

## The Economic Outlook

**T**he economy should continue to grow at a healthy rate over the next two years, for a recovery appears to have taken hold. Stronger investment by businesses will lead the way, as spending on equipment and structures continues to bounce back from the depressed levels of the past few years and firms shift from drawing down their inventories to restocking their shelves. The rapid productivity growth of the past three years has contributed to the economy's capacity to expand without generating significant upward pressure on inflation. Indeed, in light of the unexpected strength of productivity during 2003, the Congressional Budget Office has increased both its two-year forecast and its medium-term projection of the level of potential output (the level of gross domestic product consistent with a high rate of resource use). That increase, in turn, has boosted the forecast and projected levels of real (inflation-adjusted) GDP, which CBO now expects will expand by 4.8 percent in calendar year 2004 and 4.2 percent in 2005 before growing at an average annual rate of 2.7 percent over the medium term, from 2006 to 2014.

A variety of factors could produce growth over the next 10 years that is stronger or weaker than CBO's best estimate. Cyclical factors—those deriving from the ups and downs of the business cycle—are one potential source of risk. The confidence of businesses and investors, the growth of foreign economies, the level of stock prices, the rate of personal saving, and the level of housing activity could each be weaker or stronger than CBO has estimated. Beyond those risks, the accuracy of the forecast is vulnerable as well to the uncertainty that surrounds the economy's response to the war on terrorism, developments in Iraq, and events elsewhere in the world. Looking to the medium term, productivity gains could remain unusually large, buoying income and profits and thus boosting output substantially. Alternatively, productivity could grow at a below-average rate over the next few

years, reversing its extraordinary recent gains and resulting in a lower level of GDP than CBO expects.

### Overview of the Forecast

Real GDP will grow at above-average rates during 2004 and 2005, CBO estimates, as the economy continues to rebound from the recession of 2001 and its aftermath (*see Table 2-1 and Figure 2-1*). That growth will close the gap between GDP and potential GDP. Indeed, its momentum is anticipated to carry GDP slightly above its potential level in 2005.

CBO does not attempt to forecast cyclical fluctuations after 2005; instead, its medium-term projection (through 2014) reflects where GDP will be, on average, over future business cycles. As a result, the growth of GDP will keep pace with that of potential GDP. Real GDP growth will average 2.8 percent from 2006 to 2009 and 2.5 percent from 2010 to 2014, CBO expects. The slower growth projected for the latter half of the period is due primarily to a lower rate of labor force expansion, as the baby-boom generation begins to retire.

CBO's forecast incorporates the revisions to the national income and product accounts (NIPAs) published in December 2003, as well as the likely macroeconomic effects of provisions in the Economic Growth and Tax Relief Reconciliation Act of 2001 and the Jobs and Growth Tax Relief Reconciliation Act of 2003, or JGTRRA (Public Law 108-27), including the laws' influence on labor supply and saving.<sup>1</sup> CBO's estimates of such effects incorpo-

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1. For an analysis of JGTRRA's likely effects on the economy over the medium term, see Congressional Budget Office, *The Budget and Economic Outlook: An Update* (August 2003), Box 2-3. The NIPAs, which are maintained by the Bureau of Economic Analysis, are the historical data that form the basis of analysts' views of the economy.

**Table 2-1.****CBO's Economic Projections for Calendar Years 2003 Through 2014**

	Estimated	Forecast		Projected Annual Average	
	2003	2004	2005	2006-2009	2010-2014
Nominal GDP (Billions of dollars)	10,980	11,629	12,243	14,686 <sup>a</sup>	18,266 <sup>b</sup>
Nominal GDP (Percentage change)	4.8	5.9	5.3	4.7	4.5
Real GDP (Percentage change)	3.2	4.8	4.2	2.8	2.5
GDP Price Index (Percentage change)	1.6	1.1	1.1	1.8	1.9
Consumer Price Index <sup>c</sup> (Percentage change)	2.3	1.6	1.7	2.2	2.2
Unemployment Rate (Percent)	6.0	5.8	5.3	5.1	5.2
Three-Month Treasury Bill Rate (Percent)	1.0	1.3	3.0	4.5	4.6
Ten-Year Treasury Note Rate (Percent)	4.0	4.6	5.4	5.5	5.5
Tax Bases (Percentage of GDP)					
Corporate book profits	7.7	8.1	10.8	9.9	9.1
Wages and salaries	46.3	45.9	46.1	46.4	46.4
Tax Bases (Billions of dollars)					
Corporate book profits	844	948	1,319	1,359 <sup>a</sup>	1,670 <sup>b</sup>
Wages and salaries	5,087	5,333	5,639	6,823 <sup>a</sup>	8,476 <sup>b</sup>

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

Note: Percentage changes are year over year. Year-by-year economic projections for calendar and fiscal years 2004 through 2014 appear in Appendix E.

a. Level in 2009.

b. Level in 2014.

c. The consumer price index for all urban consumers.

rate the assumption that private businesses and households will behave as if they believe that the “sunsets” (scheduled expirations of temporary tax cuts) contained in EGTRRA and JGTRRA will, indeed, occur.

The rate of unemployment in CBO's two-year forecast depends on CBO's estimate of the gap between GDP and potential GDP. As the gap closes, the unemployment rate is expected to fall to 5.8 percent in 2004 and 5.3 percent in 2005. After briefly dipping to 5.0 percent in 2006, the rate will average 5.2 percent from 2007 to 2014.

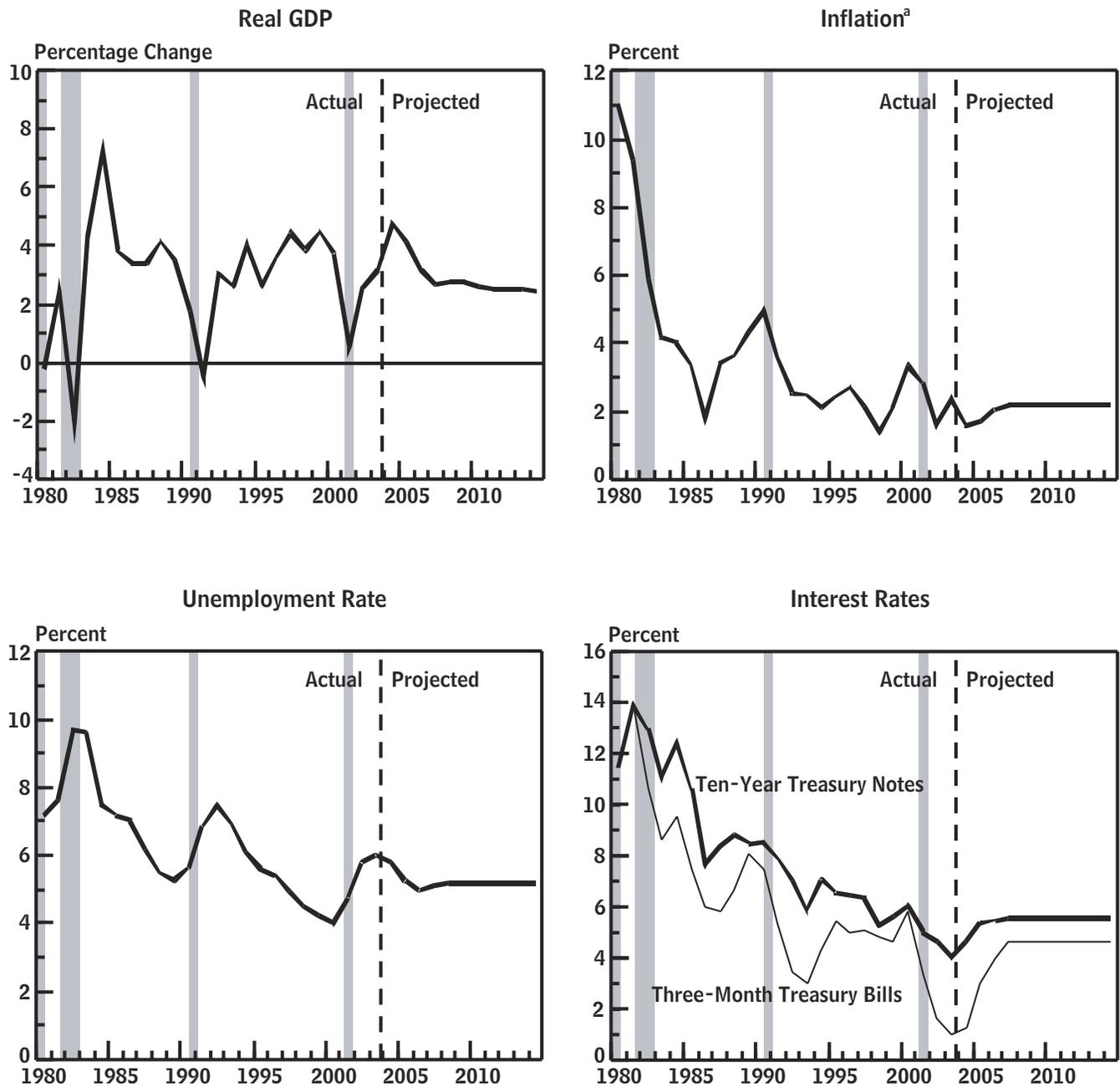
During the next 10 years, inflation and nominal interest rates are expected to remain low by historical standards, even though interest rates are likely to rise from their current levels. Consumer price inflation, according to CBO's two-year estimates, will fall from 2.3 percent in 2003 to

1.6 percent in 2004 before gradually climbing to an average annual rate of 2.2 percent from 2006 to 2014. The interest rate on three-month Treasury bills is forecast to increase from an average of just 1.0 percent in 2003 to 1.3 percent in 2004, 3.0 percent in 2005, and 4.0 percent in 2006; it is then expected to average 4.6 percent from 2007 to 2014. Yields on 10-year Treasury notes will also follow an upward path, rising from an average of 4.0 percent in 2003 to 4.6 percent in 2004, 5.4 percent in 2005, and 5.5 percent from 2006 to 2014.

Fiscal policy will be expansionary in 2004, in CBO's view, but not as much as it was last year. About two-thirds of the stimulus incorporated in the budget baseline for fiscal year 2004 derives from JGTRRA, but a portion re-

**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.

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

a. The change in the consumer price index for all urban consumers, using the Bureau of Labor Statistics' research series that applies the current methodology to historical price data.

**Table 2-2.****Comparison of *Blue Chip's* and CBO's Forecasts for Calendar Years 2004 and 2005**

	Estimated	Forecast	
	2003	2004	2005
Nominal GDP (Percentage change)			
<i>Blue Chip</i> high 10		6.8	6.1
<i>Blue Chip</i> consensus		6.1	5.4
<b>CBO</b>	<b>4.8</b>	<b>5.9</b>	<b>5.3</b>
<i>Blue Chip</i> low 10		5.4	4.7
Real GDP (Percentage change)			
<i>Blue Chip</i> high 10		5.1	4.2
<i>Blue Chip</i> consensus		4.6	3.7
<b>CBO</b>	<b>3.2</b>	<b>4.8</b>	<b>4.2</b>
<i>Blue Chip</i> low 10		4.0	3.1
GDP Price Index (Percentage change)			
<i>Blue Chip</i> high 10		1.9	2.2
<i>Blue Chip</i> consensus		1.4	1.7
<b>CBO</b>	<b>1.6</b>	<b>1.1</b>	<b>1.1</b>
<i>Blue Chip</i> low 10		1.0	1.1
Consumer Price Index <sup>a</sup> (Percentage change)			
<i>Blue Chip</i> high 10		2.3	2.7
<i>Blue Chip</i> consensus		1.7	2.1
<b>CBO</b>	<b>2.3</b>	<b>1.6</b>	<b>1.7</b>
<i>Blue Chip</i> low 10		1.3	1.5
Unemployment Rate (Percent)			
<i>Blue Chip</i> high 10		6.0	5.8
<i>Blue Chip</i> consensus		5.7	5.4
<b>CBO</b>	<b>6.0</b>	<b>5.8</b>	<b>5.3</b>
<i>Blue Chip</i> low 10		5.5	5.1
Three-Month Treasury Bill Rate (Percent)			
<i>Blue Chip</i> high 10		1.7	3.5
<i>Blue Chip</i> consensus		1.3	2.6
<b>CBO</b>	<b>1.0</b>	<b>1.3</b>	<b>3.0</b>
<i>Blue Chip</i> low 10		1.1	1.7
Ten-Year Treasury Note Rate (Percent)			
<i>Blue Chip</i> high 10		5.1	5.9
<i>Blue Chip</i> consensus		4.7	5.4
<b>CBO</b>	<b>4.0</b>	<b>4.6</b>	<b>5.4</b>
<i>Blue Chip</i> low 10		4.3	4.8

Source: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board; Aspen Publishers, Inc., *Blue Chip Economic Indicators* (January 10, 2004).

Note: The *Blue Chip* high 10 is the average of the 10 highest *Blue Chip* forecasts; the *Blue Chip* consensus is the average of the roughly 50 individual *Blue Chip* forecasts; and the *Blue Chip* low 10 is the average of the 10 lowest *Blue Chip* forecasts.

a. The consumer price index for all urban consumers.

reflects the supplemental appropriations passed in November 2003. Because the cuts in individual income tax withholding associated with JGTRRA occurred in July 2003, much of the impetus to growth in the 2004 fiscal year actually began in the third quarter of calendar year 2003, which also marked the advanced rebates for the increase in the child tax credits enacted in JGTRRA. CBO expects that fiscal policy will turn moderately contractionary in 2005, mainly because some provisions of JGTRRA expire that had temporarily accelerated or increased various tax cuts originally enacted in EGTRRA and in the Job Creation and Worker Assistance Act of 2002 (JCWAA). By comparison, the unusually easy stance of current monetary policy is expected to gradually give way to a more neutral posture in both 2004 and 2005.

CBO's assessment of the economy's near-term outlook differs little from the latest *Blue Chip* consensus forecast, an average of roughly 50 private-sector forecasts (see Table 2-2). CBO expects somewhat stronger growth of real GDP during 2004 and 2005 than the consensus does and also lower inflation. Another point of difference is that CBO's forecast of the rate on three-month Treasury bills for 2005 is somewhat higher than the *Blue Chip* consensus estimate.

## Productivity Growth

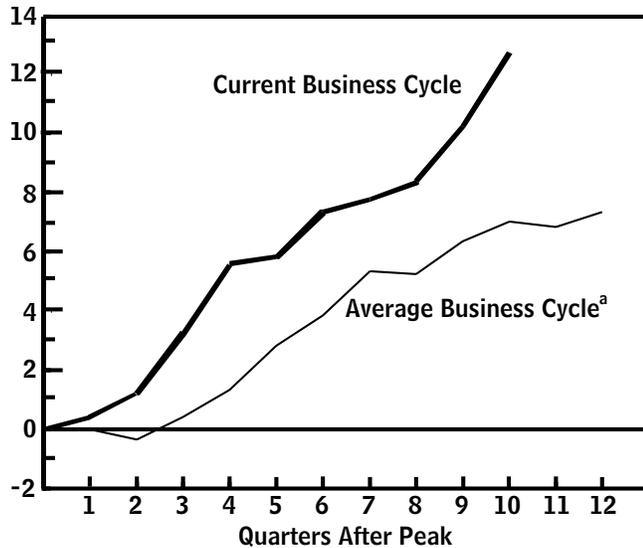
The most striking economic development of the past three years has been the robust growth of labor productivity (real output per hour of labor). Productivity is crucial in determining CBO's estimate of potential GDP, with which actual GDP is assumed to converge over the medium term. The unexpectedly vigorous growth of productivity in recent years, and especially in 2003, has led CBO to revise its forecast and medium-term projection of the levels of both GDP and potential GDP.

After the rapid rise in productivity in the late 1990s and 2000—itself an unusual phenomenon in the later stages of an expansion—a period of slower-than-average growth might have been expected. Instead, labor productivity has soared, climbing in 2003 at an annual rate of 2.2 percent in the first quarter, 7.1 percent in the second quarter, and 9.3 percent in the third quarter. Moreover, the average rate of growth for the two years ending in the third quarter of 2003—5.6 percent—was higher than the rate for any previous eight-quarter span since 1950.

In the context of the business cycle, productivity growth is typically strong during recoveries and the early part of

**Figure 2-2.****Labor Productivity**

(Percentage difference from peak value)



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

Note: The peak of the last business cycle was designated by the official arbiter, the National Bureau of Economic Research, as March 2001.

a. Average of the eight recoveries during the 1949-2000 period, excluding the brief 1980 recovery.

expansions, but its pace in recent years has been exceptional, especially for the mild recovery that has followed the 2001 downturn. In the third quarter of 2003, labor productivity was 13 percent above its value at the peak of the previous business cycle, in the first quarter of 2001 (see Figure 2-2). That rise was well above the increase (about 7 percent) that might have been expected by that point in an average recovery.

A complete explanation of the sources of such growth is not yet available. However, research suggests that possible hypotheses include the following:

- **Cautiousness of Businesses.** Companies may have been particularly reluctant to hire more workers—as a result of geopolitical uncertainties arising from terrorism or the war in Iraq—and focused instead on improving productivity. (Certainly, the growth of employment, as measured by the Bureau of Labor Statistics' survey of business establishments, has been especially weak during the recovery and expansion that have followed the 2001 recession.) Alternatively, businesses may have

been unusually pessimistic about their future prospects or more narrowly focused than usual on increasing profits, perhaps because of the strong foreign competition that many of them are experiencing. By that logic, the rapid growth of productivity is likely to be temporary, lasting only until business confidence picks up, at which point firms will increase their hiring and productivity will return to its pre-2001 trend rate.

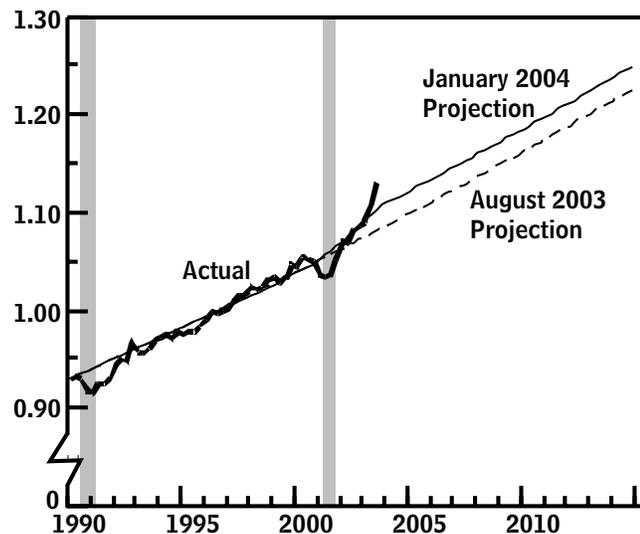
- **Adjustment Costs.** Several analysts have suggested that the costs of absorbing the new capital goods and technologies that many firms acquired during the late 1990s may have temporarily suppressed productivity growth at the time (even though it was still strong) and then boosted it after 2001. According to that view, companies diverted resources from production as they integrated the new items into their productive processes. The pause that has occurred in capital spending since 2001 has allowed companies to catch up, and the recent hike in productivity is a delayed payoff to the investments of the 1990s.<sup>2</sup> That hypothesis regarding the strong recent rise in productivity also implies that the increase in growth will be temporary.
- **Diffusion of Technologies.** Another possibility is that computers and other information-related technologies are fundamentally transforming the way the economy works, much as the electric dynamo and the internal combustion engine did in previous eras. If that hypothesis is valid, productivity growth might remain faster than its historical average during a transition period that could last several decades.

As those various explanations suggest, a key question facing forecasters today is whether the recent spike in labor productivity growth is largely a temporary, one-time event or whether it is generated by a persistent shift in the underlying trend growth of the economy's productive potential. CBO generally discounts short-run surges in productivity; in the past, sudden bursts of growth have tended to be followed by periods of slower gains, and estimates of growth are subject to repeated revision as time goes on. But the recent dramatic upswing in productivity

2. See Susanto Basu, John G. Fernald, and Matthew D. Shapiro, "Productivity Growth in the 1990s: Technology, Utilization, or Adjustment?" *Carnegie-Rochester Conference Series on Public Policy*, vol. 55 (December 2001), pp. 117-165.

**Figure 2-3.****Total Factor Productivity: Actual and CBO's Projections**

(Index, 1996 = 1.0)



Source: Congressional Budget Office.

Note: Total factor productivity is the increase in production that is not explained by increases in labor or capital inputs.

growth probably indicates at least a temporary rise above the underlying trend that CBO's usual estimating method would have produced.<sup>3</sup> Moreover, evidence suggests that those gains in productive potential are not limited to the computer manufacturing sector, as was previously thought, but are widespread.<sup>4</sup>

Consequently, CBO assumed that the recent surge in productivity reflects a temporary change in the rate of growth over the period from 2001 to 2003, but it did not incorporate in its estimates a change in future growth. Specifically, CBO raised its estimate of the trend growth of total factor productivity (TFP) during the 2001-2003 period by an average annual rate of 0.7 percentage points.<sup>5</sup> From 2004 onward, gains in TFP are expected to

3. For CBO's usual method of estimating potential GDP, see Congressional Budget Office, *CBO's Method for Estimating Potential Output: An Update* (August 2001).

4. See William Nordhaus, "Productivity Growth and the New Economy," *Brookings Papers on Economic Activity*, no. 2 (2002); and Jack E. Triplett and Barry Bosworth, "'Baumol's Disease' Has Been Cured: IT and Multifactor Productivity in U.S. Services Industries" (paper prepared for the Texas A&M conference "The New Economy: How New? How Resilient?" in April 2002).

revert to the slower pre-2001 rate, although the level of TFP will remain higher than it would have been if growth had not accelerated over the 2001-2003 span (see *Figure 2-3*). The cumulative adjustment to productivity trend growth accounts for about 40 percent of the deviation of actual TFP from CBO's previous estimate of its trend level in the third quarter of 2003.

**The Output Gap and the Composition of Demand Growth**

Changes in the gap between the demand for output and the economy's ability to supply it (potential GDP) have influenced the nation's economic fortunes over the past three years and will continue to affect the growth of employment and prices for the next two years. Potential GDP has risen sharply in recent years because of rapid productivity growth, but demand has failed to keep pace, causing a drop in employment and contributing to low inflation.

From 2001 until mid-2003, economic factors that increased demand (in particular, robust growth of consumption and supportive fiscal and monetary policies) were more than offset by factors that curbed it (such as declining investor and business confidence, weak growth of foreign demand, a strong dollar, and a slow rise in pre-tax income). Focusing on financial influences only, one index of conditions in the financial markets finds that the negative impact on GDP growth of a stronger dollar and lower stock prices overpowered the positive effect of easier monetary policy (see *Figure 2-4*). The result was an economy that was growing—but too slowly to prevent further declines in employment.

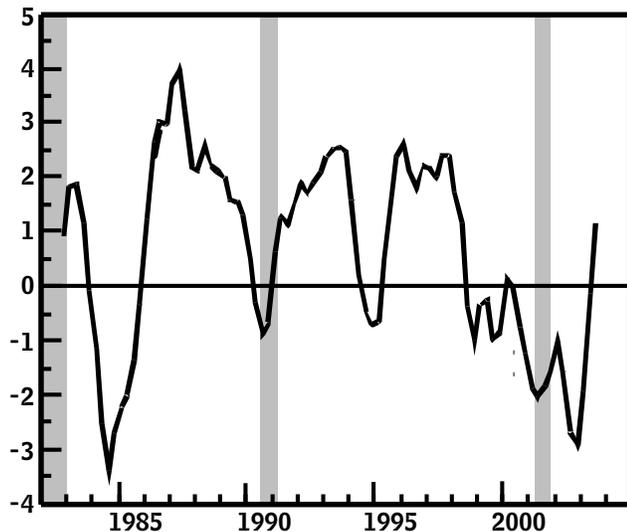
CBO expects that the growth of potential GDP will slow in 2004 and 2005 from its unusually rapid pace between 2001 and 2003, the growth of aggregate demand will pick up, and employment will post solid gains. The change between the fortunes of various sectors of the economy in the recent past and how CBO forecasts they will fare in the coming two years illustrates the factors that are expected to speed growth in the near term. The sectors most buffeted by weakening demand over the past three years—business investment and exports—will probably grow the most rapidly in 2004 and 2005. Those two categories of activity faced downward pressures that

5. Total factor productivity is the increase in production that is not explained by increases in labor or capital inputs.

**Figure 2-4.**

## Index of Monetary and Financial Conditions

(Percentage points of GDP growth)



Sources: Congressional Budget Office; Macroeconomic Advisers, LLC.

Notes: This index estimates how much financial markets contribute to the rate of growth of real GDP. It draws on statistical relationships between real GDP and financial variables such as interest rates, exchange rates, and equity values. When the index is positive, overall conditions in the financial markets are conducive to the growth of real GDP. When it is negative, overall financial market conditions are a drag on growth.

The last data point is the third quarter of 2003.

dwarfed the benefits of shifts in policy when investor and business confidence collapsed, the growth of foreign demand slackened, and the dollar rose in value. By contrast, consumption and the demand for housing held up well over the 2001-2003 period, aided by fiscal and monetary policies that tended to offset adverse effects from the decline in stock market wealth and the slow growth of pretax income. CBO forecasts that consumption and housing demand will remain at high levels over the next two years but will grow more slowly than the rest of the economy.

### The Business Sector

Higher levels of investment by businesses—in equipment, software, structures, and inventories—will provide a significant share of economic growth during 2004 and 2005 (as they did during the second half of 2003). Much of that strength will come from reversal of the forces that

prevailed during the previous three years, as growth in the rest of the economy accelerates and confidence among businesses and investors in those businesses remains above the depressed levels of 2002. Also encouraging business fixed investment in 2004 are provisions of JGTRRA that allow more favorable tax treatment of purchases of equipment. Both a rise in demand for their products and the need to restock their relatively empty shelves will help stimulate firms to accumulate new inventories of goods during the next two years.

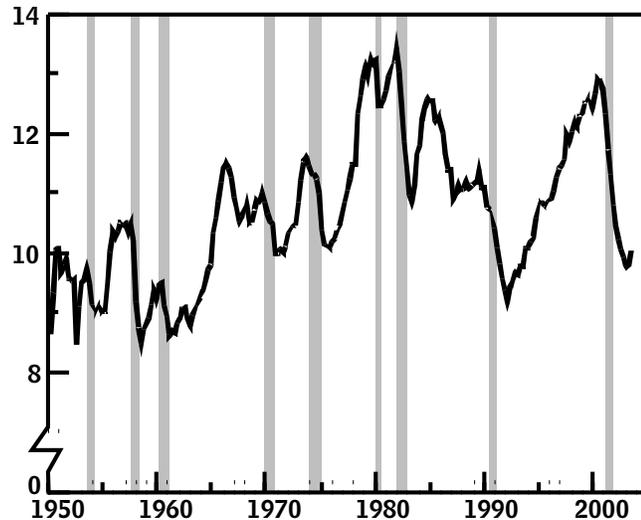
**Business Fixed Investment.** The decline in business fixed investment between the third quarter of 2000 and the first quarter of 2003 was unusually steep and long-lasting (see Figure 2-5). At least three factors played a role in that slide, the most important of which was that demand for businesses' output grew more slowly than their ability to produce it with their existing capital and labor. Thus, in general, firms cut their payrolls and reduced investment below the levels needed to fully replace all of their depreciating equipment and structures. A second factor was that declining stock prices and higher risk premiums on corporate securities increased the cost of capital—the hurdle that the expected rate of return from a new investment must clear in order for that investment to be considered profitable.<sup>6</sup> A third factor was that the late 1990s witnessed large investments by firms in information technology, especially telecommunications equipment. Investment in those items fell sharply when many businesses found themselves with more capacity than they needed.

Each of those adverse factors has begun to stabilize or even turn around, suggesting solid gains for the economy from such investment over the next two years. CBO expects that real output will grow faster, on average, than productivity, increasing demand for new structures and equipment. In addition, the cost of capital has fallen since late 2002, increasing the expected profitability of new investments. Between October 2002 and December 2003, stock prices rose by more than 25 percent, and yields on corporate bonds fell by between 0.7 and 1.1 percentage points. Businesses, moreover, have worked off much of the excess capacity in information technology that they built up in the late 1990s and 2000. The remaining portion, the part arising from cyclical weakness in the econ-

6. The risk premium is the additional return that investors require to hold assets whose returns are more variable than those of riskless assets.

**Figure 2-5.****Business Fixed Investment**

(Percentage of potential GDP)



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

omy, will diminish as demand continues to recover and will not hinder investment growth. (In fact, rates of capacity utilization for firms are usually low when investment begins to recover after a downturn.)

Recently enacted changes in tax law will also spur investment in 2004. JCWAA contained incentives to bolster businesses' spending on equipment and structures by temporarily increasing the fraction of new investment that firms can "expense" (deduct from their taxable income immediately rather than over time). JGTRRA expanded those incentives by allowing firms, through the end of 2004, to expense 50 percent of the value of new equipment and of some structures in the tax year in which the property is acquired. In addition, it increased, through 2005, the limit on small businesses' expensing of new depreciable assets. By reducing the cost of capital, those incentives will boost investment in equipment by about 4 percent in 2004, CBO forecasts. In addition, the incentives are likely to induce some firms to take advantage of the expensing provision before it expires by shifting some investment from 2005 to 2004.

**Inventory Investment.** Inventory investment, like business fixed investment, will benefit from a reversal of the adverse conditions responsible for its slump in recent years. Facing a sharp slowdown in demand, businesses caught with excess inventories cleared their shelves ag-

gressively in 2001, as they had in past recessions (see *Figure 2-6*). Although inventories rose modestly in 2002, they fell again during the second and third quarters of 2003—the result of faster growth of sales than firms had expected.

The strong growth of output forecast for 2004 and 2005 and firms' currently lean inventory stocks (even after accounting for the historical downward trend in the ratio of inventories to sales) are likely to trigger significant accumulation of inventories. Such investment has frequently been a substantial component of past recoveries: inventory change reached at least 0.5 percent of GDP in the early stages of each of the past four expansions, and it surpassed 1.0 percent of GDP in three of them. CBO forecasts that the swing by businesses from drawing down inventories to rebuilding them will add significantly to GDP growth in 2004 and 2005.

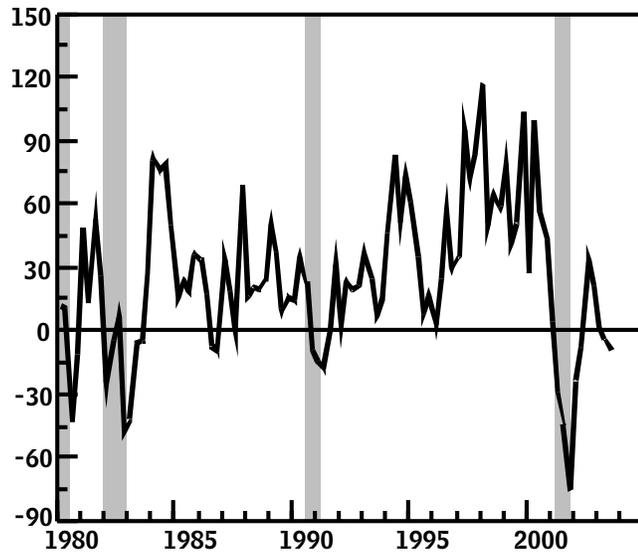
**The International Sector**

The foreign sector has generally hindered growth in the U.S. economy over most of the past three years, but CBO forecasts that it will cease to have that dampening effect in 2004 and will add to growth in 2005. From the beginning of 2001 through the middle of 2003, lower real net exports of goods and services accounted for an average of 0.5 percentage points of slower real GDP growth—a surprisingly large amount, given that weakness in the U.S. economy usually raises net exports (by holding down imports). Although the level of real imports fell during the 2001 recession, the level of real exports fell by even more, as foreign economies weakened and a rise in the dollar through early 2002 (which made U.S. goods and services relatively more expensive) hurt the United States' ability to compete overseas. Export growth frequently slows when foreign economic growth slows with that of the United States, but the recent deceleration was unusually large (see *Figure 2-7*). Between the end of 2000 and the middle of 2003, deficits in both the nominal and real U.S. trade balances widened by about \$100 billion.

The conditions that influence net exports should improve over the next two years, CBO believes. Growth is expected to pick up in many of the United States' important export markets. In addition, the drop in the dollar against many currencies since early 2002 has improved the price competitiveness of U.S. products. Despite the rise in imports that is likely to occur as economic growth in this country speeds up, CBO expects that the nation's

**Figure 2-6.****Change in Businesses' Inventories**

(Billions of chained 2000 dollars)



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

nominal and real trade deficits will shrink somewhat in 2005.

**Foreign Economic Conditions.** Economic growth is likely to accelerate in the industrialized countries in 2004. Canada's economy is rebounding from the contraction it experienced in the spring of 2003—caused by news of outbreaks of SARS (severe acute respiratory syndrome) and mad cow disease—and will benefit from growth in its exports to the United States. Japan's economy has embarked on a recovery; improvements have been noted in corporate profits, exports, industrial activity, and the stock market. Most forecasters also expect growth in Western Europe to pick up in 2004, as downturns in France and Germany give way to recovery and economic activity in the United Kingdom quickens. Nevertheless, the appreciation of those countries' currencies against the dollar and the resulting loss of their price competitiveness pose a risk to the anticipated rise in their economic growth, as does the possibility of only weak upticks in those countries' domestic demand.

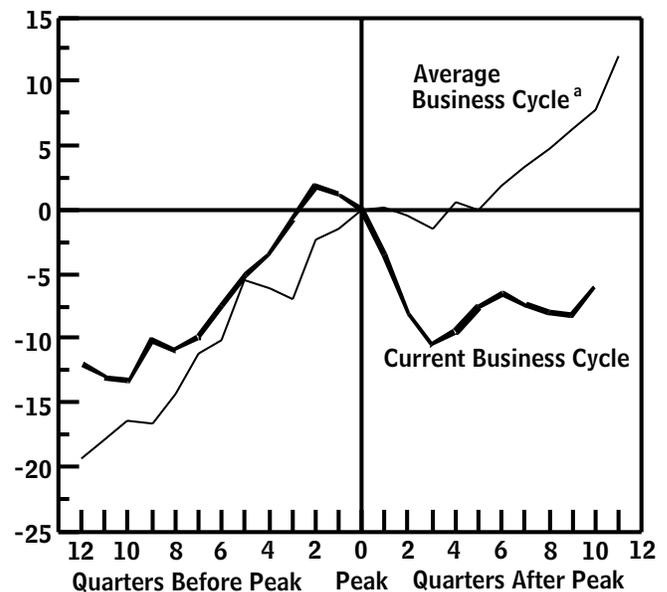
In the developing world, as in the industrialized nations, conditions are also improving. The economies of emerging Asian countries are benefiting from the U.S. recovery and continued rapid growth in China. South Korea's economy—which fell into a recession during the first half

of 2003—and those economies of East Asia that contracted during the second quarter of 2003 because of the fallout from the SARS epidemic are all expected to start to grow again. Mexico's economy, which expanded barely at all during 2003, may well strengthen in 2004 along with that of the United States. Economic conditions in Argentina and Brazil have also markedly improved.

**The Dollar's Exchange Rate.** CBO expects the value of the dollar to continue a fall that began in March 2002 and to gradually decline during 2004 and 2005—because of still-large trade deficits and because a growing level of net foreign indebtedness in the United States may make foreign investors less willing to add to their holdings of U.S. assets. Between the fourth quarter of 2002 and the fourth quarter of 2003, the real trade-weighted value of the dollar dropped by 9 percent, as the nominal value of the dollar fell by 16 percent against the euro, 8 percent against the British pound, 11 percent against the Japa-

**Figure 2-7.****Real Exports**

(Percentage difference from peak value)



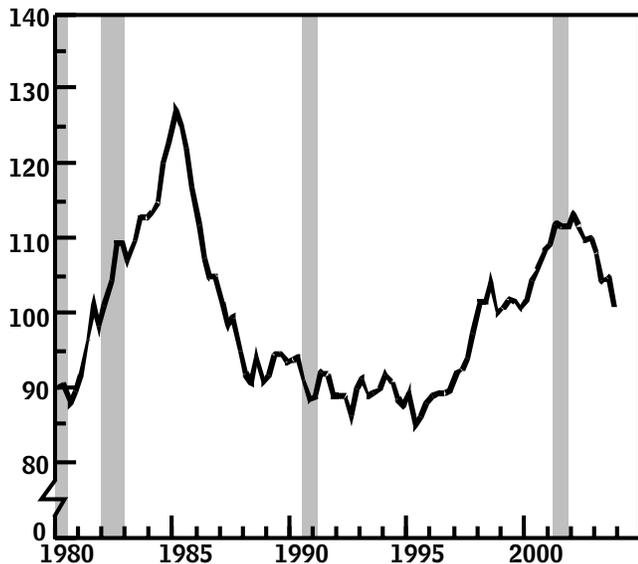
Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Note: The peak of the last business cycle was designated by the official arbiter, the National Bureau of Economic Research, as March 2001.

a. Average of the eight recoveries during the 1949-2000 period, excluding the brief 1980 recovery.

**Figure 2-8.****Real Trade-Weighted Value of the U.S. Dollar**

(March 1973=100)



Sources: Congressional Budget Office; Federal Reserve Board of Governors.

Note: The figure shows the real trade-weighted value of the dollar against a broad set of currencies. (For a discussion of the term "real trade-weighted value of the dollar," see footnote 7 below.)

nese yen, and 16 percent against the Canadian dollar (see Figure 2-8).<sup>7</sup> The U.S. currency held up better against the currencies of many less developed countries, including Mexico, China, and much of Southeast Asia, in part because many developing countries intervene decisively in currency markets to manage their exchange rates relative to the dollar.

**The Current Account.** Compared with the trade balance, the current account is a broader measure of U.S. interactions with the rest of the world because it not only includes trade but also net investment income and net uni-

lateral current transfers.<sup>8</sup> The current account indicates, on balance, how much the United States borrows each year from the rest of the world. Cumulative net borrowing from foreigners has brought the United States' net debt to the rest of the world to about 23 percent of GDP. The interest payments resulting from the net debt to foreigners make the current-account deficit harder to eliminate than the trade deficit.

Some analysts are concerned about the level of the current-account deficit and the United States' net debt to foreigners. There is little reason for concern, however, so long as foreign investors find the United States an attractive place to invest. That attraction is tied to the stability of the United States' political and legal systems and its dynamic economy with flexible markets and the expectation of relatively strong growth.

In part, the size of the current-account balance reflects factors that influence saving and investment in the United States, as recent experience shows. In the 1990s, for example, the rate of private saving fell throughout the decade, but overall national saving increased during much of that time because the reduction that was occurring in new federal borrowing more than offset the drop in private saving. Even so, the demand for funds to finance domestic investment outstripped national saving, and the current-account deficit grew. In that period, an important determinant of the deficit seems to have been foreign investors' expectations of attractive returns on investments in the United States.

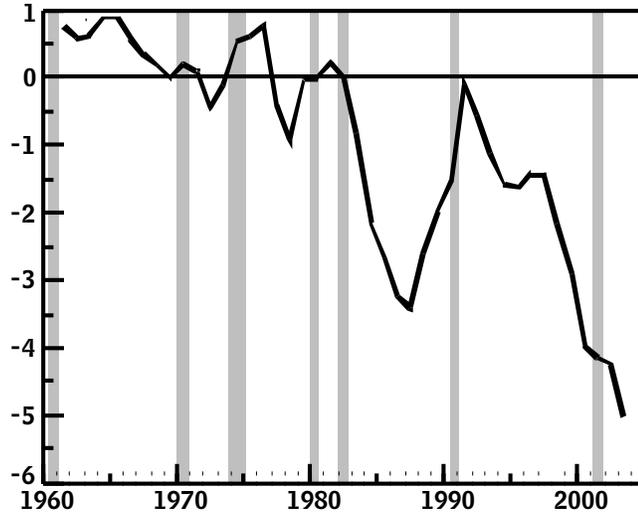
During the recent recession and its aftermath, foreign investors continued purchasing U.S. assets, perhaps in part because of the dearth of investment opportunities elsewhere as a result of generally weak economic activity abroad. The current-account deficit continued to grow, with only a small interruption in 2001 (see Figure 2-9). Imports fell, as they typically do during a recession, but exports were unusually weak, reinforcing the slump in output from low domestic investment. At the same time, the inflows of capital probably helped hold down interest rates. The recent weakness of the dollar suggests that foreign investors' interest in dollar-denominated assets may

7. The *trade-weighted value of the dollar* is a weighted average of the value of the U.S. dollar relative to the currencies of U.S. trading partners, with the weight of each country's currency equal to that country's share of U.S. trade. The *real trade-weighted value of the dollar* is a measure of the trade-weighted value that takes account of the difference between the U.S. price level relative to the trade-weighted foreign price level. An increase in the dollar's real trade-weighted value means an increase in the price of U.S. goods and services relative to the foreign price.

8. Unilateral transfers are payments from one country to another that are not made in exchange for a good or a service—specifically, gifts or pension payments to foreign residents and grants to foreign governments.

**Figure 2-9.****The Current-Account Balance**

(Percentage of GDP)



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

Note: The current account indicates, on balance, how much the United States borrows each year from the rest of the world.

be diminishing; they are only willing to buy them at a lower price. Nevertheless, the drop in the dollar will ultimately mean a smaller current-account deficit.

**The Household Sector**

Consumption is likely to grow more slowly than the overall economy during the next two years, whereas real residential investment is likely to contribute little to growth during that time. In contrast to business investment and net exports, consumption and housing continued to expand during the recession and the subsequent two years of slow overall growth; consequently, they will not experience a comparable cyclical rebound. Although real personal income fell during the recession of 2001 and grew only moderately during 2002 and 2003, expansionary fiscal and monetary policies contributed to households' spending by boosting disposable income and holding down borrowing costs.<sup>9</sup> Under current law, tax provisions will tighten somewhat in 2005; at the same time, interest rates will rise, CBO projects. As a result, growth in the

9. Disposable income equals personal income (the income that individuals receive, including transfer payments) less personal tax payments.

household sector will lag behind growth in the rest of the economy.

**Income.** Expansionary fiscal policy, in the form of tax cuts and higher government transfer payments, boosted disposable (after-tax) income sharply from 2001 to 2003. EGTRRA and JGTRRA both reduced individual income taxes, and JCWAA and subsequent extensions provided additional unemployment benefits. Partly as a result of those changes, taxes paid by individuals to governments (personal income tax payments plus workers' contributions to social insurance programs—mainly Social Security and Medicare) net of transfer payments received from governments fell from 6.3 percent of personal income during the second quarter of 2001 to -0.2 percent by the third quarter of 2003 (see Figure 2-10). (One-time rebates subtracted 0.6 percentage points from the third-quarter figure.) Thus, although real personal income grew at an annual rate of just 1.3 percent between the second quarter of 2001 and the third quarter of 2003, real disposable income grew at an annual rate of 3.9 percent.

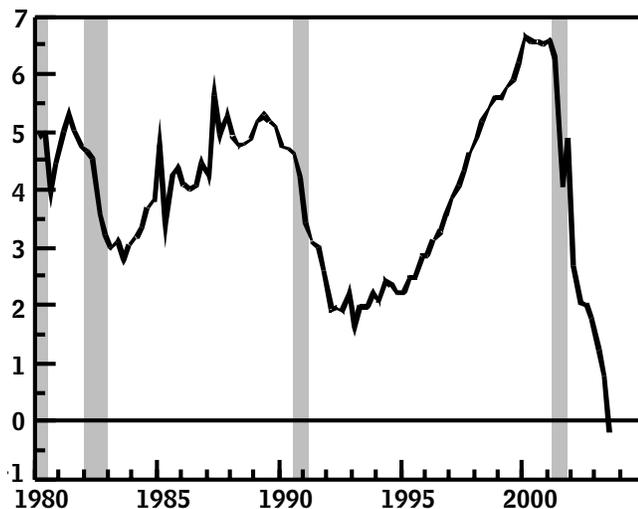
The slow growth of personal income reflected declining employment and moderate growth of real hourly compensation. Labor compensation's share of GDP fell from 58.8 percent in the second quarter of 2001 to 55.9 percent in the third quarter of 2003 (see Figure 2-11). Like labor income, farm proprietors' income also failed to keep pace with GDP during much of 2002 and 2003; however, it rebounded during the second half of the latter year when prices for farm products rose.

CBO forecasts that over the next two years, disposable income will grow solidly but a bit more slowly than GDP, as higher taxes and slow growth in transfers outweigh faster growth in wages and salaries. Transfer payments will grow more slowly than GDP because of falling unemployment benefits (see Chapter 3). Larger tax refunds are anticipated in 2004—because certain tax cuts in JGTRRA are retroactive to the beginning of 2003—but are not expected to recur in 2005. Also, under JGTRRA, certain tax benefits temporarily diminish, which will raise households' tax burden slightly in 2005 and curb the growth of disposable income. (For example, the child tax credit falls from \$1,000 per child in 2004 to \$700 per child in 2005 before rising again in later years.) At the same time, total wages and salaries will rise more quickly than will output, CBO estimates, partially reversing the drop over the past three years in the ratio of wages and salaries to GDP.

**Figure 2-10.**

## Personal Taxes Less Government Transfers

(Percentage of personal income)



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

Note: Personal taxes equal personal income taxes plus personal contributions for social insurance.

**Households' Finances.** After deteriorating in 2001 and 2002, households' finances improved in 2003 and will probably remain stable in 2004 and 2005, thus bolstering consumption. Several indicators support that statement. Between August 2000 and February 2003, the Standard and Poor's 500 index of stock prices fell by 44 percent. By December 2003, however, stock prices had made up some of their losses and were down by only 27 percent from their August 2000 level. According to the Federal Reserve, delinquency rates on consumer loans at commercial banks, after rising during the recession, fell back to levels last seen in the mid-1990s. Another indicator of households' finances, the ratio of household financial obligations to disposable income, remains high but has fallen from its peak in late 2001.

**Consumption and Saving.** CBO expects that solid income growth will enable real consumption in 2004 and 2005 to expand by slightly more, on average, than it has over the past three years. However, the pace of consumer spending growth over the next two years should be slower than that of GDP—after exceeding GDP growth during most of the previous three years. Much of the growth in consumption from 2001 to 2003 apparently derived from the impact of tax cuts on disposable income, since

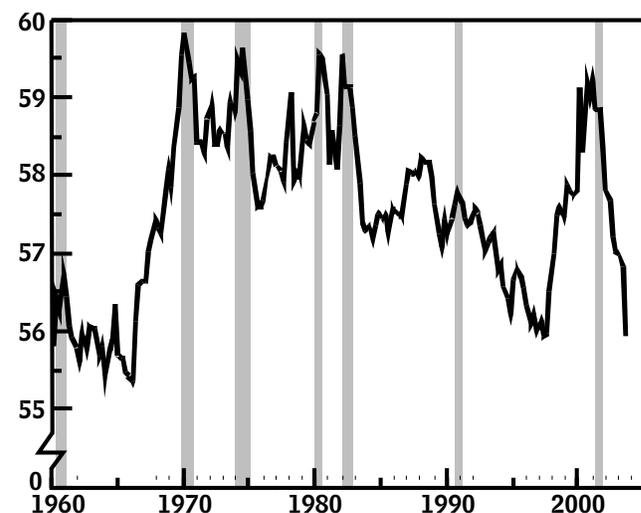
pretax income grew slowly and stock market wealth fell. Rising prices for homes also contributed to consumption growth. During 2004 and 2005, however, consumption will probably grow more slowly than pretax income, allowing a slight increase in the personal saving rate. That rate is surprisingly low: the sharp drop in households' wealth over the past few years would normally be expected to encourage households to save.

**Housing.** Residential investment is likely to contribute little to overall economic growth during 2004 and 2005, CBO forecasts. Interest rates on fixed-rate mortgages fell to their lowest level in at least 30 years in June 2003 and have remained low in the months since then. As a result, sales of both new and existing homes hit record levels in 2003, and more housing units were started in that year than in any other since 1986. Real residential construction, after edging up in 2001, grew by 4 percent in 2002 and probably by more than 9 percent in 2003. However, with mortgage rates expected to rise as the economy strengthens, activity in the housing sector is likely to slow by late 2004. Any downturn will be limited, though, by the solid growth in income forecast for the period. Moreover, even if housing activity slows slightly, levels of sales and construction will remain high.

**Figure 2-11.**

## Labor Compensation

(Percentage of GDP)



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

Note: Labor compensation equals wage and salary disbursements plus supplements to wages and salaries.

### The Government's Purchases of Goods and Services

Under current law, real federal purchases of goods and services will contribute less to demand growth during 2004 and 2005 than they did during the previous three years.<sup>10</sup> Such purchases grew by 6.3 percent in 2001 and 10.1 percent in 2002 (measured fourth quarter over fourth quarter); CBO estimates that they grew by 8.1 percent in 2003, as the government increased its purchases of both defense and nondefense goods and services. In 2004, the growth of real federal purchases will slow to less than 5 percent, CBO estimates. For 2005, CBO forecasts flat growth because its budget projections must incorporate the assumption that appropriations after the current budget year will increase only at the rate of inflation (see Chapter 3).

During 2004 and 2005, the growth of real state and local purchases of goods and services is forecast to accelerate from its unusually slow rates in 2003 but still remain slower than the growth of GDP. The rise in such purchases fell to near zero during the first half of 2003, as state and local governments were forced to reduce their large budget deficits. Those imbalances shrank to some extent during early 2003 (because of the drop in spending and some increase in the growth of revenues), and their contraction has eased some but not all of the pressure to restrain spending (*see Box 2-1*). Until those deficits are trimmed further, state and local spending will probably grow more slowly than GDP.

### Unemployment, Inflation, and Interest Rates

Today's low rate of price increases together with slack labor markets has set the stage for continued low inflation during CBO's two-year forecast period and over the medium term (through 2014). Strong demand growth will reduce the rate of unemployment, according to CBO's estimates, but not enough to trigger a noticeable acceleration of inflation. Interest rates are projected to rise as the unemployment rate falls, but CBO believes that they will remain relatively low by historical standards, consistent with restrained inflation.

### The Labor Market

From 2001 to 2003, firms more than met the slow growth of demand for goods and services with productivity gains and so triggered a fall in employment and a rise in the unemployment rate. Between the peak in employment in February 2001 and its trough in July 2003, the number of nonfarm employees fell by more than 2.7 million. That drop in employment was concentrated in the manufacturing sector, which lost 2.4 million jobs in the same two-and-a-half-year period.

The unemployment rate rose from 4.2 percent to 6.2 percent over the same interval and would probably have climbed even higher had there not been a sharp drop in the rate of labor force participation. That measure—defined as the share of the population aged 16 and over who are either employed or actively looking for work—fell from 67.1 percent at the beginning of the recession to 66.0 percent in December 2003. The decline in the participation rate for teenagers was particularly large—from 52 percent in 2000 to 44 percent during the fourth quarter of 2003. Labor force participation also fell among young adults but rose for those aged 55 and older.

Since July 2003, the labor market has begun to show some improvement, with the number of nonfarm employees increasing by 278,000 through December, according to the Bureau of Labor Statistics' (BLS's) establishment survey. But the increase since July in the number of people with jobs, as measured independently by the survey of households that BLS also conducts (and that is used to calculate the unemployment rate), was a much stronger 875,000. Adjusting for conceptual differences between the two surveys—the most important is that self-employed workers are included in the household survey but not the establishment survey—reduces the size of the discrepancy during the survey period by about 100,000. (In fact, the household survey has shown considerably stronger growth than the establishment survey has since the recession officially ended in November 2001.)

Although CBO considers the establishment survey's data to be more reliable than the household survey's through early 2003, it is less clear which survey provides a more accurate picture of labor-market conditions in the second half of 2003. Over the past six months, startups of new businesses and expansion among small firms that are not directly measured in the establishment survey may have occurred more frequently than the official data assume. Moreover, recent data on tax withholding, though by no

10. Purchases of goods and services, a subset of total federal spending, do not include transfer payments to individuals or foreign governments, grants-in-aid to state and local governments, subsidies, or interest payments.

**Box 2-1.****The Fiscal Condition of the States**

Since 2001, states have been struggling with sluggish revenues and rising pressures on spending, particularly for health care programs such as Medicaid. They have coped with those pressures by various means: limiting the growth of spending from their general funds (often through midyear budget cuts), increasing taxes and fees, drawing down reserves that had reached record levels in 2000, and employing \$20 billion in additional federal assistance. General fund revenues, which had grown at an average annual rate of 6.5 percent over the period from 1997 to 2000, grew by only 3.6 percent from 2000 to 2001;<sup>1</sup> they declined by 1.7 percent in 2002 and returned to positive growth—of 1.6 percent—in 2003 (the result, in part, of legislated increases in taxes and fees). Growth in spending from general funds slowed from 7.6 percent in 2001 to 1.4 percent in 2002 and 0.4 percent in 2003.<sup>2</sup>

The states' fiscal picture is beginning to improve, recent evidence suggests. As states reach the middle of their 2004 fiscal year, national groups representing

state budget officers and legislators are reporting signs of an upturn. They caution, however, that the states' fiscal recovery is fragile and continues to lag behind that of the national economy. In its most recent *Fiscal Survey*, the National Association of State Budget Officers (NASBO) notes that spending pressures—particularly for health care—will continue to present states with significant challenges and that revenues overall “remain sluggish,” even though a few states appear to be meeting or exceeding their revenue targets in some categories.<sup>3</sup> States are also concerned about covering additional costs associated with homeland security, the Medicaid program, and the No Child Left Behind and Individuals with Disabilities Education Acts.

The National Conference of State Legislatures (NCSL) also cites evidence of an upturn in its *State Budget Update*, noting that only 10 states are reporting budget gaps so far this year compared with 31 states a year ago.<sup>4</sup> (A budget gap is the shortfall that

1. States' general funds account for about 45 percent of total state spending. Revenues flow into the general funds from personal and corporate income taxes, sales taxes, and, to a lesser extent, fees. Those revenues finance a broad range of state programs, including education, Medicaid, public assistance, and public safety. Federal funds support nearly 30 percent of total state spending, and a significant portion of those funds pays for Medicaid costs. The remaining 25 percent of state spending, which includes highway programs, capital projects, and narrower state programs, is supported by fees, specialized taxes, and bond proceeds.

2. Spending from sources other than general funds—for example, federal funds, special state funds, and bond proceeds—increased at a faster pace over the 2000-2003 period than did outlays from general funds.

3. National Governors Association and National Association of State Budget Officers, *Fiscal Survey of States* (Washington, D.C.: National Governors Association and National Association of State Budget Officers, December 2003).

4. National Conference of State Legislatures, *State Budget Update* (Washington, D.C.: National Conference of State Legislatures, November 2003).

means definitive, are consistent with the view that employment growth may have been somewhat stronger during the second half of 2003 than is reflected in the current establishment survey data. Despite the uncertainty about recent job growth, CBO expects employment to grow as the economy expands.

The narrowing of the gap between demand and potential GDP during 2004 and 2005 will help raise employment and reduce the unemployment rate, CBO forecasts. (The measure of the unemployment rate is probably unaffected by the uncertainty about recent job growth.) Jobs are expected to grow more rapidly than the labor force over the next two years, which will push the unemployment rate down; in CBO's forecast, the rate drops from 6.0 percent,

**Box 2-1****Continued**

states expect at the end of the year, given their most recent projections of revenues and expenditures.) Overall, NCSL projects that state general fund revenues will grow by 1.8 percent in state fiscal year 2004. Spending is budgeted to remain level or slightly decline.

The *State Revenue Report* for December 2003 also notes that state revenues appear to be improving but continue to lag behind national economic growth.<sup>5</sup> The publication notes that for the first time since 2000, collections from all three major tax sources (personal income, corporate income, and sales) are growing; in the July-September quarter of 2003, those three taxes combined grew by 4.5 percent relative to the same period last year. A significant portion of that growth can be attributed to tax increases over the past three years. According to NASBO, more than two-thirds of the states had enacted net tax or fee increases for 2004, which the association estimates will result in additional revenues of \$9.6 billion in that year. Growth in tax revenues has also varied among regions. The increase in quarterly tax revenues was greatest in the Far West; after adjustments for inflation and legislative changes, revenues grew by 5.5 percent in the July-September quarter of 2003. Other regions saw much slower (less than 1 percent) or even negative growth.<sup>6</sup>

5. Nelson A. Rockefeller Institute of Government, *State Revenue Report*, State University of New York-Albany (December 2003).

On the spending side, Medicaid—the second largest spending category for states after education—continues to cause the most concern. NCSL notes that of the 22 states that are reporting spending levels above their estimates, 13 face Medicaid overruns. However, states expect increased matching funds from the federal government to help them cover those expenses, at least for this year. (The Jobs and Growth Tax Relief Reconciliation Act of 2003 [Public Law 108-27] appropriated \$10 billion for general aid to the states—\$5 billion each in 2003 and 2004—and it authorized a temporary increase in the federal matching rate for Medicaid, which CBO has estimated will provide an additional \$10 billion in assistance.) In addition, states will realize some savings in Medicaid costs as a result of the Medicare Prescription Drug, Improvement, and Modernization Act (P.L. 108-173); the law provides Medicare coverage for prescription drugs for individuals eligible for both Medicare and Medicaid. Even though the federal government will recoup most of those savings, CBO has estimated that the states will realize net savings for Medicaid beginning in 2007. Total savings to states as a result of the prescription drug program are estimated to be \$18 billion over the 2004-2013 period.

6. Nelson A. Rockefeller Institute of Government, *State Fiscal News*, State University of New York-Albany (November 2003).

on average, during 2003 to 5.8 percent for 2004 and 5.3 percent for 2005. The forecast anticipates a rebound in labor force participation for teenagers and young adults as the economy gathers momentum, which will keep the unemployment rate from falling even faster. CBO projects that over the medium term, the unemployment rate will average 5.2 percent from 2007 to 2014.

**Inflation**

Inflation as measured in the consumer price index for all urban consumers will be lower in 2004 than in 2003, CBO forecasts, providing that the growth of energy prices slows sharply. Consumer energy prices, after rising by about 8 percent during 2003 (measured fourth quarter over fourth quarter), are likely to ease during 2004, as the prices of oil and natural gas decline. Within the core rate of inflation in the CPI (that is, excluding food and en-

ergy), unusually rapid gains in productivity and temporarily slow growth of owners' equivalent rent (the estimated rental rate of owning a home) held down price rises in 2003. In 2004, slack labor markets will continue to exert some downward pressure, but core inflation is expected to accelerate somewhat from its temporarily low 2003 pace. Also likely to push up core inflation in 2004 are higher prices for imports stemming from the falling dollar.

In 2005, according to CBO's forecast, the overall rate of consumer price inflation (including food and energy) will then edge up, boosted not only by higher prices for imports but also by tightening labor markets and increasing utilization of existing productive capacity. Energy prices will also begin to move upward at more normal rates.

Energy prices have the potential to add more to inflation in the first half of 2004 than CBO's forecast indicates, however. Prices for natural gas and petroleum were surprisingly strong in December 2003, highlighting the uncertainty that surrounds such forecasts. Natural gas, which had traded below \$5 per million Btu (mmBtu) from August through November, suddenly jumped in price to almost \$7 per mmBtu by mid-December. After falling for a short period, natural gas prices climbed again, reaching about \$7 per mmBtu briefly in early January. By comparison, the percentage increase in petroleum prices was not as large.

For the medium term, the rise in inflation anticipated in CBO's two-year forecast will taper off, with prices growing at an average annual rate of about 2.2 percent as measured by the CPI-U and 1.9 percent as measured by the GDP price index (the yardstick of inflation in the overall economy). That outlook reflects CBO's view that the Federal Reserve will, on average, maintain the rate of CPI-U inflation between 2.0 percent and 2.5 percent.

The difference that frequently exists between inflation as measured in the CPI-U and the GDP price index's measurement affects the projections of the federal budget. Many spending programs and most income tax brackets are indexed to the CPI-U or the CPI-W (the index of consumer prices for urban wage earners and clerical workers). In contrast, taxable income is more closely related to growth in the GDP price index. CBO expects that the wedge between the projected rates of growth of the CPI-U and the GDP price index will average 0.3 percentage points during the later years of the projec-

tion period, a gap equaling the average wedge between the two rates during the 1990-2002 period.<sup>11</sup>

In the first half of 2003, as the recovery seemed to stall, a number of economists feared that the U.S. economy would stagnate and slip into a deflation (generally falling prices) that would be difficult to reverse. Those views, combined with the Federal Reserve's willingness to keep the federal funds rate low (the funds rate is the rate that financial institutions charge each other for overnight loans of monetary reserves), led to the dramatic drop—to below 3.2 percent—in mid-June 2003 in yields on 10-year Treasury notes. As the economy heated up during the summer, however, concerns about stagnation and deflation quickly evaporated. Now analysts feel that deflation is less of a risk, and even those that forecast further slowing of inflation argue that mild deflation is not incompatible with solid economic growth.

### Monetary Policy

With idle labor and capital exerting downward pressure on inflation, the Federal Reserve is unlikely to shift soon from its current extremely accommodative stance and tighten monetary policy. Six weeks after cutting its target for the federal funds rate to 1 percent in late June 2003, the Federal Reserve announced that low short-term rates could be "maintained for a considerable period." (Indeed, the futures markets for the federal funds rate in mid-January 2004 did not expect the central bank to begin moving toward a more neutral stance—by boosting rates—until the summer of 2004.) The Federal Reserve will probably begin to raise rates somewhat more in late 2004 and 2005 as the unemployment rate falls toward a level that eliminates its downward effect on inflation.

The rate on three-month Treasury bills is closely tied to the federal funds rate, and CBO forecasts that short-term rates will rise slowly during much of 2004 and then more rapidly in late 2004 and 2005. The rate on those securities is expected to average 1.3 percent in 2004 and 3.0 percent in 2005.

Long-term rates are also expected to rise during the next two years but not by as much as short-term rates will, in part because they have already begun to increase. As the

11. The historical average of the wedge is calculated using the CPI-U research series, which unlike the official CPI incorporates into the entire series most of the methodological improvements made by the Bureau of Labor Statistics since 1978.

prospects for economic growth improved in 2003, the yield on 10-year Treasury notes rose from an average 3.6 percent during the second quarter to an average 4.3 percent during the fourth. CBO expects the yield on 10-year Treasury notes to average 4.6 percent in 2004 and 5.4 percent in 2005.

CBO's projection for interest rates in the medium term, during which the economy is assumed to grow at trend rates, reflects its estimates of CPI-U inflation and real interest rates. During the 2006-2014 period, the rate on three-month Treasury bills will average 4.5 percent, CBO expects, while the rate on 10-year Treasury notes will average 5.5 percent. Thus, the real rates on three-month bills and 10-year notes will average 2.4 percent and 3.3 percent, respectively—close to their historical averages over the 1947-2001 period.

## The Outlook for GDP Beyond 2005

CBO projects that real GDP will grow at an average annual rate of 2.7 percent during the 2006-2014 period, about the same pace as the growth of potential GDP. The projected growth rate for potential GDP for 2006 onward is similar to the rate in CBO's August 2003 forecast. The reduction in the projected growth rate of real GDP over that period—0.2 percentage points—is somewhat larger because the faster economic growth now forecast for the 2004-2005 period leaves real GDP above its potential level in 2005. (Last summer's forecast had GDP below its potential for 2005.)

To develop its medium-term projections for 2006 through 2014, CBO projects the factors that underlie the growth of potential GDP, such as the growth of the labor force, productivity, and the capital stock. In doing so, CBO takes into account the effect that current fiscal policy may have on those factors, but it does not attempt to forecast business-cycle fluctuations beyond the next two years.

In CBO's projection, the growth of potential output averages 2.8 percent over the 2004-2014 period (*see Table 2-3*). That projection implies growth through 2013 that is almost exactly the same as the growth CBO projected in August 2003. But the factors underlying the projection exhibit some differences: the potential labor force is projected to grow by slightly less than CBO had estimated in August, whereas capital accumulation is projected to be slightly higher. The growth of potential TFP after 2006 is unchanged from last August's projection. CBO's current

estimate of the level of potential output is 1.2 percent higher in 2003—and remains higher throughout the projection period—than its estimate of last August, mainly because CBO adjusted upward the historical values of potential TFP in its current projection.

Potential total factor productivity will grow at a rate of 1.3 percent over the next 10 years, CBO projects. As noted earlier, productivity growth—both labor productivity and TFP—has been unusually strong since the 2001 recession. That robust growth barely affects CBO's estimate of the trend in TFP because growth in a few recent quarters carries little weight in the estimate of that trend. However, CBO has raised the growth rate of potential TFP by an average of 0.7 percentage points (at an annual rate) during the 2001-2003 period to reflect the strong recent gains in actual productivity. That adjustment boosts the level for 2003 by about 2 percent relative to what it otherwise would have been.

CBO expects growth in the potential labor force to average 0.8 percent during the 2004-2014 period—a reduction of 0.1 percentage points compared with last summer's estimate of growth during the 2004-2013 period. That reduction reflects two factors. First, the growth of the labor force is projected to be lower in 2014 than in preceding years. Second, CBO has reassessed trends in rates of labor force participation, which since the start of the 2001 recession have been much lower than CBO had expected. Although the decline in participation has been most pronounced among the young, participation has also fallen among men and women between the ages of 25 and 54. In contrast, participation among people aged 55 and older is rising. CBO's projection of the potential labor force is subject to many sources of uncertainty, one of the most important being the level of undocumented immigration in the future (*see Box 2-2*).

Potential hours worked are expected to grow more slowly (about 0.1 percent per year, on average) between 2004 and 2014 than CBO had projected last summer. The downward revision to the growth of projected hours largely reflects the downward revision in the projection for the potential labor force. However, a small fraction of that change stems from the effect that the recent slow growth of employment and hours in the nonfarm business sector has had on the estimated trend.

Capital accumulation will proceed, on average, at a 4.0 percent pace during the 2004-2014 period, slightly faster than CBO had anticipated last summer. Growth in

**Table 2-3.****Key Assumptions in CBO's Projection of Potential Output**

(By calendar year, in percent)

	Average Annual Growth					Total, 1950- 2003	Projected Average Annual Growth		
	1950- 1973	1974- 1981	1982- 1990	1991- 1995	1996- 2003		2004- 2009	2010- 2014	Total, 2004- 2014
<b>Overall Economy</b>									
Potential Output	3.9	3.3	3.0	2.6	3.4	3.4	3.0	2.6	2.8
Potential Labor Force	1.6	2.5	1.6	1.2	1.3	1.6	1.0	0.6	0.8
Potential Labor Force Productivity <sup>a</sup>	2.3	0.7	1.4	1.3	2.1	1.8	2.0	2.0	2.0
<b>Nonfarm Business Sector</b>									
Potential Output	4.0	3.6	3.1	3.0	3.9	3.7	3.4	2.8	3.1
Potential Hours Worked	1.3	2.2	1.5	1.4	1.5	1.5	1.1	0.7	0.9
Capital Input	3.6	4.4	3.6	2.5	4.5	3.8	4.3	3.7	4.0
Potential Total Factor Productivity	2.0	0.8	0.9	1.2	1.5	1.5	1.3	1.3	1.3
Potential TFP excluding adjustments	2.0	0.7	1.0	1.1	1.1	1.4	1.1	1.1	1.1
TFP adjustments	0	0	0	*	0.4	0.1	0.2	0.1	0.2
Computer quality <sup>b</sup>	0	0	0	*	0.1	*	*	*	*
Price measurement <sup>c</sup>	0	0	0	*	0.1	*	0.1	0.1	0.1
Temporarily faster growth <sup>d</sup>	0	0	0	0	0.2	*	*	0	*
Contributions to Growth of Potential Output (Percentage points)									
Potential hours worked	0.9	1.6	1.1	1.0	1.0	1.1	0.8	0.5	0.7
Capital input	1.1	1.3	1.1	0.8	1.4	1.1	1.3	1.1	1.2
Potential TFP	2.0	0.8	0.9	1.2	1.5	1.5	1.3	1.3	1.3
Total Contributions	4.0	3.6	3.1	2.9	3.9	3.7	3.4	2.8	3.1
<b>Memorandum:</b>									
Potential Labor Productivity <sup>e</sup>	2.7	1.4	1.6	1.5	2.4	2.2	2.2	2.1	2.2

Source: Congressional Budget Office.

Note: \* = between zero and 0.05.

- a. The ratio of potential GDP to the potential labor force.
- b. An adjustment for technological advances in the computer manufacturing sector.
- c. An adjustment for a conceptual change in the official measure of the GDP price index.
- d. An adjustment for the unusually rapid growth between 2001 and 2003.
- e. The estimated trend in the ratio of output to hours worked in the nonfarm business sector.

**Table 2-4.****CBO's Current and Previous Economic Projections  
for Calendar Years 2003 Through 2013**

	Estimated	Forecast		Projected Annual Average	
	2003	2004	2005	2006-2009	2010-2013
Nominal GDP (Billions of dollars)					
January 2004	10,980	11,629	12,243	14,686 <sup>a</sup>	17,490 <sup>b</sup>
August 2003	10,836	11,406	12,025	14,823 <sup>a</sup>	17,943 <sup>b</sup>
Nominal GDP (Percentage change)					
January 2004	4.8	5.9	5.3	4.7	4.5
August 2003	3.7	5.3	5.4	5.4	4.9
Real GDP (Percentage change)					
January 2004	3.2	4.8	4.2	2.8	2.5
August 2003	2.2	3.8	3.5	3.1	2.6
GDP Price Index (Percentage change)					
January 2004	1.6	1.1	1.1	1.8	1.9
August 2003	1.5	1.4	1.8	2.2	2.2
Consumer Price Index <sup>c</sup> (Percentage change)					
January 2004	2.3	1.6	1.7	2.2	2.2
August 2003	2.3	1.9	2.4	2.5	2.5
Unemployment Rate (Percent)					
January 2004	6.0	5.8	5.3	5.1	5.2
August 2003	6.2	6.2	5.7	5.3	5.2
Three-Month Treasury Bill Rate (Percent)					
January 2004	1.0	1.3	3.0	4.5	4.6
August 2003	1.0	1.7	3.2	4.6	4.9
Ten-Year Treasury Note Rate (Percent)					
January 2004	4.0	4.6	5.4	5.5	5.5
August 2003	4.0	4.6	5.5	5.8	5.8
Tax Bases (Billions of dollars)					
Corporate book profits					
January 2004	844	948	1,319	1,359 <sup>a</sup>	1,587 <sup>b</sup>
August 2003	742	797	1,210	1,269 <sup>a</sup>	1,503 <sup>b</sup>
Wages and salaries					
January 2004	5,087	5,333	5,639	6,823 <sup>a</sup>	8,120 <sup>b</sup>
August 2003	5,128	5,394	5,695	7,029 <sup>a</sup>	8,518 <sup>b</sup>
Tax Bases (Percentage of GDP)					
Corporate book profits					
January 2004	7.7	8.1	10.8	9.9	9.1
August 2003	6.8	7.0	10.1	9.2	8.4
Wages and salaries					
January 2004	46.3	45.9	46.1	46.4	46.5
August 2003	47.3	47.3	47.4	47.4	47.5
<b>Memorandum:</b>					
Real Potential GDP (Percentage change)					
January 2004	3.4	3.3	3.1	3.0	2.6
August 2003	3.0	3.2	3.0	2.9	2.6

Sources: Congressional Budget Office.

Note: Percentage changes are year over year.

a. Level in 2009.

b. Level in 2013.

c. The consumer price index for all urban consumers.

**Box 2-2.****How Undocumented Immigration Affects CBO's Projection of the Labor Force**

The Congressional Budget Office's (CBO's) 10-year projection of the labor force is an important component of its estimate of potential gross domestic product (GDP), and potential GDP in turn is a major factor underlying CBO's projections of federal tax bases. But the future growth of the labor force is uncertain, and seemingly small changes in the projection can produce significant differences in the amount of federal revenues expected over the next 10 years. A substantial part of the uncertainty surrounding the size of the future labor force involves undocumented immigration.

CBO projects faster growth of the labor force over the next 10 years than the growth implied by the official population projections of the Bureau of the Census. The decennial population survey of 2000 revealed stronger-than-expected population growth between 1990 and 2000—averaging about 0.2 percent annually over that period—which seems to be attributable to the Census Bureau's previous underestimates of undocumented workers. Although the bureau has incorporated the information from the census into its population estimates for recent years, it has not yet incorporated the new information into any official population projections. Therefore, for its

labor-force projection, CBO has assumed that the Census Bureau's forecasts of population continue to understate undocumented immigration. However, it believes that the understatement is less than it was in the 1990s and so has projected that half of the additional average annual growth in the population reported for the 1990s will continue after 2000.

Whether that assumption about additional growth is accurate is unclear. If CBO eliminated from its calculations the assumption that the Census Bureau's projections understate undocumented immigration, its labor-force projection would be lower by 1 percent by 2014. However, if CBO assumed that the Census Bureau's projections understated such immigration by the same amount that they did in the 1990s, the labor force in the projection would be about 1 percent larger by the end of the period.

Uncertainty about the net amount of undocumented immigration arises from both economic and noneconomic factors. Other things being equal, prospective immigrants are more likely to attempt to enter the United States illegally when they believe employ-

the capital stock depends on businesses' investment spending relative to the existing stock. That ratio is higher in CBO's current projection than it was in last August's. The more favorable outlook for capital growth results from a higher forecast for productivity and a reevaluation of trends in investment in the light of unexpectedly fast growth in such spending during the second half of 2003.

**Taxable Income**

CBO's baseline revenue projections are closely connected to its projections of national income. Because different categories of income are taxed at different rates, and some are not taxed at all, the projected distribution of income

among its various components is a central factor in CBO's budget projections.

CBO expects that the sharp drop over the past three years in the share of total income going to employees will be partially reversed over the next 10 years. However, much of the rise in that share will be attributable to higher fringe benefits, CBO believes—specifically, employers' contributions to health insurance and pension plans—rather than to higher wages and salaries. Thus, the share of GDP accounted for by wages and salaries will remain near historically low levels, dropping from 46.3 percent in 2003 to 45.9 percent in 2004, before rising to 46.1 percent in 2005 and an average annual share of 46.4 percent during the 2006-2014 period. Those figures

**Box 2-2.****Continued**

ment opportunities here are abundant; they are less likely to try when they believe jobs are scarce. (When jobs are scarce, emigration by nonpermanent residents is also likely to be greater.) Conversely, prospective immigrants are less likely to attempt to immigrate when economic conditions in their home countries are favorable than when those conditions are less favorable. In the boom years of the late 1990s, conditions in the United States were especially attractive to prospective immigrants, including illegal ones. However, the extent to which undocumented immigration then was motivated by short-term cyclical factors (such as low unemployment) as opposed to longer-term structural economic features (such as high real wages) is unclear. If the structural component of the United States' economic attraction for undocumented workers proved to be stronger than CBO had anticipated (and thus that strength was not amply reflected in CBO's assumption), the current projection could understate the growth of the U.S. population and labor force over the next 10 years. But it could also overstate that growth if, for example, economic conditions were significantly better than expected in the major countries of origin of undocumented workers.

Noneconomic factors that may affect undocumented immigration over the next 10 years include political conditions in immigrants' home countries and the United States' continuing efforts to improve homeland security. Citizens of repressive governments that have little regard for freedom, democracy, and even human life are likely to want to leave those conditions whenever possible. The political freedoms in the United States are especially appealing to people in such circumstances.

A noneconomic factor that has probably reduced the amount of undocumented immigration into the United States is the efforts to increase homeland security following the terrorist attacks of September 11, 2001. Their downward effect on the number of undocumented workers, however, is probably offset to some extent by a drop in the number of such immigrants temporarily leaving this country to visit their families abroad. Nevertheless, the overall effect is probably a reduction in net immigration, a pattern that is likely to continue. CBO has incorporated in its baseline projections half of the additional population growth reported for the 1990s. If security measures are tightened further, however, population and labor-force growth could be even lower than CBO's current projections assume.

compare with an average annual share of 47.4 percent over the past 20 years.

Two of the various NIPA measures of corporate profits are important for the forecast. Book profits, or before-tax profits, is the measure most closely related to the profits on which corporations pay tax and is affected by changes in the tax code. The law allows corporations to value inventories and depreciate assets at certain rates, and the book measure of profits is designed to reflect those statutory requirements. By contrast, the economic profits measure is not affected by changes in tax law. Rather, it is designed to reflect the valuation of inventories and the rates of depreciation that economists believe more truly represent inventories' current value and the economic usefulness of the capital stock.

Book profits and economic profits will differ sharply over the next decade because of statutory requirements that affect how companies can depreciate their assets for tax purposes. The partial-expensing provisions of JCWAA and JGTRRA that expire at the end of 2004 allow firms to depreciate some of their capital stock much more rapidly than the rate at which the economic usefulness of that capital deteriorates. Those provisions will lower book profits by about \$200 billion in 2004, CBO expects, because companies can take extra depreciation in that year. Conversely, from 2005 on, the provisions will increase book profits by about \$125 billion in 2005 and declining amounts in subsequent years—because the extra depreciation taken from 2002 to 2004 means that less depreciation will be taken in later years.

Robust growth of GDP will push economic profits up from a 9.7 percent share of GDP in 2003 to a 10.2 percent share in 2004, CBO forecasts. From 2005 to 2007, however, the expanding proportion of total GDP claimed by wages and salaries will reduce the share of GDP going to economic profits, and that drop will roughly offset the rise in the share going to wages and salaries. CBO expects that after 2008, the GDP share of economic profits will average about 9.6 percent, still well above its 20-year average of 8.3 percent.

### Changes in the Economic Forecast Since August 2003

CBO has raised its estimates of the growth of real GDP in the near term and lowered its estimates of inflation and nominal interest rates since its forecast last August (*see Table 2-4 on page 41*). The economy bounced back from its sluggish growth of late 2002 and early 2003 much more forcefully than CBO and many other forecasters had expected. That strong rebound suggests that the economy has more momentum going into 2004 than CBO had previously assumed—which led CBO to raise its forecast for the growth of real GDP in 2004 and 2005 and lower its estimate of the unemployment rate.

The level of real GDP after 2005 in the current forecast is also higher than in last August's, but the rate of growth is slightly lower. CBO views some of the unexpectedly large gains in productivity that accompanied last year's strong output growth as a permanent increase in productivity levels and thus in potential GDP. Even so, the additional GDP growth during 2003 exceeded the upward revision to potential GDP, leaving less room for GDP to grow than in last summer's forecast.

The continued low rates of core inflation last year in the face of stronger growth suggest that inflation will remain tamer during the two-year forecast period than CBO had thought last summer and in turn that nominal interest rates will be as low or lower in the near term than was previously forecast. CBO also now foresees lower inflation and interest rates in the medium term than it did in the summer of 2003.

Compared with its estimates last August, CBO has lowered its outlook for wages and salaries and raised that for corporate profits. Wages and salaries have not recovered as much after the 2001 recession as they typically have after earlier downturns, and they were revised moderately downward in the recent comprehensive revision to the

NIPAs (discussed below). In contrast, corporate profits have bounced back strongly in the past year, and the recent revisions to them were noticeably upward.

### The 2003 Benchmark Revision to the National Income and Product Accounts

In December 2003, the Bureau of Economic Analysis (BEA) released a comprehensive revision of the NIPAs, as it does about every five years. Such revisions are designed to improve the accuracy and usefulness of the accounts by incorporating new and more complete source data, new definitions of some concepts, and new estimating methods.<sup>12</sup>

In the past, comprehensive revisions have modified economists' views of economic history, particularly for the most recent three or four years. (Those are the years for which new source data are likely to generate significant changes.) By altering historical perspectives, revisions, if substantial, have also affected forecasters' assessment of the economic outlook, both for the near term and for longer periods. The December 2003 revision did not have a major effect on CBO's view of GDP growth or inflation, but it did change recent trends in some important categories of income. CBO's budget baseline and its economic forecast both incorporate BEA's new figures.

Average annual rates of growth of real GDP and of the GDP price index over the past 10 years were unchanged in the revision, although some quarter-to-quarter growth rates were substantially modified. The average growth of real GDP from 1992 through 2002 remained at 3.2 percent, and the average growth of the price index remained at 1.9 percent. Changes in quarterly growth rates, such as the revision in real GDP growth in the third quarter of 2000—from 0.6 percent to -0.5 percent—were offset by opposite changes in adjacent quarters. Thus, the overall trends in real GDP and GDP price growth were not changed.

Some major income categories and saving rates, however, underwent significant revision. The nominal level of profits during the first half of 2003 was revised upward by 14 percent, or \$126 billion, even though nominal GDP was revised upward by less than one-half of

12. Details of the revision are given in various issues of the *Survey of Current Business*, published by the Bureau of Economic Analysis, which are available at [www.bea.gov](http://www.bea.gov).

1 percent. In contrast, the level of overall labor compensation was boosted by only 1 percent, as the wages and salaries component of labor compensation was revised slightly downward, but the estimate of employers' contributions to benefits (such as medical insurance and pensions) was revised significantly upward. Proprietors' income (the income of businesses that are not incorporated) was revised upward by 4 percent in early 2003 because of new source data, and interest income was revised downward, largely because BEA decided it would be more accurate to attribute some of the interest previously imputed to households to businesses.

Both the gross national saving rate and the personal saving rate experienced downward revisions for recent years. The national saving rate was lowered by about 0.4 percentage points for the 1998-2003 period; the personal saving rate was lowered by about 0.5 percentage points in the period 1999 to 2001 and by almost a full percentage point for the period 2002 to early 2003. An upward revision of 1 percent in the level of personal consumption expenditures for 2002 caused the revision in the saving rate for that year.

