For use at 10:00 a.m., EST Wednesday February 16, 2005

Board of Governors of the Federal Reserve System



Monetary Policy Report to the Congress

February 16, 2005

Board of Governors of the Federal Reserve System



# Monetary Policy Report to the Congress Submitted pursuant to section 2B of the Federal Reserve Act

February 16, 2005

## Letter of Transmittal



BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM Washington, D.C., February 16, 2005

The President of the Senate The Speaker of the House of Representatives

The Board of Governors is pleased to submit its Monetary Policy Report to the Congress pursuant to section 2B of the Federal Reserve Act.

Sincerely,

Alan Greenspan, Chairman

## Contents

	Page
Monetary Policy and the Economic Outlook	1
Economic and Financial Developments in 2004 and Early 2005	4

## Monetary Policy Report to the Congress

Report submitted to the Congress on February 16, 2005, pursuant to section 2B of the Federal Reserve Act

## MONETARY POLICY AND THE ECONOMIC OUTLOOK

The year 2004 was marked by continued expansion in economic activity and appreciable gains in employment. With fiscal policy stimulative, monetary policy accommodative, and financial conditions favorable, household spending remained buoyant and businesses increased investment in capital equipment and inventories, despite the restraint imposed by sizable increases in oil prices. Labor market conditions improved significantly, albeit at an uneven pace, and productivity rose notably further. Consumer price inflation moved higher with the surge in energy prices, but core consumer price inflation (that is, excluding food and energy) remained well contained, and measures of expected inflation over longer horizons held steady or edged lower.

Although economic activity had increased substantially in 2003, the expansion nevertheless appeared somewhat tentative as 2004 opened, in large measure because businesses still seemed to be reluctant to boost hiring. Over the course of the spring, however, it became clearer that the expansion was solidifying. Businesses added appreciably to their payrolls, boosted investment in equipment and software, and started restocking inventories. While household spending growth softened somewhat, residential construction expanded rapidly. Rising energy prices boosted overall consumer price inflation, and core inflation moved up as well. In response to positive economic news and higher inflation during this period, market participants came to anticipate that monetary policy tightening would begin sooner than they had expected, and interest rates increased considerably. With the economic expansion more firmly established and slack in labor and product markets somewhat diminished, the Federal Open Market Committee (FOMC) at its June meeting began to reduce the substantial degree of monetary accommodation that was in place.

The gradual removal of monetary policy stimulus continued in the second half of the year as the economy expanded at a healthy clip on balance. Around midyear, some measures of growth in activity softened, partly because of the drain on income and the rise in business costs created by higher oil prices. The expansion of consumer spending slowed in the spring, and the pace of hiring and gains in industrial production dropped back notably during the summer. Equity prices and longer-term interest rates moved lower over this period as well. In the event, the slowdown in household spending growth proved short lived. Both hiring and increases in factory output stepped up again in the autumn, and these gains were extended early this year. With profits healthy and financial conditions still supportive, capital spending increased at a brisk pace throughout the year. Over the final quarter of 2004, short-term interest rates rose further as monetary policy was firmed at each FOMC meeting, but long-term interest rates were largely unchanged. Equity prices rose appreciably in the fourth quarter, and the dollar depreciated against most other major currencies. The FOMC increased the target federal funds rate 25 basis points again at its meeting this month, bringing the cumulative tightening over the past year to  $1^{1/2}$  percentage points.

The fundamental factors underlying the continued strength of the economy last year should carry forward into 2005 and 2006, promoting both healthy expansion of activity and low inflation. Monetary policy is still accommodative, and financial conditions more generally continue to be advantageous for households and firms. Profits have been rising briskly, and corporate borrowing costs are low. Household net worth has increased with the continued sharp rise in the value of real estate assets as well as gains in equity prices, and this will likely help support consumer demand in the future. Absent a significant increase in oil prices from current levels, the drag from last year's run-up should wane this year. The lagged effects of the decline in the exchange value of the dollar since the autumn and sustained foreign economic growth are likely to boost the demand for U.S. exports. The prospects for the expansion of aggregate supply also appear to be quite favorable. Gains in structural labor productivity should continue, although not necessarily at the pace of recent years. Economic growth will likely be sufficient to generate notable increases in employment, although any reversal of the decline in labor force participation observed since 2001 would tend to hold up the unemployment rate. Core consumer price inflation has remained low since the larger increases posted in the early months of 2004, and long-term inflation expectations have been similarly well contained. With some slack likely remaining in labor and product markets at present and with the indirect effects of higher oil and import prices diminishing, the prospects for inflation staying low are good. A favorable economic outcome is, of course, not assured, but at the most recent FOMC meeting the Committee again assessed the risks to both output and inflation as balanced. The Committee also reaffirmed that it is prepared to respond to events as necessary in its pursuit of price stability.

# Monetary Policy, Financial Markets, and the Economy in 2004 and Early 2005

In early 2004, against the backdrop of stimulative fiscal and monetary policy, continued rapid growth in productivity, and supportive financial market conditions, business outlays appeared to be firming significantly and household spending remained strong. The FOMC became more confident that the economic expansion was likely gaining traction and that the risk of significant further disinflation had been greatly reduced. In these circumstances, it recognized that a highly accommodative stance for monetary policy could not be maintained indefinitely. Nonetheless, the Committee was concerned about the persistently slow pace of hiring and viewed underlying inflation pressures as likely to remain subdued. Accordingly, the Committee left its target for the federal funds rate unchanged at 1 percent at its January and March meetings. However, beginning in January, it modified the language of its policy statement to gain greater flexibility to tighten policy should circumstances warrant by indicating that monetary policy accommodation would eventually have to be removed. At the same time, the Committee suggested that it could be patient in undertaking such actions.

By the time of the May and June FOMC meetings, incoming economic data pointed to a broader and more firmly established expansion, with continued strength in housing markets and business fixed investment. Also, the employment reports for March, April, and May had indicated strong and widespread gains in private nonfarm payrolls, and previous reports for January and February were revised upward significantly. Overall consumer price inflation in the first quarter was faster than it had been a year earlier, and core inflation also increased, in part because of the indirect effects of higher energy prices. The Committee maintained its target for the federal funds rate at 1 percent in May, but on the basis of the evolving outlook for economic activity and prices, it revised its assessment of risks to indicate that the upside and downside risks for inflation had moved into balance. The Committee also stated that monetary policy accommodation could "be removed at a pace that is likely to be measured" to communicate its belief, given its economic outlook, that policy would probably soon need to move toward a more neutral stance, though probably not at a rapid pace. The Committee retained this language at the June meeting while raising its target for the federal funds rate from 1 percent to  $1^{1/4}$  percent and noting that it would "respond to changes in economic prospects as needed to fulfill its obligation to maintain price stability."

The information that the Committee had received by the time of its August meeting indicated that economic growth had softened somewhat earlier in the summer. Although the housing market had remained strong and business outlays had continued to be healthy, consumer spending growth had slowed significantly, and industrial production had begun to level off. Also, the June and July labor market reports revealed that employment growth



Selected interest rates

NOTE. The data are daily and extend through February 9, 2005. Treasury rates are constant-maturity yields 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.

had slowed considerably. At the same time, core consumer price inflation had moderated in May and June even though sizable increases in food and energy prices continued. However, the Committee believed that the softness in economic activity was caused importantly by higher prices of imported oil and would prove short lived. With financial conditions remaining stimulative, the economy appeared poised to grow at a pace sufficient to trim slack in resource utilization. In that regard, given the unusually low level of the federal funds rate, especially relative to the level of inflation, policymakers noted that significant cumulative policy tightening would likely be needed to meet the Federal Reserve's long-run objectives of price stability and sustainable economic growth. The Committee's decision at the meeting to raise its target for the federal funds rate 25 basis points, to 11/2 percent, and to maintain its assessment of balanced risks with respect to sustainable growth and price stability was largely anticipated by financial markets. However, market participants revised up their expectations for the path of the federal funds rate, reportedly because the announcement conveyed a somewhat more optimistic outlook for the economy than many had anticipated.

By the time of the September FOMC meeting, available information suggested that the economy had regained momentum. Real consumer spending bounced back sharply in July after a weak second quarter, and incoming data on industrial production indicated a modest strengthening. Housing activity had increased further, and business outlays had picked up significantly in the second quarter. In addition, the labor market showed signs of improvement in August, as the unemployment rate edged down and nonfarm payrolls grew moderately. Core consumer price inflation slowed in June and July, and a decline in energy prices from record levels pushed down readings on headline inflation. Although the Committee acknowledged that higher oil prices had damped the pace of economic activity around midyear, it nonetheless saw the expansion as still on solid footing. Consequently, the Committee agreed to increase its target for the federal funds rate another 25 basis points, to 13/4 percent; to reiterate its view that the risks to price stability and to sustainable growth were balanced; and to repeat its indication that the removal of policy accommodation would likely proceed at a "measured" pace. The reaction in financial markets to the policy rate decision and the accompanying statement was muted.

The information in hand at the time of the November FOMC meeting generally suggested that the economy had continued to expand at a moderate rate despite the restraint that higher oil prices imparted to real incomes and consumer confidence. Consumer and business spending stayed firm, and the housing market remained buoyant. However, industrial production was about unchanged, and the news on job growth was uneven—lackluster increases in nonfarm payrolls in September were followed by robust expansion in October. Inflation measures were moderate, although up somewhat from one year earlier. On balance, the Committee saw the economy as growing at a pace that would reduce margins of slack in the utilization of resources. The Committee also judged that inflationary pressures would likely be well contained if monetary policy accommodation were gradually withdrawn. The Committee's decision to raise its target for the federal funds rate from 1<sup>3</sup>/<sub>4</sub> percent to 2 percent with minimal change in the language in the accompanying statement was largely anticipated by financial markets and elicited little reaction.

At its December meeting, the Committee viewed available information as continuing to indicate that the pace of the economic expansion was sufficient to further reduce the underutilization of resources, despite elevated oil prices. Consumer spending remained solid, investment spending was strong, and manufacturing production showed modest growth. Also, employment gains in October and November were consistent with gradual improvement in the labor market. Meanwhile, core inflation, while above the unusually low rates of late 2003, remained subdued. Accordingly, the Committee voted to raise its target for the federal funds rate 25 basis points, to  $2^{1/4}$  percent, and to retain the previous statement that the removal of policy accommodation would likely be "measured." Investors had largely anticipated the policy rate decision, but a few market participants had reportedly speculated that the Committee would signal increased concern about inflationary pressures. In the absence of any such signal, implied rates on near-dated futures contracts and longer-term Treasury yields declined a few basis points after the release of the December statement.

Also at its December meeting, the Committee considered an accelerated release of the minutes of FOMC meetings. The Committee's practice had been to publish the minutes for each meeting on the Thursday after the next scheduled meeting. The Committee believed that, because the minutes contain a more nuanced explanation of policy decisions than the statement released immediately after each meeting, publishing them on a timelier basis would help market participants interpret economic developments and thereby better anticipate the course of interest rates. Earlier release would also provide a context for the public remarks of individual FOMC members. It was also recognized, however, that financial markets might misinterpret the minutes at times and that earlier release might adversely affect the Committee's discussions and, perhaps, the minutes themselves. After weighing these considerations, the Committee voted unanimously to publish the FOMC minutes three weeks after the day of the policy decision.

The information that the Committee reviewed at its February 2005 meeting indicated that the economy had continued to expand at a steady pace. The labor market showed signs of further improvement, and consumer spending and the housing market remained robust. Industrial production accelerated, particularly at the end of 2004, and growth of business fixed investment was solid in the fourth quarter. Core inflation stayed moderate, and measures of inflation expectations remained well anchored. Given the solid economic expansion and limited price pressures, the Committee voted to continue its removal of policy accommodation by raising its target for the federal funds rate from  $2^{1/4}$  percent to  $2^{1/2}$  percent and to essentially repeat the language of the December statement. Futures market quotes indicated that investors had already priced in a 25 basis point increase in the target federal funds rate at the meeting, and market participants reportedly expected no substantive changes to the accompanying statement. Accordingly, the reaction in financial markets to the announcement was minimal.

## Economic Projections for 2005 and 2006

Federal Reserve policymakers expect the economy to expand moderately and inflation to remain low in 2005 and 2006.<sup>1</sup> The central tendency of the forecasts of real GDP growth made by the members of the Board of Governors and the Federal Reserve Bank presidents is  $3^{3/4}$  percent to 4 percent over the four quarters of 2005. The civilian unemployment rate is expected to average about  $5^{1/4}$  percent in the fourth quarter of 2005. For 2006, the policymakers project real GDP to increase about  $3^{1/2}$  percent, and they expect the unemployment rate to edge down to between 5 percent and  $5^{1/4}$  percent. With regard to inflation, FOMC participants project that the chain-type price index for personal consumption expenditures excluding food and energy (core PCE) will increase between  $1^{1/2}$  percent and  $1^{3/4}$  percent both this year and next—about the same as the 1.6 percent increase posted over 2004.

## ECONOMIC AND FINANCIAL DEVELOPMENTS IN 2004 AND EARLY 2005

The economy proved to be sufficiently resilient to maintain solid growth and moderate core inflation in 2004 even as higher oil prices drained consumers' purchasing power and boosted firms' costs. Real GDP rose  $3^{3/4}$  percent last year after having increased  $4^{1/2}$  percent in 2003. Activity was supported by continued robust advances in household spending. In addition, capital spending by businesses increased notably. Labor market conditions improved significantly, though at an uneven pace over the course of the year. Private payrolls, which turned up in late 2003, rose 170,000 per month last year, on average, and the unemployment rate declined below  $5^{1/2}$  percent by year-end and to  $5^{1/4}$  percent in January 2005 the lowest rates since 2001.

Consumer price inflation was driven higher last year by the sharp rise in energy prices. Although core consumer price inflation moved up somewhat from unusually low levels recorded in 2003, it remained well contained. Price increases were restrained by continuing, though diminishing, slack in labor and product markets, which tended to offset the effects of higher energy and commodity prices, as well as the weaker dollar, on firms' overall costs. In addition, solid productivity gains implied that unit labor costs rose only modestly, even if up from the declines in the preceding two years. The decline in crude oil prices, on balance, since October points to some easing of cost pressures on firms from that source in the period ahead.

Several forces likely contributed to last year's impressive economic performance in the face of the sizable

Economic	projections	for	2005	and	2006	
Percent						

Indicator	Mемо 2004 actual	Federal Reserve Governors and Reserve Bank presidents			
		2005		2006	
	2004 actual	Range	Central tendency	Range	Central tendency
Change, fourth quarter to fourth quarter <sup>1</sup> Nominal GDP Real GDP PCE price index excluding food and energy		5-6 3½-4 1½-2	5½-5¾ 3¾-4 1½-1¾	5-5¾ 3¼-3¾ 1½-2	5-5½ 3½ 1½-1¾
Average level, fourth quarter Civilian unemployment rate	5.4	5-51/2	51/4	5-51/4	5-51/4

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

<sup>1.</sup> As a further step to enhance monetary policy communications, Federal Reserve policymakers will now provide economic projections for two years, rather than one, in the February Monetary Policy Report.

#### Change in real GDP



NOTE. Here and in subsequent charts, 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.

adverse oil shock. The growth of real output continued to be undergirded by gains in structural labor productivity. Moreover, fiscal policy remained stimulative last year through the combination of the lagged effect of earlier cuts in personal tax rates, the rise in defense spending, and perhaps also the partial-expensing tax incentives for business investment. Monetary policy was highly accommodative in the early part of the year and remained accommodative, though progressively less so throughout the year, and credit remained readily available at favorable terms. Consumer demand was also boosted by the strong increases in asset values during the past two years.

Financial conditions remained stimulative last year even as market participants revised up their expectations for the near-term path of monetary policy. Interest rates on longer-term Treasury securities remained low, risk

Change in PCE chain-type price index



NOTE. The data are for personal consumption expenditures (PCE). SOURCE. Department of Commerce, Bureau of Economic Analysis.

spreads on corporate bonds narrowed, and commercial banks eased terms and standards on business loans. In this environment, household debt again increased briskly. The borrowing needs of nonfinancial businesses were damped by their strong cash flows. Equity values rose, especially toward the end of the year. At the same time, the exchange value of the dollar declined, on net, over the year as market participants apparently focused on the financing implications of the large and growing U.S. current account deficit.

## The Household Sector

#### **Consumer Spending**

Consumer spending grew substantially last year. Personal consumption expenditures (PCE) advanced nearly 4 percent in real terms, about the same as the increase in 2003. Sales of new motor vehicles remained brisk, on average, at 16<sup>3</sup>/<sub>4</sub> million units. Excluding motor vehicles, consumer spending on most categories of durable and nondurable goods rose rapidly, as gains in real expenditures for food and clothing both exceeded 5 percent; however, spending on computing equipment increased less in 2004 than in preceding years, and consumers responded to the high cost of gasoline and heating fuel by cutting back on real spending for these items. Real outlays for services also increased rapidly last year, and medical services posted especially large gains.

Real disposable personal income (DPI) rose nearly 4 percent last year, but this figure is exaggerated by Microsoft's \$32 billion special dividend payment in December (the bulk of which is estimated to have accrued to U.S. households). If this one-time event is excluded from the calculation, real DPI rose only 2<sup>3</sup>/<sub>4</sub> percent in 2004, well below the increase posted in 2003. Faster job growth helped to support increases in

Change in real income and consumption



SOURCE. Department of Commerce, Bureau of Economic Analysis.

households' incomes last year in nominal terms, and the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA), which brought lower personal tax rates forward into 2003, led to larger refunds and smaller final payments in the spring of 2004. However, real income gains were held down, as higher oil prices siphoned off household purchasing power.

With the growth of real consumption spending outpacing that of real income through most of last year, the personal saving rate moved lower, from  $1^{1/2}$  percent, on average, in 2003 to only 1/2 percent in the third quarter of last year. (The fourth-quarter surge in income associated with the Microsoft dividend payments pushed the saving rate back up to  $1^{1/4}$  percent, but this increase will likely be reversed early this year as dividend income falls back. Because the company's share price declined in step with the dividend payouts, the dividends had no effect on shareholders' overall financial resources and so probably had little effect on consumption.)

Low interest rates were one factor that helped to support consumption growth-especially for durable goods-despite comparatively slow gains in real income. Higher household wealth was also an important force that propelled consumer spending last year. According to the Federal Reserve's flow of funds accounts, the ratio of household net worth to disposable income rose sharply in 2003, as corporate equity values rebounded and home prices continued to rise. Moreover, although equity values were little changed, on net, through much of 2004 before rising notably in the final quarter, home prices continued to rise throughout the year, and the wealth-toincome ratio moved up further; by the third quarter (the most recent period for which the complete wealth data are available), the ratio had reversed nearly half its decline since the stock market peak in 2000. Because

#### Personal saving rate



NOTE. The data are quarterly and extend through 2004:Q4. SOURCE. Department of Commerce, Bureau of Economic Analysis

#### Wealth-to-income ratio



NOTE. The data are quarterly and extend through 2004:Q3. The wealthto-income ratio is the ratio of household net worth to disposable personal income.

wealth feeds through into household spending over a period of several quarters, the wealth increases in both 2003 and 2004 were important in supporting consumer spending last year. The rise in house prices, together with continued low interest rates, also led consumers to extract additional equity from their homes, in particular through home equity loans. Such actions provided many households with a readily available and relatively lowcost source of funds for financing consumption.

Consumer confidence, which had improved in 2003, remained at generally favorable levels last year, according to surveys by both the Michigan Survey Research Center (SRC) and the Conference Board. Confidence tended to dip at times during the year when energy prices were moving up most rapidly, but it recovered soon after those episodes.



NOTE. The data are monthly and extend through January 2005. SOURCE. The Conference Board and University of Michigan Survey Research Center.

SOURCE. For net worth, Federal Reserve Board, flow of funds data; for income, Department of Commerce, Bureau of Economic Analysis.

#### Mortgage rates



Note. The data, which are weekly and extend through February 9, 2005, are contract rates on thirty-year mortgages. SOURCE. Federal Home Loan Mortgage Corporation.



NOTE. The repeat-transactions index includes purchase transactions only and extends through 2004:Q3. The new home price index extends through 2004:Q4. Change is over four quarters.

## **Residential Investment**

Residential investment remained robust last year. Real expenditures increased  $5^{3}_{4}$  percent in 2004—the third straight year of strong gains. Demand for housing was influenced by the same factors that affected household spending more generally, but it was especially supported by nominal mortgage interest rates that have remained near their lowest levels since the late 1960s. Rates on thirty-year fixed-rate mortgages fluctuated between about  $5^{1}_{2}$  percent and  $6^{1}_{4}$  percent over the past two years; they edged up to the high end of that range during the spring but dropped back to under 6 percent by the end of summer and now stand below  $5^{3}_{4}$  percent.

In the single-family sector, housing starts amounted to 1.6 million units last year, a rate faster than the already





NOTE. The data are quarterly and extend through 2004:Q4. SOURCE. Department of Commerce, Bureau of the Census.

rapid pace of 1.5 million units started in 2003. In the multifamily sector, starts totaled a solid 350,000 units last year, a figure in line with that of the preceding several years. Sales of both new and existing single-family homes hit new highs last year, and home prices moved up sharply. The repeat-transactions price index for existing homes (limited to purchase transactions only), which is published by the Office of Federal Housing Enterprise Oversight, climbed more than 10 percent over the four quarters ending in the third quarter of last year (the latest quarter for which data are available) and is up a cumulative 65 percent since 1997, when it started to rise notably more rapidly than overall inflation. These price increases have also outstripped by a wide margin the increases in household incomes and rents. Another nationwide price index, the Census Bureau's constant-quality price index for new homes, rose only 63/4 percent last year. Because this index does not adjust for the location of new homes within metropolitan areas, and because new homes constitute only a small fraction of the overall housing stock, this index is probably a less reliable indicator of overall home values than is the repeat-transactions index.

## Household Finance

Household debt is estimated to have increased about 9<sup>3</sup>/<sub>4</sub> percent in 2004, a touch less than in the previous year. Mortgage debt again paced this advance. The brisk expansion of mortgages reflected continued strong activity in housing markets and rising house prices. However, the growth rate of mortgage debt did not quite match that registered in 2003. Refinancing activity fell off

SOURCE. For repeat transactions, Office of Federal Housing Enterprise Oversight; for new home prices, Department of Commerce, Bureau of the Census.



Household financial obligations ratio

NOTE. The data are quarterly and extend through 2004:Q4. The final observation, 2004:Q4, is a projection. The financial obligations ratio equals the sum of required payments on mortgage and consumer debt, automobile leases, rent on tenant-occupied property, homeowners' insurance, and property taxes, all divided by disposable personal income.

sharply last year, as the pool of outstanding mortgages with interest rates above current market rates shrank considerably. Mortgages with adjustable interest rates, including hybrids that feature both fixed and adjustable interest rate components, were increasingly popular in 2004. Consumer credit continued to expand at a moderate pace by historical standards, restrained in part by the substitution of other forms of debt, such as home equity loans. Higher interest rates on some consumer loans and credit cards in the second half of 2004 may have also damped the growth of consumer credit.

Relatively low interest rates and further gains in disposable personal income limited pressures on household balance sheets in 2004. Measures of aggregate house-



Delinquency rates on selected types of household loans

NOTE. The data are quarterly. The rates for credit card pools and mortgages extend through 2004:Q3; the rate for auto loans extends through 2004:Q4. SOURCE. For credit cards, Moody's Investors Service; for auto loans, Big Three automakers; for mortgages, Mortgage Bankers Association.

hold financial obligations and debt service, which capture pre-committed expenditures relative to disposable income, were little changed last year, on balance, though they remained high by historical standards. Nevertheless, measures of household credit quality either held steady or improved during the course of the year. The latest available data indicate that delinquency rates on credit card loans, consumer loans, and residential mortgages at commercial banks declined, while those on auto loans at captive finance companies were about unchanged at a low level. Household bankruptcy filings ran below the elevated levels of 2003, although they stayed generally above the rates posted in earlier years.

## The Business Sector

## **Fixed Investment**

Business fixed investment rose robustly for a second consecutive year in 2004. Real spending on equipment and software (E&S) increased 13<sup>1</sup>/<sub>2</sub> percent, about as much as in 2003, as firms' final sales continued to increase, profits and cash flow rose further, and many businesses

Change in real business fixed investment



Note. High-tech equipment consists of computers and peripheral equipment, software, and communications equipment. SOURCE. Department of Commerce, Bureau of Economic Analysis. reported a need to replace or upgrade existing equipment and software. Although many firms had little need to seek outside financing given their flush cash situation, those that did generally found financial markets to be receptive—interest rates remained low and other terms and conditions stayed relatively favorable. The partialexpensing tax incentives, which covered new equipment and software installed by the end of 2004, boosted profits and cash flow and may have also stimulated some investment spending.

Increases in E&S spending were fairly widespread across categories of capital goods. Spending on hightechnology equipment increased 15<sup>1</sup>/<sub>2</sub> percent last year after having risen 19 percent in 2003; these gains followed two years of declines. Although the pattern of spending was uneven over the four quarters of 2004, for the year as a whole, business outlays for computing equipment rose 25 percent in real terms, while spending on software and communications equipment posted increases of 13 percent and 10 percent respectively. Outside of the high-tech sector, business spending on aircraft moved lower for the third consecutive year, as airlines continued to struggle with a highly competitive market environment and high fuel prices. In contrast, business outlays on motor vehicles rose substantially last year, with the demand for trucks exceptionally strong. Investment in equipment other than high-tech and transportation goods-a category that includes industrial machinery and a wide range of other types of equipment-moved up 11 percent last year, the most in more than ten years.

In contrast to the rebound in equipment spending, real outlays in the nonresidential construction sector were about unchanged for a second year in 2004 and have yet to recover from their sharp downturn during 2001 and 2002. In the office sector, where construction increased rapidly in the late 1990s, spending has remained especially weak; vacancy rates for these properties, although down a touch over the past year, are still quite elevated. Construction of industrial buildings has also remained low as a result of high vacancy rates. In contrast, demand for new retail and wholesale properties has been firmer, reportedly a reflection of the steady increases in consumer spending, and outlays for these types of buildings moved higher last year. In addition, investment in the drilling and mining sector rose last year in response to high prices for natural gas.

## Inventory Investment

Businesses added appreciably to inventories last year for the first time since running down their holdings sharply in 2001. As economic activity strengthened during 2002 and 2003, many businesses chose to operate with invenChange in real business inventories



SOURCE. Department of Commerce, Bureau of Economic Analysis.

tories that were increasingly lean relative to sales. In 2004, when stocks had become quite spare—even after taking into account the ongoing improvements in inventory management that have allowed firms to economize on stockholding—and businesses had apparently grown more confident in the durability of the recovery, businesses accumulated \$45 billion of inventories (in real terms), according to preliminary data. The step-up in the pace of stockbuilding contributed about 1/4 percentage point to GDP growth last year.

#### Corporate Profits and Business Finance

Strong growth of corporate profits again allowed many firms to finance capital spending with internal funds last year. As a result, nonfinancial business debt rose at only a moderate pace. Net equity issuance dropped further into negative territory in 2004, and on balance nonfinancial corporations are estimated to have raised no net funds in credit and equity markets. However, short-term business debt, including commercial paper and commercial and industrial (C&I) loans, expanded last year after three years of contraction, and commercial mortgage debt continued to increase rapidly. The credit quality of businesses remained strong.

Corporate profits held up well in 2004 after surging in the previous year. The ratio of before-tax profits of nonfinancial corporations to that sector's gross value added increased for a second consecutive year. In the fourth quarter of 2004, operating earnings per share for S&P 500 firms were nearly 20 percent above their level four quarters earlier. Analysts' earnings forecasts began to moderate somewhat in the second half of 2004 after several months of strong upward revisions.



Before-tax profits of nonfinancial corporations as a percent of sector GDP

NOTE. The data are quarterly and extend through 2004:Q3. Profits are from domestic operations of nonfinancial corporations, with inventory valuation and capital consumption adjustments.

SOURCE. Department of Commerce, Bureau of Economic Analysis.

In equity markets, net issuance of shares by nonfinancial firms turned more negative in 2004. Although initial public offerings rebounded from the sluggish pace of the past two years, ample profits and sizable cash holdings helped boost share retirements from mergers and repurchases.

Net corporate bond issuance was sluggish in 2004, as firms evidently relied heavily on their considerable profits to fund investment in fixed capital and inventories. The timing of gross bond issuance was influenced by interest rate movements during the year, as firms took advantage of occasional dips in longer-term yields to

Financing gap and net equity retirement at nonfinancial corporations



NOTE. The data are annual; 2004 is based on partially estimated data. The financing gap is the difference between capital expenditures and internally generated funds. 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 in public or private markets, including funds invested by venture capital partnerships.



#### Selected components of net business financing

issue bonds. Firms reportedly used a large portion of the proceeds to pay down existing debt, although some companies used the funds raised in the bond market to repurchase equity shares or to finance mergers.

Short-term business borrowing revived in 2004 after a prolonged contraction. Commercial paper outstanding turned up in the first half of the year, although it flattened out over the second half. Business loans at banks rebounded over the course of last year. According to results from the Federal Reserve's Senior Loan Officer

Net percentage of domestic banks tightening standards on commercial and industrial loans to large and medium-sized firms



NOTE. The data are based on a survey generally conducted four times per year; the last reading is from the January 2005 survey. Large and medium-sized firms are those with annual sales of \$50 million or more. Net percentage is the percentage reporting a tightening less the percentage reporting an easing.

SOURCE. Federal Reserve, Senior Loan Officer Opinion Survey on Bank Lending Practices.

NOTE. Seasonally adjusted annual rate for nonfinancial corporate business. The data for the sum of selected components are quarterly. The data for 2004:Q4 are estimated.

SOURCE. Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report).

Opinion Survey on Bank Lending Practices, commercial banks eased terms and standards on business loans during the course of 2004 in response to the improved economic outlook and to increased competition from other banks and nonbank lenders. Survey responses also indicated an increase in demand for C&I loans that reflected firms' need to fund rising accounts receivable, inventories, capital expenditures, and merger activity. Concerns over loan quality seemed to diminish further in 2004, as spreads on leveraged deals in the syndicated loan market edged down from already low levels.

Corporate credit quality remained solid in 2004 amid strong earnings, low interest rates, and a further buildup of already substantial cash positions on firms' balance sheets. The delinquency rate on C&I loans declined further, and the twelve-month trailing default rate on corporate bonds fell to historically low levels before edging up late in the year. Net upgrades of bonds by Moody's Investor Service for both investment- and speculativegrade nonfinancial firms increased last year.

The stock of commercial mortgage debt outstanding grew at a rapid pace in 2004. Some firms reportedly continued to find mortgages an attractive source of long-term funding. The expansion of commercial mortgage credit helped propel issuance of commercial-mortgage-backed securities (CMBS) to near-record levels. Delinquency rates on commercial mortgages on the books of banks and insurance companies remained low throughout the year, and those on loans backing mortgage securities fell. Considerable gains in commercial real estate prices increased owners' equity and largely kept pace with the sizable increase in mortgage debt obligations. Yield spreads of CMBS over comparable Treasury securities remained moderate.



Net interest payments of nonfinancial corporations as a percent of cash flow

NOTE. The data are quarterly and extend through 2004:Q3. SOURCE. Department of Commerce, Bureau of Economic Analysis.





NOTE. The data are monthly and extend through December 2004. The rate for a given month is the face value of bonds that defaulted in the twelve months ending in that month divided by the face value of all bonds outstanding at the end of the calendar quarter immediately preceding the twelve-month period.

SOURCE. Moody's Investors Service.

## The Government Sector

## Federal Government

The federal budget position deteriorated slightly further in 2004, as spending increases and further tax reductions offset the effects of stronger economic growth on revenues. The unified budget deficit widened from \$378 billion in fiscal 2003 to \$412 billion in fiscal 2004. As a share of GDP, the federal unified deficit stood close to 3<sup>1</sup>/<sub>2</sub> percent in both years. Receipts increased 5<sup>1</sup>/<sub>2</sub> percent in fiscal 2004 after two years of declines. Corporate receipts surged more than 40 percent, or \$58 billion, reflecting the improvement in corporate profits; individual tax receipts—restrained by JGTRRA, which pulled for-

#### Federal receipts and expenditures



Note. The budget data are from the unified budget and are for fiscal years (October through September); GDP is for the year ending in Q3. SOURCE. Office of Management and Budget.

ward reductions of personal tax rates that had been scheduled for the second half of the decade-rose only about 2 percent. Overall federal receipts increased less rapidly than nominal GDP, and the ratio of receipts to GDP edged down to 16<sup>1</sup>/<sub>4</sub> percent, the lowest level in more than forty years.

Meanwhile, nominal federal outlays increased about 6 percent in fiscal 2004. Spending for national defense increased especially sharply, but spending also increased notably for Medicare and Medicaid. Debt service costs, which fell sharply from 1997 through 2003 as a result of reduced debt and declining interest rates, edged higher last year. Federal government purchases of goods and services-the part of spending that is counted in GDProse about 4 percent in real terms in 2004 after larger increases in the preceding two years. (Government spending on items such as interest payments and transfers is excluded from GDP because these items do not constitute a direct purchase of final production.)

Regarding legislative initiatives, two new tax bills were enacted in the fall of 2004. First, the Working Families Tax Relief Act extended through 2010 a variety of personal tax reductions that had previously been set to expire earlier. Second, the American Jobs Creation Act replaced the exclusion of extraterritorial income (which the World Trade Organization had declared an illegal export subsidy) with numerous other tax reductions for domestic manufacturers and U.S. multinationals. The first bill is expected to have a ten-year budget cost of around \$150 billion, while the second bill was scored as being revenue neutral. As for federal spending in fiscal 2005, the regular appropriations bills provided for sizable increases in spending on defense and homeland security and for modest increases in nondefense discretionary expenditures. In addition, emergency legislation passed in the autumn provided disaster aid for victims of hurricanes and for ranchers and farmers affected by drought conditions.

The recent sizable deficits in the unified budget mean that the federal government, which had been contributing to the pool of national saving from 1997 through 2000, has been drawing on that pool since 2001. Net federal saving-essentially the unified budget balance adjusted to the accounting practices of the national income and product accounts (NIPA)-dropped from positive 2 percent of GDP in 2000 to a level below negative 3 percent of GDP in 2003 and 2004. Personal saving moved lower over this period as well, while business net saving rose with the rebound in corporate profits. In all, net national saving edged up in 2004 but remained near its postwar lows. Because net national saving has fallen increasingly short of net domestic investment over the past several years, the inflow of foreign funds needed to finance that investment has risen. The growing inflow of foreign capital is mirrored in the widening of the nation's current account deficit. Over time, the low national saving rate could eventually slow the rise in living standards either by increasing the burden of servicing U.S. foreign debt or by impinging on domestic capital formation.

The growth rate of Treasury debt moderated slightly last year after increasing substantially in 2003. Nonetheless, federal debt held by the public as a percentage of GDP continued to edge higher over the course of 2004 and currently stands at about 361/2 percent. To help finance substantial budget deficits, the Treasury issued a considerable volume of bills as well as two-, three-, five-, and ten-year nominal notes. In addition, the Treasury expanded its borrowing program in 2004 by adding semiannual auctions of twenty-year inflation-protected bonds and five-year inflation-protected notes.



Change in real government expenditures on consumption and investment



SOURCE. Department of Commerce, Bureau of Economic Analysis.

## Net saving



NOTE. The data are quarterly and extend through 2004:Q3. Nonfederal saving is the sum of personal and net business saving and the net saving of state and local governments

SOURCE. Department of Commerce, Bureau of Economic Analysis.



Federal government debt held by the public

Note. Through 2003, the data for debt are year-end figures, and the corresponding value for GDP is for Q4 at an annual rate; the final observation is for 2004:Q3. Excludes securities held as investments of federal government accounts.

Various indicators suggested a continued strong appetite for Treasury securities among foreign investors last year. Indirect bidding at Treasury auctions, which includes bidding by the Federal Reserve Bank of New York on behalf of foreign official institutions, remained robust, and Treasury securities held in custody at the Federal Reserve Bank of New York on behalf of such institutions increased just over \$200 billion in 2004. Also, data from the Treasury International Capital System showed a substantial increase in holdings of Treasury securities by foreign official and private investors, particularly those in Japan. The proportion of Treasury securities held by foreign investors is estimated to have risen to a record 43<sup>1</sup>/<sub>2</sub> percent by the third quarter of 2004.

Treasury debt reached its statutory ceiling late last year. To cope with the constraint, the Treasury temporarily

Treasury securities held by foreign investors as a share of total outstanding



Note. The data are quarterly and extend through 2004:Q3.

resorted to accounting devices, suspended issuance of state and local government series securities, and postponed a four-week bill auction. In mid-November, Congress raised the debt ceiling from \$7.4 trillion to \$8.1 trillion, and the Treasury subsequently resumed normal financing operations.

## State and Local Governments

Pressures on the budgets of state and local governments have eased as economic activity has strengthened. Tax receipts have been spurred by the increases in household income, consumer spending, and property values. As a result, many states seem to be on track to meet balanced budget requirements in the current fiscal year (which ends June 30 for all but a few states) without using as much borrowing or other extraordinary measures as in recent years. Nevertheless, a number of states still must deal with lingering fiscal problems, particularly depleted reserve funds, the expiration of temporary tax hikes, and rising Medicaid costs. In addition, several states still face serious structural imbalances in their budgets.

Real expenditures by state and local governments as measured in the NIPAs remained about flat for a second year in 2004. Real spending on current operations rose less than 1 percent last year, while real investment spending declined. However, even as they were holding the line on spending increases, states and localities were able to resume net hiring in 2004 after having left employment about unchanged in 2003.

Net issuance of debt by state and local governments edged down from the rapid pace set in 2003, as improved budget positions permitted some contraction in short-term debt. Advance refunding offerings were again strong dur-

State and local government net saving



NOTE. The data, which are quarterly, are on a national income and product account basis and extend through 2004:Q3. Net saving excludes social insurance funds.

SOURCE. Department of Commerce, Bureau of Economic Analysis.

ing the year, as states and municipalities took advantage of low long-term interest rates and moderate credit spreads. Credit quality of tax-exempt borrowers improved in 2004. Rating upgrades of tax-exempt bonds outpaced downgrades, especially later in the year.

## The External Sector

After narrowing in 2003, the U.S. current account deficit widened again last year and was \$660 billion (annual rate), or 5.6 percent of GDP, in both the second and third quarters. Much of this widening reflected a considerable increase in the deficit on goods and services trade, as a marked rise in imports more than offset solid increases in exports. The trade deficit expanded from \$500 billion during the fourth quarter of 2003 to more than \$650 billion, on average, during the second half of 2004.

## International Trade

Real exports of goods and services rose an estimated  $5^{1/2}$  percent in 2004 despite a deceleration in the fourth quarter. In the first half, exports were supported by the lagged effect of the fall in the dollar's value in 2003. Strong expansion of foreign economic activity also helped boost exports in the first half, but that stimulus diminished in the second half of the year when foreign growth slowed. For the year as a whole, exports of industrial supplies and capital goods posted solid growth. Exports to Canada, Mexico, and western Europe rose smartly in 2004, whereas exports to Japan were relatively weak. Real exports of services increased about  $3^{1/2}$  percent through 2004 as a whole.

#### U.S. trade and current account balances



NOTE. The data are quarterly. The trade data extend through 2004:Q4 and the current account data extend through 2004:Q3. SOURCE. Department of Commerce.

After increasing at an annual rate of almost 6 percent in the first half of 2004, prices of exported goods moved up at just a  $2^{1/2}$  percent rate in the second half. This deceleration was due in large part to a reversal of the run-up in the prices of agricultural products that had occurred in late 2003 and early 2004. Better harvests last year returned prices of agricultural products to levels near those that had prevailed before the spike.

Solid growth in income in the United States spurred growth of real imports of  $9^{1/2}$  percent in 2004. The increase primarily reflected higher imports of goods that occurred despite a notable rise in their prices. Real oil imports expanded almost 10 percent in 2004. Imports of capital equipment increased throughout the year, but imports of consumer goods suffered a period of weakness through the middle of the year before rebounding in the fourth quarter. Imports of services moved up only  $1^{3/4}$  percent in 2004.

Prices of imported non-oil goods increased at an annual rate of just over 4 percent in the first half of 2004, but the pace slowed to 2 percent in the second half. This step-down largely reflected a deceleration in the prices of industrial supplies, driven by a leveling off of nonfuel commodity prices at the elevated levels reached in March. Declines in the prices of foods offset continued price increases for metals.

The spot price of West Texas intermediate (WTI) crude oil moved up during most of 2004 and surged temporarily to a record high of \$55 per barrel in October. Since then, it has fluctuated somewhat below that peak but still at levels well above \$33 per barrel, the price at which it started 2004. Oil prices were driven up by intensified concerns that oil supply would not keep pace with surprisingly strong global demand. Oil consumption in China grew nearly 15 percent in 2004, pushing that economy past Japan as the world's second-largest consumer. As oil prices rose, OPEC increased its oil production,



## Change in real imports and exports of goods and services

SOURCE. Department of Commerce and Federal Reserve staff estimates.





Note. The data are monthly and extend through January 2005. 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, *Wall Street Journal;* for nonfuel commodities, International Monetary Fund.

diminishing the cartel's estimated spare capacity to historically low levels. Increased OPEC production damped particularly the rise in prices of heavier, more sulfurous grades of crude oil but had less effect on prices of lighter grades like WTI. Supply disruptions also played a role in the run-up of oil prices. In October, Hurricane Ivan extensively damaged oil and gas production facilities in the Gulf of Mexico, boosting the price of WTI relative to other grades of crude oil. Sabotage of production and distribution facilities in Iraq hindered oil exports from that country, which remain below pre-war levels. In Nigeria, ethnic violence and community protests shut

Prices of major nonfuel commodities



Note. The data are monthly and extend through January 2005. The metals category includes aluminum, copper, and iron ore; food includes cereals, vegetable oils and protein meals, seafood, and meat; agricultural raw materials consists of timber, cotton, wool, rubber, and hides; beverages consists of coffee, cocoa beans, and tea.

SOURCE. International Monetary Fund.

down some production. Russian oil output, however, continued despite the breakup of Yukos, formerly Russia's largest oil company. Late in the year, oil prices declined from their October highs, as production recovered in the Gulf of Mexico and OPEC added new capacity. The price of the far-dated NYMEX oil futures contract (currently for delivery in December 2011) rose about \$10 per barrel during 2004, possibly reflecting expectations of greater oil demand in Asian emerging-market economies. The far-dated futures contract averaged about \$38 per barrel in January 2005, while the spot price of WTI averaged about \$48 per barrel.

## The Financial Account

In 2004, the U.S. current account deficit was financed once again largely by foreign purchases of U.S. bonds. Foreign official inflows picked up further last year and were especially strong in the first quarter, reflecting sizable bond purchases by Asian central banks. Private foreign purchases of U.S. bonds rebounded in 2004 from a slight decline in 2003, with especially large purchases coming late in the fourth quarter. In contrast, foreign demand for U.S. equities weakened further in 2004, although this also picked up late in the year. Net purchases of foreign securities by U.S. investors remained strong in 2004, with most of the strength coming in the second half of the year.

U.S. direct investment abroad continued at a strong pace, as reinvested earnings remained sizable. Direct investment into the United States rebounded in the first three quarters of 2004 from its anemic pace in 2003; global mergers and acquisitions revived, and reinvested earnings picked up. Overall, net direct investment outflows continued over the first three quarters of 2004 but at a lower pace than in 2003.



U.S. net financial inflows

SOURCE. Department of Commerce.





SOURCE. Department of Commerce and the Federal Reserve Bank of New York

Net inflows of portfolio capital exceeded net outflows of direct investment and represented the financial counterpart to the U.S. current account deficit. These net financial inflows imply a further decline in the U.S. net international investment position, which began 2004 at a reported level of negative \$2.4 trillion (22 percent of GDP).

## The Labor Market

## **Employment and Unemployment**

The labor market improved notably in 2004. Private payrolls, which began to post sustained increases in late 2003, rose an average of 170,000 per month last year. Progress was not steady over the course of the year, however. Employment growth stepped up sharply in the spring to a pace of almost 300,000 per month in March, April, and

Thousands of jobs, monthly average Private nonfarm Jan 300 200 100 0 100 200

2003

2005

2001 SOURCE. Department of Labor, Bureau of Labor Statistics.

1999

May; net hiring then dropped back to subpar rates of about 100,000 per month in June through September. In the four months since then, increases in private payrolls have averaged 165,000 per month.

The improved pace of hiring was widespread, as all major industry groups contributed to faster employment growth relative to that of the latter part of 2003. The largest gains were in professional and business services and health services. The construction sector also posted substantial gains. In the manufacturing sector-where employment had declined almost continuously since early 2000-payrolls increased in the spring when overall employment was rising sharply but were about unchanged, on net, over the second half of the year. Employment gains in retail trade and in food services were also brisk over the first half of the year but tapered off in the second half. Meanwhile, state and local governments added substantially to their payrolls last year, especially for education, but civilian employment in the federal government edged lower.

The unemployment rate fell from near 6 percent in late 2003 to less than 5<sup>1</sup>/<sub>2</sub> percent by late last year; joblessness fell further in January 2005, to 51/4 percent. The decline in the unemployment rate over the past year reflected both the pickup in hiring and a labor force participation rate that remained surprisingly low. From 2001 through 2003, the participation rate declined by more than would have been predicted on the basis of past relationships with indicators of labor demand, and in 2004, when the pace of hiring increased, the participation rate leveled off but failed to rise. These considerations suggest that there may be a persistent component to the recent softness in participation. However, participation had been quite strong through 2000, when the labor market was extremely tight, and the fact that participation turned down



Civilian unemployment rate

NOTE. The data are monthly and extend through January 2005. SOURCE. Department of Labor, Bureau of Labor Statistics.







#### Note. The data are monthly and extend through January 2005. SOURCE. Department of Labor, Bureau of Labor Statistics.

at the same time that labor demand weakened suggests that at least some of the recent low participation is cyclical. To the extent that some of this low participation proves to be transitory, the resumption of more-rapid labor force growth will limit the speed at which employment gains further push down the unemployment rate.

## Productivity and Labor Costs

Labor productivity rose solidly again last year. Output per hour in the nonfarm business sector increased an estimated  $2^{1/2}$  percent over the year. This increase was somewhat below the outsized 4 percent average pace of increase from 2001 through 2003. Those earlier huge productivity gains were not associated with especially large accumulations of new capital equipment, as had been the case during the late 1990s; instead, to a large degree, the gains seem to have been related to more effective use of capital equipment that had been acquired earlier and to one-time organizational innovations induced by firms' earlier reluctance to commit to increased hiring. Still, last year's 2<sup>1</sup>/<sub>2</sub> percent increase in productivity was impressive by long-run standards: It was in line with the pace of the late 1990s and well above rates that had prevailed during the preceding two decades.

Increases in hourly labor compensation remained moderate last year. As measured by the employment cost index (ECI), which is based on a quarterly survey from the Bureau of Labor Statistics, hourly compensation in private nonfarm businesses increased  $3^{3}_{4}$  percent in 2004, a bit less than in 2003. An alternative measure is compensation per hour in the nonfarm business sector as derived from compensation data in the NIPAs. This measure of hourly compensation rose  $3^{1}_{2}$  percent last year, an increase similar to that in the ECI but substantially less than the  $5^{1}_{2}$  percent rise in 2003.

As has been the case for several years, the cost of employee benefits rose considerably more than did wages and salaries last year. The benefits component of the ECI increased nearly 7 percent, while the wages and salaries component posted a much more moderate 3 percent increase. The rise in hourly wages and salaries was about the same as increases in the preceding two years; although probably boosted by last year's higher rate of price inflation, wages were likely held down by the continued, though diminishing, labor market slack and also by employers' attempts to offset continued large increases in benefits costs. Health insurance costs continued to rise rapidly. As measured by the ECI, employers' costs of health insurance, which account for about 6 percent of

Measures of change in hourly compensation



NOTE. Nonfarm business sector. SOURCE. Department of Labor, Bureau of Labor Statistics.



NOTE. The data are quarterly and extend through 2004:Q4. For nonfarm compensation, change is over four quarters; for the employment cost index (ECI), change is over the twelve months ending in the last month of each quarter. Nonfarm compensation is for the nonfarm business sector; the ECI is for private industry excluding farm and household workers. SOURCE. Department of Labor, Bureau of Labor Statistics.

Change in output per hour

overall compensation costs, rose 7 percent last year after having increased more than 10 percent per year in 2002 and 2003.

## Prices

Overall consumer prices rose notably more in 2004 than they did in 2003, and the sharp increase in energy prices accounted for much of the step-up. The chain-type price index for personal consumption expenditures (PCE) rose 21/2 percent last year, compared with an increase of 1<sup>3</sup>/<sub>4</sub> percent in 2003. The increase in PCE prices excluding food and energy was considerably smaller-only  $1^{1/2}$  percent, up a little more than  $\frac{1}{4}$  percentage point from the increase in 2003. Inflation as measured by the market-based component of core PCE prices-which excludes a collection of erratic prices that are unobservable from market transactions and which the Bureau of Economic Analysis began to publish early last year-was in line with overall core PCE inflation last year. The core consumer price index (CPI) rose about 2 percent last year after having increased 11/4 percent in 2003. (The CPI differs from PCE prices in a number of respects, but one factor that boosted CPI inflation relative to PCE inflation last year was a difference in the way the two indexes measure the prices of medical services, especially physicians' services, which rose much more rapidly in the CPI than in the PCE index.) The rise in core consumer prices was largest in the early months of 2004: Core PCE prices increased at an annual rate of nearly 2 percent over the first half of the year and then decelerated to a 11/4 percent rate of increase in the second half.

The price index for GDP was less affected by last year's rise in energy prices than was the PCE measure; much of

Change in consumer prices



SOURCE. For consumer price index, Department of Labor, Bureau of Labor Statistics; for chain-type measure, Department of Commerce, Bureau of Economic Analysis.



#### Change in PCE prices excluding food and energy

SOURCE. Department of Labor, Bureau of Labor Statistics.

the energy price increase was attributable to the higher prices of imported oil, which are excluded from GDP because they are not part of domestic production. GDP prices increased 2<sup>1</sup>/<sub>2</sub> percent last year, <sup>3</sup>/<sub>4</sub> percentage point faster than in 2003. In addition to the rise in PCE prices (excluding the influence of imported oil), GDP prices were affected by a sizable increase in construction prices for residential and nonresidential structures.

The jump in consumer energy prices in 2004 was driven by the run-up in crude oil prices. The prices of both gasoline and fuel oil increased approximately 30 percent over the year, and higher oil costs accounted for the bulk of the increase. Prices of natural gas, which can often substitute for fuel oil in the industrial sector, rose notably as well last year despite the restraining influence of ample inventories. Electricity prices, which tend to reflect fuel costs with a lag, also moved higher through most of the year but dropped back some near year-end.

Consumer food prices rose around 3 percent for a second consecutive year in 2004. Exports of beef dropped

Alternative measures of price change

Percent

Price measure	2002	2003	2004
Chain-type			
Gross domestic product	1.6	1.7	2.4
Gross domestic purchases	1.8	1.8	2.9
Personal consumption expenditures		1.7	2.5
Excluding food and energy		1.2	1.6
Market-based PCE excluding			
food and energy	1.4	1.0	1.6
Fixed-weight			
Consumer price index		1.9	3.4
Excluding food and energy	2.0	1.2	2.1

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. sharply last year when most of the largest importing countries placed restrictions on U.S. beef after a case of mad cow disease was discovered. Nevertheless, domestic demand was sufficiently strong to support consumer meat prices last year. Fruit and vegetable prices trended sideways through most of the year but then rose sharply in the fall because of crop damage associated with the series of hurricanes that hit the Southeast in August and September. In addition, prices for food away from home, which are driven more by labor costs than by raw food prices, increased more rapidly last year than in 2003.

Core consumer prices were influenced by a variety of forces last year. Price increases were likely restrained by continuing slack in labor markets and in some product markets, but businesses faced considerable pressure from several sources of increased costs. First, the indirect effects of the large jump in energy prices fed through to businesses throughout the economy and were especially important for firms in energy-intensive industries, such as those that produce plastics and fertilizers. Second, prices were up sharply for a number of other industrial commodities, including lumber and a variety of metals. These price increases reflected strengthening economic activity abroad as well as in the United States. Although these non-oil commodities represent a small part of businesses' overall costs, some businesses likely felt the pinch of sustained price increases in these areas. Third, the declining exchange value of the dollar boosted import prices, including those of many inputs to production. Finally, the deceleration in labor productivity boosted unit labor costs after two years of declines; nevertheless, last year's 1 percent rise in unit labor costs was quite modest.

Taken together, these influences left their clearest mark on the prices of goods rather than services. Core goods prices were about unchanged, on average, last year, but this period of stability followed a period of unusually large

Change in unit labor costs



NOTE. Nonfarm business sector. SOURCE. Department of Labor, Bureau of Labor Statistics.

#### TIPS-based inflation compensation



NOTE. The data are daily and extend through February 9, 2005. Based on a comparison of the yield curve for Treasury Inflation-Protected Securities (TIPS) to the nominal off-the-run Treasury yield curve.

declines in 2003. In particular, the prices of new motor vehicles leveled off after falling notably in 2003, and the prices of used vehicles reversed some of their sharp 2003 declines. Prices of non-energy PCE services rose about 2 percent in 2004—a smaller increase than in 2003.

Last year's rise in inflation showed through to shortterm measures of expected inflation, but longer-term measures remained stable. According to the Michigan SRC, households' median expectations for inflation over the next year moved up considerably in the spring as inflation was rising, but then they eased back and ended the year near 3 percent—up from around 21/2 percent in late 2003. In contrast, the median expectation for inflation over the next five to ten years held about steady near 2¾ percent throughout this period. Inflation compensation as measured by spreads between yields on nominal Treasury securities and inflation-indexed securitiesanother indicator of expected inflation, albeit one that is also influenced by perceptions of inflation risk and perhaps also by the development of the market for inflationindexed debt-showed a similar pattern. Inflation compensation over the next five years moved up about 1/2 percentage point during 2004, to 21/2 percent, while compensation at the five- to ten-year horizon edged lower, on net, over the year.

## U.S. Financial Markets

Domestic financial conditions were supportive of economic growth in 2004. Interest rates on longer-term Treasury securities remained low, corporate risk spreads fell, and stock prices, on balance, registered gains. These developments occurred even as market participants revised up their expectations for the path of the federal funds rate. At the beginning of 2004, futures market quotes



Interest rates on selected Treasury securities

NOTE. The data are daily and extend through February 9, 2005. SOURCE. Department of the Treasury.

implied that investors expected a 1<sup>3</sup>/<sub>4</sub> percent target for the federal funds rate at year-end, 50 basis points below the target actually established at the FOMC meeting in December 2004. Consistent with the revision in policy expectations, yields on two-year Treasury notes increased about 1<sup>1</sup>/<sub>4</sub> percentage points in 2004. Yields on longerdated Treasury securities, however, ended the year essentially unchanged. Despite the run-up in oil prices, equity prices registered solid gains in 2004 after rising sharply the year before. Risk spreads on investment-grade corporate debt declined a touch, and those on speculative-grade debt fell more noticeably. Moreover, banks appreciably eased terms and standards for lending to businesses.

#### Interest Rates

Most market interest rates rose, on balance, over the first half of 2004, particularly at shorter maturities. The FOMC's decision at its January meeting to shift from a statement that monetary policy could remain accommodative for "a considerable period" to an indication that it could be "patient" in removing policy accommodation prompted a rise in market interest rates. In early February and March, yields fell substantially in response to employment reports that indicated tepid job growth. Prices of federal funds and Eurodollar futures contracts implied that investors placed only small odds on an increase in the target funds rate before late 2004 and that they envisioned only moderate monetary policy tightening thereafter. Longer-term interest rates and the expected path for the federal funds rate were considerably marked up later in the spring in response to data suggesting a pickup in aggregate demand and hiring, readings on core inflation that came in above expectations, and rising oil prices. In the statement released after its May meeting, the Committee indicated that policy accommodation was likely to be removed at a "measured" pace. At its June meeting, the Committee raised the target for the federal funds rate from 1 percent to  $1^{1/4}$  percent, but it continued to assess the risks to sustainable growth and to price stability as balanced and reiterated the "measured pace" language. Interest rates across the term structure declined somewhat immediately after the announcement, reportedly because some market participants had expected the FOMC to mention upside risks to growth or inflation in its statement.

Chairman Greenspan's congressional testimony in July on monetary policy, which suggested that recent softness in consumer spending would likely prove short lived, sparked a jump in yields on Treasury securities. However, interest rates subsequently moved lower, on balance, as incoming data pointed to weaker spending and employment than investors had expected as well as to more-subdued core inflation. Apart from the August employment report, which seemed to hint that the economy was emerging from its "soft patch," incoming economic news remained somewhat lackluster through the end of the third quarter. However, investors reportedly viewed FOMC statements and comments by FOMC officials as more sanguine on near-term prospects for the economy than they had expected. In particular, the release of the minutes from the August FOMC meeting, which referenced the probable need for "significant cumulative tightening," prompted investors to mark up their expectations for the near-term path of monetary policy.

Short-term Treasury yields rose a bit further over the fall in association with actual and expected policy tightening, but long-term Treasury yields were little changed on net. Investors' expectations for the path of monetary policy firmed a bit more in the fourth quarter in response to higher-than-anticipated inflation and remarks from Federal Reserve officials that were reportedly interpreted as suggesting that an imminent pause in the tightening cycle was unlikely.

As the economic expansion gathered momentum and measures of corporate credit quality improved, investors' perception of risk seemed to diminish, and their willingness to bear risk apparently increased. Risk spreads on investment-grade corporate debt over comparable Treasuries ended the year slightly below their levels at the end of 2003. Spreads of speculative-grade yields declined further after narrowing sharply during 2003.

In early 2005, market participants boosted their expectations for the path of the federal funds rate, partly in response to the publication of the minutes of the December FOMC meeting, which investors reportedly interpreted as pointing to greater concerns about inflaSpreads of corporate bond yields over comparable off-the-run Treasury yields



NOTE. The data are daily and extend through February 9, 2005. The high-yield index is compared with the five-year Treasury yield, and the BBB and AA indexes are compared with the ten-year Treasury yield.

tion than had been expected. Short- and intermediate-term Treasury yields rose along with expectations for the path of monetary policy, but longer-term yields edged lower. Yields on investment- and speculative-grade corporate bonds largely moved with those on comparable Treasury securities, and hence risk spreads remained at low levels.

## Equity Markets

After surging as much as 30 percent in 2003, broad stock market indexes climbed modestly over the first half of 2004. The boost to equity prices from robust earnings reports and analysts' upward revisions for future profits during this period was offset in part by rising interest rates

## Stock price indexes



NOTE. The data are daily and extend through February 9, 2005.

#### Implied S&P 500 volatility



Note. The data are daily and extend through February 9, 2005. The series shown is the implied thirty-day volatility of the S&P 500 stock price index as calculated from a weighted average of options prices.

SOURCE. Chicago Board Options Exchange.

in the second quarter, worries about geopolitical developments, and sharply higher oil prices. Stock prices dipped early in the second half in response to softer economic data, further concerns about energy prices, and guidance from corporations that pointed to a less optimistic trajectory for earnings than investors had reportedly been expecting. However, as oil prices pulled back toward the end of 2004 and news on the economy improved, stock prices rebounded to post solid gains for the year. The increases were led by stocks with comparatively small market capitalizations; the Russell 2000 index climbed 17 percent in 2004 to a record high. The S&P 500 and the technology-laden Nasdaq advanced about 9 percent and 81/2 percent respectively. To date in 2005, equity prices have edged lower, on balance, as investors have responded to a rebound in oil prices, lackluster earnings reports, cautious guidance for future profits, and indications of continued monetary policy tightening.

Expected volatility implied by options prices for both the Nasdaq 100 and the S&P 500 declined further in 2004 from already low levels. The difference between the earnings-price ratio and the real ten-year Treasury yield—a crude measure of the premium investors require for holding equity shares—changed little, on balance, remaining close to its average value over the past two decades but above its level during the late 1990s.

## Debt, Bank Credit, and M2

The aggregate debt of domestic nonfinancial sectors is estimated to have increased about  $7^{3/4}$  percent in 2004,

SOURCE. Merrill Lynch AA and BBB indexes and Merrill Lynch Master II high-yield index.



Growth of domestic nonfinancial debt

Rofe. For 2004, change is from 2003;Q4 to 2004;Q3 at an annual rate. For earlier years, the data are annual and are computed by dividing the annual flow for a given year by the level at the end of the preceding year. The total consists of nonfederal debt and federal debt held by the public. Nonfederal debt consists of the outstanding credit market debt of state and local governments, households, nonprofit organizations, and nonfinancial businesses. Federal debt held by the public excludes securities held as investments of federal government accounts.

somewhat faster than nominal income but a bit slower than the pace set the year before. Household and federal debt expanded rapidly. Borrowing by nonfinancial businesses was moderate, although it picked up in the fourth quarter.

Commercial bank credit rose about 9 percent in 2004, a larger advance than in the previous year. Expansion of mortgage and home equity loans on banks' books remained strong, as activity in the housing market stayed robust while mortgage originations shifted somewhat toward adjustable-rate products. After several years of runoffs, business loans began to grow in the second quarter of the year. According to survey evidence, commercial banks eased terms and standards on business loans as the economic outlook improved and competition from other banks and nonbank lenders intensified. Also, banks reported a pickup in demand for business loans that was said to be driven by customers' needs to fund rising accounts receivable, inventories, capital expenditures, and mergers. After adjusting for certain reclassifications of securities as loans, the growth of consumer loans on banks' books remained sluggish. Despite reports of increased competition among banks and nonbank intermediaries, bank profits were again strong in 2004. Banks experienced further improvements in asset quality and, as a result, reduced their provisions for loan losses.

M2 grew at a pace roughly in line with that of nominal GDP during the first half of 2004. A resurgence of mortgage refinancing spurred by the first-quarter decline in mortgage rates likely boosted liquid deposit growth, as proceeds from refinancing were temporarily held in deposit accounts pending disbursement to the holders of mortgage-backed securities. M2 growth slowed in the second half of the year in response to a drop in mortgage refinancing activity and the increased opportunity cost of holding M2 assets, as returns available on market instruments rose more than those on M2 components. For example, yields on retail money market mutual funds moved up more slowly than did short-term market interest rates, and assets of money funds accordingly continued to shrink. Small time deposits, which had contracted over the previous three years, resumed expansion in the second half of the year, as their yields began to rise in association with the increase in other market rates. Currency grew at its slowest rate since 2000, apparently reflecting sluggish demand by both domestic and foreign holders. On balance, M2 growth from the fourth quarter of 2003 to the fourth quarter of 2004 was about  $5^{1/4}$  percent. The velocity of M2 rose 1 percent, on net, roughly in line with the historical relationships among money, income, and opportunity cost.

M2 growth rate



Note. The data are annual and extend through 2004. M2 consists of currency, traveler's checks, demand deposits, other checkable deposits, savings deposits (including money market deposit accounts), small-denomination time deposits, and balances in retail money market funds.

## International Developments

Foreign economic activity expanded in 2004 at a faster pace than in the preceding three years. The pickup in growth was widespread—global manufacturing and trade rebounded across industrial and emerging economies, in part because of strong demand from the United States and China. In the second half of the year, trade and foreign GDP growth slowed, partly as a result of higher oil prices and the appreciation of some foreign currencies against the dollar. The run-up in oil prices and other commodity prices contributed to higher, though still moderate, inflation across industrial and emerging economies.

Monetary policy in many foreign economies tightened over the course of 2004. Citing high rates of capacity utilization and mounting inflationary pressures, the Bank of England raised its target interest rate 100 basis points but has been on hold since August amid signs that housing prices and consumer spending are cooling. After cutting official interest rates earlier in the year, the Bank of Canada raised rates in the fall in response to diminishing slack in the economy. The Bank of Mexico tightened policy throughout the year to resist rising inflation, and Chinese authorities made monetary policy more restrictive to rein in soaring investment demand. In the euro area and Japan, central banks kept policy interest rates unchanged in 2004.

Foreign equity price indexes recorded moderate net gains last year after larger increases in 2003. Equity markets started the year strong, but prices declined in the spring as interest rates rose. The run-up in oil prices between July and October appeared to weigh on foreign equity prices, but the subsequent decline in oil prices helped support a rise in equity prices late in the year. Foreign long-term interest rates declined, on net, during

Official interest rates in selected foreign industrial countries



NOTE. The data are as of month-end; the last observation for each series is the average of trading days through February 9, 2005. The data shown are the call money rate for Japan, the overnight rate for Canada, the refinancing rate for the euro area, and the repurchase rate for the United Kingdom.

Equity indexes in selected foreign industrial countries



Note. The data are weekly. The last observation for each series is the average of trading days through February 9, 2005. SOURCE. Bloomberg L.P.

2004. Rates rose in the second quarter as new data (including reports from the United States) that showed faster growth and higher inflation led market participants to expect more-aggressive monetary tightening. However, foreign long-term interest rates slipped after midyear, when foreign growth slowed and foreign currencies appreciated against the dollar. Over the first half of the year, spreads on internationally issued sovereign debt of emerging-market economies over U.S. Treasuries moved up somewhat from low levels, but spreads more than reversed those increases in the second half.

The path of the exchange rate was uneven over the course of 2004. The dollar rose slightly in the first half of



Spread on internationally issued sovereign debt of emerging-market economies

SOURCE. J.P. Morgan Emerging Market Bond Index Plus (EMBI+).

NOTE. The data are weekly averages. The last observation is the average of trading days through February 9, 2005. The series shown is the spread of the yield of certain dollar-denominated sovereign debt instruments of emerging-market economies over U.S. Treasury securities; over the period shown, the index encompassed nineteen countries.





Note. The data are monthly and are in foreign currency units per dollar. The last observation is the average of trading days through February 9, 2005. The broad index is a weighted average of the foreign exchange values of the U.S. dollar against the currencies of a large group of major U.S. trading partners. The index weights, which change over time, are derived from U.S. export shares and from U.S. and foreign import shares.

the year on perceptions that monetary policy would tighten more quickly in the United States than abroad. Beginning in September, however, the dollar resumed the depreciation that had started in 2002, as market participants focused on the financing implications of the large and growing U.S. current account deficit. In 2004, the dollar depreciated about 7 percent, on net, against the euro, the U.K. pound, and the Canadian dollar. The dollar declined 4 percent, on net, against the Japanese yen and 13 percent against the Korean won, but some other Asian central banks, most notably the People's Bank of China, kept their currencies stable against the dollar. So far in 2005, the dollar has rebounded, with market com-

## U.S. dollar exchange rate against selected major currencies



NOTE. The data are weekly and are in foreign currency units per dollar. The last observation for each series is the average of trading days through February 9, 2005.

SOURCE. Bloomberg L.P.

mentary focusing on the positive differential between U.S. economic growth and that in Europe and Japan.

#### Industrial Economies

After increasing strongly in the first quarter, Japanese GDP growth stagnated in the remainder of 2004. Growth in exports and business investment slowed over the year, and government investment contracted. However, corporate profits and balance sheets improved, and labor market conditions also brightened, with the job-offers-to-applicants ratio rising to a twelve-year high. Consumer prices continued to decline in 2004, though only slightly. In contrast, higher commodity prices helped push twelvemonth wholesale price inflation up to 2 percent late in the year, its highest rate since 1990. The yield on the tenyear bellwether government bond rose from its June 2003 record low of about 1/2 percent to nearly 2 percent in midyear before retreating to about  $1^{1/2}$  percent recently. After making substantial sales of yen for dollars in the first quarter, Japanese authorities ceased intervention in mid-March and remained on the sidelines even as the yen appreciated significantly against the dollar in the fall.

Economic conditions in the euro area firmed during the first half of 2004 but weakened in the second half. Private consumption and investment spending continued to rise, but export growth slowed after midyear. German GDP growth slowed to a crawl in the second half, as German consumer spending remained anemic, held down by a weak labor market and low consumer confidence. In contrast, French GDP growth was strong in the fourth quarter. The euro-area unemployment rate has been near 9 percent since rising to that level in early 2003. Inflation for the euro area remained just above the European Central Bank's medium-term goal of less than, but close to, 2 percent.

With the exception of a slowdown in the third quarter, economic expansion in the United Kingdom stayed strong during 2004, largely because of the brisk growth of consumption and government spending. Labor markets remained tight in 2004; the unemployment rate ticked down to its lowest level in almost three decades, and labor earnings posted solid gains. Consumer price inflation over the twelve months ending in December was 1<sup>1</sup>/<sub>2</sub> percent, below the central bank's official target rate of 2 percent. Housing price rises slowed sharply from rapid rates and were muted during the second half of 2004. Household net mortgage borrowing declined to a level 20 percent below its 2003 peak.

The Canadian economy expanded at a healthy pace throughout 2004. Sizable gains in consumption and investment boosted output throughout the year. Export growth, supported by demand from the United States, was strong in the first half of the year but stagnated in the second half as U.S. manufacturing growth slowed and the Canadian dollar's appreciation hurt Canadian trade. The unemployment rate declined moderately over the year, and employment posted strong gains. Consumer price inflation has settled at about 2 percent, the midpoint of the Bank of Canada's inflation target range, whereas inflation excluding food, energy, and indirect taxes declined to around  $11/_2$  percent by year-end.

## **Emerging-Market Economies**

Growth of real GDP in China remained very robust in 2004, supported by strong domestic demand and exports. The Chinese government took steps early in the year to slow investment spending, curbing investment approvals and lending. Investment growth slowed significantly but remained rapid. At the same time, indicators of personal consumption spending strengthened, and Chinese exports and imports continued to soar in 2004. Consumer price inflation peaked at a twelve-month change of more than 5 percent in July but has fallen since then to less than 3 percent, as food prices have moderated. Inflation excluding food is only about 1 percent.

Supported by exports to China, economic growth in other Asian emerging-market economies was generally strong in 2004. Economic expansion in Korea remained heavily dependent on external demand because high levels of consumer debt continued to weigh on consumption spending. Inflation across emerging Asia, though still moderate, was pushed up by higher energy prices and strong aggregate demand.

The Mexican economy grew rapidly in the first half of the year in response to strong demand from the United States. In the third quarter, Mexican GDP growth slowed somewhat, as manufacturing exports stagnated, but domestic demand remained buoyant. Increases in energy and food prices pushed up twelve-month consumer price inflation to more than 5 percent, above the Bank of Mexico's target range of 2 percent to 4 percent. Monetary policy tightened throughout the year, and inflation began to fall near year-end. Oil revenues boosted the Mexican public-sector fiscal surplus and allowed Mexican government spending to provide stimulus while still meeting fiscal targets.

In Brazil, economic activity continued to expand robustly in 2004. Domestic demand was supported by the monetary loosening that occurred in the second half of 2003 and early 2004. Export growth was boosted by demand for commodities and the recovery in Argentina. Brazilian asset prices declined through May on expectations that higher global interest rates would make it more difficult for the Brazilian government to finance its debt, but stock prices have moved up sharply since May, and the currency has appreciated. Concerns over inflation pressures have prompted the central bank to tighten monetary policy since September.

In Argentina, the economic recovery picked up steam last year, as exports were supported by strong demand for commodities. The country continues, however, to grapple with difficult structural problems. After more than three years in default, the government launched a debt swap in January with the goal of restructuring more than \$80 billion in defaulted bonds.

Equity indexes in selected emerging-market economies



NOTE. The data are weekly. The last observation for each series is the average of trading days through February 9, 2005. The Asian emerging-market economies are China, Hong Kong, India, Indonesia, Malaysia, Pakistan, the Philippines, Singapore, South Korea, Taiwan, and Thailand; the index weight for each of these economies is its market capitalization as a share of the group's total.

SOURCE. For Argentina, Brazil, Mexico, Bloomberg L.P.; for Asian emerging-market economies, Morgan Stanley Capital International (MSCI) index.