Monetary Policy and Economic Developments

Monetary Policy and the Economic Outlook

The economic expansion in the United States gathered strength during 2003 while price inflation remained quite low. At the beginning of the year, uncertainties about the economic outlook and about the prospects of war in Iraq apparently weighed on spending decisions and extended the period of subpar economic performance that had begun more than two years earlier. However, with the support of stimulative monetary and fiscal policies, the nation's economy weathered that period of heightened uncertainty to post a marked acceleration in economic activity over the second half of 2003. Still, slack in resource utilization remained substantial, unit labor costs continued to decline as productivity surged, and core inflation moved lower. The performance of the economy last year further bolstered the case that the faster rate of increase in productivity, which began to emerge in the late 1990s, would persist. The combination of that favorable productivity trend and stimulative macroeconomic policies is likely to sustain robust economic expansion and low inflation in 2004.

At the time of our last *Monetary Policy Report to the Congress*, in July, near-term prospects for U.S. economic activity remained unclear. Although the Federal Open Market Committee (FOMC) believed that policy stimulus and rapid gains in productivity would eventually lead to a pickup in the pace of the expansion, the timing and extent of the improvement were uncertain. During the spring, the rally that occurred in equity markets when the war-related uncertainties lifted suggested that market participants viewed the economic outlook as generally positive. By then, the restraints imparted by the earlier sharp decline in equity prices, the retrenchment in capital spending, and lapses in corporate governance were receding. As the price of crude oil dropped back and consumer confidence rebounded last spring, household spending seemed to be rising once again at a moderate rate. Businesses, however, remained cautious; although the deterioration in the labor market showed signs of abating, private payroll employment was still declining, and capital spending continued to be weak. In addition, economic activity abroad gave few signs of bouncing back, even though long-term interest rates in major foreign economies had declined sharply. At its June meeting, the FOMC provided additional policy accommodation, given that, as yet, it had seen no clear evidence of an acceleration of U.S. economic activity and faced the possibility that inflation might fall further from an already low level.

During the next several months, evidence was accumulating that the economy was strengthening. The improvement was initially most apparent in financial markets, where prospects for stronger economic activity and corporate earnings gave a further lift to equity prices. Interest rates rose as well, but financial conditions appeared to remain, on net, stimulative to spending, and

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NOTE. The discussion here and in the next section ("Economic and Financial Developments in 2003 and Early 2004") consists of the text, tables, and selected charts from the Monetary Policy Report submitted to the Congress on February 11, 2004, pursuant to section 2B of the Federal Reserve Act.

additional impetus from the midyear changes in federal taxes was in train. Over the remainder of the year, in the absence of new shocks to economic activity and with gathering confidence in the durability of the economic expansion, the stimulus from monetary and fiscal policies showed through more readily in an improvement in domestic demand. Consumer spending and residential construction, which had provided solid support for the expansion over the preceding two years, rose more rapidly, and business investment revived. Spurred by the global recovery in the high-tech sector and by a pickup in economic activity abroad, U.S. exports also posted solid increases in the second half of the year. Businesses began to add to their payrolls, but only at a modest pace that implied additional sizable gains in productivity.

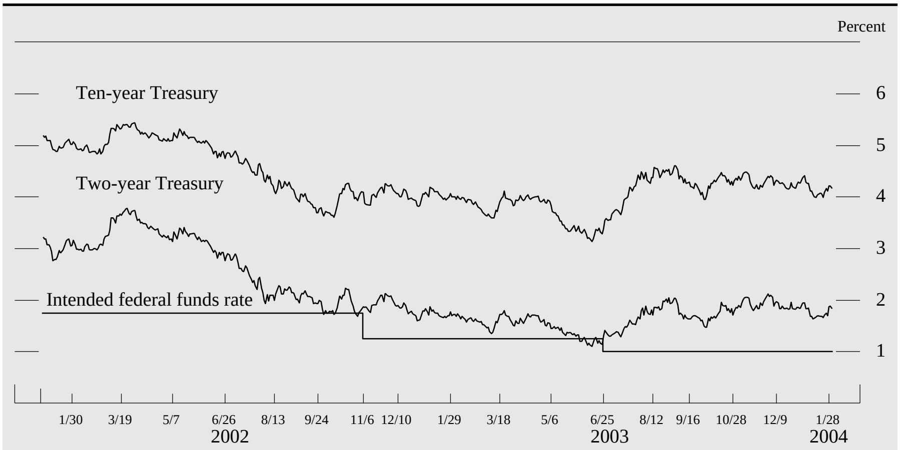
The fundamental factors underlying the strengthening of economic activity during the second half of 2003 should continue to promote brisk expansion in 2004. Monetary policy remains accommodative. Financial conditions for businesses are quite favorable: Profits have been rising rapidly, and corporate borrowing costs are at low levels. In the household sector, last year's rise in the value of equities and real estate exceeded the further accumulation of debt by enough to raise the ratio of household net worth to disposable income after three consecutive years of decline. In addition, federal spending and tax policies are slated to remain stimulative during the current fiscal year, while the restraint from the state and local sector should diminish. Lastly, the lower foreign exchange value of the dollar and a sustained economic expansion among our trading partners are likely to boost the demand for U.S. production. Considerable uncertainty, of course, still attends the economic outlook despite these generally favorable fundamentals. In particular, questions remain as to how willing businesses will be to spend and hire and how durable will be the pickup in economic growth among our trading partners. At its meeting on January 27–28, 2004, the Committee perceived that upside and downside risks to the attainment of sustainable growth for the next few quarters are roughly equal.

Prospects for sustained high rates of increase in productivity are quite favorable. Businesses are likely to retain their focus on controlling costs and boosting efficiency by making organizational improvements and exploiting investments in new equipment. With the ongoing gains in productivity, the existing margins of slack in resource utilization should recede gradually, and any upward pressure on prices should remain well contained. The FOMC indicated at its January meeting that, with inflation low and resource use still slack, it can be patient in removing its policy accommodation.

Monetary Policy, Financial Markets, and the Economy over 2003 and Early 2004

During the opening months of 2003, the softness in economic conditions was exacerbated by the substantial uncertainty surrounding the onset of war in Iraq. Private nonfarm businesses began again to cut payrolls substantially, consumer spending slowed, and business investment was muted. Although the jump in energy prices pushed up overall inflation, slack in resource utilization and the rapid rise in labor productivity pushed core inflation down. In financial markets, the heightened sense of caution among investors generated safe-haven demands for Treasury and other fixed-

Selected Interest Rates



NOTE. The data are daily and extend through February 4, 2004. The dates on the horizontal axis are those of scheduled FOMC meetings.

income securities, and equity prices declined.

At its meeting on March 18, the FOMC maintained its 1¼ percent target for the federal funds rate to provide support for a stronger economic expansion that appeared likely to materialize. The Committee noted that the prevailing high degree of geopolitical uncertainty complicated any assessment of prospects for the economy, and members refrained from making a determination about the balance of risks with regard to its goals of maximum employment and stable prices. At the same time, the Committee agreed to step up its surveillance of the economy, which took the form of a series of conference calls in late March and early April to consult about developments. When military action in Iraq became a certainty, financial markets began to rally, with risk spreads on corporate debt securities narrowing and broad equity indexes registering notable gains. Economic news, however, remained mixed.

Indicators of the economy at the time of the May 6 FOMC meeting continued to suggest only tepid growth. Uncertainty in financial markets had declined, and rising consumer confidence and a wave of mortgage refinancing appeared to be supporting consumer spending. However, persistent excess capacity evident in labor and product markets pointed to possible further disinflation. The lifting of some of the uncertainty clouding the economic outlook allowed the Committee to make the determination that the risks to economic growth were balanced but that the probability of an unwelcome substantial fall in inflation exceeded that of a pickup in inflation. The FOMC judged that, taken together, the balance of risks was weighted toward weakness. The Committee left the federal funds rate target at 1¼ percent, but the Committee's announcement prompted a rally in the Treasury market, and coupon yields fell substantially as market participants marked down their expectations for the path of the federal funds rate.

By the time of the June 24–25 FOMC meeting, risk spreads had narrowed further and equity prices had extended their rise, but the prospects for sustained economic expansion still seemed tentative. Although Committee members referred to signs of improvement in some sectors of the economy, they saw no concrete evidence of an appreciable overall strengthening in the economic expansion and viewed the excess capacity in the economy as likely to keep inflation in check. The Committee lowered the target for the federal funds rate ¼ percentage point, to 1 percent, to add further support to the economic expansion and as a form of insurance against a further substantial drop in inflation, however unlikely. The members saw no serious obstacles to further conventional policy ease down to the zero lower bound on nominal interest rates should that prove to be necessary. The Committee also discussed alternative means of providing monetary stimulus should the target federal funds rate be reduced to a point at which they would have little or no latitude for additional easing through this traditional channel.

Longer-term interest rates backed up following the meeting, as investors had apparently placed substantial odds on a policy move larger than 25 basis points and may have been disappointed that the announcement failed to mention any potential ‘‘unconventional’’ monetary policy options. Ten-year Treasury yields rose sharply during the following weeks in reaction to interpretations of the Chairman’s congressional testimony, the release of Committee members’ economic projections, and positive incoming news about the economy and corporate profits. A substantial unwinding of hedging positions related to mortgage investments may well have amplified the upswing in market yields. Over the intermeeting period, labor markets continued to be soft, but industrial production, personal consumption expenditures, and business outlays all strengthened, and the housing market remained robust. By the time of the August 12 FOMC meeting, members generally perceived a firming in the economy, most encouragingly in business investment spending, and believed that, even after the rise in longer-term rates, financial conditions were still supportive of vigorous economic growth. Given the continued slack in resource use across the economy, however, members saw little risk of inducing higher inflation by leaving the federal funds rate at its accommodative level. On the basis of the economic outlook, and to reassure market participants that policy would not reverse course soon, Committee members decided to include in the announcement a reference to their judgment that under the anticipated circumstances, policy accommodation could be maintained for a ‘‘considerable period.’’

Through the September 16 and October 28 FOMC meetings, the brightening prospects for future growth put upward pressure on equity prices and longer-term interest rates. The Committee’s retention of the phrase ‘‘considerable period’’ in the announcements following each of these meetings apparently provided an anchor for near-term interest rates. The Committee’s discussion at these two meetings focused on the increased evidence of a broadly based acceleration in economic activity and on the continued weakness in labor markets. Rising industrial production, increased personal consumption and business investment spending, higher profits, receptive financial markets, and a lower foreign exchange value of the dollar all suggested that sustained and robust economic growth was in train. The Committee’s decision to leave the stance of monetary policy unchanged over this period reflected, in part, a continuing confidence that gains in productivity would support economic growth and suppress inflationary pressures. In fact, the Committee generally viewed its goal of price stability as essentially having been achieved.

By the time of the December 9 FOMC meeting, the economic expansion appeared likely to continue at a rate sufficient to begin to reduce slack in labor and product markets. Equity markets continued to rally, and risk spreads, particularly on the debt of speculative-grade firms, narrowed further. The labor market was finally showing some signs of improvement, and spending by households remained strong even as the impetus from earlier mortgage refinancings and tax cuts began to wane. The acceleration in capital spending and evidence that some firms were beginning to accumulate inventories seemed to signal that business confidence was on the mend. However, twelve-month core consumer price inflation was noticeably lower than in the previous year. Even though the unemployment rate was expected to move down gradually, continued slack in labor and product markets over the near term was viewed as sufficient to keep any nascent inflation subdued. Uncertainty about the pace at which slack would be worked down, however, made longer-run prospects for inflationary pressures difficult to gauge. Given the better outlook for sustained economic growth, the possibility of pernicious deflation associated with a pronounced softening in real activity was seen as even more remote than it had been earlier in the year. The Committee indicated that keeping policy accommodative for a considerable period was contingent on its expectation that inflation would remain low and that resource use would remain slack.

At its meeting on January 27–28, 2004, the Committee viewed a self-sustaining economic expansion as even more likely. Members drew particular reassurance from reports of plans for stronger capital spending and the widespread distribution of increased activity across regions. Accommodative financial market conditions, including higher equity prices, narrower risk spreads on bonds, and eased standards on business loans, also seemed supportive of economic expansion. However, some risks remained in light of continued lackluster hiring evidenced by the surprisingly weak December payroll employment report. With the likelihood for rapid productivity growth seemingly more assured, Committee members generally agreed that inflation pressures showed no sign of increasing and that a bit more disinflation was possible. Under these circumstances, the Committee concluded that current conditions allowed monetary policy to remain patient. As to the degree of policy accommodation, the Committee left its target for the federal funds rate unchanged. The Committee's characterization that policy could be patient instead of its use of the phrase "considerable period" in its announcement prompted a rise in Treasury yields across the yield curve and a fall in equity prices.

Economic Projections for 2004

Federal Reserve policymakers expect that the economic expansion will continue at a brisk pace in 2004. The central tendency of the forecasts of the change in real gross domestic product made by the members of the Board of Governors and the Federal Reserve Bank presidents is 4½ percent to 5 percent, measured from the final quarter of 2003 to the final quarter of 2004. The full range of these forecasts is somewhat wider—from 4 percent to 5½ percent. The FOMC participants anticipate that the projected increase in real economic activity will be associated with a further

Economic Projections for 2004

Percent

Indicator	Memo: 2003 actual	Federal Reserve Governors and Reserve Bank presidents	
		Range	Central tendency
Change, fourth quarter to fourth quarter[1]			
Nominal GDP	5.9	5½–6½	5½–6¼
Real GDP	4.3	4–5½	4½–5
PCE chain-type price index	1.4	1–1½	1–1¼
Average level, fourth quarter			
Civilian unemployment rate	5.9	5¼–5½	5¼–5½

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

gradual decline in the unemployment rate. They expect that the unemployment rate, which has averaged 5¾ percent in recent months, will be between 5¼ percent and 5½ percent in the fourth quarter of the year. With rapid increases in productivity likely to be sustained and inflation expectations stable, Federal Reserve policymakers anticipate that inflation will remain quite low this year. The central tendency of their forecasts for the change in the chain-type price index for personal consumption expenditures (PCE) is 1 percent to 1¼ percent; this measure of inflation was 1.4 percent over the four quarters of 2003. ■

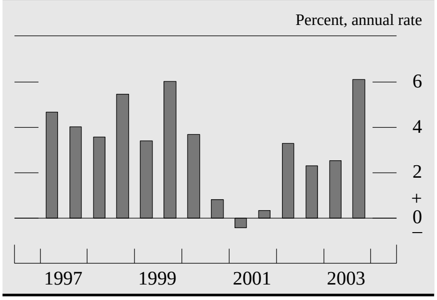
Economic and Financial Developments in 2003 and Early 2004

The pace of economic expansion strengthened considerably in the second half of 2003 after almost two years of uneven and, on balance, sluggish growth. In early 2003, accommodative monetary policy and stimulative fiscal policies were in place, but economic activity still seemed to be weighed down by a number of factors that had restrained the recovery earlier: Geopolitical tensions were again heightened, this time by the impending war in Iraq, businesses remained unusually cautious about the strength of the expansion, and economic activity abroad was still weak. In June the continued lackluster economic growth and a further downshift in inflation from an already low level prompted a further reduction in the federal funds rate. In addition, the tax cuts that became effective at midyear provided a significant boost to disposable income. In the succeeding months, the macroeconomic stimulus began to show through clearly in sales and production, and some of the business caution seemed to recede. Real GDP increased at an annual rate of 6 percent, on average, in the third and fourth quarters of last year. In contrast, between late 2001 and mid-2003, real GDP had risen at an annual rate of only 2½ percent.

During the period of recession and subpar economic expansion, considerable slack developed in labor and product markets. The firming of economic activity in the second half of last year produced modest increases in rates of resource utilization. Sustained efforts by businesses to control costs led to further rapid gains in productivity. As a result, unit labor costs declined, and core rates of inflation continued to slow in 2003; excluding food and energy, the PCE chain-type price index increased just 0.9 percent last year. Measures of overall inflation, which were boosted by movements in food and energy prices, were higher than those for core inflation.

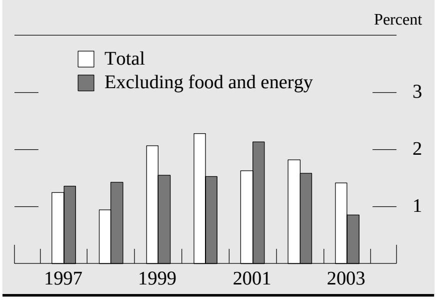
Domestic financial market conditions appeared to become increasingly sup-

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.

Change in PCE Chain-Type Price Index



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

portive of economic growth last year. The economic expansion lowered investors' perception of, and perhaps aversion to, risk, and continued disinflation was interpreted as a sign that monetary policy would remain on hold, even as the economy picked up steam. Although yields on Treasury coupon securities rose modestly on balance over the year, risk spreads on corporate debt narrowed to the point that yields on corporate issues declined. The low-interest-rate environment spurred considerable corporate bond issuance and generated a massive wave of mortgage refinancing activity by households. Equity markets began to rally when the uncertainty over the timing of military intervention in Iraq was resolved. The climb in stock prices continued for the rest of the year, driven by improving corporate earnings reports and growing optimism about the prospects for the economy. At the same time, with economic conditions abroad improving and with concerns about the financing burden of the U.S. current account deficit gaining increased attention in financial markets, the dollar fell appreciably on a trade-weighted basis.

The Household Sector

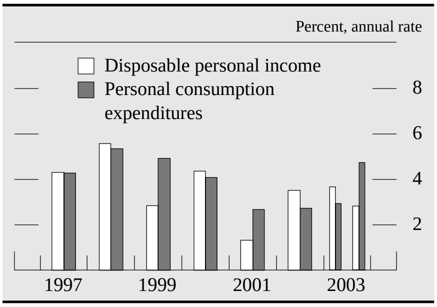
Consumer Spending

Early in 2003, consumer spending was still rising at about the same moderate pace as in 2001 and 2002. In the late spring and in the summer, however, households stepped up their spending sharply. As a result, in the second half of last year, real personal consumption expenditures rose at an annual rate of 4¾ percent after having increased at a rate of just under 3 percent in the first half. Although wage and salary earnings rose slowly during most of the year, the midyear reductions in tax rates and the advance of rebates to households eligible for child tax credits provided a substantial boost to after-tax income. In 2003, real disposable personal income increased 3¼ percent, after having risen 3½ percent in 2002. Low interest rates provided additional impetus to household spending by reducing borrowing costs for new purchases of houses and durable goods; they also indirectly stimulated spending by facilitating an enormous amount of mortgage refinancing.

The personal saving rate has fluctuated within a fairly narrow range around 2 percent over the past three years. Although households continued to see the value of their homes appreciate over this period, they also were adjusting to the substantial drop in equity wealth that occurred after the peak in the stock market in 2000. By itself, a fall in the ratio of household wealth to income of the magnitude that households experienced between 2000 and 2002 might have triggered a noticeable increase in the personal saving rate. However, in this case, the tendency for households to save more as their wealth declines appears to have been tempered in part by their willingness to take advantage of the attractive pricing and financing environment for consumer goods.

Real consumer expenditures for durable goods surged more than 11 percent in 2003. Sales of new motor vehicles

Change in Real Income and Consumption



remained brisk as many consumers responded to the low financing rates and various incentive deals that manufacturers offered throughout the year. Falling prices also made electronic equipment attractive to consumers, and spending on home furnishings likely received a boost from the strength of home sales. Altogether, real outlays for furniture and household equipment jumped 13½ percent in 2003.

In contrast, real consumer expenditures on nondurable goods and on services continued to rise at a moderate pace, on balance, last year. Outlays for food and apparel increased a bit faster than in 2002, and the steady uptrend in spending for medical services was well maintained. However, consumers responded to the higher cost of energy by cutting back their real spending on gasoline, fuel oil, and natural gas and electricity services.

Consumer confidence was shaken temporarily early in 2003 by concerns about the consequences of a war in Iraq, but it snapped back in the spring. Toward year-end, sentiment appeared to brighten more as households saw their current financial conditions improve and gained confidence that business conditions would be better during the year ahead. Those positive views became more widely held in January, and the index of consumer sentiment prepared by the Michigan Survey Research Center (SRC) reached its highest level in three years.

Residential Investment

Housing activity was robust for a second consecutive year in 2003. After having risen 7 percent in 2002, real expenditures on residential construction jumped more than 10 percent in 2003. These gains were fueled importantly by the lowest levels of mortgage interest rates in more than forty years, which, according to the Michigan SRC's survey of consumer sentiment, buoyed consumer attitudes toward homebuying throughout the year. The average rate on thirty-year fixed-rate mortgages dropped sharply during the first half of 2003 and reached a low of 5¼ percent in June. Although the thirty-year rate subsequently firmed somewhat, it remained below 6 percent, on average, in the second half of last year.

Construction of new single-family homes accelerated during 2003, and for the year as a whole, starts averaged 1.5 million units, an increase of 10 percent compared with the level in 2002. Sales of both new and existing single-family homes also picked up sharply further last year. The brisk demand for homes was accompanied by rapid increases in the average price paid for them. The average price paid for new homes rose 10 percent over the four quarters of 2003, and the average price of existing homes was up 7¾ percent over the same period. However, house price inflation was lower after adjusting for shifts in the composition of transactions toward more expensive homes. The constant-quality price index for new homes, which eliminates the influence of changes in their amenities and their geographic distribution, increased 4¾ percent over the four quarters of 2003—down from an increase of 6 percent during 2002. The year-over-year increase in Freddie Mac's index of the prices paid in repeat sales of existing homes stood at 5½ percent as of the third quarter of 2003, compared with a rise of 7¼ percent as of the third quarter of 2002.

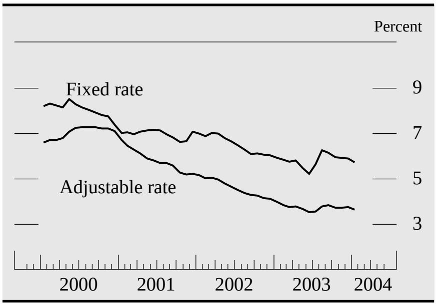
Starts in the multifamily sector totaled 350,000 units in 2003, a pace little changed from that of the past several years. Vacancy rates for these units rose and rents fell during the year, but falling mortgage rates apparently helped to maintain building activity.

Household Finance

Household debt increased 10¾ percent last year, in large part because of the surge in mortgage borrowing induced by record-low mortgage interest rates. Refinancing activity was torrid in the first half of the year, as mortgage rates declined. Some of the equity that households extracted from their homes during refinancings was apparently used to fund home improvements and to pay down higher-interest consumer debt. When mortgage rates rebounded in the second half of the year, mortgage borrowing slowed from the extremely rapid clip of the first half, but it remained brisk through year-end. Consumer credit increased at a pace of 5¼ percent in 2003, a little faster than a year earlier, as revolving credit picked up somewhat from the slow rise recorded in 2002. Despite the pickup in household borrowing, low interest rates kept the household debt-service and financial-obligation ratios—which gauge precommitted expenditures relative to disposable income—at roughly the levels posted in 2002. Most measures of delinquencies on consumer loans and home mortgages changed little on net last year, and household bankruptcies held roughly steady near their elevated level in 2002.

Even with the rapid expansion in debt, net worth of the household sector increased as the value of household assets rose noticeably. Stock prices were boosted by the rise in corporate earnings and the ebbing of uncertainty about future economic growth. Households directed substantial flows into stock mutual funds in the third and fourth quarters despite highly publicized scandals in the mutual fund industry.

Mortgage Rates



NOTE. The data, which are monthly and extend through January 2004, are contract rates on thirty-year mortgages.

SOURCE. Federal Home Loan Mortgage Corporation.

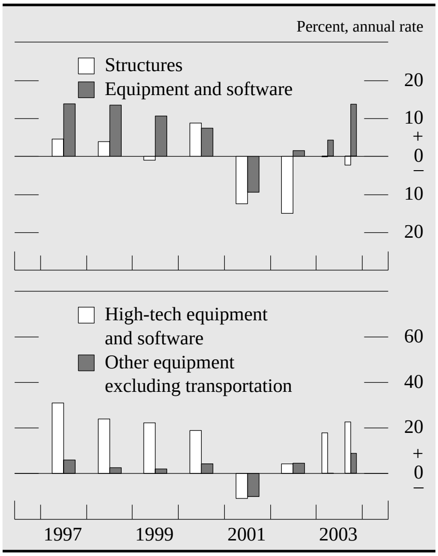
Although the companies directly implicated in wrongdoing experienced heavy outflows from their funds, most of these withdrawals apparently were transferred to other mutual funds with little effect on the industry as a whole. A considerable rise in real estate wealth further augmented household assets. Although prices of existing homes climbed more slowly than they had in the previous year, the rate of increase remained sizable. Overall, the advance in the value of household assets outstripped the accumulation of household debt by enough to boost the ratio of net worth to disposable income over the year.

The Business Sector

Fixed Investment

Business spending on equipment and software was still sluggish at the beginning of 2003. However, it accelerated noticeably over the course of the year as profits and cash flow rebounded and as businesses gained confidence in the strength of the economic expansion and in the prospective payoffs from new investment. At the same time, business financing conditions were very favor-

Change in Real Business Fixed Investment



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

able: Interest rates remained low, equity values rallied, and the enhanced partial-expensing tax provision gave a special incentive for the purchase of new equipment and software. After having changed little in the first quarter of the year, real outlays for equipment and software increased at an annual rate of 11¾ percent over the remaining three quarters of the year.

Outlays for high-technology items—computers and peripherals, software, and communications equipment—which had risen a moderate 4½ percent in 2002, posted a significantly more robust increase of more than 20 percent in 2003. That gain contributed importantly to the pickup in overall business outlays for equipment and software and pushed the level of real high-tech outlays above the previous peak at the end of 2000. The increase in spending last year on computing equipment marked the sharpest gain since 1998, and investment in communications equipment, which had continued to contract in 2002 after having plummeted a year earlier, turned up markedly.

In contrast, the recovery in spending on non-high-tech equipment was, on balance, more muted, in part because outlays for transportation equipment continued to fall. The prolonged slump in business purchases of new aircraft continued in 2003 as domestic air carriers grappled with overcapacity and high fixed costs. By the fourth quarter, real outlays for aircraft had dropped to their lowest level in ten years. In the market for heavy (class 8) trucks, sales were quite slow in early 2003 when businesses were concerned about the performance of models with engines that met new emission standards. But as potential buyers overcame those concerns, sales recovered. By the fourth quarter of 2003, sales of medium and heavy trucks had moved noticeably above the slow pace of 2001 and 2002. Apart from outlays for transportation equipment, investment in other types of non-high-tech equipment was, on balance, little changed during the first half of the year. Demand was strong for medical equipment, instruments, and mining and oilfield machinery, but sales of industrial equipment and farm and construction machinery were sluggish. In the second half of the year, however, the firming in business spending for non-high-tech items became more broadly based.

The steep downturn in nonresidential construction that began in 2001 moderated noticeably in 2003, although market conditions generally remained weak. After having contracted at an average annual rate of 13½ percent during 2001 and 2002, real expenditures for nonresidential construction slipped just 1¼ percent, on balance, during 2003. Spending on office buildings and manufacturing structures, which had dropped sharply over the preceding two years, fell again in 2003. The high office vacancy rates in many areas and low rates of factory utilization implied little need for new construction in these sectors even as economic activity firmed. Investment in communications infrastructure, where a glut of long-haul fiber-optic cable had developed earlier, also continued to shrink. In contrast, outlays for retail facilities, such as department stores and shopping malls, turned up last year, and the retrenchment in construction of new hotels and motels ended. In addition, investment in drilling and mining structures, which is strongly influenced by the price levels for crude oil and natural gas, increased noticeably in 2003.

Inventory Investment

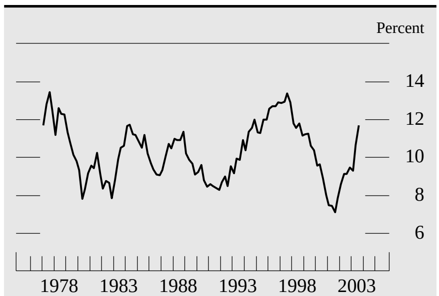
During 2002, businesses appeared to have addressed most of the inventory imbalances that had developed a year earlier. But the moderate pace of final demand during the first half of 2003 apparently restrained firms from embarking on a new round of inventory accumulation. Even though final sales picked up in the second half of the year, the restraint seemed to recede only gradually. Over the first three quarters of 2003, nonfarm businesses trimmed their inventories at an average annual rate of $2¾ billion in constant-dollar terms, and the preliminary estimate for the final quarter of the year indicated only modest restocking. As a result, most firms appear to have ended the year with their inventories quite lean relative to sales, even after taking into account the downward trend in inventory–sales ratios that has accompanied the ongoing shift to improved inventory management. Motor vehicle dealers were an exception; their days' supply of new vehicles moved higher on average for a second year in a row.

Corporate Profits and Business Finance

Higher profits allowed many firms to finance capital spending with internal funds, and business debt rose only slightly faster than the depressed rate in 2002. Moreover, a paucity of cash-financed merger and acquisition activity further limited the need to issue debt. Gross equity issuance was extremely weak in the first half of the year but perked up in the latter half in response to the rally in equity prices. Nevertheless, for the year as a whole, firms extinguished more equity than they issued.

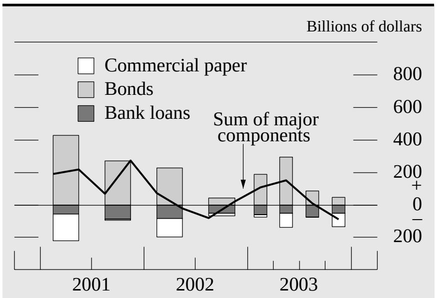
The pace of gross corporate bond issuance was moderate at the start of the year but shot up in late spring as firms took advantage of low bond yields to pay down short-term debt, to refund existing long-term debt, and to raise cash in anticipation of future spending. Bond issuance by investment-grade firms slowed after midyear as firms accumulated a substantial cushion of liquid assets and as interest rates on higher-quality debt backed up. However, issuance by speculative-grade firms continued apace, with the yields on their debt continuing to decline dra-

Before-Tax Profits of Nonfinancial Corporations as a Percent of Sector GDP



NOTE. The data are quarterly and extend through 2003:Q3. Profits are from domestic operations of nonfinancial corporations, with inventory valuation and capital consumption adjustments.

Major Components of Net Business Financing



NOTE. Seasonally adjusted annual rate for nonfinancial corporate business. The data for the sum of major components are quarterly. The data for 2003:Q4 are estimated.

matically presumably because of investors' increased optimism about the economic outlook and greater willingness to take on risk. The sum of bank loans and commercial paper outstanding, which represent the major components of short-term business debt, contracted throughout the year. In large part, this decline reflected ongoing substitution toward bond financing, but it also was driven by the softness of fixed investment early in the year and the liquidation of inventories over much of the year.

Respondents to the Senior Loan Officer Opinion Survey on Bank Lending Practices noted that terms and standards on business loans were tightened during the first half of the year but that both had been eased considerably by year-end. They also reported that demand for business loans was quite weak for much of the year. However, despite the fact that outstanding levels of business loans continued to decline, survey responses in the last quarter of the year indicated that demand for loans had begun to stabilize. Many banks cited customers' increased investment and inventory spending as factors helping to generate the increase in loan demand toward the end of the year. The apparent divergence between survey responses and data on actual loan volumes may suggest that demand for lines of credit has increased but that these lines have not yet been drawn. In other short-term financing developments, nonfinancial firms that issued commercial paper in 2003 found a very receptive market, in large part because of the scarcity of outstanding issues. Many of the riskiest borrowers had exited the market in 2002, and remaining issuers improved their attractiveness to investors by continuing to restructure their balance sheets.

Gross equity issuance rose over the course of 2003 as the economic outlook strengthened and stock prices moved higher. The market for initial public offerings continued to languish in the first half of the year but showed signs of life by the end of the summer. The volume of seasoned offerings also picked up in the second half of the year. On the other side of the ledger, merger and acquisition activity again extinguished shares in 2003, although only at a subdued pace. In addition, firms continued to retire a considerable volume of equity through share repurchases. For the year as a whole, net equity issuance was negative.

Corporate credit quality improved, on balance, over the year. Notably, the default rate on corporate bonds declined sharply, delinquency rates on commercial and industrial (C&I) loans at commercial banks turned down, and the pace of bond-rating downgrades slowed considerably. Low interest rates and the resulting restructuring of debt obligations toward longer terms also importantly contributed to improved business credit quality. Bank loan officers noted that the aggressive tightening of lending standards in earlier years was an important factor accounting for the lower delinquency and charge-off rates in recent quarters.

Commercial mortgage debt increased noticeably during most of 2003 despite persistently high vacancy rates, falling rents, and sluggish growth in construction expenditures. Low interest rates on this type of collateralized debt may have induced some corporate borrowers to tap the market to pay down more-costly unsecured debt. Delinquency rates on commercial mortgages generally remained low throughout 2003, and risk spreads were relatively narrow. Loan performance has held up well because of low carrying costs for property owners and because the outstanding loans generally had been structured to include a sizable equity contribution, which makes default less attractive to borrowers.

The Government Sector

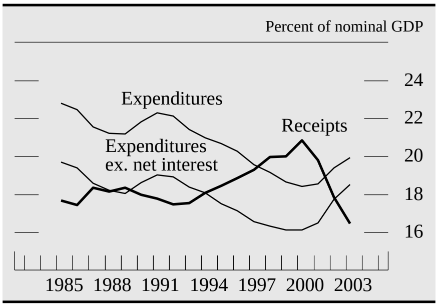
Federal Government

The federal budget deficit continued to widen in fiscal year 2003 as a result of the slow increase in nominal incomes, outlays associated with the war in Iraq, and legislative actions that reduced taxes and boosted spending. The deficit in the unified budget totaled $375 billion, up substantially from the deficit of $158 billion recorded in fiscal 2002. The Congressional Budget Office is projecting that the unified federal deficit will increase further in fiscal 2004, to more than $475 billion.

Federal receipts have fallen in each of the past three years; the drop of nearly 4 percent in fiscal 2003 brought the ratio of receipts to GDP to 16½ percent, 2 percentage points below the average for the past thirty years. About half of the decrease in receipts last year was a consequence of legislation that shifted due dates for corporate payments between fiscal years. In addition, personal income tax collections dropped sharply because of the slow rise in nominal wages and salaries, diminished capital gains realizations in 2002, and the tax cuts enacted under the Jobs and Growth Tax Relief Reconciliation Act of 2003. The act advanced refund checks to households eligible for the 2003 increment to the child tax credit and resulted in lower withholding schedules for individual taxpayers. The act also expanded the partial-expensing incentive for businesses, but because corporate profits accelerated sharply last year, corporate tax receipts rose appreciably after adjusting for the shifts in the timing of payments.

At the same time, federal outlays other than for interest expense rose rapidly for the second consecutive year in fiscal 2003; these outlays increased about 9 percent after having risen 11 percent in fiscal 2002. Spurred by operations in Iraq, defense spending soared again, and outlays for homeland security rose further. Spending for income support, such as unemployment insurance, food stamps, and child credits under the earned income tax credit program, also posted a sizable increase. The ongoing rise in the cost and utilization of medical services continued

Federal Receipts and Expenditures

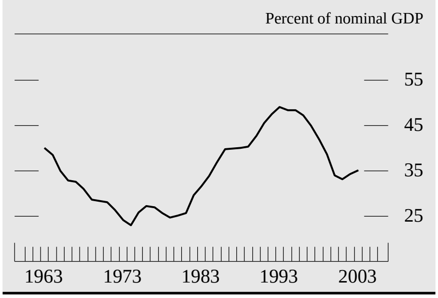


NOTE. The budget data are from the unified budget and are for fiscal years (October through September); GDP is for the year ending in Q3.

to push up spending for Medicare and Medicaid. Overall, real federal consumption and investment (the measure of federal spending that is included in real GDP) increased 6 percent over the four quarters of 2003, after having risen 10 percent a year earlier.

The federal government had contributed increasingly to national saving in the late 1990s and 2000 as budget deficits gave way to accumulating surpluses. However, with the swing back to large deficits in recent years, the federal government has again become a drain on national saving. Using the accounting practices followed in the national income and product accounts (NIPA), gross federal saving as a percent of GDP dropped sharply in late 2001 and has trended down since then; the drop contributed to a decline in overall gross national saving as a percent of GDP from 18 percent in calendar year 2000 to 13 percent, on average, in the first three quarters of 2003. Federal saving net of estimated depreciation fell from its recent peak of 2½ percent of GDP in 2000 to negative 4 percent of GDP, on average, in the first three quarters of 2003. As a result, despite a noticeable pickup in saving from domestic nonfederal sources, overall net national saving, which is an important determinant of private capital formation, fell to less than 1½ percent of GDP, on average, in the first three quarters of 2003, compared with a recent high of 6½ percent of GDP in 1998.

Federal Government Debt Held by the Public



NOTE. Through 2002, 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 2003:Q3. Excludes securities held as investments of federal government accounts.

Federal Borrowing

The Treasury ramped up borrowing in 2003 in response to the sharply widening federal budget deficit, and federal debt held by the public as a percent of nominal GDP increased for a second year in a row after having trended down over the previous decade. As had been the case in 2002, the Treasury was forced to resort temporarily to accounting devices in the spring of 2003 when the statutory debt ceiling became a constraint, but debt markets were not disrupted noticeably. In May, the Congress raised the debt ceiling from $6.4 trillion to $7.4 trillion. With large deficits expected to persist, the Treasury made a number of adjustments to its regular borrowing program, including reintroducing the three-year note, increasing to monthly the frequency of five-year note auctions, reopening the ten-year note in the month following each new quarterly offering, and adding another auction of ten-year inflation-indexed debt. As a result of these changes, the average maturity of outstanding Treasury debt, which had reached its lowest level in decades, began to rise in the latter half of 2003.

State and Local Governments

State and local governments faced another difficult year in 2003. Tax receipts on income and sales continued to be restrained by the subdued performance of the economy. Despite further efforts to rein in spending, the sector's aggregate net saving, as measured in the NIPA, reached a low of negative $40 billion (at an annual rate), or negative 0.4 percent of GDP, in the first quarter of the year. Most of these jurisdictions are subject to balanced-budget requirements and other rules that require them to respond to fiscal imbalances. Thus, in addition to reducing operating expenses, governments drew on reserves, issued bonds, sold assets, and made various one-time adjustments in the timing of payments to balance their books. In recent years, many have also increased taxes and fees, thereby reversing the trend toward lower taxes that prevailed during the late 1990s.

Recent indications are that the fiscal stress in this sector is beginning to ease. The improvement reflects a noticeable upturn in tax collections in recent quarters while restraint on operating expenditures largely remains in place. On a NIPA basis, real spending on compensation and on goods and services purchased by state and local governments was little changed in the second half of 2003, as it was over the preceding year. However, investment in infrastructure, most of which is funded in the capital markets, accelerated in the second half of 2003. As of the third quarter of 2003, state and local net saving had moved back into positive territory.

State and Local Government Borrowing

Gross issuance of debt by state and local governments was quite robust last year. Weak tax receipts from a sluggish economy, significant demands for infrastructure spending, and low interest rates all contributed to the heavy pace of borrowing. Borrowing was strongest in the second quarter of the year, as governments took advantage of the extraordinarily low longer-term rates to fund capital expenditures and to advance refund existing higher-cost debt. Because of the financial stresses facing these governments, the credit ratings of several states, most notably California, were lowered last year. Although bond downgrades outnumbered upgrades for the sector as a whole, the imbalance between the two was smaller than it was in 2002.

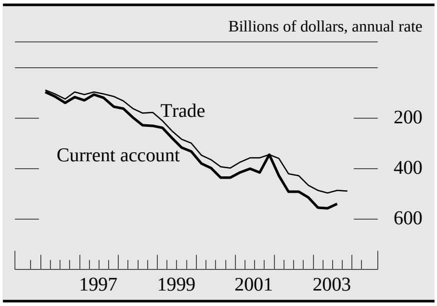
The External Sector

Over the first three quarters of 2003, the U.S. current account deficit widened relative to the comparable period in 2002, a move largely reflecting developments in the deficit on trade in goods and services. Net investment income rose over the same period, as receipts from abroad increased and payments to foreign investors in the United States declined.

International Trade

The trade deficit widened considerably in the first half of 2003 but narrowed slightly in the third quarter, as the value of exports rebounded in response to strengthening foreign economic activity and the depreciation of the dollar.

U.S. Trade and Current Account Balances



NOTE. The data are quarterly and extend through 2003:Q3.

Available trade data through November suggest that the trade deficit narrowed further in the fourth quarter, as an additional strong increase in exports outweighed an increase in imports.

Real exports of goods and services increased about 6 percent in 2003. Exports of services rose about 5 percent. They were held down early in the year by a drop in receipts from foreign travelers, owing to the effects of the SARS (severe acute respiratory syndrome) epidemic and the war in Iraq; services exports rebounded strongly later in the year as those concerns receded. Exports of goods rose about 6¾ percent over the course of the year—considerably faster than in 2002. Exports increased in all major end-use categories of trade, with particularly strong gains in capital goods and consumer goods. Reflecting the global recovery in the high-tech sector, exports of computers and semiconductors picked up markedly in 2003, particularly in the second half. By geographic area, exports of goods increased to Western Europe, Canada, and, particularly, to developing countries in East Asia—a region where economic activity expanded at a rapid pace last year. Prices of exported goods rose in 2003, with prices of agricultural exports recording particularly large increases. In response to poor crops and strong demand, prices for cotton and soybeans increased sharply. For beef, disruptions in supply led to notably higher prices through much of 2003. Beef prices, however, fell back in late December after a case of mad cow disease was discovered in the state of Washington and most countries imposed bans on beef imports from the United States.

Real imports of goods and services rose about 3½ percent in 2003. Imports of services fell in the first half of the year but bounced back in the second half, as concerns about the SARS epidemic and the war in Iraq came and went; for the year as a whole, real imports of services were about unchanged from the previous year. Real imports of goods expanded about 4 percent in response to the strengthening of U.S. demand, but the pattern was choppy, with large gains in the second and fourth quarters partially offset by declines in the first and third. Despite a surge in the second quarter, the volume of oil imports increased modestly, on balance, over the course of the year. Real non-oil imports were up about 4½ percent, with the largest increases in capital goods and consumer goods. Imports of computers posted solid gains, whereas imports of semiconductors were flat.

Despite a substantial decline in the value of the dollar, the prices of imported non-oil goods rose only moderately in 2003. By category, the prices of consumer goods were unchanged last year, and prices of capital goods excluding aircraft, computers, and semiconductors increased only a little more than 1 percent. Price increases were larger for industrial supplies. The price of imported natural gas spiked in March and rose again late in the year; these fluctuations were large enough to show through to the overall price index for imported goods. At year-end, prices of industrial metals rose sharply, with the spot price of copper reaching the highest level in six and one-half years. The strength in metals and other commodity prices has been attributed, at least in part, to depreciation of the dollar and strong global demand, particularly from China.

In 2003, the spot price of West Texas intermediate (WTI) crude oil averaged more than $31 per barrel—the highest annual average since the early 1980s. The spot price of oil began to rise at the end of 2002 when ethnic unrest in Nigeria and a nationwide strike in Venezuela sharply limited oil supplies from those two countries. In the first quarter of 2003, geopolitical uncertainty in the period leading up to the war in Iraq also added upward pressure on oil prices. On March 12, the spot price of WTI closed at $37.83 per barrel, the highest level since the Gulf War in 1990. When the main Iraqi oil fields had been secured and it became apparent that the risks to oil supplies had subsided, the spot price of WTI fell sharply to a low of $25.23 per barrel on April 29. However, oil prices began rising again when, because of difficult security conditions, the recovery of oil exports from Iraq was slower than expected. Prices also were boosted in September by the surprise reduction in OPEC's production target. In the fourth quarter of 2003 and early 2004, strengthening economic activity, falling oil inventories, and the continued depreciation of the dollar contributed to a further run-up in oil prices.

The Financial Account

The financing counterpart to the current account deficit experienced a sizable shift in 2003, as net private inflows fell while foreign official inflows increased. Private foreign purchases of U.S. securities were at an annual rate of about $350 billion through November, about $50 billion lower than in the previous year. Private foreign purchases of U.S. equities continued to recede, and, although the level of bond purchases was little changed in the aggregate, foreign purchases shifted somewhat away from agency bonds and toward corporate bonds. Over the same period, purchases by private U.S. investors of foreign securities increased nearly $80 billion. Accordingly, net inflows through private securities transactions decreased markedly. In contrast, foreign official purchases of U.S. assets surged to record levels in 2003, with the accumulation of dollar reserves particularly high in China and Japan.

Compared with the pace in 2002, foreign direct investment in the United States increased, as merger activity picked up and corporate profits improved. U.S. direct investment abroad held relatively steady at a high level that was largely the result of continued retained earnings. On net, foreign direct investment outflows fell about $50 billion through the first three quarters of 2003.

The Labor Market

Employment and Unemployment

With economic activity still sluggish during the first half of 2003, the labor market continued to weaken. Over the first eight months of the year, private nonfarm payroll employment fell, on average, more than 35,000 per month, extending the prolonged period of cutbacks that began in early 2001. The civilian unemployment rate, which had hovered around 5¾ percent for much of 2002, moved up to 6¼ percent by June. However, by late in the summer, the labor market began to recover slowly. Declines in private payrolls gave way to

Net Change in Payroll Employment

moderate increases in employment; over the five months ending in January, private nonfarm establishments added, on average, about 85,000 jobs per month. By January, the unemployment rate moved back down to 5.6 percent.

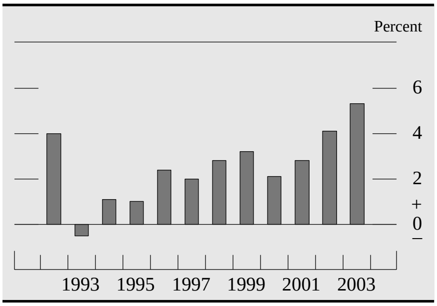
During the late summer and early fall, prospects for business sales and production brightened, and firms began to lay off fewer workers. Initial claims for unemployment insurance dropped back, and the monthly Current Population Survey (CPS) of households reported a decline in the number of workers who had lost their last job. However, for many unemployed workers, jobs continued to be difficult to find, and the number of unemployed who had been out of work for twenty-seven weeks or more remained persistently high. The labor force participation rate, which tends to be sensitive to workers' perceptions of the strength of labor demand, drifted lower. Although the CPS indicated a somewhat greater improvement in employment than the payroll report—even after adjusting for conceptual differences between the two measures—the increase in household employment lagged the rise in the working-age population, and the ratio of employment to population fell further during 2003.

The modest upturn in private payroll employment that began in September was marked by a step-up in hiring at businesses supplying professional, business, and education services, and medical services continued to add jobs. Employment in both the construction industry and the real estate industry rose further, although the number of jobs in related financial services dropped back a bit as mortgage refinancing activity slackened. At the same time, although manufacturers were still laying off workers, the monthly declines in factory employment became smaller and less widespread than earlier. Employment stabilized in many industries that produce durable goods, such as metals, furniture, and wood products, as well as in a number of related industries that store and transport goods. In several other areas, employment remained weak. Manufacturers of nondurables, such as chemicals, paper, apparel, and textiles, continued to cut jobs. Employment in retail trade remained, on net, little changed.

Productivity and Labor Costs

Business efforts to increase efficiency and control costs led to another impressive gain in labor productivity last year. Output per hour in the nonfarm business sector surged 5¼ percent in 2003 after having risen a robust 4 percent in 2002 and 2¾ percent in 2001. What is particularly remarkable about this period is that productivity did not decelerate significantly when output declined in 2001, and it posted persistently strong gains while the recovery in aggregate demand was sluggish. Typically, the outsized increases in productivity that have occurred during cyclical recoveries have followed a period of declines or very weak increases in productivity during the recession and have been associated with rebounds in economic activity that

Change in Output per Hour



NOTE. Nonfarm business sector.

were stronger than has been the case, until recently, in this expansion.

On balance, since the business cycle peak in early 2001, output per hour has risen at an average annual rate of 4 percent—noticeably above the average increase of 2½ percent that prevailed between 1996 and 2000. In the earlier period, an expansion of the capital stock was an important element in boosting the efficiency of workers and their firms; that impetus to productivity has weakened in the recent period as a result of the steep cutbacks in business investment in 2001 and 2002. Instead, the recent gains appear to be grounded in organizational changes and innovations in the use of existing resources—which are referred to as multifactor productivity. The persistence of a rapid rise in multifactor productivity in recent years, along with signs of a pickup in capital spending, suggests that part of the step-up in the rate of increase of labor productivity may be sustained for some time.

In 2003, the employment cost index (ECI) for private nonfarm businesses, which is based on a survey conducted quarterly by the Bureau of Labor Statistics, rose 4 percent—about ¾ percentage point more than the increase in 2002. Compensation per hour in the nonfarm business sector, which is based on data constructed for the NIPA, is estimated to have increased 3¼ percent in 2003, up from 1½ percent in 2002. In recent years, the NIPA-derived series has shown much wider fluctuations in hourly compensation than the ECI, in part because it includes the value of stock option exercises, which are excluded from the ECI. The value of options exercised shot up in 2000 and then dropped over the next two years.

Most of the acceleration in hourly compensation in 2003 was the result of larger increases in the costs of employee benefits. The ECI for wages and salaries rose 3 percent—up slightly from the pace in 2002 but still well below the rates of increase in the preceding six years. Wage gains last year likely were restrained by persistent slack in the demand for labor as well as by the pressure on employers to control overall labor costs in the face of the rapidly rising cost of benefits. Employer costs for benefits, which had risen 4¾ percent in 2002, climbed another 6½ percent in 2003. The cost of health insurance as measured by the ECI has been moving up at close to a double-digit rate for three consecutive years. In addition, in late 2002 and early 2003, employers needed to substantially boost their contributions to defined-benefit retirement plans to cover the declines in the market value of plan assets.

Prices

Headline consumer price inflation in 2003 was maintained by an acceleration in food prices and another sizable increase in energy prices, but core rates of inflation fell for a second year. Although the strong upturn in economic activity in the second half of last year began to reduce unemployment and to boost industrial utilization rates, considerable slack in labor and product markets continued to restrain inflation throughout the year. A further moderation in the costs of production also helped to check inflation: As a result of another rapid rise in productivity, businesses saw their unit labor costs decline in 2003 for a second consecutive year. In contrast, prices for imported goods excluding petroleum, computers, and semiconductors increased at about the same rate as prices more generally; between 1996 and 2002, these import prices fell relative to overall prices for personal consumption expenditures

(PCE). The chain-type price index for PCE excluding food and energy rose just under 1 percent in 2003, about ¾ percentage point less than in 2002. A broader measure of inflation, the chain-type price index for GDP, increased 1½ percent in 2003, the same slow pace as in 2002. Both measures of inflation were roughly a percentage point lower than in 2001.

Consumer energy prices fluctuated widely over the four quarters of 2003, and the PCE index for energy was up 7¼ percent over the period. In the first quarter of the year, the combination of a further rise in the cost of crude oil, increased wholesale margins for gasoline, and unusually tight supplies of natural gas pushed up consumer energy prices sharply. Although the prices of petroleum-based products turned down when the price of crude oil fell back in March, a number of supply disruptions in late summer resulted in another temporary run-up in the retail price of gasoline. In the spring, the price of natural gas began to ease as supplies improved, but it remained high relative to the level in recent years. Electricity prices also moved up during 2003, in part because of the higher input costs of natural gas. In January 2004, a cold wave in the Northeast, together with the rise in the price of crude oil since early December, once again led to spikes in the prices of gasoline and natural gas.

The PCE price index for food and beverages increased 2¾ percent in 2003 after having risen just 1¼ percent a year earlier. Much of the acceleration can be traced to strong demand for farm products, but prices paid by consumers for food away from home—which depend much more heavily on the cost of labor than on prices of food products—were up 3 percent in 2003, also somewhat more than overall consumer price inflation. Poor harvests abroad, especially in Europe, contributed importantly to the heightened demand for U.S. farm products. Thus, despite a bumper crop of corn and some other grains in the United States, world stocks were tight and prices remained high. In addition, the U.S. soybean crop was crimped by late-season heat and dryness, which further tightened world supplies. Concerns about the cases of mad cow disease that were identified in herds in Japan and Canada supported strong domestic and export demand for U.S. beef for most of last year while supplies edged down. But, at year-end, when a case of mad cow disease was discovered in a domestic herd, export demand for U.S. beef plunged and drove the price of live cattle down sharply. A portion of the drop in cattle prices likely will show through to consumer prices for beef early this year.

The decline in core inflation in 2003 was broadly based. Prices of core consumer goods fell somewhat faster than a year earlier; the declines were led by larger cuts in prices of apparel, motor vehicles, electronic equipment, and a variety of other durable goods. At the same time, prices of non-energy services rose less rapidly. The deceleration in core consumer prices measured by the CPI is somewhat greater than that measured by the PCE index. In each index, the costs of housing services to tenants and owners rose less in 2003 than in 2002, but because these costs receive a larger weight in the CPI, their slowing contributed a greater amount to the CPI's deceleration. In addition, the different measurement of the prices of medical services in the two series contributed to the smaller deceleration in non-energy services in the PCE. The medical services component of the CPI, which measures out-of-pocket expenses paid by consumers, increased 4 percent in 2003, down from 5½ percent a year

Alternative Measures of Price Change

Percent

Price measure	2001	2002	2003
Chain-type			
Gross domestic product	2.4	1.4	1.5
Gross domestic purchases	1.6	1.7	1.6
Personal consumption expenditures	1.6	1.8	1.4
Excluding food and energy	2.1	1.6	.9
Chained CPI	1.5	1.8	1.4
Excluding food and energy	2.1	1.6	.6
Fixed-weight			
Consumer price index	1.8	2.2	1.9
Excluding food and energy	2.7	2.1	1.2

NOTE. Changes are based on quarterly averages and are measured to the fourth quarter of the year indicated from the fourth quarter of the preceding year.

earlier. Alternatively, the PCE for medical services is a broader measure that uses producer price indexes (PPI) to capture the costs of services provided by hospitals and doctors; it continued to increase more slowly than the CPI for medical services last year, 3¼ percent, but it was up slightly from its increase of 2½ percent in 2002.

Survey measures of expected inflation were little changed, on balance, in 2003. According to the Federal Reserve Bank of Philadelphia's survey of professional forecasters, expectations for CPI inflation ten years ahead remained at 2½ percent last year. As measured by the Michigan Survey Research Center survey of households, median five- to ten-year inflation expectations, which averaged 3 percent in 2001, were steady at 2¾ percent in 2003 for a second consecutive year. Inflation compensation as measured by the spread between the yield on nominal Treasury securities and their indexed counterparts varied over a wide range in 2003, settling at just under 2½ percent at year-end. Shorter-term inflation expectations also posted some wide swings during 2003; year-ahead expectations in the Michigan SRC survey spiked early in the year with the sharp increase in energy prices and dipped briefly to an unusually low level at midyear as actual inflation eased in response to lower energy prices. However, year-ahead inflation expectations settled back to just over 2½ percent at the end of the year, about the same as at the end of 2002.

The PPI for crude materials excluding food and energy products, which had dropped 10 percent in 2001, rose 11¾ percent in 2002 and another 17½ percent in 2003. The upswing was driven by the pickup in demand associated with the acceleration in both domestic and worldwide industrial activity and by the pass-through of higher energy costs. Such wide cyclical swings in commodity prices have only a small effect on movements in the prices of intermediate and finished goods. At later stages of production and distribution, commodity costs represent only a small share of overall costs, and some portion of the change in commodity prices tends to be absorbed in firms' profit margins. Thus, the recent pickup in prices at the intermediate stage of processing has been more muted; after having fallen almost 1½ percent in 2001, the PPI for core intermediate materials rose 1¼ percent in 2002 and 2 percent in 2003.

U.S. Financial Markets

On balance, financial market conditions became increasingly supportive of growth over 2003 as investors became more assured that the economy was on solid footing. Equity prices marched up after the first quarter of the year in response to the initiation and swift conclusion of major combat operations in Iraq, positive earnings reports, and—in the second half of the year—a stronger pace of economic growth. Risk spreads on corporate debt declined, with the spreads on the debt of both investment-grade firms and speculative-grade firms ending 2003 at their lowest levels since 1998. Thus, although Treasury coupon yields ended the year 30–40 basis points higher, yields on many corporate bonds ended the year lower. Commercial banks appeared somewhat slower than bond investors to lend at more favorable terms; nevertheless, by late in the year, banks had eased both standards and terms on C&I loans.

Demand for short-term debt, however, remained very weak, and business loans and outstanding commercial paper continued to run off. In response to a widening budget deficit and a rapid expansion of federal debt, the Treasury increased the frequency of its debt auctions. Declines in mortgage interest rates over the first half of the year led to an extraordinary increase in mortgage debt, as originations for home purchase and for refinancings both climbed to record levels.

Interest Rates on Selected Treasury Securities

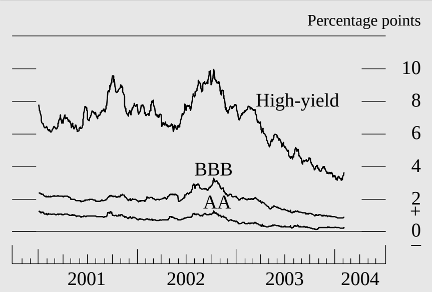
NOTE. The data are daily and extend through February 4, 2004.

Interest Rates

Interest rates fell for most of the first half of 2003, primarily in response to continuing weak economic data and an associated marking down of expectations for the federal funds rate. Global uncertainty ran high, particularly surrounding the timing of military intervention in Iraq, which elevated safe-haven demands and depressed yields on Treasury securities. Moreover, the weak March employment report and other disappointing news about economic activity seemed to cause a substantial shift in views about monetary policy. Data from the federal funds futures market suggested a significant probability of a further easing of policy and did not imply any tightening before early 2004. Even as geopolitical tensions eased, weaker-than-expected economic data continued to hold down Treasury yields. The FOMC's statement following its May meeting that an ''unwelcome fall in inflation'' remained a risk reinforced the notion that monetary policy would stay accommodative, and, indeed, judging from market quotes on federal funds futures, market participants anticipated further easing. Mortgage rates followed Treasury yields lower, precipitating a huge surge of mortgage refinancing. To offset the decline in the duration of their portfolios stemming from the jump in prepayments, mortgage investors reportedly bought large quantities of longer-dated Treasuries, amplifying the fall in yields. Interest rates on corporate bonds also declined in the first half of the year, prompting many firms to issue long-term debt to pay down other, more expensive forms of debt and build up cash assets. Growing confidence that the frequency and severity of corporate accounting scandals were waning likely contributed to the narrowing in risk spreads. By the end of spring, default rates on corporate bonds had begun to decline, and corporate credit quality appeared to stabilize.

By the time of the June FOMC meeting, federal funds futures data implied that market participants had generally come to expect an aggressive reduction in the target federal funds rate, so the Committee's decision to lower the target rate by only 25 basis points came as a surprise to some. In addition, some investors were reportedly disappointed that the statement following this meeting included no mention of "unconventional" monetary policy actions that would be aimed at lowering longer-term yields more directly than through changes in the federal funds rate target alone. As a result, market interest rates backed up, with the move probably amplified by the unwinding of mortgage-related hedging activity. The Chairman's monetary policy testimony in July, and the FOMC's statements at subsequent meetings that noted that policy could remain accommodative for "a considerable period," apparently provided an anchor for the front end of the yield curve. At the same time, increasingly positive economic reports bolstered confidence in the markets, and longer-dated Treasury securities ended the year about 40 basis points above their year-earlier levels. But, with the expansion evidently gaining traction and investors becoming more willing to take on risk, corporate risk spreads, particularly those on speculative-grade issues, continued to fall over the second half of the year. Treasury yields fell early in 2004, largely in response to the weaker-than-expected December labor market report. After the release of the Committee's statement following its January meeting, Treasury yields backed up a bit as futures market prices implied an expectation of an earlier onset of tightening than had been previously anticipated.

Spreads of Corporate Bond Yields over the Ten-Year Treasury Yield

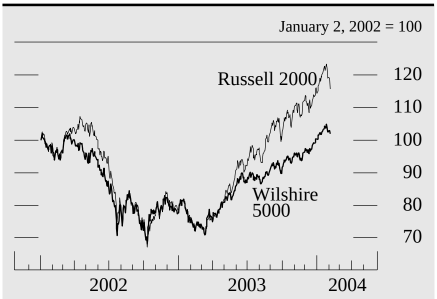


NOTE. The data are daily and extend through February 4, 2004. The spreads compare the yields on the Merrill Lynch AA, BBB, and 175 high-yield indexes with the yield on the ten-year off-the-run Treasury note.

Equity Markets

Broad equity price indexes ended the year 25 percent to 30 percent higher. Early in the year, stock prices were buffeted by mixed news about the pace of economic expansion and by heightened geopolitical tensions. Rising oil prices boosted the shares of energy companies very early in the year while, by and large, stocks in other sectors were stumbling. By spring, however, positive news on corporate earnings—often exceeding expectations—and easing of geopolitical tensions associated with the initiation of military action in Iraq boosted equity prices significantly. Subsequently, the swift end to major combat operations in Iraq caused implied volatility on the S&P 500 index to fall substantially. Over the rest of the year, increasingly positive earnings results contributed to a sustained rally in stock prices, and implied volatility in equity markets fell further. Corporate scandals—albeit on a smaller scale than in previous years—continued to emerge in 2003, but these revelations appeared to leave little lasting imprint on broad measures of stock prices. For the year as a whole, the Russell 2000 index of small-cap stocks and the technology-laden Nasdaq composite index, which rose 45 percent and 50 percent, respectively, noticeably outpaced broader

Major Stock Price Indexes



NOTE. The data are daily and extend through February 4, 2004.

indexes. To date in 2004, equity markets have continued to rally.

With the sustained rise in stock prices, the ratio of expected year-ahead earnings to stock prices for firms in the S&P 500 edged down over 2003. The gap between this ratio and the real ten-year Treasury yield—a crude measure of the equity risk premium—narrowed a bit over the course of the year, though it remains in the upper part of the range observed over the past two decades.

Debt and Financial Intermediation

Aggregate debt of the domestic nonfinancial sectors is estimated to have increased about 8¼ percent in 2003, just over a percentage point faster than in 2002. Federal debt accelerated sharply, rising 11 percent, owing to the larger budget deficit. Household debt rose almost as rapidly, and the increase in state and local government debt also was substantial. In contrast, business borrowing remained subdued last year.

In the business sector, investment spending, particularly in the beginning of the year, was mainly financed with internal funds, limiting, though not eliminating, businesses' need to increase debt. With long-term rates falling through midyear and credit spreads—especially for riskier borrowers—narrowing, corporate treasurers shifted their debt issuance toward bond financing and away from shorter-term debt. Household borrowing also shifted in response to lower longer-term rates. Mortgage rates followed Treasury rates lower in the spring, and mortgage originations for both home purchases and refinancings surged. Refinancing activity appears to have held down growth of consumer credit as households extracted equity from their homes and used the proceeds, in part, to pay down higher-cost consumer debt. Nevertheless, consumer credit posted a moderate advance in 2003, buoyed by heavy spending on autos and other durables. A substantial widening of the federal deficit forced the Treasury to increase its borrowing significantly. To facilitate the pickup in borrowing, the Treasury altered its auction cycle to increase the frequency of certain issues and reintroduced the three-year note.

Depository credit rose 6 percent in 2003 and was driven by mortgage lending and the acquisition of mortgage-backed securities by both banks and thrift institutions. Consumer lending also was substantial, as lower interest rates and auto incentives spurred spending on durable goods. In contrast, business loans fell 7¼ percent over 2003, a drop similar to the runoff in 2002. Survey evidence suggests that the decline in business lending at banks was primarily the result of decreased demand for these loans, with respondent banks often citing weak investment and inventory spending. Moreover, the contraction was concentrated at large banks, whose customers tend to be larger corporations that have access to bond markets, and the proceeds of bond issuance were apparently used, in part, to pay down bank loans. The January 2004 Senior Loan Officer Opinion Survey reported a pickup in business loan demand arising mainly from increased spending on plant and equipment and on inventories. Supply conditions apparently played a secondary role in the weakness in business loans in 2003. Banks tightened standards and terms on business loans somewhat in the first half of the year, but by year-end they had begun to ease terms and standards considerably, in part because of reduced concern about the economic outlook.

The M2 Monetary Aggregate

M2 increased 5¼ percent in 2003, a pace somewhat slower than in 2002 and a bit below the rate of expansion of nominal income. The deceleration in M2 largely reflected a considerable contraction in the final quarter of the year after three quarters of rapid growth. The robust growth in money around midyear was concentrated in liquid deposits and likely resulted in large part from the wave of mortgage refinancings, which tend to boost M2 as the proceeds are temporarily placed in non-interest-bearing accounts pending disbursement to the holders of mortgage-backed securities. Moreover, around the middle of the year, the equity that was extracted from home values during refinancings probably provided an additional boost to deposits for a time, as households temporarily parked these funds in M2 accounts before paying down other debt or spending them. In the fourth quarter, M2 contracted at an annual rate of 2 percent, the largest quarterly decline since consistent data collection began in 1959. As mortgage rates backed up and the pace of refinancing slowed, the funds that had been swelling deposits flowed out, depressing M2. The sustained rally in equity markets after the first quarter of the year may also have slowed M2 growth, as expectations of continued higher returns led households to shift funds from M2 assets to equities, a view reinforced by the strong flows into equity mutual funds.

International Developments

Economic growth abroad rebounded in the second half of last year as factors that weighed on the global economy in the first half—including the SARS epidemic and uncertainty surrounding the war in Iraq—dissipated. Foreign growth also was boosted by the strong rebound in the U.S. economy, the revival of the global high-tech sector, and, in many countries, ample policy stimulus.

Strong second-half growth in China stimulated activity in other emerging Asian economies and Japan by raising the demand for their exports. Growth in Japan also was spurred by a recovery in private spending there on capital goods. Economic activity in Europe picked up in the second half, as export growth resumed. Economic growth in Latin America has been less robust; the Mexican economic upturn has lagged that of the United States, and Brazil's economy has only recently begun to recover from the effects of its 2002 financial crisis.

Monetary authorities abroad generally eased their policies during the first half of 2003 as economic activity stagnated. In the second half, market participants began to build in expectations of eventual monetary tightening abroad, and official interest rates were raised by year-end in the United Kingdom and Australia. Canadian monetary policy followed a different pattern; the Bank of Canada raised official interest rates in the spring as inflation moved well above its 1 percent to 3 percent target range but cut rates later in the year and again early this year as slack emerged and inflation moderated. Similarly, lower inflation in Mexico and Brazil allowed authorities to ease monetary policy during 2003. The Bank of Japan maintained official interest rates near zero and continued to increase the monetary base.

In foreign financial markets, equity prices fell, on average, until mid-March but since then have risen in reaction to indications of stronger-than-expected global economic activity. Emerging-market equity indexes outpaced those in the industrial countries in 2003, with markets in Latin America posting particularly strong gains. Around midyear, long-term interest rates declined to multiyear lows in many countries as economic growth slowed and inflationary pressures diminished, but those rates moved higher in the second half as growth prospects improved. Bond spreads came down substantially during the year, both for industrial-country corporate debt and for emerging-market sovereign debt; spreads of the J.P. Morgan Emerging Market Bond Index (EMBI+) over U.S. Treasury securities fell to their lowest levels since before the Russian crisis of 1998. Gross capital flows to emerging markets, however, remained well below their 1997 peak.

The foreign exchange value of the dollar continued to decline last year as concerns over the financing of the large and growing U.S. current account deficit took on greater prominence. The dollar declined 18 percent against the Canadian dollar, 17 percent against the euro, and 10 percent against the British pound and the Japanese yen. In contrast, the value of the dollar was little changed, on net, against the currencies of our other important trading partners, in part because officials of China and of some other emerging Asian economies managed their exchange rates so as to maintain stability in terms of the dollar. Among Latin American currencies, the dollar declined against the Brazilian and Argentine currencies but appreciated

U.S. Dollar Exchange Rate against Selected Major Currencies

NOTE. The data are weekly and are in foreign currency units per dollar. Last observations are the average of trading days through February 4, 2004.

against the Mexican peso. On balance, the dollar depreciated 9 percent during 2003 on a trade-weighted basis against the currencies of a broad group of U.S. trading partners.

Industrial Economies

The euro-area economy contracted in the first half of 2003, weighed down in part by geopolitical uncertainty and higher oil prices. In the second half, economic activity in the euro area began to grow as the global pickup in activity spurred a recovery of euro-area exports despite the continued appreciation of the euro. The monetary policy of the European Central Bank (ECB) was supportive of growth, with the policy interest rate lowered to 2 percent by midyear. Consumer price inflation slowed to around 2 percent, the upper limit of the ECB’s definition of price stability. Despite increased economic slack, inflation moved down only a little, partly because the summer drought boosted food prices. For the second straight year, the governments of Germany and France each recorded budget deficits in excess of the 3 percent deficit-to-GDP limit specified by the Stability and Growth Pact. However, in light of economic conditions, European Union finance ministers chose not to impose sanctions.

After a sluggish first quarter, the U.K. economy expanded at a solid pace for the remainder of 2003, supported by robust consumption spending and considerable government expenditure. The Bank of England cut rates in the first half of the year but reversed some of that easing later in the year and early this year as the economy picked up and housing prices continued to rise at a rapid, albeit slower, pace. In June, the British government announced its assessment that conditions still were not right for the United Kingdom to adopt the euro. In December, the British government changed the inflation measure to be targeted by the Bank of England from the retail prices index excluding mortgage interest (RPIX) to the consumer prices index. U.K. inflation currently is well below the objective of 2 percent on the new target index.

The Canadian economy contracted in the second quarter owing to the impact of the SARS outbreak in Toronto on travel and tourism, but it rebounded in the latter half of the year. Canadian economic growth continued to be led by strong domestic demand; consumption remained robust and investment spending accelerated, offsetting the negative effect of Canadian dollar appreciation on both exports and import-competing industries. Canadian consumer price inflation swung widely last year, rising to 4½ percent on a twelve-month basis in February before falling to 1½ percent in November and ending the year at 2 percent. The swing partly reflected movements in energy prices, but changes in auto insurance premiums and cigarette taxes also played an important role.

Japanese real GDP recorded significant growth in 2003 for the second straight year. Private investment spending made the largest contribution to the expansion. Consumer spending remained sluggish as labor market conditions continued to be soft. However, nominal wages stabilized following a sharp drop in 2002, and leading indicators of employment moved higher. Despite an appreciation of the yen late in the year, Japanese exports posted a strong increase in 2003 primarily because of gains in exports to China and other emerging Asian economies. With consumer prices continuing to decline, the Bank of Japan (BOJ) maintained its policy interest rate near zero and eased monetary policy several times during 2003 by increasing the target range for the outstanding balance of reserve accounts held by private financial institutions at the BOJ. The BOJ also took other initiatives last year to support the Japanese economy, including launching a program to purchase securities backed by the assets of small- and medium-sized enterprises. Japanese banks continued to be weighed down by large amounts of bad debt, but some progress was made in resolving problems of insufficient bank capital and in reducing bad-debt levels from their previous-year highs.

Emerging-Market Economies

Growth in the Asian developing economies rebounded sharply in the second half of 2003 after having contracted in the first half. The outbreak of SARS in China and its spread to other Asian economies was the primary factor depressing growth in the first half, and the subsequent recovery of retail sales and tourism after the epidemic was contained was an important factor in the

U.S. Dollar Exchange Rates and Bond Spreads for Selected Emerging Markets

NOTE. The exchange rate data are weekly averages indexed to the week ending January 5, 2001. Last observations are the average of trading days through February 4, 2004. Exchange rates (top panel) are in foreign currency units per dollar. Bond spreads (bottom panel) are the spreads of the J.P. Morgan Emerging Market Bond Index (EMBI+) over U.S. Treasury securities.

sharp rebound. The pattern of Asian growth also reflected the sharp recovery of the global high-tech sector in the second half after a prolonged period of weakness. Exports continued to be the main engine of growth for the region. However, domestic demand contributed importantly to growth in China, where state-sector investment increased at a rapid clip and a boom in construction activity continued. Supply problems caused food prices and overall consumer prices in China to rise on a twelve-month basis last year, following a period of price deflation during the previous year. In addition, concerns emerged that some sectors of the Chinese economy, particularly the property markets in Beijing and Shanghai, may be overheating.

Korean economic growth turned negative in the first half, as the high level of household debt, labor unrest, and concerns over North Korea's nuclear development depressed private-sector spending. A sharp rise in exports spurred a revival of growth in the second half even as domestic demand remained subdued.

The Mexican economy remained sluggish through much of the year but recently has shown some signs of improvement. After lagging the rise in U.S. production, Mexican industrial production posted strong gains in October and November, although it remains well below the peak it reached in 2000. Exports rose late last year to almost the peak they had reached in 2000. Consumer price inflation came down over the course of 2003 to 4 percent, the upper bound of the 2 percent to 4 percent target range. The Bank of Mexico has left policy unchanged since tightening five times between September 2002 and March 2003, but market interest rates have fallen owing to weakness in economic activity.

The Brazilian economy contracted in the first half of 2003 partly as a result of the 2002 financial crisis and the consequent monetary policy tightening. It then expanded moderately in the second half, boosted by strong export growth and a recovery in investment spending. Brazilian financial indicators improved significantly in 2003, in part because the Brazilian government began to run a substantial primary budget surplus and to reform the public-sector pension system. The Brazilian stock market soared nearly 100 percent last year, and Brazil's EMBI+ bond spread narrowed by nearly two-thirds. As the Brazilian currency stabilized and began to appreciate, Brazil's inflation outlook improved, allowing the central bank to reverse fully its earlier rate hikes and to reduce the overnight interest rate to a multi-year low, although real interest rates remained high.

The Argentine economy rebounded in 2003 from the sharp contraction that occurred in the wake of its financial crisis in 2001–02. Still, economic activity remains far below pre-crisis levels, and many of Argentina's structural problems have not been addressed. With the government still in default to its bondholders, the country's sovereign debt continued to carry a very low credit rating, and its EMBI+ spread remained extremely high. Even so, the Argentine peso appreciated on balance in 2003, and the Merval stock index nearly doubled over the course of the year. ▪

Monetary Policy Report of July 2003

Monetary Policy and the Economic Outlook

The subpar performance of the U.S. economy extended into the first half of 2003. Although accommodative macroeconomic policies and continued robust productivity growth helped to sustain aggregate demand, businesses remained cautious about spending and hiring. All told, real gross domestic product continued to rise in the first half of the year but less quickly than the economy's productive capacity was increasing, and margins of slack in labor and product markets thereby widened further. As a result, underlying inflation remained low—and, indeed, seems to have moved down another notch. In financial markets, longer-term interest rates fell, on net, over the first half of the year as the decline in inflation and the subdued performance of the economy led market participants to conclude that short-term interest rates would be lower than previously anticipated. These lower interest rates helped to sustain a rally in equity prices that had begun in mid-March.

During the first quarter of the year, the economy's prospects were clouded by the uncertainties surrounding the onset, duration, and potential consequences of war in Iraq. War-related concerns provided a sizable boost to crude oil prices; as a result, households faced higher bills for gasoline and heating oil, and many firms were burdened with rising energy costs. These concerns also caused consumer confidence to sag and added to a general disinclination of firms to spend, hire, and accumulate inventories. Caution was apparent in financial markets as well, and investors bid down the prices of equities in favor of less-risky securities.

The swift prosecution of the war in Iraq resolved some of these exceptional uncertainties but by no means all of them. Nonetheless, oil prices receded, and the improvement in the economic climate was sufficient to cause stock prices to rally, risk spreads on corporate securities to narrow, and consumer confidence to rebound. At the same time, the incoming economic data—much of which reflected decisions made before the war—remained mixed, and inflation trended lower. At the conclusion of its May meeting, the Federal Open Market Committee (FOMC) indicated that, whereas the risks to the outlook for economic growth were balanced, the risk of an unwelcome substantial fall in inflation from its already low level, though minor, exceeded that of a pickup in inflation. In the weeks that followed, market participants pushed down the expected future path of the federal funds rate, which contributed to the fall in longer-term interest rates and a further rise in equity prices.

At the time of the June FOMC meeting, the available evidence did not yet compellingly demonstrate that a material step-up in economic growth was under way, though some indicators did point to a firming in spending and a stabilization in the labor and product markets. The Committee concluded that a slightly more expansive monetary pol-

NOTE. The discussion in this section consists of the text and tables from the Monetary Policy Report submitted to the Congress on July 15, 2003; the charts from this report (as well as earlier reports) are available on the Board's web site, at www.federalreserve.gov/boarddocs/hh.

icy would be warranted to add further support to the economic expansion. The Committee's assessment and ranking of the risks to the outlook for economic growth and inflation were the same as in May.

The Federal Reserve expects economic activity to strengthen later this year and in 2004, in part because of the accommodative stance of monetary policy and the broad-based improvement in financial conditions. In addition, fiscal policy is likely to be stimulative as the provisions of the Jobs and Growth Tax Relief Reconciliation Act of 2003 go into effect and as defense spending continues to ramp up. Severe budgetary pressures are causing state and local governments to cut spending and to increase taxes and fees, but these actions should offset only a portion of the impetus from the federal sector. Moreover, the continued favorable performance of productivity growth should lift household and business incomes and thereby encourage capital spending. Given the ongoing gains in productivity and the existing margin of resource slack, aggregate demand could grow at a solid pace for some time before generating upward pressure on inflation.

Monetary Policy, Financial Markets, and the Economy over the First Half of 2003

During the weeks before the January meeting of the FOMC, geopolitical developments and the uneven tone of economic data releases created substantial uncertainty. Businesses had continued to reduce their payrolls and postpone capital expenditures. However, the absence of fresh revelations of lapses in corporate governance or accounting problems and some increased appetite for risk on the part of investors helped push down yields on corporate debt, which encouraged firms to issue bonds to reduce their financing costs and restructure their balance sheets. Meanwhile, moderate gains in household income and historically low mortgage rates underpinned still-considerable demand for housing. Retail sales, particularly those of motor vehicles, also were strong at the end of 2002 despite some drop-off in consumer confidence. Core inflation seemed to be on a declining trend, although the foreign exchange value of the dollar had depreciated, and top-line inflation was being boosted by a sizable run-up in energy prices. The substantial slack in resource utilization, as well as the solid gains in labor productivity, led members to the view that consumer price inflation—by then already very low—was unlikely to increase meaningfully. Against that backdrop, the Committee members continued to believe that economic fundamentals were in place to support a pickup in the growth of economic activity during the year ahead. Accordingly, the FOMC decided at the January meeting to leave interest rates unchanged and assessed the risks as balanced with respect to its dual goals of sustainable economic growth and price stability.

In subsequent weeks, economic performance proved disappointing. The increasing likelihood of war in Iraq was accompanied by a steep rise in crude oil prices and considerable volatility in financial markets. For much of that period, investors sought the relative safety of fixed-income instruments; that preference induced declines in yields on Treasury securities and high-quality corporate bonds and a drop in stock prices. Consumer outlays also softened after January, although low mortgage rates and rising incomes were still providing support for household spending. Businesses continued to trim workforces and cut capital spending.

When the Committee met on March 18, full-scale military conflict in Iraq seemed imminent. In an environment of considerable uncertainty, the FOMC had to weigh whether economic sluggishness was largely related to worries about the war, and hence would lift once the outcome was decided, or was indicative of deep-seated restraints on economic activity. The Committee, which reasoned that it could not make such a distinction in the presence of so much uncertainty, left the funds rate unchanged and declined to characterize the balance of risks with respect to its dual goals. However, the Committee noted that, given the circumstances, heightened surveillance would be particularly informative, and it held a series of conference calls during late March and April to discuss the latest economic developments.

Some of the uncertainty was resolved by the quick end to major military action in Iraq. Equity prices and consumer confidence rose while oil prices and risk spreads on corporate debt fell. Fiscal policy seemed set to become even more stimulative given the prospect of increased spending on defense and homeland security as well as the likely enactment of additional tax cuts. Part of the federal stimulus, however, was thought likely to be offset by the efforts of state and local governments to close their budget gaps.

Economic reports were generally disappointing. Industrial production declined in March, and capacity utilization fell to a twenty-year low. The employment reports for March and April indicated that private nonfarm payrolls had continued to fall. Although order backlogs for nondefense capital goods had risen recently, businesses generally remained reluctant to invest in new capacity.

In light of the financial and policy stimulus already in place, the FOMC left the federal funds rate unchanged at its May meeting. To provide more specific guidance about its views, the FOMC included in its announcement separate assessments of the risks to the outlook for economic growth and inflation as well as the overall balance between the two. The Committee viewed the upside and downside risks to economic growth as balanced, but it perceived a higher probability of an unwelcome substantial fall in inflation than of a pickup in inflation from its current low level. The Committee considered that the overall balance of risks to its dual objectives was weighted toward weakness. That said, members concluded that there was only a remote possibility that resource utilization would remain so low that the disinflation process would cumulate to produce a declining overall price level for an extended period.

Financial market participants reacted strongly to this characterization of risks, believing that the Committee's focus on leaning against appreciable disinflation implied that monetary policy would be more accommodative and remain so for longer than previously thought. Investors pushed down the expected path of the federal funds rate in the weeks following the meeting. Intermediate- and long-term interest rates fell significantly and spurred another round of long-term bond issuance. The resulting decline in real interest rates helped sustain the rally in equity prices.

Between the May and June meetings, a few tentative signs suggested that the pace of economic activity might be firming. Industrial production and retail sales edged up in May, available data indicated that employment had stopped declining, residential investment remained strong, and survey measures of consumer sentiment and business conditions were well above the levels of earlier in the year. Financial conditions had improved markedly, but businesses reportedly remained somewhat averse to new investment projects, in part because of significant unused capacity. They also seemed reluctant to expand their workforces until they viewed a sustained pickup in aggregate demand as more certain.

With inflation already low and inflation expectations subdued, the Committee judged that it would be prudent to add further support for economic expansion, and it lowered the target for the federal funds rate 25 basis points, to 1 percent. The FOMC continued to view the risks to economic growth as balanced and again noted that the minor probability of substantial further disinflation exceeded the probability of a pickup in inflation from its current low level. But because of the considerable amount of economic slack prevailing and the economy's ability to expand without putting upward pressure on prices, the Committee indicated that the small chance of an unwelcome substantial decline in the inflation rate was likely to remain its predominant concern for the foreseeable future.

Economic Projections for 2003 and 2004

Percent

Indicator	Federal Reserve Governors and Reserve Bank presidents: Range	Central tendency
	2003	
Change, fourth quarter to fourth quarter[1]		
Nominal GDP	3½–4¾	3¾–4½
Real GDP	2¼–3	2½–2¾
PCE chain-type price index	1–1¾	1¼–1½
Average level, fourth quarter		
Civilian unemployment rate	6–6¼	6–6¼
	2004	
Change, fourth quarter to fourth quarter[1]		
Nominal GDP	4¾–6½	5¼–6¼
Real GDP	3½–5¼	3¾–4¾
PCE chain-type price index	¾–2	1–1½
Average level, fourth quarter		
Civilian unemployment rate	5½–6¼	5½–6

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

Economic Projections for 2003 and 2004

The members of the Board of Governors and the Federal Reserve Bank presidents, all of whom participate in the deliberations of the FOMC, expect economic activity to accelerate in the second half of this year and to gather additional momentum in 2004. The central tendency of the FOMC participants' forecasts for the increase in real GDP over the four quarters of 2003 spans a narrow range of 2½ percent to 2¾ percent, which, given the modest increase in real GDP in the first quarter, implies a noticeable pickup in growth as the year progresses. The central tendency for projections of real GDP growth in 2004 spans a range of 3¾ percent to 4¾ percent. The civilian unemployment rate is expected to be between 6 percent and 6¼ percent in the fourth quarter of 2003 and to decline to between 5½ percent and 6 percent by the fourth quarter of 2004.

Inflation is anticipated to be quite low over the next year and a half. The chain-type price index for personal consumption expenditures (PCE) rose 1¾ percent over the four quarters of 2002, and most FOMC participants expect inflation to run somewhat lower this year and then to hold fairly steady in 2004. The central tendency of projections for PCE inflation is 1¼ percent to 1½ percent in 2003 and 1 percent to 1½ percent in 2004.

Economic and Financial Developments in 2003

Economic activity in the United States remained sluggish in the first half of 2003. Businesses continued to be reluctant to undertake new projects given the unusual degree of uncertainty in the economic environment, and the softness in activity abroad crimped the demand for U.S. exports. However, consumer spending grew moderately, housing activity retained considerable vigor, and defense spending picked up. Real GDP rose at an annual rate of just 1½ percent in the first quarter and appears to have posted another modest gain in the second quarter. With output growth remaining tepid and labor productivity rising at a fairly robust pace, firms continued to trim payrolls in the first half of 2003, though job losses in the private sector were a little smaller than they had been, on average, in 2002.

For much of the first half of the year, headline inflation news was shaped by movements in energy prices, which soared during the winter, retreated during the spring, and more recently firmed. Core inflation—which excludes the direct effects of food and energy prices—was held to a low level by slack in resource utilization and continued sizable advances in labor productivity.

As a result of slow economic growth and the prospect that inflation would remain very subdued, the federal funds rate was maintained at the accommodative level of 1¼ percent for much of the first half of the year. Intermediate- and longer-term yields declined, in some cases to their lowest levels on record. Equity prices, which through mid-March had fallen in response to weaker-than-expected economic news and rising geopolitical tensions, began a broad rally as it became clear that the war in Iraq would begin imminently. The apparent increase in investors' appetite for risk also helped push down risk spreads on corporate bonds and triggered inflows to equity and high-yield bond mutual funds. Since the beginning of the year, the foreign exchange value of the dollar has depreciated nearly 5 percent against the broad group of currencies of our major trading partners.

Households and businesses have taken advantage of the decline in intermediate-term and long-term interest rates from their already low levels, mostly by refinancing debt at ever more favorable rates. Partly as a result, household credit quality was little changed over the first half of the year, and household debt continued to expand at a rapid pace as mortgage interest rates fell to their lowest levels in more than three decades. Business balance sheets strengthened noticeably, and many measures of corporate credit performance showed some improvement. Still, net borrowing by businesses continued to be damped by the softness in investment spending.

The Household Sector

Consumer Spending

Consumer spending continued to increase in the first half of 2003, though not as quickly as in the past few years. In total, real personal consumption expenditures (PCE) rose at an annual rate of 2 percent in the first quarter and likely posted another moderate advance in the second quarter. Purchases of new light motor vehicles were sustained by the automakers' use of increasingly aggressive price and financing incentives. Spending on goods other than motor vehicles rose briskly in the first quarter, though that was largely because of the high level of spending around the turn of the year; the data through May suggest a further increase for this category in the second quarter. In contrast, outlays on services rose only slowly over the first five months of the year as weakness lingered in a number of categories, including air travel and recreation.

The rise in real consumption expenditures so far in 2003 has about matched the growth in real disposable personal income (DPI), which has been restrained by the poor job market and by the surge in consumer energy prices early in the year. Real DPI rose about 2¼ percent at an annual rate between the fourth quarter of 2002 and May after having increased at a considerably faster pace in 2002; the larger increase in real DPI in 2002 in part reflected the effects of the tax cuts enacted in 2001.

Among other key influences on consumption, household wealth grew about in line with nominal DPI in the fourth quarter of 2002 and the first quarter of 2003 after having fallen sharply over the preceding two years. While the rebound in the stock market in the second quarter should help the wealth-to-income ratio recoup some of the ground it lost earlier, households likely have not yet completed the adjustment of their spending to the earlier drop in wealth. Meanwhile, the high level of mortgage refinancing in recent quarters has bolstered consumer spending by allowing homeowners to reduce their monthly payments, pay down more costly consumer debt, and in many cases cash out some of the equity that has accumulated during the upswing in house prices over the past few years. Reflecting these influences, the personal saving rate averaged 3½ percent over the first five months of the year—about the same as the annual average for 2002 but more than 1 percentage point above that for 2001.

Consumer confidence, which has exhibited some sharp swings in recent years, remained volatile in the first half of 2003. After having declined markedly over the second half of 2002, survey readings from both the Michigan Survey Research Center and the Conference Board took another tumble early this year on concerns about the potential consequences of a war in Iraq. With the combat in Iraq largely over and the stock market recovering, confidence rose appreciably, on net, in the spring.

Residential Investment

Housing activity remained robust in the first half of this year, as very low mortgage interest rates apparently offset much of the downward pressure from the soft labor market. In the single-family sector, starts averaged an annual rate of 1.39 million units over the first five months of the year—2 percent greater than the rapid pace for 2002 as a whole. In addition, sales of new and existing homes moved to exceptionally high levels. According to the Michigan survey, consumers' assessments of homebuying conditions currently are very favorable, mainly because of the low mortgage rates.

The available indicators provide differing signals on the magnitude of recent increases in home prices, but, in general, they point to smaller gains than those recorded a year or two ago. Notably, over the year ending in the first quarter, the constant-quality price index for new homes rose just 2½ percent, one of the lowest readings of the past few years. Meanwhile, the four-quarter increase in the repeat-sales price index for existing homes, which topped out at 8½ percent in 2001, was 6½ percent in the first quarter. Still, the share of income required to finance the purchase of a new home, adjusted for variations over time in structural characteristics, has continued to move down as mortgage rates have dropped, and it is now very low by historical standards.

Activity in the multifamily sector appears to have slipped somewhat this year, perhaps in part because the strong demand for single-family homes may be cutting into the demand for apartments. Multifamily starts totaled 325,000 units at an annual rate over the first five months of the year, a pace 6 percent below that for 2002 as a whole. In addition, vacancy rates for multifamily rental properties rose further in the first quarter, and apartment rents continued to fall.

Household Finance

Household real estate debt grew rapidly in the first half of the year with the support of the brisk pace of home sales, rising home prices, and falling mortgage interest rates. Indeed, according to Freddie Mac, the average rate on thirty-year conventional home mortgages fell sharply until June, though it has edged back up in recent weeks and now stands at about 5½ percent. Applications for mortgages to purchase homes rose well above the already elevated level of last year. Sales of existing homes, in particular, add significantly to the level of mortgage debt because the purchaser's mortgage is typically much larger than the seller's had been. The pace of mortgage refinancing—which adds to borrowing because households often increase the size of their mortgages when they refinance—set consecutive quarterly records in the first and second quarters of 2003 in response to the declines in mortgage rates. According to Freddie Mac, more than 40 percent of the refinancings in the first quarter were "cash-out" refinancings, and the amount of equity extracted likely set a record in the first half of this year. The combination of rising home prices and low interest rates also energized home equity lending during the first half of 2003.

A major use of the proceeds from both cash-out refinancing and home equity loans reportedly has been to pay down credit card and other higher-cost consumer debt. Indeed, in line with those reports, consumer debt advanced at a relatively subdued 4½ percent annual rate in the first quarter. The growth of revolving debt was about 5 percent at an annual rate, and nonrevolving debt expanded at a 3½ percent annual rate. The growth of consumer debt picked up in the spring; the acceleration in part reflected somewhat higher motor vehicle sales that boosted the nonrevolving component, which in turn offset a deceleration in revolving credit. Meanwhile, the average interest rates charged on credit cards and on new car loans at auto finance companies this year have remained near the low end of their recent ranges.

In total, household debt grew at a 10 percent annual rate in the first quarter, a pace about unchanged from last year's. Despite the marked rise of this debt over the past several quarters, the aggregate debt-service burden of households ticked down in both the fourth quarter of 2002 and the first quarter of this year—periods during which borrowing rates fell and the average maturity of household debt rose. Although households continued to borrow at a rapid pace in the second quarter, the declines in mortgage interest rates and an elevated level of refinancing imply that the debt-service burden was likely little changed.

The credit quality of household debt remained fairly stable in the first quarter. The delinquency rates both on residential mortgages and on credit card loans edged down in the first quarter, though persistently high delinquencies among subprime borrowers remain a problem area. Delinquency rates on auto loans at captive finance companies have edged up in recent months from their very low levels of the past few years. However, lenders probably anticipated some increase as the plethora of new vehicle loans issued in late 2001 and early 2002 seasoned. The fact that a large number of households declared bankruptcy in the first half of the year suggests that some households continue to experience considerable distress.

In a continuation of the trend during the second half of 2002, households invested heavily in bond mutual funds—and relatively safe bond funds at that—during the first quarter of 2003 and disinvested from equity funds. However, starting in March, households showed a growing willingness to purchase shares of riskier funds. As corporate credit quality improved and risk-free interest rates fell to record lows, a significantly larger portion of the investment in bond mutual funds flowed into corporate bond funds—including high-yield funds—at the expense of government bond funds. Inflows to equity mutual funds reportedly resumed in mid-March and continued through June.

The Business Sector

Fixed Investment

Investment in equipment and software (E&S) continues to languish. Firms reportedly remain reluctant to undertake new projects because of the uncertainty about the economic outlook and heightened risk aversion in the wake of last year's corporate governance and accounting problems. Excess capacity—in addition to being a factor weighing on nonresidential construction—also is limiting demand for some types of equipment, most notably in the telecommunications area. But other key determinants of equipment spending are reasonably favorable. The aggressive actions taken by firms over the past few years to boost productivity and trim costs have provided a lift to corporate profits and cash flow. In addition, low interest rates and a rising stock market are helping hold down firms' cost of capital, as is the partial-expensing investment tax incentive. In addition, technological advances continue to depress the relative price of computers at a time when stretched-out replacement cycles have apparently widened the gap between the latest technology and that embodied in many of the machines currently in use.

Real spending on E&S fell at an annual rate of nearly 5 percent in the first quarter. The outlays were restrained by a sharp decline in spending on transportation equipment, especially motor vehicles; excluding that category, spending posted a small gain. Real outlays on high-tech equipment and software rose at an annual rate of about 11 percent in the first quarter, a bit faster than they had in 2002. Real purchases of computers and peripheral equipment remained on the moderate uptrend that has been evident since such spending bottomed out in 2001, and outlays on communications equipment picked up after an extended period of weakness. Meanwhile, investment outside the transportation and high-tech areas dropped back a bit.

Real E&S spending appears to have turned up in the second quarter, in part because of a step-up in the pace of real computer investment. However, incoming data suggest that outlays on communications equipment did not repeat their first-quarter spurt. The data on shipments of capital goods point to moderate increases in spending outside of high-tech and transportation in the second quarter; moreover, backlogs of unfilled orders for equipment in this broad category have risen some this year after having declined over the preceding two years.

Nonresidential construction remained weak in the first half of 2003. Although real construction outlays were off only a little in the first quarter, they had fallen nearly 16 percent in 2002, and partial data for the second quarter point to continued softness. The downturn in spending has been especially pronounced in the office sector, where vacancy rates have surged and rents have plunged. Spending on industrial facilities also has fallen dramatically over the past couple of years; it has continued to contract in recent quarters and is unlikely to improve much in the absence of a significant rise in factory operating rates. Construction expenditures on other commercial buildings (such as those for retail, wholesale, and warehouse space), which had declined less than did outlays for other major categories of nonresidential construction over the past couple of years, moved up in the first quarter of 2003, but they too have shown some renewed softness lately. One bright spot is the drilling and mining sector, in which outlays have risen sharply this year in response to higher natural gas prices.

Inventory Investment

Most businesses have continued to keep a tight rein on inventories after the massive liquidation in 2001. Real inventory investment in the first quarter was a meager $5 billion at an annual rate and occurred entirely in the motor vehicle industry, where sagging sales and ambitious production early in the year created a noticeable bulge in dealer stocks, especially of light trucks. In the second quarter, the automakers reduced assemblies and expanded incentives to bolster sales, but these steps were sufficient only to reduce stocks a little, and inventories remained high relative to sales through June. Apart from the motor vehicle industry, firms reduced stocks, on net, over the first five months of 2003, and, with only a few exceptions, inventories appear reasonably well aligned with sales.

Corporate Profits and Business Finance

Before-tax profits of nonfarm, nonfinancial corporations grew at a 6½ percent annual rate in the first quarter of 2003, and they constituted 8½ percent of the sector's first-quarter GDP, the highest proportion since the third quarter of 2000. Focusing on the companies that make up the S&P 500, earnings per share for the first quarter were up about 7 percent at a quarterly rate from the fourth quarter of 2002 and were 11 percent higher than four quarters earlier. Although oil companies accounted for the majority of the four-quarter increase, earnings from the financial, utility, and consumer durable sectors were also strong and exceeded the market's conservative expectations by larger-than-usual margins. The recent depreciation of the dollar substantially boosted revenues of U.S. multinational corporations, but the hedging of currency risk likely limited the extent to which sales gains showed through to profits.

Net equity retirements in the first quarter of 2003 were probably a shade larger than in the fourth quarter of 2002, as the decline in gross new issuance more than offset lower gross retirements. Equity retirements from cash-financed mergers were a bit below their pace in the past two years, and share repurchases appear to be running somewhat slower as well. Volatile and declining equity prices in the first quarter brought initial public offerings (IPOs) to a standstill during the first four months of this year. One small IPO was undertaken in May, and another one came to market in June. With regard to seasoned equity offerings, a war-related lull in March and April held the average monthly pace of issuance this year well below last year's level. Most of these offerings have been from energy firms and utilities that have used the proceeds primarily to reduce leverage and increase liquidity.

The net debt growth of nonfinancial corporate business was just 3 percent at an annual rate in the first quarter, as rising profits and lower outlays for fixed and working capital held down corporations' need for external funds. Nonetheless, low interest rates continued to attract firms to the bond market during the first half of 2003, and issuance ran well ahead of its rate of the second half of 2002. Moreover, a large fraction of the issues were from below-investment-grade firms, which likely were responding to the even sharper fall in their borrowing rates than investment-grade firms enjoyed. A substantial portion of the proceeds of recent bond issues have been slated to pay down commercial paper and commercial and industrial (C&I) loans, and each of those components contracted markedly during the first half of the year. Another factor contributing to the weakening in demand for C&I loans this year was the absence of merger and acquisition activity, according to the Federal Reserve's Senior Loan Officer Opinion Survey on Bank Lending Practices.

The runoff in C&I loans appears related more to a decrease in demand than to a tightening of supply conditions, and bank credit appears to remain available for qualified business borrowers. The net fraction of banks in the Senior Loan Officer Opinion Survey that reported having tightened lending standards and terms on C&I loans during the first part of the year decreased markedly, and the Survey of Small Business by the National Federation of Independent Business showed that the net percentage of small businesses believing credit had become more difficult to obtain hovered near the middle of its recent range. Moreover, in the April Senior Loan Officer Opinion Survey, a number of banks reported that they had eased lending terms in response to increased competition for C&I loans from nonbank lenders. Indeed, data from Loan Pricing Corporation indicate that nonbank financial institutions purchased a record amount of new syndicated loans during the first quarter of this year; the buyers were reportedly attracted in part by improving liquidity in the secondary loan market.

The decline in both short- and long-term interest rates, combined with slow increases in total business debt, contributed to a further reduction in the net interest burden of nonfinancial corporations during the first quarter. Moreover, by issuing bonds and paying down short-term debt, businesses have substantially lengthened the overall maturity of their debt, thus reducing their near-term repayment obligations. These developments, together with higher profitability, have helped most measures of corporate credit performance to improve this year. The number of ratings downgrades continued to exceed upgrades but by a notably smaller margin than last year. The six-month trailing bond default rate declined considerably in the first half of the year. The four-quarter moving average of recovery rates on defaulted bonds improved a bit in the first quarter, although it remained at the low end of its range of the past several years. The delinquency rate on C&I loans at commercial banks also moved down some in the first quarter, albeit to a level well above that of the late 1990s.

Commercial Real Estate

The growth of debt backed by commercial real estate remained robust this year despite some deterioration in that sector's underlying fundamentals. In the first quarter of 2003, the expansion of debt was driven by lending at commercial banks and was spread about equally across broadly defined types of commercial real estate loans. Although the issuance of commercial-mortgage-backed securities (CMBS) slowed somewhat in the first quarter from the rapid pace of the second half of last year, issuance appears to have rebounded strongly in the second quarter.

Despite continued increases in vacancy rates and declines in the rents charged for various types of commercial properties, the credit quality of commercial mortgages has yet to show appreciable signs of deterioration. At commercial banks, delinquency rates on commercial mortgages edged up only slightly in the first quarter of 2003 from their historically low levels of recent years. Delinquency rates on CMBS, which were stable in 2002 at about the midpoint of their recent range, have also risen just a bit this year. Respondents to the April 2003 Senior Loan Officer Opinion Survey attributed the resiliency of the credit quality of commercial real estate loans in part to borrowers' ability to refinance at lower interest rates; they also mentioned that the many borrowers with substantial equity positions in the mortgaged properties have an extra incentive to remain current. Banks also pointed to their having tightened lending standards and terms, including maximum loan-to-value ratios, well in advance of the current downturn.

In line with the assessment that, to date, credit quality in the sector remains good, spreads on CMBS over Treasuries have remained in the lower half of the ranges observed over the past few years. Market reports indicate that CMBS issuers generally have had access to terrorism insurance for the underlying properties, and the cost of that insurance has come down significantly. In addition, newly formed pools that include high-profile properties reportedly have been diversified to further protect investors from losses due to acts of terrorism.

The Government Sector

Federal Government

The federal budget deficit has widened significantly as a consequence of the persistent softness in receipts and legislative actions affecting both spending and taxes. Over the first eight months of the current fiscal year—October to May—the deficit in the unified budget was $292 billion, nearly $150 billion larger than that recorded during the comparable period last year. Moreover, recent policy actions are projected to boost the deficit significantly over the remainder of the fiscal year. In particular, receipts will be reduced appreciably by several provisions of the Jobs and Growth Tax Relief Reconciliation Act of 2003, including advance refund checks for the 2003 increment to the child tax credit, downward adjustments to withholding schedules for individual taxpayers, and the sweetening of the partial-expensing investment incentive for businesses. In addition, outlays will be boosted by the supplemental appropriations for defense and foreign aid and by additional grants to the states. If the latest projection from the Congressional Budget Office is realized, the unified deficit will increase from $158 billion in fiscal 2002 to more than $400 billion in fiscal 2003.

The deterioration in the unified budget has been mirrored in a sharp downswing in federal saving—essentially, the unified surplus or deficit adjusted to conform to the accounting practices followed in the national income and product accounts (NIPA). Indeed, net federal saving, which accounts for the depreciation of government capital, fell from a high of a positive 2 percent of GDP in 2000 to a negative 2½ percent of GDP in the first quarter of 2003. With little change, on balance, in nonfederal domestic saving over this period, the downswing in federal saving showed through into net national saving, which was equal to less than 1 percent of GDP in the first quarter, compared with the recent high of 6½ percent of GDP in 1998. If not reversed over the longer haul, such low levels of national saving could eventually impinge on the formation of private capital that contributed to the improved productivity performance of the past half-decade.

Federal receipts in the first eight months of the current fiscal year were nearly 3 percent lower than during the comparable period of fiscal 2002 after adjusting for some shifts in the timing of payments during the fall of 2001. Individual receipts were especially weak: Although withheld taxes, which tend to move in line with wages and salaries, held up fairly well (after adjusting for changes in tax law) during this period, nonwithheld payments, which are more sensitive to capital income, dropped sharply. This spring's net final payments, which are largely payments on the previous year's liabilities, were exceptionally soft for a second year in a row; in combination with the information on withheld and estimated payments, they imply that individual liabilities continued to shrink as a percentage of the NIPA tax base in 2002. The substantial drop in the ratio of liabilities to NIPA income over the past couple of years reflects in part a reversal of the capital gains bonanza of the late 1990s and the tax reductions enacted in 2001. (Capital gains are not included in the NIPA income measure, which, by design, includes only income from current production.) In addition, the change in the distribution of income in the late 1990s, which concentrated more income in the upper tax brackets, may have been reversed some during the past couple of years.

Federal spending during the first eight months of fiscal year 2003 was 6½ percent higher than during the same period last year; excluding the drop in net interest outlays, spending was more than 7½ percent higher. Spurred by the war in Iraq, defense spending has moved up another 15 percent thus far this year; outlays for homeland security have risen briskly as well. Expenditures for income security programs, which include the temporary extended unemployment compensation program, also have risen at a fairly rapid rate. Though growth in spending on Medicare and Medicaid, taken together, has slowed a bit this year, the rising cost and utilization of medical care continue to put upward pressure on these programs.

Expenditures for consumption and gross investment, the part of federal spending that is included in GDP, rose just slightly in real terms in the first quarter as a sizable increase in nondefense purchases was nearly offset by a surprising decline in defense spending. The dip in defense spending followed several quarters of large increases; with the supplemental appropriation in place, defense spending in the second quarter appears to have resumed its rapid growth.

Federal debt held by the public advanced at a 2¼ percent annual rate in the first quarter and remained at just below 35 percent of nominal GDP. During the first half of the year, the Treasury announced several changes in its debt management, including the reintroduction of three-year notes and regular reopenings of certain five-year and ten-year notes, to position itself better to address the widening federal deficit. These steps have the consequences of lengthening the average maturity of its outstanding debt and trimming the size of some of its auctions. The Treasury also noted that it would be increasing the frequency and size of its auctions of inflation-indexed securities.

Beginning in February 2003, the Treasury needed to take steps to avoid exceeding the level of the statutory debt ceiling and employed several accounting devices to which market participants have become accustomed. It also temporarily suspended the issuance of the type of Treasury debt instrument in which the proceeds of advance refundings by state and local governments are allowed to be invested. No adverse reaction in financial markets was apparent during this period, however, and a bill increasing the debt ceiling $984 billion, to $7.384 trillion, was enacted on May 23.

State and Local Governments

On the whole, the budget situation at state and local governments remains grim. Like the federal government, states and localities were running sizable budgetary surpluses in the late 1990s and now face large deficits. After having enacted a series of tax reductions in the second half of the 1990s, they subsequently saw their receipts eroded by weak incomes and the falling stock market. At the same time, these entities boosted their outlays considerably, in large part because of rising health care costs and increased demands for security-related spending. The fiscal difficulties have been especially acute at the state level. And although local governments generally have fared somewhat better, many are now facing reductions in assistance from cash-strapped states. According to the NIPA, the state and local sector's aggregate current deficit rose to about $50 billion in 2002—or ½ percent of GDP, the largest annual deficit relative to GDP on record—and that gap exceeded $65 billion at an annual rate in the first quarter of 2003.

Almost all states and most localities are subject to balanced budget and other statutory rules that force them to address fiscal imbalances. These rules typically apply to operating budgets, and governments have taken a variety of actions to meet their budgetary requirements for fiscal 2003 and to pass acceptable budgets for fiscal 2004, which started on July 1 in most states and many localities. Strategies have included drawing upon accumulated reserves, issuing bonds, and, in some cases, using one-time measures such as moving payments into the next fiscal year and selling assets. Increases in taxes and fees also have become more widespread. Still, spending restraint has remained an important component of the adjustment. Governments—especially at the state level—have held the line on hiring and have limited their outlays for a variety of other goods and services. In the NIPA, real expenditures for consumption and gross investment in the state and local sector rose only ½ percent over the year ending in the first quarter, compared with increases averaging more than 3½ percent per year over the preceding five years. Available data point to continued softness in such spending in the second quarter.

The pace of gross issuance of municipal bonds remained robust in the first half of the year; it was fueled in part by the needs of state and local governments to finance capital spending, which is not subject to balanced budget requirements. Long-term debt issuance was heavily used for new education and transportation projects. Declining yields on municipal debt and high short-term borrowing demands also provided important impetus to debt issuance. Despite continued fiscal pressures on many state and local governments, the credit quality of municipal bonds has shown some signs of stabilizing. Although the spread of BBB-rated over AAA-rated municipal bond yields has widened somewhat, the number of municipal bond upgrades by S&P has slightly exceeded the number of downgrades so far this year. The yields on municipal bonds declined more slowly than the yields on Treasury securities of comparable maturity over much of the first half of the year; these moves lowered the yield differential from the tax-advantaged status of municipal securities.

The External Sector

Trade and the Current Account

In the first quarter of 2003, the U.S. current account deficit amounted to $544 billion at an annual rate, or about 5 percent of GDP, a somewhat higher percentage than in any quarter of last year. The deficit on trade in goods and services widened $22 billion in the first quarter, to $486 billion, as the value of imports rose more than that of exports. U.S. net investment income registered a $16 billion surplus in the first quarter, little changed from the previous quarter but significantly larger than the outcome for last year as a whole. The increase over last year is attributable primarily to lower net interest and dividend payments. Net unilateral transfers and other income were a negative $74 billion, down from a negative $67 billion in the fourth quarter.

Real exports of goods and services fell 1¼ percent at an annual rate in the first quarter; this decline, like that in the previous quarter, reflected in part slow economic growth of our major trading partners. Within this total, exports of goods increased nearly 2 percent after declining sharply in the fourth quarter of last year. Moderate increases in most trade categories were partly offset by a decrease in exports of capital goods (particularly aircraft and computers). Meanwhile, real exports of services declined about 8 percent in the first quarter, mainly because of a drop in receipts from foreign travelers. Prices of exported goods and services, which rose nearly 4 percent at an annual rate in the first quarter, were boosted by rising prices of services and industrial supplies (mainly goods with a high energy component). Prices of exported capital goods, automotive products, and consumer goods showed little change in the first quarter.

U.S. real imports of goods and services declined 6¼ percent at an annual rate in the first quarter following four quarters of increases. Imports of oil, other industrial supplies, aircraft, and services (primarily U.S. travel abroad) all dropped sharply. Imports of automotive products decreased for the second consecutive quarter, but imports of machinery and consumer goods rose. The price of imported goods jumped

12 percent at an annual rate in the first quarter, mainly resulting from spikes in the prices of natural gas and oil. The price of imported goods excluding fuels rose about 2 percent in the first quarter, the fourth consecutive quarter of small increases, in part because of the depreciation of the dollar since early 2002. Slight declines in prices of imported capital goods, automotive products, and consumer goods were offset by small increases in other categories.

The spot price of West Texas intermediate crude oil rose to a twelve-year high of nearly $38 per barrel in mid-March as the United States moved closer to war in Iraq and as a nationwide strike slowed Venezuelan oil production to a trickle. With the commencement of military action in Iraq and the relatively rapid conclusion of the war, prices fell to less than $26 per barrel by late April. Downward pressure on prices was also exerted by increased production from some OPEC countries, particularly Saudi Arabia, Kuwait, and Venezuela, where oil production recovered substantially relative to the first quarter. In early June, oil prices moved back above $30 per barrel after it became apparent that Iraqi exports of oil would return more slowly than market participants had previously expected.

The Financial Account

The U.S. current account deficit continued to be financed in large part by private flows into U.S. bonds and by foreign official inflows. Private foreign purchases of U.S. securities, which slowed in the latter part of 2002, stepped down a bit more in the first quarter of 2003, owing in part to weaker demand for U.S. equities. In contrast, inflows into the United States from official sources, which surged in 2002, picked up further in the first half of 2003 partly in response to downward pressures on the foreign exchange value of the dollar. U.S. residents, who had sold foreign securities on net last year, recorded sizable net purchases in the first quarter of this year: Relatively large purchases of foreign equities outweighed further sales of bonds.

Direct investment into the United States, after being restrained in 2002 by a slowdown of global mergers and acquisitions, picked up in the first quarter of 2003, as merger activity resumed. U.S. direct investment abroad was steady in 2002 and the first quarter of 2003.

The Labor Market

Employment and Unemployment

The demand for labor has weakened further this year, though the pace of job losses appears to have slowed somewhat. After having fallen an average of 55,000 per month in 2002, private payroll employment declined 35,000 per month, on average, in the first quarter of 2003 and 21,000 per month in the second quarter. The civilian unemployment rate, which had been fluctuating around 5¾ percent since late 2001, was little changed in the first quarter but moved up in the spring. In June, it stood at 6.4 percent.

The manufacturing sector has continued to shed jobs this year. On average, factory payrolls fell 55,000 per month over the first half of 2003—essentially as fast as over 2002 as a whole. Employment declines were widespread, but the metals, machinery, and computers and electronics industries continued to be especially hard hit. The weakness in manufacturing also cut into employment at help-supply firms and at wholesale trade establishments, although help-supply jobs increased noticeably in May and June.

Apart from manufacturing and related industries, private employment increased slightly, on net, in the first half after having been about unchanged in 2002. Employment in the financial activities sector rose briskly, in part because of the boom in mortgage refinancings. Construction employment, which had been essentially unchanged, on net, since 1999, remained soft in the first quarter but posted a sizable gain in the second quarter. Employment in the information sector, which includes telecommunications, publishing, and Internet-related services, continued to decrease, though a shade less rapidly than over the preceding two years. Demand for workers in retail trade, leisure and hospitality, and transportation and utilities remained lackluster.

The unemployment rate was little changed in the first quarter, but it subsequently turned up. In June, it stood at 6.4 percent, ½ percentage point higher than the average in the fourth quarter of 2002 and about 2½ percentage points above the lows reached in 2000. The rise in the unemployment rate over the spring was chiefly driven by the ongoing softness in labor demand. Most recently, it also coincided with an uptick in labor force participation. That uptick notwithstanding, the participation rate has trended down over the past couple of years, a slide mainly reflecting declines for adult men and younger persons.

Productivity and Labor Costs

Labor productivity has continued to post solid gains in recent quarters as businesses have remained reluctant to expand their payrolls and instead have focused on cutting costs in an environment of sluggish—and uncertain—demand. According to the currently published data, output per hour worked in the nonfarm business sector rose at an annual rate of 2 percent in the first quarter and 2½ percent over the four quarters ending in the first quarter. Though the recent gains are down from the very rapid increases in late 2001 and 2002, they are similar to those achieved in the second half of the 1990s. However, whereas the earlier productivity gains were driven importantly by an expansion of the capital stock, the recent gains appear to have come mainly from efficiency-enhancing changes in organizational structures and better use of the capital already in place.

The employment cost index (ECI) for private nonfarm businesses increased about 3¾ percent over the twelve months ending in March—only a shade less than over the preceding year but more than ½ percentage point below the increases of a few years earlier. The deceleration in hourly compensation over the past few years has been concentrated in wages, for which gains slowed from about 4 percent per year in 2000 and 2001 to 3 percent over the year ending this March. The slowing in wage growth primarily reflects the effects of the soft labor market and lower rates of price inflation; in addition, employers may be exerting more restraint on wages to offset some of the upward pressure on total compensation from rising benefit costs. The increase in benefits was especially sharp in the first quarter of 2003; in that period, employers stepped up their contributions to defined-benefit retirement plans in response to declines in the market value of plan assets, and health insurance costs continued to increase rapidly. In total, benefit costs rose 6 percent over the year ending in March.

The growth in compensation per hour in the nonfarm business sector—an alternative measure of hourly compensation based on the NIPA—has swung widely in recent years. Fluctuations in the value of stock option exercises, which are excluded from the ECI, likely have contributed importantly to these swings. In any event, the increase in this measure over the year ending in the first quarter was 3¼ percent and roughly in line with the rise indicated by the ECI.

Prices

Headline inflation numbers have been heavily influenced by movements in energy prices, but underlying inflation has remained subdued and according to some measures has even moved somewhat lower. Reflecting the surge in energy prices, the chain-type price index for personal consumption expenditures (PCE) increased at an annual rate of 2¾ percent in the first quarter, about 1 percentage point faster than the increase over 2002 as a whole; this index moved down in April and May as energy prices retreated. PCE prices excluding food and energy—the so-called core PCE price index—were nearly unchanged during the spring, and the twelve-month change in this series stood at 1¼ percent in May, compared with a reading of 1¾ percent over the preceding twelve months.

In the main, the quiescence of underlying inflation reflects continued slack in labor and product markets and the robust productivity gains of recent years. In addition, inflation expectations have remained in check—and, indeed, may have subsided a bit further. For example, according to the Michigan Survey Research Center, the median expectation for inflation over the coming year was running about 2 percent in May and June, compared with 2½ percent to 3 percent over much of the preceding few years. Readings on this measure had been considerably higher earlier in the year, when energy prices were rising, and it is difficult to know whether the decline of late was driven chiefly by the retreat in energy prices during the spring. Non-oil import prices posted a sizable increase in the first quarter after having been little changed in 2002, but the first-quarter rise was due largely to a spike in the price of imported natural gas, which should not have much effect on core consumer price inflation. Given the decline in the dollar from its peak in early 2002, non-oil import prices will probably trend up modestly in coming quarters.

PCE energy prices rose sharply in the first quarter but turned down in the spring, a pattern largely mirroring the swings in crude oil prices. Gasoline prices, which had already been elevated in late 2002 by weather-related supply disruptions, increased further early this year as crude oil costs rose and wholesale margins remained large; by June 1, gasoline prices had reversed that increase, and they have changed little, on net, since that time. Natural gas prices also soared in early 2003 as tight inventories were depleted further by unusually cold weather; since the unwinding of February's dramatic spike, prices have held in a narrow range. Inventories of natural gas have increased significantly of late, but they are still low enough to raise concerns about the possibility of future price spikes in the event of a heat wave later this summer or an unusually cold winter. Reflecting the higher natural gas input costs, PCE electricity prices rose substantially over the first five months of 2003 after having fallen some in 2002.

Increases in core consumer prices of both goods and services have slowed over the past year, with the deceleration most pronounced for goods. Prices for core PCE goods fell 2¼ percent over the year ending in May after having decreased 1 percent over the preceding twelve months. Meanwhile, the rise in prices for non-energy services totaled 2¾ percent over the year ending in May, a little less than over the preceding period. Among the major types of services, the price of owner-occupied housing was up only 2½ percent after having risen 4¼ percent over the preceding period. But prices for some other types of services accelerated. Most notably, the prices of financial services provided by banks without explicit charge turned up after having decreased over the preceding two years; because these prices cannot be derived from market transactions and thus must be imputed, they are difficult to measure and tend to be volatile from year to year.

Increases in the core consumer price index (CPI) also have been very small recently, and the twelve-month change in this measure slowed from 2½ percent in May 2002 to 1½ percent in May 2003—a somewhat greater deceleration than in core PCE prices. The greater deceleration in the CPI is primarily accounted for by its narrower scope and different weighting structure than the PCE measure. In particular, it excludes the imputed prices of financial services rendered without explicit charge as well as several other categories for which market prices are not available; these non-market-based prices have accelerated notably recently. In fact, when the nonmarket categories are stripped from the core PCE index, the remaining components show a deceleration close to that in the core CPI. Another consideration is that housing costs have a much larger weight in the CPI than in the PCE index, partly because of the CPI's narrower coverage. Thus, the smaller price increases for housing services of late have a bigger damping effect on core CPI inflation, just as the hefty increases in this category in 2001 and 2002 tended to lift the CPI relative to the PCE index.

Alternative Measures of Price Change

Percent

Price measure	2001 to 2002	2002 to 2003
Chain-type		
Gross domestic product	1.4	1.6
Gross domestic purchases	.8	2.3
Personal consumption expenditures	.9	2.2
Excluding food and energy	1.5	1.5
Chained CPI	.9	2.5
Excluding food and energy	1.9	1.4
Fixed-weight		
Consumer price index	1.3	2.9
Excluding food and energy	2.5	1.8

NOTE. Changes are based on quarterly averages and are measured from Q1 to Q1.

Broader price measures likewise point to low inflation over the year ending in the first quarter. In particular, the chain-type price index for GDP rose only 1½ percent over that period, about the same as during the comparable period four quarters earlier. Meanwhile, the price index for gross domestic purchases—which is defined as the prices paid for consumption, investment, and government purchases—increased 2¼ percent, up from ¾ percent during the preceding period. The upswing mainly reflects the effect of higher energy prices and roughly matches the acceleration in total PCE prices; the price indexes for construction and government purchases also recorded somewhat larger increases than they had over the preceding period.

U.S. Financial Markets

On balance, major stock indexes have climbed noticeably this year, government and corporate interest rates have declined, and risk spreads, which had dropped significantly late last year, have fallen further.

Before the War in Iraq

The year began on an optimistic note in financial markets, in part owing to the release of a surprisingly strong report from the Institute for Supply Management and the announcement of a larger-than-expected package of proposed tax cuts, which included elimination of the personal federal income tax on many corporate dividend payments. In addition, yields and risk spreads on corporate bonds had dropped significantly in the fourth quarter of 2002, partly in reaction to the absence of new revelations of accounting irregularities and to the improved outlook for corporate credit quality. Money market futures rates apparently embedded an expectation that the FOMC would begin increasing the federal funds rate as early as mid-summer 2003.

That short burst of optimism was quickly damped by subsequent economic reports that were decidedly less rosy, a jump in oil prices in response to the looming prospect of war in Iraq, and increased tensions with North Korea. Measures of uncertainty, such as implied volatility, moved up in several markets. Major equity indexes slid and by mid-March were off about 4 percent to 9 percent from the beginning of the year. Investors also came to believe that the onset of FOMC tightening would occur later than they had earlier believed, a shift in perception that was reflected in lower yields on Treasury bonds. Yields on investment-grade corporate bonds fell about in line with those on Treasuries, and investors appeared to be substituting high-quality bonds for equities as part of a broader flight to fixed-income securities over this period. By contrast, yields on below-investment-grade bonds rose a bit, on balance, between mid-January and mid-March, a move that left their risk spreads higher as well.

After the War in Iraq

Once it became clear that military action in Iraq was imminent, a robust rally erupted in both the equity and bond markets, as some of the uncertainties apparently dissipated and investors began to show a greater appetite for riskier assets. Equity indexes jumped about 8 percent in the two weeks bracketing the President’s ultimatum to Saddam Hussein, and prices climbed an additional 3 percent through the end of April, partly on the release of generally better-than-expected earnings reports for the first quarter. Gains in share prices were fairly widespread and included technology, defense, petroleum, and especially financial companies.

The easing of tensions also put upward pressure on Treasury yields, but additional disappointing economic data offset the diminished safe-haven demands and left those rates down, on balance, during the period covering the war in Iraq and its immediate aftermath. Yields on corporate bonds also declined, in part because of strengthened corporate balance sheets, the reduction in uncertainty, and perhaps because investors began to search for higher returns. Moreover, according to one widely used measure, spreads on speculative-grade bonds tumbled about 150 basis points, to about 520 basis points, from mid-March until mid-May, and then fluctuated somewhat before ending June near that level. The rally in below-investment-grade bonds was particularly evident in sectors that had previously experienced some of the greatest widening of spreads—telecom, energy trading, and utilities; the interest in these sectors further indicated investors' increased appetite for risk.

A stubbornly sluggish economy and rapid growth of productivity muted both inflation and inflation expectations, inducing the FOMC to begin pointing to a further substantial decline in inflation as a concern at its May meeting. Market participants took this to imply that short-term rates would be held along a lower path for longer than they had previously expected. This shift in expectations triggered a further decline in intermediate- and long-term yields. With long-term inflation expectations apparently only little changed, the decline in yields translated into a sizable decline in real interest rates.

That drop in real interest rates was among several factors providing a boost to equity prices in May and June. Implied volatility of the S&P 100 index, which had been elevated earlier in the year, fell substantially with the conclusion of major hostilities in Iraq; it is now near the bottom of its range of the past several years. Moreover, downward revisions to analysts' earnings expectations for the year ahead have been the smallest since early 2000. The tax package passed in late May, which included a cut in taxes on capital gains and dividends, may have provided some additional impetus to equity prices.

The FOMC decided on June 25 to reduce the target federal funds rate 25 basis points, to 1 percent, but some observers had been anticipating a cut of 50 basis points. In addition, markets appeared to read the Committee's assessment of economic prospects as more upbeat than expected. Partly as a result, yields on longer-dated Treasury securities reversed a portion of their previous decline in the weeks following the meeting. Yields on high-quality corporate bonds rose about in line with Treasuries over the same period, but yields on speculative-grade bonds edged up only slightly, and risk spreads narrowed further. Forward-looking economic indicators were generally positive, and stock price indexes—the Nasdaq, in particular—continued to trend higher.

On net, the constant-maturity yield on the two-year Treasury note has fallen 24 basis points this year, to 1.37 percent as of July 9, while the yield on the ten-year Treasury bond has fallen 10 basis points, to 3.73 percent. Over the same period, the Wilshire 5000 is up 15½ percent, and the Nasdaq has surged more than 30 percent. As a result of the decline in real interest rates, the spread between the twelve-month forward earnings–price ratio for the S&P 500 and the real ten-year yield remains wide despite the run-up in stock prices.

Shorter-Term Debt Markets

The average interest rate on commercial and industrial loan originations—a substantial majority of which have adjustable interest rates—has fallen to its lowest level since the start of the Federal Reserve's Survey of Terms of Business Lending in 1977. The survey also indicates that risk spreads on these loans receded a bit over the first half of 2003 after having trended up for most of the past several years. Prices in the secondary loan market have risen this year, reportedly in part because some of the large inflows to high-yield mutual funds were used to purchase distressed loans and because of the expectation that many outstanding loans would continue to be prepaid with the proceeds of bond refinancing.

Interest rates on commercial paper also dropped to very low levels in the first half of 2003. Risk spreads in this market were relatively stable and near the bottom of the range observed over the past several years, in part because of businesses' efforts to strengthen their balance sheets and improve their liquidity.

Debt and Financial Intermediation

The debt of all domestic nonfinancial sectors—government, businesses, and households—grew at a 6½ percent annual rate in the first quarter, down from 8 percent in the fourth quarter of 2002 but still well in excess of the growth of nominal GDP. The proportion of the new credit supplied by depository institutions rose significantly in the second half of last year and remained at about 25 percent in the first half of this year. In large part, the jump reflects the sector's support of the booming mortgage market—through both direct lending and the acquisition of mortgage-backed securities—which has more than offset weak business lending. At commercial banks, revenues from mortgage-related activities reportedly helped sustain profits in the first quarter at the elevated levels of the past several years despite some erosion in net interest margins.

The delinquency rate on all loans and leases at banks edged down further during the first quarter, to its lowest level in two years. Increases in the delinquency rates on commercial real estate loans and non-credit-card consumer loans were offset by declines in those on residential real estate loans, credit card loans, and business loans. For business and credit card loans, however, the delinquency rates at banks remain elevated, and the recent improvement likely reflects, in part, the effect of the tightening of lending standards and terms that has been reported for some time now in the Senior Loan Officer Opinion Survey. On a seasonally adjusted basis, the ratio of loan-loss provisions to assets declined in the final quarter of last year, and it was about unchanged from that still-elevated level in the first quarter of 2003. In addition to the buffer against future losses provided by their high profitability and substantial provisions, virtually all banks—98 percent by assets—remain well capitalized.

Among nondepository financial institutions, issuers of asset-backed securities provided about 13 percent of the total credit extended to domestic nonfinancial sectors in the first quarter. The share of net lending supplied by mutual funds increased notably to almost 10 percent in the first quarter, and with the continuation of strong flows to bond mutual funds, they likely were large suppliers in the second quarter as well. Meanwhile, available data suggest that insurance companies likely accounted for about 7 percent of total credit extended during the first half of the year, a proportion near the top of the range seen since the mid-1990s.

Government-sponsored enterprises (GSEs) provided 11 percent of the net lending (net acquisition of credit market instruments) in the first quarter, an amount roughly in line with their level in the second half of 2002. The duration gaps in the portfolios of the housing GSEs were maintained near their targets. In early June, Freddie Mac replaced its top three executives amid questions about its accounting practices. The spreads on longer-term Freddie Mac debt widened a bit, and its stock price declined sharply; the prices of Fannie Mae securities also declined but to a lesser extent. On net, there appears to be little, if any, spillover into broader financial markets.

Monetary Aggregates

Through the first half of 2003, the growth rate of M2 was buoyed by several factors and remained elevated. The rising level of mortgage refinancing causes money growth to accelerate because the associated prepayments on mortgage-backed securities that are temporarily held in escrow accounts increase liquid deposits. Demand for M2 was also supported by the decline in short-term market interest rates, which further reduced the opportunity cost of holding money. Precautionary demand for safe and liquid M2 assets also likely buttressed the growth of M2 in the run-up to the war in Iraq.

In contrast, mutual fund flows related to the bond market rally and the post-war pickup in the stock market may have siphoned funds from M2. Retail money market mutual funds and small time deposits both experienced net outflows during the first half of the year. While some of that money continued to feed the extraordinary growth of liquid deposits, it is likely that a portion was redirected to long-term mutual funds.

After having weakened significantly in 2002, growth of M3 slowed further in the first half of 2003. Much of this year's slowdown can be attributed to rapid runoffs of institutional money market mutual funds. The runoffs were, in turn, partially the result of an unwinding of the strength late last year and the fact that interest rates paid by those funds declined faster than the interest rates paid by the underlying assets this year. The drop in institutional money funds has been offset by growth in eurodollar deposits and repurchase agreements.

International Developments

Economic activity abroad was sluggish in the first quarter of 2003, with real output in the euro area and Japan little changed from the previous quarter. Geopolitical uncertainties, higher oil prices, slow growth in the United States, persistent weakness in global high-tech sectors, and continued negative wealth effects from past declines in equity prices all weighed on foreign growth. Foreign economic expansion appeared to remain weak in the second quarter despite the reduction in uncertainty associated with Iraq. Indicators suggest that manufacturing activity abroad has not picked up; instead, industrial production declined in April and May, on average, relative to the first quarter in Japan, Germany, and France. Concerns over the spread of the SARS virus appear to have hurt growth in the second quarter in several Asian developing economies and in Canada.

Central banks in several major foreign industrial countries moved to ease monetary policy during the first half of this year. The European Central Bank and the central banks of the United Kingdom, Sweden, Switzerland, Norway, and New Zealand all cut official interest rates. The pace of monetary easing in Europe picked up toward mid-year, when inflation pressures dissipated amid growing slack, currency appreciation vis-à-vis the dollar, and the decline in oil prices after the conflict in Iraq. In contrast, the Bank of Canada raised interest rates twice in the spring, in a continued effort to contain inflation. The Bank of Canada left rates unchanged in June, however, in response to a sharp appreciation of the Canadian dollar and a drop in Canadian inflation in April, some slackening of demand in labor markets in May, and concerns about the pace of activity in the United States. The Bank of Japan (BOJ) maintained short-term interest rates at near-zero levels, further expanded its target for current account balances held by financial institutions at the BOJ, and took some additional measures to add stimulus to the economy.

In the first quarter, foreign financial markets were influenced by heightened anxieties ahead of the war in Iraq, but those concerns appeared to diminish as the war proceeded. Foreign equity prices declined in the first quarter, but they have since recovered. Broad stock indexes for the major industrial countries are up on balance since the beginning of the year but, with the exception of Japan, they have gained less than in the United States. Long-term interest rates in most foreign industrial countries fell during the first half of the year because prospects for inflation diminished, growth sputtered, and market participants began to expect that policy interest rates would remain low for an extended period. Asset prices in emerging markets, particularly in Latin America, picked up during the first half of this year; equity prices rose significantly, and risk spreads on emerging-market bonds narrowed. Bonds issued by a number of emerging-market economies included collective action clauses (CACs) that are designed to facilitate a debt restructuring in the event of default; this development had little noticeable effect on spreads.

The dollar's foreign exchange value continued to decrease in the first half of 2003. Since the end of 2002, the dollar has depreciated on a trade-weighted basis nearly 5 percent against the currencies of a broad group of U.S. trading partners. The dollar has declined 13 percent against the Canadian dollar and more than 7 percent on net against the euro but has fallen less than 1 percent versus the Japanese yen. During the first quarter, the dollar appeared to react to concerns about the war in Iraq, falling when news indicated a heightened risk of hostilities and strengthening as concerns appeared to abate. After the resolution in April of major hostilities, the dollar fell further, and market commentary focused more on the financing needs posed by the large and growing U.S. current account deficit.

Industrial Economies

The euro-area economy stagnated in the first quarter of 2003. Consumer spending continued to expand at a modest rate and inventory investment grew, but business fixed investment fell sharply and exports declined. The German economy contracted in the first quarter and continued to underperform the euro-area average, in part owing to a fiscal tightening undertaken to bring the budget deficit into line with limits set out in the euro area's Stability and Growth Pact. The rise in the exchange value of the euro over the past year has begun to hurt euro-area manufacturers; exports have leveled off while imports have continued to rise. Recent indicators have shown little rebound in the pace of euro-area activity following the conclusion of the Iraq war, and business and consumer sentiment have remained sour. Core inflation has slowed from its 2002 peak, and headline inflation, which was temporarily boosted by oil prices, recently has fallen to the 2 percent upper limit of the ECB's definition of price stability.

Economic growth in the United Kingdom slowed to a crawl in the first quarter, but recent indicators—such as consumer confidence and industrial production—suggest that the pace has been somewhat stronger during the past few months. Growth of consumption has slowed but continues to be held up by a strong labor market and by past gains in housing prices, although lately these prices have decelerated.

The Japanese economy barely grew in the first quarter after expanding almost 2½ percent in 2002. Business investment continued to grow in the first quarter, and private consumption increased despite stagnating incomes; however, residential and public investment both fell sharply, and exports declined because of the weak global economy. The severity of consumer price deflation lessened somewhat, partly because of the spike in energy prices. Japanese banks continued to be weighed down by bad loans.

Canada's economy maintained a moderate pace of expansion in the first quarter, but recent indicators suggest that growth of real GDP slowed in the second quarter. First-quarter growth was supported by continued strength in domestic demand, as Canada's strong labor and housing markets kept propelling the economy. However, exports declined in the first quarter, largely because of a drop in exports of industrial supplies and forestry products to the United States. More recently, employment declined slightly in April and May, and the unemployment rate moved up. The outbreak of the SARS virus in Toronto hurt Canadian travel and tourism, and weak U.S. demand slowed the Canadian manufacturing sector. In June, employment rebounded, but the gain was almost all in part-time work, and manufacturing employment continued to fall.

Emerging-Market Economies

Economic growth in the Asian developing countries slowed in the first quarter, brought down by weakness in business investment and consumer spending. In South Korea, growth of real GDP turned negative in the first quarter after a rapid expansion in 2002. Tensions with North Korea contributed to a decline in consumer and business sentiment, but these indicators have stabilized in the past couple of months. The Hong Kong economy also contracted, following strong growth in the second half of last year. The SARS outbreak held down both personal consumption and tourism in the first quarter, and even more negative effects are likely to be seen in the second-quarter data. Although the Chinese economy has also been adversely affected by SARS, it has been sustained by strong export growth and investment. Chinese inflation has moved back into positive territory on a twelve-month basis, largely owing to higher prices for energy and food.

The Mexican economy contracted in the first quarter, and exports and business confidence have declined in recent months. Consumer price inflation has come down recently, a decline helped in part by the net appreciation of the Mexican peso since early March. Measures of inflation expectations suggest that market participants expect the central bank to come close to achieving its inflation target this year.

Brazilian economic growth stagnated in the first quarter largely as a result of the tightening of macroeconomic policies in response to the financial crisis that erupted in mid-2002. The growth slowdown largely reflected a continued weakening in domestic demand, but exports also deteriorated. Monthly inflation has come down since early this year, and Brazil's central bank recently lowered slightly its benchmark interest rate. The Lula administration's efforts to implement social security and tax reforms have bolstered investor confidence. Financial conditions in Brazil have improved markedly: Equity prices have risen more than 20 percent so far this year, the *real* has gained more than 20 percent against the U.S. dollar, and credit spreads on Brazilian government debt have narrowed more than 600 basis points.

The Argentine economy has started to turn around from the sharp contraction that occurred in the wake of the devaluation and default in late 2001, but the level of economic activity remains far below pre-crisis levels, and many of Argentina's structural problems have not been addressed. The Argentine peso appreciated more than 20 percent against the dollar during the first half of the year. In July, Argentina implemented controls on short-term capital inflows in an effort to stabilize the appreciating currency. ■