

## The Year in Review and the Years Ahead

The U.S. economy made notable progress in 2003. The recovery was still tenuous coming into the year, as continued fallout from powerful contractionary forces—the capital overhang, corporate scandals, and uncertainty about future economic and geopolitical conditions discussed in Chapter 1, *Lessons from the Recent Business Cycle*—still weighed against the stimulus from expansionary monetary policy and the Administration's 2001 tax cut and 2002 fiscal package. However, the contractionary forces dissipated over the course of 2003, and the expansionary forces were augmented by the Jobs and Growth Tax Relief Reconciliation Act (JGTRRA) that was signed into law at the end of May. The economy now appears to have moved into a full-fledged recovery.

This chapter reviews the economic developments of 2003 and discusses the Administration's forecast for the years ahead. The key points in this chapter are:

- Real GDP growth picked up appreciably in 2003. Growth in consumer spending, residential investment, and, particularly, business equipment and software investment appear to have increased noticeably in the second half of the year.
- The labor market began to rebound in the final five months of 2003.
- Core consumer inflation declined to its lowest level in decades.
- The Administration's forecast calls for the economic recovery to strengthen further this year, with real GDP growth running well above its historical average and the unemployment rate falling. Looking further ahead, the economy is expected to continue on a path of strong, sustainable growth.

### Developments in 2003 and the Near-Term Outlook

After rising 2.8 percent during the four quarters of 2002, real GDP expanded at an average annual rate of 4.4 percent during the first three quarters of 2003. The economy appears to have gained momentum as the year went on, with annualized real GDP growth averaging close to 2½ percent during the first half of the year and more than 8 percent in the third quarter. The available data suggest solid further growth in the fourth quarter, though not as spectacular as in the third quarter. (The *Report* went to print before GDP data for the fourth quarter were available.)

The Administration expects real GDP to grow at an annual rate of 4.0 percent during the four quarters of 2004, a figure that is close to the latest Blue Chip consensus economic forecast (as of January 10, 2004). The unemployment rate, which peaked at 6.3 percent in June 2003, is projected to fall to 5.5 percent by the fourth quarter of 2004.

The pace of real GDP growth during the first three quarters of 2003 was supported by robust gains in consumption, residential investment, and defense spending. Inventory investment, in contrast, declined over the first three quarters of last year. In 2004, the composition of GDP growth is expected to shift away from government spending and toward business fixed investment and net exports. Evidence of emerging momentum in investment accumulated over the course of 2003: businesses began to hire, build inventories, and increase shipments of nondefense capital goods. In addition, expected faster growth among our trading partners and the recent decline in the exchange value of the dollar make U.S. exporters well positioned for expansion.

Much of the growth of private demand during 2003 was attributable to the effects of expansionary fiscal and monetary policy designed to counteract the lingering effects of the stock market decline, the capital overhang, worries about geopolitical developments, and concern about accounting scandals. Much stimulus remains in the pipeline in the form of refunds on 2003 tax liabilities this spring and the ongoing effects of the current low interest rates. The fiscal stimulus will not disappear suddenly. The reduction in the tax withholding schedule included in the 2003 fiscal package (JGTRRA) only began in July 2003, and households are still adjusting to these lower tax rates. Moreover, tax refunds in the first half of 2004 are expected to be higher than usual: the tax cuts were retroactive to January 2003, but last year's withholding changes generally did not capture tax savings on income earned in the first half of the year. In addition, because of the 2002 and 2003 tax cuts, businesses will be able to cut their tax liabilities by expensing 50 percent of their equipment investment (rather than depreciating the new capital) through the end of 2004. The lower tax rates, higher tax refunds, and investment expensing included in the Jobs and Growth Tax Relief Reconciliation Act are expected to reduce tax collections by about \$146 billion in 2004, up from about \$49 billion (or about \$98 billion at an annual rate) in the second half of 2003.

## Consumer Spending

Consumer spending increased briskly in 2003. Real personal consumption expenditures increased at an average annual pace of 3 percent during the first half of the year, and then surged at an annual rate of 6.9 percent in the third quarter. Data on retail sales and motor vehicle purchases through December

and services outlays through November are consistent with consumer spending remaining at a high level in the fourth quarter. As a result, real consumption growth in the second half of the year likely ran noticeably above that in the first half.

The pickup in spending growth in the second half of the year corresponded to an increase in the rate of growth of household income. After rising at an annual rate of 3.6 percent in the first half, real disposable personal income (that is, inflation-adjusted household income after taxes) jumped at an annual rate of 6.3 percent in the third quarter, boosted by tax relief, and appears to have held steady in the fourth quarter.

Wages and salaries increased moderately in the second half of the year, bolstered by the emerging recovery in the labor market. Moreover, the personal tax cuts included in the 2003 fiscal package (JGTRRA) meant that U.S. households were able to keep substantially more of their earnings. The reduction in withholding and the advance rebates of the child tax credit added \$37 billion to disposable income (not at an annual rate) in the second half of the year.

Other factors also likely contributed to the strengthening of consumer spending over the course of 2003. The robust performance of equity markets and solid gains in home prices bolstered wealth. Household wealth (net financial resources plus the value of nonfinancial assets such as cars and homes) increased \$2½ trillion during the first three quarters of 2003, and it probably rose substantially further in the fourth quarter given the solid increase in broad indexes of stock prices in the last few months of the year. Consumer sentiment was depressed early in the year by the prospect of war with Iraq. Sentiment jumped in April and May following the successful resolution of major combat operations and then was little changed until November, when it picked up noticeably. By the end of the year, household sentiment was somewhat higher than it had been at the end of 2002 and much higher than it was just prior to the war with Iraq.

All told, consumption grew in line with household after-tax income during 2003. Personal saving as a fraction of disposable personal income averaged 2.3 percent in 2002 and remained at this level, on average, in the first three quarters of 2003. Swings in personal saving have contributed to movements in national saving in recent years (Box 3-1).

Growth of real consumption is expected to be lower than that of real GDP in coming years. As explained in Box 3-1, the relative flatness of the personal saving rate over the past couple of years is likely the result of offsetting forces. On the one hand, capital losses associated with the decline in the stock market from March 2000 to March 2003 probably tempered consumption (with some lag) and, in turn, caused the personal saving rate to increase. On the other hand, personal saving was likely depressed by the

### **Box 3-1: Personal Saving and National Saving**

One important influence on the personal saving rate (the saving of the household sector divided by its after-tax income) over the past 10 years has been changes in households' wealth, although the past couple of years appear to have been an exception.

Driven by movements in stock prices, the ratio of household wealth to personal income climbed dramatically in the second half of the 1990s, peaked in early 2000, and then retreated substantially over the next two years. Economic theory suggests that increases in wealth tend to raise household spending, and decreases in wealth tend to lower household spending. This "wealth effect" often produces a negative correlation between household wealth and the personal saving rate because personal saving is defined in the national accounts as the difference between income excluding capital gains and spending (Chart 3-1).

Empirical studies suggest that an additional dollar of wealth leads to a permanent rise in the level of household consumption of about two to five cents, with the adjustment occurring gradually over a period of one to three years (the range depends on the exact specification—for example, one study found that including the components of wealth separately produces lower estimates). Such estimates of the wealth effect can explain the behavior of personal saving in the second half of the 1990s fairly well. For example, assuming that a dollar of wealth leads to an increase in consumption of three cents and that adjustment lags are typical, one would predict that the rise in wealth in the late 1990s would have caused the saving rate to decline by 4 percentage points between the end of 1994 and the end of 2000—close to the actual decline in the saving rate (ignoring the quarter-to-quarter volatility in the series).

The wealth effect also suggests that the (net) fall in wealth after 2000 would have caused a rebound in the personal saving rate of more than 2 percentage points. In fact, however, the personal saving rate has not risen materially. One potential explanation for the divergence is that households have raised consumption in anticipation that the labor market recovery will continue and, in turn, bolster income. Some of the additional consumption may have been funded through the wave of cash-out home mortgage refinancing enabled by the combination of low interest rates and technological advances that have made such transactions easier. Another possibility is that the availability of low-interest-rate loans on cars and other items has spurred households to replace cars and other durable goods earlier than they otherwise would have.

### **Box 3-1** — *continued*

Direct saving by households represents only part of the total saving done in the United States. Corporations also save in the form of retained earnings—the difference between after-tax profits and dividends. Most of the year-to-year variation in retained earnings stems from profits because dividend payments tend to have a fairly smooth upward trend over time. Profits rose in the early and mid-1990s, boosted by brisk productivity growth. After peaking as a share of GDP in 1997, profits fell over the next few years, owing to the 1998 global financial crisis, a catch-up of wages to productivity gains, and the economic slowdown. Retained earnings as a share of GDP also trended lower over this period. During the first three quarters of 2003, both profits and retained earnings picked up.

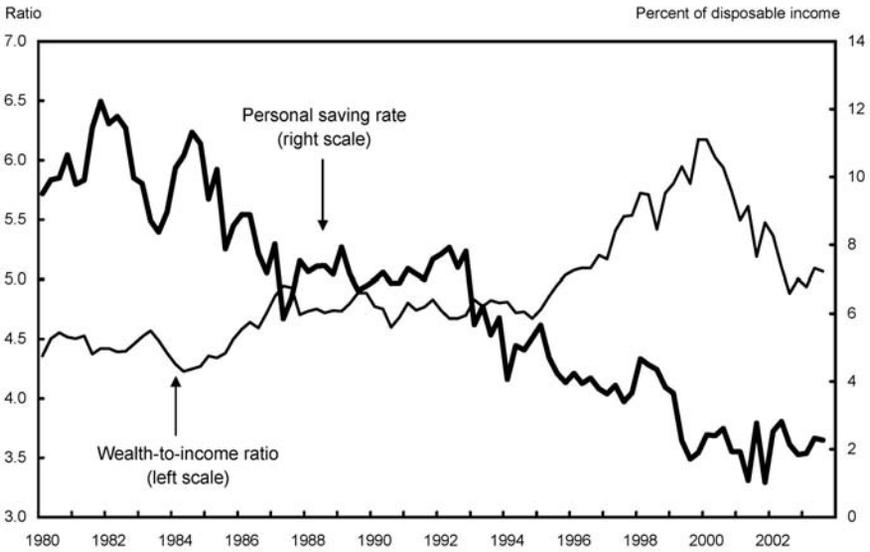
National saving is the sum of private saving (that is, the saving of households and corporations) and government saving (equal to the Federal budget surplus plus the state and local government budget surpluses). The saving of state and local governments tends to make a small positive contribution to government saving, but in the past few years, deteriorating fiscal conditions in states and localities have pushed their overall saving into slightly negative territory. Saving of the Federal government has declined sharply since 2000, as the recession and tax cuts have pulled down revenue, and homeland security and national defense expenditures have increased.

National saving rose (as a fraction of GDP) during the 1990s, but has fallen sharply since 2000 (Chart 3-2). As a fraction of GDP, it now stands at the low end of its range since World War II. Although both government saving and private saving are above their historic lows, the fact that they are both fairly low at the same time has led to the low level of national saving.

National saving is important because it represents the portion of our country's current income that is being set aside for investment in new capital. In particular, national saving plus the net capital inflow from abroad equals domestic investment. Greater saving and investment today boost future national income. To increase national saving, the President supports raising Federal saving by restraining Federal spending. He has also proposed Lifetime Savings Accounts and Retirement Savings Accounts, which are designed to increase incentives for households to save.

**Chart 3-1 Wealth-to-Income Ratio and Personal Saving Rate**

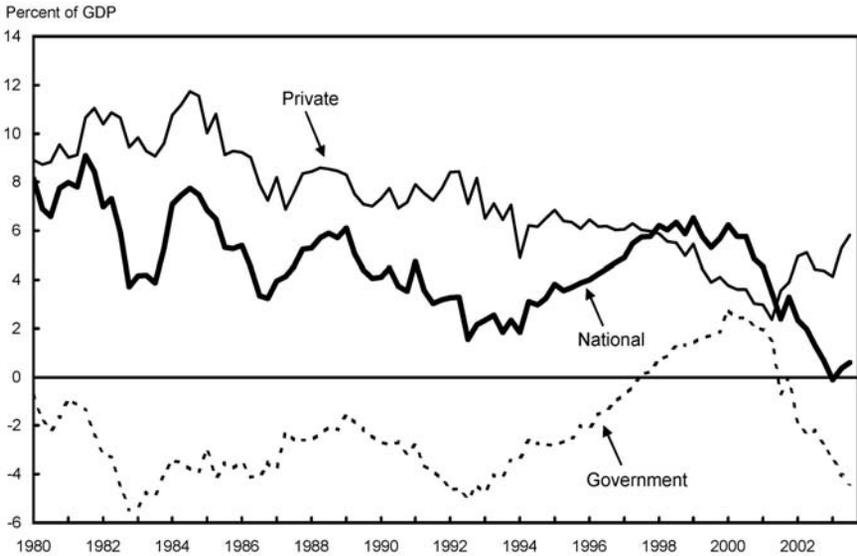
The "wealth effect" produces a negative correlation between household wealth and personal saving.



Source: Department of Commerce (Bureau of Economic Analysis) and Board of Governors of the Federal Reserve System.

**Chart 3-2 National Saving Rate**

Net national saving is at an extremely low level by historical standards, reflecting both low private saving and low government saving.



Source: Department of Commerce (Bureau of Economic Analysis).

boost to consumption from low interest rates (both directly through the availability of low-interest-rate loans on durable goods and indirectly through the funds made available by cash-out mortgage refinancings). As interest rates and incomes rise over the course of the next several years, the transitory forces boosting consumption growth should dissipate, and as a result, real consumption is expected to grow more slowly than real GDP over the forecast period.

An increase in corporate contributions for defined-benefit pension plans is likely to boost the saving rate in the near term from what it might be otherwise. The Pension Benefit Guarantee Corporation (PBGC) has estimated that corporate contributions to defined-benefit plans will increase sharply above 2003 levels. Indeed, rapid increases have already begun, according to separate data included in the Employment Cost Index. The contributions raise personal income, but because these funds are not placed in the hands of employees until retirement, they seem unlikely to affect current-year consumption. As a result, they should increase the personal saving rate.

## Residential Investment

The housing sector continued to show remarkable vigor in 2003, with real residential investment climbing at an average annual rate of more than 10 percent in the first three quarters of the year. Housing starts moved above the already high 2002 level to 1.8 million units in 2003, the largest number of starts since 1978. In addition, sales of both new and existing single-family homes rose to record levels.

Some of the strength in housing demand reflected the same gains in after-tax income and wealth that bolstered real consumer spending. The low levels of mortgage interest rates were another important driving force. The interest rate on new fixed-rate 30-year mortgages slipped from an average of 6½ percent in 2002 to an average of 5¾ percent in 2003. This level is the lowest in the 32 years for which comparable data are available. Indeed, according to data from the Michigan Survey Research Center, consumers' assessments of home-buying conditions remained very positive in 2003, largely because of low mortgage interest rates. As a result of the very favorable conditions in the housing sector, the U.S. home-ownership rate climbed to 68.2 percent in the third quarter of 2003—equal to its highest level on record.

During 2004, real residential investment is expected to slip lower as housing starts edge down to levels determined by long-run demographics.

## Business Fixed Investment

Real business fixed investment (firms' outlays on equipment, software, and structures) turned around in 2003, posting an annualized gain of 6.2 percent during the first three quarters of the year after declines of 10.2 percent during the four quarters of 2001 and 2.8 percent during the four quarters of 2002. The acceleration during the year was noteworthy, with real investment rising at an annual rate of 12.8 percent in the third quarter and indications of further growth in the fourth quarter, compared with an average annual pace of 3.1 percent in the first half of the year. The improvement from 2002 to 2003, as well as the pickup over the course of 2003, largely reflected a strengthening in real purchases of equipment and software.

Within the equipment and software category, the largest increases occurred for certain high-tech items. Real outlays for computers increased at an annual rate of 43 percent in the first three quarters of 2003, and real spending on communications equipment, which had performed particularly poorly during the recession, rose almost 15 percent. Shipments data suggest that spending in these categories remained strong in the fourth quarter. Meanwhile, real investment in software continued its solid upward trend, rising 12 percent during the first three quarters of the year. Outlays for transportation equipment were held down by further large declines in purchases of aircraft in the first three quarters of the year. Finally, the available data suggest that real spending on equipment outside of the high-tech and transportation categories posted a solid gain over the course of 2003.

The increased momentum in business purchases of capital goods in 2003 likely reflects the factors mentioned in Chapter 1. First, with capital overhangs probably behind them, firms were poised to take advantage of further declines in prices of high-tech goods stemming from continued technological advances. Second, striking gains in productivity and falling unit labor costs bolstered corporate profits. Third, the cost of capital was held down by a number of factors, including falling prices for high-tech capital goods, but also by low interest rates, rising stock prices, and the investment incentives introduced in the Job Creation and Worker Assistance Act of 2002 (JCWAA) and expanded in the 2003 fiscal package (JGTRRA).

The Administration expects the recovery in real business investment in equipment to strengthen further this year, reflecting the acceleration in output, continued low interest rates, and the investment incentives provided by the 2002 and 2003 tax cuts. Fixed investment in equipment and structures tends to be related to the pace of growth in output (along with the cost of capital), and so the pickup in real GDP growth from 2.8 percent during the four quarters of 2002 to 4.4 percent during the first three quarters of 2003 is projected to lead to an increase in investment during 2004.

One reason for the development of a capital overhang was the lowered business expectations of the future level of output that developed just prior to the past recession. As these projections fell, the demand for investment also fell. In contrast to that period, current projections of 2004 output have been rising since mid-2003 and are expected to lead to increased demand for capital goods in the initial quarters of the forecast.

Growth in equipment investment in 2004 should be further boosted as firms pull forward spending in anticipation of the expiration of the period when businesses are able to expense (rather than depreciate) 50 percent of the value of their equipment investment. The flip side of some investment being advanced into 2004 is that investment may grow more slowly in 2005. Even so, the growth of equipment investment in 2005 is projected to be solid.

Despite the emerging recovery in spending on equipment and software, business demand for structures remained soft in 2003. High overcapacity seems to have offset the impetus imparted by low interest rates and higher cash flow. In the office sector, vacancy rates rose substantially for the third consecutive year. Vacancy rates moved still higher in the industrial sector and now stand at extremely elevated levels. The good news is that the substantial declines in total spending on structures seem to have abated. Indeed, real investment in nonresidential structures was approximately flat over the first three quarters of 2003, in contrast with a plunge of more than 25 percent during the preceding two years. Strength in oil and gas drilling and an increase in construction of general merchandise stores during the year have offset continued softness in some other sectors.

The forces that shape the outlook for business structures—the growth of output and the cost of capital—are much the same as for business equipment. However, they operate with a longer lag because of the time it takes to plan and build these structures. Investment in business structures is projected to post a small gain during 2004.

## Business Inventories

Businesses began 2003 with lean inventories following a massive liquidation in 2001 and little restocking during 2002. Inventory investment was substantially negative over the first three quarters of 2003, as increases in production lagged those in final demand. The reasons for this slow response of production are unclear. Firms may have been surprised by the strength of final demand, or they may simply have been waiting for compelling evidence that a sustainable recovery was under way.

The net decline in inventories during the first three quarters of 2003 left stocks in their leanest position relative to final sales of goods and structures in at least 50 years. (This lean position results, at least in part, from efficiencies generated by just-in-time inventory-management techniques.) Stockbuilding

seems to have begun in September, however. Inventory investment appears likely to have made a positive contribution to GDP growth in the fourth quarter of 2003, and the contribution is projected to remain noticeably positive through the first half of 2004. Inventory investment is expected to plateau thereafter at a level that keeps stocks in line with rising sales throughout 2004 and 2005.

## Government Purchases

Real Federal spending (consumption expenditures and gross investment) climbed at an annual rate of 8 percent during the first three quarters of 2003. The available data suggest that 2003 as a whole likely saw the largest increase in more than 30 years. The gain during the first three quarters was led by an annualized rise of 10 percent in real defense spending largely related to military operations in Iraq. Real nondefense spending rose at an average annual pace about 4 percent. This gain was less than half as large as the gain during the four quarters of 2002, when outlays were stepped up considerably for homeland security.

The defense supplemental appropriations for FY 2004, signed in November, allows for some further near-term growth in government purchases. Defense spending is projected to fall during FY 2005, and as a result, overall Federal spending is projected to edge down.

Like the Federal government, the governments of states and localities saw their tax receipts decelerate during the economic slowdown. Budgets have also deteriorated because of rising health care costs and increased demand for security-related spending. With many of these governments subject to balanced-budget rules, they have taken a variety of measures to address their fiscal imbalances, including drawing on accumulated reserves (so-called “rainy day funds”), raising taxes, and restraining spending. Real expenditures of state and local governments were little changed during the first three quarters of 2003, in contrast with an average annual gain of around 3 percent over the preceding five years. With state and local governments still under pressure, their real expenditures are projected to increase slowly during the coming year. Eventually, their fiscal situations should be improved by increases in tax revenue resulting from the strengthening of the economy.

## Exports and Imports

The U.S. current account deficit as a share of GDP was little changed, on net, during the first three quarters of 2003, averaging about 5 percent. The deficit on trade in goods and services as a share of GDP also moved in a narrow range during the first three quarters. U.S. net investment income (the income paid to U.S. investors in foreign endeavors less that paid to foreign

investors in U.S. projects) was roughly flat, as both receipts from abroad and payments to foreign investors rose somewhat during the first three quarters of 2003. Real imports of goods and services have likely been restrained in recent quarters by the decline in the value of the dollar. Real imports rose at an annual rate of 1 percent during the first three quarters of 2003, a substantially slower pace than during the four quarters of 2002. Real imports of capital goods (other than autos) rose solidly, as would be expected given the recovery in U.S. investment. Real oil imports increased at a faster pace (on an annual basis) than during the four quarters of 2002. Real services imports fell markedly in the first half of 2003 but turned up in the third quarter.

America's major trading partners have recovered from the global slowdown somewhat more slowly than has the United States. For example, an index of real GDP for our G-7 trading partners increased at an average annual pace of less than 2 percent during the first three quarters of 2003. As a result, foreign demand for U.S. exports was lackluster in the first half of 2003. Real exports picked up sharply around the middle of 2003, increasing at an annual pace of 10 percent in the third quarter. The increase was led by a gain in real exports of capital goods. Even so, the level of exports remained well below its peak in 2000.

Prospects for exports over the next two years look better. Growth among the non-U.S. OECD countries is projected by the OECD Secretariat to rise 2.6 percent during the four quarters of 2004, up from a pace of 1.6 percent during 2003. Growth is expected to rise further to 2.8 percent in 2005. The expected growth in foreign markets should support growth in U.S. exports. In addition, the effect will likely be augmented by a rise in the U.S. market share of world exports owing to the effects of the 23 percent decline in the value of the dollar against major currencies from its peak in early 2002 through the end of 2003. The effect of the recent dollar decline on exports will likely take a couple of years to be fully felt.

Real imports are projected to increase along with domestic output, but the growth of real imports is likely to be slowed by the recent decline in the dollar's value relative to other currencies. On balance, real imports are projected to grow at about the same pace as GDP, on average, during the next two years. Nominal imports will increase faster than real imports because import prices will rise in reaction to the recent dollar decline. Even so, the current account deficit, which rose to about 5 percent of GDP in the first three quarters of 2003, is projected to edge up in 2004 and decline thereafter.

Overall, real net exports are expected to be approximately flat during the next year and are likely to make a positive contribution to real GDP growth thereafter. Over the next six years, the returns to foreign owners of U.S. capital are likely to grow faster than the returns to U.S. owners of foreign capital, a legacy of a long period of strong foreign investment in the United

States during the past decade. As a result, real gross national product (GNP), which includes these net foreign returns to capital, is expected to grow slower than real gross domestic product (GDP).

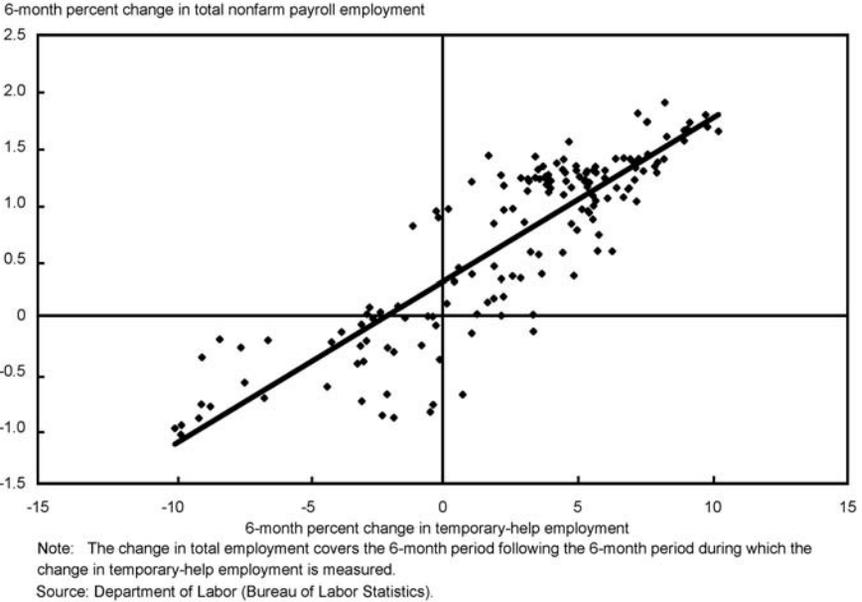
## The Labor Market

Nonfarm payroll employment fell an average of 50,000 workers per month in the first seven months of 2003, before increasing 35,000 in August, 99,000 in September, and an average of 48,000 per month in the fourth quarter. The strengthening was experienced in most sectors. Job gains in professional and business services stepped up appreciably from the modest upward pace seen earlier in the year. Construction employment began to expand in the second quarter after two years of modest job losses, and the quarterly averages of employment in the wholesale trade, transportation, and utilities industries turned up at the end of the year. The manufacturing sector continued to shed jobs through year-end, though the pace of decline slowed, and the factory workweek climbed more than 0.5 hour, on balance, in the final five months of 2003.

The unemployment rate increased in the first half of 2003, reaching a peak of 6.3 percent in June, before falling during the second half of the year. In the fourth quarter, the unemployment rate averaged 5.9 percent, the same as it had been a year earlier. Because the labor force is constantly expanding, employment must be growing moderately just to keep the unemployment rate steady. For example, if the labor force is growing at the same rate as the population (about 1 percent per year), employment would have to rise 110,000 a month just to keep the unemployment rate stable, and larger job gains would be necessary (and are expected) to induce a downward trend in the unemployment rate.

Looking ahead, temporary-help services employment—a leading indicator for the labor market—suggests substantial further employment growth. Average growth in temporary-help services employment over a six-month period has a striking positive correlation with growth in overall employment over the subsequent six months (Chart 3-3). Statistical analysis suggests that an increase of one job in temporary-help services corresponds to a subsequent rise of seven jobs in overall employment. Employment in temporary-help services has expanded 194,000 since last April, suggesting robust growth in overall employment this year. The unemployment rate is projected to fall to 5.5 percent by the fourth quarter of 2004.

**Chart 3-3 Growth in Temporary-Help Services and Overall Employment, 1990-2003**  
Growth in temporary-help services employment tends to lead growth in overall nonfarm employment.



## Productivity, Prices, and Wages

The consumer price index (CPI) increased 1.9 percent over the 12 months ended in December 2003, a little below the 2.4 percent rise experienced during the same period the previous year. Consumer energy prices fluctuated markedly over the course of 2003, but ended the year 6.9 percent above their level at the end of 2002. The core CPI (which excludes food and energy) rose only 1.1 percent during 2003, considerably below the 1.9 percent increase of the previous year. This deceleration likely stems from the slack in labor and product markets last year. In addition, unit labor costs were held down by an impressive performance for labor productivity, with output per hour in the nonfarm business sector rising at an annual pace of about 6 percent during the first three quarters of the year following an increase of roughly 4½ percent during the four quarters of 2002. This pace of productivity growth is well above the annual average of just over 2 percent experienced since 1960.

Hourly compensation of workers appears to have picked up a little last year. During the 12 months of 2003, the employment cost index (ECI) for private nonfarm businesses moved up 4 percent following a 3.2 percent gain during the previous year. The wages and salaries component of the index rose 3.0 percent during 2003, slightly below the 2.7 percent increase recorded for 2002. The benefits component of the ECI, however, surged 6.4 percent over the 12 months of 2003, much faster than the 4.7 percent

pace during 2002. The increase in benefits was especially large in the first quarter of 2003, led by a jump in contributions to defined-benefit pension plans as employers began making up for losses in the value of pension fund assets. Employer-paid health premiums rose 10.5 percent during 2003, roughly the same pace as in 2002.

Core CPI inflation is expected to continue at a low level in 2004, and overall inflation is expected to be even lower as energy prices retreat further. Overall CPI inflation is projected to fall to 1.4 percent during the four quarters of 2004—close to the past year’s pace of core inflation. With the unemployment rate expected to average 5.6 percent for the year as a whole (above our estimated 5.1 percent midpoint of the range of rates consistent with stable inflation) the level of slack—although less than in 2003—is still projected to hold down inflation during 2004. Also keeping inflation in check is the recent rapid pace of—and solid near-term prospects for—productivity growth. Offsetting this effect is the somewhat higher pace of import-price inflation (resulting from the recent dollar decline) and the quicker pace of GDP growth. Over the next five years, CPI inflation is expected to edge up, eventually flattening out at 2.5 percent, a level that is identical to the consensus forecast.

The path of inflation as measured by the GDP price index is similar, but a bit lower throughout the projection period. Inflation as measured by the GDP price index is projected fall to 1.2 percent during the four quarters of 2004, the same as the 1.2 percent pace of the core GDP price index during the first three quarters of 2003. GDP price inflation is projected to increase slowly thereafter—roughly parallel to the rise in CPI inflation.

The wedge between the CPI and the GDP measures of inflation has important implications for the Federal budget and budget projections. A larger wedge reduces the Federal budget surplus because cost-of-living adjustments for Social Security and other indexed programs rise with the CPI, whereas Federal revenue tends to increase with the GDP price index. For a given level of nominal income, increases in the CPI also cut Federal revenue because they raise income tax brackets and affect other inflation-indexed features of the tax code. Of the two indexes, the CPI tends to increase faster in part because it measures the price of a fixed market basket. In contrast, the GDP price index increases less rapidly than the CPI because it reflects the choices of households and businesses to shift their purchases away from items with increasing relative prices and toward items with decreasing relative prices. In addition, the GDP price index includes investment goods, such as computers, whose relative prices have been falling rapidly. Computers, in particular, receive a much larger weight in the GDP price index (0.8 percent) than in the CPI (0.2 percent).

During the eight years ended in 2002, the wedge between inflation in the CPI-U-RS (a version of the CPI designed to be consistent with current methods) and the rate of change in the GDP price index averaged 0.5 percentage point per year. With the core CPI and the core GDP price index both increasing at about a 1¼ percent pace during the past year, inertia suggests that the near-term wedge will be only about 0.2 percentage point in 2004. The wedge is expected to widen eventually to its recent mean of 0.5 percent by 2009.

## Financial Markets

Stock prices skidded early in the year, but rallied in March and have been on a solid uptrend since then. During the 12 months of 2003, the Wilshire 5000 index—a broad measure of stock prices—rose 29 percent. An increase of this magnitude has not been seen since 1997. High-tech stocks did even better; for example, the Nasdaq index, which is heavily weighted toward high-tech industry, rose 50 percent during 2003. Nearly two-thirds of the rise in broad measures of stock prices occurred after the President signed the 2003 tax cut (JGTRRA) in late May; the Act reduced marginal tax rates on dividends and capital gains and thus likely contributed to the robust performance of stock prices.

Following a large decline in 2001, and a smaller one in 2002, the interest rate on 91-day Treasury bills fell an additional 29 basis points in 2003 and ended the year at 0.9 percent. These reductions reflected the Federal Reserve's efforts to stimulate the economy, leaving real short-term rates (that is, nominal rates less expected inflation) slightly negative. Following market-based expectations of interest rates (derived from rates on Eurodollar futures), the Administration does not expect real rates this low to persist once the recovery becomes firmly established, and nominal Treasury bill rates are projected to increase gradually. Long-term interest rates fell sharply last spring and then rebounded in the summer. For the year as a whole, long-term Treasury rates were about unchanged, but corporate interest rates dropped a bit as the spread over Treasury rates narrowed. The Administration projects that the yield on 10-year Treasury notes, which averaged 4.3 percent in December 2003, will edge up gradually next year, consistent with the path of short-term Treasury rates.

## The Long-Term Outlook

The economy could well grow faster than in the projection presented here, as the long-run benefits from the full reductions in marginal tax rates are felt. These should lead to higher labor force participation than would

occur otherwise, more entrepreneurial activity, and greater work effort by highly productive individuals. The Administration, however, chooses to adopt conservative economic assumptions that are close to the consensus of professional forecasters. As such, the assumptions provide a prudent and cautious basis for the budget projections.

## Growth in Real GDP and Productivity over the Long Term

The economy continues to display supply-side characteristics favorable to long-term growth. Productivity growth has been remarkable, and inflation remains low and stable. As a result of stimulative fiscal and monetary policies, real GDP is expected to grow faster than its 3.1 percent potential rate during the next four years. The Administration forecasts that real GDP growth will average 3.7 percent at an annual rate during the four years from 2003 to 2007—in line with the consensus projection. Because this pace is somewhat above the assumed rate of increase in productive capacity, the unemployment rate is projected to decline over this period. In 2008 and 2009, real GDP growth is projected to continue at its long-run potential rate of 3.1 percent, and the unemployment rate is projected to be flat at 5.1 percent (Table 3-1).

The growth rate of the economy over the long run is determined by its supply-side components, which include population, labor force participation, productivity, and the workweek. The Administration's forecast for the contribution of different supply-side factors to real GDP growth is shown in Table 3-2.

TABLE 3-1.—*Administration Forecast*<sup>1</sup>

Year	Nominal GDP	Real GDP (chain-type)	GDP price index (chain-type)	Consumer price index (CPI-U)	Unemployment rate (percent)	Interest rate, 91-day Treasury bills (percent)	Interest rate, 10-year Treasury notes (percent)	Nonfarm payroll employment (millions)
	Percent change, fourth quarter to fourth quarter				Level, calendar year			
2002 (actual) ....	4.3	2.9	1.3	2.2	5.8	1.6	4.6	130.4
2003 .....	5.8	4.2	1.5	2.0	6.0	1.0	4.0	130.1
2004 .....	5.2	4.0	1.2	1.4	5.6	1.3	4.6	132.7
2005 .....	4.9	3.4	1.4	1.6	5.4	2.4	5.0	136.3
2006 .....	5.0	3.3	1.6	1.9	5.2	3.3	5.4	138.6
2007 .....	5.2	3.3	1.8	2.2	5.1	4.0	5.6	140.6
2008 .....	5.2	3.1	2.0	2.5	5.1	4.3	5.8	142.5
2009 .....	5.2	3.1	2.0	2.5	5.1	4.4	5.8	144.4

<sup>1</sup>Based on data available as of December 2, 2003.

Sources: Council of Economic Advisers, Department of Commerce (Bureau of Economic Analysis), Department of Labor (Bureau of Labor Statistics), Department of the Treasury, and Office of Management and Budget.

TABLE 3-2.—*Accounting for Growth in Real GDP, 1960-2009*<sup>1</sup>  
 [Average annual percent change]

Item	1960 Q2 to 1973 Q4	1973 Q4 to 1990 Q3	1990 Q3 to 2003 Q3	2003 Q3 to 2009 Q4
1) Civilian noninstitutional population aged 16 or over .....	1.8	1.5	1.2	1.1
2) Plus: Civilian labor force participation rate .....	.2	.5	-.1	-.1
3) Equals: Civilian labor force <sup>2</sup> .....	2.0	2.0	1.1	1.0
4) Plus: Civilian employment rate <sup>2</sup> .....	.0	-.1	.0	.2
5) Equals: Civilian employment <sup>2</sup> .....	2.0	1.9	1.1	1.2
6) Plus: Nonfarm business employment as a share of civilian employment <sup>2,3</sup> .....	.1	.1	-.1	.6
7) Equals: Nonfarm business employment .....	2.1	2.0	1.0	1.8
8) Plus: Average weekly hours (nonfarm business) .....	-.4	-.4	-.1	.0
9) Equals: Hourall persons (nonfarm business) .....	1.7	1.7	.9	1.8
10) Plus: Output per hour (prods of activity, nonfarm business) ...	2.8	1.4	2.5	2.1
11) Equals: Nonfarm business output .....	4.6	3.1	3.4	3.9
12) Plus: Ratio of real GDP to nonfarm business output <sup>4</sup> .....	-.3	-.2	-.4	-.5
13) Equals: Real GDP .....	4.2	2.9	3.0	3.4

<sup>1</sup> Based on data available as of December 2, 2003.

<sup>2</sup> Adjusted for 1994 revision of the Current Population Survey.

<sup>3</sup> Line 6 translates the civilian employment growth rate into the nonfarm business employment growth rate.

<sup>4</sup> Line 12 translates nonfarm business output back into output for all sectors (GDP), which includes the output of farms and general government.

Note.—The periods 1960 Q2, 1973 Q4, and 1990 Q3 are business cycle peaks.  
 Detail may not add to totals because of rounding.

Sources: Council of Economic Advisers, Department of Commerce (Bureau of Economic Analysis), and Department of Labor (Bureau of Labor Statistics).

The Administration expects nonfarm labor productivity to grow at a 2.1 percent average annual pace over the forecast period, virtually the same as that recorded during the 43 years since the business-cycle peak in 1960. The projection is notably more conservative than the roughly 4½ percent average annual rate of productivity growth since the output peak in the fourth quarter of 2000. After such an extraordinary surge, a period of slower productivity growth is likely as firms shed their hesitancy to hire. In addition, the slower pace of productivity assumed in the forecast reflects the Administration's view that in the absence of a good explanation for the recent acceleration, it is wiser to base the productivity forecast on longer-term averages.

In addition to productivity, growth of the labor force (also shown in Table 3-2) is projected to contribute 1.0 percentage point per year to growth of potential output on average through 2009. Labor force growth results from growth in the working-age population and changes in the labor force participation rate. The Bureau of the Census projects that the working-age population will grow at an average annual rate of 1.1 percent through 2009—roughly the same pace as during the years between 1990 and 2003. The last year in which the labor force participation rate increased was 1997,

so the long-term trend of rising participation appears to have come to an end. Since then, the participation rate has fallen at an average 0.2 percent annual pace—although some of the decline in 2001 and 2002 probably resulted from the recession-induced decline in job prospects. In 2003, the baby-boom cohort was 39 to 57 years old, and over the next several years the boomers will be moving into older age brackets with lower participation rates. As a result, the labor force participation rate is projected to edge down an average of 0.1 percent per year through 2009. The decline may be greater, however, after 2008, which is the year that the first baby boomers (those born in 1946) reach the early-retirement age of 62.

In sum, potential real GDP is projected to grow at a 3.1 percent annual pace, slightly above the average actual pace since 1973 of 3.0 percent. Actual real GDP growth during the six-year forecast period is projected to be slightly higher, at 3.4 percent, because the civilian employment rate (line 4 of Table 3-2) makes a small (0.2 percentage point) and transitory contribution to growth through 2007 as the unemployment rate falls. This contribution then ends as the unemployment rate stabilizes at 5.1 percent.

## Interest Rates over the Long Term

The gradual increase in the interest rate on 91-day Treasury bills is projected to continue through 2009. The rate is expected to reach 4.4 percent by 2009, at which date the real interest rate on 91-day Treasury bills will be close to its historical average. The projected path of the interest rate on 10-year Treasury notes is consistent with that on short-term Treasury rates. By 2008, this yield is projected to be 5.8 percent, 3.3 percentage points above expected CPI inflation—a typical real rate by historical standards. By 2009, the projected term premium (the difference between the 10-year interest rate and the 91-day rate) of 1.4 percentage points is in line with its historical average.

## The Composition of Income over the Long Term

A primary purpose of the Administration's economic forecast is to estimate future government revenue, which requires a projection of the components of taxable income. The Administration's income-side projection is based on the historical stability of the long-run labor and capital shares of gross domestic income (GDI). During the first three quarters of 2003, the labor share of GDI was on the low side of its historical average. From this jump-off point, it is projected to rise to its long-run average and then remain at this level over the forecast period. (The income share projections are consistent with data available through December 2, 2003. They exclude any effects of the later comprehensive revision to the National Income and Product Accounts.) The labor share consists of wages and salaries, which are taxable, employer contributions for employee pension and insurance funds (that is,

fringe benefits), which are not taxable, and employer contributions for government social insurance. The Administration forecasts that the wage and salary share of compensation will decline while employer contributions for employee pension and insurance funds grow faster than wages. This pattern has generally been in evidence since 1960 except for a few years in the late 1990s. During the next five years, the fastest growing components of employer contributions for employee pension and insurance funds are expected to be employer-paid health insurance and contributions for defined-benefit pension plans.

The capital share (the complement of the labor share) of GDI is expected to fall before leveling off at its historical average. Within the capital share, a near-term decline in depreciation (an echo of the decline in short-lived investment during 2001 and 2002) helps boost corporate economic profits, which in the third quarter 2003 were noticeably above their post-1973 average of about 8 percent of GDI. The share of corporate economic profits in GDI is projected to be bolstered in 2004 by the strong recent productivity growth together with stable gains in hourly compensation, and an expected decline in depreciation. From 2005 forward, the profit share is expected to slowly decline back to its historical average of about 8 percent. The projected pattern of book profits (known in the national income accounts as “profits before tax”) reflects the 30 percent expensing provisions of the Job Creation and Worker Assistance Act of 2002 and the 50 percent expensing provisions of the Jobs and Growth Tax Relief Reconciliation Act of 2003. These expensing provisions reduce taxable profits from the third quarter of 2001 through the fourth quarter of 2004. The expiration of the expensing provisions increases book profits thereafter, however, because those investment goods expensed during the three-year expensing window will have less remaining value to depreciate thereafter. The share of other taxable income (the sum of rent, dividends, proprietors’ income, and personal interest income) is projected to fall, mainly because of the delayed effects of past declines in long-term interest rates, which reduce personal interest income during the projection period.

## Conclusion

The Administration’s policies have been a key force shaping recent economic developments and the prospects for economic growth in coming years. The policies are designed to enhance U.S. economic growth, not just maintain it. The remaining chapters of this *Report* illustrate the ways in which pro-growth economic policies can improve economic performance by striking a balance between encouragement and regulation of firms, by reducing barriers to trade, and by reducing tax-based disincentives to economic activity.

