, investors may have failed to recognize that the high profits (or high expected profits) of the first firms to enter new markets would soon be eroded by a rash of competitors.

Against that backdrop, investment in telecommunications may record another year of double-digit decline in 2002. Excess capacity in wired networks and delays in plans to expand wireless networks continue to depress the market for communications equipment. A substantial restructuring of those industries is under way as companies reduce their workforces; cut back on new investment; and, in some cases, go out of business. High-profile bankruptcies do nothing to remove excess capacity in the near term; as a result, an upturn in investment is some distance away.

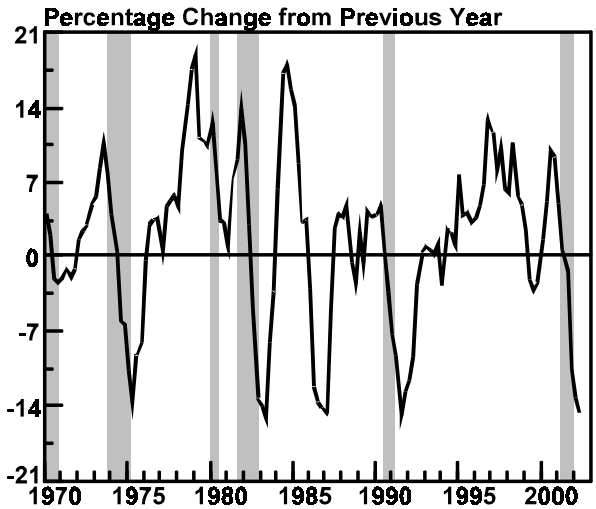
Inventories. The downward swing in inventories that subtracted more than 1 percentage point from the growth of real GDP during 2001 probably ended in mid-2002. Inventories-to-sales ratios have now fallen sufficiently to suggest that firms' currently modest return to inventory building should prove fairly robust, as long as sales continue to grow.

Households

Underpinning private spending to a large degree this year have been expenditures on consumer goods and services and on housing. Factors in such spending include strong growth in disposable personal income, low mortgage and consumer interest rates, and consumer

Figure 2-11.

Real Nonresidential Construction



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

finances that apart from stock market investments have been relatively healthy. But the continuing drop in stock prices since the spring has hurt household wealth and raises questions about the extent of consumer spending over the next few quarters.

Estimates of the growth of personal income between 1998 and 2001 are lower now than they were in March, following BEA's revisions to the national income and product accounts in July. CBO has incorporated those revisions in its current forecast of the economy (*see Box 2-4*).

Consumer Spending. Real consumer spending grew at an average annual rate of 2.5 percent in the first half of this year, a pace slightly slower than its growth for all of 2001. Holding down the rate was a drop in purchases of motor vehicles and parts. Although such spending remained high through the second quarter, it was lower than the very high level reached in the fourth quarter of 2001, when domestic manufacturers' sales climbed in response to the extraordinary sales incentives they were offering.

A solid upswing in disposable personal income supported consumer spending in the first half of this year. Real personal income grew at an average annual rate of only 3.2 percent in the first half, but because of the cut in federal taxes that took effect this year, real disposable personal income grew at an average annual rate of 9.1 percent.[7] Wages and salaries and interest income rose modestly; however, the categories of other labor income, rental income of persons, and nonfarm proprietors' income all spurted ahead at healthy rates. Transfer payments to individuals also climbed as a result of the extension of unemployment benefits, changes in the earned income tax credit, and modest cost-of-living adjustments.

Additional bolstering of consumer spending this year comes from the continued low interest rates on consumer loans. Commercial bank rates on 48-month loans for new cars and on credit cards have been below their levels in the fourth quarter of 2001; the average rate on new-car loans from the domestic auto finance companies has remained below its average for the first three quarters of that year. (That rate has been higher than it was during the fourth quarter, though, when automakers were offering low-interest financing on most of their models.)

Consumer spending has also been helped this year by homeowners refinancing their mortgages and tapping some of their equity. Refinancing picked up sharply this summer. In late July, the Mortgage Bankers Association's index of applications to refinance home mortgages was almost as high as it was at its peak level in 2001. Homeowners who have refinanced have cashed out some of their new equity to spend and to repay other debts. In the second quarter of 2002, 67 percent of Freddie Mac-owned loans that were refinanced resulted in new mortgages at least 5 percent larger than the original amount borrowed. By comparison, in the first quarter of 2002, only 60 percent of new loans were that much bigger than the loans they replaced; in the second half of 2001, only 54 percent were.

Refinancing has been encouraged by low mortgage interest rates and appreciating house prices. The rate on conventional 30-year fixed-rate mortgage loans dropped to

7. The tax cut resulted from the provisions of the Economic Growth and Tax Relief Reconciliation Act of 2001.

Box 2-4.

The July 2002 Revisions to the National Income and Product Accounts

Every July, the Department of Commerce's Bureau of Economic Analysis (BEA) revises the national income and product accounts (NIPAs). The revisions cover the previous three years and reflect new sources of data, alterations in previously published data on which the NIPAs are based, and methodological changes. For example, the NIPAs now incorporate new tabulations by the Bureau of Labor Statistics for 2001 of the wages and salaries of employees covered by state unemployment insurance; new tabulations by the Internal Revenue Service for 2000 of corporate tax-return data; a new annual survey of manufacturing data for 2000; and revised data from the Census Bureau for 2001 on the value of construction. Methodological changes this year were relatively minor and limited to a few price series, contributing little to the overall revisions.[1]

In general, the revisions indicate a more sustained and deeper decline in output during 2001 than was previously estimated, with slower growth in investment, consumption, and productivity. BEA revised wages and salaries downward by a huge amount for 2001, bringing the NIPAs more in line with the sharp drop in personal income tax receipts for that year. In contrast, it revised personal interest income upward. Profits following the revisions are now much lower for 2000 and slightly lower for 2001 than had previously been thought.

Overall, the revised data show that the rate of growth of real (inflation-adjusted) output fell farther during the 2001 recession than forecasters had previously thought, although even with the revisions, the loss in output was relatively mild. Between the fourth quarter of 2000 and the third quarter of 2001, real gross domestic product (GDP) dropped by 0.8 percent after the revisions, compared with an increase of 0.1 percent in the previously published data. (Unless otherwise noted, growth is expressed as an annual rate.) GDP growth was negative in the first three quarters of 2001 rather than in just the third quarter; weaker investment was the primary reason. BEA also revised the growth of private domestic investment, changing a drop of 11.7 percent to one of 14.4 percent. Measured from real GDP's peak during the business cycle to its trough, output dropped by 0.6 percent (not annualized)—a small reduction compared with the average peak-to-trough tumble of 2.3 percent for the seven previous recessions.

Changes in the income categories, particularly those for wages and salaries and profits before taxes, bring the NIPA data more in line with tax collections for 2001 and early 2002. For 2001, BEA lowered its figures for wages and salaries by $147 billion, to $4,951 billion, and for profits by $28 billion, to $670 billion.[2] Downward revisions in those categories were not unexpected because tax collections based on personal income and profits for 2001 were both so weak.

In contrast to the downward change in wages and salaries, the direction of the revision in the personal saving rate was upward for both 2000 and 2001. The change resulted from an upward revision in personal interest income, which offset the change in wages, and a downward revision to consumption for both years. Thus, the personal saving rate for all of 2000 was revised upward by about 2 percentage points, to 2.8 percent; for all of 2001, it was revised upward by almost 0.7 percentage points, to 2.3 percent. Those changes imply that the drop in stock market wealth since 2000 had a slightly smaller effect on consumption and saving rates between 2000 and 2001 than analysts had previously thought.

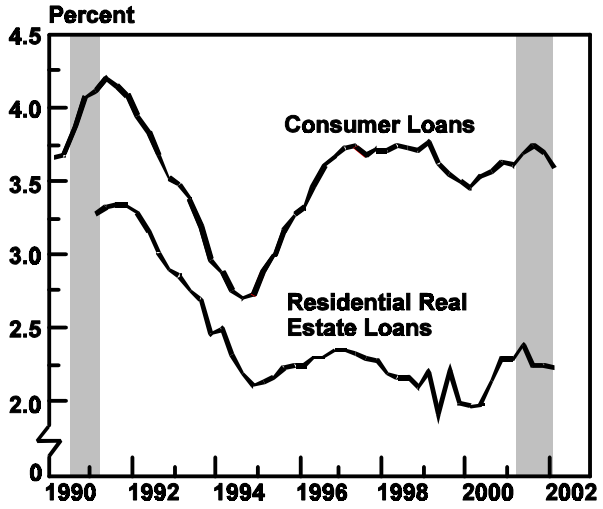
The revision to real GDP growth translates into a slower rate of labor productivity growth during recent history, taking some of the luster off of the New Economy but not reversing the favorable trends of the last several years. For example, growth in labor productivity was revised downward by a substantial amount in 2001 (0.8 percentage points, to 1.1 percent). However, even after the revision, labor productivity growth was still stronger during the 2001 recession than it was during the typical postwar recession. Moreover, even though average growth in labor productivity during the 1995-2001 period was marked down to 2.3 percent (from 2.5 percent) as a result of the three years of revised data, that rate is still stronger than the 1.4 percent average rate of growth during the 1973-1995 period.

1. Details of the revisions can be found at www.bea.gov, in the August *Survey of Current Business* under "Publications."

2. The estimate of profits for 2001 is still rough and subject to a further, possibly large revision when BEA does a comprehensive revision in 2003.

Figure 2-12.

Delinquency Rates



Sources: Congressional Budget Office; Federal Reserve Board; American Bankers Association.

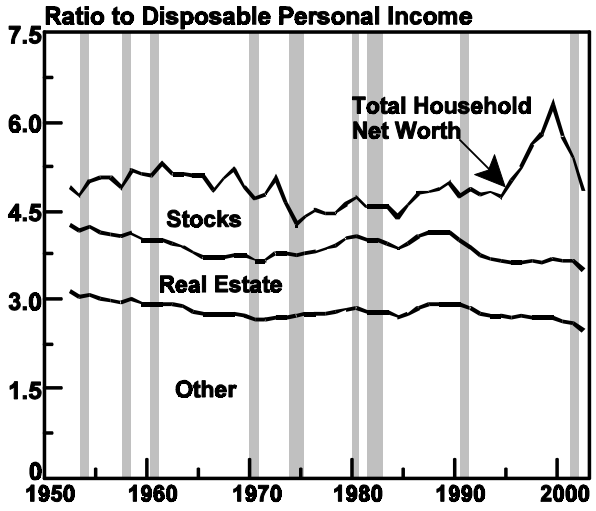
6.34 percent in the week ending July 26—the lowest it has been in the roughly 30 years for which records of comparable rates have been kept. In tandem with falling mortgage rates, house prices have been rising. Year-over-year increases in the prices of both existing and new homes have been running at about 6 percent during the first half of 2002, which is notably faster than the 2 percent pace they maintained in the first half of the 1990s. (Growth accelerated to almost 9 percent at the peak of the business cycle in March.)[8]

Another reason that consumers have maintained their spending is that their finances were in relatively good shape coming out of the recession. The delinquency rate on consumer loans from commercial banks peaked at a level that was considerably lower than its high point during the 1990 recession. Delinquency rates on home mortgages from commercial banks also rose only a little during this recession and remain far below their levels early in the recovery from the 1990 downturn (*see Figure 2-12*). Moreover, the burden of debt service changed very little over the year ending in the first quarter of this year (reflecting the latest data available) because of the slower growth of consumer credit and the drop in consumer loan and mortgage rates.

The wealth of households is a different matter, however. From the end of March of this year to the end of July, the Wilshire 5000 stock price index, which measures the capital invested in the stock market, lost about $2.2 trillion. Appreciating home prices have offset only a little of that drop; as a consequence, the ratio of household net wealth to disposable personal income has continued to fall and may have slipped by now to where it was in 1995 (*see Figure 2-13*). With the plunge in their wealth this year, consumers have cut their spending and increased their saving. Indeed, the personal saving rate has averaged 3.8 percent so far this year, up from 2.3 percent for all of 2001.

Figure 2-13.

Household Net Worth



Sources: Congressional Budget Office; Federal Reserve Board.

Notes: Data are end-of-year values. Values for 2002 are estimates for the middle of the third quarter.

8. Some analysts question whether the rise in home values is sustainable—an important issue given the support that housing wealth seems to have provided to overall household spending. However, officials at the Federal Reserve as well as other observers largely discount fears of a nationwide bubble in house prices. See the statement of Alan Greenspan, Chairman, Federal Reserve Board, before the Congress's Joint Economic Committee, April 17, 2002.

Housing Investment. Residential investment has been strong this year because of the continued low interest rates on mortgages. Residential building rose at an annual rate of 9.5 percent in the first half of 2002; that compares with growth (measured fourth quarter to fourth quarter) of 1.0 percent in 2001 and -1.2 percent in 2000. The relatively modest cost of mortgage money has made purchases of real estate more attractive as an investment, and with stock prices stalling, households may have shifted their portfolios to invest more in housing. With prices still rising, there appears to be little oversupply.

CBO's Economic Forecast for 2002 and 2003

Growth of real GDP will average 2.3 percent in calendar year 2002, CBO estimates, and 3.0 percent in 2003 (*see Table 2-2*). That forecast of continuing mild recovery reflects CBO's view that the recession has substantially corrected firms' excess capacity and checked the fall in profits, and that further economic adjustments are under way. Most notably, the fall in stock prices will reduce spending relative to CBO's previous forecast in March. As recovery turns into expansion, growth will continue to be relatively modest. In addition, however, the near-term economic outlook will be dominated by uncertainties, exceptional in scope and size, that pose challenges to consumers, businesses, investors, and economic forecasters alike.

Real GDP and Employment

CBO expects that a moderate but steady rise in consumer spending will continue to provide the foundations for the economy's growth. Augmenting it will be a rapid rise in the federal government's spending in 2002 and a gradual recovery of corporate spending by the end of the year that will continue through 2003. The growth of demand on average will be below the growth of potential output in 2002 and above it in 2003.[9]

CBO's forecast assumes that the slow but steady increase in payrolls that is now becoming apparent will continue. The pace at which employment grows will probably not be sufficient to reduce unemployment rates during 2002, but it should prevent further significant hikes. As a result, CBO forecasts that unemployment will remain close to 6 percent though the end of 2002 and average 5.9 percent in 2003.

Table 2-2.

CBO's Forecast for 2002 and 2003

	Actual 2001	Forecast 2002	Forecast 2003
Fourth Quarter to Fourth Quarter (Percentage change)			
Nominal GDP	2.0	4.2	5.3
Real GDP	0.1	2.9	3.4
GDP Price Index	1.9	1.3	1.8
Consumer Price Index[a]			
Overall	1.9	2.4	2.4
Excluding food and energy	2.7	2.3	2.4
Calendar Year Average			
Real GDP (Percentage change)	0.3	2.3	3.0
Unemployment Rate (Percent)	4.8	5.9	5.9
Three-Month Treasury Bill Rate (Percent)	3.4	1.7	2.9
Ten-Year Treasury Note Rate (Percent)	5.0	4.9	5.4

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

a. The consumer price index for all urban consumers.

The forecast of a moderate rise in consumer spending reflects the fact that monetary and fiscal stimulus helped maintain consumer spending during the recession. Thus, households do not feel compelled to make up for lean times with a rapid burst of spending. On the contrary, they are likely to want to increase their saving to compensate for the wealth they have lost.

In the business sector, current assessments of the profitability of new investments suggest that spending might be further constrained. Such investments will contribute less to spending growth in 2002 and 2003 than they did in the period after 1995.

CBO does not expect the fall in stock prices to derail the nation's economic recovery. Nevertheless, mainstream estimates from econometric research suggest that if the

9. Potential output is the highest estimated level of real GDP that could persist for a substantial period without boosting inflation.

nosedive in stock market wealth since CBO's March forecast is not quickly reversed, it could reduce consumer spending by between $50 billion and $100 billion through the end of 2003. Econometric models also suggest that a slowdown of that magnitude would combine with the effect of higher costs for equity financing to constrain business investment by some $15 billion to $30 billion through 2003.

CBO's forecast also assumes that foreign economies will continue to recover and the weakening of the dollar is likely to prompt some switching of demand toward U.S. output and away from that of foreign producers. With a slow recovery abroad, the U.S. trade deficit may climb significantly in real terms in 2003 before it responds to the weaker dollar and stabilizes.

Inflation and Interest Rates

Over the next two years, CBO forecasts, the core rate of CPI-U inflation will remain near its current 2.5 percent rate, and the growth of the overall CPI-U will approach 2.5 percent as well, under the assumption that energy and food price inflation will quickly gravitate toward the core rate. Higher prices for imports will be offset by a deceleration in rents and by inflation's tendency to fall early in recoveries—that is, in periods of excess supply.

CBO's forecast incorporates the assumption that short-term interest rates will probably remain at their currently low levels through the end of 2002 but that with the strengthening recovery, the Federal Reserve will raise its target for the federal funds interest rate appreciably during 2003. The interest rate on three-month Treasury bills, CBO estimates, will rise from 1.7 percent in 2002 to 2.9 percent in 2003, and the interest rate on 10-year notes will climb from 4.9 percent in 2002 to 5.4 percent in 2003.

Uncertainty in the Near Term

Forecasts are always uncertain, and prudent users of them will consider the likelihood that they could be wrong. CBO's forecasts, whose reliability CBO regularly assesses, seem about as accurate as those of other government agencies and private forecasters; yet like all forecasts, CBO's can anticipate only predictable events.[10] Nevertheless, it is possible to identify several factors that pose a special risk to the forecast's accuracy.

A particular source of uncertainty comes from the large fall in stock prices, unusual in a recovery, which may lead households and firms to act in unexpected ways. Even though CBO incorporated estimates of how lower stock prices would affect spending when it prepared its forecast, the substantial questions about the timing and magnitude of those effects makes CBO's economic forecast more than usually uncertain. CBO makes no attempt to predict future movements in the stock market; clearly, though, the market is likely to remain volatile and could either recover strongly or deteriorate further, developments that would affect individuals' financial situations and businesses' cost of capital.

Even aside from financial market developments, changes in the confidence of consumers, businesses, and investors could affect the near-term outlook. Businesses make decisions about production and investment on the basis of their confidence in future business conditions; similarly, consumers' decisions are based on their confidence in the security of their employment and of their financial investments. Currently, consumer confidence seems fragile. For businesses, the slowing of investment before and during the recession has eliminated much or most of the excess capacity, but it remains unclear when businesses will feel that they can begin to build capacity again. Moreover, beyond its direct effect on investment, business confidence is likely to play an important role in the recovery of employment and, hence, household income. For example, cautious firms might be unwilling to hire new employees, which would lead to weak employment growth. If that growth was slower than the growth in the labor force, the gap between the labor force and the level of employment could widen, which would raise the unemployment rate. Job losses, in turn, could affect household spending.

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10. See *CBO's Economic Forecasting Record* (February 2002), available at www.cbo.gov.

The United States' economic interactions with the rest of the world present another source of uncertainty. For example, stronger-than-expected growth abroad along with a weaker-than-expected dollar would boost net exports, and hence real GDP, relative to CBO's estimates. Some analysts have suggested a much less optimistic scenario, in which foreigners' loss of confidence in dollar-denominated securities provokes a rapid collapse of the dollar—which could severely disrupt domestic financial markets and spark a sharp upturn in inflation. In CBO's estimation, that scenario has a low probability of occurring, although CBO does expect the dollar to continue to fall.

Fluctuations in inflation are likely, especially in energy and food prices, but there appears to be little reason to fear any serious acceleration of inflation, despite the current ease of monetary policy. As noted earlier, overall financial conditions are not favorable to rising inflation. Indeed, the likelihood of an uptick in inflation seems no greater than that of a decline. Analysts are even considering the possibility of general deflation—lowered prices are already a reality for many producers of goods. But general deflation is not CBO's forecast and seems a small risk at present.

Finally, as a background to all these uncertainties is the risk of further terrorist acts and even of war. CBO makes no attempt to assess those risks, but they presumably play a role in determining the confidence of consumers and businesses. Some risks that earlier seemed important—such as the possibility that a lack of insurance against terrorism could crimp businesses' investments in structures—now apparently have proven smaller than anticipated. But others, such as the possibility of sharp increases in oil prices in the case of a war in the Gulf, remain.

Comparison of Two-Year Forecasts

CBO's current two-year forecasts are very similar to the current *Blue Chip* consensus forecasts but show much lower growth than the Administration does in its *Mid-Session Review* (*see Table 2-3*).[11] Comparing CBO's and the Administration's forecasts is misleading, however, because the Administration's estimates, although published in July, reflect only the information that was available before June. The precipitous drop in the stock mar-

11. The *Blue Chip* consensus averages the estimates of nearly 50 private-sector forecasters.

Table 2-3.

Comparison of Forecasts for Calendar Years 2002 and 2003

	Actual	Forecast	
	2001	2002	2003
Nominal GDP (Percentage change)			
CBO	2.6	3.4	4.6
Blue Chip consensus	2.6	3.6	4.9
Administration	3.4	4.0	5.5
Real GDP (Percentage change)			
CBO	0.3	2.3	3.0
Blue Chip consensus	0.3	2.3	3.2
Administration	1.2	2.6	3.6
GDP Price Index (Percentage change)			
CBO	2.4	1.1	1.6
Blue Chip consensus	2.4	1.2	1.7
Administration	2.2	1.3	1.9
Consumer Price Index[a] (Percentage change)			
CBO	2.8	1.7	2.4
Blue Chip consensus	2.8	1.6	2.4
Administration	2.8	1.7	2.5
Unemployment Rate (Percent)			
CBO	4.8	5.9	5.9
Blue Chip consensus	4.8	5.9	5.7
Administration	4.8	5.8	5.6
Three-Month Treasury Bill Rate (Percent)			
CBO	3.4	1.7	2.9
Blue Chip consensus	3.4	1.7	2.5
Administration	3.4	2.0	3.5
Ten-Year Treasury Note Rate (Percent)			
CBO	5.0	4.9	5.4
Blue Chip consensus	5.0	4.9	5.3
Administration	5.0	5.2	5.2

Sources: Congressional Budget Office; Aspen Publishers, Inc., *Blue Chip Economic Indicators* (August 10, 2002).

Notes: The *Blue Chip* consensus is the average of the nearly 50 individual *Blue Chip* forecasts.

The Administration's forecasts were completed before the revisions to the historical national income and product accounts published in July 2002.

a. The consumer price index for all urban consumers.

ket and BEA's revision of the past three years of GDP data occurred later, causing many forecasters to lower their near-term projections of economic growth.

The Outlook Beyond 2003

CBO expects that real GDP growth will average 3.2 percent for the period 2004 through 2012, a pace just slightly higher than the average rate of growth of potential GDP—3.1 percent—during the same period. Real GDP declined slightly during the recession, and the forecast of moderate growth in 2002 and 2003 leaves it slightly lower than potential GDP for 2003. From that point on, real GDP must grow slightly faster than potential over the medium term to bring actual and potential output back to their historical relationship. The current projection of potential GDP is almost identical to the one in CBO's March 2002 forecast.

CBO's projections of inflation, unemployment, and interest rates are also virtually unchanged since last March. Inflation in the CPI-U averages 2.5 percent during the 2004-2012 period, and the rate of unemployment is flat, at 5.2 percent. The rate on three-month Treasury bills averages 4.9 percent during the 2004-2012 period, and the rate on 10-year Treasury notes holds steady at 5.8 percent.

CBO does not explicitly incorporate in its projections specific cyclical recessions and recoveries beyond the next two years. Instead, to reflect the likelihood that at least one cyclical episode will occur in any 10-year interval, the effects of a typical cycle are averaged in. The medium-term projections extend historical trends in such underlying factors as the growth of the labor force, the growth of productivity, the rate of national saving, and income shares. CBO's projections of real GDP, inflation, real interest rates, and tax revenues depend critically on those underlying trends.

CBO's Projection of Potential Output

CBO projects that potential output will grow at an average rate of 3.0 percent during the period 2002 through 2012—almost exactly the same rate projected in March (*see Table 2-4*). The growth of the potential labor force is expected to average 1.0 percent, and the rise in potential labor force productivity averages 2.0 percent.

Underlying those estimates is potential output growth in the nonfarm business sector, which is projected to average 3.4 percent. That growth, in turn, derives from assumptions about hours, capital, and productivity for the sector: specifically, growth in potential hours worked, 1.2 percent; capital accumulation, 4.2 percent; and potential total factor productivity, 1.2 percent.[12] In addition, potential labor productivity rises at a rate of 2.1 percent in CBO's projection. Each of those assumptions is almost identical to the corresponding estimate in the March forecast.

CBO's projection of 3.0 percent growth in potential GDP is almost identical to that measure's average annual growth since 1973, although slightly slower than the rate of 3.4 percent estimated for the late 1990s. The difference can be attributed to two factors. First, the rise in hours worked is likely to slow slightly relative to the pace of the late 1990s because growth of the working-age population is expected to dip during the next decade and immigration is likely to tail off from the very rapid pace of the 1990s. Second, the rate of capital accumulation that CBO used for its projections, although quite healthy, is not as high as the blistering level of the late 1990s. Growth of capital services (averaging 4.2 percent annually during the 2002-2012 period) is down from 5.3 percent during the late 1990s.

In the current projection, potential TFP (total factor productivity) rises at a rate of 1.3 percent annually on average from 2004 to 2012, which is identical to its growth rate in CBO's March projection. The underlying trend in TFP growth has been very stable both during the past several years and in recent estimates; the current trend growth rate of 1.1 percent is virtually unchanged

12. Total factor productivity is the average real output per unit of combined labor and capital inputs. The growth of total factor productivity is defined as the growth of real output that is not explained by the growth of labor and capital. Labor productivity and total factor productivity differ in that increases in capital per worker raise labor productivity but not total factor productivity.

Table 2-4.

Key Assumptions in CBO's Projection of Potential GDP

(By calendar year, in percent)

	Average Annual Growth					Overall Average Annual Growth, 1951-2001	Projected Average Annual Growth, 2002-2012
	1951-1973	1974-1981	1982-1990	1991-1995	1996-2001		
Overall Economy							
Potential GDP	3.9	3.3	3.0	2.6	3.3	3.4	3.0
Potential Labor Force	1.6	2.5	1.6	1.1	1.1	1.6	1.0
Potential Labor Force Productivity[a]	2.2	0.8	1.4	1.4	2.1	1.7	2.0
Nonfarm Business Sector							
Potential Output	4.0	3.6	3.1	2.9	3.8	3.7	3.4
Potential Hours Worked	1.3	2.2	1.5	1.5	1.5	1.5	1.2
Capital Input	3.7	4.4	3.6	2.5	5.2	3.9	4.2
Potential Total Factor Productivity	2.0	0.8	1.0	1.1	1.3	1.4	1.2
Potential TFP Excluding Adjustments	2.0	0.7	1.0	1.0	1.0	1.4	1.0
TFP Adjustments	0	0	0	0	0.3	0	0.2
Computer quality	0	0	0	0	0.1	0	0.1
Price measurement	0	0	0	0	0.1	0	0.2
Additional spending on security	0	0	0	0	*	0	-0.1
Contributions to Growth of Potential Output (Percentage points)							
Potential hours worked	0.9	1.5	1.1	1.0	1.0	1.1	0.9
Capital input	1.1	1.3	1.1	0.8	1.6	1.2	1.3
Potential TFP	2.0	0.8	1.0	1.1	1.3	1.4	1.2
Total Contributions	4.0	3.6	3.1	2.9	3.9	3.7	3.4
Memorandum:							
Potential Labor Productivity[b]	2.7	1.4	1.6	1.4	2.3	2.1	2.1

Source: Congressional Budget Office.

Notes: CBO assumes that the growth rate of potential total factor productivity (TFP) changed after the business-cycle peaks of 1973, 1981, and 1990 and again after 1995.

* = less than 0.05 percent.

a. The ratio of potential GDP to the potential labor force.

b. Estimated trend in the ratio of output to hours worked in the nonfarm business sector.

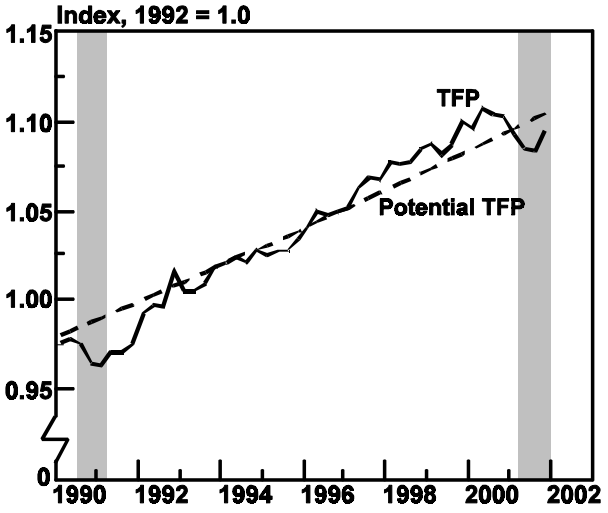
since March. (CBO estimates the trend using historical data that have been adjusted to eliminate the effects of changes in the formulas for measuring inflation in the NIPAs and to remove the impact of technological progress in computer manufacturing from overall TFP.) The 2001 recession opened only a small gap between TFP and potential TFP during 2001—even smaller than that in the mild 1990 recession (*see Figure 2-14*). Moreover, the recent strong growth in labor productivity suggests that the gap was erased during the first half of 2002.

Unemployment, Inflation, and Interest Rates

Inflation as measured by the CPI-U averages 2.5 percent in CBO's medium-term projection, and the GDP price

Figure 2-14.

Total Factor Productivity and Potential TFP



Sources: Congressional Budget Office.

Note: The data are adjusted to exclude the effects of methodological changes in the measurement of prices and the contribution to overall TFP growth of technological change in the production of computers.

index grows at an average annual rate of 2.1 percent between 2004 and 2012, or about one-tenth of a percentage point faster than CBO projected in March. That change results from CBO's expectations of faster growth in import prices and slightly higher domestic inflation. In general, CBO assumes that the inflation rate in the medium term is determined by monetary policy.

The unemployment rate will average nearly 5.2 percent in the medium term, CBO estimates. The rate falls as real GDP grows faster than potential GDP during the recovery from the recession; it then stabilizes as real GDP slows relative to potential during the projection's latter years.

No changes have been made since March in CBO's interest rate projections for the period 2004 through 2012. Those estimates add CBO's projection of inflation to a projection of real interest rates. The real rate on three-month Treasury bills will average 2.4 percent during the 2004-2012 period, CBO projects, while the real rate on 10-year Treasury notes will average 3.3 percent. When combined with the projected rates of growth in the CPI-U, those real rates imply nominal rates of 4.9 percent for Treasury bills and 5.8 percent for Treasury notes.

CBO's Projections of Taxable Income

CBO's budget projections are closely connected to its projections of economic activity and national income. But different categories of national income are taxed at different rates, and some are not taxed at all. Therefore, how income is distributed among its various components is a crucial factor in CBO's economic projections. Wage and salary disbursements and corporate profits are particularly important because the effective tax rates on those income components are higher than the rates on other kinds of income.

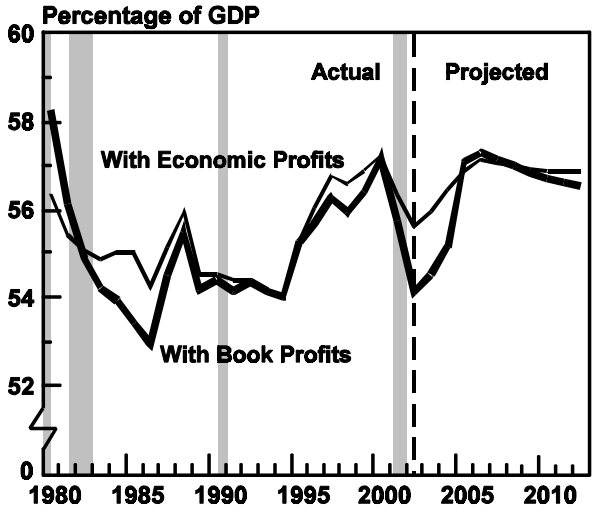
Two of the NIPA measures of corporate profits are key inputs to CBO's forecast. *Book profits*, also known as "before-tax" profits, is the measure most closely related to what firms report to the Internal Revenue Service. That measure depends on tax law. The tax code allows corporations to value their inventories and depreciate their assets at certain rates, and the book measure of profits is designed to reflect those statutory requirements. By contrast, *economic profits* reflect the values and depreciation rates that economists believe more truly represent current inventories and the economic usefulness of the capital stock.

As mentioned earlier, the economic stimulus bill that was signed into law in March of this year—the Job Creation and Worker Assistance Act of 2002—permits firms, for a three-year period, to depreciate some of their capital stock much more rapidly than they would have if they had used the true economic depreciation rate. Because of that provision, the difference between book profits and economic profits between September 11, 2001, and September 10, 2004, will be much larger than normal (*see Figure 2-15*).

The initial rise and subsequent fall of the shares over the period reflects, among other influences, changes in the amount of depreciation, which reduces the profits component of taxable income. The share of income claimed by depreciation falls through 2006—as a delayed con-

Figure 2-15.

Wages and Salaries Plus Corporate Profits



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

Note: Economic profits are corporate profits from current production—that is, adjusted for changes in the value of inventories and for capital depreciation. Book profits are profits reported by corporations with adjustments to make them consistent with the conventions of the national income and product accounts.

sequence of the downturn of investment in the recession—before rising again.

The various income shares are significantly lower on average over the projection period than CBO forecast last March. The revisions to the NIPAs in July indicated that the nontaxable portion of labor income (for example, the employer-provided share of medical insurance premiums) was a much higher percentage of GDP in recent years than had been previously reported. Similarly, business interest payments, which are deductible expenses, were revised upward. CBO's projections largely carry forward those higher percentages, which reduce the projected shares of wages and salaries and of corporate profits.

Sources of Uncertainty in the Medium Term

If the actual growth rates of key variables persistently deviate even a little from the assumptions that are built into CBO's projections, the differences can have very large effects on estimates of output and income and hence on CBO's budget projections.[13] Two important areas of uncertainty over the medium term are the growth of the labor force, particularly the influence of immigration, and the pace and diffusion of innovation and new technology. Actual output growth could vary further from CBO's projections if key ratios, such as the investment-to-output ratio, do not return to their historical averages. Of particular concern for revenue projections is the risk that the ratios between taxable and nontaxable income might follow a different path than the one incorporated in CBO's economic estimates.

13. See Congressional Budget Office, "How Changes in Assumptions Can Affect Budget Projections," in *The Budget and Economic Outlook: Fiscal Years 2003-2012* (January 2002).

APPENDIX

A

The Federal Sector of the National Income and Product Accounts

The federal budget is not the only mechanism for gauging the effect on the economy of the federal government's revenues and spending. That effect is also measured in the official national income and product accounts (NIPAs) produced by the Department of Commerce's Bureau of Economic Analysis (BEA).[1] The NIPAs provide a picture of government activity in terms of production, distribution, and use of output. They recast the government's transactions into categories that affect gross domestic product (GDP), income, and other macroeconomic totals, thereby helping to show the relationship between the federal sector and other areas of the economy. Although the categories of classification in the federal budget and the NIPAs differ significantly, the totals of the two measures are comparable. NIPA receipts and expenditures over the 2003-2012 period exceed the corresponding budget figures by roughly 1 percent.

Relationship Between the Budget and the NIPAs

A number of major differences distinguish how federal receipts and expenditures are treated in the NIPAs from how they are accounted for in the total (or unified) budget (*see Table A-1*). For example, the NIPAs shift certain items from the spending to the receipts side of the ledger to reflect intrabudgetary or voluntary payments that the budget records as negative outlays. Such shifts are referred to as *netting and grossing adjustments* and do not affect the surplus or deficit.

In contrast, other differences between the two accounting methodologies affect the surplus or deficit that each reports. The NIPA totals (but not the budget's) exclude government transactions that involve an exchange of existing assets and that therefore do not add to or subtract from current income and production. Prominent among such *lending and financial adjustments* (as they are termed in Table A-1) are those for deposit insurance outlays, cash flows for direct loans made by the government before credit reform, and sales of government assets. Other factors that separate the NIPAs' accounting from that of the budget include *geographic adjustments* (the NIPAs exclude Puerto Rico, the Virgin Islands, and a few other areas) and *timing adjustments* (the NIPAs correct for such things as irregular numbers of benefit checks in a year or shifts in the timing of corporate tax payments).

In the national economic accounts, contributions for *government employee retirement* are considered the personal income of federal workers covered by the retirement funds and therefore are not counted in the federal sector of the NIPAs. As a result, outlays from the funds

1. On July 31, 2002, BEA released new figures reflecting its comprehensive revision of the NIPAs. The Congressional Budget Office was able to update its historical data to include those revisions; however, because BEA had not yet provided detail on the changes before this report went to press, CBO has not adjusted its methodology for translating the federal budget into NIPA terms.

Table A-1.

Relationship of the Budget to the Federal Sector of the National Income and Product Accounts

(In billions of dollars)

	Actual 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Receipts												
Revenues (Budget)[a]	1,991	1,860	1,962	2,083	2,244	2,381	2,513	2,658	2,809	2,965	3,243	3,521
Differences												
Netting and grossing adjustments												
Medicare premiums	24	26	28	30	32	35	38	42	46	50	54	58
Deposit insurance premiums	*	*	*	1	1	1	1	1	2	2	2	2
Government contributions for employee OASDI and HI	11	12	13	14	15	16	17	18	19	20	21	22
Other	11	10	8	7	7	6	5	4	3	2	*	-1
Geographic adjustments	-4	-4	-4	-4	-4	-5	-5	-5	-5	-5	-6	-6
Government employee retirement	-5	-4	-4	-4	-4	-4	-4	-4	-4	-4	-3	-3
Estate and gift taxes	-28	-26	-23	-24	-21	-24	-20	-21	-23	-14	-14	-41
Universal Service Fund receipts	-5	-5	-6	-6	-6	-6	-7	-7	-7	-7	-7	-7
Timing shift of corporate estimated tax payments	23	-23	0	7	-7	0	0	0	0	0	0	0
Other	6	56	-10	-1	-3	*	4	4	4	3	4	2
Total Difference	**33**	**41**	**2**	**18**	**9**	**18**	**29**	**32**	**34**	**47**	**50**	**25**
Receipts (NIPAs)	2,024	1,901	1,965	2,101	2,253	2,400	2,543	2,690	2,843	3,012	3,293	3,546
Expenditures												
Outlays (Budget)[a]	1,864	2,017	2,107	2,195	2,283	2,366	2,461	2,569	2,676	2,788	2,920	2,999
Differences												
Netting and grossing adjustments												
Medicare premiums	24	26	28	30	32	35	38	42	46	50	54	58
Deposit insurance premiums	*	*	*	1	1	1	1	1	2	2	2	2
Government contributions for employee OASDI and HI	11	12	13	14	15	16	17	18	19	20	21	22
Other	11	10	8	7	7	6	5	4	3	2	*	-1
Lending and financial adjustments	14	9	9	9	20	18	10	8	7	7	7	7
Geographic adjustments	-11	-12	-13	-14	-14	-15	-15	-16	-17	-18	-19	-19
Timing adjustments	7	7	2	0	-12	3	9	0	0	0	-15	15
Government employee retirement	34	39	39	40	42	44	45	47	48	50	52	54
Intragovernmental transfers	-1	-6	-5	-5	-6	-5	-4	-2	-1	1	3	4
Capital transfers	-40	-44	-47	-49	-50	-52	-53	-54	-55	-56	-57	-58
Treatment of investment and depreciation	-6	-10	-9	-12	-15	-18	-21	-24	-27	-30	-34	-37
Universal Service Fund payments	-5	-5	-6	-6	-6	-6	-6	-7	-7	-7	-7	-7
Other	7	-2	-2	-2	-1	-1	-1	-1	-1	-1	-1	-1
Total Difference	**45**	**23**	**18**	**14**	**12**	**25**	**25**	**16**	**18**	**20**	**6**	**39**
Expenditures (NIPAs)	1,909	2,039	2,126	2,209	2,295	2,391	2,486	2,586	2,693	2,807	2,926	3,038

(Continued)

Table A-1.

Continued

(In billions of dollars)

	Actual 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
					Surplus							
Surplus (Budget)[a]	127	-157	-145	-111	-39	15	52	88	133	177	323	522
Differences												
Lending and financial adjustments	-14	-9	-9	-9	-20	-18	-10	-8	-7	-7	-7	-7
Geographic adjustments	7	9	9	9	10	10	11	11	12	12	13	13
Timing adjustments	16	-30	-2	7	5	-3	-9	0	0	0	15	-15
Government employee retirement	-38	-43	-44	-45	-46	-48	-49	-51	-52	-54	-56	-58
Estate and gift taxes	-28	-26	-23	-24	-21	-24	-20	-21	-23	-14	-14	-41
Intragovernmental transfers	1	6	5	5	6	5	4	2	1	-1	-3	-4
Capital transfers	40	44	47	49	50	52	53	54	55	56	57	58
Treatment of investment and depreciation	6	10	9	12	15	18	21	24	27	30	34	37
Universal Service Fund payments	*	*	*	*	*	*	*	*	*	*	*	*
Other	-1	58	-8	1	-1	1	5	5	6	5	5	3
Total Difference	**-12**	**19**	**-16**	**4**	**-3**	**-7**	**4**	**16**	**17**	**27**	**44**	**-14**
Surplus (NIPAs)	115	-138	-161	-108	-42	9	56	104	150	204	367	508

Source: Congressional Budget Office.
Notes: * = between -$500 million and $500 million.

OASDI = Old-Age, Survivors, and Disability Insurance; HI = Hospital Insurance.

a. Includes Social Security and the Postal Service.

are also treated as transactions outside the government sector of the economy. In the budget, those contributions are classified as government receipts.

Intragovernmental transfers are an adjustment made to the NIPA totals to account for payments that the government makes to federal entities whose activities are not counted as part of the budget. Nearly all such transfers involve the financing of credit programs.

The government's *capital transfers*—which include grants to state and local governments for highways, transit, air transportation, and water treatment plants—are transactions in which one party provides something (usually cash) to another without receiving anything in return. Those transactions are linked to, or are conditional on, the acquiring or disposing of an asset. Because such transactions shift existing assets from one party to another, they do not affect disposable income or production. Therefore, they are not counted in the NIPAs.

The NIPAs and the budget also differ in their *treatment of investment and depreciation*. The budget reflects all expenditures that the federal government makes, including its investment purchases of items such as buildings and aircraft carriers. The NIPAs show the current, or operating, account for the federal government; thus, they exclude government investment and include the government's consumption of fixed capital, or depreciation. (Government investment, although included in the NIPAs' calculation of GDP, is not part of its measure of federal expenditures.)

The Universal Service Fund, which is administered by a nonprofit entity, receives funds from providers of telecommunications services and disburses those funds to

providers that serve high-cost areas, low-income households, libraries, and schools, as well as to rural health care providers. As a result, the fund's receipts and payments are classified in the NIPAs as intracorporate transfers and do not show up in the national economic statistics.

The *other* category for receipts includes a number of measurement factors that are generally small. For fiscal year 2002, however, that category is unusually large. One contributing factor is the treatment of the final settlement of income taxes (payments for the balance of taxes due and refunds of overpayments, generally made between February and May). The budget records settlements in the fiscal year in which they are paid. But the NIPAs spread those receipts evenly over the four quarters of the calendar year in which they are paid, which moves some receipts into the last quarter of the calendar year and thus into the subsequent fiscal year. As a result, NIPA receipts decrease by less than budget receipts do when there is a significant drop in final settlements, as there was in fiscal year 2002 (see the discussion in Chapter 1).

NIPA Receipts and Expenditures

The federal sector of the NIPAs generally classifies receipts according to their source (*see Table A-2*). Taxes and fees paid by individuals are the leading source of the government's receipts in the 2002-2012 period. The next category in terms of size is contributions (including premiums) for social insurance programs—a category that includes Social Security taxes, Medicare taxes and premiums, unemployment insurance taxes, and federal employees' retirement contributions. The remaining categories of receipts are accruals of taxes on corporate profits, including the earnings of the Federal Reserve System, and indirect business tax and nontax accruals. (Examples of indirect business taxes are customs duties and excise taxes. Nontax accruals include deposit insurance premiums.)

The government's expenditures are classified according to their purpose and destination. Defense and nondefense consumption of goods and services represents purchases made by the government for its immediate use. (The largest share of current defense and nondefense consumption is the compensation of federal employees.) The consumption of fixed capital is the use that the government receives from its fixed assets, such as buildings or equipment; as noted earlier, that consumption appears in the accounts as depreciation.

Transfer payments are cash payments made directly to individuals, private entities, or foreign nations. Grants-in-aid are payments that the federal government makes to state or local governments, which generally use them for transfers (such as paying Medicaid benefits) and consumption (such as hiring additional police officers).

Although both the total budget and the NIPAs contain a category labeled "net interest," the NIPAs' figure is larger. Various differences cause the two measures to diverge. The biggest difference is the contrasting treatment of the interest received by the Civil Service and Military Retirement Trust Funds. In the total budget, such receipts offset the payments made to those funds by the Treasury. In the NIPAs, however, those receipts are reclassified as contributions to personal income and do not appear on the ledger detailing the government's transactions.

The category in the NIPAs labeled "subsidies less current surplus of government enterprises" contains two components, as its name suggests. The first—subsidies—is defined as monetary grants paid by the federal government to businesses, including state and local government enterprises. Subsidies are dominated by housing assistance.

The second part of the category is the current surplus of government enterprises, which are certain business-type operations of the government, such as the Postal Service. The operating costs of a government enterprise are mostly covered by the sale of goods and services to the public rather than by tax receipts. The difference between sales and current operating expenses is the enterprise's surplus or deficit. *Government enterprises* should not be confused with *government-sponsored enterprises*, or GSEs, which are private entities established and chartered by the federal government to perform specific financial functions, usually under the supervision of a government agency. Examples of GSEs include Fannie Mae and the Farm Credit System. As privately owned, though publicly chartered, corporations, GSEs are not included in the budget or in the federal sector of the NIPAs.

Table A-2.

Projections of Baseline Receipts and Expenditures as Measured by the National Income and Product Accounts

(In billions of dollars)

	Actual 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Receipts												
Personal Tax and Nontax Receipts	1,013	908	920	983	1,048	1,111	1,184	1,266	1,356	1,454	1,658	1,833
Contributions for Social Insurance[a]	713	733	775	819	864	912	960	1,009	1,058	1,114	1,172	1,233
Corporate Profits Tax Accruals	187	152	165	191	229	262	280	292	303	314	329	343
Indirect Business Tax and Nontax Accruals	111	108	106	108	112	115	119	123	126	130	133	137
Total	**2,024**	**1,901**	**1,965**	**2,101**	**2,253**	**2,400**	**2,543**	**2,690**	**2,843**	**3,012**	**3,293**	**3,546**
Expenditures												
Purchases of Goods and Services												
Defense												
Consumption	273	314	331	337	344	352	360	370	380	390	400	411
Consumption of fixed capital	64	64	65	65	66	67	67	68	68	69	70	70
Nondefense												
Consumption	152	163	179	182	184	187	191	195	199	203	208	212
Consumption of fixed capital	28	30	32	34	35	37	39	42	44	46	48	51
Subtotal	517	572	607	617	629	643	658	674	690	708	726	744
Transfer Payments												
Domestic	813	895	928	954	991	1,046	1,102	1,164	1,231	1,305	1,384	1,460
Foreign	12	13	13	13	13	13	13	13	13	13	12	12
Subtotal	825	908	940	967	1,004	1,059	1,115	1,177	1,244	1,318	1,396	1,472
Grants-in-Aid to State and Local Governments	269	299	319	337	356	375	397	419	443	470	499	531
Net Interest	248	213	209	238	258	265	267	267	265	260	252	237
Subsidies Less Current Surplus of Government Enterprises	50	47	50	49	48	49	50	49	50	51	52	54
Total	**1,909**	**2,039**	**2,126**	**2,209**	**2,295**	**2,391**	**2,486**	**2,586**	**2,693**	**2,807**	**2,926**	**3,038**
Surplus												
Surplus	115	-138	-161	-108	-42	9	56	104	150	204	367	508

Source: Congressional Budget Office.

a. Includes Social Security taxes, Medicare taxes and premiums, unemployment insurance taxes, and federal employees' retirement contributions.

APPENDIX

B

CBO's Economic Projections for 2002 Through 2012

Year-by-year economic projections for 2002 through 2012 are shown in the accompanying tables (by calendar year in Table B-1 and by fiscal year in Table B-2). The Congressional Budget Office did not try to explicitly incorporate cyclical recessions and recoveries in its projections for years after 2003. Instead, the projected values shown here for 2004 through 2012 reflect CBO's assessment of average values for that period—which take into account potential ups and downs in the business cycle.

Table B-1.

CBO's Year-by-Year Forecast and Projections for Calendar Years 2002 Through 2012

	Actual	Forecast		Projected								
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Nominal GDP (Billions of dollars)	10,082	10,429	10,912	11,484	12,082	12,727	13,414	14,137	14,890	15,675	16,497	17,358
Nominal GDP (Percentage change)	2.6	3.4	4.6	5.2	5.2	5.3	5.4	5.4	5.3	5.3	5.2	5.2
Real GDP (Percentage change)	0.3	2.3	3.0	3.3	3.1	3.2	3.2	3.2	3.2	3.1	3.1	3.0
GDP Price Index (Percentage change)	2.4	1.1	1.6	1.9	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Consumer Price Index[a] (Percentage change)	2.8	1.7	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Employment Cost Index[b] (Percentage change)	3.8	3.3	3.3	3.5	3.6	3.6	3.6	3.6	3.7	3.7	3.7	3.7
Unemployment Rate (Percent)	4.8	5.9	5.9	5.5	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Three-Month Treasury Bill Rate (Percent)	3.4	1.7	2.9	4.8	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Ten-Year Treasury Note Rate (Percent)	5.0	4.9	5.4	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Tax Bases (Billions of dollars)												
Corporate book profits	670	611	666	775	1,045	1,126	1,166	1,209	1,248	1,296	1,350	1,408
Wages and salaries	4,951	5,034	5,282	5,561	5,852	6,165	6,498	6,848	7,213	7,594	7,992	8,408
Tax Bases (Percentage of GDP)												
Corporate book profits	6.6	5.9	6.1	6.7	8.7	8.8	8.7	8.6	8.4	8.3	8.2	8.1
Wages and salaries	49.1	48.3	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4

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

Note: Percentage change is year over year.

a. The consumer price index for all urban consumers.

b. The employment cost index for wages and salaries of private-industry workers.

Table B-2.

CBO's Year-by-Year Forecast and Projections for Fiscal Years 2002 Through 2012

	Actual	Forecast		Projected								
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Nominal GDP (Billions of dollars)	10,032	10,324	10,773	11,343	11,927	12,562	13,239	13,953	14,699	15,476	16,288	17,140
Nominal GDP (Percentage change)	3.3	2.9	4.4	5.3	5.2	5.3	5.4	5.4	5.3	5.3	5.3	5.2
Real GDP (Percentage change)	0.8	1.6	2.9	3.4	3.1	3.2	3.2	3.2	3.2	3.1	3.1	3.0
GDP Price Index (Percentage change)	2.4	1.3	1.4	1.8	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Consumer Price Index[a] (Percentage change)	3.2	1.5	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Employment Cost Index[b] (Percentage change)	3.8	3.5	3.1	3.5	3.6	3.6	3.6	3.6	3.7	3.7	3.7	3.4
Unemployment Rate (Percent)	4.4	5.8	6.0	5.6	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Three-Month Treasury Bill Rate (Percent)	4.4	1.8	2.4	4.5	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Ten-Year Treasury Note Rate (Percent)	5.2	4.9	5.2	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Tax Bases (Billions of dollars)												
Corporate book profits	708	610	643	713	1,011	1,108	1,157	1,198	1,239	1,283	1,337	1,388
Wages and salaries	4,947	4,988	5,213	5,492	5,777	6,085	6,413	6,759	7,121	7,497	7,890	8,303
Tax Bases (Percentage of GDP)												
Corporate book profits	7.1	5.9	6.0	6.3	8.5	8.8	8.7	8.6	8.4	8.3	8.2	8.1
Wages and salaries	49.3	48.3	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4

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

NOTE: Percentage change is year over year.

a. The consumer price index for all urban consumers.

b. The employment cost index for wages and salaries of private-industry workers.

APPENDIX

C

Major Contributors to the Revenue and Spending Projections

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

Revenue Projections

Annabelle Bartsch	Customs duties, miscellaneous receipts
Mark Booth	Revenue forecasting
Paul Burnham	Pensions
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Pam Greene	Estate and gift taxes
Ed Harris	Social insurance taxes
Carolyn Lynch	Corporate income taxes, Federal Reserve System earnings
Larry Ozanne	Capital gains realizations
Kurt Seibert	Earned income tax credit
Andrew Shaw	Excise taxes
David Weiner	Revenue modeling
Erin Whitaker	Customs duties, miscellaneous receipts

Spending Projections

Defense, International Affairs, and Veterans' Affairs

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Raymond Hall	Defense (Navy weapons, missile defenses, atomic energy defense)
Sarah Jennings	Military retirement, veterans' education
David Newman	Defense (infrastructure and procurement)
Sam Papenfuss	Veterans' health care, military health care
Michelle Patterson	Defense (military personnel)
Matthew Schmit	Defense (operations and maintenance), homeland security, intelligence programs, radiation exposure compensation

Joseph Whitehill	International affairs (development, security, international financial institutions)
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Sheila Dacey	Child Support Enforcement, Temporary Assistance for Needy Families, Social Services Block Grant
Geoff Gerhardt	Federal civilian retirement, Pension Benefit Guaranty Corporation, Supplemental Security Income
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Kathy Ruffing	Social Security
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Donna Wong	Elementary and secondary education, Pell grants, child care, child and family services, arts and humanities

Natural and Physical Resources

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Megan Carroll	Conservation and land management
Lisa Cash Driskill	Energy, Outer Continental Shelf receipts
Mark Grabowicz	Justice, Postal Service
Kathleen Gramp	Spectrum auction receipts, energy, science, and space
Mark Hadley	Deposit insurance, credit unions, air transportation
Greg Hitz	Agriculture
David Hull	Agriculture
Ken Johnson	Commerce, Small Business Administration, Universal Service Fund
James Langley	Agriculture
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Julie Middleton	Water resources, Federal Emergency Management Agency

Rachel Milberg	Highways, Amtrak, mass transit
Matthew Pickford	General government
Deborah Reis	Recreation, water transportation, community development, other natural resources, legislative branch
Lanette Walker	Justice, regional development, Bureau of Indian Affairs

Other

Janet Airis	Unit Chief, Scorekeeping
Jeffrey Holland	Unit Chief, Projections
David Sanders	Unit Chief, Computer Support
Edward Blau	Authorization bills
Barry Blom	National income and product accounts, monthly Treasury data
Joanna Capps	Appropriation bills (Agriculture, Interior)
Sandy Davis	Budget process
Adaeze Enekwechi	Economic assumptions, budget totals
Kenneth Farris	Computer support
Mary Froehlich	Computer support
Ellen Hays	Federal pay
Catherine Little	Appropriation bills (VA-HUD, Treasury)
Felix LoStracco	Other interest, discretionary spending
Virginia Myers	Appropriation bills (Commerce-Justice-State, foreign operations)
Robert Sempsey	Appropriation bills (Labor-HHS, Transportation, military construction)
Patrice Watson	Computer support
Amy Wendholt	Appropriation bills (Defense, energy and water)
Jason Wheelock	Appropriation bills (Defense, energy and water)
Jina Yoon	Net interest on the public debt