
*Monetary Policy and
Economic Developments*

Monetary Policy and the Economic Outlook

The U.S. economy turned in another solid performance in 2006, although the pattern of growth was uneven. After rebounding in the early part of the year from hurricane-related disruptions in the autumn of 2005, the pace of expansion during the remaining three quarters averaged somewhat below that of the preceding two years, responding in part to the removal of monetary policy accommodation since 2004. The housing market cooled substantially, and, in the latter part of 2006, the production of light motor vehicles also stepped down. Elsewhere in the economy, activity remained strong. Consumer spending increased vigorously in 2006 as households' real income made strong gains. Business investment rose at a solid rate for the year as a whole, although it decelerated late in the year in part because of some softening in purchases of equipment related to construction and motor vehicle manufacturing. Demand for U.S. exports rose at a robust pace in 2006, supported by strong economic activity abroad. Against this backdrop, businesses continued to add jobs at a steady rate, and the unemployment rate decreased further.

NOTE: The discussion here and in the next chapter consists of the text, tables, and selected charts from the Monetary Policy Report submitted to the Congress on February 14, 2007, pursuant to section 2B of the Federal Reserve Act; the complete set of charts is available on the Board's web site, at www.federalreserve.gov/boarddocs/hh.

Other materials in this annual report related to the conduct of monetary policy include the minutes of the 2006 meetings of the Federal Open Market Committee (see the "Records" section) and statistical tables 1–4 (at the back of this report).

Total consumer price inflation declined in 2006 from its elevated pace in 2005, as energy prices fell, on net, after rising rapidly over the preceding couple of years. Crude oil prices rose during the first half of 2006 but turned down sharply later in the year. As a result, consumer price inflation climbed in the first half of the year before slowing in the second half. The sharp movements in prices of crude oil appear to have affected not only prices of gasoline and other petroleum-based types of energy but also prices of a broader range of goods and services that use petroleum-based inputs. Partly as a result, consumer price inflation excluding food and energy—so-called core consumer price inflation—moved up during the first half of the year but eased subsequently. On balance, core inflation was a bit higher over the four quarters of 2006 than in 2005. Measures of long-term inflation expectations, however, remained well anchored.

The monetary policy decisions of the Federal Open Market Committee (FOMC) in 2006 were intended to foster sustainable economic expansion and to promote a return to low and stable inflation. In that regard, the economic outlook for this year and next appears favorable. Although the contraction in homebuilding has been a drag on growth, that restraint seems likely to diminish over 2007. Further gains in real wages as well as ongoing increases in employment should support a solid rise in consumer spending. In addition, at the beginning of 2007, households' balance sheets appeared to be in good shape. Whereas gains in home prices slowed last year, household net worth

increased moderately as stock market wealth grew and households lessened their accumulation of debt. Delinquency rates on consumer loans and on most types of mortgages remained low, although they increased markedly for subprime mortgages with variable interest rates. As for businesses, balance sheets are quite liquid, credit quality is good, and most firms enjoy ready access to funds. These favorable financial conditions, along with further expansion in business output, user costs of capital equipment that remain attractive, and the potential for further gains in efficiency, should continue to spur business investment. In addition, sustained expansion in foreign economies ought to maintain demand for U.S. exports. On balance, growth of real gross domestic product in the United States appears likely to run slightly below that of the economy's potential over the next few quarters and then to rise to a pace around that of the economy's long-run trend.

Regarding inflation, increases in core consumer prices are expected to moderate, on balance, over the next two years. Along with inflation expectations that are well anchored, some of the factors that boosted inflation in recent years seem likely to lessen. In particular, the paths for prices of energy and other commodities embedded in futures markets suggest that the impetus to core inflation from these influences will diminish further. In addition, the outsized increases in shelter costs that boosted core inflation last year are not expected to persist. Although unit labor costs in the nonfarm business sector have been rising, the average markup of prices over such costs is high by historical standards. The relatively high markup suggests that further increases in costs could be absorbed, at least to some extent, by a narrowing of firms' profit

margins rather than by passing on the costs in the form of higher consumer prices, especially if pressures on resources ease modestly as anticipated.

The outlook for real economic activity is uncertain. An upside risk is that consumer spending, which has been especially buoyant in recent months, may continue to expand at a pace that would ultimately lead to an escalation of pressures on resources and prices. Alternatively, prospects for residential construction, which are difficult to assess, may pose some downside risks. Although residential real estate markets have shown some recent signs of stabilizing, homebuilders' inventories of unsold homes remain elevated. Further cutbacks in construction to reduce inventories toward more-comfortable levels could become steeper and more persistent than currently anticipated. Moreover, if home values were to depreciate sharply, the resulting erosion of household wealth could impose appreciable restraint on consumer spending.

Whether inflation will moderate gradually as expected is also uncertain. On the one hand, the nation's potential to produce could increase more rapidly than anticipated, or product and input markets could work efficiently at higher rates of utilization, either of which could lead to a lower trajectory for inflation than currently forecast. On the other hand, expanding global demand and threats to supply from actual and potential disruptions pose upside risks for energy prices. In addition, brisk world demand for non-energy materials and commodities could lead to further upward pressures on business costs. Also, if inflation were to persist around the elevated average level of the past three years, longer-run inflation expectations could deteriorate, particularly if pressures on resources were to intensify.

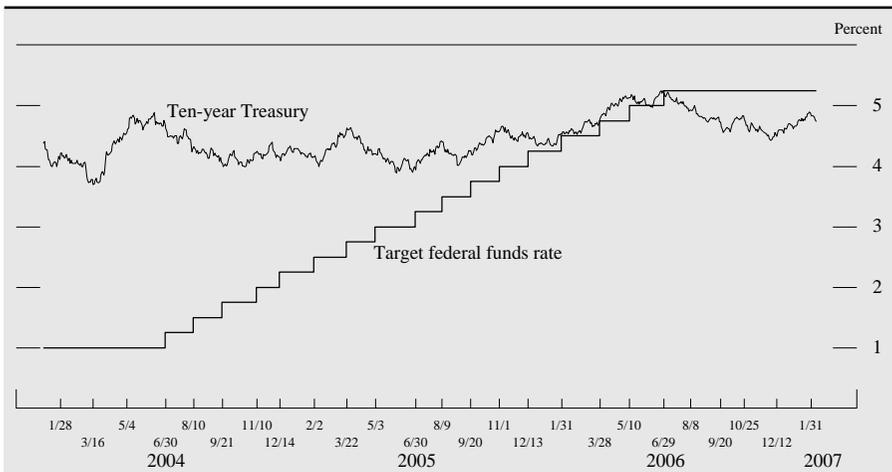
At recent meetings, the FOMC indicated that the risk that inflation will fail to moderate as expected is its predominant policy concern.

Monetary Policy, Financial Markets, and the Economy in 2006 and Early 2007

The FOMC firmed the stance of monetary policy 25 basis points at each of its four meetings over the first half of 2006. The Committee raised its target for the federal funds rate at its January and March meetings as available information pointed to accumulating pressures on inflation and solid economic growth. Although readings on core inflation had remained favorable, increases in energy prices and the relatively high level of resource utilization threatened to add to existing inflation pressures. Meanwhile, underlying aggregate demand, supported by robust consumer spending and accelerating

business investment, appeared to be growing at a solid rate. By the time of the May and June meetings, data pointed to a moderation in the growth of consumer spending and a further cooling in the housing market. However, core consumer prices had risen more rapidly. Although the Committee judged inflation expectations still to be contained, it was mindful that the rising prices of energy and other commodities could impart greater inflationary momentum. Against this backdrop, the FOMC voted to increase the policy rate a further 25 basis points at both the May and June meetings, bringing the federal funds rate to 5¼ percent. In the statement accompanying its June decision, the FOMC indicated that it believed that the moderation in economic activity would help to limit inflationary pressures over time but also noted that some upside inflation risks remained. As it had in its May statement, the FOMC made clear in June that the extent and

Selected Interest Rates, 2004–07



NOTE: The data are daily and extend through February 7, 2007. The ten-year Treasury rate is the constant-maturity yield based on the most actively traded securities. The dates on the horizontal axis are those of FOMC meetings.

SOURCE: Department of the Treasury and the Federal Reserve.

timing of additional firming would depend on the evolution of the outlook for both inflation and economic growth as implied by incoming information.

In the second half of the year, a further slowdown in residential construction activity and a contraction in motor vehicle production created a significant drag on economic activity. However, consumer spending held up, and employment rose at a solid pace. Meanwhile, energy prices reversed much of their increases of the first half of the year, sending headline inflation lower. Core inflation also eased somewhat, albeit to a rate above its year-earlier level. Against this backdrop, the FOMC left the stance of policy unchanged at its final four meetings of 2006. Committee discussions in those meetings focused in part on developments in the housing market and their implications for the broader economy. Although the housing market was weakening throughout this period, the Committee judged that the downturn had not spilled over significantly to consumer spending. The economy was expected to expand over coming quarters at a rate close to or a little below its long-run sustainable pace. At the same time, FOMC members noted that, even though core inflation had slowed from the very rapid rates of the spring and summer, current rates remained undesirably high. Most members expected core inflation to moderate gradually, but they were uncertain about the likely pace and extent of that moderation. Thus, in statements accompanying each rate announcement over this period, the FOMC reiterated that inflation risks remained and that the extent and timing of any additional policy firming would depend on the outlook for both inflation and economic growth implied by incoming information.

Over the period between the December 2006 and January 2007 FOMC

meetings, incoming data on inflation and economic activity were generally more favorable. Core inflation receded further from the elevated levels reached in early 2006, and some indicators suggested that the demand for housing might be stabilizing. Business investment had softened in the fourth quarter, and industrial production decelerated sharply in the fall, but consumer spending posted robust gains in the final months of 2006. At its January 2007 meeting, the Committee again decided to leave its target for the federal funds rate unchanged, reiterated concern about inflation risks, and again cited the role of incoming data in determining the extent and timing of any additional firming.

In recent years, the FOMC has worked to improve the transparency of its decisionmaking process, and the Committee continues to examine whether further changes would improve its communications with the public. In spring 2006, the Chairman appointed a subcommittee to help the FOMC organize the discussion of a broad range of communication issues. The FOMC began its consideration of these issues at its August meeting and has discussed them at several meetings since then.

Economic Projections for 2007 and 2008

In conjunction with the FOMC meeting in January, the members of the Board of Governors and the Federal Reserve Bank presidents, all of whom participate in the deliberations of the FOMC, provided economic projections for 2007 and 2008. The projections indicate that the participants expect sustainable expansion of real economic activity during the next two years, assuming an appropriate course for monetary policy. The central tendency of the FOMC participants' forecasts for the increase in

real GDP is 2½ percent to 3 percent over the four quarters of 2007 and 2¾ percent to 3 percent over the four quarters of 2008. The central tendency of their forecasts for the civilian unemployment rate is 4½ percent to 4¾ percent in the fourth quarter both of this year and of 2008. For inflation, the central tendency of the forecasts anticipates an increase in the price index for personal consumption expenditures excluding food and energy—the so-called core PCE price index—of 2 percent to 2¼ percent over the four quarters of 2007 and 1¾ percent to 2 percent over the four quarters of 2008.

The economy is projected to expand at a moderate rate. Although the cooling of the housing market continues to damp economic activity, the drag on economic growth from declining construction activity is expected to diminish later this year. Household spending for goods and

services should rise at a solid pace, in part as a result of ongoing gains in real wages and employment and of generally strong household balance sheets. Business outlays for new equipment and software are expected to increase at a rate consistent with a moderate expansion in business output and to be supported by continuing declines in the user cost of high-technology capital equipment and by favorable financial conditions. In addition, the solid expansion of economic activity abroad should maintain the rising demand for U.S. exports of goods and services.

Decreased pressures from the costs of energy and other commodities, in an environment of moderate economic expansion and well-anchored longer-run inflation expectations, are expected to contribute to further easing in inflation. In addition, increases in productivity should help to limit cost pressures. ■

Economic Projections of Federal Reserve Governors and Reserve Bank Presidents for 2007 and 2008

Percent

Indicator	MEMO: 2006 actual	2007		2008	
		Range	Central tendency	Range	Central tendency
<i>Change, fourth quarter to fourth quarter¹</i>					
Nominal GDP	5.9	4¾–5½	5–5½	4¾–5½	4¾–5¼
Real GDP	3.4	2¼–3¼	2½–3	2½–3¼	2¾–3
PCE price index excluding food and energy	2.3	2–2¼	2–2¼	1½–2¼	1¾–2
<i>Average level, fourth quarter</i>					
Civilian unemployment rate	4.5	4½–4¾	4½–4¾	4½–5	4½–4¾

1. Change from average for fourth quarter of previous year to average for fourth quarter of year indicated.

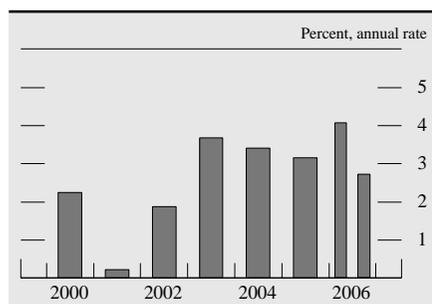
Economic and Financial Developments in 2006 and Early 2007

The especially brisk pace of economic activity in early 2006 primarily reflected a rebound after hurricane-related disruptions in the autumn of 2005. During the rest of the year, however, economic activity slowed to a pace somewhat below the average rate of recent years. Real GDP is reported to have increased at an average annual rate of $2\frac{3}{4}$ percent over the final three quarters of 2006, down from the average $3\frac{1}{4}$ percent pace in 2004 and 2005. The slowdown principally was the result of the contraction in residential construction, which intensified later in the year, and the marked decline in production of light motor vehicles in the second half of the year as manufacturers took steps to trim dealers' inventories. In other sectors of the economy, consumer spending remained strong as employment and income made further solid gains, and business outlays for new structures and equipment rose

considerably over much of the year. Financial market conditions were generally supportive of economic expansion in 2006. Equity markets recorded sizable gains, and long-term interest rates rose only modestly from historically low levels. Risk spreads on corporate bonds remained narrow or declined further. Overall economic conditions were such that businesses maintained a steady pace of hiring, and the unemployment rate moved down further.

Consumer price inflation, as measured by the rise in the PCE price index, moved down in the second half of 2006 after having stepped up in the first half. Energy prices, which rose during the first half and turned sharply downward later in the year, played an important role in shaping the contour of total consumer price inflation. In addition, core PCE price inflation eased modestly over the second half of 2006. Appar-

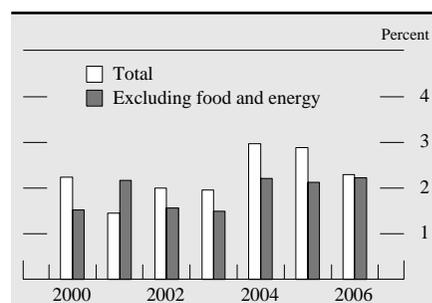
Change in Real GDP, 2000–06



NOTE: Here and in subsequent figures, except as noted, change for a given period is measured to its final quarter from the final quarter of the preceding period.

SOURCE: Department of Commerce, Bureau of Economic Analysis.

Change in PCE Chain-Type Price Index, 2000–06



NOTE: The data are for personal consumption expenditures (PCE).

SOURCE: Department of Commerce, Bureau of Economic Analysis.

ently influenced by incoming data on inflation and economic activity, measures of long-term inflation expectations rose early in the year but ended the year slightly lower than at the beginning. Nonetheless, core PCE price inflation for the year as a whole—at 2¼ percent—was a bit higher than in the preceding year, which perhaps reflected in part the high level of resource utilization.

The Household Sector

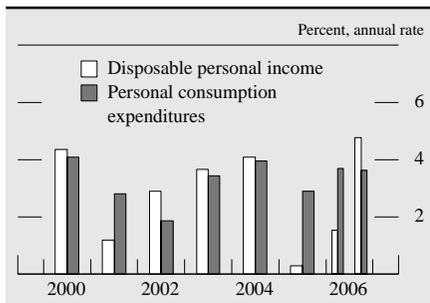
Consumer Spending

The rapid increase in consumer spending in 2006 was supported by rising employment, gains in real income, increases in household wealth, and favorable financial conditions. Over the four quarters of 2006, real PCE rose 3¾ percent—faster than in 2005 and at roughly the same rate as in 2004. The rise in consumer outlays was particularly robust in the first quarter of 2006 but then moderated in the middle of the year, when households' gains in real income slowed and consumer sentiment softened. Consumer spending rose briskly again in the fourth quarter of the year as gains in real income picked up and consumer confidence improved.

Household spending for new motor vehicles slowed in 2006; sales of 16.5 million new light vehicles (cars, sport-utility vehicles, and pickup trucks) were below the average of nearly 17 million sold in the preceding two years. Moreover, households' apparent concerns about elevated gasoline prices, particularly early in the year, shifted the composition of light vehicle sales toward more fuel-efficient autos and away from light trucks and SUVs. The shift helped boost the share of total sales captured by foreign producers because they tend to offer more fuel-efficient vehicles.

Real PCE for goods other than motor vehicles rose 4¾ percent over the four quarters of 2006, about in line with the brisk average pace in the preceding two years. Households increased their spending for a broad range of consumer goods, though the rise was particularly strong for electronic equipment and other durables. Real spending on gasoline remained about constant in the first half of the year but increased in the second half as prices fell. Consumer spending for services maintained a moderate pace of growth; expenditures in this category rose 2¾ percent in 2006, about the same average pace as in 2004 and 2005.

Change in Real Income and Consumption, 2000–06



SOURCE: Department of Commerce, Bureau of Economic Analysis.

In 2006, real household income was boosted by gains in wage and salary income and the increased purchasing power resulting from the deceleration in overall consumer prices. Labor income received by households rose both because of gains in real hourly wages and because of sustained increases in employment. However, the pickup in real after-tax income was damped because tax payments made by households increased at a rate greater than that for income. The acceleration in tax payments likely reflected, at least in part, several factors: tax payments on larger

capital gains realizations, which are excluded from income in the national income and product accounts (NIPA); gains in real income that moved some households into higher tax brackets; and possibly a further shift in the distribution of income toward high-income households that typically face higher tax rates. All told, real after-tax income rose 3 percent over the four quarters of 2006, up from the negligible gain posted in 2005 but a little below the average rate of increase in 2003 and 2004.

The rise in after-tax income in 2006 was outpaced by increases in household spending. As a result, the personal saving rate declined further in 2006 and averaged negative 1 percent for the year as a whole. Households apparently were inclined to increase their spending further above their disposable income, at least in part, because their wealth continued to rise. The ratio of household net worth to income, which has been trending higher since 2003, inched up further in 2006. Although increases in the value of homes slowed significantly, the value of corporate equities held by households both indirectly—such as in mutual funds and retirement accounts—and directly appreciated considerably.

Consumer sentiment deteriorated in the first half of 2006, according to the Reuters/University of Michigan Surveys of Consumers (Reuters/Michigan). In the spring, consumer confidence had moved to its lowest level for the year, probably in part because energy prices had surged. The subsequent decline in energy prices, along with the rise in the stock market and reductions in the unemployment rate, boosted consumer confidence in the second half of the year. On net, the Reuters/Michigan index of consumer sentiment was a shade higher at the end of 2006 than at the beginning of the year; sentiment moved

up further in early 2007 to near the upper end of its range since 2003.

Residential Investment

The deterioration of conditions in the housing market played a significant role in restraining the pace of economic expansion in 2006. The demand for new and existing homes began to weaken in the middle of 2005, and the subsequent decline steepened through the first half of 2006. As a result, the inventory of unsold new homes relative to sales rose sharply. Apparently prompted by lower demand and excessive inventories, homebuilders began to cut back on the pace of new construction near the beginning of 2006, and the decline in activity continued throughout the year. Later in the year, however, some indicators were hinting that the demand for housing was starting to stabilize.

By the middle of 2006, sales of both new and existing homes had fallen dramatically to a pace that was about 15 percent below that of a year earlier. Concurrently, inventories of unsold homes relative to sales rose considerably above the level that had prevailed during the period of robust housing demand from the late 1990s into 2005. By the third quarter of 2006, the backlog of unsold new homes had reached 6¾ months' supply, and the stock of existing homes for sale had risen to about 7 months' supply—both well above the average of about 4½ months' supply of new and existing homes in 2005. By the end of 2006, however, there were tentative signs that the demand for homes was stabilizing. The decline in sales of new and existing homes appeared to bottom out in the summer, and sales were roughly constant over the later part of the year. In the fourth quarter, builders' inventories of unsold new homes were reported to

have edged down a bit from their third-quarter level, while the stock of existing homes for sale remained about the same as in the third quarter. Despite these developments, the extent of any improvement in the inventories of unsold homes is obscured by the failure of these figures to account for recorded sales of new homes that are subsequently canceled.

The drag on new residential construction in 2006 imposed by the contraction in home sales and the buildup of inventories was significant. Both the number of permits issued for new single-family homes and the number of home starts dropped sharply. As of the fourth quarter of 2006, new single-family homes were started at an annual rate of 1.23 million units, almost 30 percent below the average pace in 2005; permits were down by a similar amount. In contrast to the marked slackening in construction of new single-family homes, the rate of starts of new multifamily homes in 2006, at 337,000 units, was about the same as in the preceding several years.

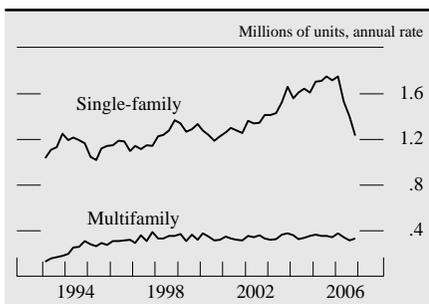
Housing activity, as measured by real expenditures on residential structures in the NIPA, trimmed $\frac{1}{4}$ percentage point from the rate of real GDP growth in the

first half of 2006, but the drag intensified to subtract about $1\frac{1}{4}$ percentage points from the annual rate of increase in real GDP in the second half. For 2006 as a whole, the contraction in real residential investment lowered the annual rate of growth in real GDP $\frac{3}{4}$ percentage point after having added $\frac{1}{2}$ percentage point, on average, to the rate from 2003 through 2005.

The rate of house-price appreciation slowed substantially in 2006 after several years of very rapid gains. The repeat-transactions index of home prices published by the Office of Federal Housing Enterprise Oversight (OFHEO) increased at an annual rate of only $1\frac{1}{2}$ percent in the third quarter of 2006, down substantially from average gains of about 10 percent in 2004 and 2005. The OFHEO index attempts to control for the quality of existing single-family homes sold by using prices of homes involved in repeat transactions. The increase in the OFHEO house-price index over the four quarters ending in the third quarter of 2006 (a calculation that smoothes through some of the quarterly volatility in the data) was 6 percent, the smallest four-quarter increase since the late 1990s. The average price of existing single-family homes sold, which is published by the National Association of Realtors (NAR) and does not control for the types of homes sold, declined about 2 percent over the four quarters of 2006, compared with average gains of roughly 9 percent in 2004 and 2005. The outright decline in the NAR index of home prices relative to the deceleration in the constant-quality OFHEO home-price index suggests that the composition of existing homes sold shifted toward lower-priced homes.

The cost of mortgage financing increased in the first half of 2006, but rates decreased in the second half. The average rate for a thirty-year fixed-rate

Private Housing Starts, 1993–2006



NOTE: The data are quarterly and extend through 2006:Q4.

SOURCE: Department of Commerce, Bureau of the Census.

mortgage was 6¼ percent at the end of 2006, about the same as at the beginning of the year. The average for a one-year adjustable-rate mortgage declined also in the second half and stood at 5½ percent at the end of 2006, about ¼ percentage point above the level at the start of the year. According to respondents to the Reuters/Michigan survey, relatively low mortgage rates and the perception that purchase prices were more favorable improved their assessment of homebuying conditions in the second half of 2006.

Household Finance

Household sector debt is estimated to have slowed from the robust 11¾ percent increase posted in 2005 to a still-vigorous 8¼ percent in 2006. The deceleration reflected a drop in the pace of mortgage debt growth from about 14 percent in 2005 to less than 9 percent in 2006. Despite the reduction in mortgage borrowing, home equity lending remained active, and the gross volume of cash-out refinancing exceeded 2005 levels. Meanwhile, consumer debt expanded only moderately in 2006.

Although household indebtedness increased less rapidly in 2006 than in 2005, it still outpaced the growth of disposable personal income. In addition, the rise in interest rates contributed to higher debt service payments, and the household financial obligations ratio continued its upward trend of the past decade to reach a record high. Evidence to date suggests that most households have been able to meet their debt service obligations, although there are indications of growing strains among some borrowers. Delinquency rates on subprime residential mortgages with variable interest rates have increased markedly; still, delinquency rates on other mortgages and consumer loans have

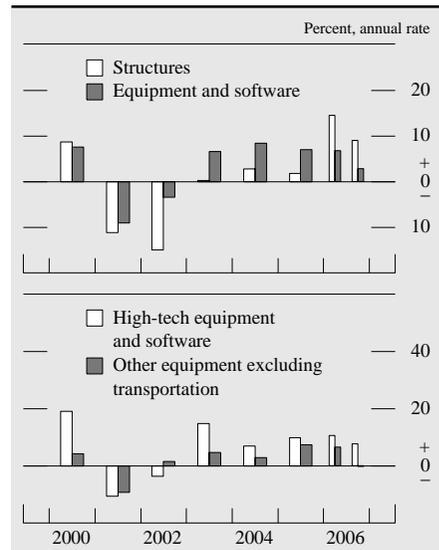
remained low. Household bankruptcy filings during 2006 ran at a pace well below the average of the preceding several years. Bankruptcies likely were damped in 2006 by the decisions of some households to file before the implementation of more-stringent bankruptcy requirements in October 2005. However, even allowing for such an effect, the recent pace is low relative to pre-reform norms.

The Business Sector

Fixed Investment

Total real business fixed investment rose 6¾ percent over the four quarters of 2006, up from a 5½ percent increase in 2005 and about the same pace as in 2004. In general, the fundamentals supporting business capital spending

Change in Real Business Fixed Investment, 2000–06



NOTE: High-tech equipment consists of computers and peripheral equipment and communications equipment.

SOURCE: Department of Commerce, Bureau of Economic Analysis.

remained favorable in 2006: The strong rise in profits continued to help firms maintain substantial liquid assets, user costs for equipment declined further, and interest rates and credit spreads remained relatively low. Although the pace of real business outlays for equipment and software slowed somewhat in 2006, investment in nonresidential structures rose 11¾ percent. Capital spending was quite robust during most of the year, adding about 1 percentage point to the annual rate of increase in real GDP over the first three quarters, but it decelerated sharply in the fourth quarter. The deceleration reflected, in part, a slowing in spending for business structures from its brisk pace earlier in the year, a drop in outlays for transportation equipment, and some weakness in purchases of equipment related to construction and motor vehicle manufacturing.

Real investment in high-technology equipment rose 9 percent in 2006, about the same average annual pace as in the preceding two years. Further decreases in the prices of high-technology equipment continued to reduce the user cost of this type of equipment. Real business spending for computing equipment increased 14½ percent, and software spending posted an 8 percent gain, both roughly comparable to their average rates of increase in the previous two years. Business outlays for communications equipment rose almost 7 percent in 2006. Spending for communications equipment was particularly robust in the early part of the year and was likely boosted in part by spending to replace equipment damaged by the hurricanes in the autumn of 2005. Investment in communications equipment last year continued to be supported by demand from telecommunications service providers that were expanding their broadband networks.

Real business investment in transportation equipment—typically a volatile category of investment—was about unchanged on net in 2006. For motor vehicles, business spending increased less than 1 percent over the year. Purchases of light vehicles weakened, partly because of cutbacks in sales to rental companies. In contrast, business outlays for medium and heavy trucks accelerated in 2006, reportedly in anticipation of new emissions regulations by the Environmental Protection Agency that went into effect at the beginning of 2007. New orders for medium and heavy trucks reached new highs early in 2006, and production and sales remained strong through the end of the year. Outlays for new aircraft were brisk in early 2006, but they were depressed over the remainder of the year; all told, aircraft investment declined more than 15 percent for the year as a whole.

Real investment in equipment other than high-tech and transportation goods—a broad category that represents about half of total nominal business spending for equipment and software—rose at an average annual rate of 5½ percent during the first three quarters of 2006. However, spending for these capital goods softened in the final quarter of the year. Although the declines in the fourth quarter were generally broad based, they were led by decreases in spending for equipment related to construction and motor vehicle manufacturing. However, the backlog of orders for capital goods such as industrial machinery and other types of heavy equipment remained substantial at the end of 2006, and it should sustain production and shipments of these items in early 2007.

Real outlays for nonresidential construction increased 11¾ percent in 2006 after having been little changed since 2003. However, the rise in business construction spending slowed near the end

of 2006 from its rapid pace earlier in the year; outlays increased at an annual rate of only about 3 percent in the fourth quarter. For 2006 as a whole, sizable gains were posted for office, retail, and industrial buildings. In addition, outlays for drilling and mining structures associated with energy exploration were strong. At the end of 2006, forward-looking indicators for nonresidential construction activity appeared to be favorable: Vacancy rates for buildings in both the office and industrial sectors, which peaked a few years ago, continued to drift down, and the vacancy rate for retail buildings remained at the low level that has prevailed since 2000.

Inventory Investment

In the first half of 2006, dealer stocks of motor vehicles rose noticeably as sales slowed, particularly for light trucks. The increase in the prices of gasoline earlier in the year appeared to have reduced consumers' demand for light trucks and SUVs, which tend to be less fuel efficient. Dealers' inventories of these vehicles reached an elevated 90 days' supply at the end of the second quarter. As a result, motor vehicle manufacturers scaled back the production of light trucks over the second half of 2006, which helped to reduce dealers' inventories during that period. Nonetheless, at the end of 2006, inventories of light vehicles still appeared to be above desired levels. Manufacturers cut production further in January of this year, helping them make additional progress in reducing the stock overhang.

Excluding motor vehicles, inventories held by businesses in the manufacturing and trade sectors appeared generally to be well aligned with sales in the first half of 2006. However, later in the year, a variety of indicators suggested that some businesses accumulated an unde-

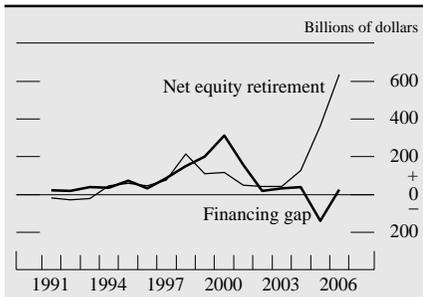
sired level of stocks. The book value of manufacturing and trade inventories (excluding motor vehicles) rose relative to sales from September through November. The increases were particularly noticeable for firms that supply the construction and motor vehicle sectors, although increases were apparent in a few other sectors as well. Survey data also suggested that inventories for some businesses were viewed as too high. However, manufacturers outside of the motor vehicles sector appear to be making relatively prompt adjustments to their production, which to date seem to be limiting the extent of undesired stockbuilding.

Corporate Profits and Business Finance

Profits of nonfinancial corporations extended their upward move, pushing the ratio of before-tax profits to income in this sector to nearly 14 percent, the highest level reached since 1969. In the third quarter, operating earnings per share for S&P 500 firms came in 20 percent above levels of a year earlier. About two-thirds of firms in the S&P 500 have reported earnings for the fourth quarter. Current market estimates of earnings per share for S&P 500 firms call for roughly 10 percent growth in the fourth quarter over year-earlier levels. Earnings growth was widespread across sectors in 2006 but was particularly strong for financial firms.

Firms' capital expenditures exceeded internal funds raised in 2006, an indication that businesses funded investments not only with current cash flow but also with external funds and liquid assets. Borrowing by nonfinancial firms picked up in 2006 in association with increased real investment as well as with extensive retirements of equity, which resulted from record share repurchases and heavy merger and acquisition activ-

Financing Gap and Net Equity Retirement at Nonfinancial Corporations, 1991–2006

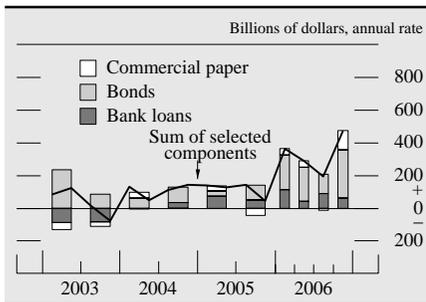


NOTE: The data are annual; the observations for 2006 are based on partially estimated data. The financing gap is the difference between capital expenditures and internally generated funds, adjusted for inventory valuation. Net equity retirement is the difference between equity retired through share repurchases, domestic cash-financed mergers, or foreign takeovers of U.S. firms and equity issued by domestic companies in public or private markets. Equity issuance includes funds invested by private equity partnerships and stock option proceeds.

SOURCE: Federal Reserve Board, flow of funds data.

ity. Net bond issuance proceeded at a faster clip than in the past several years. Similarly, commercial paper issuance was the strongest it had been since 2000,

Selected Components of Net Financing for Nonfinancial Corporate Businesses, 2003–06



NOTE: The data for the components excluding bonds are seasonally adjusted. The data for the sum of selected components are quarterly. The data for 2006:Q4 are estimated.

SOURCE: Federal Reserve Board; Securities Data Company; and Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report).

and commercial and industrial lending by banks was rapid as well. The Federal Reserve's Senior Loan Officer Opinion Survey on Bank Lending Practices revealed that a significant net fraction of respondents to that survey eased credit standards and terms on commercial and industrial loans during 2006. Bankers indicated that they were responding to more-aggressive competition and greater liquidity in the secondary market for such loans. Loan officers also reported that a contributing factor was an increased tolerance for risk.

The expansion of commercial mortgage debt in 2006 remained rapid by historical standards but fell off from the swift pace of 2005. The deceleration likely reflected the rise in mortgage rates and a net tightening of credit standards for these loans—an explanation consistent with responses to the loan officer survey.

Gross public issuance of equity by nonfinancial corporations in 2006 roughly maintained the moderate pace of the past couple of years, and private equity issuance appears to have risen a bit to finance buyouts and other restructurings. Still, net equity issuance turned more negative as equity retirements from cash-financed mergers and acquisitions and share repurchases increased considerably.

On balance, despite increased borrowing and net equity retirements, the strength of corporate earnings growth has left the credit quality of nonfinancial firms solid. Balance sheet liquidity remains high, and corporate leverage is near historical lows. In addition, net interest payments relative to cash flow remained near the low end of the range seen over the past two decades. The six-month trailing bond default rate fell during the first half of the year as defaults by some large firms in the troubled airline and automobile sectors

in late 2005 dropped out of the series, and it was near zero throughout the second half of 2006. Delinquency rates on business loans remained quite low.

The Government Sector

Federal Government

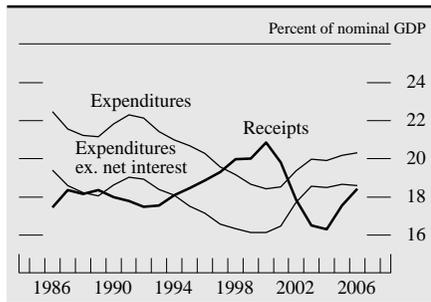
The deficit in the federal unified budget narrowed further during the past year. The unified budget recorded a deficit of \$248 billion in fiscal year 2006—\$70 billion smaller than in the previous fiscal year. The federal deficit in fiscal 2006 was a bit less than 2 percent of nominal GDP, significantly lower than its recent fiscal year peak of more than 3½ percent of GDP in 2004. In fiscal 2006, outlays rose about in line with nominal GDP, but receipts increased at a faster pace. From October through December—the first quarter of fiscal 2007—the federal deficit was almost \$40 billion less than in the same period a year earlier, as the rise in receipts continued to outpace the growth in outlays. The latest projections from the Congressional Budget Office and the Administration anticipate that the uni-

fied deficit in fiscal 2007 will be smaller as a percentage of nominal GDP than it was in fiscal 2006. Although the unified deficit has improved recently, the federal budget will face the mounting pressures of providing Social Security and health benefits to a rapidly growing number of beneficiaries as the baby-boom generation ages in coming years.

In fiscal 2006, nominal federal receipts rose 11¾ percent and were equivalent to almost 18½ percent of nominal GDP, substantially higher than their recent fiscal year low of 16¼ percent of GDP in 2004. Income tax receipts from individuals outpaced the rise in taxable personal income (as measured in the NIPA), while surging corporate tax payments about matched the robust growth in profits. As noted above, the increase in individual income tax liabilities relative to taxable income in the NIPA appears to have reflected, at least in part, taxes on larger capital gains realizations (which are excluded from NIPA income), the effect of some taxpayers moving into higher tax brackets as their real incomes increased, and possibly a further shift in the distribution of income toward high-income households that typically face higher tax rates. In the first quarter of fiscal 2007, revenues were more than 8 percent greater than in the same period a year earlier, as both individual and corporate tax payments continued to rise briskly.

Nominal federal outlays increased about 7½ percent in fiscal 2006 and were about 20¼ percent of nominal GDP, well above their most recent fiscal year low of less than 18½ percent of GDP in 2000. Net interest payments increased 23 percent in fiscal 2006, as interest rates rose and federal debt continued to grow. Outlays for Medicare increased 10½ percent, reflecting in part new benefits payments associated with the Part D prescription drug program,

Federal Receipts and Expenditures, 1986–2006



NOTE: The receipts and expenditures data are on a unified-budget basis and are for fiscal years (October through September); GDP is for the four quarters ending in Q3.

SOURCE: Office of Management and Budget.

which started in January 2006. At the same time, outlays for Medicaid declined a bit, to some extent because of a shift of some Medicaid payments to Medicare Part D. Spending for disaster relief and national flood insurance was almost \$28 billion greater in fiscal 2006 than in the previous fiscal year, primarily owing to the federal government's response to the hurricanes in the autumn of 2005. Outlays for defense in fiscal 2006 slowed to their lowest rate of increase since fiscal 2001, although the rise was still about 6 percent. In the first quarter of fiscal 2007, total federal outlays were only 1 percent greater than those in the same period a year earlier; in this period, defense spending was 12 percent above its year-earlier level, but outlays related to disaster relief and flood insurance were markedly lower than they were a year earlier.

As measured in the NIPA, real federal expenditures on consumption and gross investment—the part of federal spending that is a direct component of real GDP—increased 2½ percent over the four quarters of calendar year 2006 and contributed about ¼ percentage point to the growth rate of real GDP in that year. The increase was the result of a pickup in real defense purchases, which rose more than 4 percent during calendar 2006 after two years of smaller increases. At the same time, real nondefense purchases declined more than 1 percent after having risen, on average, about 2 percent per year over the preceding two years.

The reduction in the unified deficit in the past two years implies that the federal government required less national saving to finance its operations. However, nonfederal saving, which excludes borrowing by the federal government from total net national saving, remained relatively low. Although the saving rate for private business and state and local

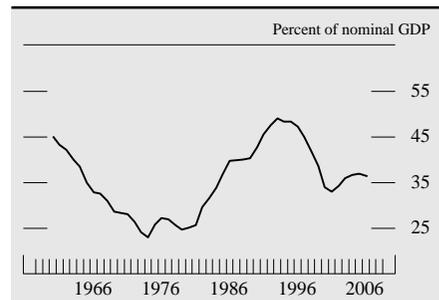
governments has increased in recent years, the improvement has been offset by declines in the personal saving rate. Total national saving, net of depreciation, was 2 percent of nominal GDP in the third quarter of 2006. The recent national saving rate is an improvement from the lows of a few years ago, but it has been insufficient to avoid an increasing reliance on borrowing from abroad to finance the nation's capital spending.

Federal Borrowing

The Treasury responded to the reduction in the federal deficit in 2006 by paying down Treasury bills over the course of the year and by trimming the gross issuance of marketable Treasury coupon securities. As of the third quarter of 2006, the quantity of federal debt held by the public as a percentage of nominal GDP had declined about ½ percentage point, to about 36 percent.

Early in the first quarter of 2006, federal debt subject to the statutory limit reached the then-current ceiling of \$8.2 trillion. The Treasury employed various methods to avoid breaching the

Federal Government Debt Held by the Public, 1960–2006



NOTE: The final observation is for 2006:Q3. For previous years, the data for debt are as of year-end, and the corresponding values for GDP are for Q4 at an annual rate. Excludes securities held as investments of federal government accounts.

SOURCE: Federal Reserve Board, flow of funds data.

limit until the Congress increased it to nearly \$9 trillion in March. As of the end of December, the total amount of federal debt subject to the limit was \$8.6 trillion.

In February, the Treasury auctioned thirty-year bonds for the first time since 2001. The offering was apparently well received, as was the reopening of the issue in August. The Treasury announced in August that it would issue thirty-year bonds on a quarterly basis beginning in 2007.

The acquisition of Treasury debt by foreigners slowed further in 2006 from its peak in 2004. However, outstanding Treasury debt also grew more slowly, leaving the share of outstanding debt held by foreign investors little changed, on balance, from its average level over the preceding two years. According to Treasury data on international capital flows, foreigners (official and other) purchased considerably fewer U.S. Treasury coupon securities in 2006 than in 2005. The average proportion of nominal coupon securities purchased by foreign and international investors at auctions in 2006 about matched the average from the previous year at 16 percent, but it was down noticeably from an average level of 25 percent in 2004.

State and Local Government

The fiscal positions of state and local governments improved further in 2006. Apart from federal grants-in-aid, revenues rose at an annual rate of 7 percent over the first three quarters of 2006 after posting relatively strong gains in the preceding two years. Receipts from taxes on retail sales and on individual and corporate incomes continued to rise at a brisk pace; however, decreasing gains in house prices slowed the rise in property tax revenues in the third quarter of 2006 from the rapid pace in the

previous two years. The sustained strength in total revenues, along with the efforts of states and localities to restrain spending for health care, has enabled these jurisdictions to step up spending on other programs and still rebuild their reserve funds. As measured in the NIPA, net saving by state and local governments excluding social insurance funds—a measure that is broadly similar to the surplus in an operating budget—was almost \$4 billion during the first three quarters of 2006. States and localities generally have seen improvement in their fiscal positions recently, but in coming years most governments will have to face the budget pressures of providing pension and health benefits to an expanding number of retired employees, and the states' costs for Medicaid are expected to rise substantially as the baby-boom generation ages.

Real expenditures by state and local governments on consumption and gross investment, the component of these governments' spending that enters directly into the calculation of real GDP, rose 3 percent over the four quarters of 2006. That increase was the largest since 2001 and contributed about $\frac{1}{4}$ percentage point to the change in real GDP during the year. Real expenditures for investment rose $4\frac{3}{4}$ percent, largely because of a strong increase in real construction spending in the first half of the year. Spending for current consumption in real terms increased $2\frac{1}{2}$ percent over the four quarters of 2006. Hiring by state and local governments stepped up last year. Of the cumulative increase in employment of 254,000 in 2006, about two-thirds of the jobs were in education.

State and Local Government Borrowing

Borrowing by state and local governments dropped below its rapid 2005

pace amid improved fiscal positions and fewer advance refunding issues. Nonetheless, bond issuance for new capital expenditures, particularly for education and transportation, boosted long-term borrowing. Credit quality in the state and local sector rose substantially in 2006, as the number of credit-rating upgrades far exceeded the small number of downgrades.

The External Sector

The U.S. current account deficit averaged \$875 billion at an annual rate, or about 6½ percent of nominal GDP, in the first three quarters of 2006 (the latest available data). The deficit was wider than in 2005, partly because of a larger deficit on trade of goods and services. In addition, net investment income, which turned negative in the fourth quarter of 2005, remained negative in the first three quarters of last year, further expanding the current account deficit.

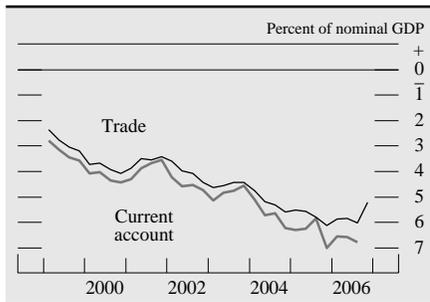
International Trade

After widening through most of 2005, the nominal trade deficit leveled out in

the first half of 2006, rose to a record high in August, and then narrowed noticeably through November (the latest available data). On average, the nominal trade deficit was wider in 2006 than in the previous year. Nominal imports of goods grew more slowly than exports did early last year and, after reaching late-summer peaks, dropped because of declines in both the price and volume of imported oil. Meanwhile, imports of services decelerated sharply in the second half of last year. In contrast, nominal exports of goods and services pushed upward steadily throughout the year and grew significantly faster than did nominal imports. Given that the level of exports was smaller than the level of imports, the faster export growth during 2006 was not enough to narrow the nominal trade deficit. Although the nominal trade deficit last year (through November, annualized) was wider in dollar terms, the trade deficit as a share of GDP, at just under 6 percent, was about the same as in 2005.

Real exports of goods and services grew a robust 9¼ percent last year. In the first quarter, growth was boosted by a catch-up of exports affected by hurricane damage in late 2005. Throughout the year, exports were supported by strong foreign economic activity. Real exports of goods rose 10¼ percent last year, a little faster than in the previous year. Export growth was spread fairly evenly across all major end-use categories, though exports of computers and semiconductors expanded noticeably more slowly than in 2005. By destination, exports to China and other emerging Asian economies grew very rapidly, as did those to South America. Exports to Mexico and western Europe rose at a more modest pace. Real exports of services were up a solid 6¾ percent for the year, double the pace of 2005.

U.S. Trade and Current Account Balances, 1999–2006



NOTE: The data are quarterly. For the trade account, the observation for 2006:Q4 is estimated. The data for the current account extend through 2006:Q3.

SOURCE: Department of Commerce.

Prices of exported goods rose at a 3½ percent rate last year, a little faster than their pace in 2005. Reflecting the effects of very large jumps in prices of industrial supplies, particularly fuels and metals, export prices moved up sharply in the second and third quarters; they decelerated toward the end of the year as prices of exported fuels retreated from their high levels and as prices of exported metals moved up more slowly.

Real imports of goods and services rose 3 percent last year, more slowly than in the previous year. As with the growth in real exports, real import growth got off to a quick start last year amid robust domestic growth. But import growth slowed, on average, in the middle quarters of the year, along with U.S. real GDP growth, and real imports fell in the fourth quarter as a result of a sharp drop in oil and natural gas imports. Despite some fourth-quarter declines, for the year imports increased in every major end-use category except petroleum and natural gas. Imports of services rose more than 5 percent last year, a step-up from the previous year's sluggish pace.

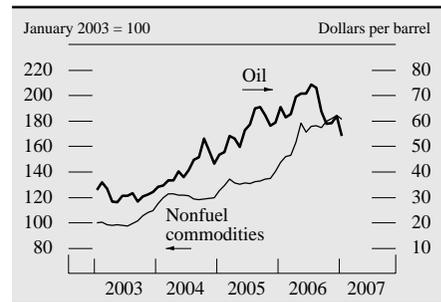
Prices of imported non-oil goods increased less than 1 percent, on balance, in 2006 despite some wide gyrations. After falling in the first quarter, prices reversed course, surged upward, and then cooled in the fourth quarter. The quarterly pattern was driven by movements in nonfuel commodity prices, which soared in the second and third quarters before leveling off in the fourth quarter.

Metals figured prominently among the nonfuel commodities that boosted trade prices last year. Prices for a variety of metals—including copper, aluminum, nickel, and zinc—skyrocketed in the second quarter. Factors contributing to the surge in prices included growing demand, particularly from developing

countries, low levels of inventories for some metals, and perhaps increased speculative demand. Prices for nickel and zinc continued to move up throughout the year. In the second half of the year, aluminum prices trended sideways, and copper prices moved down from their peaks as inventory and supply conditions improved somewhat. For most of these metals, those price trends have continued this year. An exception is zinc, the price of which has plummeted.

The spot price of West Texas intermediate crude oil averaged \$66 per barrel in 2006, nearly \$10 per barrel higher than in 2005; moreover, crude oil prices were especially volatile last year. The spot price climbed from around \$61 per barrel at the end of 2005 to a peak of \$77 per barrel in August as violence in the Middle East, a shutdown of the Prudhoe Bay oil field in Alaska, and forecasts of an active hurricane season led to increased demand. In the event, oil supply was affected far less than anticipated by these factors, and oil prices declined over the next few months as demand dropped and elevated

Prices of Oil and of Nonfuel Commodities, 2003–07



NOTE: The data are monthly and extend through January 2007. The oil price is the spot price of West Texas intermediate crude oil. The price of nonfuel commodities is an index of forty-five primary-commodity prices.

SOURCE: For oil, the Commodity Research Bureau; for nonfuel commodities, International Monetary Fund.

petroleum inventories were drawn down. Oil demand for heating was depressed by above-average temperatures in the Northern Hemisphere in the fourth quarter and in the early weeks of 2007, and the spot price fell further, to around \$50 per barrel in mid-January, before moving back up to \$58 per barrel at the end of the month. Far-dated futures prices began last year at about \$60 per barrel, moved in a pattern similar to spot prices throughout most of the year, and averaged just over \$61 per barrel in January 2007.

Notwithstanding the decrease of global oil prices since August, several factors continue to support these prices at historically elevated levels. Ongoing violence has diminished oil production in Iraq and Nigeria. The continuing dispute with Iran over its nuclear program threatens a possible curtailment of Iranian exports. Energy investment by international oil companies has been hampered in some countries, such as Russia and Venezuela, by increased government control of domestic energy industries. Moreover, in response to the recent decline in oil prices, OPEC has reduced its crude oil production to the lowest level since 2004. Oil demand over the past year has also increased modestly in developing countries despite high prices.

The Financial Account

Foreign official inflows in the first three quarters of 2006 were above their 2005 pace but remained below the record levels of 2004. Most of these official inflows were attributable to Asian central banks and took the form of purchases of U.S. government securities, primarily bonds and mortgage-backed securities issued by government-sponsored enterprises (GSEs). Preliminary data indicate a slight easing of official purchases in the fourth quarter of 2006. Net private

inflows slowed in the first quarter but have changed little since then.

Foreign private purchases of U.S. securities in the second and third quarters of 2006 slowed slightly from the extraordinary pace set in the second half of 2005 and early 2006, but preliminary fourth-quarter data show recent demand to have been strong. More than half of private flows last year took the form of purchases of corporate bonds, and most of the remainder went toward investment in GSE bonds and corporate equities. On net, private foreigners purchased few U.S. Treasuries. Foreign direct investment flows into the United States remained robust.

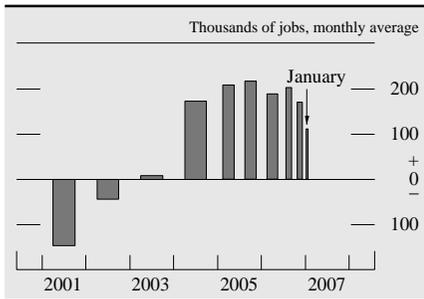
Net purchases of foreign securities by U.S. residents, a financial outflow, set a record pace in the first three quarters of 2006. Preliminary data show a further surge in net purchases in the fourth quarter. Demand for foreign bonds by U.S. residents slightly exceeded that for foreign equities. After the expiration of the partial tax holiday implemented in the Homeland Investment Act of 2004, U.S. direct investment abroad dropped back to more normal levels.

The Labor Market

Employment and Unemployment

Labor markets remained strong in 2006. Nonfarm payroll employment increased 186,000 per month, on average, during the second half of 2006, a rate essentially the same as in the first half of the year. Employment rose 111,000 in January of 2007. The unemployment rate in the fourth quarter of last year—4½ percent—was at its lowest quarterly level since 2001, and it was little changed in January 2007.

In response to the contraction in homebuilding, hiring in the construction sector slowed considerably in the sec-

Net Change in Payroll Employment,
2001–07

NOTE: Nonfarm business sector.

SOURCE: Department of Labor, Bureau of Labor Statistics.

ond and third quarters of 2006, and this sector shed workers in the fourth quarter. Although hiring for nonresidential building construction remained brisk for most of the year, the steep decline in housing starts curtailed the overall demand for construction workers. Employment in the manufacturing sector, which rose in the first half of 2006, declined in the second half as factory output slowed. From July to December, many of the factory layoffs were at makers of motor vehicles and parts and at producers closely tied to the construction industry. Outside of the construction and manufacturing sectors, employment generally increased at a solid pace in the second half of 2006, and hiring was particularly rapid in a number of service industries—especially those providing education and health services, professional and technical business services, and financial services.

As a result of the continued expansion of labor demand in 2006, the unemployment rate fell further. After remaining around $4\frac{3}{4}$ percent in the first three quarters of 2006, the unemployment rate edged down to $4\frac{1}{2}$ percent in the fourth quarter. The tighter labor market was associated with a noticeable increase in

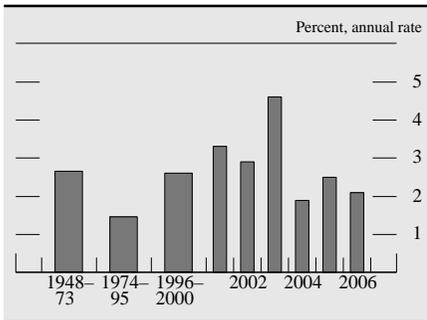
employment among individuals who had not been participating in the labor force. In line with this cyclical tightening of the labor market, the labor force participation rate ticked up during 2006, from 66 percent in the first quarter to $66\frac{1}{4}$ percent in the fourth quarter, after a $\frac{1}{4}$ percentage point rise during 2005. The recent rise in the participation rate follows a period of decline beginning in the late 1990s that in part reflected some longer-term secular trends in labor force behavior. Those trends included a leveling off in the participation rate of women and an increase in the proportion of the workforce in older age groups, which have lower average participation rates.

Other indicators also suggest that labor market conditions remained generally favorable during the second half of 2006. Layoffs remained low as new claims for unemployment insurance fluctuated around a relatively subdued level of 315,000 per week. In addition, data reported by the Bureau of Labor Statistics showed a further increase during the later part of the year in the rate of job openings as a percentage of private-sector employment.

Productivity and Labor Compensation

The growth rate of labor productivity in the nonfarm business sector, which had slowed in 2004 and 2005 from an exceptionally rapid pace earlier in the decade, remained relatively subdued in 2006. Over the four quarters of 2006, output per hour of work in the nonfarm business sector increased 2 percent, compared with about a 3 percent average annual rate of increase during the first half of this decade and the second half of the 1990s. During that earlier period, productivity gains were spurred by the rapid pace of technological change, the

Change in Output per Hour, 1948–2006



NOTE: Nonfarm business sector. Change for each multiyear period is measured from the fourth quarter of the year immediately preceding the period to the fourth quarter of the final year of the period.

SOURCE: Department of Labor, Bureau of Labor Statistics.

growing ability of firms to use information and other technology to improve the efficiency of their operations, and increases in the amount of capital per worker. Despite the recent slowing in productivity growth, these underlying factors do not appear to have waned. Accordingly, the recent slowdown in labor productivity may be at least in part a temporary cyclical response to the moderation in the pace of economic activity in 2006 rather than a meaningful downshift in the longer-run trend.

As the labor market tightened in 2006, the rise in hourly labor compensation, which includes both wages and employer payments for employee benefits, stepped up for workers in the nonfarm business sector. In nominal terms, compensation per hour increased almost 5 percent over the four quarters of 2006, compared with an average 4 percent rise in the preceding two years. After adjusting compensation for increases in the PCE price index, real compensation per hour rose 3 percent in 2006, up from an average gain of about 1 percent in 2004 and 2005.

An alternative measure of employee compensation is the employment cost index (ECI) for private nonfarm businesses, which is based on a survey of firms conducted by the Bureau of Labor Statistics. According to this measure, nominal hourly compensation increased $3\frac{1}{4}$ percent in 2006, $\frac{1}{4}$ percentage point faster than in 2005. In real terms, the ECI for hourly compensation rose $1\frac{1}{4}$ percent last year after averaging a $\frac{1}{2}$ percent increase over the preceding two years. The nominal wages and salaries component of the ECI rose $3\frac{1}{4}$ percent in 2006, while the benefits component advanced 3 percent.

From the perspective of employers, the acceleration in hourly compensation in the nonfarm business sector last year boosted the average labor costs associated with producing a unit of output $2\frac{3}{4}$ percent, up from increases of about $1\frac{3}{4}$ percent in both 2004 and 2005. Although the rise in unit labor costs increased, firms' profit margins appeared to remain elevated in 2006 relative to longer-run standards.

Prices

Headline inflation slowed in 2006. The PCE chain-type price index rose 2 percent over the four quarters of 2006, a step-down from the 3 percent increase recorded in 2005. The drop in energy prices in the latter part of 2006 accounted for the deceleration in the headline number. Core inflation moved higher in the first part of 2006 but then eased toward the end of the year. On balance, core PCE prices rose about $2\frac{1}{4}$ percent over the four quarters of 2006, a little faster than the 2 percent increase in 2005. The market-based component of the core PCE price index—which excludes imputed prices that are not observed in market transactions and that often change irregularly—

Alternative Measures of Price Change,
2004–06

Percent

Price measure	2004	2005	2006
<i>Chain-type</i>			
Gross domestic product (GDP)	3.2	3.1	2.5
Gross domestic purchases	3.7	3.6	2.2
Personal consumption expenditures (PCE)	3.0	3.1	1.9
Excluding food and energy	2.2	2.1	2.3
Market-based PCE excluding food and energy	1.7	1.8	2.0
<i>Fixed-weight</i>			
Consumer price index	3.3	3.7	1.9
Excluding food and energy	2.1	2.1	2.6

NOTE: Changes are based on quarterly averages of seasonally adjusted data.

SOURCE: For chain-type measures, Department of Commerce, Bureau of Economic Analysis; for fixed-weight measures, Department of Labor, Bureau of Labor Statistics.

increased 2 percent in 2006, about ¼ percentage point more than in the previous year.

Energy prices recorded dramatic swings during 2006. PCE energy prices increased at an annual rate of about 15 percent in the first half of the year and declined at an annual rate of almost 17 percent in the second half. The sharp movements in consumer energy prices in 2006 were associated primarily with fluctuations in prices for crude oil. The changes in energy prices also were amplified by a widening in the margin of the retail price of gasoline over the associated cost of crude oil in the first half of the year and by some narrowing of that margin in the second half. On balance, the PCE energy price index decreased 4 percent over the four quarters of 2006.

Food price inflation remained fairly moderate in 2006. The PCE index for food and beverages increased 2¼ percent, roughly the same pace as in the preceding year. Retail prices of meat and poultry rose modestly for 2006, as robust demand was met by ample supplies of meat. Prices of wheat rose over

the course of the year, and prices of corn and soybeans spiked at the end of the year in the wake of downward revisions to estimates of crop production. Prices of corn also were boosted during the year by increased demand for corn to produce ethanol. But the small share of wheat, corn, and soybeans in the total value of food production limited their effect on retail food prices. Prices for food consumed away from home, which are influenced importantly by the costs of labor, energy, and other business inputs, increased 3¼ percent in 2006, a more rapid pace than that for prices of food consumed at home.

The core PCE price index accelerated to an annual rate of about 2½ percent in the first half of 2006 on the strength of pickups in the price indexes for both goods and services. In the spring, increases in housing rents were particularly sharp. The rise may have reflected in part a shift in demand toward rental housing as rising mortgage rates and lofty home prices made home purchases less affordable. The pass-through of higher energy costs to a broad range of goods and services also probably contributed to the acceleration in core consumer price inflation in the first half of 2006.

In the second half of 2006, core PCE price inflation edged down to an annual rate of just below 2¼ percent. The deceleration was the result of a decrease in core goods prices, which likely reflected in some measure the waning influence of energy prices. In contrast, core services inflation in the second half of the year remained at about the same pace as in the first half. Although housing rents rose more slowly in the second half of the year, their effect on the PCE for core services was mostly offset by faster price increases for medical care and a number of other services.

The swings in energy costs in 2006 were apparent in the prices of inputs used in the production and sale of final goods and services, especially of items for which energy costs represent a relatively large share of total production costs, including industrial chemicals, plastics, fertilizer, and stone and clay products. In addition, the prices of some commodities, such as a variety of metals, rose significantly in 2006 in response to strong worldwide demand. As a result, the core producer price index for intermediate goods, which excludes food and energy, rose 5¼ percent in 2006, up from the 4¾ percent increase in 2005. The index increased at an annual rate of 7¼ percent in the first half of 2006, but it decelerated to an annual rate of about 3¼ percent in the second half as energy costs declined.

For the year as a whole, measures of long-term inflation expectations remained well anchored, although short-term expectations were heavily influenced by fluctuations in energy prices. The Reuters/Michigan survey measure of the median expectation of households for inflation over the next twelve months was about 3 percent in December, down from its peak of 3¾ percent in August. Longer-term inflation expectations recorded in the Reuters/Michigan survey showed less variability. The median survey respondent in December expected the rate of inflation during the next five to ten years to be 3 percent, down from its peak of 3¼ percent in August. Other indicators likewise suggest that longer-run inflation expectations have remained contained. According to the Survey of Professional Forecasters, conducted by the Federal Reserve Bank of Philadelphia, expectations of inflation over the next ten years remained at 2½ percent in 2006, a level that has been essentially unchanged since 1998. In addition, inflation compensation implied by the

spread of yields on nominal Treasury securities over their inflation-protected counterparts stayed within the relatively narrow range of 2 percent to 2¾ percent during the year.

U.S. Financial Markets

Financial conditions in the United States supported economic growth in 2006. Yields on long-term Treasury securities climbed a bit, on balance, but stayed low by historical standards, while strong corporate profits helped fuel substantial gains in equity markets. Liquid corporate balance sheets and low corporate leverage helped keep risk spreads on corporate bonds narrow. Meanwhile, business borrowing picked up to a rapid pace, spurred in part by a rise in merger and acquisition activity. In the residential real estate sector, mortgage borrowing slowed markedly, as house prices decelerated, especially in the second half of the year. Consumer credit expanded at a moderate pace. Nonetheless, household debt growth outpaced the growth of disposable personal income, and the financial obligations of households inched higher. Although households generally appeared able to meet their obligations, signs of financial strain were apparent in subprime variable-rate mortgages. The M2 monetary aggregate expanded at a moderate pace in 2006.

Interest Rates

Market interest rates rose modestly, on balance, in 2006—yields on two- and ten-year nominal Treasury securities increased about 40 and 30 basis points respectively. Changes in interest rates seemed largely tied to changes in the outlook for economic growth and inflation. Rates across the maturity spectrum increased notably over the first half of the year, as incoming data on activity

Interest Rates on Selected Treasury Securities, 2003–07



NOTE: The data are daily and extend through February 7, 2007.

SOURCE: Department of the Treasury.

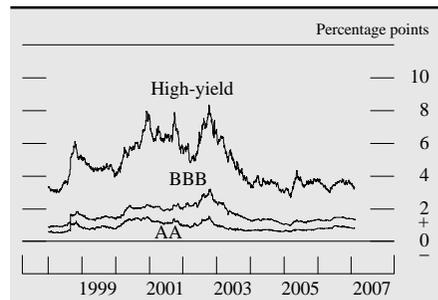
and inflation came in higher than markets had expected and as the FOMC raised the target federal funds rate 25 basis points at each of its first four meetings. At the time of the June FOMC meeting, interest rate futures market quotes indicated that market participants perceived considerable odds of an additional rate tightening by year-end. However, market interest rates declined, on net, over subsequent months in response to incoming data suggesting that inflation pressures were moderating and that economic growth was slowing. Market expectations for the trajectory of the federal funds rate over the next several years shifted down considerably during the second half of the year. More recently, market participants have backed away from expectations of a substantial easing of monetary policy as incoming data on economic activity have been stronger than expected. Investors now expect the FOMC to ease policy only slightly over the next two years. Although investors modestly revised their medium-term policy expectations over the course of the year, the Committee's interest rate decisions were largely anticipated in financial markets by the time of each meeting. Throughout the

year, forward-looking measures of uncertainty about monetary policy inferred from interest rate options remained near the low end of historical ranges.

Yields on inflation-indexed Treasury securities increased about as much as those on their nominal counterparts in 2006. Medium- and long-term inflation compensation—measured from spreads between yields on nominal and inflation-indexed securities—were about unchanged to a little lower, on net, and during the year these measures exhibited only modest swings in response to incoming inflation data and oil price movements.

In the corporate bond market, yields on investment-grade securities moved about in line with those on comparable-maturity Treasury securities. In contrast, yields on speculative-grade securities fell slightly, pulling risk spreads lower in that segment of the market. The narrowness of investment- and speculative-grade spreads seems to reflect investors' sanguine perceptions of corporate credit quality over the medium term, which likely reflect in large part the strength of

Spreads of Corporate Bond Yields over Comparable Off-the-Run Treasury Yields, 1998–2007



NOTE: The data are daily and extend through February 7, 2007. The ten-year high-yield, ten-year BBB, and ten-year AA indexes are compared with the ten-year Treasury yield.

SOURCE: Derived from smoothed corporate yield curves using Merrill Lynch bond data.

business balance sheets and a benign economic outlook. The term structure of forward risk spreads for corporate bonds supports this view, as forward spreads one and two years ahead are low, while the spreads further out the curve are more in line with historical norms.

Equity Markets

Broad equity indexes soared 10 percent to 20 percent in 2006, boosted by strong growth in corporate earnings. Share prices rose across a wide range of sectors, but increases in telecommunications and security brokerage stocks were especially noteworthy. The difference between the twelve-month forward earnings-price ratio for the S&P 500 and the long-term real Treasury yield—a crude measure of the premium that investors require for holding equity shares—was little changed on balance. The implied volatility of the S&P 500 calculated from options prices spiked temporarily in the late spring in connection with a period of strain in several markets but remained near historical lows for the remainder of the year. Net inflows into domestic equity mutual funds were quite modest in 2006, while

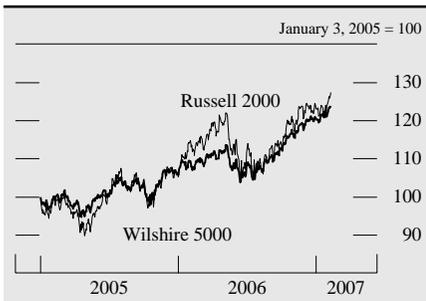
inflows into international equity funds were exceptionally strong.

Market Functioning and Financial Stability

Overall, financial markets functioned smoothly over the year and proved resilient to several shocks. Equity markets in the United States and currency and fixed-income markets in several emerging-market economies experienced heightened volatility late in the second quarter, but the turbulence was short lived. The liquidation of a few sizable hedge funds attracted considerable attention for a time but had little discernible effect on the broad functioning of markets. Even the liquidation of Amaranth—a hedge fund that was wound down in the fall after reporting a loss in excess of \$6 billion, mostly in energy trades—left little imprint on financial markets, although it raised some concerns about risk-management practices. Implied volatilities, risk spreads, and various other potential measures of financial stress generally stayed at very low levels throughout the year, suggesting that investors were comfortable taking on risk, likely in part because they were confident about the economic and financial outlook.

Throughout the year, bid-ask spreads on the most actively traded Treasury securities remained within narrow ranges. Some instances of questionable trading activities occurred in the secondary market for Treasury securities over the course of the year. The Interagency Working Group for Treasury Market Surveillance monitored these situations closely.¹ In November, the Federal Reserve Bank of New York arranged a

Stock Price Indexes, 2005–07



NOTE: The data are daily and extend through February 7, 2007.

SOURCE: Frank Russell Company; Dow Jones Indexes.

1. The group was established in 1992 and includes representatives from the Board of Governors of the Federal Reserve System, the Treasury, the Securities and Exchange Commission, the

meeting with all primary dealers to discuss developments in Treasury markets and to encourage the firms to review their internal oversight of trading operations. Subsequently, a private-sector group sponsored by the Federal Reserve Bank of New York released a draft report laying out a set of best practices for firms active in the Treasury market on topics such as appropriate trading strategies and internal controls.

In July, the Federal Reserve Board implemented a revision to the treatment of GSEs and certain international organizations under its Policy on Payments System Risk. Under the change, interest and redemption payments on securities issued by these institutions are now released only when the issuer's Federal Reserve account contains sufficient funds to cover the payments; that is, these institutions no longer may employ daylight credit to fund such payments. The Board of Governors determined that the change represents an appropriate risk-management policy for the central bank and is consistent with the general practices of private issuing and paying agents. In addition, GSEs and international organizations are now subject to a penalty fee for daylight overdrafts resulting from general corporate payment activity (activity other than interest and redemption payments). This change aligns the policy for GSEs and international organizations with that for other Federal Reserve account holders that do not have regular access to the Federal Reserve's discount window and thus are not eligible for intraday credit. The transition to the new policy occurred smoothly with minimal effects on the functioning of the payments system and no notable adverse effects on short-term funding markets.

Following up on a meeting with the Federal Reserve Bank of New York in the fall of 2005, the largest participants in the fast-growing market for credit derivatives agreed to a series of steps to strengthen that market's infrastructure. Over the course of 2006, credit derivatives dealers phased out the practice of transferring positions to a different counterparty without first obtaining the consent of the original counterparty. They also reduced by 85 percent the number of trade confirmations outstanding more than thirty days; they doubled the share of trades that are confirmed via an electronic platform, to 80 percent of total trade volume; and they agreed upon a new protocol for the settlement of such derivatives after a credit event.

Debt and Financial Intermediation by Banks

Total debt of the domestic nonfinancial sectors expanded an estimated 7¾ percent in 2006, well below the pace in 2005 but still faster than that of nominal income. Debt growth slowed markedly in the household and government sectors, but business debt accelerated.

About 30 percent of the growth in nonfinancial sector debt in 2006 was intermediated by the banking sector. This share is about even with the average over the past ten years and is about 5 percentage points above the average observed in the 1980s and early 1990s. Commercial bank credit expanded 9½ percent in 2006, supported by brisk growth in loans to businesses. Bank credit also was boosted in the autumn by a consolidation of a substantial volume of thrift assets onto a commercial bank's balance sheet that had resulted from an internal reorganization at a large bank holding company.

Bank lending to businesses through commercial and industrial loans in-

creased at a rapid pace last year. The growth was fueled by vigorous merger and acquisition activity, rising outlays for investment goods, ongoing inventory accumulation, and an accommodative lending environment. Bank loans secured by commercial real estate, though strong, decelerated over the course of the year. The moderation in commercial real estate lending was consistent with responses by large and medium-sized banks to the Senior Loan Officer Opinion Survey on Bank Lending Practices, which pointed to slowing demand and a net tightening of credit standards for such loans in the second half of the year. Consumer loans and residential mortgages held by banks grew at a moderate rate for the year as a whole. However, excluding the effects of the thrift consolidation, residential real estate lending slowed considerably in the fourth quarter, no doubt reflecting in part the downturn in the housing market.

Commercial bank profits as a percentage of average assets were strong in 2006 and rose slightly above 2005 levels. Net interest margins declined a bit further, likely in response to continued competitive pressures and a modest inversion of the yield curve, but bank profitability was supported by growth in non-interest income and by well-contained costs. Continued strong asset quality also helped to support profitability in 2006 by allowing banks to reduce their loan-loss provisioning. Robust asset quality was reflected in loan delinquency and charge-off rates that remained at low levels through the end of 2006.

The M2 Monetary Aggregate and Reserves

M2 expanded at a 5 percent rate last year, somewhat faster than in 2005.

Typically, as short-term interest rates rise, deposit rates lag somewhat, increasing the opportunity cost of holding money. In 2006, this effect apparently slowed money growth less than would have been expected on the basis of historical norms, and the velocity of M2 rose only about $\frac{3}{4}$ percent. Retail money market mutual funds and small time deposits, components of M2 whose yields move most closely with market rates, grew rapidly. However, liquid deposits, which constitute the largest component of M2, and whose yields adjust more gradually, were about flat on net. Currency expanded a modest $3\frac{1}{2}$ percent, an increase similar to that in 2005, reflecting weak, possibly negative, net demand from overseas.

Part of the Financial Services Regulatory Relief Act of 2006 gave the Federal Reserve authority, beginning in October 2011, to pay interest on reserve balances and to further reduce or eliminate reserve requirements. At the October FOMC meeting, the Chairman asked the staff to prepare for the implementation of this legislation.

International Developments

Foreign economic growth was generally strong in 2006, as expansion continued in all major regions of the world. The Japanese economy decelerated somewhat but maintained positive growth, and the pace of activity in the euro area picked up. Labor market conditions in both areas improved. Emerging-market economies also recorded solid growth last year and experienced no apparent lasting ill effects from the brief period of financial market volatility that hit some of them particularly hard in the late spring. Although there are signs that steps taken to slow growth of investment in China have been effective, the Chinese economy continued to grow

rapidly. Rising energy prices boosted consumer price inflation in many areas of the world early last year, but monetary tightening appears to have prevented inflation from moving significantly higher, and the effects of higher energy prices on core prices were modest.

Industrial countries tightened monetary policy in 2006. Some countries paused around the same time as the Federal Reserve, and others continued to tighten throughout the year. After ending its policy of quantitative easing in the spring, the Bank of Japan (BOJ) raised its policy rate 25 basis points in July. Weak consumer spending and low inflation have apparently deterred the BOJ from tightening since then. With growth in the European economies firming, concerns over inflationary pressures prompted the European Central Bank to raise its policy rate five times last year, to 3.5 percent. The Bank of Canada tightened 75 basis points in several steps over the first half of the year but has left the overnight rate unchanged since then. After keeping its policy rate constant in the first half of the year, the Bank of England tightened policy 25 basis points in August and November 2006 and in January 2007. The statements accompanying each tightening cited the upside risks to inflation posed by low levels of spare capacity.

During the first half of 2006, ten-year sovereign yields in the euro area, Canada, and Japan rose sharply on balance: Increases ranged from 45 basis points in Japan to 75 basis points in Germany. Yields on inflation-protected long-term securities in these economies also rose during the first half of 2006 but not as much as nominal yields and thus implied a noteworthy rise in inflation compensation. These developments occurred largely in reaction to continuing upward pressures on inflation, which stemmed

from a further run-up in energy prices and indications that global economic growth remained robust.

From their midyear highs, nominal government benchmark bond yields fell noticeably until about the beginning of December in most major advanced economies, as investors reacted to moves in U.S. rates and evaluated the implications for the global economy of the economic slowdown that seemed to be under way in the United States. Over this period, yields on ten-year nominal bonds declined by amounts that ranged from about 25 basis points in the United Kingdom to about 70 basis points in Canada. Yields on inflation-indexed securities declined less; modest declines in inflation breakeven rates were attributed in part to lower energy prices in the second half of the year.

Since the beginning of December, however, nominal and indexed government bond yields have risen once again in most advanced economies, partly because new data releases appeared to alleviate investors' concerns that global economic growth might slow appreciably. Yields on both ten-year nominal and indexed securities have risen 15 basis points in Japan and 25 to 50 basis points in the euro area, the United Kingdom, and Canada since their December lows. As a result, inflation breakeven rates have been little changed.

The Federal Reserve's broadest measure of the nominal trade-weighted exchange value of the dollar declined $3\frac{3}{4}$ percent from the beginning of last year through early February of this year. Over that period, the dollar appreciated $2\frac{1}{4}$ percent against the yen and $1\frac{1}{2}$ percent against the Canadian dollar, but it depreciated about 9 percent, on net, against the euro, almost 13 percent against sterling, and 4 percent against the Chinese renminbi. The renminbi's

U.S. Dollar Exchange Rate against Selected Major Currencies, 2004–07



NOTE: The data are weekly and are in foreign currency units per dollar. The last observation for each series is the average for February 5 through February 7, 2007.

SOURCE: Bloomberg L.P.

rate of appreciation stepped up in late 2006 and early 2007, but daily fluctuations in the dollar-renminbi exchange rate were very small.

Most of the dollar's overall decline in 2006 occurred between mid-April and early May. During this period, market participants reportedly sensed that the FOMC was approaching the end of its series of policy tightenings, and interest rate differentials moved against the dollar. Traders also refocused on the large and persistent U.S. current account deficit, which was further boosted by crude oil prices that had moved above \$70 per barrel. To date in 2007, the dollar's broad nominal exchange value has risen 1 percent on balance.

In the wake of strong advances in 2005, major global equity indexes posted solid gains, on balance, in 2006 and in early 2007. After rising 5 percent to 10 percent in the first quarter of 2006, most global indexes fell sharply beginning in early May to reach intra-year lows in mid-June. Market participants attributed the drops in share prices to increased uncertainty about prospective inflation, caused in part by the run-up in energy prices, and to a retreat from risk-

taking. Broad-based gains in stock prices since midsummer appear to be associated with a scaling back of expectations for future tightening of monetary policy in several countries and with declines in energy prices. Since mid-June, broad stock market indexes have gained 10 percent to 20 percent in Europe, Japan, and Canada.

Industrial Economies

After increasing at an annual rate of roughly 2 percent in the first half of 2006, Japanese real GDP grew only $\frac{3}{4}$ percent in the third quarter, largely because of slower growth of consumption. Capital spending was an important contributor to growth of output throughout the year, supported by strong corporate profitability. Labor market conditions continued to improve; the unemployment rate was about 4 percent in December, its lowest level since 1998, and the ratio of job offers to applicants remained close to a thirteen-year high. However, wage growth was very subdued, as firms controlled cost increases, and unit labor costs continued to fall. In 2006, consumer prices started to rise again, posting small twelve-month increases after June, and land prices in Japan's six largest cities rose for the first time since 1991. However, the GDP deflator continued to decline slowly.

Real GDP in the euro area accelerated somewhat in 2006, posting average growth of $\frac{3}{4}$ percent at an annual rate over the first three quarters. Output growth was supported in part by strong consumer spending, which grew substantially faster than in 2005. The stronger performance of the economy was reflected in improving labor market conditions: The unemployment rate in the euro area fell 0.8 percentage point during the year to reach 7.5 percent in

December, continuing a downward movement that began in 2004. Wages and salaries in the manufacturing and services sector grew at an average annual rate of 2¼ percent in the first three quarters of the year—a bit lower than their rate of growth in 2005. Higher energy prices boosted euro-area consumer price inflation, which rose to about 2½ percent in the first half of 2006; late in the year, it dropped below the European Central Bank's target ceiling of 2 percent. Core inflation remained near 1½ percent.

Real GDP in the United Kingdom grew 3 percent last year, and real GDP in Canada grew 3 percent, on average, through the first three quarters. Despite declining consumer confidence in the United Kingdom, the pace of consumption growth over the year was slightly higher than in 2005, and consumer spending in Canada, supported by moderate employment growth, also remained robust. Declines in energy prices brought Canadian consumer price inflation down after the middle of the year to a twelve-month change of about 1½ percent in December, below the Bank of Canada's 2 percent inflation target. Inflation in the United Kingdom edged up throughout the year, partly because of increases in electricity and natural gas prices that were implemented in the fall.

Emerging-Market Economies

Real GDP growth in China remained strong but moderated a bit in the second half. The mild slowdown suggests that the administrative measures put in place by the Chinese authorities to cool investment have had an effect. The trade surplus recorded a substantial increase in 2006. Four-quarter inflation picked up near the end of last year to over 2 percent, reflecting higher food prices.

Elsewhere in emerging Asia, economic performance was generally solid in 2006. In Korea, GDP growth slowed from the strong pace registered in 2005, partly because of monetary tightening, and consumer price inflation remained modest. The pace of growth in other countries stayed strong throughout 2006 as a result of robust exports and, in some cases, strengthening domestic demand. Four-quarter inflation moderated across the region. That moderation resulted from the waning effects of earlier reductions or removals of domestic fuel subsidies, but the previous tightening of monetary policy in the region and an appreciation of exchange rates also made a contribution. Capital inflows into several Asian emerging-market economies—particularly Thailand—in late 2006 and early this year put upward pressure on local currencies. Measures taken by Thai authorities seemed to succeed in limiting upward movement of the baht, but share prices in the Thai stock market fell sharply. Financial markets in other countries in the region were less affected and showed no noticeable spillovers from events in Thailand.

Output growth in Mexico was exceptionally strong in the first half of last year, especially in the manufacturing, construction, and services sectors. Growth stepped down in the second half; construction activity remained robust but was offset by a slowdown in exports of manufactured goods to the United States. Mexican consumer price inflation was elevated during the second half by higher food prices and reached rates above the 4 percent upper limit of the central bank's inflation target range; at year-end, inflation was still at the top end of the range.

Brazilian output growth was solid in the first quarter but slowed noticeably later in the year, partly because of weak manufacturing performance. Brazilian

four-quarter inflation fell markedly, from almost 6 percent at the end of 2005 to just over 3 percent in December. In Argentina, steady growth in investment and consumption kept real GDP on a solid uptrend throughout 2006. The Ar-

gentine government continued to attempt to bring down inflation through voluntary price agreements with producers in several sectors; although inflation had edged down to the single-digit range by year-end, it was still high. ■

Monetary Policy Report of July 2006

Monetary Policy and the Economic Outlook

The U.S. economy continued to expand at a brisk rate, on balance, over the first half of 2006. Spending in the first quarter, which was especially robust, was temporarily buoyed by several factors, including federal spending for hurricane relief and the effects of favorable weather on homebuilding. The pace of the expansion moderated in the spring, to some degree because the influence of these special factors dissipated. More fundamentally, consumer spending slowed as further increases in energy prices restrained the real incomes of households. In addition, home sales and new homebuilding dropped back noticeably from the elevated levels of last summer, partly in response to higher mortgage interest rates. Outside of the household sector, increases in demand and production appear to have been well maintained in the second quarter. Demand for U.S. exports was supported by strong economic activity abroad, and business fixed investment remained on a solid upward trend. Early in the year, as aggregate output increased rapidly, businesses added jobs at a relatively robust pace, and the unemployment rate moved down further. Since April, monthly gains in payroll employment have been smaller but still sufficient to keep the jobless rate steady.

Thus far in 2006, inflation pressures have been elevated. Higher prices for crude oil contributed to a further run-up in domestic energy costs; this year's increases, combined with the steep increases in 2004 and 2005, not only boosted the prices of gasoline and heating fuel but also put upward pressure on the costs of production for a broad range of goods and services. Partly as a result of these cost pressures, the rate of core consumer price inflation picked up. Nevertheless, measures of inflation expectations remained contained, and the rate of increase in labor costs was subdued, having been held down by strong gains in productivity and moderate increases in labor compensation.

Taking a longer perspective, the U.S. economy appears to be in the midst of a transition in which the rate of increase in real gross domestic product (GDP) is moving from a pace above that of its longer-run capacity to a more moderate and sustainable rate. An important element in the transition is the lagged effect of the changes in monetary policy since mid-2004, changes that have been intended to keep inflation low and to promote sustainable economic expansion by aligning real economic activity more closely with the economy's productive potential. Moreover, longer-term interest rates have risen, contributing to increased borrowing costs for both households and businesses. Over time, pressures on inflation should abate as the pace of real activity moderates and, as futures markets suggest, the prices of energy and other commodities roughly stabilize. The resulting easing in inflation should help contain long-run inflation expectations.

NOTE: The discussion in this chapter consists of the text and tables from the Monetary Policy Report submitted to the Congress on July 19, 2006; the charts from that report (as well as earlier reports) are available on the Board's web site, at www.federalreserve.gov/boarddocs/hh.

Even as the rate of increase in real economic activity moderates, the prospects for sustained expansion of household and business spending appear favorable. Higher energy prices have put strains on household budgets, but once that effect fades, households should experience gains in real income consistent with the ongoing expansion of jobs. Household balance sheets remain generally sound; although some pockets of distress have surfaced, average delinquency rates on mortgages and other consumer debt are still low. Similarly, in the business sector, balance sheets are strong, credit quality is high, and most firms have ready access to funds. Sustained expansion of the global economy, along with the effects of the earlier depreciation of the foreign exchange value of the dollar, should support demand for U.S. exports. The potential for efficiency gains, as well as further declines in the relative cost of capital, are likely to continue to spur capital spending. Indeed, the ongoing advances in efficiency should sustain solid growth of labor productivity, providing support for gains in real wages and income.

As always, considerable uncertainties attend the outlook. Regarding inflation, the margin between production and consumption of crude oil worldwide is quite narrow, and oil markets are especially sensitive to news about the balance of supply and demand and to geopolitical events with the potential to affect that balance; adverse developments could result in yet another surge in energy costs. Indeed, futures markets provide only imperfect readings on the prospects for energy markets, as witnessed by the fact that the surprises in crude oil prices during the past few years have been predominantly to the upside. In addition, a further rise in prices of other, non-energy materials and commodities, if it materializes, could also intensify

cost pressures. Another risk is that the effect on imported-goods prices of earlier declines in the foreign exchange value of the dollar, which has been limited to date, could become larger. More broadly, if the higher rate of core inflation seen this year persists, it could induce a deterioration in longer-run inflation expectations that, in turn, might give greater momentum to inflation. However, the risks to the inflation outlook are not entirely to the upside. In the current environment of elevated profit margins, competitive forces, both in domestic markets and from abroad, could impose significant restraint on the pricing decisions of businesses.

Regarding risks to the outlook for real activity, rates of increase in real GDP have been uneven during the past year, complicating the assessment of whether the pace of the economic expansion is moving into line with its underlying potential rate. One possible risk to the upside is that the softer tone of the recent data on real activity will prove transitory rather than mark a shift to a more sustainable underlying rate of expansion. For example, slower spending and hiring in recent months may represent a shorter-lived adjustment to a higher level of energy prices or to the unusually robust increases in economic activity earlier in the year. In coming months, a sharp rebound in consumer spending accompanied by an acceleration of capital spending could return real activity to a pace that would be unsustainable over the longer run. But downside risks also exist. In particular, the slowing in real estate markets since last summer has been moderate, and the easing of house-price inflation has been gradual. If the softening in the demand for housing and in real estate values becomes more pronounced, the resulting drop in construction activity and the erosion of household wealth could

weaken aggregate demand noticeably. Consumer spending might be depressed by the loss of income and wealth, and that effect could be amplified if the downturn is abrupt enough to shake households' confidence about their ability to finance spending or manage their current financial obligations.

The Conduct of Monetary Policy over the First Half of 2006

The Federal Open Market Committee (FOMC) continued to firm the stance of monetary policy over the first half of 2006. At the time of the January meeting, available information suggested that underlying growth in aggregate demand was solid at the turn of the year. The expansion of real GDP in the fourth quarter of 2005 was estimated to have slowed temporarily, in part because of the disruptions associated with last autumn's hurricanes. Core inflation had stayed relatively low, and inflation expectations had remained contained. With rising energy prices and increases in resource utilization having the potential to add to inflationary pressures, the FOMC decided to extend the firming of policy that it had implemented over the previous eighteen months by tightening the policy rate 25 basis points, to 4½ percent. The Committee indicated that some further policy firming might be needed to keep the risks to price stability and to sustainable economic growth roughly in balance.

By March, economic activity appeared to be expanding rapidly, propelled by robust consumer spending and accelerating business investment. Although readings on core inflation for January and February were generally favorable, higher prices for energy and other commodities, together with relatively tight labor and product markets, threatened to add to existing inflation

strains. Against this backdrop, the Committee raised the target federal funds rate another 25 basis points, to 4¾ percent. The statement released at the end of the meeting continued to point to the possible need for further policy firming.

Data received by the time of the May meeting confirmed that the economy had expanded robustly in the first quarter, though both consumer spending and housing activity appeared to have moderated in late winter. In addition, inflationary pressures had intensified as core consumer prices rose more rapidly in March than in earlier months. Inflation expectations, as measured by some surveys and by comparisons of yields on nominal and inflation-indexed Treasury securities, also rose in April. The Committee still judged those expectations to be contained, but it was mindful that a further increase could impart additional momentum to inflation, as could the surge in energy and other commodity prices and the drop in the foreign exchange value of the dollar that took place in April and early May. To gain greater assurance that inflationary forces would not intensify, the FOMC decided to raise the target federal funds rate another 25 basis points, bringing it to 5 percent. The FOMC also indicated in the policy statement that some further policy firming could be required. However, the Committee was aware that the cumulative effects of past monetary policy actions on economic activity could turn out to be larger than expected. Accordingly, the FOMC stressed that the extent and timing of any further firming would depend importantly on the evolution of the economic outlook as implied by incoming data.

By the time of the June meeting, available data appeared to confirm that economic growth had moderated from the strong pace evident earlier in the year. Consumer spending had softened,

and activity in housing markets had continued to cool gradually. Evidence of inflationary pressures was accumulating, however, and core price inflation had increased. In addition, the high levels of resource utilization and of the prices for energy and other commodities had the potential to spur further inflation. Consequently, the FOMC decided to increase the target federal funds rate an additional 25 basis points, to 5¼ percent. The Committee recognized that the moderation in the growth of aggregate demand that appeared to be under way would help to limit inflationary pressures over time, but it judged that, even after its policy action, some upside inflation risks remained. Yet the FOMC made clear that the extent and timing of any additional firming needed to address those risks will depend on the evolution of the outlook for both inflation and economic growth as implied by incoming information.

In recent years, the FOMC has worked to improve the transparency of its decisionmaking process, and it continues to seek further improvements. Between the March and May meetings, the Chairman appointed a subcommittee to help the FOMC frame and organize the discussion of a broad range of communication issues. At the June meeting, the Committee discussed the subcommittee's plans for work in coming months and decided to begin its consideration of communication issues at its August meeting and to lengthen meetings later this year to allow a fuller discussion of these issues.

Economic Projections for 2006 and 2007

In conjunction with the FOMC meeting at the end of June, the members of the Board of Governors and the Federal Reserve Bank presidents, all of whom

Economic Projections for 2006 and 2007

Indicator	Federal Reserve Governors and Reserve Bank presidents	
	Range	Central tendency
Percent		
2006		
<i>Change, fourth quarter to fourth quarter¹</i>		
Nominal GDP	5½–6½	6–6¼
Real GDP	3–3¾	3¼–3½
PCE price index excluding food and energy	2¼–3	2¼–2½
<i>Average level, fourth quarter</i>		
Civilian unemployment rate	4½–5	4¾–5
2007		
<i>Change, fourth quarter to fourth quarter¹</i>		
Nominal GDP	4¾–6	5–5½
Real GDP	2½–3¼	3–3¼
PCE price index excluding food and energy	2–2¼	2–2¼
<i>Average level, fourth quarter</i>		
Civilian unemployment rate	4¼–5¼	4¾–5

1. Change from average for fourth quarter of previous year to average for fourth quarter of year indicated.

participate in the deliberations of the FOMC, provided economic projections for 2006 and 2007. In broad terms, the participants expect a sustained, moderate expansion of real economic activity during the next year and a half. The central tendency of the FOMC participants' forecasts for the increase in real GDP is 3¼ percent to 3½ percent over the four quarters of 2006 and 3 percent to 3¼ percent in 2007. The central tendency of their forecasts for the civilian unemployment rate is 4¾ percent to 5 percent in the fourth quarter of this year, and the jobless rate is expected to still be in that range at the end of 2007. For inflation, the central tendency of the forecasts is an increase in the price in-

dex for personal consumption expenditures excluding food and energy (core PCE) of 2¼ percent to 2½ percent over the four quarters of 2006; in 2007, the forecast shows a slower rate of 2 percent to 2¼ percent, which is similar to the rate of core PCE price inflation in 2004 and 2005.

A slowing in activity now appears to be under way in the housing sector, where home sales and residential construction have receded from the elevated levels of last summer. The associated easing in house-price appreciation will likely temper gains in household wealth, which, over time, may be a factor in damping consumer spending. However, households' financial positions should receive a boost from an acceleration of real income if energy prices stabilize as suggested by futures markets. In the business sector, participants view the outlook for fixed investment over the forecast period as positive. Although outlays for new equipment and software may increase a little more slowly with the deceleration in real output, investment opportunities appear to remain attractive: The relative user cost of capital for equipment, particularly high-technology items, is expected to remain favorable, and competitive pressures should maintain strong incentives to exploit opportunities for efficiency gains and cost reduction. At the same time, nonresidential construction seems likely to continue to move up. Finally, the strong performance of the economies of the United States' major trading partners should continue to stimulate U.S. exports of goods and services.

The more moderate pace of expansion and the stability in resource utilization, when coupled with less pressure from the prices of energy and other commodities, should contribute to an environment in which inflation expectations are contained and inflation edges lower.

Moreover, ongoing solid gains in productivity should work to limit increases in unit labor costs.

Over the next year and a half, FOMC participants expect the economy to achieve a sustainable rate of economic expansion. That rate will be determined in large part by the rate of increase in productivity. Productivity has been rising at a solid rate over the past two years, albeit more slowly than the especially rapid pace that prevailed during the first three years of the expansion. A strong trend in productivity is likely to be maintained as businesses take advantage of new investment in facilities and equipment, as diffusion of technology continues, and as organizational advancements and business process improvements yield further increases in efficiency.

Economic and Financial Developments in 2006

Although last year's hurricanes caused the pace of aggregate economic activity around the turn of the year to be uneven, real GDP increased at an average annual rate of 3.6 percent in the final quarter of 2005 and first quarter of 2006—about the same pace that prevailed during the preceding year and a half. Over this period, payroll employment posted additional solid gains, and the unemployment rate declined further. In recent months, the incoming information on real activity has suggested that the pace of the expansion is moderating, with the deceleration in spending most apparent in the household sector. Still, as of mid-year, resource utilization in labor and in product markets remained high.

Inflation picked up over the first five months of the year, boosted importantly by the effects of rising energy prices. Long-term inflation expectations fluctuated over the period but remained con-

tained, and increases in unit labor costs were subdued. Although short-term market interest rates rose in line with the FOMC's firming of monetary policy, financial market conditions were still generally supportive of economic expansion in the first half of 2006. Long-term interest rates rose but were still moderate by historical standards, and credit spreads and risk premiums stayed narrow.

The Household Sector

Consumer Spending

After increasing at a robust rate around the turn of the year, consumer spending has been rising at a more moderate pace in recent months. Over the first half of 2006, rising employment and the lagged effect of increases in wealth continued to provide support for spending by households. However, consumers' purchasing power was restrained by a further run-up in energy costs in the spring.

Sales of new cars and light trucks bounced back sharply at the turn of the year; those sales had slackened in late 2005 after manufacturers ended the special "employee discount" programs that had boosted sales last summer. New light vehicles sold at an annual rate of 16.8 million units between January and April, about the same as the average rate in 2004 and 2005. However, elevated gasoline prices affected the composition of demand, and consumers shifted their purchases away from light trucks and sport-utility vehicles (SUVs) and toward autos. That shift led to an increase in the market share captured by foreign producers. As households' concerns about the higher price of gasoline weighed on their attitudes toward buying vehicles, sales dipped to an annual rate of 16.2 million units in May and June.

Spending for other household goods, such as furniture, electronic equipment, food, and clothing, was quite strong in the first quarter of 2006; real outlays for goods other than motor vehicles increased at an annual rate of 8¾ percent. Some moderation was to be expected after such a surge in spending. Estimates of retail sales, which are available through June, suggest that real expenditures for these goods rose more slowly in the second quarter. In contrast to the uneven pattern of spending for goods, real outlays for consumer services remained on a moderate upward trend over the first half of 2006; they rose at an annual rate of 2½ percent from the fourth quarter of 2005 through May 2006.

Boosted by gains in nominal wage and salary income, after-tax aggregate personal income rose at an annual rate of 4 percent over the first five months of 2006. However, the acceleration in consumer prices held real income about constant. As a result, the steep decline in the personal saving rate, which began in 2004, extended into 2006. Since 2003, rising household wealth has provided important support for spending, even as gains in real income have been damped by increases in energy prices. In 2005 and the first part of 2006, much of the increase in wealth was the result of the rapid appreciation in the value of homes.

According to the survey by the University of Michigan Survey Research Center (SRC), the run-up in energy prices contributed importantly to the deterioration in consumer confidence this spring. Consumers' pessimism peaked in May and then lessened somewhat, on average, in June and early July. Nonetheless, at midyear, households indicated that they were still concerned about the effect of the high cost of energy on their financial situation. In

addition, households' assessments of current and expected business conditions remained considerably less optimistic than they were at the beginning of the year.

Residential Investment

The demand for homes had begun to soften in the summer of 2005, and, by the spring of 2006, starts of new single-family homes were well below the very rapid pace that had prevailed in the preceding two years. The reduced level of activity in real estate markets also led to some easing in house-price appreciation early this year.

Sales of new and existing single-family homes, which had been climbing steadily since 2003, stopped rising during the third quarter of 2005. By May, sales of new and existing homes together were $7\frac{1}{4}$ percent below their peak in June 2005. The cooling in sales caused inventories of unsold homes to rise. In May, the backlog of unsold new homes equaled $5\frac{1}{2}$ months' supply at that month's selling rate, and the backlog of existing homes on the market was $6\frac{1}{2}$ months' supply; in 2005, the stocks of both unsold new and existing homes averaged roughly $4\frac{1}{2}$ months of supply.

An increase in mortgage rates contributed to the slackening in the demand for housing. Since the middle of 2005, the average rate for a thirty-year fixed-rate mortgage has increased about 1 percentage point, to $6\frac{3}{4}$ percent, and the average for a one-year adjustable-rate mortgage has risen a bit more, to $5\frac{3}{4}$ percent. According to respondents to the Michigan SRC survey, the rise in borrowing costs has been an important consideration damping their assessment of buying conditions for homes since mid-2005; the rise in home prices has apparently also weighed on consumers' attitudes.

Although recent increases in house prices have been smaller than those that accompanied the robust real estate markets of 2004 and 2005, the deceleration thus far appears to have been modest. The repeat-transactions index of house prices, which is published by the Office of Federal Housing Enterprise Oversight, increased at an annual rate of $7\frac{1}{4}$ percent in the first quarter of 2006, the smallest quarterly increase since the fourth quarter of 2001; that index attempts to control for the quality of existing single-family homes sold by using prices of homes involved in repeat transactions (excluding refinancings). The first-quarter reading brought the year-over-year change in this measure to 10 percent; in the second and third quarters of 2005, purchase prices according to this index were up $11\frac{1}{2}$ percent from the level of a year earlier. An alternative measure of house prices is the average price of existing single-family homes sold, which is published by the National Association of Realtors. This measure, which does not control for the type of homes sold, showed that the year-over-year change in prices peaked at $11\frac{1}{2}$ percent in August 2005 and then fell to 4 percent in April and May of this year. The greater deceleration in the latter measure suggests that, in addition to some softening in prices, the mix of existing units sold may have shifted toward lower-priced homes.

The effect of the slowdown in demand on new construction became apparent during the second half of 2005, when the number of permits issued for new single-family homes began to fall. This year, the decline in permit issuance was relatively steady from January to May. Nonetheless, new single-family homes were started at an exceptionally high annual rate of 1.75 million units during the first quarter, when builders were able to begin work on scheduled

projects earlier than normal because of favorable weather conditions. With some starts having been advanced into the first quarter, single-family starts dropped to an average rate of 1.57 million units in April and May. In contrast to the recent trend in the single-family sector, construction of new multifamily homes averaged an annual rate of 360,000 units from January to May, about where it has been for more than four years.

Housing activity, as measured by real expenditures on residential structures, contributed almost $\frac{1}{2}$ percentage point per year to the annual rate of increase in real GDP in 2004 and 2005. In the first quarter of 2006, that contribution dropped to 0.2 percentage point; with the reduced pace of sales and construction since the winter, a decline in residential investment is likely to have held down the rise in real GDP in the second quarter.

Household Finance

Household debt expanded at an annual rate of about 11½ percent in the first quarter of 2006, about the same pace as in 2005. Despite the rise in mortgage rates and the slowing in housing activity, home mortgage debt expanded rapidly again early in the year as homeowners apparently continued to extract some of the substantial gains in equity that they have accumulated on their homes in the past several years. Indeed, according to industry estimates, although the number of homeowners refinancing their mortgages has remained well below that seen during the refinancing boom of several years ago, a large fraction of homeowners who have refinanced so far this year have chosen to withdraw equity from their homes. As has been the case in recent years, this mortgage-related borrowing likely re-

placed, in part, some consumer credit borrowing, which, at an annual rate of a bit less than 3 percent, continued to expand modestly in the first five months of 2006.

The ratio of household financial obligations to disposable income rose 0.1 percentage point in the first quarter to about 18¾ percent, narrowly exceeding the top of its historical range. Nonetheless, the evidence points to only limited pockets of financial distress in the household sector. Delinquency rates on residential mortgages were low by historical standards in the first quarter, though they have edged higher since the middle of last year, particularly in the subprime sector. Delinquency rates on consumer debt also continued to be low. Meanwhile, household bankruptcy filings remained subdued in the first half of 2006, running at a pace well below the average of recent years. Bankruptcies have likely been damped this year in part by the decision of some households in the fall of 2005 to accelerate their filings to avoid the implementation of a stricter bankruptcy law in October. More recently, they may also have been restrained by the greater costs of bankruptcy under the new law.

The Business Sector

Fixed Investment

Real business fixed investment increased at a solid rate, on average, during the final quarter of 2005 and the first quarter of 2006. Over that period, real business spending for new equipment and software rose at an annual rate of 9¾ percent, a pace similar to that over the first three quarters of 2005. In addition, investment in nonresidential structures, which had remained weak in 2005, turned up noticeably in early 2006. The underlying determinants of

capital spending have stayed quite positive: Businesses have seen steady increases in sales, robust profits, and declining user costs for equipment; they have ample liquid assets; and, despite the rise in interest rates, credit quality is strong.

Real outlays for equipment and software rose at an annual rate of 14¾ percent in the first quarter after having risen at a 5 percent rate in the fourth quarter of 2005. As can often be the case, the timing of spending for a number of types of equipment was uneven between these two quarters. Business purchases of cars and trucks slowed in late 2005, after manufacturers reduced their special discounts on light vehicles, and then recovered in the first quarter. The first-quarter rebound was strengthened by a further acceleration of outlays for medium and heavy trucks. According to industry analysts, businesses have been pulling forward these purchases because the engines in the 2007 models will be required to meet new emission regulations by the Environmental Protection Agency that will make the new vehicles more costly to operate. Deliveries of commercial aircraft to domestic customers also rebounded in the first quarter from a very low level in the fourth quarter.

Demand for high-technology equipment stepped up noticeably in the first quarter because of a sharp jump in outlays for communications equipment. Providers of telecommunications services appear to be investing heavily in fiber-optic networks, which will allow them to offer a wider range of Internet services; the recent spurt likely also includes some replacement demand for equipment damaged by last year's hurricanes. In contrast, business demand for computing equipment, while still increasing at a double-digit pace in real terms, has been relatively modest by

historical standards so far this year. Industry analysts suggest that firms may be delaying investment in anticipation of introductions, later this year and in early 2007, of several products that will allow faster and more energy-efficient processing. Spending on equipment other than transportation and high-tech goods continued to trend up at a solid pace, on average, during the fourth and first quarters. Demand was particularly strong for metalworking and general industrial machinery as well as for equipment used in construction, energy extraction, and services industries.

Demand for equipment and software appears to have risen again in the second quarter. The information from U.S. manufacturers on their orders and shipments of nondefense capital goods and the data on imports of capital goods suggest that business spending for equipment other than transportation and high-tech items remained on a strong upward trajectory in April and May. The elevated backlog of unfilled orders at domestic firms likely provided support for factory production of capital equipment in the second quarter. The indicators of demand for high-tech equipment suggest that spending for communications equipment remained at a high level, and real outlays for computing equipment were still rising slowly. Sales of medium and heavy trucks continued to be robust in the second quarter, although they eased slightly from the exceptional rate at the beginning of the year.

Real expenditures for nonresidential construction increased at an annual rate of 12½ percent in the first quarter after having edged up slightly during 2005. Last year, the small net increase in this sector reflected a sharp upturn in spending on structures used in domestic energy exploration; construction of new office and industrial buildings was re-

strained by elevated vacancy rates. However, vacancy rates for office and industrial properties gradually declined over the course of 2005, and, by the turn of the year, nonresidential construction began to firm. As a result, the increase in nonresidential investment in the first quarter of 2006 was broadly based; it included pickups in outlays in the office, retail, and industrial sectors in addition to another steep rise in spending on structures associated with energy exploration.

Inventory Investment

Business inventories appear generally to be well aligned with sales. In surveys taken during the first six months of 2006, about two-thirds of purchasing managers at manufacturing firms who responded characterized the level of their customers' inventories as about right. A similar proportion of respondents at nonmanufacturing firms reported that they were comfortable with their own levels of inventories. However, dealer stocks of new light motor vehicles, particularly trucks (including SUVs), have risen noticeably as sales have slowed; inventories of light trucks reached an uncomfortable 89 days' supply in May. In late June, a number of manufacturers introduced a new round of incentives aimed at reducing dealer stocks in advance of the introduction of their new models this fall.

Corporate Profits and Business Finance

Corporate profits were again strong in the first quarter of 2006, and earnings per share for S&P 500 firms rose about 15 percent from the same time last year. Gains were widespread but were especially large for firms in the energy sector. Before-tax profits of nonfinancial

corporations measured as a share of sector GDP rose to about 14 percent in the first quarter, above the previous peak reached in 1997.

The expansion of business debt picked up to an annual rate of nearly 10 percent in the first quarter of this year, and data in hand suggest a robust pace in the second quarter. A substantial fraction of borrowing proceeds reportedly went to finance mergers and acquisitions in the first half of the year. Net bond issuance has been strong so far in 2006. Short-term borrowing by nonfinancial corporations stepped up in the first quarter of 2006 after slowing somewhat in the fourth quarter of last year; it appears to have remained strong in the second quarter as well. Commercial paper outstanding started rising again, on balance, after edging lower in 2005. Bank business loans outstanding expanded at an annual rate of 15½ percent in the first quarter. Businesses benefited from a more accommodative lending environment: For example, a significant net fraction of respondents to the Federal Reserve's Senior Loan Officer Opinion Survey on Bank Lending Practices in April 2006 noted that their institutions had eased both standards and terms on commercial and industrial loans in the first three months of the year. The most commonly cited reasons for the easing of lending policies were more-aggressive competition from other banks and nonbank lenders, increased liquidity in the secondary market for business loans, and increased tolerance for risk.

Gross equity issuance has remained moderate so far this year, while an elevated level of cash-financed mergers along with record share repurchases has produced further sizable net equity retirements. Taken together, net funds raised by nonfinancial corporations in the credit and equity markets have been

slightly negative in 2006, an indication that nonfinancial corporations have financed their increased investment spending with internal funds.

With profitability strong and balance sheets flush with liquid assets, credit quality in the nonfinancial business sector generally has remained quite high. The six-month trailing default rate on corporate bonds dropped after some large firms in the troubled airline and automobile sectors defaulted during the past fall and winter. Delinquency rates on business loans have stayed near the bottom of their historical range.

Commercial real estate debt expanded briskly in the first half of 2006, albeit not as quickly as during 2005. Spreads on BBB-rated commercial-mortgage-backed securities have fallen this year. The decline reversed an increase that took place at the end of last year, when issuance surged; these spreads are now back in line with those of comparable-quality corporate bonds. With rents climbing and vacancy rates falling, delinquency rates on commercial real estate loans have been low, and credit quality has remained generally good.

The Government Sector

Federal Government

The deficit in the federal unified budget narrowed further during the past year. Over the twelve months ending in June, the unified budget recorded a deficit of \$276 billion, about \$60 billion less than during the comparable period last year. The federal deficit over the twelve months ending in June was approximately 2 percent of nominal GDP and was significantly lower than its recent fiscal year peak of 3.6 percent of GDP in 2004. Although outlays increased faster than nominal GDP over the past year, the rise in receipts was even larger.

Thus, in its recent *Mid-Session Review* of the budget, the Administration estimated that the federal government will finish fiscal 2006 with a deficit of \$296 billion; that figure marks a decline from the fiscal 2005 deficit of \$318 billion and is much lower than most analysts had projected at the beginning of this year.

During the twelve months ending in June, federal receipts were 13¼ percent higher than over the same period a year earlier and equivalent to almost 18¼ percent of nominal GDP. Income tax receipts from individuals have outpaced the rise in nominal income; final tax payments on income from 2005 were especially strong in April and May. Corporate tax payments continued to rise at a robust rate, even faster than corporate profits.

Nominal federal outlays rose 9 percent between June 2005 and June 2006 and were about 20½ percent of nominal GDP. The rise in outlays was bolstered by increases in several components of federal spending. Net interest payments increased 20 percent over the year ending in June as federal debt continued to rise and interest rates increased. Medicare outlays were up 14½ percent; since the inception of the new Part D prescription drug program in January, outlays for benefits have added more than \$20 billion to spending in this category. Legislative actions related to the hurricanes in the Gulf Coast region last autumn have added significantly to spending for disaster relief over the past ten months. Although defense spending has slowed from the annual double-digit rates of increase from 2002 to 2004, it still has increased about 8 percent per year in the past two years.

As measured in the national income and product accounts (NIPA), real federal expenditures on consumption and gross investment—the part of federal

spending that is a direct component of real GDP—increased at an annual rate of 3¾ percent, on average, during the final calendar quarter of 2005 and the first calendar quarter of 2006 and contributed roughly 0.3 percentage point to the annualized change in real GDP over the period. Over these two quarters, real defense purchases were about constant, on average, while spending related to disaster relief from the hurricanes contributed importantly to a rise in real nondefense purchases.

The narrowing of the federal deficit recently has reduced its drain on national saving. However, net national saving excluding the federal government has remained low relative to historical norms. Although the saving rate for private business has moved up during the past two years, the improvement has been offset by the further decline in personal saving. Overall, national saving, net of depreciation, stood at 2½ percent of nominal GDP in the first quarter of 2006. Although the recent rate is a noticeable improvement from the lows of the preceding few years, it has been insufficient to avoid an increasing reliance on borrowing from abroad to finance the nation's capital spending.

Federal Borrowing

Federal debt rose at an annual rate of 13 percent in the first quarter, a bit less than in the corresponding quarter of 2005. In February, federal debt subject to the statutory limit reached the ceiling of \$8.184 trillion, and the Treasury resorted to accounting devices to avoid breaching the limit. The Congress subsequently increased the debt ceiling to \$8.965 trillion in March. In the second quarter, federal debt likely declined temporarily because of a surge in tax receipts. On net, the Treasury has raised substantially less cash in the market so

far this year than in the comparable period of 2005.

In February, the Treasury conducted an auction of thirty-year bonds for the first time since 2001. The issue generated strong interest, especially from investment funds; foreign investors were awarded only a small fraction of the total. In general, foreign demand for Treasury securities appears to have eased somewhat in 2006. The proportion of nominal coupon securities bought at auction by foreign investors has continued to fall from its peak of 24 percent in 2004; it averaged about 14 percent in the first six months of 2006. Data from the Treasury International Capital system generally suggested subdued demand from both foreign private investors and foreign official institutions over this period. The amount of Treasury securities held in custody at the Federal Reserve Bank of New York on behalf of foreign official and international accounts has changed little since the end of 2005.

State and Local Governments

The fiscal positions of states and localities continued to improve through early 2006. In particular, revenues are on track to post a relatively strong gain for a third consecutive year. Tax receipts from sales, property, and personal and corporate income were up 8¼ percent during the year ending in the first quarter of 2006, a rate similar to the increase in the preceding year. The sustained strength in revenues has enabled these jurisdictions to increase their nominal spending somewhat while rebuilding their reserve funds. On a NIPA basis, net saving by state and local governments—a measure that is broadly similar to the surplus in an operating budget—rose to an annual rate of \$21½ billion in the first quarter of 2006 after having been close to zero

in 2005. Although most states have seen improvement, a number of states are still struggling with structural imbalances in their budgets, and those in the Gulf Coast region are coping with demands related to damage from last year's hurricanes. In addition, local governments may face pressure to hold the line on property taxes after the sharp increases in the past several years, and governments at all levels will have to contend with the need to provide pensions and health benefits to a rising number of retirees in coming years.

Real expenditures by state and local governments on consumption and gross investment, as estimated in the NIPA, rose at an annual rate of 1½ percent in the first quarter of 2006 after having increased roughly 1 percent per year in 2004 and 2005. Real expenditures for investment turned up in the first quarter after having fallen during the second half of 2005. Real outlays for current consumption posted a moderate increase in the first quarter, and that trend appears to have continued into midyear. Hiring by state and local governments was slow early in the year but appears to have firmed in the spring. Of the cumulative increase in employment of 100,000 between December and June, 40 percent of the jobs were in education.

State and Local Government Borrowing

Borrowing by state and local governments has slowed thus far in 2006. The deceleration likely reflects the general improvement in budget conditions and a decline in advance refundings, which have dropped below their 2005 pace amid rising interest rates and a dwindling pool of eligible securities. Credit quality in the state and local sector has continued to improve, and upgrades of credit ratings have far outnumbered

downgrades. Consistent with the improvement in credit quality, yields on long-dated municipal bonds have increased substantially less than those on comparable-maturity Treasury securities, and the yield ratio has accordingly fallen sharply.

The External Sector

The U.S. current account deficit narrowed in the first quarter of 2006 to \$835 billion at an annual rate, or about 6½ percent of nominal GDP, from \$892 billion in the fourth quarter of 2005. The narrowing resulted from three factors. Unilateral transfer payments to foreigners dropped, largely because of a decrease in government grants. The trade deficit narrowed, primarily because the value of imported oil and natural gas declined. In addition, higher direct investment receipts and lower direct investment payments produced an increase in the investment income balance.

International Trade

Real exports of goods and services increased 14¾ percent at an annual rate in the first quarter of 2006, far faster than the 6½ percent rate recorded in 2005. The surge in export growth in the first quarter resulted in part from a recovery in exports of many types of industrial supplies following a period of hurricane-related disruptions late last year. Exports of capital goods also increased rapidly in the first quarter, with deliveries of aircraft to foreign carriers exhibiting particular strength. The first-quarter increase in exports was widespread across destinations, a sign of robust economic activity in many parts of the world, and exports to Mexico and Canada showed especially large increases. Real exports of services rose

at an annual rate of about 6½ percent in the first quarter after increasing just 2¾ percent in 2005. Available data for nominal exports in April and May suggest that the increase in real exports was smaller in the second quarter, held down in part by a drop in aircraft exports after a strong first quarter.

Prices of exported goods increased at an annual rate of 2¾ percent in the first quarter of 2006, a pace somewhat faster than in the second half of 2005. Prices of non-agricultural industrial supplies continued to increase steadily in the first quarter, driven importantly by higher prices for oil and metals. An acceleration in prices for finished goods, especially for capital and consumer goods, contributed to the faster pace of export price inflation in the first quarter. The available data for the second quarter point to further increases in export prices on the strength of additional run-ups in the prices of non-agricultural industrial supplies, especially metals.

Real imports of goods and services rose at an annual rate of 10¾ percent in the first quarter, slightly slower than in the fourth quarter but still considerably faster than the 5¼ percent rate observed for 2005 as a whole. Robust growth of real GDP in the United States supported the first-quarter increase in imports. Among categories of goods, large increases in imports of consumer goods, automotive products, and capital goods, particularly computers, more than offset declines in imports of oil and some other industrial supplies. The rise in imports in the first quarter was widely distributed across countries, and the increases for China and Mexico were especially large. Real imports of services jumped at an annual rate of 8½ percent in the first quarter. Nominal imports in April and May point to an abrupt slowing of real imports in the second quarter from the first quarter's rapid pace.

Prices of imported goods excluding oil and natural gas rose at an annual rate of about 1 percent in the first quarter of 2006, ¾ percentage point faster than the pace in the second half of 2005. Prices of material-intensive goods, such as nonfuel industrial supplies and foods, increased steadily in the last quarter of 2005 and in the first quarter of 2006. Also in the first quarter, prices of finished goods, such as consumer goods and many kinds of capital goods, turned up slightly. Available data for the second quarter indicate that prices of finished goods kept rising at a subdued pace. However, prices of material-intensive goods continued to increase sharply, a development reflecting higher prices for metals. The International Monetary Fund's index of global metals prices rose 46 percent between December 2005 and May 2006, largely because of robust global demand. In June, metals prices retreated about 8 percent, although they remained well above the levels of earlier this year.

The spot price of West Texas intermediate crude oil increased from around \$60 per barrel at the end of last year to more than \$75 per barrel in July, higher than the peak that followed last year's hurricanes. Oil prices have been highly sensitive to news about both supply and demand, particularly in light of the narrow margin of worldwide spare production capacity. Global oil demand has continued to grow as the foreign economic expansion has spread, and developing countries have posted the largest increases in oil consumption. Recent events in the Middle East—including concerns over Iran's nuclear program, violence in Iraq, and the recent conflict in Lebanon—have put additional upward pressure on oil prices. In Nigeria, attacks against oil infrastructure have reduced oil production for most of this year. Government intervention in

energy markets also raised concerns about supply from some countries: In recent months, Bolivia nationalized its natural gas reserves, and Venezuela and Russia continued to tighten governmental control of their energy industries.

The rise in the price of the far-dated NYMEX oil futures contract (currently for delivery in 2012) to more than \$70 per barrel likely reflects a belief by oil market participants that the balance of supply and demand will remain tight over the next several years.

The Financial Account

The U.S. current account deficit continues to be financed primarily by foreign purchases of U.S. debt securities. Foreign official inflows in the first quarter maintained the strength exhibited in 2005 but remained below the record levels of 2004. As in recent years, the majority of these official inflows were attributable to Asian central banks and have taken the form of purchases of U.S. government securities.

Foreign private purchases of U.S. securities continued in the first quarter at the extraordinary pace set in the second half of 2005. Although private flows into U.S. Treasury bonds were significantly smaller than in recent quarters, this slowing was more than offset by larger flows into agency bonds and equities. Preliminary data for April and May suggest a slowdown in foreign purchases of U.S. securities relative to the first quarter. Foreign direct investment flows into the United States continued in the first quarter near last year's average levels.

Net purchases of foreign securities by U.S. residents, which represent a financial outflow, strengthened slightly in the first quarter and continued at a solid pace in April and May. In addition, significant outflows were associated with

U.S. direct investment abroad, a reversal of some unusual inflows in the second half of 2005. These second-half inflows were prompted by the partial tax holiday offered under the 2004 Homeland Investment Act (HIA), which induced the foreign affiliates of U.S. firms to repatriate a portion of earlier earnings that had been retained abroad. In the first quarter, the foreign affiliates partially unwound the HIA-induced flows by retaining an unusually large portion of their first-quarter earnings. Increased merger activity abroad also boosted direct investment outflows in the first quarter.

The Labor Market

Employment and Unemployment

Conditions in the labor market continued to improve in the first half of 2006, although the pace of hiring has slowed in recent months. Nonfarm payroll employment increased 176,000 per month during the first quarter, a rate roughly in line with the relatively brisk pace that prevailed during 2004 and 2005. During the second quarter, hiring slowed, and monthly gains in payrolls averaged 108,000 jobs per month. Over the two quarters, the civilian unemployment rate edged down further, to the lowest quarterly level of joblessness in five years.

In the first quarter, with homebuilding quite strong, hiring continued to be particularly robust at construction sites; part of this strength was the result of favorable weather, which allowed more construction activity than is typical during the winter months. Although nonresidential construction activity was firming by the spring, the pullback in housing starts slowed the demand for residential contractors and workers in the building trades. As a result, monthly additions to

construction industry payrolls declined from more than 25,000 per month in the first quarter to just 3,000 per month in the second quarter. Cutbacks at retailers also were an important factor holding down the overall gain in employment in the second quarter. After having been stable early in 2006, employment at retail outlets fell almost 30,000 per month between March and June; most of the cutbacks occurred at general merchandisers.

In other sectors, employment remained on a solid upward trend during the first half of the year. As has been the case since mid-2004, establishments providing education and health services, those offering professional and technical business services, and those involved in financial activities, taken together, added more than 60,000 jobs per month. Employment in manufacturing, which had turned up at the end of 2005, rose further over the first half of 2006. Expanding industrial production was also associated with further job gains in related industries, such as wholesale trade and transportation. In addition, the increase in energy production led to a sustained rise in employment in the natural resources and mining industry over the first half of the year.

The increase in job opportunities so far in 2006 led to a further reduction in the civilian unemployment rate, from an average of 5.0 percent in the second half of 2005 to 4.7 percent in the second quarter of 2006. Although hiring moderated in the spring, layoffs remained low. New claims for unemployment insurance (UI) dipped below 300,000 per week in January and February and then fluctuated around a still-low level of about 315,000 per week for most of the period from March through early July. Over the first half of 2006, longer-term unemployment (fifteen weeks or more) also moved down, and the proportion of

UI claimants who remained on the unemployment rolls until the exhaustion of their benefits continued to recede.

After having edged up during 2005, the labor force participation rate was relatively stable over the first half of 2006 despite the ongoing improvement in labor market conditions. Rates for most broad age groups were little changed from last year's levels. From a longer perspective, developments during the past decade highlight the importance of structural as well as cyclical influences on participation. The rise in the attachment of adult women to the workforce, which was a significant factor in the secular rise in participation over much of the post-World War II period, appears to have leveled off. And the aging of the population is increasing the proportion of the workforce that is 55 years and older; it rose from less than 12 percent in 1996 to 16¾ percent in recent months. Although older workers have tended in recent years to stay in the labor force longer, their participation rate, at 38 percent in the second quarter, was less than half the rate for workers who are age 25 to 54. Thus, the demographic shift to an older population has already begun to reduce the overall rate of labor force participation and has offset part of the rise in participation that has been associated with the cyclical upturn in job creation. The secular forces that are slowing the expansion of the labor force imply that the increase in employment that is consistent with a stable unemployment rate will, over time, be smaller than it was during the period when labor force participation was rising steadily.

Productivity and Labor Costs

After having advanced at an unusually rapid rate from 2001 to mid-2004, labor productivity in the nonfarm business

sector increased at a more moderate annual rate of $2\frac{1}{2}$ percent from mid-2004 to early 2006. Nonetheless, by historical standards, productivity performance recently has still been solid, with gains at a rate matching those during the second half of the 1990s. In an environment of a sustained expansion of aggregate demand, businesses have gradually adjusted their use of labor, capital, and services to achieve ongoing gains in efficiency. Productivity has continued to benefit importantly from investment in new technologies, organizational changes, and improvements in business processes, although the contribution from capital deepening has been smaller in recent years than it was during the capital investment boom of the late 1990s.

Broad measures of hourly labor compensation, which include both wages and the costs of benefits, posted moderate gains over the year ending in early 2006 despite the run-up in headline price inflation and the further tightening of labor markets. Both the employment cost index (ECI) and the estimate of compensation per hour that uses data from the national income and product accounts increased $2\frac{3}{4}$ percent between the first quarter of 2005 and the first quarter of 2006.¹ Both series had reported higher rates of change in hourly labor compensation a year earlier.

The deceleration in labor compensation appears to have been associated largely with smaller increases in employers' benefit costs. The benefits component of the ECI was up just 3 percent between March 2005 and March 2006, compared with an increase of 5.5 percent between March 2004 and March

2005. The cost of health insurance, which typically accounts for about one-fourth of overall benefit costs, rose just $4\frac{3}{4}$ percent during the year ending in March 2006; between 2000 and 2005, these costs increased, on average, $8\frac{3}{4}$ percent per year. Another likely contributor to the slower rise in benefit costs over the past year was smaller employer contributions to their defined-benefit pension plans; those costs dropped back somewhat after employers made sizable payments to bolster those pension assets in 2004.

Indicators of the recent trend in the wage component of worker compensation have been providing mixed signals. As measured in the ECI, wages rose 2.4 percent between March 2005 and March 2006, slightly less than in the preceding two years. In contrast, the year-over-year change in average hourly earnings of production or nonsupervisory workers—which refers to a narrower group of private nonfarm employees and has tended to show greater cyclical variation than the ECI—has increased steadily over the past three years. Average hourly earnings rose 3.9 percent over the twelve months ending in June 2006, compared with an increase of 2.7 percent over the twelve months ending in June 2005.

Prices

Inflation pressures were elevated during the first half of 2006. The chain-type price index for personal consumption expenditures (PCE) rose at an annual rate of $4\frac{1}{4}$ percent between December 2005 and May 2006. Over the same period, core PCE prices increased at an annual rate of 2.6 percent, nearly 0.6 percentage point faster than over the twelve months of 2005.

Although energy prices eased temporarily in February, they turned up

1. The Bureau of Labor Statistics (BLS) developed a new ECI series and has provided data for the changes in that series beginning in 2001. The BLS considers the new ECI to be continuous with the old series.

Alternative Measures of Price Change

Percent

Price measure	2004 to 2005	2005 to 2006
<i>Chain-type (Q1 to Q1)</i>		
Gross domestic product (GDP)	2.8	3.1
Gross domestic purchases	3.1	3.5
Personal consumption		
expenditures (PCE)	2.7	3.0
Excluding food and energy	2.2	1.9
Market-based PCE excluding		
food and energy	1.8	1.5
<i>Fixed-weight (Q2 to Q2)</i>		
Consumer price index	3.0	4.0
Excluding food and energy	2.1	2.4

NOTE: Changes are based on quarterly averages of seasonally adjusted data.

sharply again from March to May; as a result, the PCE price index for energy increased 13 percent (not at an annual rate) over the first five months of 2006, a rise that marked a continuation of the steep climb in prices that began in 2004. This year, almost the entire rise in energy prices has been associated with higher prices for petroleum-based products. The PCE price index for gasoline and motor fuel, which increased more than 16½ percent last year, climbed another 24 percent (not at an annual rate) by May. Although recent data from the Department of Energy indicate that gasoline prices fell back in June, they moved up again in early July. Retail prices of gasoline this year have risen faster than the cost of crude oil in part because of the additional cost of producing and distributing reformulated product with ethanol. Also, the demand for fuel ethanol has been strong relative to the current capacity to produce it. In contrast, the consumer price of natural gas has turned down this year as inventories have remained relatively high; the price decline between January and May almost completely reversed the steep run-up that occurred last autumn.

Food price inflation remained moderate during the first five months of 2006; between December 2005 and May 2006, the PCE price index for food and beverages increased at an annual rate of 2¼ percent. Retail prices of meat and poultry have fallen so far this year. Domestic supplies of meat have been ample. Production has been expanding at a time when export demand for beef has been soft largely because of bans on imports of U.S. beef by Japan and Korea. Prices of processed food have continued to rise at only a moderate rate despite higher prices for grains; export demand for grains has been strong, and the price of corn has been boosted by demand from producers of ethanol. Prices for food consumed away from home, which typically are influenced heavily by labor and other business costs, have continued to increase relatively rapidly, rising at an annual rate of 3¾ percent over the first five months of the year.

The pickup in core inflation in the first half of 2006 was evident in the indexes for both goods and services. Prices of consumer goods excluding food and energy, which were unchanged in 2005, edged up at an annual rate of ¾ percent this year. Prices of consumer services also accelerated this spring; as a result, the PCE price index for non-energy services increased at an annual rate of 3½ percent between December 2005 and May 2006, compared with a rise of 2¾ percent in 2005. In the three months ending in May, increases in housing rents were especially steep; the rise may reflect, in part, a shift in demand toward rental units because home purchases have become less affordable. Another contributor to the higher inflation rate for consumer services has been the acceleration in the index for nonmarket services to an annual rate of 4 percent over the first five months of the

year from 3 percent last year.² More broadly, the pickup in core consumer price inflation over the first five months of 2006 likely is the result of the pass-through of higher energy costs to a wide range of goods and services.

The cost pressures from the increase in energy costs during the past three years have been apparent in rising prices of inputs used in the production and sale of final goods and services. The producer price index for intermediate goods, excluding food and energy, rose at an annual rate of 7¼ percent between December 2005 and May 2006; this index rose 4¾ percent in 2005 and 8¼ percent in 2004. In particular, prices of industrial chemicals, fertilizer, and stone and clay products, for which energy represents a relatively high share of the total costs of production, accelerated over the past several years. The costs of a number of important business services, particularly transportation by air, rail, and truck, have also been boosted by higher energy costs. The pass-through of the costs of energy to consumer prices is clear for a few items, such as airfares. For other components of core consumer price indexes, however, the extent of the pass-through is harder to trace. Quantifying the extent of the pass-through is difficult, in part because it is diffused through a wide range of retail goods and services. In addition, the cost of energy is a small share of overall costs—and that share has been declining over time as businesses adopt more energy-efficient technologies and households reduce their consumption of energy. Nonetheless, the cumulative rise in energy costs in recent years has been large enough to show

through to pricing of final goods and services even as businesses have seen their labor costs, which represent roughly two-thirds of their costs, remain restrained.

Near-term inflation expectations were also influenced importantly over the first half of 2006 by movements in energy prices, but, as of midyear, they were only slightly higher than they were at the turn of the year. The Michigan SRC survey measure of the median expectation of households for inflation over the next twelve months held steady at 3 percent during the first three months of the year but then rose sharply to 4 percent in May as gasoline prices climbed. By early July, this measure of near-term inflation expectations dropped back to 3.1 percent. Longer-term inflation expectations remained within the ranges in which they have fluctuated in recent years. On average over the first half of 2006, the median respondent to the Michigan SRC survey continued to expect the rate of inflation during the next five to ten years to be just under 3 percent. In June, the Survey of Professional Forecasters, conducted by the Federal Reserve Bank of Philadelphia, reported expected inflation at a rate of 2½ percent over the next ten years, an expectation that has been roughly unchanged for the past eight years. Inflation compensation implied by the spread of yields on nominal Treasury securities over their inflation-protected counterparts rose slightly, on net, over the first half of the year; in early July it was just above 2½ percent.

U.S. Financial Markets

U.S. financial markets functioned smoothly in the first half of 2006 against the backdrop of increased volatility in some asset prices. Yields on nominal Treasury coupon securities rose about

2. These are services—such as foreign travel or the financial services provided by banks—for which no prices based on market transactions are available; the Bureau of Economic Analysis must impute or estimate these indexes.

70 basis points, on net, through early July as investors came to appreciate that economic conditions and inflation pressures required more monetary policy tightening than they had expected at the end of 2005. Equity prices advanced until mid-May but then reversed those gains. Apparently, evidence of increased inflationary pressures and some softer-than-expected data on economic activity induced market participants to revise down their longer-term outlook for business profits and to perceive greater risks to that outlook. With corporate balance sheets remaining strong and liquid, risk spreads on corporate bonds stayed low, an indication that the revision to the outlook had not sparked broad concerns about credit quality. Firms had ample access to funds, and business-sector debt expanded rapidly in the first quarter. The need to finance brisk merger and acquisition activity was one factor that reportedly induced nonfinancial businesses to tap the credit markets heavily. Bond issuance picked up noticeably, and commercial and industrial loans increased robustly. Banks continued to ease terms and standards on such loans. Household debt expanded further in the first quarter amid rising house prices and brisk cash-out refinancing activity. As was the case in 2005, the M2 monetary aggregate has advanced moderately so far in 2006.

Interest Rates

The FOMC increased the target federal funds rate 25 basis points at each of its four meetings this year. These actions brought the rate to 5¼ percent, about 60 basis points above the rate expected at the end of last year for early July. In contrast to the situation earlier in the tightening cycle, when it was evident to investors that considerable monetary policy accommodation was in place and

had to be removed, market participants more recently have had to focus to a greater degree on economic data releases and their implications for the outlook for economic growth and inflation to form expectations about near-term policy. Although the information currently available suggests that growth of real output slowed appreciably in the second quarter, incoming price data have pointed to greater-than-expected inflationary pressures throughout the first half of the year. Investors anticipated that the FOMC would act to counter such pressures, and the expected policy path moved upward, on balance, over the first half of 2006. Nevertheless, market participants currently appear to expect the target federal funds rate to ease after the end of the year. Despite investors' apparent awareness that monetary policy decisions increasingly depend on the implications of incoming information for the economic outlook, the implied volatility on short-term Eurodollar rates calculated from option prices has remained near the low end of its historical range.

Yields on nominal Treasury coupon securities rose about 70 basis points across the maturity spectrum through early July, in part because of the expectations for firmer policy. In addition, it appears that a modest rebound in term premiums, including investor compensation for inflation risk, may have contributed to the rise in longer-term rates; still, estimated premiums remain low by historical standards. Yields on inflation-indexed Treasury securities rose less than those on their nominal counterparts, leaving inflation compensation at medium- and long-term horizons 20 to 30 basis points higher than at the turn of the year.

In the corporate bond market, yields on investment-grade securities moved about in line with those on comparable-

maturity Treasury securities through early July. In contrast, those on speculative-grade securities rose only about 40 basis points; as a result, risk spreads were 30 basis points lower in that segment of the market. The narrowness of high-yield spreads was likely a reflection of investors' sanguine views about corporate credit quality over the medium term, given the strength of business balance sheets and the outlook for continued economic expansion.

Equity Markets

Broad equity indexes changed little, on net, through early July. Stock prices were boosted up to the first part of May by an upbeat economic outlook and by strong corporate earnings in the first quarter. However, those gains were subsequently reversed as incoming data clouded the prospects for economic growth and continued to point to upward pressures on inflation; the drop in share prices was led by stocks that had logged the largest gains in the previous months, including those of firms with small capitalizations and of firms in cyclically sensitive sectors. A measure of the equity risk premium—computed as the difference between the twelve-month forward earnings–price ratio for the S&P 500 and an estimate of the real long-term Treasury yield—has increased slightly so far this year and remains near the high end of its range of the past two decades. The implied volatility of the S&P 500 calculated from option prices spiked temporarily in late May and early June and remained somewhat elevated compared with its levels earlier in the year.

Net inflows to equity mutual funds were very strong through April, as investors were evidently attracted by the solid performance of the equity market up to that point. In May and June, how-

ever, investors withdrew funds as share prices began to sag.

Debt and Financial Intermediation

In the first quarter of 2006, the total debt of domestic nonfinancial sectors expanded at an annual rate of 11 percent. The household, business, and federal government components all increased at double-digit rates, while state and local government debt advanced at about a 6 percent pace. Preliminary data suggest somewhat slower growth of the debt of nonfinancial sectors in the second quarter. The slowdown is particularly noticeable in the federal and state and local government sectors, where strong tax receipts held down borrowing. The available data also point to somewhat reduced growth of nonfinancial business debt in the second quarter.

Commercial bank credit increased at an annual rate of about 11 percent in the first quarter of 2006, a little faster than in 2005, and picked up further to an almost 13 percent pace in the second quarter. A continued rapid increase in business loans was likely supported by brisk merger and acquisition activity, rising outlays for investment goods, ongoing inventory accumulation, and an accommodative lending environment. Growth in commercial mortgages was also strong, as fundamentals in that sector continued to improve. Despite a slowing of housing activity in recent months, residential mortgage holdings expanded robustly. However, higher short-term interest rates likely contributed to a runoff in loans drawn down under revolving home-equity lines of credit. Consumer loans adjusted for securitizations decelerated in the second quarter after rising at a solid pace in the first quarter.

Bank profitability remained solid, and asset quality continued to be excellent in the first quarter. Profits were supported by gains in non-interest income and reductions in loan-loss provisions that more than offset a rise in non-interest expenses. Delinquency and charge-off rates remained low across all loan types. Delinquency rates on residential mortgages on banks' books edged lower in the first quarter after moving up during 2005. Charge-off rates on consumer loans declined to the lowest level seen in recent years after a fourth-quarter surge in charge-offs on credit card loans that was associated with the implementation of the bankruptcy legislation in October of last year.

As the policy debate about the possibility of curbing the balance sheet growth of both Fannie Mae and Freddie Mac continued, the combined size of the mortgage investment portfolios at the two government-sponsored enterprises increased about 1 percent over the first five months of 2006.

The M2 Monetary Aggregate

In the first quarter of 2006, M2 increased at an annual rate of about 6½ percent, but its expansion moderated in the second quarter to a 2¾ percent pace, likely because of some slowing in the growth of nominal GDP. Rising short-term interest rates continued to push up the opportunity cost of holding M2 assets. Growth in liquid deposits, whose rates tend to adjust sluggishly to changes in market rates, was particularly slack. By contrast, the expansion in retail money market funds and, especially, small time deposits was brisk, as the yields on those instruments kept better pace with rising market interest rates. Despite apparently modest demand from abroad, currency growth was strong in the first quarter but has slowed

since. The velocity of M2 rose at an annual rate of 2¼ percent in the first quarter and appears to have continued to rise in the second quarter.

International Developments

Foreign economic growth was strong in the first quarter of 2006 as the expansion spread to all major regions of the world. Accelerating domestic demand boosted growth in the foreign industrial countries, especially Canada and the euro area. Emerging-market economies continued to benefit from rapid export growth, and Chinese economic activity was also spurred by a surge in investment spending. Data for the second quarter suggest continued strong growth abroad but with moderation in some countries. Rising energy prices have pushed up inflation in many countries this year, but upward pressure on core inflation has generally continued to be moderate.

Foreign monetary policy tightened in the first half of this year in the context of solid growth and some heightened inflation concerns. The European Central Bank (ECB) raised its policy rate ¼ percentage point in March and again in June, citing rapid credit growth and the ECB's expectation of above-target inflation. At its July policy meeting, the Bank of Canada kept its target for the overnight rate unchanged at 4¼ percent, but it had increased its target for the overnight rate ¼ percentage point at each of its previous seven policy meetings. On July 14, the Bank of Japan (BOJ) ended its zero-interest-rate policy by raising its target for the call money rate to ¼ percent for the first time since 2001. Earlier, on March 9, the BOJ, announcing an end to its five-year-old policy of quantitative easing, said that it would set policy in the future to control

inflation over the medium to long run, defined as one to two years ahead.

Long-term bond yields abroad have risen along with U.S. bond yields on indications of robust global growth and expectations of additional tightening of monetary policy. Ten-year sovereign yields have risen roughly 70 basis points in the euro area since the end of last year, while the increases on similar securities in Canada and the United Kingdom have been about 50 basis points. Part of the rise in yields abroad has been increased compensation for possible future inflation as measured by the difference in yield between ten-year nominal and inflation-indexed bonds. Yield spreads of emerging-market bonds over U.S. Treasuries narrowed somewhat early in the year, but that narrowing was more than reversed in the second quarter as investors apparently demanded greater compensation for risk amid uncertainties about economic growth and inflation.

The foreign exchange value of the dollar has declined about 4½ percent, on net, this year against a basket of the currencies of the major industrial countries but is down only about 1 percent, on net, against the currencies of the other important trading partners of the United States. Much of the dollar's downward move occurred at times when the market was focused on concerns about global current account imbalances. The dollar has recovered some ground since early May, as investors reportedly have engaged in flight-to-safety transactions into dollar-denominated assets in conjunction with the volatility in global commodity and asset markets. On net, the dollar has depreciated since the turn of the year about 6½ percent against the euro and sterling, 3 percent against the Canadian dollar, and 1½ percent against the Japanese yen. In contrast, the dollar has risen

roughly 4 percent, on balance, against the Mexican peso this year. During the first half of this year, several smaller countries experienced episodes of substantial financial volatility that in some cases involved sharp depreciations in the exchange value of their currencies.

Through the first four months of 2006, a favorable economic outlook and low interest rates supported gains in equity prices in all major foreign countries. During May and early June, however, equity prices registered widespread declines, as market participants grew more concerned about inflation, monetary policy, and global economic growth. More recently, developments in the Middle East have weighed further on stock prices. On net, equity price indexes are up between 1 percent and 4 percent so far in 2006 in Europe and Canada, but they have fallen roughly 8 percent since year-end in Japan. Latin American and Asian emerging-market equity indexes, which had generally gained more than industrial-country indexes early in the year, have fallen more sharply since early May. Equity indexes in Mexico, Brazil, and Argentina have dropped between 12 percent and 15 percent—leaving them still between 5 percent and 7 percent higher so far this year—while stock prices in Korea have fallen about 9 percent, on net, for the year.

Industrial Economies

The Japanese economy has continued to strengthen this year, although economic growth has stepped down a bit from the comparatively strong rate recorded in 2005. Household consumption maintained a solid rate of growth in the first quarter, and private investment spending rose 11 percent. However, net exports, which previously had been an additional source of strength, did not contribute to

growth in the first quarter; the growth of imports increased while export growth remained firm. The labor market in Japan improved further in April and May: The unemployment rate fell to 4 percent, and the ratio of job offers to applicants reached a thirteen-year high. Although the GDP deflator has continued to decline, other signs indicate that deflation is ending. In the first quarter of 2006, land prices in Japan's six largest cities rose 3.8 percent over their year-ago level, the first increase since 1991. Core consumer prices have shown small twelve-month increases over the past several months.

Real GDP in the euro area accelerated in the first quarter, expanding 2½ percent, a rate of growth somewhat above its average in recent years. The acceleration was spurred by strength in domestic demand, especially private consumption spending, which increased in the first quarter at double its pace in 2005. Retail sales were also strong at the start of the second quarter. The revival in household spending has been supported by a small rise in the growth rate of employment and by an improvement in employer and consumer perceptions of employment prospects. Private investment spending has remained strong in the euro area, and business sentiment has continued to brighten in recent months. Energy price increases have pushed euro-area consumer price inflation to about 2½ percent recently, a level above the ECB's 2 percent ceiling, but core inflation has remained near 1½ percent.

In the United Kingdom, real GDP expanded at an annual rate of 3 percent in the first quarter after rising about 1¾ percent in 2005. Consumer spending grew about 1½ percent, the same moderate pace seen last year. House prices, which remained relatively flat during late 2004 and most of 2005, picked up in late 2005 and have contin-

ued to rise in the first half of this year. The twelve-month change in consumer prices was 2.2 percent in May. Consumer prices have been boosted importantly by increases in energy prices over the past several months.

In Canada, real GDP grew at an annual rate of nearly 4 percent in the first quarter, an increase led by a jump in spending on consumer durables and housing. Investment in residential structures grew at its fastest rate in more than two years, and business investment continued to exhibit the strength observed in the previous two quarters. Indicators for the second quarter point generally to a deceleration of GDP. Housing starts in the second quarter were significantly below their elevated first-quarter levels; the merchandise trade balance declined, on balance, during the first five months of this year; and in the manufacturing sector, the volume of new orders and of shipments both fell in April. In contrast, in the second quarter, the labor market maintained its strength of the past year, and the unemployment rate has fallen to 6.2 percent, the lowest level in more than thirty years. Consumer prices rose 2.8 percent in the twelve months ending in May.

Emerging-Market Economies

In China, growth of real output was especially robust in the first half. Economic indicators suggest that fixed investment surged and that export growth continued to be strong. The rapid growth of investment prompted the Chinese government to impose a series of new measures to slow capital spending, including controls on credit and land use and stricter criteria for approving investment projects. In addition, to restrain credit, which has soared more than 15 percent over the past year, China's central bank raised the one-year bank

lending rate in April and raised banks' reserve requirements $\frac{1}{2}$ percentage point in June. The Chinese trade surplus widened in the first half of this year as exports accelerated. Chinese consumer price inflation is about $1\frac{1}{2}$ percent, slightly above its pace in the second half of last year but well below the more than 5 percent rate seen in 2004.

Economic growth in India, Malaysia, and Hong Kong also was quite strong in the first quarter, although the pace of activity of some of the other Asian emerging-market economies has moderated a bit from last year's rapid rate. Concerns about inflationary pressures have increased, largely because of rising energy prices. In response, monetary policy has been tightened in some countries, including Korea, India, and Thailand.

In Mexico, strong performance in the industrial sector, an expansion in services output, and a recovery in agricultural production propelled real GDP growth to more than 6 percent at an annual rate in the first quarter. In addition, a surge in manufacturing exports boosted Mexico's trade and current account balances noticeably. Industrial production continued to increase early in the second quarter. In June, Mexican inflation was 3.2 percent, just above the center of the Bank of Mexico's target

range of 2 percent to 4 percent. After easing policy nine times between August and April, the Bank of Mexico signaled in April that it would leave its policy rate unchanged for a time.

Real GDP growth in Brazil also increased in the first quarter, rising to $5\frac{3}{4}$ percent, and was supported by very strong performances in manufacturing, mining, and construction. The rate of inflation has been declining from a high of 8 percent reached in April 2005; in June, the twelve-month change in prices edged down to 4 percent. In late May, the central bank reduced its target for the overnight interest rate 50 basis points, to $15\frac{1}{4}$ percent, bringing the cumulative decline to 450 basis points since the current easing phase began last September. In the minutes of its late-May meeting, the policymaking committee said that the onset of market volatility over the past month had increased its uncertainty about the prospects for inflation and had thus prompted it to ease less than it would have otherwise.

In Argentina, output growth slowed slightly in the first quarter. Amid emerging capacity constraints, inflation rose to about 11 percent, up from 6 percent in 2004. The Argentine government has tried to hold down inflation, with limited success, through voluntary price agreements in several sectors. ■