88th Annual Report 2001

Board of Governors of the Federal Reserve System

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Letter of Transmittal

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM
Washington, D.C., April 2002

THE SPEAKER OF
THE HOUSE OF REPRESENTATIVES

Pursuant to the requirements of section 10 of the Federal Reserve Act, I am pleased to submit the eighty-eighth annual report of the Board of Governors of the Federal Reserve System.

This report covers operations of the Board during calendar year 2001.

Sincerely,

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Monetary Policy and the Economic Outlook

Last year was a difficult one for the economy of the United States. The slowdown in the growth of economic activity that had become apparent in late 2000 intensified in the first half of the year. Businesses slashed investment spending—making especially deep cuts in outlays for high-technology equipment—in response to weakening final demand, an oversupply of some types of capital, and declining profits. As actual and prospective sales deteriorated, many firms in the factory sector struggled with uncomfortably high levels of inventories, and the accompanying declines in manufacturing output steepened. At the same time, foreign economies also slowed, further reducing the demand for U.S. production. The aggressive actions by the Federal Reserve to ease the stance of monetary policy in the first half of the year provided support to consumer spending and the housing sector. Nevertheless, the weakening in activity became more widespread through the summer, job losses mounted further, and the unemployment rate moved higher. With few indications that economic conditions were about to improve, with underlying inflation moderate and edging lower, and with inflation expectations well contained, the Federal Reserve continued its efforts to counter the ongoing weakness by cutting the federal funds rate, bringing the cumulative reduction in that rate to 3 percentage points by August.

The devastating events of September 11 further set back an already fragile economy. Heightened uncertainty and badly shaken confidence caused a widespread pullback from economic activity and from risk-taking in financial markets, where equity prices fell sharply for several weeks and credit risk spreads widened appreciably. The most pressing concern of the Federal Reserve in the first few days following the attacks was to help shore up the infrastructure of financial markets and to provide massive quantities of liquidity to limit potential disruptions to the functioning of those markets. The economic fallout of the events of September 11 led the Federal Open Market Committee (FOMC) to cut the target federal funds rate after a conference call early the following week and again at each meeting through the end of the year (see box "Monetary Policy after the Terrorist Attacks").

Displaying the same swift response to economic developments that appears to have characterized much business behavior in the current cyclical episode, firms moved quickly to reduce payrolls and cut production after mid-September. Although these adjustments occurred across a broad swath of the economy, manufacturing and industries related to travel, hospitality, and entertainment bore the brunt of the downturn. Measures of consumer confidence fell sharply in the first few weeks after the attacks, but the deterioration was not especially large by cyclical standards, and improvement in some of these indexes was evident in October. Similarly, equity prices started to rebound in

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NOTE. The discussions here and in the next section ("Economic and Financial Developments in 2001 and Early 2002") consist of the text, tables, and selected charts from *Monetary Policy Report to the Congress* (Board of Governors, February 2002).

Monetary Policy after the Terrorist Attacks

The terrorist attacks on September 11 destroyed a portion of the infrastructure of U.S. financial markets, disrupted communication networks, and forced some market participants to retreat to contingency sites in varying states of readiness. These developments, along with the tragic loss of life among the employees of a few major financial firms, greatly complicated trading, clearing, and settlement of many different classes of financial instruments. Direct dislocations elevated uncertainties about payment flows, making it difficult for the reserve market to channel funds where they were needed most. Depositories that held more reserve balances than they preferred had considerable difficulty unloading the excess in the market; by contrast, depositories awaiting funds had to scramble to cover overdraft positions. As a result, the effective demand for reserves ballooned.

The Federal Reserve accommodated the increase in the demand for reserves through a variety of means, the relative importance of which shifted through the week. On Tuesday morning, shortly after the attacks, the Federal Reserve issued a press release reassuring financial markets that the Federal Reserve System was functioning normally and stating that "the discount window is available to meet liquidity needs." Depository institutions took up the offer, and borrowing surged to a record $45½ billion by Wednesday. Discount loans outstanding dropped off sharply on Thursday and returned to very low levels by Friday. Separately, overnight overdrafts on Tuesday and Wednesday rose to several billion dollars, as a handful of depository and other institutions with accounts at the Federal Reserve were forced into overdraft on their reserve accounts. Overnight overdrafts returned to negligible levels by the end of the week.

Like their U.S. counterparts, foreign financial institutions operating in the United States faced elevated dollar liquidity needs. In some cases, however, these institutions encountered difficulties positioning the collateral at their U.S. branches to secure Federal Reserve discount window credit. To be in a position to help meet those needs, three foreign central banks established new or expanded arrangements with the Federal Reserve to receive dollars in exchange for their respective currencies. These swap lines, which lasted for thirty days, consisted of $50 billion for the European Central Bank, $30 billion for the Bank of England, and an increase of $8 billion (from $2 billion to $10 billion) for the Bank of Canada. The European Central

late September, and risk spreads began to narrow somewhat by early November, when it became apparent that the economic effects of the attacks were proving less severe than many had feared.

Consumer spending remained surprisingly solid over the final three months of the year in the face of enormous economic uncertainty, widespread job losses, and further deterioration of household balance sheets from the sharp drop in equity prices immediately following September 11. Several factors were at work in support of household spending during this period. Low and declining interest rates provided a lift to outlays for durable goods and to activity in housing markets. Nowhere was the boost from low interest rates more apparent than in the sales of new motor vehicles, which soared in response to the financing incentives offered by manufacturers. Low mortgage interest rates not only sustained high levels of new home construction

Bank drew on its line that week to channel the funds to institutions with a need for dollars.

By Thursday and Friday, the disruption in air traffic caused the Federal Reserve to extend record levels of credit to depository institutions in the form of check float. Float increased dramatically because the Federal Reserve continued to credit the accounts of banks for deposited checks even though the grounding of airplanes meant that checks normally shipped by air could not be presented to the checkwriters' banks on the usual schedule. Float declined to normal levels the following week once air traffic was permitted to recommence. Lastly, over the course of the week that included September 11, as the market for reserves began to function more normally, the Federal Reserve resumed the use of open market operations to provide the bulk of reserves. The open market Desk accommodated all propositions down to the target federal funds rate, operating exclusively through overnight transactions for several days. The injection of reserves through open market operations peaked at $81 billion on Friday. The combined infusion of liquidity from the various sources pushed the level of reserve balances at Federal Reserve Banks to more than $100 billion on Wednesday, September 12, about ten times the normal level. As anticipated by the FOMC, federal funds traded somewhat below their new target level for the rest of the week. By the end of the month, bid–asked spreads and trading volumes in the interbank and other markets receded to more normal levels, and federal funds consistently began to trade around the intended rate.

The Federal Reserve took several steps to facilitate market functioning in September in addition to accommodating the heightened demand for reserves. The hours of funds and securities transfer systems operated by the Federal Reserve were extended significantly for a week after the attacks. The Federal Reserve Bank of New York liberalized the terms under which it would lend the securities in the System portfolio, and the amount of securities lent rose to record levels in the second half of September. For the ten days following the attacks, the Federal Reserve reduced or eliminated the penalty charged on overnight overdrafts, largely because those overdrafts were almost entirely the result of extraordinary developments beyond the control of the account holders. In addition, the Federal Reserve helped restore communication between market participants and in some cases processed bilateral loans of reserves between account holders in lieu of market intermediation.

but also allowed households to refinance mortgages and extract equity from homes to pay down other debts or to increase spending. Fiscal policy provided additional support to consumer spending. The cuts in taxes enacted last year, including the rebates paid out over the summer, cushioned the loss of income from the deterioration in labor markets. And the purchasing power of household income was further enhanced by the sharp drop in energy prices during the autumn. With businesses having positioned themselves to absorb a falloff of demand, the surprising strength in household spending late in the year resulted in a dramatic liquidation of inventories. In the end, real gross domestic product posted a much better performance than had been anticipated in the immediate aftermath of the attacks.

More recently, there have been encouraging signs that economic activity is beginning to firm. Job losses diminished considerably in December and January, and initial claims for unemployment insurance and the level of insured unemployment have reversed their earlier sharp increases. Although motor vehicle purchases have declined appreciably from their blistering fourth-quarter pace, early readings suggest that consumer spending overall has remained very strong early this year. In the business sector, new orders for capital equipment have provided some tentative indications that the deep retrenchment in investment spending could be abating. Meanwhile, purchasing managers in the manufacturing sector report that orders have strengthened and that they view the level of their customers' inventories as being in better balance. Indeed, the increasingly rapid pace of inventory runoff over the course of the last year has left the level of production well below that of sales, suggesting scope for a recovery in output given the current sales pace. Against this backdrop, the FOMC left its target for the federal funds rate unchanged in January. However, reflecting a concern that growth could be weaker than the economy's potential for a time, the FOMC retained its assessment that the risks were tilted unacceptably toward economic weakness.

The extent and persistence of any recovery in production will, of course, depend critically on the trajectory of final demand in the period ahead. Several factors are providing impetus to such a recovery in the coming year. With the real federal funds rate hovering around zero, monetary policy should be positioned to support growth in spending. Money and credit expanded fairly rapidly through the end of the year, and many households and businesses have strengthened their finances by locking in relatively low-cost long-term credit. The second installment of personal income tax cuts and scheduled increases in government spending on homeland security and national defense also will provide some stimulus to activity this year. Perhaps the most significant potential support to the economy could come from further gains in private-sector productivity. Despite the pronounced slowdown in real GDP growth last year, output per hour in the nonfarm business sector increased impressively. Continued robust gains in productivity, stemming from likely advances in technology, should provide a considerable boost to household and business incomes and spending and contribute to a sustained, noninflationary recovery.

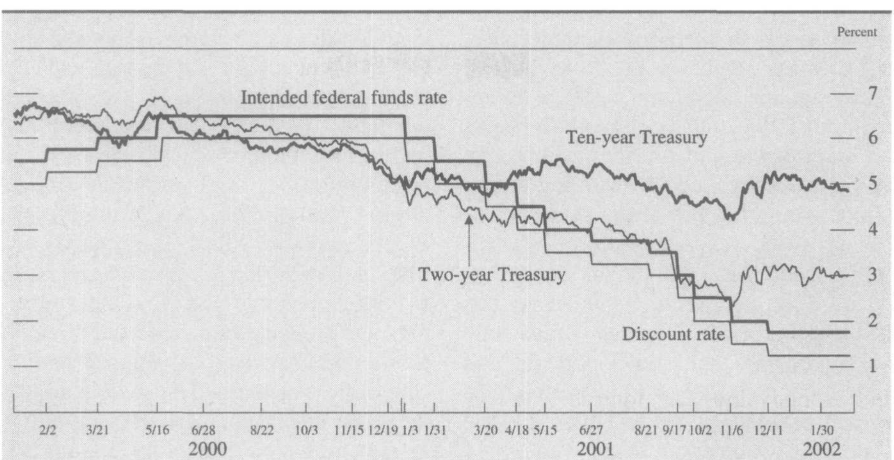
Still, the economy faces considerable risk of subpar economic performance in the period ahead. Because outlays for durable goods and for new homes have been relatively well maintained in this cycle, the scope for strong upward impetus from household spending seems more limited than has often been the case in past recoveries. Moreover, the net decline in household net worth relative to income over the past two years is likely to continue to restrain the growth of spending in coming quarters. To be sure, the contraction in business capital spending appears to be waning. But spending on some types of equipment, most notably communications equipment, continues to decline, and there are few signs yet of a broad-based upturn in capital outlays. Activity abroad remains subdued, and a rebound of foreign output is likely to follow, not lead, a rebound in the United States. Furthermore, lenders and equity investors remain quite cautious. Banks have continued to tighten terms and standards on loans, and risk spreads have increased a little this year. Stock prices have retreated from recent highs as earnings continue to fall amid concerns about the transparency of corporate financial reports and uncertainty about the pace at which profitability will improve.

Monetary Policy, Financial Markets, and the Economy over 2001 and Early 2002

As economic weakness spread and intensified over the first half of 2001, the FOMC aggressively lowered its target for the federal funds rate. Because firms reacted unusually swiftly to indicators that inventories were uncomfortably high and capital was becoming underutilized, the drop in production and business capital spending was especially steep. Moreover, sharp downward revisions in corporate profit expectations caused equity prices to plunge, which, along with a decline in consumer confidence, pointed to vulnerability in household spending. Meanwhile, a significant deceleration in energy prices, after a surge early in the year, began to hold down overall inflation; the restraining effect of energy prices, combined with the moderation of resource utilization, also promised to reduce core inflation. Responding to the rapid deterioration in economic conditions, the FOMC cut its target for the federal funds rate 2½ percentage points—in 5 half-point steps—by the middle of May. Moreover, the FOMC indicated throughout this period that it judged the balance of risks to the outlook as weighted toward economic weakness. The Board of Governors of the Federal Reserve System approved reductions in the discount rate that matched the Committee's cuts in the target federal funds rate. As a result, the discount rate declined from 6 percent to 3½ percent over the period.

At its June and August meetings, the FOMC noted information suggesting continued softening in the economy and a lack of convincing evidence that the end of the slide in activity was in sight. Although consumer spending on both housing and nonhousing items—buoyed by the tax cuts and rebates, low mortgage interest rates, declining energy prices, and realized capital gains from home sales—remained fairly resilient, economic conditions in manufacturing deteriorated further. Firms continued to reduce payrolls, work off excess inventories, and cut back capital equipment expenditures amid sluggish growth in

Selected Interest Rates



NOTE. The data are daily and extend through February 25, 2002. The dates on the horizontal axis are those of scheduled FOMC meetings and of any intermeeting policy actions.

business sales, significantly lower corporate profits, and greater uncertainty about future sales and earnings. With energy prices in retreat, price inflation remained subdued. In reaching its policy decisions at its June and August meetings, the FOMC took into account the substantial monetary policy stimulus already implemented since the start of the year—but not yet fully absorbed by the economy—and the oncoming effects of stimulative fiscal policy measures recently enacted by the Congress. Consequently, the Committee opted for smaller interest rate cuts of ¼ percentage point at both the June and August meetings, which brought the target federal funds rate down to 3½ percent; as earlier in the year, the FOMC continued to indicate that it judged the balance of risks to the outlook as weighted toward economic weakness. After both meetings, the Board of Governors of the Federal Reserve System also approved similar reductions in the discount rate, which moved down to 3 percent.

After the terrorist attacks on September 11, the available Committee members held a telephone conference on September 13, during which they agreed that the financial markets were too disrupted to allow for an immediate alteration in the stance of monetary policy. However, the members were in agreement that the attacks' potential effects on asset prices and on the performance of the economy, and the resulting uncertainty, would likely warrant some policy easing in the very near future. Accordingly, the FOMC, at a telephone conference on September 17, voted to reduce its target for the federal funds rate ½ percentage point, to 3 percent, and stated that it continued to judge the risks to the outlook to be weighted toward economic weakness.

Over subsequent weeks, heightened aversion to risk, which caused investors to flock from private to Treasury and federal agency debt, boosted risk spreads sharply, especially on lower-rated corporate debt. Increased demand for safe and liquid assets contributed to selling pressure in the stock market. At its October 2 meeting, the FOMC had little hard information available on economic developments since the attacks. However, evidence gleaned from surveys, anecdotes, and market contacts indicated that the events of September 11 had considerable adverse repercussions on an already weak economy: Survey indicators of consumer confidence had fallen, and consumer spending had apparently declined. At the same time, anecdotal information pointed to additional deep cutbacks in capital spending by many firms after an already-significant contraction in business fixed investment over the summer months.

When the FOMC met on November 6, scattered early data tended to confirm the information that the decline in production, employment, and final demand had steepened after the terrorist attacks. Although an economic turnaround beginning in the first half of 2002 was a reasonable expectation according to the Committee, concrete evidence that the economy was stabilizing had yet to emerge. Meanwhile, the marked decrease in energy prices since the spring had induced a decline in overall price inflation, and inflation expectations had fallen. Accordingly, the FOMC voted to lower its target for the federal funds rate ½ percentage point at both its October and November meetings and reiterated its view that the risks to the outlook were weighted toward economic weakness. The sizable adjustments in the stance of monetary policy in part reflected concerns that insufficient policy stimulus posed an unacceptably high risk of a more extended cyclical retrenchment that could prove progressively more difficult to counter, given that the federal funds rate—at 2 percent—was already at such a low level.

By the time of the December FOMC meeting, the most recent data were suggesting that the rate of economic decline might be moderating. After plunging earlier in the year, orders and shipments of nondefense capital goods had turned up early in the fourth quarter, and the most recent survey evidence for manufacturing also suggested that some expansion in that sector's activity might be in the offing. In the household sector, personal consumption expenditures appeared to have been quite well maintained, an outcome that reflected the continuation of zero-rate financing packages offered by the automakers, widespread price discounting, and low interest rates. In an environment of very low mortgage interest rates, household demand for housing remained at a relatively high level, and financial resources freed up by a rapid pace of mortgage refinancing activity also supported consumer spending.

Nonetheless, the evidence of emerging stabilization in the economy was quite tentative and limited, and the Committee saw subpar economic performance as likely to persist over the near term. Moreover, in the probable absence of significant inflationary pressures for some time, a modest easing action could be reversed in a timely manner if it turned out not to be needed. In view of these considerations, the FOMC lowered its target for the federal funds rate ¼ percentage point, to 1¾ percent, on December 11, 2001, and stated that it continued to judge the risks to the outlook to be weighted mainly toward economic weakness. As had been the case throughout the year, the Board of Governors approved reductions in the discount rate that matched the FOMC's cuts in the target federal funds rate, bringing the discount rate to 1¼ percent, its lowest level since 1948.

Subsequent news on economic activity bolstered the view that the economy was beginning to stabilize. The information reviewed at the January 29–30, 2002, FOMC meeting indicated that consumer spending had held up remarkably well, investment orders had firmed further, and the rate of decline in manufacturing production had lessened toward the end of 2001. With weakness in business activity abating, and monetary policy already having been eased substantially, the FOMC left the federal funds rate unchanged at the close of its meeting, but it continued to see the risks to the outlook as weighted mainly toward economic weakness.

Economic Projections for 2002

Federal Reserve policymakers are expecting the economy to begin to recover this year from the mild downturn experienced in 2001, but the pace of expansion is not projected to be sufficient to cut into the margin of underutilized resources. The central tendency of the real GDP growth forecasts made by the members of the Board of Governors and the Federal Reserve Bank presidents is 2½ percent to 3 percent, measured as the change between the final quarter of 2001 and the final quarter of this year. The pace of expansion is likely to increase only gradually over the course of the year, and the unemployment rate is expected to move higher for a time. The FOMC members project the civilian unemployment rate to stand at about 6 percent to 6¼ percent at the end of 2002.

A diminution of the rate of inventory liquidation is likely to be an important factor helping to buoy production this

Economic Projections for 2002

Percent

Indicator	MEMO: 2001 actual	Federal Reserve Governors and Reserve Bank presidents	
		Range	Central tendency
Change, fourth quarter to fourth quarter[1]			
Nominal GDP	1.9	3½–5½	4–4½
Real GDP	.1	2–3½	2½–3
PCE chain-type price index	1.3	1–2	About 1½
Average level, fourth quarter			
Civilian unemployment rate	5.6	5¾–6½	6–6¼

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

year. In 2001, businesses cut inventories sharply so as to avoid carrying excessive stocks relative to the weaker pace of sales, and although this process of liquidation probably is not yet complete in many industries, the overall pace of reduction is likely to slow. Then, as final demand strengthens, liquidation should give way to some restocking later in the year.

As noted above, the forces affecting demand this year are mixed. On the positive side are the stimulative effects of both fiscal policy and the earlier monetary policy actions. A gradual turnaround in employment and a strengthening of the economies of our major trading partners should provide some lift to final demand, and spending by both households and businesses ought to be supported by robust productivity growth. On the other hand, the problems facing the high-tech sector have not yet completely receded, and indications are that spending on other types of capital equipment remains lackluster. The surprising strength of household spending through this period of economic weakness suggests a lack of pent-up consumer demand going forward. In addition, consumers likely will not benefit from declining energy prices to the extent they did last year, and the net decline in equity values since mid-2000 will probably continue to weigh on consumption spending in the period ahead.

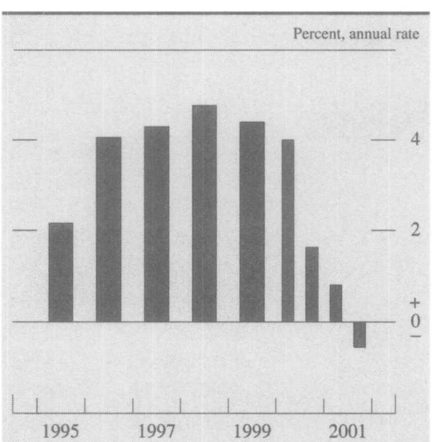
Federal Reserve policymakers believe that consumer prices will increase slightly more rapidly in 2002 than in 2001, as last year's sharp decline in energy prices is unlikely to be repeated. The central tendency of the FOMC members' projections for increases in the chain-type price index for personal consumption expenditures (PCE) is about 1½ percent; last year's actual increase was about 1¼ percent. Nevertheless, diminished levels of resource utilization, the indirect effects of previous declines in energy prices on firms' costs, and continued competitive pressures all ought to restrain the pace of price increases outside of the energy sector this year. ■

Economic and Financial Developments in 2001 and Early 2002

In 2001, the economy turned in its weakest performance in a decade. Real GDP increased at an annual rate of ¾ percent in the first half of the year and, according to the advance estimate from the Commerce Department, declined at a ½ percent annual rate in the second half. Although the effects of the weakening economy were broadly felt, the factory sector was especially hard hit. Faced with slumping demand both here and abroad, manufacturers cut production aggressively to limit excessive buildups of inventories. Moreover, businesses sharply reduced their investment spending, with particularly dramatic cuts in outlays for high-technology equipment. By contrast, household spending was reasonably well maintained, buoyed by lower interest rates and cuts in federal taxes. Firms trimmed payrolls through most of the year, and the unemployment rate moved up nearly 2 percentage points to around 5¾ percent by year-end. Job losses were especially large following the terrorist attacks of September 11, which had extremely adverse effects on certain sectors of the economy—most notably, airline transportation and hospitality industries. Nevertheless, by early this year some signs appeared that the economy was beginning to mend.

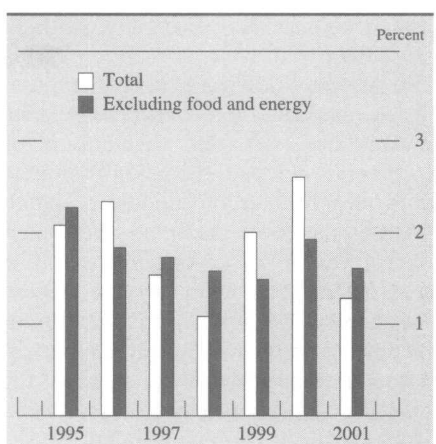
Inflation declined last year, pulled down by a sharp drop in energy prices. Excluding food and energy items, consumer price inflation leveled off and, by some measures, moved lower last year. Weakening economic activity, the indirect effects of declining energy prices on

Change in Real GDP



NOTE. Here and in subsequent charts, except as noted, annual changes are measured from Q4 to Q4, and change for a half-year is measured between its final quarter and the final quarter of the preceding period.

Change in PCE Chain-Type Price Index



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

firms' costs, and continued strong competitive pressures helped keep a lid on core consumer price inflation.

The Household Sector

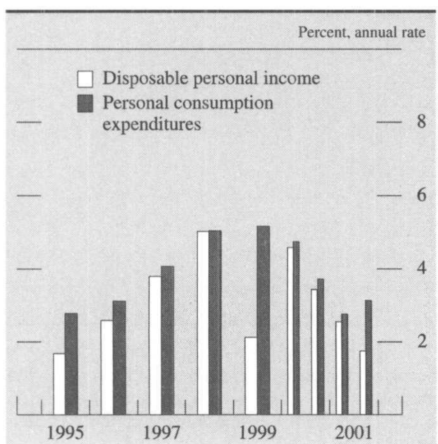
Consumer Spending

Growth in consumer spending slowed last year but remained sufficiently solid to provide an important source of support to overall final demand. Personal consumption expenditures (PCE) increased 3 percent in real terms in 2001 after having advanced 4¼ percent in 2000 and around 5 percent in both 1998 and 1999. The deceleration in consumer spending was widespread among durable goods, nondurable goods, and services. However, motor vehicle expenditures remained strong through most of the year and surged in the fall as consumers responded enthusiastically to automakers' aggressive expansion of financing incentives. After September 11, spending declined in certain travel- and tourism-related categories, including air transportation, hotels and motels, and recreation services such as amusement parks; spending in these categories has recovered only partially since then.

Last year's downshift in consumption growth reflected the weakening labor market and associated deceleration of income as well as the erosion in household wealth since the middle of 2000. With employment declining over much of last year, real personal income rose only about 1¾ percent after a gain of 4½ percent in 2000. The slowing of income growth was even sharper in nominal terms, but price declines for gasoline and other energy items in the latter half of the year substantially cushioned the blow to real incomes. A continued rise in house prices supported the wealth position of many households; in the aggregate, however, household wealth deteriorated further as equity prices moved lower, on net. The decline in wealth since mid-2000 likely exerted a notable restraining influence on household spending last year.

Both monetary and fiscal policy supported consumer spending over the past year. Low interest rates helped enable motor vehicle finance companies to offer favorable financing on new vehicles. In addition, low mortgage rates led to a spate of mortgage refinancing that lasted most of the year, lowering payments and freeing cash to be used by households for other spending needs. Indeed, many households apparently used these refinancings as an opportunity to extract equity from their homes, a move that further accommodated consumer spending. Furthermore, the first wave of tax reductions from the Economic Growth and Tax Relief Reconciliation Act of 2001—including the $300 and $600 rebate checks mailed last summer—likely helped to boost spending in the latter part of the year. The continued phase-in of the tax reductions enacted last year should provide further

Change in Real Income and Consumption



stimulus to income and consumption this year.

The personal saving rate, which had declined through 1999, leveled off in 2000 and in the first half of 2001. The saving rate moved erratically in the second half of the year but rose on average. It shot up in the summer as households received their tax rebates; it then declined later in the year as households spent some of the rebates and as purchases of new motor vehicles soared in response to the incentives.

Consumer sentiment, as measured by both the University of Michigan Survey Research Center (SRC) and the Conference Board, had been running at extremely high levels through most of 2000 but fell considerably near the beginning of last year as concerns about the economy intensified. By the spring, measures of sentiment leveled off near their historical averages and well above levels normally associated with recessions. Sentiment dropped in September. The SRC measure recovered gradually thereafter, while the Conference Board index fell further before turning up later in the year; by early 2002, both sentiment measures again stood near their historical averages.

Residential Investment

As with consumer spending, real expenditures on housing were well maintained last year, buoyed by favorable mortgage interest rates. Interest rates on thirty-year fixed-rate mortgages, which had been as high as 8½ percent in the spring of 2000, hovered around the low level of 7 percent in the first half of 2001. They moved down further to 6½ percent by late October, before backing up to 7 percent again by December as prospects for the economy improved. As monetary policy eased, contract rates on adjustable-rate mortgages moved down sharply to very low levels in the fourth quarter and into early 2002. According to the Michigan SRC survey, declining mortgage rates have helped elevate consumers' assessments of homebuying conditions substantially since mid-2000.

In the single-family sector, 1.27 million new homes were started last year, 3½ percent more than in 2000, when activity had been held down by higher mortgage rates. The pace of starts moved up further in January 2002, in part because of unusually favorable weather. Furthermore, sizable backlogs of building permits early this year suggest that construction activity will remain solid. Sales of new homes were elevated throughout 2001—indeed, for the year, they were the highest on record—and sales of existing homes remained strong as well. Meanwhile, the increase in home prices moderated last year. The constant-quality price index of new homes, which attempts to control for the mix of homes sold, rose only 1½ percent last year, down from a 6 percent gain in 2000.

In the multifamily sector, starts averaged 328,000 units last year, a rate close to the solid pace of the past several years. Conditions are still relatively favorable for the construction of multifamily units. In particular, vacancy rates have remained low, although rents and property values increased at a slower rate last year than in 2000.

Household Finance

Households continued to borrow at a brisk pace last year, increasing their debt outstanding an estimated 8¾ percent, a rate about 1 percentage point faster than the average growth over the previous two years. The cumulative declines in mortgage interest rates encouraged households to take on large amounts of mortgage debt, both by fostering homebuying and by making it attractive to refinance existing mortgages and extract some of the accumulated equity; indeed, the Mortgage Bankers Association (MBA) refinancing index in October reached the highest level since its inception in January 1980. The frenzied pace of refinancing activity tailed off some later in the fourth quarter, when fixed mortgage interest rates backed up. All told, mortgage debt grew an estimated 9 percent last year. Strength in durable goods outlays supported growth in consumer credit (debt not secured by real estate) in the first quarter of 2001, but as consumption spending decelerated over the next two quarters, the expansion of consumer credit slowed sharply. However, consumer credit growth surged in the fourth quarter, in large part because of the jump in motor vehicle sales. For the year as a whole, the rate of expansion of consumer credit, at 6¼ percent, was well below the 10¼ percent rate posted in 2000.

Hefty household borrowing outstripped the growth of disposable personal income in 2001. As a result, despite lower interest rates, the household debt-service burden—an estimate of minimum scheduled payments on mortgage and consumer debt as a share of disposable income—finished the year near the peak recorded at the end of 1986. Measures of household credit quality deteriorated noticeably last year. According to the MBA, delinquency rates on home mortgages continued to trend higher from their historic lows of the late 1990s, and auto loan delinquencies at finance companies edged up, although they too remained at a relatively subdued level. The economic slowdown and the rise in unemployment significantly eroded the quality of loans to subprime borrowers, and delinquency rates for both mortgages and consumer credit in that segment of the market moved sharply higher.

The Business Sector

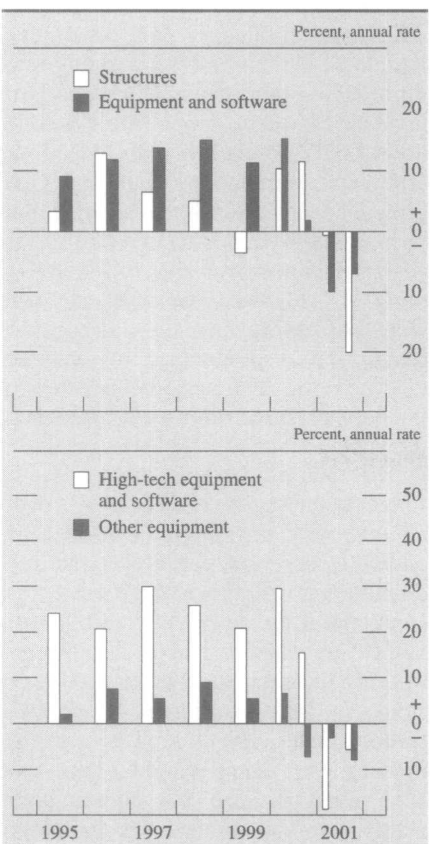
Much of the weakness in activity last year was concentrated in the business sector. In late 2000, manufacturers had begun to cut back production in an effort to reduce an undesired build-up of inventories, and sharp inventory liquidation continued throughout last year. Moreover, the boom in capital outlays that had helped drive the expansion through the late 1990s gave way to a softening of spending in late 2000 and to sharp declines last year. Spending dropped for most types of capital equipment and structures; cutbacks were especially severe for high-tech equipment, some types of which may have been over-bought. A sharp reduction in corporate profits and cash flow contributed to last year's downturn in capital spending, as did general uncertainty about the economic outlook. Despite the reduction in interest rates, which helped restrain businesses' interest expenses, financing conditions worsened somewhat, on balance, given weaker equity values, higher borrowing costs for risky firms, and some tightening of banks' lending standards.

Fixed Investment

Real spending on equipment and software (E&S) declined 8½ percent in 2001 after an increase of the same amount in 2000 and double-digit rates of increase for several preceding years. Spending on high-tech equipment, which has accounted for about 40 percent of E&S spending in recent years, dropped especially sharply last year. Outlays for computers and peripheral equipment, which had risen more than 30 percent in each of the preceding seven years, fell 9 percent in 2001. Spending on communications equipment swung even more severely, moving from increases of more than 20 percent on average from 1998 to 2000 to a decline of more than 30 percent last year. Business spending on software held up comparatively well, falling only 2½ percent in 2001 after having risen around 12 percent in 1999 and 2000.

A number of factors may have weighed on outlays for high-tech equipment, including businesses' decisions to lengthen the replacement cycle for computers in light of weak economic conditions and the absence of new applications requiring the most up-to-date machines. But in addition, the magnitude by which these categories of expenditure had increased in preceding years, together with the abruptness of their downturn, suggests that firms may have been too optimistic about the immediate profitability of some types of high-tech capital; as these expectations were revised, businesses viewed their previous investment as more than sufficient to meet anticipated demand. This possibility is especially likely in the case of communications equipment, for which expectations about prospects for growth in demand appear to have been disappointed. Some of the cutbacks may have reflected a general pulling back in an environment of greater uncertainty. The sharp rise and subsequent decline of equity values in the high-tech sector mirrors the pattern of rising and slowing investment and provides some support for the notion that earnings expectations may have been overly upbeat in the past.

Change in Real Business Fixed Investment



NOTE. High-tech equipment includes computers and peripheral equipment and communications equipment.

Under the influence of ongoing weakness in the market for heavy trucks, business spending on motor vehicles declined through most of the year. But spending stabilized in the fourth quarter, as the generous incentives on motor vehicles may have helped boost spending by small businesses as well as consumers. Domestic orders for new aircraft declined last year, especially after the terrorist attacks last fall, but these lower orders had not yet affected spending by year-end because of the very long lags involved in producing planes. Apart from spending on transportation and high-tech equipment, real outlays declined 7½ percent last year after having increased 6 percent in 2000, with the turnaround driven by a sharp swing in spending on many types of industrial machinery and on office furniture.

Late last year, conditions in some segments of the high-tech sector showed signs of bottoming. Developments in the semiconductor industry have improved, with production increasing during the fall. Some of the improvement is apparently coming from increased demand for computers. In the advance estimate from the Commerce Department for the fourth quarter, real spending on computers and peripheral equipment was reported to have surged at an annual rate of 40 percent. However, spending on communications equipment, for which evidence of a capital overhang has been most pronounced, continued to decline sharply in the fourth quarter, and orders for communications equipment have yet to display any convincing signs of turning around. As for other types of capital equipment, spending continued to decline in the fourth quarter, but a moderate rebound in new orders for many types of capital goods from their autumn lows hinted that a broader firming of demand may be under way.

Real business spending for nonresidential structures also declined sharply in 2001. Construction of office buildings dropped last year after having increased notably for several years; industrial building remained fairly steady through the first half of last year but plummeted in the second half. Vacancy rates for these two types of properties rose considerably, and by year-end the industrial vacancy rate had reached its highest level since mid-1993. Meanwhile, spending on non-office commercial buildings (a category that includes retail, wholesale, and some warehouse space) decreased moderately last year. Investment in public utilities moved down as well, a decline reflecting, in part, a cutback in spending for communications projects such as the installation of fiber-optic networks. Investment in the energy sector was a pocket of strength last year. Construction of drilling structures surged in 2000 and much of 2001, as the industry responded to elevated prices of oil and natural gas. However, with oil and natural gas prices reversing their earlier increases, drilling activity turned down in the latter part of the year.

Inventory Investment

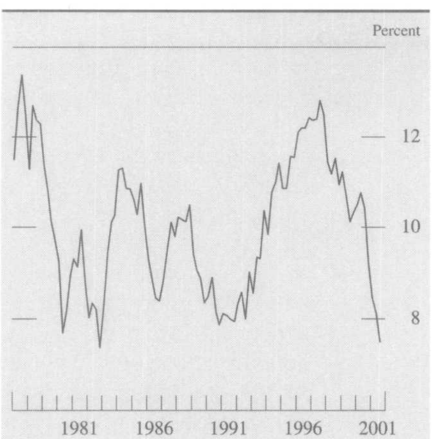
By late 2000, manufacturers were already cutting production to slow the pace of inventory accumulation as inventories moved up relative to sales. Production cuts intensified in early 2001, and producers and distributers liquidated inventories at increasing rates throughout the year. The runoff of inventories was a major factor holding down GDP growth last year. Indeed, the arithmetic subtraction from real GDP growth attributable to the decline in nonfarm inventory investment was 1½ percentage points over the four quarters of 2001. However, because sales also were weakening, inventory-sales ratios remained high in much of the manufacturing sector, and in some portions of the wholesale sector as well, throughout the year.

The motor vehicle sector accounted for about one-quarter of last year's overall inventory drawdown. Late in 2000 and early last year, automakers cut production in an attempt to clear out excess stocks held by dealers. By the spring, vehicle assemblies had stabilized, and the automakers instead dealt with heavy stocks by further sweetening incentives to boost sales. By the end of the year, inventories of cars and light trucks stood at a relatively lean 2¼ million units, nearly 1 million units fewer than were held a year earlier.

Corporate Profits and Business Finance

The profitability of the U.S. nonfinancial corporate sector suffered a severe blow in 2001. The profit slump had begun in the fourth quarter of the previous year, when the economic profits of nonfinancial corporations—that is, book profits from current production with inventory and capital consumption adjustments compiled by the Commerce Department—plummeted almost 45 percent at an annual rate. The first three quarters of 2001 brought little respite, and economic profits spiraled downward at an average annual rate of 25 percent. The ratio of the profits of nonfinancial corporations to the sector's gross nominal output fell to 7½ percent last year, a level not seen since the early 1980s. Earnings reports for the fourth quarter indicate that nonfinancial corporate profits continued to fall late in the year.

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



NOTE. The data are quarterly and extend through 2001:Q3. Profits are from domestic operations of nonfinancial corporations, with inventory valuation and capital consumption adjustments.

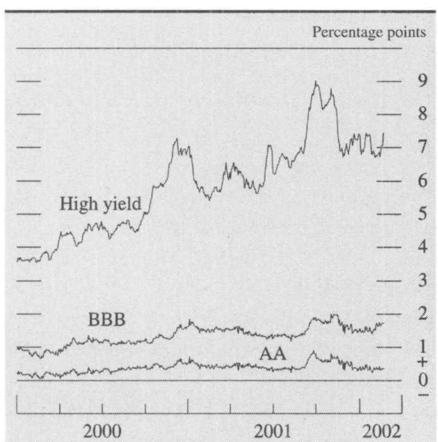
Business borrowing slowed markedly last year because firms slashed investment in fixed capital and inventories even more than the drop in profits and other internally generated funds. Business debt expanded at a 6¼ percent annual rate in 2001, well below the double-digit rates of the two previous years, and its composition shifted decidedly toward longer-term sources of funds. Early in the year, favorable conditions in the corporate bond market, combined with firms' desire to lock in low interest rates, prompted investment-grade firms to issue a high volume of bonds. They used the proceeds to strengthen their balance sheets by repaying short-term debt obligations, refinancing other longer-term debt, and building up liquid assets. Junk bond issuance was also strong early in 2001, as speculative-grade yields fell in response to monetary policy easings, although investors shunned the riskiest issues amid increasing economic uncertainty and rising defaults among below-investment-grade borrowers.

The heavy pace of bond issuance, along with a reduced need to finance capital investments, enabled firms to decrease their business loans at banks and their commercial paper outstanding. The move out of commercial paper also reflected elevated credit spreads between high- and low-tier issuers resulting from the defaults of California utilities and several debt downgrades among prominent firms early in the year. Announcements of new equity share repurchase programs thinned considerably in the first half of the year, as firms sought to conserve their cash buffers in response to plummeting profits. A significant slowdown in cash-financed merger activity further damped equity retirements, although these retirements still outpaced gross equity issuance, which was restrained by falling share prices. Over the summer, issuance of investment-grade bonds dropped off appreciably. Moreover, market sentiment toward speculative-grade issues cooled, as further erosion in that sector's credit quality took its toll. Business loans and outstanding commercial paper continued to contract, and with share prices in the doldrums, nonfinancial firms raised only a small amount of funds in public equity markets in the third quarter.

The terrorist attacks on September 11 constricted corporate financing flows for a time. The stock market closed for that week, and trading in corporate bonds came to a virtual halt. After the shutdown of the stock market, the Securities and Exchange Commission, in an effort to ensure adequate liquidity, temporarily lifted some restrictions on firms' repurchases of their own shares. According to reports from dealers, this change triggered a spate of repurchases in the first few days after the stock markets reopened on September 17. When full-scale trading in corporate bonds resumed on September 17, credit spreads on corporate bonds widened sharply: Risk spreads on speculative-grade private debt soared to levels not seen since late 1991, and spreads on investment-grade corporate bonds also moved higher, although by a considerably smaller amount. Against this backdrop, junk bond issuance nearly dried up for the rest of the month. Commercial paper rates—even for top-tier issuers—jumped immediately after the attacks, as risk of payment delays increased. In response to elevated rates, some issuers tapped their backup lines at commercial banks, and business loans spiked in the weeks after the attacks. Risk spreads for low-tier borrowers in the commercial paper market remained elevated, even after market operations had largely recovered, because of ongoing concerns about credit quality and ratings downgrades among some high-profile issuers in the fall.

By early October, the investment-grade corporate bond market had largely recovered from the disruptions associated with the terrorist attacks, and bond issuance in that segment of the market picked up considerably. Firms capitalized on relatively low longer-term interest rates to pay down short-term obligations, to refinance existing higher-coupon debt, and to boost their holdings of liquid assets. With high-yield bond risk spreads receding moderately, issuance in the speculative-grade segment of the corporate bond market stirred somewhat from its moribund state, although investors remained highly selective. Public equity issuance, after stalling in September, also regained some ground in the fourth quarter, spurred by a rebound in stock prices. As was the case for most of the year, initial

Spreads of Corporate Bond Yields over the Ten-Year Swap Rate



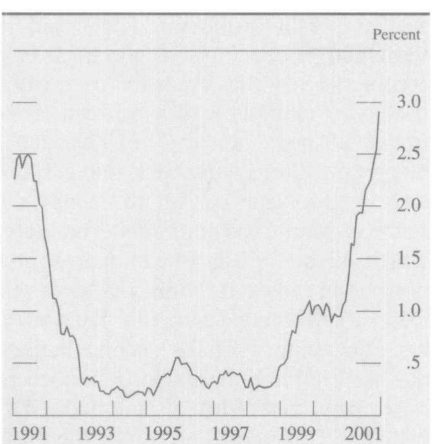
NOTE. The data are daily and extend through February 21, 2002. The spreads compare the yields on the Merrill Lynch AA, BBB, and 175 indexes with the ten-year swap rate.

public offerings and venture capital financing remained at depressed levels.

Commercial paper issuance recovered somewhat early in the fourth quarter as firms repaid bank loans made in the immediate aftermath of the terrorist attacks and as credit spreads for lower-rated issuers started to narrow. However, the collapse of the Enron Corporation combined with typical year-end pressures to widen quality spreads in early December. All told, the volume of domestic nonfinancial commercial paper outstanding shrank by one-third over the year as a whole. Business loans at banks fell further in the fourth quarter; for the year, business loans contracted 4¼ percent, their first annual decline since 1993.

The slowing of sales and the drop in profits caused corporate credit quality to deteriorate noticeably last year. In part because of the decline in market interest rates, the ratio of net interest payments to cash flow in the nonfinancial corporate sector moved only modestly above the relatively low levels of recent years, and most firms did not experience significant difficulties servicing their debt. However, many firms were downgraded, and evidence of financial distress mounted over the course of the year. The twelve-month trailing average of the default rate on corporate bonds nearly tripled last year and by December ran almost ½ percentage point higher than its peak in 1991. Delinquency rates on business loans at banks also rose, although not nearly as dramatically. The amount of nonfinancial debt downgraded by Moody's Investors Service last year was more than five times the amount upgraded; downgrades were especially pronounced in the fourth quarter, when ratings agencies lowered debt ratings of firms in the telecommunication, energy, and auto sectors.

Default Rate on Outstanding Bonds



NOTE. The data are monthly; the series shown is a twelve-month moving average.

Commercial mortgage debt, supported by still-strong construction spending, expanded at a brisk 10 percent pace over the first half of 2001. The growth of commercial mortgage debt edged down only ½ percentage point in the second half, despite a sharp slowdown in business spending on nonresidential structures. As a result, the issuance of commercial-mortgage-backed securities (CMBS) maintained a robust pace throughout the year. Available data indicate some deterioration in the quality of commercial real estate credit. Delinquency rates on commercial real estate loans at banks rose steadily in 2001 and have started to edge out of their recent record-low range. In addition, CMBS delinquency rates increased, especially toward the end of the year, amid the rise in office vacancy rates. Despite the erosion in credit quality in commercial real estate and heavy issuance of CMBS, yield spreads on investment-grade CMBS over swap rates were about unchanged over the year, suggesting that investors view credit problems in this sector as being contained. Commercial banks, however, stiffened their lending posture in response to eroding prospects for the commercial real estate sector; significant net fractions of loan officers surveyed over the course of the year reported that their institutions had firmed standards on commercial real estate loans.

The Government Sector

Federal Government

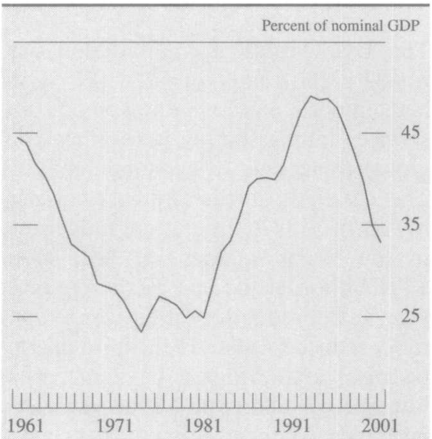
Deteriorating economic conditions and new fiscal initiatives have led to smaller federal budget surpluses than had been anticipated earlier. The fiscal 2001 surplus on a unified basis was $127 billion, or about 1¼ percent of GDP—well below both the record $236 billion surplus recorded in fiscal 2000 and the $281 billion surplus that the Congressional Budget Office had anticipated for fiscal 2001 at this time last year. Receipts, which had increased at least 6 percent in each of the preceding seven fiscal years, declined around 2 percent in fiscal 2001; the rise in individual tax receipts slowed dramatically and corporate receipts plunged 27 percent. The lower receipts reflected both the weakening economy—specifically, slow growth of personal income, the drop in corporate profits, and a pattern of declines in equity values that led to lower net capital gains realizations—and changes associated with the Economic Growth and Tax Relief Reconciliation Act of 2001. Some provisions of the act went into effect immediately, including the rebate checks that were mailed last summer. In addition, the act shifted some corporate tax payments into fiscal 2002.

Meanwhile, outlays were up 4 percent in fiscal 2001; abstracting from a decline in net interest payments, outlays increased nearly 6 percent, a second year of increases larger than had prevailed for some time. Outlays have increased across all major categories of expenditure, including defense, Medicare and Medicaid, and social security. As for the part of federal spending that is counted in GDP, real federal outlays for consumption and gross investment increased somewhat more rapidly than in recent years through the first three quarters of 2001 as defense expenditures picked up. Spending rose faster still in the fourth quarter because of increases for homeland security and the additional costs associated with the war in Afghanistan.

The existence of surpluses through fiscal 2001 meant that the federal government continued to contribute to the pool of national saving. Nevertheless, gross saving by households, businesses, and governments has been trending down over the past few years from the recent high of around 19 percent of GDP in 1998.

The Treasury used federal budget surpluses over the first half of the year to pay down its outstanding marketable debt. In the third quarter, however, the cut in personal income taxes and a weakening in receipts as the economy contracted led the Treasury to reenter the credit markets as a significant borrower of new funds. The Treasury's budget position swung back into surplus late in the year owing to somewhat stronger-than-expected tax receipts, which helped push fourth-quarter net borrowing below its third-quarter level. Despite the increase in the Treasury's net borrowing over the second half of the year, publicly held debt remained at only about one-third of nominal GDP last year, its lowest level since the mid-1980s and well below the 1993 peak of almost 50 percent.

Federal Government Debt
Held by the Public



NOTE. The data are as of the end of the fiscal year. Excludes debt held in federal government accounts and by the Federal Reserve System.

The terrorist attacks on September 11 and the associated disruptions to financial markets had some spillover effects on Treasury financing. On the day of the attacks, the Treasury cancelled its scheduled bill auction; over the next several days, it drew down nearly all of its compensating balances with commercial banks—about $12½ billion in total—to meet its obligations. On Thursday of that week, the settlement of securities sold the day before the attacks eased the Treasury's immediate cash squeeze, and the incoming stream of estimated quarterly personal income tax payments provided additional funds. Infrastructure problems involving the trading and clearing of Treasury securities were largely resolved over the following week, and when the Treasury resumed its regular bill issuance on September 17, exceptionally strong demand for bills pushed stop-out rates—that is, the highest yield accepted during the auction—to their lowest level since 1961. Although the Treasury cancelled debt buybacks scheduled for late September to conserve cash, it later announced that buyback operations would begin again in October.

With its credit needs still limited, the Treasury announced on October 31 that it was suspending issuance of nominal and inflation-indexed thirty-year securities. Subsequently, the thirty-year Treasury bond yield fell sharply, bid-asked spreads on outstanding bonds widened, and liquidity in the bond sector deteriorated. Although bid-asked spreads narrowed over the balance of the year, market participants reported that liquidity in the bond sector remained below its level before the Treasury's announcement. The announcement on October 31 also indicated that after the January 2002 buyback operations, the Treasury would determine the amount and timing of buybacks on a quarter-by-quarter basis, thereby fueling speculation that future buybacks might be scaled back in light of the changed budget outlook.

State and Local Governments

Real expenditures for consumption and gross investment by states and localities rose 5 percent last year after an increase of 2½ percent in 2000. Much of the acceleration reflected a burst of spending on construction of schools and other infrastructure needs. In addition, outlays at the end of last year were boosted by the cleanup from the September 11 attacks in New York. As for employment, state and local governments added jobs in 2001 at a more rapid pace than they did over the previous year and thereby helped to offset job losses in the private sector.

The fiscal condition of state and local governments has been strained by the deterioration in economic performance. State governments are considering a variety of actions to achieve budget balance in the current fiscal year. Most states are intending to cut planned expenditures, and many are considering drawing down rainy-day funds, which governments had built up in earlier years. According to the National Conference of State Legislators, these rainy-day funds stood at the relatively high level of $23 billion at the end of fiscal 2001 (June 30). Moreover, some states that had planned to fund capital expenditures with current receipts appear to be shifting to debt financing. Finally, a few states are considering actions such as postponing tax cuts that were enacted earlier.

Debt of the state and local government sector expanded rapidly last year after slow growth in 2000. Gross issuance of long-term municipal bonds accelerated over the first half of 2001 as state and local governments took advantage of lower yields to refund outstanding debt. Spurred by falling interest rates and declining tax revenues, these governments continued to issue long-term bonds to finance new capital projects at a rapid clip over the second half of the year. Despite a deterioration in tax receipts, credit quality in the municipal market remained high in 2001. Late in the year, however, signs of weakness had emerged, as the pace of net credit-ratings upgrades slowed noticeably. Especially significant problems continue to plague California and New York, both of which saw their debt ratings lowered in November. In California, the problems were attributed to declining tax revenues and difficulties related to the state's electricity crisis earlier in the year, while New York's slip in credit quality resulted not only from deteriorating tax receipts but also from fears of higher-than-expected costs related to clean up and rebuilding after the terrorist attacks.

The External Sector

Trade and the Current Account

The U.S. current account deficit narrowed significantly during 2001, with both imports and exports of goods and services falling sharply in response to a global weakening of economic activity. The deficit in goods and services narrowed to $333 billion at an annual rate in the fourth quarter of 2001 from $401 billion at the end of the previous year. In addition, the deficit was temporarily reduced further in the third quarter because service import payments were lowered by a large one-time estimated insurance payment from foreign insurers (reported on an accrual basis) related to the events of September 11.[1] Excluding the estimated insurance figure, the current account deficit was $434 billion at an annual rate over the first three quarters of the year, or 4¼ percent of GDP, compared with $445 billion and 4½ percent for the year 2000. Net investment income payments were about the same during the first three quarters of 2001 as in the corresponding period a year earlier; higher net payments on our growing net portfolio liability position were offset by higher net direct investment receipts.

U.S. real exports were hit by slower growth abroad, continued appreciation of the dollar, and plunging global

1. The "insurance payment" component of imported services is calculated as the value of premiums paid to foreign companies less the amount of losses recovered from foreign companies. In the third quarter, the estimated size of losses recovered far exceeded the amount paid for insurance premiums, resulting in a negative recorded insurance payment. According to NIPA accounting, the entire amount of a recovery is recorded in the quarter in which the incident occurred.

demand for high-tech products. Real exports of goods and services fell 11 percent over the four quarters of 2001, with double-digit declines beginning in the second quarter. Service receipts decreased 7 percent; all of the decline came after the events of September 11. Receipts from travel and passenger fares, which plunged following the terrorist attacks, were about one-fourth lower in the fourth quarter than in the second quarter. Receipts from foreigners for other services changed little over the year. Exports declined in almost all major goods categories, with the largest drops by far in high-tech capital goods and other machinery. Two exceptions were exports of automotive products, which rose during the second and third quarters (largely parts to Canada and Mexico destined ultimately for use in U.S. markets, and vehicles to Canada), and agricultural goods. About 45 percent of U.S. exports of goods were capital equipment; 20 percent were industrial supplies; and 5 percent to 10 percent each were agricultural, automotive, consumer, and other goods. The value of exported goods declined at double-digit rates for almost all major market destinations. Even exports to Canada and Mexico declined sharply, despite support from two-way trade with the United States in such sectors as automotive products.

As growth of the U.S. economy slowed noticeably, real imports of goods and services turned down and declined 8 percent for 2001 as a whole. Service payments dropped 15 percent last year. The plunge in outlays for travel and passenger fares after September 11 held down total real service payments, bringing their level in the fourth quarter 15 percent below that in the second quarter. Spending on services other than travel and passenger fares changed little during the year.[2] Imported goods fell 6 percent last year, with much of the decrease in capital goods (computers, semiconductors, and other machinery). In contrast, real imports of automotive products, consumer goods, oil, and other industrial supplies were little changed, and imports of foods rose. The pattern of import growth appears to have shifted toward the end of the year. Imports of real non-oil goods declined at about a 10 percent annual rate during the first three quarters of the year but fell less rapidly in the fourth quarter. The price of imported non-oil goods, after rising in the first quarter, declined at an annual rate of about 6 percent from the second quarter through the fourth quarter, led by decreases in the price of imported industrial supplies.

The value of imported oil fell more than one-third over the four quarters of 2001, a drop resulting almost entirely from a sharp decline in oil prices. The spot price of West Texas intermediate (WTI) crude decreased about $10 per barrel during the year, with much of the decline occurring after September 11. During the first eight months of 2001, the spot price of WTI averaged $28 per barrel as weakened demand for oil and increased non-OPEC supply were largely offset by OPEC production restraint. In the wake of the terrorist attacks, oil prices dropped sharply in response to a decline in jet fuel consumption, weaker economic activity, and reassurance from Saudi Arabia that supply would be forthcoming. Oil prices continued to drift lower during the

2. According to NIPA accounting, the value of the one-time insurance payments by foreign insurers is not reflected in NIPA real imports of services. The deflator for service imports was adjusted down for the third quarter to offset the lower value of service imports; the deflator returned to its usual value in the fourth quarter.

fourth quarter, reflecting OPEC's apparent unwillingness to continue to sacrifice market share in order to defend higher oil prices. In late December, however, OPEC worked out an arrangement in which it agreed to reduce its production targets an additional 1.5 million barrels per day, contingent on the pledges from several non-OPEC producers (Angola, Mexico, Norway, Oman, and Russia) to reduce oil exports a total of 462,500 barrels per day. Given the uncertainty over the extent to which these reductions will actually be implemented and the comfortable level of oil inventories, the spot price of WTI remained near $20 per barrel in early 2002.

Financial Account

The slowing of U.S. and foreign economic growth over the course of last year had noticeable effects on the composition of U.S. capital flows, especially when the slowing became more pronounced in the second half. On balance, net private capital flowed in at a pace only slightly below the record set in 2000, including unprecedented net inflows through private securities transactions.

During the first half of 2001, sagging stock prices and signs of slower growth brought a shift in the types of U.S. securities demanded by private foreigners but did not reduce the overall demand for them. Indeed, during the first half, foreign private purchases of U.S. securities averaged $137 billion per quarter, a rate well above the record $109 billion pace set in 2000. A slowing of foreign purchases of U.S. equities, relative to 2000, was more than offset by a pickup in foreign purchases of corporate and agency bonds. In addition, private foreigners, who had sold a significant quantity of Treasury securities during 2000, roughly halted their sales in the first half of 2001. The increased capital inflows arising from larger foreign purchases of U.S. securities in the first half was only partly offset by an increase in the pace at which U.S. residents acquired foreign securities, especially equities.

The pattern of private securities transactions changed significantly in the third quarter: Foreign purchases of U.S. equities slowed markedly, and U.S. investors shifted from net purchases of foreign securities to net sales. However, the reduced flows in the third quarter seem to have reflected short-lived reactions to events in the quarter. Preliminary data for the fourth quarter show a significant bounceback in foreign purchases of U.S. securities and a return to purchases of foreign securities by U.S. residents.

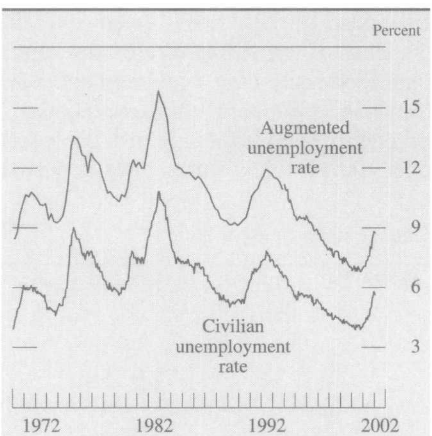
The changing economic climate also affected direct investment capital flows. During 2000, foreign direct investment in the United States averaged more than $70 billion per quarter. These flows slowed to less than $60 billion per quarter in the first half and then dropped to only $26 billion in the third quarter (the last available data). The drop resulted in part from a decline in the outlook for corporate profits and a significant reduction in general merger and acquisition activity. By contrast, U.S. direct investment abroad picked up over the course of 2001. The third quarter outflow of $52 billion—a record—reflected both a large merger and robust retained earnings by the foreign affiliates of U.S. firms. Capital inflows from official sources were relatively modest in 2001, totaling only $15 billion, compared with $36 billion in 2000.

The Labor Market

Employment and Unemployment

Last year's weakening in economic activity took its toll on the labor market. Payroll employment edged up early last year and then dropped nearly 1½ million by January 2002. Declines were particularly large in manufacturing, which has shed one in twelve jobs since mid-2000. Job cuts accelerated in the months following the terrorist attacks of September 11, with declines occurring in a wide variety of industries. The unemployment rate moved up from 4 percent in late 2000 to 5.8 percent by December 2001. In January 2002, the unemployment rate edged down to 5.6 percent.

Measures of Labor Utilization



NOTE. The data extend through January 2002. The augmented umemployment rate is the number of unemployed plus those who are not in the labor force and want a job, divided by the civilian labor force plus those who are not in the labor force and want a job. In January 1994, a redesigned survey was introduced; data for the augmented rate from that point on are not directly comparable with those of earlier periods. For the augmented rate, the data are quarterly through December 1993 and monthly thereafter; for the civilian labor force rate, the data are monthly.

Early last year, employment in manufacturing, which had been trending down for several years, began to decline more rapidly. Job losses were widespread within the manufacturing sector but were most pronounced in durable-goods industries, such as those producing electrical and industrial machinery and metals. Employment at help supply firms and in wholesale trade—industries that are directly related to manufacturing—also began to decline. Outside of manufacturing and its related industries, private payrolls continued to increase robustly in the first quarter of last year, but hiring then slowed, although it remained positive, on net, in the second and third quarters. Construction payrolls increased into the spring but flattened out thereafter. Employment at retail trade establishments also continued to increase moderately through the spring but began to decline in the late summer. In services industries other than help supply firms—a broad group that accounted for nearly half of the private payroll increases over the preceding several years—job gains slowed but remained positive in the second and third quarters of last year. In all, private payroll employment declined about 115,000 per month in the second and third quarters, and the unemployment rate moved up steadily to 4½ percent by the spring and to nearly 5 percent by August.

The labor market was especially hard hit by the terrorist attacks. Although labor demand was weak prior to the attacks, the situation turned far worse following the events of September 11, and private payrolls plunged more than 400,000 per month on average in October and November. Employment fell substantially not only in manufacturing and in industries directly affected by the attacks, such as air transportation, hotels, and restaurants, but also in a wide variety of other industries such as construction and much of the retail sector.

Employment continued to decline in December and January but much less than in the preceding two months. Manufacturing and its related industries lost jobs at a slower pace, and employment leveled off in other private industries. The unemployment rate moved up to 5.8 percent in December but then ticked down to 5.6 percent in January. The recent reversal of the October and November spikes in new claims for unemployment insurance and in the level of insured unemployment also point to some improvement in labor market conditions early this year.

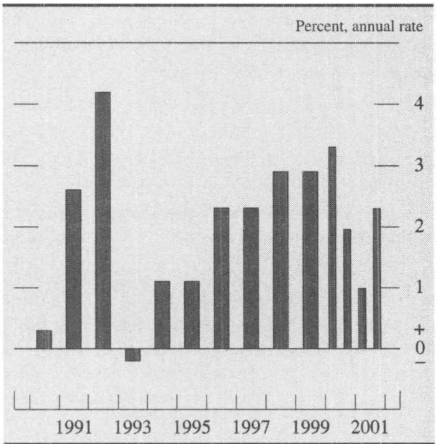
Productivity and Labor Costs

Given economic conditions, growth of labor productivity was impressive in 2001. Productivity growth typically drops when the economy softens, partly because businesses tend not to shed workers in proportion to reduced demand. Last year, however, output per hour in the nonfarm business sector increased a relatively solid 1½ percent, according to the advance estimate, after having risen 2½ percent in 2000—a mild deceleration by past cyclical standards. Indeed, productivity is estimated to have increased at an annual rate of more than 2 percent in the second half of the year, an impressive performance during a period when real GDP was, on net, contracting. The buoyancy of productivity during 2001 provides further support to the view that the underlying trend of productivity growth has stepped up notably in recent years.

Hourly labor compensation costs increased more slowly last year than in 2000, although different compensation measures paint different pictures of the magnitude of that deceleration. The slowing likely reflected the influence of the soft labor market, energy-driven declines in price inflation toward the latter part of the year, and subdued inflation expectations. Compensation probably was also held down by a reduction in variable pay, such as bonuses that are tied to company performance and stock-option activity.

According to the employment cost index, hourly compensation costs increased 4¼ percent during 2001, down from a 4½ percent increase in 2000; both the wages and salaries and benefits components recorded slightly smaller increases. The deceleration in the index for wages and salaries was concentrated among sales workers, whose wages often include a substantial commission component and so are especially sensitive to cyclical developments. Although the increase in employers' cost of benefits slowed overall, the cost of providing health insurance increased more than 9 percent last year; the rise continued this component's accelerating contribution to labor costs over the past few years after a period

Change in Output per Hour



NOTE. Nonfarm business sector.

of restrained cost increases in the mid-1990s.

An alternative measure of hourly compensation is the BLS's measure of compensation per hour in the nonfarm business sector, which is derived from compensation information in the national accounts; this measure increased 4 percent last year, a very large drop from the 7¾ percent increase registered in 2000. One reason that these two compensation measures may diverge is that only nonfarm compensation per hour captures the cost of stock options. Although the two compensation measures differ in numerous other respects as well, the much sharper deceleration in nonfarm compensation per hour may indicate that stock option exercises leveled off or declined in 2001 in response to the fall in equity values. However, because nonfarm compensation per hour can be revised substantially, one must be cautious in interpreting the most recent quarterly figures from this series.

Unit labor costs, the ratio of hourly compensation to output per hour in the nonfarm business sector, increased about 2 percent last year. Although down from a huge 5 percent increase in 2000 that reflected that year's surge in nonfarm compensation per hour, the figure for 2001 is still a little higher than the moderate increases seen over the preceding several years. Last year's increase in unit labor costs was held up by the smaller productivity increases that accompanied weak economic activity; accordingly, subsequent increases in unit labor costs would be held down if output per hour begins to increase more rapidly as the economy strengthens.

Prices

Inflation declined in 2001 largely because of a steep drop in energy prices. The chain-type price index for personal consumption expenditures (PCE) increased 1.3 percent last year after having increased 2.6 percent in 2000; the turnaround in consumer energy prices accounted for almost all of that deceleration. Increases in PCE prices excluding food and energy items also slowed a little last year after having moved up in 2000. The chain-type price index for gross domestic purchases—the broadest price measure for domestically *purchased* goods and services—decelerated considerably last year. The small increase in this index reflected both the drop in energy prices and a resumption of rapid declines for prices of investment goods, especially computers, following a period of unusual firmness in 2000. The price index for GDP—the broadest price measure for domestically *produced* goods and services—posted a smaller deceleration of about ½ percentage point between 2000 and 2001 because lower oil prices have a smaller weight in U.S. production than in U.S. purchases.

Consumer energy prices continued to move higher through the early months of 2001 before turning down sharply in the second half of the year. Despite the fact that crude oil prices were declining

Alternative Measures of Price Change

Percent

Price measure	2000	2001
Chain-type		
Gross domestic product	2.4	1.8
Gross domestic purchases	2.5	1.1
Personal consumption expenditures	2.6	1.3
Excluding food and energy	1.9	1.6
Fixed-weight		
Consumer price index	3.4	1.9
Excluding food and energy	2.5	2.7

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.

over the first half of the year, retail gasoline prices increased at an annual rate of 8 percent during that period. The sizable increase in margins on gasoline reflected both refinery disruptions and low inventory levels going into the summer driving season. But gasoline prices fell sharply thereafter as refineries came back on line, imports of gasoline picked up, and crude oil prices moved considerably lower over the latter half of the year. In all, gasoline prices were down 19 percent over the year as a whole. Heating oil prices reflected crude oil developments more directly and declined sharply through most of the year. Meanwhile, spot prices of natural gas peaked in January 2001 at the extraordinarily high level of nearly $10 per million BTUs, and prices at the consumer level continued to surge in the first few months of the year. These increases reflected the pressure from ongoing strength in demand coupled with unusually cold weather early last winter that left stocks at very low levels. But the situation improved as expanded supply allowed stocks to be replenished: Spot prices reversed those earlier increases, and prices of consumer natural gas declined substantially through the rest of the year.

In contrast, electricity prices rose through most of last year. The increases reflected the effects of the earlier rises in the prices of natural gas and coal on fuel costs of utilities as well as problems with electricity generation in California. California was able to avoid serious power disruptions last summer because high electricity prices, weak economic activity, and moderate weather all helped keep demand in check.

Consumer food prices increased more rapidly last year, rising about 3 percent after having risen only 2½ percent in 2000. Early in the year, strong demand, both domestic and foreign, led to large increases in livestock prices—especially beef. But these prices softened later in the year under the influence of higher supplies, lower domestic demand, and foreign outbreaks of mad cow disease, which apparently damped demand for beef no matter where produced.

Excluding food and energy items, PCE prices rose 1.6 percent last year, a small deceleration from its 1.9 percent increase over 2000. That deceleration was concentrated in prices of goods, with prices especially soft for motor vehicles and apparel. By contrast, prices of many services continued to accelerate last year. In particular, shelter costs—which include residential rent, the imputed rent of owner-occupied housing, and hotel and motel prices—increased 4¼ percent last year after having risen 3½ percent in 2000.

Standing somewhat in contrast to the small deceleration in core PCE prices, the core consumer price index (CPI) increased 2¾ percent last year, about the same rate as in 2000. Although components of the CPI are key inputs of the PCE price index, the two price measures differ in a variety of ways. One important difference is that the PCE measure is broader in scope; it includes expenditures made by nonprofit institutions and consumption of items such as checking services that banks provide without explicit charge. Prices for the PCE categories that are outside the scope of the CPI decelerated notably in 2001 and accounted for much of the differential movements of inflation measured by the two price indexes. Another difference is that the CPI places a larger weight on housing than does the PCE price index, and last year's acceleration of housing prices therefore boosted the CPI relative to the PCE measure.

The leveling off or decline in core consumer price inflation reflects a variety of factors, including the weakening of economic activity and the accompanying slackening of resource utilization; the decline in energy prices that reduced firms' costs; and continuing intense competitive pressures in product markets. These factors also likely helped to reduce inflation expectations late last year, and this reduction itself may be contributing to lower inflation. According to the Michigan SRC, median one-year inflation expectations, which had held near 3 percent through 2000 and into last summer, moved down to 2¾ percent in the third quarter and plummeted to 1 percent or lower in October and November. Falling energy prices and widespread reports of discounting following the September 11 attacks likely played a role in causing this sharp break in expectations. Part of this drop was reversed in December, and since then, inflation expectations have remained around 2 percent—a rate still well below the levels that had prevailed earlier. Meanwhile, the Michigan SRC's measure of longer-term inflation expectations, which had also remained close to 3 percent through 2000 and the first half of 2001, ticked down to 2¾ percent in October and stood at that level early this year.

U.S. Financial Markets

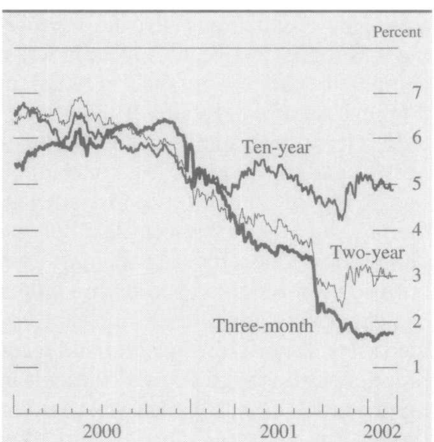
As a consequence of the Federal Reserve's aggressive easing of the stance of monetary policy in 2001, interest rates on short- and intermediate-term Treasury securities fell substantially over the course of the year. Longer-term Treasury bond yields, however, ended the year about unchanged, on balance. These rates had already fallen appreciably in late 2000 in anticipation of monetary policy easing. They may also have been held up last year by an increased likelihood of federal budget deficits and, except in the immediate aftermath of the terrorist attacks, by investors' optimism about future economic prospects. Despite this optimism, the slowdown in final demand, a slump in corporate earnings, and a marked deterioration in credit quality of businesses in a number of sectors made investors more wary about risk. Although interest rates on higher-rated investment- grade corporate bonds generally moved in line with those on comparably dated government securities, lower-rated firms found credit to be considerably more expensive, as risk spreads on speculative-grade debt soared for most of the year before narrowing somewhat over the last few months. Interest rates on commercial paper and business loans fell last year by about as much as the federal funds rate, but risk spreads generally remained in the elevated range. In addition, commercial banks tightened standards and terms for business borrowers throughout the year. Equity prices were exceptionally volatile and fell further, on balance, in 2001.

Increased caution on the part of lenders did not appear to materially damp aggregate credit flows. Private borrowing was robust last year, especially when compared with the marked slowing in nominal spending. Relatively low long-term interest rates encouraged both businesses and households to concentrate borrowing in longer-term instruments, thereby locking in lower debt-service obligations. The proceeds of long-term borrowing were also used to strengthen balance sheets by building stocks of liquid assets. A shift toward safer and more liquid asset holdings showed through in rapid growth of M2, which was spurred further by reduced short-term market interest rates and elevated stock market volatility.

Interest Rates

Short-term market interest rates moved down with the FOMC's cumulative cut in the target federal funds rate of 4¾ percentage points, and yields on intermediate-term Treasury securities declined almost 2 percentage points. Longer-term interest rates had already fallen in the latter part of 2000, when investors began to anticipate significant policy easing in response to weakening economic growth. As the FOMC aggressively eased the stance of monetary policy during the winter and spring, investors' expectations of a prompt revival in economic activity took hold and were manifested in a sharp upward tilt of money market futures rates and an appreciable rise in longer-term interest rates over the second quarter. However, signs of the anticipated economic turnaround failed to materialize as the summer progressed. Indeed, the weakening in economic activity was becoming more widespread, which prompted expectations of further monetary policy easing over the near term, and longer-term interest rates turned down again.

Rates on Selected Treasury Securities



NOTE. The data are daily and extend through February 21, 2002.

The terrorist attacks of September 11 dramatically redrew the picture of the nation's near-term economic prospects. Market participants lowered markedly their expected trajectory for the path of the federal funds rate in the immediate aftermath of the attacks, and revisions to policy expectations, combined with considerable flight-to-safety demands, cut short- and intermediate-term Treasury yields substantially over subsequent days. The FOMC, confronted with evidence of additional weakness in final demand and prices, eased policy further over the balance of the year, and short-term market interest rates continued to decline. In early November, however, intermediate- and long-term interest rates turned up, as it became apparent that the economic fallout from the attacks would be more limited than some had originally feared, and as military success in Afghanistan bolstered investors' confidence and moderated safe-haven demands. By the end of the year, yields on intermediate-term Treasury securities had reversed about half of their post–September 11 decline, while yields on longer-term Treasury securities had risen enough to top their pre-attack levels. In early 2002, however, yields on intermediate- and longer-term Treasuries edged down again, as market participants trimmed their expectations for the strength of the economic rebound, and the Congress failed to move forward with additional fiscal stimulus.

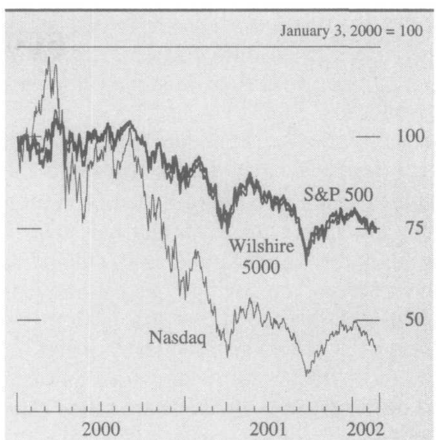
Yields on higher quality investment-grade corporate bonds generally followed those on comparably dated Treasury securities last year, although risk spreads widened moderately before narrowing over the last few months. In contrast, interest rates on speculative-grade corporate debt increased steadily in 2001, as risk spreads ballooned in response to mounting signs of financial distress among weaker firms. Even with a considerable narrowing over the final two months of the year, risk spreads on below-investment-grade bonds remained quite wide. Spreads for high-yield bonds edged down further in 2002 after rising sharply in early January, when several important technology and telecommunications companies revised down their earnings forecasts or released corrections to past earnings statements. Interest rates on commercial and industrial (C&I) loans at banks fell last year by about as much as the federal funds rate. According to the Federal Reserve's quarterly Survey of Terms of Business Lending, the spread over the target federal funds rate of the average interest rate on C&I loans varied somewhat over the year, falling for a while then rising sharply between August and November; nonetheless, it has generally remained in the elevated range that has persisted since late 1998. The same survey also indicated that over the course of last year commercial banks, like other lenders, have become especially cautious about lending to marginal credits, as indicated by the average spread on riskier C&I loans not made under a previous commitment, which soared in 2001.

Equity Markets

The exceptional volatility of equity prices in 2001 likely reflected the dramatic fluctuations in investors' assessment of the outlook for the economy and corporate earnings. Share prices tumbled early last year, as pessimism and uncertainty about the direction of the economy were intensified by a spate of negative earnings announcements and profit warnings in February and March. The pronounced sell-off of equities came to a halt at the end of the first quarter, with the Wilshire 5000—a very broad index of stock prices—down about 13 percent, while the tech-heavy Nasdaq ended the first quarter at its lowest level since 1998 and more than 60 percent below its record high reached in March of 2000.

Companies, especially in the technology sector, reported weak profits for the first quarter, but their announcements generally surpassed analysts' sharply lowered expectations. With the 1 percentage point reduction in the federal funds rate over March and April, investors became more confident that an improvement in economic conditions was in train, and equity prices rallied; the rebound was particularly strong for technology companies—the Nasdaq rose almost 40 percent between April and the end of May. The forward momentum in equity markets was checked in June, however, in part because analysts slashed their estimates for near-term corporate earnings growth. Although the stock market initially proved resilient in the face of the bleak

Major Stock Price Indexes



NOTE. The data are daily and extend through February 21, 2002.

profit news, suggesting that weak earnings had been largely anticipated by investors, the steady barrage of dismal economic news—particularly in the technology and telecommunications sectors—started to exert downward pressure on share prices by early August. The slide in stock prices intensified in early September, with technology stocks taking an exceptional drubbing. By September 10, the Wilshire 5000 was down almost 10 percent from the end of July, while the Nasdaq had lost more than 16 percent.

The attacks on September 11, a Tuesday, caused stock markets to shut down and to remain closed for the rest of that week. Trading resumed in an orderly fashion on Monday, September 17, but the day ended with the market as a whole down about 5 percent—with airline and hotel stocks pounded most—and trading volume on the New York Stock Exchange hitting a record high. Major stock price indexes, which sagged further in subsequent days and weeks, were weighed down by investors' more pessimistic evaluation of the near-term economic outlook and by sizable downward revisions to analysts' earnings projections for the rest of 2001. By the third week of the month, broad stock price indexes had fallen a total of 12 percent from their levels on September 10.

In late September, stock prices staged a comeback that lasted through the fourth quarter, as incoming information suggested that the economy had proven remarkably resilient and economic prospects were improving. On the perception that the worst for the technology sector would soon pass, share prices of firms in technology industries jumped sharply, lifting the Nasdaq more than 35 percent from its September nadir. On balance, last year's gyrations in stock prices left the Wilshire 5000 down about 10 percent, while the Nasdaq fell 20 percent. The widespread decline in equity prices through the first three quarters of 2001 is estimated to have wiped out nearly $3½ trillion in household wealth, translating into 8¼ percent of total household net worth. Of this total, however, about $1¼ trillion was restored by the stock market rally in the fourth quarter. Moreover, the level of household net worth at the end of last year was still almost 50 percent higher than it was at the end of 1995, when stepped-up productivity gains had begun to induce investors to boost significantly their expectations of long-term earnings growth. In January and early February of 2002, investors reacted to generally disappointing news about expected earnings, especially in the telecommunications sector, and to concerns about corporate accounting practices by erasing some of the fourth-quarter gain in equity prices. Despite this decline, the price-earnings ratio for the S&P 500 index (calculated using operating earnings expected over the next year) remained close to its level at the beginning of 2001. The relatively elevated ratio reflected lower market interest rates as well as investor anticipation of a return to robust earnings growth.

Debt and Depository Intermediation

The growth of the debt of nonfederal sectors was strong over the first half of the year, as the decline in longer-term interest rates during the final months of 2000 prompted some opportunistic tapping of bond markets by businesses and helped keep the expansion of household credit brisk. However, the combination of a stepdown in the growth of consumer durables purchases, a further drop in capital expenditures, and a substantial inventory liquidation over the second half of the year resulted in a significantly slower pace of private borrowing. On balance, growth of nonfederal debt retreated about 1 percentage point in 2001, to 7½ percent. Federal debt continued to contract early last year; it then turned up as the budget fell into a deficit reflecting the implementation of the tax cut, the effect of the weaker economy on tax receipts, and emergency spending in the wake of the terrorist attacks. As a result, the federal government paid down only 1¼ percent of its debt, on net, over 2001, compared with 6¾ percent in the previous year. With nominal GDP decelerating sharply, the ratio of nonfinancial debt to GDP moved up notably in 2001, more than reversing its decrease in the previous year.

The economic slowdown and the decline in market interest rates last year left a noticeable imprint on the composition of financial flows, with borrowing by businesses and households migrating toward longer-term bond and mortgage markets. As a consequence, credit at depository institutions expanded sluggishly over the year. Growth of loans at commercial banks dropped off sharply, from 12 percent in 2000 to 2¼ percent in 2001. The slowdown in total bank credit—after adjustments for mark-to-market accounting rules—was less severe, because banks acquired securities, largely mortgage-backed securities, at a brisk pace throughout the year. A healthy banking sector served as an important safety valve for several weeks after September 11, as businesses tapped backup lines of credit to overcome problems associated with the repayment of maturing commercial paper and issuance of new paper. Moreover, with payment flows temporarily interrupted by the terrorist attacks, a substantial volume of overdrafts was created, causing a spike in the "other" loan category that includes loans to depository institutions. By the end of October, however, the disruptions to business financing patterns and payment systems that bloated bank balance sheets had largely dissipated, and loans contracted sharply.

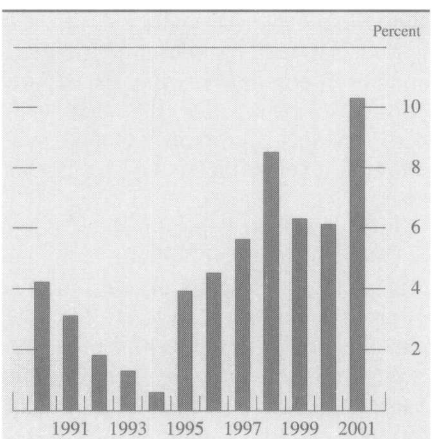
Commercial banks reported a marked deterioration in loan performance last year. Delinquency and charge-off rates on C&I loans trended up appreciably, although they remained well below rates recorded during the 1990-91 recession. Delinquency rates on credit card accounts increased for the second year in a row, reaching 5 percent for the first time since early 1992. Banks responded to the deteriorating business and household balance sheets by tightening credit standards and terms for both types of loan, according to the Federal Reserve's Senior Loan Officer Opinion Survey on Bank Lending Practices. Banks indicated that they had tightened business lending policies in response to greater uncertainty about the economic outlook and their reduced tolerance for risk. Similarly, the net fractions of banks reporting that they had tightened standards for both credit card and other consumer loans rose markedly over the first half of last year. As household financial conditions continued to slip, the net proportion of banks that tightened standards on consumer loans remained at an elevated level in the second half of the year.

In response to rising levels of delinquent and charged-off loans, commercial banks significantly boosted the rate of provisioning for loan losses last year, which, along with reduced income from capital market activities, cut into the banking sector's profits. Nonetheless, through the third quarter of 2001—the latest period for which Call Report data are available—measures of industry profitability remained near the elevated range recorded for the past several years, and banks continued to hold substantial capital to absorb losses. Indeed, virtually all assets were at well-capitalized banks at the end of the third quarter, and the substitution of securities for loans on banks' balance sheets also helped edge up risk-based capital ratios. In the fourth quarter, a number of large banks saw their profits decline further because of their exposure to Enron and, to a lesser extent, Argentina. On the positive side, wider net interest margins helped support profits throughout 2001.

The Monetary Aggregates

The broad monetary aggregates grew very rapidly in 2001. Over the four quarters of the year, M2 increased 10¼ percent, a rate significantly above the pace of the past several years. Because the rates of return provided by many components of M2 move sluggishly, the swift decline in short-term market interest rates last year significantly lowered the opportunity cost of holding M2

M2 Growth Rate



NOTE. M2 consists of currency, travelers checks, demand deposits, other checkable deposits, savings deposits (including money market deposit accounts), small-denomination time deposits, and balances in retail money market funds. Annual growth rates are computed from fourth-quarter averages.

assets, especially for its liquid deposits (the sum of checking and savings accounts) and retail money funds components. Moreover, negative returns and elevated volatility in equity markets likely raised household demand for M2 assets through the fall. An unprecedented level of mortgage refinancing activity (which results in prepayments that temporarily accumulate in deposit accounts before being distributed to investors in mortgage-backed securities), as well as increased foreign demand for U.S. currency, also bolstered the growth of M2 over the course of the year.

Involuntary accumulation of liquid deposits resulting from payment system disruptions after the terrorist attacks, combined with elevated safe-haven demands, caused M2 to surge temporarily in the weeks following September 11. At the same time, plunging equity prices led to a sharp step-up in the growth of retail money market mutual funds. After a substantial unwinding of distortions to money flows in October, M2 growth over the balance of the year was spurred by further declines in its opportunity cost resulting from additional monetary policy easings and by heightened volatility in equity markets. The hefty advance in M2 last year outpaced the anemic expansion of nominal income, and M2 velocity—the ratio of nominal GDP to M2—posted a record decline.

M3—the broadest monetary aggregate—grew 13 percent over 2001. In addition to the surge in its M2 component, huge inflows into institutional money funds boosted M3 growth. Investors' appetite for these instruments was enormous last year because their returns were unusually attractive as they lagged the steep decline in market interest rates. The slow-down in the growth of bank credit over the summer, which resulted in a contraction in managed liabilities, damped the rise in M3 somewhat. The velocity of M3 dropped for the seventh year in the row, to a record low.

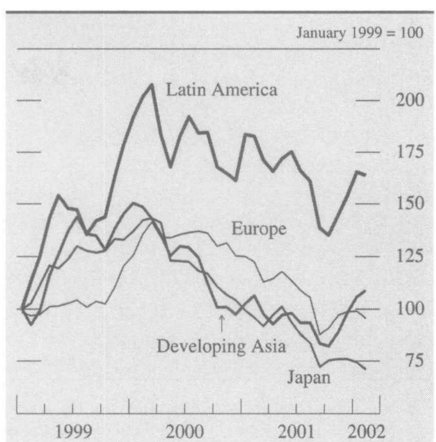
International Developments

Economic activity in foreign economies weakened substantially in 2001. Early in the year, activity abroad was depressed by high oil prices, the global slump in the high-tech sector, and spillover from the U.S. economic slowdown. The September terrorist attacks further heightened economic uncertainty. On average, foreign economic activity was about flat over the year. The weakest performer among industrial economies was Japan, where output declined. The euro area eked out a slight increase in its real GDP. Activity in most emerging market economies in both Asia and Latin America declined. Asian developing economies were particularly hard hit by the falloff in demand for their high-tech exports. In Latin America, the output decline in Mexico largely reflected sharply reduced export demand from the United States; Argentina's financial crisis precipitated a further sharp drop in output in that country. An easing of average foreign inflation reflected the weakness of activity as well as a net decline in global oil prices over the course of the year.

In response to the pronounced weakness in economic activity, monetary authorities in the major industrial countries eased policy throughout the year. Nevertheless, interest rates on long-term government securities showed little net change from the beginning to the end of the year in most major industrial countries. Weak economic conditions tended to put downward pressure on long-term rates, but moves toward more stimulative macroeconomic policies appeared to encourage market participants to expect economic recovery, thereby supporting long-term interest rates. Following the terrorist attacks in September, interest rates declined around the globe as expected economic activity weakened and demand shifted away from equities and toward the relative safety of bonds. However, toward year-end, as the period of crisis passed, long-term interest rates rebounded strongly.

Overall stock indexes in foreign industrial economies declined for the second consecutive year as activity faltered and actual and projected corporate earnings fell sharply. Technology-oriented stock indexes again fell more than the overall indexes. Among emerging market economies, the performance of stocks was mixed; stock indexes in several Asian emerging market economies rebounded strongly late in the year, a move possibly reflecting market participants' hopes for a revival in global demand for the high technology products that feature prominently in these countries' exports. Argentine financial markets came under increasing pressure

Foreign Equity Indexes

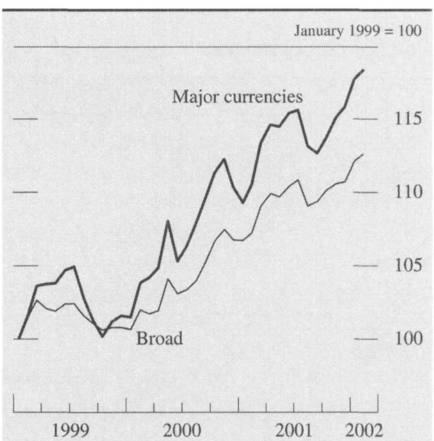


NOTE. The data are monthly. The last observations are the average of trading days through February 21, 2002.

throughout the year because of growing fears of a debt default and the end of the peso's peg to the dollar. Near year-end, Argentine authorities in fact suspended debt payments to the private sector and, early in 2002, ended the one-to-one peg to the dollar. There was limited negative spillover to other emerging financial markets from the sharp deterioration in Argentina's economic and financial condition, in contrast to the situation that prevailed during other emerging market financial crises of recent years.

The dollar's average foreign exchange value remained strong through most of 2001. The dollar continued to rise despite mounting evidence of weakening U.S. economic activity and the significant easing of monetary policy by the FOMC. Market participants may have felt that the falloff in economic growth in foreign economies and expectations that the United States offered stronger prospects for economic growth in the future outweighed disappointing U.S. economic performance in the near term. The dollar's average foreign exchange value against the currencies of other major industrial countries recorded a net increase of 8 percent over 2001 as a whole. The dollar also strengthened, but by a lesser amount, against the currencies of our most important developing country trading partners. So far this year, the dollar's average value has risen further on balance.

Nominal U.S. Dollar Exchange Rate Indexes



NOTE. The data are monthly. Indexes are trade-weighted averages of the exchange value of the dollar against major currencies and against the currencies of a broader group of important U.S. trading partners. Last observations are the average of trading days through February 21, 2002.

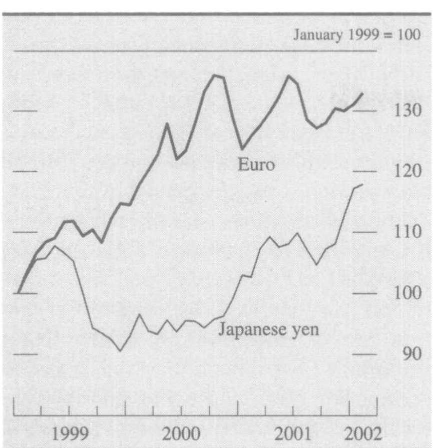
Industrial Economies

The dollar showed particular strength against the Japanese yen last year, appreciating nearly 15 percent. The weakness of the yen reflected serious ongoing structural problems and the relapse of the Japanese economy back into recession. Early in the year, in response to signs of renewed weakening of the economy, the Bank of Japan announced that it was easing policy by shifting its operating target from the overnight rate—already not far above zero—to balances held by financial institutions at the Bank of Japan. Policy was eased further and more liquidity was injected into the banking system when the balances target was raised three times later in the year. The yen received a temporary boost when Junichiro Koizumi, widely seen as more likely to introduce economic reforms, became prime minister in April. The yen again strengthened in the immediate wake of the September terrorist attacks, prompting the Bank of Japan to make substantial intervention sales of yen. However, later in the year, amid signs of a renewed deterioration of economic conditions, the yen again started to weaken significantly.

For the year as a whole, Japanese real GDP is estimated to have declined more than 1 percent, a reversal of the rebound recorded the previous year. Private investment declined and private consumption moved lower, as households curtailed spending in the face of rising unemployment and falling real income. The winding-down of the large-scale public works programs of recent years more than offset the effect on growth from the additional spending contained in several supplemental budgets. Last year marked the third consecutive year of deflation, with the prices of both consumer goods and real estate continuing to move lower.

The dollar's movements against the euro in 2001 appear to have been mainly influenced by market perceptions of the strength of economic activity in the United States relative to that in the euro area. In the early part of the year, the euro weakened as evidence mounted that the economic slowdown that was already apparent in the United States as the year began was also taking hold in Europe. During the summer, the euro rose against the dollar as market participants appeared to revise downward their expectation of an early U.S. recovery. Then, later in the year, with more signs of a further weakening of activity in Europe, the euro again declined. On balance, the dollar appreciated more than 5 percent relative to the euro over the course of the year. Real GDP in the euro area is estimated to have increased at less than a 1 percent rate in 2001, a sharp slowing from the nearly 3 percent growth rate of the previous year. Fixed investment and inventory investment both are estimated to have made negative contributions to the growth of real GDP, whereas consumption growth remained near the rate of the previous year. The slowing of growth in the euro area was not uniform across countries, with weakness being more pronounced in Germany and less so in France.

U.S. Dollar Exchange Rate against the Euro and the Japanese Yen



NOTE. The data are monthly. Exchange rates are in foreign currency units per dollar. Last observations are the average of trading days through February 21, 2002.

The European Central Bank (ECB) held off easing monetary policy in the early months of the year, restrained by the euro's weakness, growth of M3 that remained in excess of the ECB's reference value, and a euro-area inflation rate above its 2 percent target ceiling. In May, evidence of slowing activity prompted the ECB to reduce its key policy rate 25 basis points. Three additional reductions followed later in the year, as activity weakened further and the inflation rate receded toward its target ceiling. The total reduction in the ECB's key policy rate over the course of the year was 150 basis points. The beginning of 2002 saw the introduction of euro notes and coins, a process that proceeded smoothly.

The dollar appreciated 6 percent against the Canadian dollar in 2001 as the Canadian economy slowed abruptly. Real GDP in Canada is estimated to have been about flat last year after growing more than 3 percent in 2000. A key factor in this slowing was the sharp drop-off in Canadian exports to the

United States. An inventory correction also depressed output. Earlier in the year, consumption was buoyed by continued employment growth, tax cuts, and a housing boom. However, later in the year, growth of consumption faltered as employment prospects worsened and asset prices weakened. The Bank of Canada has moved aggressively to counter the slowing of economic activity by lowering its key policy interest rate nine times in 2001 and once in January 2002 for a cumulative total of 375 basis points.[3] When the Bank of Canada initiated easing moves early in 2001, inflation was slightly above the Bank's target range of 1 percent to 3 percent; but by the end of the year, slack activity and falling energy prices had pushed the inflation rate down to near the bottom of the range.

Emerging Market Economies

Argentina was a main focus of attention among emerging market economies in 2001. In the first part of the year, worse-than-expected data on the fiscal situation and concerns that the government would be unable to implement announced fiscal measures heightened doubts about whether Argentina would be able to avoid a default on its debt. Argentine financial markets received only temporary support from a large-scale debt exchange completed in June and an enhancement of IMF support approved in September. With financial market confidence eroding, conditions took a dramatic turn for the worse late in the year; financial asset prices fell sharply, and funds moved out of the banking system as the government moved to restructure its debt and the one-to-one peg to the dollar looked increasingly precarious. In early December, the government imposed capital controls, including limits on bank account withdrawals. These restrictions led to widespread protests, which triggered the resignation of President de la Rua and an interval of political turmoil. After the resignation of President de la Rua, the government announced it would suspend debt payments to the private sector. The government of the new president, Eduardo Duhalde, suspended Argentina's currency board arrangement and established a temporary dual exchange rate system. In early February, the dual exchange rate system was abandoned, and the peso's floating rate moved to about 2 pesos per dollar amid continuing economic uncertainty. For 2001 as a whole, Argentine real GDP is estimated to have fallen at well over a 5 percent rate, and prices declined further.

To date, the negative spillover from events in Argentina to other emerging financial markets has been limited, possibly because market participants had been well aware of Argentina's problems for some time and viewed them as largely confined to that country. Brazil was probably most heavily affected by events in Argentina, and the bond spread on Brazilian debt showed a net increase of about 110 basis points over the course of last year while the spread on Argentina debt exploded upward. Other important factors weighing on Brazilian economic activity last year likely were weak growth in the United States—Brazil's most important export market—and the emergence of an energy shortage as drought limited hydroelectric output. For the year as a whole, Brazil-

3. Among these reductions was one on September 17, when the Bank of Canada (along with the ECB) announced a reduction of its policy rate by 50 basis points, following the 50 basis point reduction in the federal funds rate announced by the FOMC earlier in the day.

ian real GDP is estimated to have risen at less than a 1 percent rate after growing at a 4 percent rate the previous two years. The Brazilian currency registered a net depreciation against the dollar of about 16 percent over the course of last year, while stock prices declined more than 10 percent. The Brazilian central bank tightened policy last year in an effort to hold down the inflationary impact of currency depreciation.

Real GDP in Mexico declined about 1 percent in 2001, a sharp reversal from the 5 percent growth rates recorded in the previous two years. The falloff in activity was mainly a reflection of the negative effects on direct trade and confidence in Mexico arising from the slowdown of the U.S. economy. In light of the marked weakening of activity, declining inflation, and a strong peso, the Bank of Mexico started to loosen the stance of monetary policy in May, and short-term interest rates continued to decline over the rest of the year. In February 2002, the Bank of Mexico moved to tighten monetary conditions, citing concerns that an increase in administered prices would raise inflation. Mexican financial markets fared quite well last year, with the peso appreciating 5 percent against the dollar and stock prices rising nearly 15 percent. The effect on Mexican financial markets from Argentina's difficulties appeared to have been quite limited, as indicated by the net decline of the Mexican debt spread by 80 basis points over the course of the year.

Economic growth in the Asian emerging market economies turned negative last year. On average, real GDP in developing Asia is estimated to have declined about 1 percent in 2001, compared with average growth of 6 percent in the previous year. A key factor in this slowing was the sharp falloff in global demand for the high-tech products that had fueled rapid export growth in the region in recent years.

The economies of Taiwan, Singapore, and Malaysia are highly dependent on exports of semiconductors and other high-tech products, and as global demand for these goods was cut back sharply, real GDP in these countries declined by an estimated 5 percent on average last year. Indonesia and Thailand, both relatively less dependent on high-tech exports and experiencing some reduction in political tension over the course of the year, managed to record small positive real GDP growth rates last year, albeit well below rates of the previous year.

Korean real GDP is estimated to have increased about 2 percent in 2001. While in an absolute sense Korea is an important exporter of high-tech products such as semiconductors, it has a relatively more diversified economy than most of its Asian neighbors, and thus the magnitude of its slowdown last year was somewhat muted. Government moves toward monetary and fiscal policy stimulus over the course of the year helped support domestic demand in Korea.

In China, recorded growth of real GDP remained robust last year. China's lesser dependency on exports in general, and high-tech exports in particular, cushioned it from last year's global slowdown, and the government stepped up the pace of fiscal stimulus to offset weakening private demand. Hong Kong, with exports not heavily concentrated in high-tech goods and an economy closely integrated with a rapidly growing Chinese economy, is nevertheless estimated to have experienced a decline in real GDP last year. The peg of Hong Kong's currency to a strengthening U.S. dollar put pressure on its competitive position, and domestic price deflation continued.

Conditions in financial markets in emerging Asia were, for the most part, not particularly volatile last year. Debt spreads were little changed on average for the region as a whole, exchange rates against the dollar generally moved lower, and stock indexes declined somewhat on average. ■

Monetary Policy Reports to the Congress

Report submitted to the Congress on February 13, 2001, pursuant to section 2B of the Federal Reserve Act

Report of February 13, 2001

Monetary Policy and the Economic Outlook

When the Federal Reserve submitted its previous Monetary Policy Report to the Congress, in July of 2000, tentative signs of a moderation in the growth of economic activity were emerging following several quarters of extraordinarily rapid expansion. After having increased the interest rate on federal funds through the spring to bring the growth of aggregate demand and potential supply into better alignment and thus contain inflationary pressures, the Federal Reserve had stopped tightening as evidence of an easing of economic growth began to appear.

Indications that the expansion had moderated from its earlier rapid pace gradually accumulated during the summer and into the autumn. For a time, this downshifting of growth seemed likely to leave the economy expanding at a pace roughly in line with that of its potential. Over the last few months of the year, however, elements of economic restraint emerged from several directions to slow growth even more. Energy prices, rather than turning down as had been anticipated, kept climbing, raising costs throughout the economy, squeezing business profits, and eroding the income available for discretionary expenditures. Equity prices, after coming off their highs earlier in the year, slumped sharply starting in September, slicing away a portion of household net worth and discouraging the initial offering of new shares by firms. Many businesses encountered tightening credit conditions, including a widening of risk spreads on corporate debt issuance and bank loans. Foreign economic activity decelerated noticeably in the latter part of the year, contributing to a weakening of the demand for U.S. exports, which also was being restrained by an earlier appreciation in the exchange value of the U.S. dollar.

The dimensions of the economic slowdown were obscured for a time by the usual lags in the receipt of economic data, but the situation began to come into sharper focus late in the year as the deceleration steepened. Spending on business capital, which had been rising rapidly for several years, elevating stocks of these assets, flattened abruptly in the fourth quarter. Consumers clamped down on their outlays for motor vehicles and other durables, the stocks of which also had climbed to high levels. As the demand for goods softened, manufacturers adjusted production quickly to counter a buildup in inventories. Rising concern about slower growth and worker layoffs contributed to a sharp deterioration of consumer confidence. In response to the accumulating weakness, the Federal Open Market Committee (FOMC) lowered the intended interest rate on federal funds ½ percentage point on January 3 of this year. Another rate reduction of that same size was implemented at the close of the most recent meeting of the FOMC at the end of last month.

As weak economic data induced investors to revise down their expectations of future short-term interest rates in recent months and as the Federal Reserve eased policy, financial market conditions became more accommodative. Since the November FOMC meeting, yields on many long-term corporate bonds have dropped on the order of a full percentage point, with the largest declines taking place on riskier bonds as the yield spreads on those securities narrowed considerably from their elevated levels. In response, borrowing in long-term credit markets has strengthened appreciably so far in 2001. The less restrictive conditions in financial markets should help lay the groundwork for a rebound in economic growth.

That rebound should also be encouraged by underlying strengths of the economy that still appear to be present despite the sluggishness encountered of late. The most notable of these strengths is the remarkable step-up in structural productivity growth since the mid-1990s, which seems to be closely related to the spread of new technologies. Even as the economy slowed in 2000, evidence of ongoing efficiency gains were apparent in the form of another year of rapid advance in output per worker hour in the nonfarm business sector. With households and businesses still in the process of putting recent innovations in place and with technological breakthroughs still occurring, an end to profitable investment opportunities in the technology area does not yet seem to be in sight. Should investors continue to seek out emerging opportunities, the ongoing transformation and expansion of the capital stock will be maintained, thereby laying the groundwork for further gains in productivity and ongoing advances in real income and spending. The impressive performance of productivity and the accompanying environment of low and stable underlying inflation suggest that the longer-run outlook for the economy is still quite favorable, even though downside risks may remain prominent in the period immediately ahead.

Monetary Policy, Financial Markets, and the Economy over the Second Half of 2000 and Early 2001

As described in the preceding Monetary Policy Report to the Congress, the very rapid pace of economic growth over the first half of 2000 was threatening to place additional strains on the economy's resources, which already appeared to be stretched thin. Private long-term interest rates had risen considerably in response to the strong economy, and, in an effort to slow the growth of aggregate demand and thereby prevent a buildup of inflationary pressures, the Federal Reserve had tightened its policy settings substantially through its meeting in May 2000. Over subsequent weeks, preliminary signs began to emerge suggesting that growth in aggregate demand might be slowing, and at its June meeting the FOMC left the federal funds rate unchanged.

Further evidence accumulated over the summer to indicate that demand growth was moderating. The rise in mortgage interest rates over the previous year seemed to be damping activity in the housing sector. Moreover, the growth of consumer spending had slowed from the exceptional pace of earlier in the year; the impetus to spending from outsized equity price gains in 1999 and early 2000 appeared to be partly wearing off, and rising energy prices were continuing to erode the purchasing power of households. By contrast, business fixed investment still was increas-

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The FOMC faced fairly similar circumstances at its October meeting. By then, it had become more apparent that the growth in demand had fallen to a pace around that of potential supply. Although consumer spending had picked up again for a time, it did not regain the vigor it had displayed earlier in the year, and capital spending, while still growing briskly, had decelerated from its first-half pace. With increases in demand moderating, private employment gains slowed from the rates seen earlier in the year. However, labor markets remained exceptionally tight, and the hourly compensation of workers had accelerated to a point at which unit labor costs were edging up despite strong gains in productivity. In addition, sizable increases in energy prices were pushing broad inflation measures above the levels of recent years. Although core inflation measures were at most only creeping up, the Committee felt that there was some risk that the increase in energy prices, which was lasting longer than had seemed likely earlier in the year, would start to leave an imprint on business costs and longer-run inflation expectations, posing the risk that core inflation rates could rise more substantially. Weighing these considerations, the FOMC decided to hold the federal funds rate unchanged at its October meeting. While recognizing that the risks in the outlook were shifting, the FOMC believed that the tautness of labor markets and the rise in energy prices meant that the balance of those risks still was weighted toward heightened inflation pressures, and this assessment was noted in the balance-of-risks statement.

By the time of the November FOMC meeting, conditions in the financial markets were becoming less accommodative in some ways, even as the Federal Reserve held the federal funds rate steady. Equity prices had declined considerably over the previous several months, resulting in an erosion of household wealth that seemed likely to restrain consumer spending going forward. Those price declines, along with the elevated volatility of equity prices, also hampered the ability of firms to raise funds in equity markets and were likely discouraging business investment. Some firms faced more restrictive conditions in credit markets as well, as risk spreads in the corporate bond market widened significantly for firms with lower credit ratings and as banks tightened the standards and terms on their business loans. Meanwhile, incoming data indicated that the pace of economic activity had softened a bit further. Still, the growth of aggregate demand apparently had moved only modestly below that of potential supply. Moreover, while crude oil prices appeared to be topping out, additional inflationary pressures were arising in the energy sector in the form of surging prices for natural gas, and there had been no easing of the tightness in the labor market. In assessing the evidence, the members of the Committee felt that the risks to the outlook were coming into closer balance but had not yet shifted decisively. At the close of the meeting, the FOMC left the funds rate unchanged once again, and it stated that the balance of risks continued to point toward increased inflation. However, in the statement released after the meeting, the FOMC noted the possibility of subpar growth in the economy in the period ahead.

Toward the end of the year, the moderation of economic growth gave way, fairly abruptly, to more sluggish conditions. By the time of the December FOMC meeting, manufacturing activity had softened considerably, especially in motor vehicles and related industries, and a number of industries had accumulated excessive stocks of inventories. Across a broader set of firms, forecasts for corporate sales and profits in the fourth quarter and in 2001 were being slashed, contributing to a continued decline in equity prices and a further widening of risk spreads on lower-rated corporate bonds. In this environment, growth in business fixed investment appeared to be slowing appreciably. Consumer spending showed signs of decelerating further, as falling stock prices eroded household wealth and consumer confidence weakened. Moreover, growth in foreign economies seemed to be slowing, on balance, and U.S. export performance began to deteriorate. Market interest rates had declined sharply in response to these developments. Against this backdrop, the FOMC at its December meeting decided that the risks to the outlook had swung considerably and now were weighted toward economic weakness, although it decided to wait for additional evidence on the extent and persistence of the slowdown before moving to an easier policy stance. Recognizing that the current position of the economy was difficult to discern because of lags in the data and that prospects for the near term were particularly uncertain, the Committee agreed at the meeting that it would be especially attentive over coming weeks to signs that an intermeeting policy action was called for.

Additional evidence that economic activity was slowing significantly emerged not long after the December meeting. New data indicated a marked weakening in business investment, and retail sales over the holiday season were appreciably lower than businesses had expected. To contain the resulting buildup in inventories, activity in the manufacturing sector continued to drop. In addition, forecasts of near-term corporate profits were being marked down further, resulting in additional declines in equity prices and in business confidence. Market interest rates continued to fall, as investors became more pessimistic about the economic outlook. Based on these developments, the Committee held a telephone conference call on January 3, 2001, and decided to cut the intended federal funds rate ½ percentage point. Equity prices surged on the announcement, and the Treasury yield curve steepened considerably, apparently because market participants became more confident that a prolonged downturn in economic growth would likely be forestalled. Following the policy easing, the Board of Governors approved a decrease in the discount rate of a total of ½ percentage point.

The Committee's action improved financial conditions to a degree. Over the next few weeks, equity prices rose, on net. Investors seemed to become less wary of credit risk, and yield spreads narrowed across most corporate bonds even as the issuance of these securities picked up sharply. But in some other respects, investors remained cautious, as evidenced by widening spreads in commercial paper markets. Incoming data pointed to further weakness in the manufacturing sector and a sharp decline in consumer confidence. Moreover, slower U.S. growth appeared to be spilling over to several important trading partners. In late January, the FOMC cut the intended federal funds rate ½ percentage point while the Board of Governors approved a decrease in the discount rate of an equal amount. Because of the significant erosion of consumer and business confidence and the need for additional adjustments to production to work off elevated inventory levels, the FOMC indicated that the risks to the outlook continued to be weighted toward economic weakness.

Economic Projections for 2001

Although the economy appears likely to be sluggish over the near term, the members of the Board of Governors and the Reserve Bank presidents expect stronger conditions to emerge as the year progresses. For 2001 overall, the central tendency of their forecasts of real GDP growth is 2 percent to 2½ percent, measured as the change from the fourth quarter of 2000 to the fourth quarter of 2001. With growth falling short of its potential rate, especially in the first half of this year, unemployment is expected to move up a little further. Most of the governors and Reserve Bank presidents are forecasting that the average unemployment rate in the fourth quarter of this year will be about 4½ percent, still quite low by historical standards.

The rate of economic expansion over the near term will depend importantly on the speed at which inventory overhangs that developed over the latter part of 2000 are worked off. Gains in information technology have no doubt enabled businesses to respond more quickly to a softening of sales, which has steepened the recent production cuts but should also damp the buildup in inventories and facilitate a turnaround. The motor vehicle industry made some progress toward reducing excess stocks in January owing to a combination of stronger sales and a further sharp cutback in assemblies. In other parts of manufacturing, the sizable reductions in production late last year suggest that producers in general were moving quickly to get output into better alignment with sales. Nevertheless, stocks at year-end were above desired levels in a number of industries.

Once inventory imbalances are worked off, production should become more closely linked to the prospects for sales. Household and business expenditures have decelerated markedly in recent months, and uncertainties about

Economic Projections for 2001

Percent

Indicator	Memo: 2000 actual	Federal Reserve governors and Reserve Bank presidents	
		Range	Central tendency
Change, fourth quarter to fourth quarter[1]			
Nominal GDP	5.9	3¾–5¼	4–5
Real GDP[2]	3.5	2–2¾	2–2½
PCE chain-type price index	2.4	1¾–2½	1¾–2¼
Average level, fourth quarter			
Civilian unemployment rate	4.0	4½–5	About 4½

1. Change from average for fourth quarter of 2000 to average for fourth quarter of 2001.

2. Chain-weighted.

how events might unfold are considerable. But, responding in part to the easing of monetary policy, financial markets are shifting away from restraint, and this shift should create a more favorable underpinning to the expected pickup in the economy as the year progresses. The sharp drop in mortgage interest rates since May of last year appears to have stemmed the decline in housing activity; it also has enabled many households to refinance existing mortgages at lower rates, an action that should free up cash for added spending. Conditions of business finance also have eased to some degree. Interest rates on investment-grade corporate bonds have recently fallen to their lowest levels in about 1½ years. Moreover, the premiums required of bond issuers that are perceived to be at greater risk have dropped back in recent weeks from the elevated levels of late 2000. As credit conditions have eased, firms have issued large amounts of corporate bonds so far in 2001. However, considerable caution is evident in the commercial paper market and among banks, whose loan officers have reported a further tightening of lending conditions since last fall. In equity markets, prices have recently dropped in response to negative reports on corporate earnings, reversing the gains that took place in January.

The restraint on domestic demand from high energy prices is expected to ease in coming quarters. Natural gas prices have dropped back somewhat in recent weeks as the weather has turned milder, and crude oil prices also are down from their peaks. Although these prices could run up again in conjunction with either a renewed surge in demand or disruptions in supply, participants in futures markets are anticipating that prices will be trending gradually lower over time. A fall in energy prices would relieve cost pressures on businesses to some degree and would leave more discretionary income in the hands of households.

How quickly investment spending starts to pick up again will depend not only on the cost of finance but also on the prospective rates of return to capital. This past year, expectations regarding the prospects of some high-tech companies clearly declined, and capital spending seems unlikely to soon regain the exceptional strength that was evident in the latter part of the 1990s and for a portion of last year. From all indications, however, technological advance still is going forward at a rapid pace, and investment will likely pick up again if, as expected, the expansion of the economy gets back on more solid footing. Private analysts are still anticipating high rates of growth in corporate earnings over the long-run, suggesting that the current sluggishness of the economy has not undermined perceptions of favorable long-run fundamentals.

The degree to which increases in exports might help to support the U.S. economy through a stretch of sluggishness has become subject to greater uncertainty recently because foreign economies also seem to have decelerated toward the end of last year. However, the expansion of imports has slowed sharply, responding in part to the softening of domestic demand growth. In effect, some of the slowdown in demand in this country is being shifted to foreign suppliers, implying that the adjustments required of domestic producers are not as great as they otherwise would have been.

In adjusting labor input to the slowing of the economy, businesses are facing conflicting pressures. Speedy adjustment of production and ongoing gains in efficiency argue for cutbacks in labor input, but companies are also reluctant to lay off workers that have been difficult to attract and retain in the tight labor market conditions of the past few years. In the aggregate, the balance that has been struck in recent months has led, on net, to slower growth of employment, cutbacks in the length of the average workweek, and, in January of this year, a small increase in the unemployment rate.

Inflation is not expected to be a pressing concern over the coming year. Most of the governors and Reserve Bank presidents are forecasting that the rise in the chain-type price index for personal consumption expenditures will be smaller than the price rise in 2000. The central tendency of the range of forecasts is 1¾ percent to 2¼ percent. Inflation should be restrained this coming year by an expected downturn in energy prices. In addition, the reduced pressure on resources that is associated with the slowing of the economy should help damp increases in labor costs and prices.

Economic and Financial Developments in 2000 and Early 2001

The combination of exceptionally strong growth in the first half of 2000 and subdued growth in the second half resulted in a rise in real GDP of about 3½ percent for the year overall. Domestic demand started out the year with incredible vigor but decelerated thereafter and was sluggish by year-end. Exports surged for three quarters and then faltered. In the labor market, growth of employment slowed over the year but was sufficient to keep the unemployment rate around the lowest sustained level in more than thirty years.

Core inflation remained low in 2000 in the face of sharp increases in energy prices. Although the chain-type price index for personal consumption expenditures (PCE) moved up faster than in 1999, it showed only a slight step-up in the rate of increase after excluding the prices of food and energy. Unit labor costs picked up moderately, adding to the cost pressures from energy, but the ability of businesses to raise prices was restrained by the slowing of the economy and the persistence of competitive pricing conditions.

The Household Sector

Personal consumption expenditures increased 4½ percent in real terms in 2000 after having advanced 5 percent in 1998 and 5½ percent in 1999. A large portion of last year's gain came in the first quarter, when consumption moved ahead at an unusually rapid pace. The increase in consumer spending over the remainder of the year was moderate, averaging about 3½ percent at an annual rate. Consumer outlays for motor vehicles and parts surged to a record high early in 2000 but reversed that gain over the remainder of the year; sales of vehicles tailed off especially sharply as the year drew to a close. Real consumer purchases of gasoline fell during the year in response to the steep run-up in gasoline prices. Most other broad categories of goods and services posted sizable gains over the year as a whole, but results late in the year were mixed: Real outlays for goods other than motor vehicles eked out only a small gain in the fourth quarter, while real outlays for consumer services rose very rapidly, not only because of higher outlays for home heating fuels during a spell of colder-than-usual weather but also because of continued strength in real outlays for other types of services.

Changes in income and wealth provided less support to consumption in 2000 than in other recent years. Real disposable personal income rose about 2¼ percent last year after a gain of slightly more than 3 percent in 1999. Disposable income did not rise quite as much in nominal terms as it had in 1999, and rising prices eroded a larger portion of the nominal gain. Meanwhile, the net worth of households turned down in 2000 after having climbed rapidly for several years, as the effect of a decline in the stock market was only partially offset by a sizable increase in the value of residential real estate. With the peak in stock prices not coming until the year was well under way, and with valuations having previously been on a sharp upward course for an extended period, stock market wealth may well have continued to exert a strong positive effect on consumer spending for several months after share values had topped out. As time passed, however, the impetus to consumption from this source most likely diminished. The personal saving rate, which had dropped sharply during the stock market surge of previous years, fell further in 2000, but the rate of decline slowed, on average, after the first quarter.

Even with real income growth slowing and the stock market turning down, consumers maintained a high degree of optimism through most of 2000 regarding the state of the economy and the economic outlook. Indexes of sentiment from both the University of Michigan Survey Research Center and the Conference Board rose to new peaks in the first quarter of the year, and the indexes remained close to those levels for several more months. Survey readings on personal finances, general business conditions, and the state of the labor market remained generally favorable through most of the year. As of late autumn, only mild softness could be detected. Toward year-end, however, confidence in the economy dropped sharply. Both of the indexes of confidence showed huge declines over the two months ended in January. The marked shift in attitudes toward year-end probably was brought on by a combination of developments, including the weakness in the stock market over the latter part of the year and more frequent reports of layoffs.

Real outlays for residential investment declined about 2¼ percent, on net, over the course of 2000, as construction of new housing dropped back from the elevated level of the previous year. Investment in housing was influenced by a sizable swing in mortgage interest rates as well as by slower growth of employment and income and the downturn in the stock market. After having moved up appreciably in 1999, mortgage rates continued to advance through the first few months of 2000. By mid-May, the average commitment rate on conventional fixed-rate mortgages was above 8½ percent, up roughly 1½ percentage points from the level of a year earlier. New construction held up even as rates were rising in 1999 and early 2000, but it softened in the spring of last year. Starts and permits for single-family houses declined from the first quarter to the third quarter.

But even as homebuilding activity was turning down, conditions in mortgage markets were moving back in a direction more favorable to housing. From the peak in May, mortgage interest rates fell substantially over the remainder of the year and into the early part of 2001, reversing the earlier increases. Sales of new homes firmed as rates turned down, and prices of new houses continued to trend up faster than the general rate of inflation. Inventories of unsold new homes held fairly steady over the year and were up only moderately from the lows of 1997 and 1998. With demand well-maintained and inventories under control, activity stabilized. Starts and permits for single-family houses in the fourth quarter of 2000 were up from the average for the third quarter.

Households continued to borrow at a brisk pace last year, with household debt expanding an estimated 8¾ percent, well above the growth rate of disposable personal income. Consumer credit increased rapidly early in the year, boosted by strong outlays on durable goods; but as consumer spending cooled later in the year, the expansion of consumer credit slowed. For the year as a whole, consumer credit is estimated to have advanced more than 8½ percent, up from the 7 percent pace of 1999. Households also took on large amounts of mortgage debt, which grew an estimated 9 percent last year, reflecting the solid pace of home sales.

With the rapid expansion of household debt in recent years, the household debt service burden has increased to levels not seen since the late 1980s. Even so, with unemployment low and household net worth high, the credit quality of the household sector appears to have deteriorated little last year. Personal bankruptcy filings held relatively steady and remain well below their peak from several years ago. Delinquency rates on home mortgages, credit cards, and auto loans have edged up in recent quarters but are at most only slightly above their levels of the fourth quarter of 1999. Lenders did not appear to be significantly concerned about the credit quality of the household sector for most of last year, although some lenders have become more cautious of late. According to surveys of banks conducted by the Federal Reserve, few commercial banks tightened lending conditions on consumer installment loans and mortgage loans to households over the first three quarters of 2000. However, the most recent survey indicates that a number of banks tightened standards and terms on consumer loans, particularly non-credit-card loans, over the past several months, perhaps because of some uneasiness about how the financial position of households will hold up as the pace of economic activity slows.

The Business Sector

Real business fixed investment rose 10 percent in 2000 according to the advance estimate from the Commerce Department. Investment spending shot ahead at an annual rate of 21 percent in the first quarter of the year; its strength in that period came, in part, from high-tech purchases that had been delayed from 1999 by companies that did not want their operating systems to be in a state of change at the onset of the new millennium. Expansion of investment was slower but still relatively brisk in the second and third quarters, at annual rates of about 15 percent and 8 percent respectively. In the fourth quarter, however, capital spending downshifted abruptly in response to the slowing economy, tightening financial conditions, and rising concern about the prospects for profits; the current estimate shows real investment outlays having fallen at an annual rate of 1½ percent in that period.

Fixed investment in equipment and software was up 9½ percent in 2000, with the bulk of the gain coming in the first half of the year. Spending slowed to a rate of growth of about 5½ percent in the third quarter and then declined in the fourth quarter. Business investment in motor vehicles fell roughly 15 percent, on net, during 2000, with the largest portion of the drop coming in the fourth quarter; the declines in real outlays on larger types of trucks were particularly sizable. Investment in industrial equipment, tracking the changing conditions in manufacturing, also fell in the fourth quarter but was up appreciably for the year overall. Investment in high-tech equipment decelerated over the year but was still expanding in the fourth quarter: Real outlays for telecommunications equipment posted exceptionally large gains in the first half of the year, flattened out temporarily in the third quarter, and expanded again in the fourth. Spending on computers and peripherals increased, in real terms, at an average rate of about 45 percent over the first three quarters of the year but slowed abruptly to a 6 percent rate of expansion in the year's final quarter, the smallest quarterly advance in several years.

Investment in nonresidential structures rose substantially in 2000, about 12½ percent in all, after having declined 1¾ percent in 1999. Investment in factory buildings, which had fallen more than 20 percent in 1999 in an apparent reaction to the economic disruptions abroad and the associated softness in demand for U.S. exports, more than recouped that decline over the course of 2000. Real outlays for office construction, which had edged down in 1999 after several years of strong advance, got back on track in 2000, posting a gain of about 13½ percent. Real investment in commercial buildings other than offices was little changed after moderate gains in the two previous years. Spending on structures used in drilling for energy strengthened in response to the surge in energy prices.

Business inventory investment was subdued early in the year when final sales were surging; aggregate inventory–sales ratios, which have trended lower in recent years as companies became more efficient at managing stocks, edged down further. As sales moderated in subsequent months, production growth did not decelerate quite as quickly, and inventories began to rise more rapidly. Incoming information through the summer suggested that some firms might be encountering a bit of backup in stocks but that the problems were not severe overall. In the latter part of the year, however, inventory–sales ratios turned up, indicating that more serious overhangs were developing. Responding to the slowing of demand and the increases in stocks, manufacturers reduced output in each of the last three months of the year by successively larger amounts. Businesses also began to clamp down on the flow of imports. Despite those adjustments, stocks in a number of domestic industries were likely well above desired levels as the year drew to a close.

The Commerce Department's compilation of business profits currently extends only through the third quarter of 2000, but these data show an evolving pattern much like that of other economic data. After having risen at an annual rate of more than 16 percent in the first half of the year, U.S. corporations' economic profits—that is, book profits with inventory and capital consumption adjustments—slowed to less than a 3 percent rate of growth in the third quarter. Profits from operations outside the United States continued to increase rapidly in the third quarter. However, economic profits from domestic operations edged down in that period, as solid gains for financial corporations were more than offset by a 4 percent rate of decline in the profits of nonfinancial corporations. Profits of nonfinancial corporations as a share of their gross nominal output rose about ½ percentage point in the first half of 2000 but reversed part of that gain in the third quarter. Earnings reports for the fourth quarter indicate that corporate profits fell sharply in that period.

Business debt expanded strongly over the first half of 2000, propelled by robust capital spending as well as by share repurchases and cash-financed merger activity. The high level of capital expenditures outstripped internally generated funds by a considerable margin despite continued impressive profits. To meet their borrowing needs, firms tapped commercial paper, bank loans, and corporate bonds in volume in the first quarter. The rapid pace of borrowing continued in the second quarter, although borrowers relied more heavily on bank loans and commercial paper to meet their financing needs in response to a rise in longer-term interest rates.

Business borrowing slowed appreciably in the second half of the year. As economic growth moderated and profits weakened, capital spending decelerated sharply. In addition, firms held down their borrowing needs by curbing their buildup of liquid assets, which had been accumulating quite rapidly in previous quarters. Borrowing may have been deterred by a tightening of financial conditions for firms with lower credit ratings, as investors and lenders apparently became more concerned about credit risk. Those concerns likely were exacerbated by indications that credit quality had deteriorated at some businesses. The default rate on high-yield bonds continued to climb last year, reaching its highest level since 1991. Some broader measures of credit quality also slipped. The amount of nonfinancial debt downgraded by Moody's Investor Services in 2000 was more than twice as large as the amount upgraded, and the delinquency rate on business loans at commercial banks continued to rise over the year. But while some firms were clearly having financial difficulties, many other firms remained soundly positioned to service their debt. Indeed, the ratio of net interest payments to cash flow for all nonfinancial firms moved only modestly above the relatively low levels of recent years.

As concerns about risk mounted, lenders became more cautious about extending credit to some borrowers. An increasingly large proportion of banks reported firming terms and standards on business loans over the course of the year. In the corporate bond market, yield spreads on high-yield and lower-rated investment-grade bonds, measured relative to the ten-year swap rate, began climbing sharply in September and by year-end were at levels well above those seen in the fall of 1998. Lower-rated commercial paper issuers also had to pay unusually large premiums late in the year, particularly on paper spanning the year-end. As financial conditions became more stringent, issuance of high-yield debt was cut back sharply in the fourth quarter, although investment-grade bond issuance remained strong. Bank lending to businesses was also light at that time, and net issuance of commercial paper came to a standstill. In total, the debt of nonfinancial businesses expanded at an estimated 5½ percent rate in the fourth quarter, less than half the pace of the first half of the year. The slowdown in borrowing in the latter part of the year damped the growth of nonfinancial business debt over 2000, although it still expanded an estimated 8¾ percent.

In early 2001, borrowing appears to have picked up from its sluggish fourth-quarter pace. Following the easing of monetary policy in early January, yield spreads on corporate bonds reversed a considerable portion of their rise over the latter part of 2000, with spreads on high-yield bonds narrowing more than a percentage point. As yields declined, corporate bond issuance picked up, and even some below-investment grade issues were brought to the market. In contrast, investors in the commercial paper market apparently became more concerned about credit risk, partly in response to the defaults of two California utilities on some bonds and commercial paper in mid-January related to the difficulties in the electricity market in that state. After those defaults, spreads between top-tier and second-tier commercial paper widened further, and investors became more discriminating even within the top rating tier. Some businesses facing resistance in the commercial paper market reportedly met their financing needs by tapping backup credit lines at banks.

Growth in commercial mortgage debt slowed last year to an estimated rate of 9¼ percent, and issuance of commercial-mortgage-backed securities in 2000 fell back from its 1999 pace. Spreads on lower-rated commercial-mortgage-backed securities over swap rates widened by a small amount late in the year, and banks on net reported tightening their standards on commercial real estate credit over the year. Nevertheless, fundamentals in the commercial real estate market remain solid, and delinquency rates on commercial mortgages stayed around their historic lows.

The Government Sector

Real consumption and investment expenditures of federal, state, and local governments, the part of government spending that is included in GDP, rose only 1¼ percent in the aggregate during 2000. The increase was small partly because the consumption and investment expenditures of the federal government had closed out 1999 with a large increase in advance of the century date change. Federal purchases in the fourth quarter of 2000 were about 1 percent below the elevated level at year-end 1999. Abstracting from the bumps in the spending data, the underlying trend in real federal consumption and investment outlays appears to have been mildly positive over the past couple of years. The consumption and investment expenditures of state and local governments rose about 2½ percent in 2000 after an unusually large increase of 4¼ percent in 1999. The slowdown in spending was mainly a reflection of a downshift in government investment in structures, which can be volatile from year to year and had posted a large gain in 1999.

Total federal spending, as reported in the unified budget, rose 5 percent in fiscal year 2000, the largest increase in several years. A portion of the rise stemmed from shifts in the timing of some outlays in a way that tended to boost the tally for fiscal 2000. But even allowing for those shifts, the rise in spending would have exceeded the increases of other recent years. Outlays accelerated for most major functions, including defense, health, social security, and income security. Of these, spending on health—about three-fourths of which consists of outlays for Medicaid—recorded the biggest increase. Medicaid grants to the states were affected last fiscal year by increased funding for the child health insurance initiative that was passed in 1997 and by a rise in the portion of Medicaid expenses picked up by the federal government. Spending on agriculture rose very sharply for a third year but not as rapidly as in fiscal 1999. The ongoing paydown of debt by the federal government led to a decline of nearly 3 percent in net interest payments in fiscal 2000 after a somewhat larger drop in these payments in fiscal 1999.

Federal receipts increased 10¾ percent in fiscal year 2000, the largest advance in more than a decade. The increase in receipts from taxes on the income of individuals amounted to more than 14 percent. In most recent years, these receipts have grown much faster than nominal personal income as measured in the national income and product accounts. One important factor in the difference is that rising levels of income and a changing distribution have shifted more taxpayers into higher tax brackets; another is an increase in revenues from taxes on capital gains and other items that are not included in personal income. Receipts from the taxation of corporate profits also moved up sharply in fiscal 2000, rebounding from a small decline the previous fiscal year. With federal receipts rising much faster than spending, the surplus in the unified budget rose to $236 billion in fiscal 2000, nearly double that of fiscal 1999. The on-budget surplus, which excludes surpluses accumulating in the social security trust fund, rose from essentially zero in fiscal 1999 to $86 billion in fiscal 2000. Excluding net interest payments, a charge resulting from past deficits, the surplus in fiscal 2000 was about $460 billion.

Federal saving, which is basically the federal budget surplus adjusted to conform to the accounting practices followed in the national income and product accounts, amounted to about 3½ percent of nominal GDP over the first three quarters of 2000. This figure has been rising roughly 1 percentage point a year over the past several years. Mainly because of that rise in federal saving, the national saving rate has been running at a higher level in recent years than was observed through most of the 1980s and the first half of the 1990s, even as the personal saving rate has plunged. The rise in federal saving has kept interest rates lower than they otherwise would have been and has contributed, in turn, to the rapid growth of capital investment and the faster growth of the economy's productive potential.

The burgeoning federal budget surplus allowed the Treasury to pay down its debt last year at an even faster pace than in recent years. As of the end of fiscal 2000, the stock of marketable Treasury debt outstanding had fallen about $500 billion from its peak in 1997. The existing fiscal situation and the anticipation that budget surpluses would continue led the Treasury to implement a number of debt management changes during 2000, many designed to preserve the liquidity of its securities. In particular, the Treasury sought to maintain large and regular offerings of new securities at some key maturities, because such attributes are thought to importantly contribute to market liquidity. In part to make room for continued sizable auctions of new securities, the Treasury initiated a debt buyback program through which it can purchase debt that it previously issued. In total, the Treasury conducted twenty buyback operations in 2000, repurchasing a total of $30 billion par value of securities with maturities ranging from twelve to twenty-seven years. Those operations were generally well received and caused little disruption to the market. Going forward, the Treasury intends to conduct two buyback operations per month and expects to repurchase about $9 billion par value of outstanding securities in each of the first two quarters of 2001.

Despite conducting buybacks on that scale, the Treasury had to cut back considerably its issuance of new securities. To still achieve large sizes of individual issues at some maturities, the Treasury implemented a schedule of regular reopenings—in which it auctions additional amounts of a previously issued security instead of issuing a new one—for its five-, ten-, and thirty-year instruments. Under that schedule, every other auction of each of those securities is a smaller reopening of the previously auctioned security. At other maturities, the Treasury reduced the sizes of its two-year notes and inflation-indexed securities and eliminated the April auction of the thirty-year inflation-indexed bond. In addition, the Treasury recently announced that it would stop issuing one-year bills following the February auction, after having cut back the frequency of new offerings of that security last year.

These reductions in the issuance of Treasury securities have caused the Federal Reserve to modify some of its procedures for obtaining securities at Treasury auctions, as described in detail below. In addition, the Treasury made changes in the rules for auction participation by foreign and international monetary authority (FIMA) accounts, which primarily include foreign central banks and governmental monetary entities. The new rules, which went into effect on February 1, 2001, impose limits on the size of non-competitive bids from individual FIMA accounts and on the total amount of such bids that will be awarded at each auction. These limits will leave a larger pool of securities available for competitive bidding at the auctions, helping to maintain the liquidity and efficiency of the market. Moreover, FIMA purchases will be subtracted from the total amount of securities offered, rather than being added on as they were in some previous instances, making the amount of funds raised at the auction more predictable.

State and local government debt increased little in 2000. Gross issuance of long-term municipal bonds was well below the robust pace of the past two years. Refunding offerings were held down by higher interest rates through much of the year, and the need to raise new capital was diminished by strong tax revenues. Net issuance was also damped by an increase in the retirement of bonds from previous refunding activity. Credit quality in the municipal market improved considerably last year, with credit upgrades outnumbering downgrades by a substantial margin. The only notable exception was in the not-for-profit health care sector, where downgrades predominated.

The External Sector

Trade and Current Account

The current account deficit reached $452 billion (annual rate) in the third quarter of 2000, or 4.5 percent of GDP, compared with $331 billion and 3.6 percent for 1999. Most of the expansion in the current account deficit occurred in the balance of trade in goods and services. The deficit on trade in goods and services widened to $383 billion (annual rate) in the third quarter from $347 billion in the first half of the year. Data for trade in October and November suggest that the deficit may have increased further in the fourth quarter. Net payments on investments were a bit less during the first three quarters of 2000 than in the second half of 1999 owing to a sizable increase in income receipts from direct investment abroad.

U.S. exports of goods and services rose an estimated 7 percent in real terms during 2000. Exports surged during the first three quarters, supported by a pickup in economic activity abroad that began in 1999. By market destination, U.S. exports were strongest to Mexico and countries in Asia. About 45 percent of U.S. goods exports were capital equipment, 20 percent were industrial supplies, and roughly 10 percent each were agricultural, automotive, consumer, and other goods. Based on data for October and November, real exports are estimated to have declined in the fourth quarter, reflecting in part a slowing of economic growth abroad. This decrease was particularly evident in exports of capital goods, automotive products, consumer goods, and agricultural products.

The quantity of imported goods and services expanded rapidly during the first three quarters of 2000, reflecting the continuing strength of U.S. domestic demand and the effects of past dollar appreciation on price competitiveness. Increases were widespread among trade categories. Based on data for October and November, real imports of goods and services are estimated to have risen only slightly in the fourth quarter. Moderate increases in imported consumer and capital goods were partly offset by declines in other categories of imports, particularly industrial supplies and automotive products, for which domestic demand had softened. The price of non-oil imports is estimated to have increased by less than 1 percent during 2000.

The price of imported oil rose nearly $7 per barrel over the four quarters of 2000. During the year, oil prices generally remained high and volatile, with the spot price of West Texas intermediate (WTI) crude fluctuating between a low of $24 per barrel in April and a high above $37 per barrel in September. Strong demand—driven by robust world economic growth—kept upward pressure on oil prices even as world supply increased considerably. Over the course of 2000, OPEC raised its official production targets by 3.7 million barrels per day, reversing the production cuts made in the previous two years. Oil production from non-OPEC sources rebounded as well. During the last several weeks of 2000, oil prices fell sharply as market participants became convinced that the U.S. economy was slowing. In early 2001, however, oil prices moved back up when OPEC announced a planned production cut of 1.5 million barrels per day.

Financial Account

The counterpart to the increased U.S. current account deficit in 2000 was an increase in net capital inflows. As in 1999, U.S. capital flows in 2000 reflected the relatively strong cyclical position of the U.S. economy for most of the year and the global wave of corporate mergers. Foreign private purchases of U.S. securities were exceptionally robust—well in excess of the record set in 1999. The composition of U.S. securities purchased by foreigners continued the shift away from Treasuries as the U.S. budget surplus, and the attendant decline in the supply of Treasuries, lowered their yield relative to other debt. Last year private foreigners sold, on net, about $50 billion in Treasury securities, compared with net sales of $20 billion in 1999. Although sizable, these sales were slightly less than what would have occurred had foreigners reduced their holdings in proportion to the reduction in Treasuries outstanding. The increased sale of Treasuries was fully offset by larger foreign purchases of U.S. securities issued by government-sponsored agencies. Net purchases of agency securities topped $110 billion, compared with the previous record of $72 billion set in 1999. In contrast to the shrinking supply of Treasury securities, U.S. government-sponsored agencies accelerated the pace of their debt issuance. Private foreign purchases of U.S. corporate debt grew to $180 billion, while net purchases of U.S. equities ballooned to $170 billion compared with $108 billion in 1999.

The pace of foreign direct investment inflows in the first three quarters of 2000 also accelerated from the record pace of 1999. As in the previous two years, direct investment inflows were driven by foreign acquisition of U.S. firms, reflecting the global strength in merger and acquisition activity. Of the roughly $200 billion in direct investment inflows in the first three quarters, about $100 billion was directly attributable to merger activity. Many of these mergers were financed, at least in part, by an exchange of equity, in which shares in the U.S. firm were swapped for equity in the acquiring firm. Although U.S. residents generally appear to have sold a portion of the equity acquired through these swaps, the swaps likely contributed significantly to the $97 billion capital outflow attributed to U.S. acquisition of foreign securities. U.S. direct investment abroad was also boosted by merger activity and totaled $117 billion in the first three quarters of 2000, a slightly faster pace than that of 1999.

Capital inflows from foreign official sources totaled $38 billion in 2000—a slight increase from 1999. Nearly all of the official inflows were attributable to reinvested interest earnings. Modest official sales of dollar assets associated with foreign exchange intervention were offset by larger inflows from some non-OPEC oil exporting countries, which benefited from the elevated price of oil.

The Labor Market

Nonfarm payroll employment increased about 1½ percent in 2000, measured on a December-to-December basis. The job count had risen slightly more than 2 percent in 1999 and roughly 2½ percent a year over the 1996–98 period. Over the first few months of 2000, the expansion of jobs proceeded at a faster pace than in 1999, boosted both by the federal government's hiring for the decennial Census and by a somewhat faster rate of job creation in the private sector. Indications of a moderation in private hiring started to emerge toward mid-year, but because of volatility of the incoming data a slowdown could not be identified with some confidence until late summer. Over the remainder of the year monthly increases in private employment stepped down further. Job growth came almost to a stop in December, when severe weather added to the restraint from a slowing economy. In January of this year, employment picked up, but the return of milder weather apparently accounted for a sizable portion of the gain.

Employment rose moderately in the private service-producing sector of the economy in 2000, about 2 percent overall after an increase of about 3 percent in 1999. In the fourth quarter, however, hiring in the services-producing sector was relatively slow, in large part because of a sizable decline in the number of jobs in personnel supply—a category that includes temporary help agencies. Employment in construction increased about 2½ percent in 2000 after several years of gains that were considerably larger. The number of jobs in manufacturing was down for a third year, owing to reductions in factory employment in the second half of the year, when manufacturers were adjusting to the slowing of demand. Those adjustments in manufacturing may also have involved some cutbacks in the employment of temporary hires, which would help to account for the sharp job losses in personnel supply. The average length of the workweek in manufacturing was scaled back as well over the second half of the year.

The slowing of the economy did not lead to any meaningful easing in the tightness of the labor market in 2000. The household survey's measure of the number of persons employed rose 1 percent, about in line with the expansion of labor supply. On net, the unemployment rate changed little; its fourth-quarter average of 4.0 percent was down just a tenth of a percentage point from the average unemployment rate in the fourth quarter of 1999. The flatness of the rate through the latter half of 2000, when the economy was slowing, may have partly reflected a desire of companies to hold on to labor resources that had been difficult to attract and retain in the tight labor market of recent years. January of this year brought a small increase in the rate, to 4.2 percent.

Productivity continued to rise rapidly in 2000. Output per hour in the nonfarm business sector was up about 3½ percent over the year as a whole. Sizable gains in efficiency continued to be evident even as the economy was slowing in the second half of the year. Except for 1999, when output per hour rose about 3¾ percent, the past year's increase was the largest since 1992, a year in which the economy was in cyclical recovery from the 1990–91 recession. Cutting through the year-to-year variations in measured productivity, the underlying trend still appears to have traced out a pattern of strong acceleration since the middle part of the 1990s. Support for a step-up in the trend has come from increases in the amount of capital per worker—especially high-tech capital—and from organizational efficiencies that have resulted in output rising faster than the combined inputs of labor and capital.

Alternative measures of the hourly compensation of workers, while differing in their coverage and methods of construction, were consistent in showing some acceleration this past year. The employment cost index for private industry (ECI), which attempts to measure changes in the labor costs of nonfarm businesses in a way that is free from the effects of employment shifts among occupations and industries, rose nearly 4½ percent during 2000 after having increased about 3½ percent in 1999. Compensation per hour in the nonfarm business sector, a measure that picks up some forms of employee compensation that the ECI omits but that also is more subject to eventual revision than the ECI, showed hourly compensation advancing 5¾ percent this past year, up from a 1999 increase of about 4½ percent. Tightness of the labor market was likely one factor underlying the acceleration of hourly compensation in 2000, with employers relying both on larger wage increases and more attractive benefit packages to attract and retain workers. Compensation gains may also have been influenced to some degree by the pickup of consumer price inflation since 1998. Rapid increases in the cost of health insurance contributed importantly to a sharp step-up in benefit costs.

Unit labor costs, the ratio of hourly compensation to output per hour, increased about 2¼ percent in the nonfarm business sector in 2000 after having risen slightly more than ½ percent in 1999. Roughly three-fourths of the acceleration was attributable to the faster rate of increase in compensation per hour noted above. The remainder stemmed from the small deceleration of measured productivity. The labor cost rise for the latest year was toward the high end of the range of the small to moderate increases that have prevailed over the past decade.

Prices

Led by the surge in energy prices, the aggregate price indexes showed some acceleration in 2000. The chain-type price index for real GDP, the broadest measure of goods and services *produced* domestically, rose 2¼ percent in 2000, roughly ¾ percentage point more than in 1999. The price index for gross domestic purchases, the broadest measure of prices for goods and services *purchased* by domestic buyers, posted a rise of almost 2½ percent in 2000 after having increased slightly less than 2 percent the previous year. Prices paid by consumers, as measured by the chain-type price index for personal consumption expenditures, picked up as well, about as much as the gross purchases index. The consumer price index (CPI) continued to move up at a faster pace than the PCE index this past year, and it exhibited slightly more acceleration—an increase of nearly 3½ percent in 2000 was ¾ percentage point larger than the 1999 rise. Price indexes for fixed investment and government purchases also accelerated this past year.

The prices of energy products purchased directly by consumers increased about 15 percent in 2000, a few percentage points more than in 1999. In response to the rise in world oil prices, consumer prices of motor fuels rose nearly 20 percent in 2000, bringing the cumulative price hike for those products over the past two years to roughly 45 percent. Prices also rose rapidly for home heating oil. Natural gas prices increased 30 percent, as demand for that fuel outpaced the growth of supply, pulling stocks down to low levels. Prices of natural gas this winter have been exceptionally high because of the added demand for heating that resulted from unusually cold weather in November and December. Electricity costs jumped for some users, and prices nationally rose faster than in other recent years, about 2¼ percent at the consumer level.

Businesses had to cope with rising costs of energy in production, transportation, and temperature control. In some industries that depend particularly heavily on energy inputs, the rise in costs had a large effect on product prices. Producer prices of goods such as industrial chemicals posted increases that were well above the average rates of inflation last year, and rising prices for natural gas sparked especially steep price advances for nitrogen fertilizers used in farming. Prices of some services also exhibited apparent energy impacts: Producers paid sharply higher prices for transportation services via air and water, and consumer airfares moved up rapidly for a second year, although not nearly as much as in 1999. Late in 2000 and early this year, high prices for energy inputs prompted shutdowns in production at some companies, including those producing fertilizers and aluminum.

Despite the spillover of energy effects into other markets, inflation outside the energy sector remained moderate overall. The ongoing rise in labor productivity helped to contain the step-up in labor costs, and the slow rate of rise in the prices of non-oil imports meant that domestic businesses had to remain cautious about raising their prices because of the potential loss of market share. Rapid expansion of capacity in manufacturing prevented bottlenecks from developing in the goods-producing sector of the economy when domestic demand was surging early in the year; later on, an easing of capacity utilization was accompanied by a softening of prices in a number of industries. Inflation expectations, which at times in the

Alternative Measures of Price Change

Percent

Price measure	1999	2000
Chain-type		
Gross domestic product	1.6	2.3
Gross domestic purchases	1.9	2.4
Personal consumption expenditures	2.0	2.4
Excluding food and energy	1.5	1.7
Fixed-weight		
Consumer price index	2.6	3.4
Excluding food and energy	2.1	2.6

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.

past have added to the momentum of rising inflation, remained fairly quiescent in 2000.

Against this backdrop, core inflation remained low in 2000. Producer prices of intermediate materials excluding food and energy, after having accelerated through the first few months of 2000, slowed thereafter, and their four-quarter rise of 1¾ percent was only a bit larger than the increase during 1999. Prices of crude materials excluding food and energy fell moderately this past year after having risen about 10 percent a year earlier. At the consumer level, the CPI excluding food and energy moved up 2½ percent in 2000, an acceleration of slightly less than ½ percentage point from 1999 when put on a basis that maintains consistency of measurement. The rise in the chain-type price index for personal consumption expenditures excluding food and energy was 1¾ percent, just a bit above the increases recorded in each of the two previous years.

Consumer food prices rose 2½ percent in 2000 after an increase of about 2 percent in 1999. In large part, the moderate step-up in these prices probably reflected cost and price considerations similar to those at work elsewhere in the economy. Also, farm commodity prices moved up, on net, during 2000, after three years of sharp declines, and this turnabout likely showed through to the retail level to some extent. Meat prices, which are linked more closely to farm prices than is the case with many other foods, recorded increases that were appreciably larger than the increases for food prices overall.

The chain-type price index for private fixed investment rose about 1¾ percent in 2000, but that small increase amounted to a fairly sharp acceleration from the pace of the preceding few years, several of which had brought small declines in investment prices. Although the price index for investment in residential structures slowed a little, to about a 3½ percent rise, the index for nonresidential structures sped up from a 2¾ percent increase in 1999 to one of 4½ percent in 2000. Moreover, the price index for equipment and software ticked up slightly, after having declined 2 percent or more in each of the four preceding years. To a large extent, that turnabout was a reflection of a smaller rate of price decline for computers; they had dropped at an average rate of more than 20 percent through the second half of the 1990s but fell at roughly half that rate in 2000. Excluding computers, equipment prices increased slightly in 2000 after having declined a touch in 1999.

U.S. Financial Markets

Financial markets in 2000 were influenced by the changing outlook for the U.S. economy and monetary policy and by shifts in investors' perceptions of and attitudes toward risk. Private longer-term interest rates generally firmed in the early part of the year as growth remained unsustainably strong and as market participants anticipated a further tightening of monetary policy by the Federal Reserve. Later in the year, as it became apparent that the pace of economic growth was slowing, market participants began to incorporate expectations of significant policy easing into asset prices, and most longer-term interest rates fell sharply over the last several months of 2000 and into 2001. Over the course of the year, investors became more concerned about credit risk and demanded larger yield spreads to hold lower-rated corporate bonds, especially once the growth of the economy slowed in the second half. Banks, apparently having similar concerns, reported widening credit spreads on business loans and tightening standards for lending to businesses. Weakening economic growth and tighter financial conditions in some sectors led to a slowing in the pace of debt growth over the course of the year.

Stock markets had another volatile year in 2000. After touching record highs in March, stock prices turned lower, declining considerably over the last four months of the year. Valuations in some sectors fell precipitously from high levels, and near-term earnings forecasts were revised down sharply late in the year. On balance, the broadest stock indexes fell more than 10 percent last year, and the tech-heavy Nasdaq was down nearly 40 percent.

Interest Rates

The economy continued to expand at an exceptionally strong and unsustainable pace in the early part of 2000, prompting the Federal Reserve to tighten its policy stance in several steps ending at its May meeting. Private interest rates and shorter-term Treasury yields rose considerably over that period, reaching a peak just after the May FOMC meeting. Investors apparently became more concerned about credit risk as well; spreads between rates on lower-rated corporate bonds and swaps widened in the spring, adding to the upward pressure on private interest rates. Long-term Treasury yields, in contrast, remained below their levels from earlier in the year, as market participants became increasingly convinced that the supply of those securities would shrink considerably in coming years and incorporated a "scarcity premium" into their prices. By mid-May, with the rapid expansion of economic activity showing few signs of letting up, rates on federal funds and eurodollar futures, which can be used as a rough gauge of policy expectations, were indicating that market participants expected additional policy tightening going forward.

Signs of a slowdown in the growth of aggregate demand began to appear in the incoming data soon after the May FOMC meeting and continued to gradually accumulate over subsequent months. In response, market participants became increasingly convinced that the FOMC would not have to tighten its policy stance further, which was reflected in a flattening of the term structure of rates on federal funds and eurodollar futures. Interest rates on most corporate bonds declined gradually on the shifting outlook for the economy, and by the end of August had fallen more than ½ percentage point from their peaks in May.

Most market interest rates continued to edge lower into the fall, as the growth of the economy seemed to moderate further. Over the last couple months of 2000 and into early 2001, as it became apparent that economic growth was slowing more abruptly, market participants sharply revised down their expectations for future short-term interest rates. Treasury yields plummeted over that period, particularly at shorter maturities: The two-year Treasury yield dropped more than a full percentage point from mid-November to early January, moving below the thirty-year yield for the first time since early 2000. Yields on inflation-indexed securities also fell considerably, but by less than their nominal counterparts, suggesting that the weakening of economic growth lowered expectations of both real interest rates and inflation.

Although market participants had come to expect considerable policy easing over the first part of this year, the timing and magnitude of the intermeeting cut in the federal funds rate in early January was a surprise. In response, investors built into asset prices anticipations of a more rapid policy easing over the near-term. Indeed, the further substantial reduction in the federal funds rate implemented at the FOMC meeting later that month was largely expected and elicited little response in financial markets. Even with a full percentage point reduction in the federal funds rate in place, futures rates have recently pointed to expectations of additional policy easing over coming months. Investors appear to be uncertain about this outlook, however, judging from the recent rise in the implied volatilities of interest rates derived from option prices. On balance since the beginning of 2000, the progressive easing in the economic outlook, in combination with the effects of actual and prospective reductions in the supply of Treasury securities, has resulted in a sizable downward shift in the Treasury yield curve.

The prospect of a weakening in economic growth, along with sizable declines in equity prices and downward revisions to profit forecasts, apparently caused investors to reassess credit risks in the latter part of last year. Spreads between rates on high-yield corporate bonds and swaps soared beginning in September, pushing the yields on those bonds substantially higher. Concerns about credit risk also spilled over into the investment-grade sector, where yield spreads widened considerably for lower-rated securities. For most investment-grade issuers, though, the effects of the revised policy outlook more than offset any widening in risk spreads, resulting in a decline in private interest rates in the fourth quarter. Since the first policy easing in early January, yield spreads on corporate bonds have narrowed considerably, including a particularly large drop in the spread on high-yield bonds. Overall, yields on most investment-grade corporate bonds have reached their lowest levels since the first half of 1999, while rates on most high-yield bonds have fallen about 2 percentage points from their peaks and have reached levels similar to those of mid-2000.

Although investors at times in recent months appeared more concerned about credit risk than they were in the fall of 1998, the recent financial environment, by most accounts, did not resemble the market turbulence and disruption of that time. The Treasury and investment-grade corporate bond markets remained relatively liquid, and the investment-grade market easily absorbed the high volume of bond issuance over 2000. Investors continued to show a heightened preference for larger, more liquid corporate issues, but they did not exhibit the extreme desire for liquidity that was apparent in the fall of 1998. For example, the liquidity premium for the on-the-run ten-year Treasury note this year remained well below the level of that fall.

Nonetheless, the Treasury market has become somewhat less liquid than it was several years ago. Moreover, in 2000, particular segments of the Treasury market occasionally experienced bouts of unusually low liquidity that appeared related to actual or potential reductions in the supply of individual securities. Given the possibility that liquidity could deteriorate further as the Treasury continues to pay down its debt, market participants reportedly increased their reliance on alternative instruments—including interest rate swaps and debt securities issued by government-sponsored housing agencies and other corporations—for some of the hedging and pricing functions historically provided by Treasury securities. Fannie Mae and Freddie Mac continued to issue large amounts of debt under their Benchmark and Reference debt programs, which are designed to mimic characteristics of Treasury securities—such as large issue sizes and a regular calendar of issuance—that are believed to contribute to their liquidity. By the end of 2000, the two firms together had more than $300 billion of notes and bonds and more than $200 billion of bills outstanding under those programs. Trading volume and dealer positions in agency securities have risen considerably since 1998, and the market for repurchase agreements in those securities has reportedly become more active. Also, several exchanges listed options and futures on agency debt securities. Open interest on some of those futures contracts has picked up significantly, although it remains small compared to that on futures contracts on Treasury securities.

The shrinking supply of Treasury securities and the possibility of a consequent decline in market liquidity also pose challenges for the Federal Reserve. For many years, Treasury securities have provided the Federal Reserve with an effective asset for System portfolio holdings and the conduct of monetary policy. The remarkable liquidity of Treasury securities has allowed the System to conduct sizable policy operations quickly and with little disruption to markets, while the safety of Treasury securities has allowed the System to avoid credit risk in its portfolio. However, if Treasury debt continues to be paid down, at some point the amount outstanding will be insufficient to meet the Federal Reserve's portfolio needs. Well before that time, the proportion of Treasury securities held by the System could reach levels that would significantly disrupt the Treasury market and make monetary policy operations increasingly difficult or costly. Recognizing this possibility, last year the FOMC initiated a study to consider alternative approaches to managing the Federal Reserve's portfolio, including expanding the use of the discount window and broadening the types of assets acquired in the open market. As it continues to study various alternatives, the FOMC will take into consideration the effect that such approaches might have on the liquidity and safety of its portfolio and the potential for distorting the allocation of credit to private entities.

Meanwhile, some measures have been taken to prevent the System's holdings of individual Treasury securities from reaching possibly disruptive levels and to help curtail any further lengthening of the average maturity of the System's holdings. On July 5, 2000, the Federal Reserve Bank of New York announced guidelines limiting the System's holdings of individual Treasury securities to specified percentages of their outstanding amounts, depending on the remaining maturity of the issue. Those limits range from 35 percent for Treasury bills to 15 percent for longer-term bonds. As a result, the System has redeemed some of its holdings of Treasury securities on occasions when the amount of maturing holdings has exceeded the amount that could be rolled over into newly issued Treasury securities under these limits. Redemptions of Treasury holdings in 2000 exceeded $28 billion, with more than $24 billion of the redemptions in Treasury bills. In addition, the Federal Reserve accommodated a portion of the demand for reserves last year by increasing its use of longer-term repurchase agreements rather than by purchasing Treasury securities outright. The System maintained an average of more than $15 billion of longer-term repurchase agreements over 2000, typically with maturities of twenty-eight days.

Equity Prices

After having moved higher in the first quarter of 2000, equity prices reversed course and finished the year with considerable declines. Early in the year, the rapid pace of economic activity lifted corporate profits, and stock analysts became even more optimistic about future earnings growth. In response, most major equity indexes reached record highs in March, with the Wilshire 5000 rising 6¾ percent above its 1999 year-end level and the Nasdaq soaring 24 percent, continuing its rapid run-up from the second half of 1999. Equity prices fell from these highs during the spring, with a particularly steep drop in the Nasdaq, as investors grew more concerned about the lofty valuations of some sectors and the prospect of higher interest rates.

Broader equity indexes recovered much of those losses through August, supported by the decline in market interest rates and the continued strength of earnings growth in the second quarter. But from early September through the end of the year, stock prices fell considerably in response to the downshift in economic growth, a reassessment of the prospects for some high-tech industries, and disappointments in corporate earnings. In December and January, equity analysts significantly reduced their forecasts for year-ahead earnings for the S&P 500. However, analysts apparently view the slowdown in earnings as short-lived, as long-run earnings forecasts did not fall much and remain at very high levels, particularly for the technology sector.

On balance, the Wilshire 5000 index fell 12 percent over 2000—its first annual decline since 1994. The Nasdaq composite plunged 39 percent, leaving it at year-end more than 50 percent below its record high and erasing nearly all of its gains since the beginning of 1999. The broad decline in equity prices last year is estimated to have lopped more than $1¾ trillion from household wealth, or more than 4 percent of the total net worth of households. Nevertheless, the level of household net worth is still quite high—about 50 percent above its level at the end of 1995. Investors continued to accumulate considerable amounts of equity mutual funds over 2000, although they may have become increasingly discouraged by losses on their equity holdings toward the end of the year, when flows into equity funds slumped. At that time, money market mutual funds expanded sharply, as investors apparently sought a refuge for financial assets amid the heightened volatility and significant drops in equity prices. So far in 2001, major equity indexes are little changed, on balance, as the boost from lower interest rates has been countered by continued disappointments over corporate earnings.

Some of the most dramatic plunges in share prices in 2000 took place among technology, telecommunications, and Internet shares. While these declines partly stemmed from downward revisions to near-term earnings estimates, which were particularly severe in some cases, they were also driven by a reassessment of the elevated valuations of many companies in these sectors. The price–earnings ratio (calculated using operating earnings expected over the next year) for the technology component of the S&P 500 index fell substantially from its peak in early 2000, although it remains well above the ratio for the S&P 500 index as a whole. For the entire S&P 500 index, share prices fell a bit more in percentage terms than the downward revisions to year-ahead earnings forecasts, leaving the price–earnings ratio modestly below its historical high.

The volatility of equity price movements during 2000 was at the high end of the elevated levels observed in recent years. In the technology sector, the magnitudes of daily share price changes were at times remarkable. There were twenty-seven days during 2000 in which the Nasdaq composite index moved up or down by at least 5 percent; by comparison, such outsized movements were observed on a total of only seven days from 1990 to 1999.

Despite the volatility of share price movements and the large declines on balance over 2000, equity market conditions were fairly orderly, with few reports of difficulties meeting margin requirements or of large losses creating problems that might pose broader systemic concerns. The fall in share prices reined in some of the margin debt of equity investors. After having run up sharply through March, the amount of outstanding margin debt fell by about 30 percent over the remainder of the year. At year-end, the ratio of margin debt to total equity market capitalization was slightly below its level a year earlier.

The considerable drop in valuations in some sectors and the elevated volatility of equity price movements caused the pace of initial public offerings to slow markedly over the year, despite a large number of companies waiting to go public. The slowdown was particularly pronounced for technology companies, which had been issuing new shares at a frantic pace early in the year. In total, the dollar amount of initial public offerings by domestic nonfinancial companies tapered off in the fourth quarter to its lowest level in two years and has remained subdued so far in 2001.

Debt and the Monetary Aggregates

Debt and Depository Intermediation

Aggregate debt of domestic nonfinancial sectors increased an estimated 5¼ percent over 2000, a considerable slowdown from the gains of almost 7 percent posted in 1998 and 1999. The expansion of nonfederal debt moderated to 8½ percent in 2000 from 9½ percent in 1999; the slowing owed primarily to a weakening of consumer and business borrowing in the second half of the year, as the growth of durables consumption and capital expenditures fell off and financial conditions tightened for some firms. Some of the slowdown in total nonfinancial debt was also attributable to the federal government, which paid down 6¾ percent of its debt last year, compared with 2½ percent in 1999. In 1998 and 1999, domestic nonfinancial debt increased faster than nominal GDP, despite the reduction in federal debt over those years. The ratio of nonfinancial debt to GDP edged down in 2000, however, as the federal debt paydown accelerated and nonfederal borrowing slowed.

Depository institutions continued to play an important role in meeting the demand for credit by businesses and households. Credit extended by commercial banks, after adjustment for mark-to-market accounting rules, increased 10 percent over 2000, well above the pace for total nonfinancial debt. Bank credit expanded at a particularly brisk rate through late summer, when banks, given their ample capital base and solid profits, were willing to meet strong loan demand by households and businesses. Over the remainder of the year, the growth of bank credit declined appreciably, as banks became more cautious lenders and as several banks shed large amounts of government securities.

Banks reported a deterioration of the quality of their business loan portfolios last year. Delinquency and charge-off rates on C&I loans, while low by historical standards, rose steadily, partly reflecting some repayment difficulties in banks' syndicated loan portfolios. Several large banks have stated that the uptrend in delinquencies is expected to continue in 2001. Higher levels of provisioning for loan losses and some narrowing of net interest margins contributed to a fallback of bank profits from the record levels of 1999. In addition, capitalization measures slipped a bit last year. Nevertheless, by historical standards banks remained quite profitable overall and appeared to have ample capital. In the aggregate, total capital (the sum of tier 1 and tier 2 capital) remained above 12 percent of risk-weighted assets over the first three quarters of last year, more than two percentage points above the minimum level required to be considered well-capitalized.

In response to greater uncertainty about the economic outlook and a reduced tolerance for risk, increasing proportions of banks reported tightening standards and terms on business loans during 2000 and into 2001, with the share recently reaching the highest level since 1990. The tightening became widespread for loans to large and middle-market firms. A considerable portion of banks reported firming standards and terms on loans to small businesses as well, consistent with surveys of small businesses indicating that a larger share of those firms had difficulty obtaining credit in 2000 than in previous years. With delinquency rates for consumer and real estate loans having changed little, on net, last year, banks did not tighten credit conditions significantly for loans to households over the first three quarters of 2000. More recently, however, an increasing portion of banks increased standards and terms for consumer loans other than credit cards, and some of the banks surveyed anticipated a further tightening of conditions on consumer loans during 2001.

The Monetary Aggregates

The monetary aggregates grew rather briskly last year. The expansion of the broadest monetary aggregate, M3, was particularly strong over the first three quarters of 2000, as the robust growth in depository credit was partly funded through issuance of the managed liabilities included in this aggregate, such as large time deposits. M3 growth eased somewhat in the fourth quarter because the slowing of bank credit led depository institutions to reduce their reliance on managed liabilities. Institutional money funds increased rapidly throughout 2000, despite the tightening of policy early in the year, in part owing to continued growth in their provision of cash management services for businesses. For the year as a whole, M3 expanded 9¼ percent, well above the 7¾ percent pace in 1999. This advance again outpaced that of nominal income, and M3 velocity—the ratio of nominal income to M3—declined for the sixth year in a row.

M2 increased 6¼ percent in 2000, about unchanged from its pace in 1999. Some slowing in M2 growth would have been expected based on the rise in short-term interest rates over the early part of the year, which pushed up the "opportunity cost" of holding M2, given that the

Growth of Money and Debt

Percent

Period	M1	M2	M3	Domestic non-financial debt
Annual[1]				
1990	4.2	4.2	1.9	6.7
1991	7.9	3.1	1.2	4.5
1992	14.4	1.8	.6	4.5
1993	10.6	1.3	1.0	4.9
1994	2.5	.6	1.7	4.8
1995	−1.5	3.8	6.1	5.4
1996	−4.5	4.5	6.8	5.3
1997	−1.2	5.6	8.9	5.4
1998	2.2	8.4	10.9	6.9
1999	1.8	6.2	7.7	6.8
2000	−1.5	6.3	9.2	5.3
Quarterly (annual rate)[2]				
2000:Q1	2.0	5.8	10.6	5.6
Q2	−1.8	6.4	9.0	6.2
Q3	−3.7	5.8	8.9	4.7
Q4	−2.7	6.6	7.1	4.1

NOTE. M1 consists of currency, travelers checks, demand deposits, and other checkable deposits. M2 consists of M1 plus savings deposits (including money market deposit accounts), small-denomination time deposits, and balances in retail money market funds. M3 consists of M2 plus large-denomination time deposits, balances in institutional money market funds, RP liabilities (overnight and term), and eurodollars (overnight and term). Debt consists of the outstanding credit market debt of the U.S. government, state and local governments, households and nonprofit organizations, nonfinancial businesses, and farms.

1. From average for fourth quarter of preceding year to average for fourth quarter of year indicated.

2. From average for preceding quarter to average for quarter indicated.

interest rates on many components of M2 do not increase by the same amount or as quickly as market rates. However, with the level of long-term rates close to that of short-term rates, investors had much less incentive to shift funds out of M2 assets and into assets with longer maturities, which helped support M2 growth. M2 was also boosted at times by households' increased preference for safe and liquid assets during periods of heightened volatility in equity markets. On balance over the year, the growth of M2 slightly exceeded that of nominal income, and M2 velocity edged down.

The behavior of the components of M2 was influenced importantly by interest rate spreads. The depressing effect of higher short-term market interest rates was most apparent in the liquid deposit components, including checkable deposits and savings accounts, whose rates respond very sluggishly to movements in market rates. Small time deposits and retail money market mutual funds, whose rates do not lag market rates as much, expanded considerably faster than liquid deposits. Currency growth was held down early in the year by a runoff of the stockpile accumulated in advance of the century date change. In addition, it was surprisingly sluggish over the balance of the year given the rapid pace of income growth, with weakness apparently in both domestic and foreign demands.

International Developments

In 2000, overall economic activity in foreign economies continued its strong performance of the previous year. However, in both industrial and developing countries, growth was strongest early, and clear signs of a general slowing emerged later in the year. Among industrial countries, growth in Japan last year moved up to an estimated 2 percent, and growth in the euro area slowed slightly to 3 percent. Emerging market economies in both Asia and Latin America grew about 6 percent on average in 2000. For Asian developing economies, this represented a slowing from the torrid pace of the previous year, while growth in Latin America, especially Mexico, picked up from 1999. Average foreign inflation edged up slightly to 3 percent, mainly reflecting higher oil prices. Over the first part of the year, monetary authorities moved to tighten conditions in many industrial countries, in reaction to continued strong growth in economic activity that was starting to impinge on capacity constraints, as well as some upward pressures on prices. Interest rates on long-term government securities declined on balance in most industrial countries, especially toward year-end when evidence of a slowdown in global economic growth started to emerge.

Conditions in foreign financial markets were somewhat more unsettled than in the previous year. Overall stock indexes in the foreign industrial countries generally declined, most notably in Japan. As in the United States, technology-oriented stock indexes were extremely volatile during the year. After reaching peaks in the first quarter, they started down while experiencing great swings toward mid-year, then fell sharply in the final quarter, resulting in net declines for the year of one-third or more. Stock prices in emerging market economies were generally quite weak, especially in developing Asia, where growth in recent years has depended heavily on exports of high-tech goods. Although there was no major default or devaluation among emerging market economies, average risk spreads on developing country debt still moved higher on balance over the course of the year, as the threat of potential crises in several countries, most notably Argentina and Turkey, heightened investor concerns.

The dollar's average foreign exchange value increased over most of the year, supported by continued robust growth of U.S. activity, rising interest rates on dollar assets, and market perceptions that longer-term prospects for U.S. growth and rates of return were more favorable than in other industrial countries. Part of the rise in the dollar's average value was reversed late in the year when evidence emerged that the pace of U.S. activity was slowing much more sharply than had been expected. Despite this decline, the dollar's average foreign exchange value against the currencies of other major foreign industrial countries recorded a net increase of over 7 percent for the year as a whole. The dollar also strengthened nearly as much on balance against the currencies of the most important developing country trading partners of the United States. So far this year, the dollar's average value has remained fairly stable.

Industrial Economies

The dollar showed particular strength last year against the euro, the common currency of much of Europe. During the first three quarters of the year, the euro continued to weaken, and by late October had fallen to a low of just above 82 cents, nearly one-third below its value when it was introduced in January 1999. The euro's decline against the dollar through most of last year appeared to be due mainly to the vigorous growth of real GDP and productivity in the United States contrasted with steady but less impressive improvements in Europe. In addition, investors may have perceived that Europe was slower to adopt "new economy" technologies, making it a relatively less attractive investment climate. In September, a concerted intervention operation by the monetary authorities of the G-7 countries, including the United States, was undertaken at the request of European authorities to provide support for the euro. The European Central Bank also made intervention purchases of euros on several occasions acting on its own. Late in the year, the euro abruptly changed course and started to move up strongly, reversing over half of its decline of earlier in the year. This recovery of the euro against the dollar appeared to reflect mainly a market perception that, while growth was slowing in both Europe and the United States, the slowdown was much sharper for the United States. For the year as a whole, the dollar appreciated, on net, about 7 percent against the euro.

The European Central Bank raised its policy interest rate target six times by a total of 175 basis points over the first ten months of the year. These increases reflected concerns that the euro's depreciation, tightening capacity constraints and higher oil prices would put upward pressure on inflation. While core inflation—inflation excluding food and energy—remained well below the 2 percent inflation target ceiling, higher oil prices pushed the headline rate above the ceiling for most of the year. Real GDP in the euro area is estimated to have increased about 3 percent for 2000 as a whole, only slightly below the rate of the previous year, although activity slowed toward the end of the year. Growth was supported by continued strong increases in investment spending. Net exports made only a modest contribution to growth, as rapid increases in exports were nearly matched by robust imports. Overall activity was sufficiently strong to lead to a further decline in the average euro-area unemployment rate to below 9 percent, a nearly 1 percentage point reduction for the year.

The dollar rose about 12 percent against the Japanese yen over the course of 2000, roughly reversing the decline of the previous year. Early in the year, the yen experienced periods of upward pressure on evidence of a revival of activity in Japan. On several of these occasions, the Bank of Japan made substantial intervention sales of yen. By August, signs of recovery were strong enough to convince the Bank of Japan to end the zero interest rate policy that it had maintained for nearly a year and a half, and its target for the overnight rate was raised to 25 basis points. Later in the year, evidence emerged suggesting that the nascent recovery in economic activity was losing steam, and in response the yen started to depreciate sharply against the dollar.

For the year as a whole, Japanese real GDP is estimated to have increased about 2 percent, a substantial improvement from the very small increase of the previous year and the decline recorded in 1998. Growth, which was concentrated in the first part of the year, was led by private nonresidential investment. In contrast, residential investment slackened as the effect of tax incentives waned. Consumption rebounded early in the year from a sharp decline at the end of 1999 but then stagnated, depressed in part by record-high unemployment and concerns that ongoing corporate restructuring could lead to further job losses. Public investment, which gave a major boost to the economy in 1999, remained strong through the first half of last year but then fell off sharply, and for the year as a whole the fiscal stance is estimated to have been somewhat contractionary. Inflation was negative for the second consecutive year, with the prices of both consumer goods and real estate continuing to move lower.

The dollar appreciated 4 percent relative to the Canadian dollar last year. Among the factors that apparently contributed to the Canadian currency's weakness were declines in the prices of commodities that Canada exports, such as metals and lumber, and a perception by market participants of unfavorable differentials in rates of return and economic growth prospects in Canada relative to the United States. For the year as a whole, real GDP growth in Canada is estimated to have been only slightly below the strong 5 percent rate of 1999, although, as in most industrial countries, there were signs that the pace of growth was tailing off toward the end of the year. Domestic demand continued to be robust, led by surging business investment and solid personal consumption increases. In the first part of the year, the sustained rapid growth of the economy led Canadian monetary authorities to become increasingly concerned with a buildup of inflationary pressures, and the Bank of Canada matched all of the Federal Reserve's interest rate increases in 2000, raising its policy rate by a total of 100 basis points. By the end of the year, the core inflation rate had risen to near the middle of the Bank of Canada's 1 percent to 3 percent target range, while higher oil prices pushed the overall rate above the top of the range. So far this year, the Bank of Canada has only partially followed the Federal Reserve in lowering interest rates, and the Canadian dollar has remained little changed.

Emerging Market Economies

In emerging market economies, the average growth rate of economic activity in 2000 remained near the very strong 6 percent rate of the previous year. However, there was a notable and widespread slowing near the end of the year, and results in a few individual countries were much less favorable. Growth in developing Asian economies slowed on average from the torrid pace of the previous year, while average growth in Latin America picked up somewhat. No major developing country experienced default or devaluation in 2000, but nonetheless, financial markets did undergo several periods of heightened unrest during the year. In the spring, exchange rates and equity prices weakened and risk spreads widened in many emerging market economies at a time of a general heightening of financial market volatility and rising interest rates in industrial countries, as well as increased political uncertainty in several developing countries. After narrowing at mid-year, risk spreads on emerging market economy debt again widened later in the year, reflecting a general movement on financial markets away from riskier assets, as well as concerns that Argentina and Turkey might be facing financial crises that could spread to other emerging market economies. Risk spreads generally narrowed in the early part of 2001.

Among Latin American countries, Mexico's performance was noteworthy. Real GDP rose an estimated 7 percent, an acceleration from the already strong result of the previous year. Growth was boosted by booming exports, especially to the United States, favorable world oil prices, and a rebound in domestic demand. In order to keep inflation on a downward path in the face of surging domestic demand, the Bank of Mexico tightened monetary conditions six times last year, pushing up short-term interest rates, and by the end of the year the rate of consumer price inflation had moved below the 10 percent inflation target. The run-up to the July presidential election generated some sporadic financial market pressures, but these subsided in reaction to the smooth transition to the new administration. Over the course of the year, the risk spread on Mexican debt declined on balance, probably reflecting a favorable assessment by market participants of macroeconomic developments and government policies, reinforced by rating upgrades of Mexican debt. During 2000, the peso depreciated slightly against the dollar, but by less than the excess of Mexican over U.S. inflation.

Argentina encountered considerable financial distress last year. Low tax revenues due to continued weak activity along with elevated political uncertainty greatly heightened market concerns about the ability of the country to fund its debt. Starting in October, domestic interest rates and debt risk spreads soared amid market speculation that the government might lose access to credit markets and be forced to abandon the exchange rate peg to the dollar. Financial markets began to recover after an announcement in mid-November that an IMF-led international financial support package was to be put in place. Further improvement came in the wake of an official announcement in December of a $40 billion support package. The fall in U.S. short-term interest rates in January eased pressure on Argentina's dollar-linked economy as well.

Late in the year, Brazilian financial markets received some negative spillover from the financial unrest in Argentina, but conditions did not approach those prevailing during Brazil's financial crisis of early 1999. For 2000 as a whole, the Brazilian economy showed several favorable economic trends. Real GDP growth increased to an estimated 4 percent after being less than 1 percent the previous two years, inflation continued to move lower, and short-term interest rates declined.

Growth in Asian developing countries in 2000 slowed from the previous year, when they had still been experiencing an exceptionally rapid bounceback from the 1997–1998 financial crises experienced by several countries in the region. In Korea, real GDP growth last year is estimated to have been less than half of the blistering 14 percent rate of 1999. Korean exports, especially of high-tech products, started to fade toward the end of 2000. Rapid export growth had been a prominent feature of the recovery of Korea and other Asian developing economies following their financial crises. In addition, a sharp fall in Korean equity prices over the course of the year, as well as continued difficulties with the process of financial and corporate sector restructuring, tended to depress consumer and business confidence. These developments contributed to the downward pressure on the won seen near the end of the year. Elsewhere in Asia, market concerns over heightened political instability were a major factor behind financial pressures last year in Indonesia, Thailand, and the Philippines. In China, output continued to expand rapidly in 2000, driven by a combination of surging exports early in the year, sustained fiscal stimulus, and some recovery in private consumption. In contrast, growth in both Hong Kong and Taiwan slowed, especially in the latter part of the year. In Taiwan, the exchange rate and stock prices both came under downward pressure as a result of the slowdown in global electronics demand and apparent market concerns over revelations of possible weaknesses in the banking and corporate sectors.

Turkey's financial markets came under severe strain in late November as international investors withdrew capital amid market worries about the health of Turkey's banks, the viability of the government's reform program and its crawling peg exchange rate regime, and the widening current account deficit. The resulting liquidity shortage caused short-term interest rates to spike up and led to a substantial decline in foreign exchange reserves held by the central bank. Markets stabilized somewhat after it was announced in December that Turkey had been able to reach loan agreements with the IMF, major international banks, and the World Bank in an effort to provide liquidity and restore confidence in the banking system.

Report submitted to the Congress on July 18, 2001, pursuant to section 2B of the Federal Reserve Act

Report of July 18, 2001

Monetary Policy and the Economic Outlook

When the Federal Reserve submitted its report on monetary policy in mid-February, the Federal Open Market Committee (FOMC) had already reduced its target for the federal funds rate twice to counter emerging weakness in the economy. As the year has unfolded, the weakness has become more persistent and widespread than had seemed likely last autumn. The shakeout in the high-technology sector has been especially severe, and with overall sales and profits continuing to disappoint, businesses are curtailing purchases of other types of capital equipment as well. The slump in demand for capital goods has also worked against businesses' efforts to correct the inventory imbalances that emerged in the second half of last year and has contributed to sizable declines in manufacturing output this year. At the same time, foreign economies have slowed, limiting the demand for U.S. exports.

To foster financial conditions that will support strengthening economic growth, the FOMC has lowered its target for the federal funds rate four times since February, bringing the cumulative decline this year to 2¾ percentage points. A number of factors spurred this unusually steep reduction in the federal funds rate. In particular, the slowdown in growth was rapid and substantial and carried considerable risks that the sluggish performance of the economy in the first half of this year would persist. Among other things, the abruptness of the slowing, by jarring consumer and business confidence, raised the possibility of becoming increasingly self-reinforcing were households and businesses to postpone spending while reassessing their situations. In addition, other financial developments, including a higher foreign exchange value of the dollar, lower equity prices, and tighter lending terms and standards at banks, were tending to restrain aggregate demand and thus were offsetting some of the influence of the lower federal funds rate. Finally, despite some worrisome readings early in the year, price increases remained fairly well contained, and prospects for inflation have become less of a concern as rates of resource utilization have declined and energy prices have shown signs of turning down.

The information available at midyear for the recent performance of both the U.S. economy and some of our key trading partners remains somewhat downbeat, on balance. Moreover, with inventories still excessive in some sectors, orders for capital goods very soft, and the effects of lower stock prices and the weaker job market weighing on consumers, the economy may expand only slowly, if at all, for a while longer. Nonetheless, a number of factors are in place that should set the stage for stronger growth later this year and in 2002. In particular, interest rates have declined since last fall; the lower rates have helped businesses and households strengthen their financial positions and should show through to aggregate demand in coming quarters. The recently enacted tax cuts and the apparent cresting of energy prices should also bolster aggregate demand fairly soon. In addition, as firms at some point become more satisfied with their inventory holdings, the cessation of liquidation will boost production and, in turn, provide a lift to employment and incomes; a subsequent shift to inventory accumulation in association with the projected strengthening in demand should provide additional impetus to production. Moreover, with no apparent sign of abatement in the rapid pace of technological innovation, the outlook for productivity growth over the longer run remains favorable. The efficiency gains made possible by these innovations should spur demand for the capital equipment that embodies the new technologies once the overall economic situation starts to improve and should support consumption by leading to solid increases in real incomes over time.

Even though an appreciable recovery in the growth of economic activity by early next year seems the most likely outcome, there is as yet no hard evidence that this improvement is in train, and the situation remains very uncertain. In these circumstances, the FOMC continues to believe that the risks are weighted toward conditions that may generate economic weakness in the foreseeable future. At the same time, the FOMC recognizes the importance of sustaining the environment of low inflation and well-anchored inflation expectations that enabled the Federal Reserve to react rapidly and forcefully to the slowing in real GDP growth over the past several quarters. When, as the FOMC expects, activity begins to firm, the Committee will continue to ensure that financial conditions remain consistent with holding inflation in check, a key requirement for maximum sustainable growth.

Monetary Policy, Financial Markets, and the Economy over the First Half of 2001

By the time of the FOMC meeting on December 19, 2000, it had become evident that economic growth had downshifted considerably, but the extent of that slowing was only beginning to come into focus. At that meeting, the FOMC concluded that the risks to the economy in the foreseeable future had shifted to being weighted mainly toward conditions that may generate economic weakness and that economic and financial developments could warrant further close review of the stance of policy well before the next scheduled meeting. Subsequent data indicated that holiday retail sales had come in below expectations and that conditions in the manufacturing sector had deteriorated. Corporate profit forecasts had also been marked down, and it seemed possible that the resulting decline in equity values, along with the expense of higher energy costs, could damp future business investment and household spending. In response, the FOMC held a telephone conference on January 3, 2001, and decided to reduce the target federal funds rate ½ percentage point, to 6 percent, and indicated that the risks to the outlook remained weighted toward economic weakness.

The timing and size of the cut in the target rate seemed to ease somewhat the concerns of financial market participants about the longer-term outlook for the economy. Equity prices generally rose in January, risk spreads on lower-rated corporate bonds narrowed significantly, and the yield curve steepened. However, incoming data over the month revealed that the slowing in consumer and business spending late last year had been sizable. Furthermore, a sharp erosion in survey measures of consumer confidence, a backup of inventories, and a steep decline in capacity utilization posed the risk that spending could remain depressed for some time. In light of these developments, the FOMC at its scheduled meeting on January 30 and 31 cut its target for the federal funds rate another ½ percentage point, to 5½ percent, and stated that it continued to judge the risks to be weighted mainly toward economic weakness.

The information reviewed by the FOMC at its meeting on March 20 suggested that economic activity continued to expand, but slowly. Although consumer spending seemed to be rising moderately and housing had remained relatively firm, stock prices had declined substantially in February and early March, and reduced equity wealth and lower consumer confidence had the potential to damp household spending going forward. Moreover, manufacturing output had contracted further, as businesses continued to work down their excess inventories and cut back on capital equipment expenditures. In addition, economic softness abroad raised the likelihood of a weakening in U.S. exports. Core inflation had picked up a bit in January, but some of the increase reflected the pass-through of a rise in energy prices that was unlikely to continue, and the FOMC judged that the slowdown in the growth of aggregate demand would ease inflationary pressures on labor and other resources. Accordingly, the FOMC on March 20 lowered its target for the federal funds rate another ½ percentage point, to 5 percent. The members also continued to see the risks to the outlook as remaining weighted mainly toward economic weakness. Furthermore, the FOMC recognized that in a rapidly evolving economic situation, it would need to be alert to the possibility that a conference call would be desirable during the relatively long interval before the next scheduled meeting to discuss the possible need for a further policy adjustment.

Capital markets continued to soften in late March and early April, in part because corporate profits and economic activity remained quite weak. Although equity prices and bond yields began to rise in mid-April as financial market investors became more confident that a cumulative downward spiral in activity could be avoided, reports continued to suggest flagging economic performance and risks of extended weakness ahead. In particular, spending by consumers had leveled out and their confidence had fallen further. The FOMC discussed economic developments in conference calls on April 11 and April 18, deciding on the latter occasion to reduce its target for the federal funds rate another ½ percentage point, to 4½ percent. The Committee again indicated that it judged the balance of risks to the outlook as weighted toward economic weakness.

When the FOMC met on May 15, economic conditions remained quite sluggish, especially in manufacturing, where production and employment had declined further. Although members were concerned that some indicators of core inflation had moved up in the early months of the year and that part of the recent backup in longer-term interest rates may have owed to increased inflation expectations, most saw underlying price increases as likely to remain damped as continued subpar growth relieved pressures on resources. In light of the prospect of continued weakness in the economy and the significant risks to the economic expansion, the FOMC reduced its target for the federal funds rate an additional ½ percentage point, to 4 percent. With the softening in aggregate demand still of unknown persistence and dimension, the FOMC continued to view the risks to the outlook as weighted toward economic weakness. Still, the FOMC recognized that it had eased policy substantially this year and that, in the absence of further sizable adverse shocks to the economy, at future meetings it might need to consider adopting a more cautious approach to further policy actions.

Subsequent news on economic activity and corporate profits failed to point to a rebound. In June, interest rates on longer-term Treasuries and on higher-quality private securities declined, some risk spreads widened, and stock prices fell as financial market participants trimmed their expectations for economic activity and profits. When the FOMC met on June 26 and 27, conditions in manufacturing appeared to have worsened still more. It also seemed likely that slower growth abroad would restrain demand for exports and that weakening labor markets would hold down growth in consumer spending. In light of these developments, but also taking into account the cumulative 250 basis points of easing already undertaken and the other forces likely to be stimulating spending in the future, the FOMC lowered its target for the federal funds rate ¼ percentage point, to 3¾ percent, and continued to view the risks to the outlook as weighted toward economic weakness.

The Board of Governors of the Federal Reserve System approved cuts in the discount rate in the first half of the year that matched the FOMC's cuts in the target federal funds rate. As a result, the discount rate declined from 6 percent to 3¼ percent over the period.

Economic Projections for 2001 and 2002

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 growth to remain slow in the near term, though most anticipate that it will pick up later this year at least a little. The central tendency of the forecasts for the increase in real GDP over the four quarters of 2001 spans a range of 1¼ percent to 2 percent, and the central tendency of the forecasts for real GDP growth in 2002 is 3 percent to 3¼ percent. The civilian unemployment rate, which averaged 4½ percent in the second quarter of 2001, is expected to move up to the area of 4¾ percent to 5 percent by the end of this year. In 2002, with the economy projected to expand at closer to its trend rate, the unemployment rate is expected to hold steady or perhaps to edge higher. With pressures in labor and product markets abating and with energy prices no longer soaring, inflation is expected to be well contained over the next year and a half.

Despite the projected increase in real GDP growth, the uncertainty about the near-term outlook remains considerable.

Economic Projections for 2001 and 2002

Percent

Indicator	Board of Governors and Reserve Bank presidents: Range	Central tendency
	2001	
Change, fourth quarter to fourth quarter[1]		
Nominal GDP	3¼–5	3½–4¼
Real GDP[2]	1–2	1¼–2
PCE prices	2–2¾	2–2½
Average level, fourth quarter		
Civilian unemployment rate	4¾–5	4¾–5
	2002	
Change, fourth quarter to fourth quarter[1]		
Nominal GDP	4¾–6	5–5½
Real GDP[2]	3–3½	3–3¼
PCE prices	1½–3	1¾–2½
Average level, fourth quarter		
Civilian unemployment rate	4¾–5½	4¾–5¼

1. Change from average for fourth quarter of previous year to average for fourth quarter of year indicated.
2. Chain-weighted.

This uncertainty arises not only from the difficulty of assessing when businesses will feel that conditions are sufficiently favorable to warrant a pickup in capital spending but also from the difficulty of gauging where businesses stand in the inventory cycle. Nonetheless, all the FOMC participants foresee a return to solid growth by 2002. By then, the inventory correction should have run its course, and the monetary policy actions taken this year, as well as the recently enacted tax reductions, should be providing appreciable support to final demand.

In part because of lower interest rates, many firms have been able to shore up their balance sheets. And although some lower-rated firms, especially in telecommunications and other sectors with gloomy near-term prospects, may continue to find it difficult to obtain financing, businesses generally are fairly well positioned to step up their capital spending once the outlook for sales and profits improves. By all accounts, technological innovation is still proceeding rapidly, and these advances should eventually revive high-tech investment, especially with the price of computing power continuing to drop sharply.

In addition, consumer spending is expected to get a boost from the tax cuts and from falling energy prices, which should help offset the effects of the weaker job market and the decline over the past year in stock market wealth. Housing activity, which has been buoyed in recent quarters by low mortgage interest rates, is likely to remain firm into 2002. Significant concerns remain about the foreign economic outlook and the prospects for U.S. exports. Nevertheless, economic activity abroad is expected to benefit from a strengthening of the U.S. economy, a stabilization of the global high-tech sector, an easing of oil prices, and stimulative macroeconomic policies in some countries.

The chain-type price index for personal consumption expenditures rose 2¼ percent over the four quarters of 2000, and most FOMC participants expect inflation to remain around that rate through next year; indeed, the central tendency of their forecasts for the increase in this price measure is 2 percent to 2½ percent in 2001 and 1¾ percent to 2½ percent in 2002. One favorable factor in the inflation outlook is the behavior of energy prices. Those prices have declined recently after having increased rapidly in the past couple of years, and prospects are good that they could stabilize or even fall further in coming quarters. In addition to their direct effects, lower energy prices should tend to limit increases in other prices by reducing input costs for a wide range of energy-intensive goods and services and by helping damp inflation expectations. More broadly, the competitive conditions that have restricted businesses' ability to raise prices in recent years are likely to persist. And although labor costs could come under upward pressure as wages tend to catch up to previous increases in productivity, the slackening in resource utilization this year is expected to contribute to reduced inflation pressures going forward.

Economic and Financial Developments in 2001

Economic growth remained very slow in the first half of 2001 after having downshifted in the second half of 2000. Real gross domestic product rose at an annual rate of just 1¼ percent in the first quarter, about the same as in the fourth quarter, and appears to have posted at best a meager gain in the second quarter. Businesses have been working to correct the inventory imbalances that emerged in the second half of last year, which has led to sizable declines in manufacturing output, and capital spending has weakened appreciably. In contrast, household spending—especially for motor vehicles and houses—has held up well. Employment increased only modestly over the first three months of the year and turned down in the spring; the unemployment rate in June stood at 4½ percent, ½ percentage point higher than in the fourth quarter of last year.

The inflation news early this year was not very favorable, as energy prices continued to soar and as measures of core inflation—which exclude food and energy—registered some pickup. More recently, however, energy prices have moved lower, and the monthly readings on core inflation have returned to more moderate rates. Moreover, apart from energy, prices at earlier stages of processing have been quiescent this year.

The Household Sector

Growth in household spending has slowed noticeably from the rapid pace of the past few years. Still, it was fairly well maintained in the first half of 2001 despite the weaker tenor of income, wealth, and consumer confidence, and the personal saving rate declined a bit further. A greater number of households encountered problems servicing debt, but widespread difficulties or restrictions on the availability of credit did not emerge.

Consumer Spending

Real consumer spending grew at an annual rate of 3½ percent in the first quarter. Some of the increase reflected a rebound in purchases of light motor vehicles, which were boosted by a substantial expansion of incentives and rose to just a tad below the record pace of 2000 as a whole. In addition, outlays for non-auto goods posted a solid gain, and spending on services rose modestly despite a weather-related drop in outlays for energy services. In the second quarter, however, the rise in consumer spending seems to have lessened as sales of light motor vehicles dropped a bit, on average, and purchases of other goods apparently did not grow as fast in real terms as they had in the first quarter.

The rise in real consumption so far this year has been considerably smaller than the outsized gains in the second half of the 1990s and into 2000. But the increase in spending still outstripped the growth in real disposable personal income (DPI), which has been restrained this year by further big increases in consumer energy prices and by the deterioration in the job market; between the fourth quarter of 2000 and May, real DPI increased just about 2 percent at an annual rate, well below the average pace of the preceding few years. In addition, the net worth of households fell again in the first quarter, to a level 8 percent below the high reached in the first quarter of 2000. On net, the ratio of household net worth to DPI has returned to about the level reached in 1997, significantly below the recent peak but still high by historical standards. In addition, consumer sentiment indexes, which had risen to extraordinary levels in the late 1990s and remained there through last fall, fell sharply around the turn of the year. However, these indexes have not deteriorated further, on net, since the winter and are still at reasonably favorable levels when compared with the readings for the pre-1997 period.

Rising household wealth almost certainly was a key factor behind the surge in consumer spending between the mid-1990s and last year, and thus helps to explain the sharp fall in the personal saving rate over that period. The saving rate has continued to fall this year—from −0.7 percent in the fourth quarter of 2000 to −1.1 percent in May—even though the boost to spending growth from the earlier run-up in stock prices has likely run its course and the effects of lower wealth should be starting to feed through to spending. The apparent decline in the saving rate may simply reflect noisiness in the data or a slower response of spending to wealth than average historical experience might suggest. In addition, consumers probably base their spending decisions on income prospects over a longer time span than just a few quarters. Thus, to the extent that consumers do not expect the current sluggishness in real income growth to persist, the tendency to maintain spending for a time by dipping into savings or by borrowing may have offset the effect of the decline in wealth on the saving rate.

Residential Investment

Housing activity remained buoyant in the first half of this year as lower mortgage interest rates appear to have offset the restraint from smaller gains in employment and income and from lower levels of wealth. In the single-family sector, starts averaged an annual rate of 1.28 million units over the first five months of the year—4 percent greater than the hefty pace for 2000 as a whole. Sales of new and existing homes strengthened noticeably around the turn of the year and were near record levels in March; they fell back in April but reversed some of that drop in May. Inventories of new homes for sale are exceptionally low; builders' backlogs are sizable; and, according to the Michigan survey, consumers' assessments of homebuying conditions remain favorable, mainly because of perceptions that mortgage rates are low.

Likely because of the sustained strength of housing demand, home prices have continued to rise faster than overall inflation, although the various measures that attempt to control for shifts in the regional composition of sales and in the characteristics of houses sold provide differing signals on the magnitude of the price increases. Notably, over the year ending in the first quarter, the constant-quality price index for new homes rose 4 percent, while the repeat-sales price index for existing homes was up nearly 9 percent. Despite the higher prices, the share of income required to finance a home purchase—one measure of affordability—has fallen in recent quarters as mortgage rates have dropped back after last year's bulge, and that share currently is about as low as it has been at any time in the past decade. Rates on thirty-year conventional fixed-rate loans now stand around 7¼ percent, and ARM rates are at their lowest levels in a couple of years.

In the multifamily sector, housing starts averaged 343,000 units at an annual rate over the first five months of the year, matching the robust pace that has been evident since 1997. Moreover, conditions in the market for multifamily housing continue to be conducive to new construction. The vacancy rate for multifamily rental units in the first quarter held near its low year-earlier level, and rents and property values continued to rise rapidly.

Household Finance

The growth of household debt is estimated to have slowed somewhat in the first half of this year to a still fairly hefty 7½ percent annual rate—about a percentage point below its average pace over the previous two years. Households have increased both their home mortgage debt and their consumer credit (debt not secured by real estate) substantially this year, although in both cases the growth has moderated a bit recently. The relatively low mortgage interest rates have boosted mortgage borrowing both by stimulating home purchases and by making it attractive to refinance existing mortgages and extract some of the buildup in home equity. The rapid growth in consumer credit has been concentrated in credit card debt, perhaps reflecting households' efforts to sustain their consumption in the face of weaker income growth.

The household debt service burden—the ratio of minimum scheduled payments on mortgage and consumer debt to disposable personal income—rose to more than 14 percent at the end of the first quarter, a twenty-year high, and available data suggest a similar reading for the second quarter. In part because of the elevated debt burden, some measures of household loan performance have deteriorated a bit in recent quarters. The delinquency rate on home mortgage loans has edged up but remains low, while the delinquency rate on credit card loans has risen noticeably and is in the middle part of its range over the past decade. Personal bankruptcies jumped to record levels in the spring, but some of the spurt was probably the result of a rush to file before Congress passed bankruptcy reform legislation.

Lenders have tightened up somewhat in response to the deterioration of household financial conditions. In the May Senior Loan Officer Opinion Survey on Bank Lending Practices, about a fifth of the banks indicated that they had tightened the standards for approving applications for consumer loans over the preceding three months, and about a fourth said that they had tightened the terms on loans they are willing to make, substantial increases from the November survey. Of those that had tightened, most cited actual or anticipated increases in delinquency rates as a reason.

The Business Sector

The boom in capital spending that has helped fuel the economic expansion came to a halt late last year. After having risen at double-digit rates over the preceding five years, real business fixed investment flattened out in the fourth quarter of 2000 and rose only a little in the first quarter of 2001. Demand for capital equipment has slackened appreciably, reflecting the sluggish economy, sharply lower corporate profits and cash flow, earlier overinvestment in some sectors, and tight financing conditions facing some firms. In addition, inventory investment fell substantially in the first quarter as businesses moved to address the overhangs that began to develop late last year. With investment spending weakening, businesses have cut back on new borrowing. Following the drop in longer-term interest rates in the last few months of 2000, credit demands have been concentrated in longer-term markets, though cautious investors have required high spreads from marginal borrowers.

Fixed Investment

Real spending on equipment and software (E&S) began to soften in the second half of last year, and it posted small declines in both the fourth quarter of 2000 and the first quarter of 2001. Much of the weakness in the first quarter was in spending on high-tech equipment and software; such spending, which now accounts for about half of E&S outlays when measured in nominal terms, declined at an annual rate of about

12 percent in real terms—the first real quarterly drop since the 1990 recession. An especially sharp decrease in outlays for communications equipment reflected the excess capacity that had emerged as a result of the earlier surge in spending, the subsequent re-evaluation of profitability, and the accompanying financing difficulties faced by some firms. In addition, real spending on computers and peripheral equipment, which rose more than 40 percent per year in the second half of the 1990s, showed little growth, on net, between the third quarter of 2000 and the first quarter of 2001. The leveling in real computer spending reportedly reflects some stretching out of businesses' replacement cycles for personal computers as well as a reduced demand for servers. Outside the high-tech area, spending rose in the first quarter as purchases of motor vehicles reversed some of the decline recorded over the second half of 2000 and as outlays for industrial equipment picked up after having been flat in the fourth quarter.

Real E&S spending likely dropped further in the second quarter. In addition to the ongoing contraction in outlays on high-tech equipment, the incoming data for orders and shipments point to a decline in investment in non-high-tech equipment, largely reflecting the weakness in the manufacturing sector this year.

Outlays on nonresidential construction posted another sizable advance in early 2001 after having expanded nearly 13 percent in real terms in 2000, but the incoming monthly construction data imply a sharp retrenchment in the second quarter. The downturn in spending comes on the heels of an increase in vacancy rates for office and industrial space in many cities. Moreover, while financing generally remains available for projects with viable tenants, lenders are now showing greater caution. Not surprisingly, one bright spot is the energy sector, where expenditures for drilling and mining have been on a steep uptrend since early 1999 (mainly because of increased exploration for natural gas) and the construction of facilities for electric power generation remains very strong.

Inventory Investment

A sharp reduction in the pace of inventory investment was a major damping influence on real GDP growth in the first quarter of 2001. The swing in real nonfarm inventory investment from an accumulation of $51 billion at an annual rate in the fourth quarter of 2000 to a liquidation of $25 billion in the first quarter of 2001 subtracted 3 percentage points from the growth in real GDP in the first quarter. Nearly half of the negative contribution to GDP growth came from the motor vehicle sector, where a sizable cut in assemblies (added to the reduction already in place in the fourth quarter) brought the overall days' supply down to comfortable levels by the end of the first quarter. A rise in truck assemblies early in the second quarter led to some backup of inventories in that segment of the market, but truck stocks were back in an acceptable range by June; automobile assemblies were up only a little in the second quarter, and stocks remained lean.

Firms outside the motor vehicles industry also moved aggressively to address inventory imbalances in the first half of the year, and this showed through to manufacturing output, which, excluding motor vehicles, fell at an annual rate of 7½ percent over this period. These production adjustments—along with a sharp reduction in the flow of imports—contributed to a small decline in real non-auto stocks in the first quarter, and book-value data for the manufacturing and trade sector point to a further decrease, on net, in April and May. As of May, stocks generally seemed in line with sales at retail trade establishments, but there were still some notable overhangs in wholesale trade and especially in manufacturing, where inventory–shipments ratios for producers of computers and electronic products, primary and fabricated metals, and chemicals remained very high.

Business Finance

The economic profits of U.S. corporations fell at a 19 percent annual rate in the first quarter after a similar decline in the fourth quarter of 2000. As a result, the ratio of profits to GDP declined 1 percentage point over the two quarters, to 8.5 percent; the ratio of the profits of nonfinancial corporations to sector output fell 2 percentage points over the interval, to 10 percent. Investment spending has declined by more than profits, however, reducing somewhat the still-elevated need of nonfinancial corporations for external funds to finance capital expenditures. Corporations have husbanded their increasingly scarce internal funds by cutting back on cash-financed mergers and equity repurchases. While equity retirements have therefore fallen, so has gross equity issuance, though by less. Inflows of venture equity capital, in particular, have been reduced substantially. Businesses have met their financing needs by borrowing heavily in the bond market while paying down both commercial and industrial (C&I) loans at banks and commercial paper. In total, after having increased 9½ percent last year, the debt of nonfinancial businesses rose at a 5 percent annual rate in the first quarter of this year and is estimated to have risen at about the same pace in the second quarter.

The decline in C&I loans and commercial paper owes, in part, to less hospitable conditions in shorter-term funding markets. The commercial paper market was rattled in mid-January by the defaults of two large California utilities. Commercial paper is issued only by highly rated corporations, and default is extremely rare. The defaults, along with some downgrades, led investors in commercial paper to pull back and reevaluate the riskiness of issuers. For a while, issuance by all but top-rated names became very difficult and quality spreads widened significantly, pushing some issuers into the shortest maturities and inducing others to exit the market entirely. As a consequence, the amount of commercial paper outstanding plummeted. In the second quarter, risk spreads returned to more typical levels and the runoff moderated. By the end of June, the amount of nonfinancial commercial paper outstanding was nearly 30 percent below its level at the end of 2000, with many firms still not having returned to the market.

Even though banks' C&I loans were boosted in January and February by borrowers substituting away from the commercial paper market, loans declined, on net, over the first half of the year, in part because borrowers paid down their bank loans with proceeds from bond issues. Many banks reported on the Federal Reserve's Bank Lending Practices surveys this year that they had tightened standards and terms—including the premiums charged on riskier loans, the cost of credit lines, and loan covenants—on C&I loans. Loan officers cited a worsened economic outlook, industry-specific problems, and a reduced tolerance for risk as the reasons for having tightened. Despite these adjustments to banks' lending stance, credit appears to remain amply available for sound borrowers, and recent surveys of small businesses indicate that they have not found credit significantly more difficult to obtain.

Meanwhile, the issuance of corporate bonds this year has proceeded at about double the pace of the preceding two years. With the yields on high-grade bonds back down to their levels in the first half of 1999 and with futures quotes suggesting interest rates will be rising next year, corporations apparently judged it to be a relatively opportune time to issue. Although investors remain somewhat selective, they have been willing to absorb the large volume of issuance as they have become more confident that the economy would recover and a prolonged disruption to earnings would be avoided. The heavy pace of issuance has been supported, in part, by inflows into bond mutual funds, which may have come at the expense of equity funds.

The flows are forthcoming at relatively high risk spreads, however. Spreads of most grades of corporate debt relative to rates on swaps have fallen a little this year, but spreads remain unusually high for lower investment-grade and speculative-grade credits. The elevated spreads reflect the deterioration in business credit quality that has occurred as the economy has slowed. While declines in interest rates have held aggregate interest expense at a relatively low percentage of cash flow, many individual firms are feeling the pinch of decreases in earnings. Over the twelve months ending in May, 11 percent of speculative-grade bonds, by dollar volume, have defaulted—the highest percentage since 1991 and a substantial jump from 1998, when less than 2 percent defaulted. This deterioration reflects not only the unusually large defaults by the California utilities, but also stress in the telecommunications sector and elsewhere. However, some other measures of credit performance have shown a more moderate worsening. The ratio of the liabilities of failed businesses to those of all nonfinancial businesses and the delinquency rate on C&I loans at banks have risen noticeably from their lows in 1998, but both remain well below levels posted in the early 1990s.

Commercial mortgage debt increased at about an 8¾ percent annual rate in the first half of this year, and the issuance of commercial-mortgage-backed securities (CMBS) maintained its robust pace of the past several years. While spreads of the yields on investment- and speculative-grade CMBS over swap rates have changed little this year, significant fractions of banks reported on the Bank Lending Practices survey that they have tightened terms and standards on commercial real estate loans. Although the delinquency rates on CMBS and commercial real estate loans at banks edged up in the first quarter, they remained near record lows. Nevertheless, those commercial banks that reported taking a more cautious approach toward commercial real estate lending stated that they are doing so, in part, because of a less favorable economic outlook in general and a worsening of the outlook for commercial real estate.

The Government Sector

The fiscal 2001 surplus in the federal unified budget is likely to be smaller than the surplus in fiscal 2000 because of the slower growth in the economy and the recently enacted tax legislation. Nonetheless, the unified surplus will remain large, and the paydown of the federal debt is continuing at a rapid clip. As a consequence, the Treasury has taken a number of steps to preserve liquidity in a shrinking market. The weaker economy is also reducing revenues at the state and local level, but these governments remain in reasonably good fiscal shape overall and are taking advantage of historically low interest rates to refund existing debt and to issue new debt.

Federal Government

The fiscal 2001 surplus in the federal government's unified budget is likely to come in below the fiscal 2000 surplus of $236 billion. Over the first eight months of the fiscal year—October to May—the unified budget recorded a surplus of $137 billion, $16 billion higher than during the comparable period last year. But over the balance of the fiscal year, receipts will continue to be restrained by this year's slow pace of economic growth and the associated decline in corporate profits. Receipts will also be reduced significantly over the next few months by the payout of tax rebates and the shift of some corporate payments into fiscal 2002, provisions included in the Economic Growth and Tax Relief Reconciliation Act of 2001.

Federal saving, which is basically the unified budget surplus adjusted to conform to the accounting practices followed in the national income and product accounts (NIPA), has risen dramatically since hitting a low of −3½ percent of GDP in 1992 and stood at 3¾ percent of GDP in the first quarter—a swing of more than 7 percentage points. Reflecting the high level of federal saving, national saving, which comprises saving by households, businesses, and governments, has been running at a higher rate since the late 1990s than it did over most of the preceding decade, even as the personal saving rate has plummeted. The deeper pool of national saving, along with large inflows of foreign capital, has provided resources for the technology-driven boom in domestic investment in recent years.

Federal receipts in the first eight months of the current fiscal year were just 4½ percent higher than during the first eight months of fiscal 2000—a much smaller gain than those posted, on average, over the preceding several years. Much of the slowing was in corporate receipts, which dropped below year-earlier levels, reflecting the recent deterioration in profits. In addition, individual income tax payments rose less rapidly than over the preceding few years, mainly because of slower growth in withheld tax payments. This spring's nonwithheld payments of individual taxes, which are largely payments on the previous year's liability, were relatively strong. Indeed, although there was no appreciable "April surprise" this year—that is, these payments were about in line with expectations—liabilities again appear to have risen faster than the NIPA tax base in 2000. One factor that has lifted liabilities relative to income in recent years is that rising levels of income and a changing distribution have shifted more taxpayers into higher tax brackets. Higher capital gains realizations also have helped raise liabilities relative to the NIPA tax base over this period. (Capital gains are not included in the NIPA income measure, which, by design, includes only income from current production.)

The faster growth in outlays that emerged in fiscal 2000 has extended into fiscal 2001. Smoothing through some timing anomalies at the start of the fiscal year, nominal spending during the first eight months of fiscal 2001 was more than 4 percent higher than during the same period last year; excluding the sizable drop in net interest outlays that has accompanied the paydown of the federal debt, the increase in spending so far this year was nearly 6 percent.

Spending in the past couple of years has been boosted by sizable increases in discretionary appropriations as well as by faster growth in outlays for the major health programs. The especially rapid increase in Medicaid outlays reflects the higher cost and utilization of medical care (including prescription drugs), growing enrollments, and a rise in the share of expenses picked up by the federal government. Outlays for Medicare have been lifted, in part, by the higher reimbursements to providers that were enacted last year.

Real federal expenditures for consumption and gross investment, the part of government spending that is included in GDP, rose at a 5 percent annual rate in the first quarter. Over the past couple of years, real nondefense purchases have remained on the moderate uptrend that has been evident since the mid-1990s, while real defense purchases have started to rise slowly after having bottomed out in the late 1990s.

The Treasury has used the substantial federal budget surpluses to pay down its debt further. At the end of June, the outstanding Treasury debt held by the public had fallen nearly $600 billion, or 15 percent, from its peak in 1997. Relative to nominal GDP, publicly held debt has dropped from nearly 50 percent in the mid-1990s to below 33 percent in the first quarter, the lowest it has been since 1984.

Declines in outstanding federal debt and the associated reductions in the sizes and frequency of auctions of new issues have diminished the liquidity of the Treasury market over the past few years. Bid–asked spreads are somewhat wider, quote sizes are smaller, and the difference between yields on seasoned versus most-recently issued securities has increased. In part, however, these developments may also reflect a more cautious attitude among securities dealers following the market turmoil in the fall of 1998.

The Treasury has taken a number of steps to limit the deterioration in the liquidity of its securities. In recent years, it has concentrated its issuance into fewer securities, so that the auction sizes of the remaining securities are larger. Last year, in order to enable issuance of a larger volume of new securities, the Treasury began buying back less-liquid older securities, and it also made every second auction of its 5- and 10-year notes and 30-year bond a reopening of the previously issued security. In February, the Treasury put limits on the noncompetitive bids that foreign central banks and governmental monetary entities may make, so as to leave a larger and more predictable pool of securities available for competitive bidding, helping to maintain the liquidity and efficiency of the market. In May, the Treasury announced that it would begin issuing Treasury bills with a four-week maturity to provide it with greater flexibility and cost efficiency in managing its cash balances, which, in part because new securities are now issued less frequently, have become more volatile. Finally, also in May, the Treasury announced it would in the next few months seek public comment on a plan to ease the "35 percent rule," which limits the bidding at auctions by those holding claims on large amounts of an issue. With reopenings increasingly being used to maintain liquidity in individual issues, this rule was constraining many potential bidders. As discussed below, the reduced issuance of Treasury securities has also led the Federal Reserve to modify its procedures for acquiring such securities and to study possible future steps for its portfolio.

In early 2000, as investors focused on the possibility that Treasury securities were going to become increasingly scarce, they became willing to pay a premium for longer-dated securities, pushing down their yields. However, these premiums appear to have largely unwound later in the year as market participants made adjustments to the new environment. These adjustments include the substitution of alternative instruments for hedging and pricing, such as interest rate swaps, prominent high-grade corporate bonds, and securities issued by government-sponsored enterprises (GSEs). To benefit from adjustments by market participants, in 1998, Fannie Mae and Freddie Mac initiated programs to issue securities that share some characteristics with Treasury securities, such as regular issuance calendars and large issue sizes; in the first half of this year they issued $88 billion of coupon securities and $502 billion of bills under these programs. The GSEs have also this year begun buying back older securities to boost the size of their new issues. Nevertheless, the market for Treasury securities remains considerably more liquid than markets for GSE and other fixed-income securities.

State and Local Governments

State and local governments saw an enormous improvement in their budget positions between the mid-1990s and last year as revenues soared and spending generally was held in check; accordingly, these governments were able both to lower taxes and to make substantial allocations to reserve funds. More recently, however, revenue growth has slowed in many states, and reports of fiscal strains have increased. Nonetheless, the sector remains in relatively good fiscal shape overall, and most governments facing revenue shortfalls have managed to adopt balanced budgets for fiscal 2002 with only minor adjustments to taxes and spending.

Real consumption and investment spending by state and local governments rose at nearly a 5 percent annual rate in the first quarter and apparently posted a sizable increase in the second quarter as well. Much of the strength this year has been in construction spending, which has rebounded sharply after a reported decline in 2000 that was hard to reconcile with the sector's ongoing infrastructure needs and the good financial condition of most governments. Hiring also remained fairly brisk during the first half of the year; on average, employment rose 30,000 per month, about the same as the average monthly increase over the preceding three years.

Although interest rates on municipal debt have edged up this year, they remain low by historical standards. State and local governments have taken advantage of the low interest rates to refund existing debt and to raise new capital. Credit quality has remained quite high in the municipal sector even as tax receipts have softened, with credit upgrades outpacing downgrades in the first half of this year. Most notable among the downgrades was that of California's general obligation bonds. Standard and Poor's lowered California's debt two notches from AA to A+, citing the financial pressures from the electricity crisis and the likely adverse effects of the crisis on the state's economy.

The External Sector

The deficits in U.S. external balances narrowed sharply in the first quarter of this year, largely because of a smaller deficit in trade in goods and services. Most of the financial flows into the United States continued to come from private foreign sources.

Trade and Current Account

After widening continuously during the past four years, the deficits in U.S. external balances narrowed in the first quarter of 2001. The current account deficit in the first quarter was $438 billion at an annual rate, or 4.3 percent of GDP, compared with $465 billion in the fourth quarter of 2000. Most of the reduction of the current account deficit can be traced to changes in U.S. trade in goods and services; the trade deficit narrowed from an annual rate of $401 billion in the fourth quarter of 2000 to $380 billion in the first quarter of this year. The trade deficit in April continued at about the same pace. Net investment income payments were a bit less in the first quarter than the average for last year primarily because of a sizable decrease in earnings by U.S. affiliates of foreign firms.

As U.S. economic growth slowed in the second half of last year and early this year, real imports of goods and services, which had grown very rapidly in the first three quarters of 2000, expanded more slowly in the fourth quarter and then contracted 5 percent at an annual rate in the first quarter. The largest declines were in high-tech products (computers, semiconductors, and telecommunications equipment) and automotive products. In contrast, imports of petroleum and petroleum products increased moderately. A temporary surge in the price of imported natural gas pushed the increase of the average price of non-oil imports above an annual rate of 1 percent in the first quarter, slightly higher than the rate of increase recorded in 2000.

U.S. real exports were hit by slower growth abroad, the strength of the dollar, and plunging global demand for high-tech products. Real exports of goods and services, which had grown strongly in the first three quarters of 2000, fell 6½ percent at an annual rate in the fourth quarter of last year and declined another 1 percent in the first quarter of this year. The largest declines in both quarters were in high-tech capital goods and automotive products (primarily in intrafirm trade with Canada). By market destination, the largest increases in U.S. goods exports during the first three quarters of 2000 had been to Mexico and countries in Asia; the recent declines were mainly in exports to Asia and Latin America. In contrast, goods exports to Western Europe increased steadily throughout the entire period. About 45 percent of U.S. goods exports in the first quarter of 2001 were capital equipment; 20 percent were industrial supplies; and 5 to 10 percent each were agricultural, automotive, consumer, and other goods.

After increasing through much of 2000, the spot price of West Texas intermediate (WTI) crude oil reached a peak above $37 per barrel in September, the highest level since the Gulf War. As world economic growth slowed in the latter part of 2000, oil price declines reversed much of the year's price gain. In response, OPEC reduced its official production targets in January of this year and again in March. As a result, oil prices have remained relatively high in 2001 despite weaker global economic growth and a substantial increase in U.S. oil inventories. Oil prices have also been elevated by the volatility of Iraqi oil exports arising from tense relations between Iraq and the United Nations. During the first six months of this year, the spot price of WTI has fluctuated, with only brief exceptions, between $27 and $30 per barrel.

Financial Account

In the first quarter of 2001, as was the case in 2000 as a whole, nearly all of the net financial flows into the United States came from private foreign sources. Foreign official inflows were less than $5 billion and were composed primarily of the reinvestment of accumulated interest earnings. Reported foreign exchange intervention purchases of dollars were modest.

Inflows arising from private foreign purchases of U.S. securities accelerated further in the first quarter and are on a pace to exceed last year's record. All of the pickup is attributable to larger net foreign purchases of U.S. bonds, as foreign purchases of both corporate and agency bonds accelerated and private foreign sales of Treasuries paused. Foreign purchases of U.S. equities are only slightly below their 2000 pace despite the apparent decline in expected returns to holding U.S. equities.

The pace at which U.S. residents acquired foreign securities changed little between the second half of last year and the first quarter of this year. As in previous years, most of the foreign securities acquired were equities.

Net financial inflows associated with direct investment slowed a good bit in the first quarter, as there were significantly fewer large foreign takeovers of U.S. firms and U.S. direct investment abroad remained robust.

The Labor Market

Labor demand weakened in the first half of 2001, especially in manufacturing, and the unemployment rate rose. Increases in hourly compensation have continued to trend up in recent quarters, while measured labor productivity has been depressed by the slower growth of output.

Employment and Unemployment

After having risen an average of 149,000 per month in 2000, private payroll employment increased an average of only 63,000 per month in the first quarter of 2001, and it declined an average of 117,000 per month in the second quarter. The unemployment rate moved up over the first half of the year and in June stood at 4½ percent, ½ percentage point higher than in the fourth quarter of last year.

Much of the weakness in employment in the first half of the year was in the manufacturing sector, where job losses averaged 78,000 per month in the first quarter and 116,000 per month in the second quarter. Since last July, manufacturing employment has fallen nearly 800,000. Factory job losses were widespread in the first half of the year, with some of the biggest cutbacks at industries struggling with sizable inventory overhangs, including metals and industrial and electronic equipment. The weakness in manufacturing also cut into employment at help-supply firms and at wholesale trade establishments.

Apart from manufacturing and the closely related help-supply and wholesale trade industries, employment growth held up fairly well in the first quarter but began to slip noticeably in the second quarter. Some of the slowing in the second quarter reflected a drop in construction employment after a strong first quarter that likely absorbed a portion of the hiring that normally takes place in the spring; on average, construction employment rose a fairly brisk

15,000 per month over the first half, about the same as in 2000. Hiring in the services industry (other than help-supply firms) also slowed markedly in the second quarter. Employment in retail trade remained on a moderate uptrend over the first half of the year, and employment in finance, insurance, and real estate increased modestly after having been unchanged, on net, last year.

Labor Costs and Productivity

Through the first quarter, compensation growth remained quite strong—indeed, trending higher by some measures. These gains likely reflected the influence of earlier tight labor markets, higher consumer price inflation—largely due to soaring energy prices—and the greater real wage gains made possible by faster structural productivity growth. The upward pressures on labor costs could abate in coming quarters if pressures in labor markets ease and energy prices fall back.

Hourly compensation, as measured by the employment cost index (ECI) for private nonfarm businesses, moved up in the first quarter to a level about 4¼ percent above its level of a year earlier; this compares with increases of about 4½ percent over the preceding year and 3 percent over the year before that. The slight deceleration in the most recent twelve-month change in the ECI is accounted for by a slowdown in the growth of compensation for sales workers relative to the elevated rates that had prevailed in early 2000; these workers' pay includes a substantial commission component and thus is especially sensitive to cyclical developments. Compensation per hour in the nonfarm business sector—a measure that picks up some forms of compensation that the ECI omits but that sometimes has been revised substantially once the data go through the annual revision process—shows a steady uptrend over the past couple of years; it rose 6 percent over the year ending in the first quarter after having risen 4½ percent over the preceding year.

According to the ECI, wages and salaries rose at an annual rate of about 4½ percent in the first quarter. Excluding sales workers, wages rose 5 percent (annual rate) in the first quarter and 4¼ percent over the year ending in March; this compares with an increase of 3¾ percent over the year ending in March 2000. Separate data on average hourly earnings of production or nonsupervisory workers also show a discernible acceleration of wages: The twelve-month change in this series was 4¼ percent in June, ½ percentage point above the reading for the preceding twelve months.

Benefit costs as measured in the ECI have risen faster than wages over the past year, with the increase over the twelve months ending in March totaling 5 percent. Much of the pressure on benefits is coming from health insurance, where employer payments have accelerated steadily since bottoming out in the mid-1990s and are now going up about 8 percent per year. The surge in spending on prescription drugs accounts for some of the rise in health insurance costs, but demand for other types of medical care is increasing rapidly as well. Moreover, although there has been some revamping of drug coverage to counter the pressures of soaring demand, many employers have been reluctant to adjust other features of the health benefits package in view of the need to retain workers in a labor market that has been very tight in recent years.

Measured labor productivity in the nonfarm business sector has been bounced around in recent quarters by erratic swings in hours worked by selfemployed individuals, but on balance, it has barely risen since the third quarter of last year after having increased about 3 percent per year, on average, over the preceding three years. This deceleration coincides with a marked slowing in output growth and seems broadly in line with the experience of past business cycles; these readings remain consistent with a noticeable acceleration in structural productivity having occurred in the second half of the 1990s. Reflecting the movements in hourly compensation and in actual productivity, unit labor costs in the nonfarm business sector jumped in the first quarter and have risen 3½ percent over the past year.

Looking ahead, prospects for favorable productivity performance will hinge on a continuation of the rapid technological advances of recent years and on the willingness of businesses to expand and update their capital stocks to take advantage of the new efficiency-enhancing capital that is becoming available at declining cost in many cases. To be sure, the current weakness in business investment will likely damp the growth of the capital stock relative to the pace of the past couple of years. But once the cyclical weakness in the economy dissipates, continued advances in technology should provide impetus to renewed capital spending and a return to solid increases in productivity.

Prices

Inflation moved higher in early 2001 but has moderated some in recent months. After having risen 2¼ percent in 2000, the chain price index for personal consumption expenditures (PCE) increased about 3¼ percent in the first quarter of 2001 as energy prices soared and as core consumer prices—which exclude food and energy—picked up. Energy prices continued to rise rapidly in April and May but eased in June and early July. In addition, core PCE price inflation has dropped back after the first-quarter spurt, and the twelve-month change in this series, which is a useful indicator of the underlying inflation trend, stood at 1½ percent in May, about the same as the change over the preceding twelve months. The core consumer price index (CPI) continued to move up at a faster pace than the core PCE measure over the past year, rising 2½ percent over the twelve months ending in May, also the same rate as over the preceding year.

PCE energy prices rose at an annual rate of about 11 percent in the first quarter and, given the big increases in April and May, apparently posted another sizable advance in the second quarter. Unlike the surges in energy prices in 1999 and 2000, the increases in the first half of 2001 were not driven by developments in crude oil markets. Indeed, natural gas prices were the major factor boosting overall energy prices early this year as tight inventories and concerns about potential stock-outs pushed spot prices to extremely high levels; natural gas prices have since receded as additional supplies have come on line and inventories have been rebuilt. In the spring, gasoline prices soared in response to strong demand, refinery disruptions, and concerns about lean inventories; with refineries back on line, imports up, and inventories restored, gasoline prices have since fallen noticeably below their mid-May peaks. Electricity prices also rose substantially in the first half of the year, reflecting higher natural gas prices as well as the problems in California. Capacity problems in California and the hydropower shortages in the Northwest persist, though California's electricity consumption has declined recently and wholesale prices have dropped. In contrast, capacity in the rest of the country has expanded appreciably over the past year and, on the whole, appears adequate to meet the normal seasonal rise in demand.

Core PCE prices rose at a 2½ percent annual rate in the first quarter—a hefty increase by the standards of recent years. But the data are volatile, and the first-quarter increase, no doubt, exaggerates any pickup. Based on monthly data for April and May, core PCE inflation appears to have slowed considerably in the second quarter; the slowing was concentrated in the goods categories and seems consistent with reports that retailers have been cutting prices to spur sales in an environment of soft demand.

Core consumer price inflation—whether measured by the PCE index or by the CPI—in recent quarters almost certainly has been boosted by the effects of higher energy prices on the costs of producing other goods and services. Additional pressure has come from the step-up in labor costs. That said, firms appear to have absorbed much of these cost increases in lower profit margins. Meanwhile, non-oil import prices have remained subdued, thus continuing to restrain input costs for many domestic industries and to limit the ability of firms facing foreign competition to raise prices for fear of losing market share. In addition, apart from energy, price pressures at earlier stages of processing have been minimal. Indeed, excluding food and energy, the producer price index (PPI) for intermediate materials has been flat over the past year, and the PPI for crude materials has fallen 11 percent. Moreover, inflation expectations, on balance, seem to have remained quiescent: According to the Michigan survey, the median expectation for inflation over the upcoming year generally has been running about 3 percent this year, similar to the readings in 2000.

In contrast to the step-up in consumer prices, prices for private investment goods in the NIPA were up only a little in the first quarter after having risen about 2 percent last year. In large part, this pattern was driven by movements in the price index for computers, which fell at an annual rate of nearly 30 percent in the first quarter as demand for high-tech equipment plunged. This drop in computer prices was considerably greater than the average decrease of roughly 20 percent per year in the second half of the 1990s and the unusually small

Alternative Measures of Price Change

Percent, Q1 to Q1

Price measure	1998 to 1999	1999 to 2000	2000 to 2001
Chain-type			
Gross domestic product	1.5	1.8	2.3
Gross domestic purchases	1.2	2.3	2.2
Personal consumption expenditures	1.5	2.5	2.2
Excluding food and energy	1.8	1.6	1.7
Fixed-weight			
Consumer price index	1.7	3.3	3.4
Excluding food and energy	2.2	2.2	2.7

NOTE. A fixed-weight index uses quantity weights from a base year to aggregate prices from each distinct item category. A chain-type index is the geometric average of two fixed-weight indexes and allows the weights to change each year. The consumer price indexes are for all urban consumers. Changes are based on quarterly averages.

11 percent decrease in 2000. Monthly PPI data suggest that computer prices were down again in the second quarter, though much less than in the first quarter.

All told, the GDP chain-type price index rose at an annual rate of 3¼ percent in the first quarter and has risen 2¼ percent over the past four quarters, an acceleration of ½ percentage point from the comparable year-earlier period. The price index for gross domestic purchases—which is defined as the prices paid for consumption, investment, and government purchases—also accelerated in the first quarter—to an increase of about 2¾ percent; the increase in this measure over the past year was 2¼ percent, about the same as over the preceding year. Excluding food and energy, the latest four-quarter changes in both GDP and gross domestic purchases prices were roughly the same as over the preceding year.

U.S. Financial Markets

Longer-term interest rates and equity prices have shown remarkably small net changes this year, given the considerable shifts in economic prospects and major changes in monetary policy. To some extent, the expectations of the economic and policy developments in 2001 had already become embedded in financial asset prices as last year came to a close; from the end of August through year-end, the broadest equity price indexes fell 15 percent and investment-grade bond yields declined 40 to 70 basis points. In addition, however, equity prices and long-term interest rates were influenced importantly by growing optimism in financial markets over the second quarter of 2001 that the economy and profits would rebound strongly toward the end of 2001 and in 2002. On net, equity prices fell 6 percent in the first half of this year as near-term corporate earnings were revised down substantially. Rates on longer-term Treasury issues rose a little, but those on corporate bonds were about unchanged, with the narrowing spread reflecting greater investor confidence in the outlook. But risk spreads remained wide by historical standards for businesses whose debt was rated as marginally investment grade or below; many of these firms had been especially hard hit by the slowdown and the near-term oversupply of high-tech equipment and services, and defaults by these firms became more frequent. Nevertheless, for most borrowers the environment for long-term financing was seen to be quite favorable, and firms and households tended to tap long-term sources of credit in size to bolster their financial conditions and lock in more favorable costs.

Interest Rates

In response to the abrupt deceleration in economic growth and prospects for continued weakness in the economy, the FOMC lowered the target federal funds rate 2¾ percentage points in six steps in the first half of this year, an unusually steep decline relative to many past easing cycles. Through March, the policy easings combined with declining equity prices and accumulating evidence that the slowdown in economic growth was more pronounced than had been initially thought led to declines in yields on intermediate- and longer-term Treasury securities. Over the second quarter, despite the continued decrease in short-term rates and further indications of a weakening economy, yields on intermediate-term Treasury securities were about unchanged, while those on longer-term securities rose appreciably. On net, yields on intermediate-term Treasury securities fell about ¾ percentage point in the first half of this year, while those on longer-term Treasury securities rose about ¼ percentage point.

The increase in longer-term Treasury yields in the second quarter appears to have been the result of a number of factors. The main influence seems to have been increased investor confidence that the economy would soon pick up. That confidence likely arose in part from the aggressive easing of monetary policy and also in part from the improving prospects for, and passage of, a sizable tax cut. The tax cut and the growing support for certain spending initiatives implied stronger aggregate demand and less federal saving than previously anticipated. The prospect that the federal debt might be paid down less rapidly may also have reduced slightly the scarcity premiums investors were willing to pay for Treasury securities. Finally, a portion of the rise may have been the result of increased inflation expectations. Inflation compensation as measured by the difference between nominal Treasury rates and the rates on inflation-indexed Treasury securities rose about ¼ percentage point in the second quarter. Despite this increase, there is little evidence that inflation is expected to go up from its current level. At the end of last year, inflation compensation had declined to levels suggesting investors expected inflation to fall, and the rise in inflation compensation in the second quarter largely reversed those declines. Moreover, survey measures of longer-term inflation expectations have changed little since the middle of last year.

Yields on longer-maturity corporate bonds were about unchanged, on net, over the first half of this year. Yields on investment-grade bonds are near their lows for the past ten years, but those on speculative-grade bonds are elevated. Spreads of corporate bond yields relative to swap rates narrowed a bit, although they still remain high. Amidst signs of deteriorating credit quality and a worsening outlook for corporate earnings, risk spreads on speculative-grade bonds had risen by about 2 percentage points late last year, reaching levels not seen since 1991. Much of this widening was reversed early in the year, as investors became more confident that corporate balance sheets would not deteriorate substantially, but speculative-grade bond spreads widened again recently in response to negative news about second-quarter earnings and declines in share prices, leaving these spreads at the end of the second quarter only slightly below where they began the year. Nonetheless, investors, while somewhat selective, appear to remain receptive to new issues with speculative-grade ratings.

Interest rates on commercial paper and C&I loans have fallen this year by about as much as the federal funds rate, although some risk spreads widened. The average yield spread on second-tier commercial paper over top-tier paper widened to about 100 basis points in late January, about four times its typical level, following defaults by a few prominent issuers. As the year progressed, investors became less concerned about the remaining commercial paper borrowers, and this spread has returned to a more normal level. According to preliminary data from the Federal Reserve's quarterly Survey of Terms of Business Lending, the spread over the target federal funds rate of the average interest rate on commercial bank C&I loans edged up between November and May and remains in the elevated range it shifted to in late 1998. Judging from the widening since 1998 of the average spread between rates on riskier and less-risky loans, banks have become especially cautious about lending to marginal credits.

Equity Markets

After rising in January in response to the initial easing of monetary policy, stock prices declined in February and March in reaction to profit warnings and weak economic data, with the Wilshire 5000, the broadest major stock price index, ending the first quarter down 13 percent. Stock prices retraced some of those losses in the second quarter, rising 7 percent, as first-quarter earnings releases came in a little above sharply reduced expectations and as investors became more confident that economic growth and corporate profits would soon pick up. On net, the Wilshire 5000 ended the half down 6 percent, the DJIA declined 3 percent, and the tech-heavy Nasdaq fell 13 percent. Earnings per share of the S&P 500 in the first quarter decreased 10 percent from a year earlier. A disproportionate share of the decline in S&P earnings—more than half—was attributable to a plunge in the technology sector, where first-quarter earnings were down nearly 50 percent from their peak in the third quarter of last year.

The decline in stock prices has left the Wilshire 5000 down by about 20 percent, and the Nasdaq down by about 60 percent, from their peaks in March 2000. Both of these indexes are near their levels at the end of 1998, having erased the sharp run-up in prices in 1999 and early 2000. But both indexes remain more than two and one-half times their levels at the end of 1994, when the bull market shifted into a higher gear. The ratio of expected one-year-ahead earnings to equity prices began to fall in 1995 when, as productivity growth picked up, investors began to build in expectations that increases in earnings would remain rapid for some time. This measure of the earnings–price ratio remains near the levels reached in 1999, suggesting that investors still anticipate robust long-term earnings growth, likely reflecting expectations for continued strong gains in productivity.

Despite the substantial variation in share prices over the first half of this year, trading has been orderly, and financial institutions appear to have encountered no difficulties that could pose broader systemic concerns. Market volatility and a less ebullient outlook have led investors to buy a much smaller share of stock on margin. At the end of May, margin debt was 1.15 percent of total market capitalization, equal to its level at the beginning of 1999 and well below its high of 1.63 percent in March of last year.

Federal Reserve Open Market Operations

As noted earlier, the Federal Reserve has responded to the diminished size of the auctions of Treasury securities by modifying its procedures for acquiring such securities. To help maintain supply in private hands adequate for liquid markets, since July of last year the System has limited its holdings of individual securities to specified percentages, ranging from 15 percent to 35 percent, of outstanding amounts. To stay within these limits, the System has at times not rolled over all of its holdings of maturing securities, generally investing the difference by purchasing other Treasury securities on the open market. The Federal Reserve also has increased its holdings of longer-term repurchase agreements (RPs), including RPs backed by agency securities and mortgage-backed securities, as a substitute for outright purchases of Treasury securities. In the first half of the year, longer-term RPs, typically with maturities of twenty-eight days, averaged $13 billion.

As reported in the previous *Monetary Policy Report*, the FOMC also initiated a study to evaluate assets to hold on its balance sheet as alternatives to Treasury securities. That study identified several options for further consideration. In the near term, the Federal Reserve is considering purchasing and holding Ginnie Mae mortgage-backed securities, which are explicitly backed by the full faith and credit of the U.S. government, and engaging in repurchase operations against foreign sovereign debt. For possible implementation later, the Federal Reserve is studying whether to auction longer-term discount window credit, and it will over time take a closer look at a broader array of assets for repurchase and for holding outright, transactions that would require additional legal authority.

Debt and the Monetary Aggregates

The growth of domestic nonfinancial debt in the first half of 2001 is estimated to have remained moderate, slowing slightly from the pace in 2000 as a reduction in the rate of increase in nonfederal debt more than offset the effects of smaller net repayments of federal debt. In contrast, the monetary aggregates have grown rapidly so far this year, in large part because the sharp decline in short-term market interest rates has reduced the opportunity cost of holding the deposits and other assets included in the aggregates.

Debt and Depository Intermediation

The debt of the domestic nonfinancial sectors is estimated to have expanded at a 4¾ percent annual rate over the first half of 2001, a touch below the 5¼ percent growth recorded in 2000. Changes in the growth of nonfederal and federal debt this year have mostly offset each other. The growth of nonfederal debt moderated from 8½ percent in 2000 to a still-robust 7¼ percent pace in the first half of this year. Households' borrowing slowed some but was still substantial, buoyed by continued sizable home and durable goods purchases. Similarly, business borrowing moderated even as bond issuance surged, as a good portion of the funds raised was used to pay down commercial paper and bank loans. Tending to boost debt growth was a slowing in the decline in federal debt to a 6¼ percent rate in the first half of this year from 6¾ percent last year, largely because of a decline in tax receipts on corporate profits.

The share of credit to nonfinancial sectors held at banks and other depository institutions edged down in the first half of the year. Bank credit, which accounts for about three-fourths of depository credit, increased at a 3½ percent annual rate in the first half of the year, well off the 9½ percent growth registered in 2000. Banks' loans to businesses and households decelerated even more, in part because borrowers preferred to lock in the lower rates available from longer-term sources of funds such as bond and mortgage markets and perhaps also in part because banks firmed up their lending stance in reaction to concerns about loan performance. Loan delinquency and charge-off rates have trended up in recent quarters, and higher loan-loss provisions have weighed on profits. Nevertheless, through the first quarter, bank profits remained in the high range recorded for the past several years, and virtually all banks—98 percent by assets—were well capitalized. With banks' financial condition still quite sound, they remain well positioned to meet future increases in the demand for credit.

The Monetary Aggregates

The monetary aggregates have expanded rapidly so far this year, although growth rates have moderated somewhat recently. M2 rose 10¼ percent at an annual rate in the first half of this year after having grown 6¼ percent in 2000. The interest rates on many of the components of M2 do not adjust quickly or fully to changes in market interest rates. As a consequence, the steep declines in short-term market rates this year have left investments in M2 assets relatively more attractive, contributing importantly to the acceleration in the aggregate. M2 has also probably been buoyed by the volatility in the stock market this year, and perhaps by lower expected returns on equity investments, leading investors to seek the safety and liquidity of M2 assets.

M3, the broadest monetary aggregate, rose at a 13¼ percent annual rate through June, following 9¼ percent growth in 2000. All of the increase in M3, apart from that accounted for by M2, resulted from a ballooning of institutional money market funds, which expanded by nearly a third. Yields on these funds lag market yields somewhat, and so the returns to the funds, like those on many M2 assets, became relatively attractive as interest rates on short-term market instruments declined.

International Developments

So far this year, average foreign growth has weakened further and is well below its pace of a year ago. Activity abroad was restrained by the continued high level of oil prices, the global slump of the high-technology sector, and spillover effects from the U.S. economic slowdown, but in some countries domestic demand softened as well in reaction to local factors. High oil prices kept headline inflation rates somewhat elevated, but even though core rates of inflation have edged up in countries where economic slack has diminished, inflationary pressures appear to be well under control.

Monetary authorities in most cases reacted to signs of slowdown by lowering official rates, but by less than in the United States. Partly in response to these actions, yield curves have steepened noticeably so far in 2001. Although long-term interest rates moved down during the first quarter, they more than reversed those declines in most cases as markets reacted to a combination of the anticipation of stronger real growth and the risk of increased inflationary pressure. Foreign equity markets—especially for high-tech stocks—were buffeted early this year by many of the same factors that affected U.S. share prices: negative earnings reports, weaker economic activity, buildups of inventories of high-tech goods, and uncertainties regarding the timing and extent of policy responses. In recent months, the major foreign equity indexes moved up along with U.S. stock prices, but they have edged off lately and in most cases are down, on balance, for the year so far.

Slower U.S. growth, monetary easing by the Federal Reserve, fluctuations in U.S. stock prices, and the large U.S. external deficit have not undermined dollar strength. After the December 2000 FOMC meeting, the dollar lost ground against the major currencies; but shortly after the FOMC's surprise rate cut on January 3, the dollar reversed all of that decline as market participants evidently reassessed the prospects for recovery in the United States versus that in our major trading partners. The dollar as measured by a trade-weighted index against the currencies of major industrial countries gained in value steadily in the first three months of 2001, reaching a fifteen-year high in late March. Continued flows of foreign funds into U.S. assets appeared to be contributing importantly to the dollar's increase. Market reaction to indications that the U.S. economy might be headed toward a more prolonged slowdown undercut the dollar's strength somewhat in early April, and the dollar eased further after the unexpected April 18 rate cut by the FOMC. However, the dollar has more than made up that loss in recent months as signs of weakness abroad have emerged more clearly. On balance, the dollar is up about 7 percent against the major currencies so far this year; against a broader index that includes currencies of other important trading partners, the dollar has appreciated 5 percent.

The dollar has gained about 9 percent against the yen, on balance, as the Japanese economy has remained troubled by structural problems, stagnant growth, and continuing deflation. Industrial production has been falling, and real GDP declined slightly in the first quarter, with both private consumption and investment contracting. Japanese exports also have sagged because of slower demand from many key trading partners. Early in the year, under increasing pressure to respond to signs that their economy was weakening further, the Bank of Japan (BOJ) slightly reduced the uncollateralized overnight call rate, its key policy interest rate. By March, the low level of equity prices, which had been declining since early 2000, was provoking renewed concerns about the solvency of Japanese banks. In mid-March, the BOJ announced that it was shifting from aiming at a particular overnight rate to targeting balances that private financial institutions hold at the Bank, effectively returning the overnight rate to zero; the BOJ also announced that it would continue this easy monetary stance until inflation moves up to zero or above. After the yen had moved near the end of March to its weakest level relative to the dollar in more than four years, Japanese financial markets were buoyed by the surprise election in May of Junichiro Koizumi to party leadership and thereby to prime minister. The yen firmed slightly for several weeks thereafter, but continued weak economic fundamentals and increased market focus on the daunting challenges facing the new government helped push the yen back down and beyond its previous low level.

At the start of 2001, economic activity in the euro area had slowed noticeably from the more rapid rates seen early last year but still was fairly robust. Average GDP growth of near 2 percent was only slightly below estimated rates of potential growth, although some key countries (notably Germany) were showing signs of faltering further. Although high prices for oil and food had raised headline inflation, the rate of change of core prices was below the 2 percent ceiling for overall inflation set by the European Central Bank (ECB). The euro also was showing some signs of strength, having moved well off the low it had reached in October. However, negative spillovers from the global slowdown started to become more evident in weaker export performance in the first quarter, and leading indicators such as business confidence slumped. Nevertheless, the ECB held policy steady through April, as further weakening of the euro against the dollar (following a trend seen since the FOMC's rate cut in early January), growth of M3 in excess of the ECB's reference rate, and signs of an edging up of euro-area core inflation were seen as militating against an easing of policy.

In early May, the ECB surprised markets with a 25 basis point reduction of its minimum bid rate and parallel reductions of its marginal lending and deposit rates. In explaining the step, the ECB noted that monetary developments no longer posed a threat to price stability and projected that moderation of GDP growth would damp upward price pressure. The euro has continued to fall since then and, on balance, has declined 9 percent against the dollar since the beginning of the year. Faced with a similar slowdown in the U.K. economy that was exacerbated by the outbreak of foot-and-mouth disease, the Bank of England also cut its official call rate three times (by a total of 75 basis points) during the first half of the year. The Labor Party's victory in parliamentary elections in early June seemed to raise market expectations of an early U.K. euro referendum and put additional downward pressure on sterling, but that was partly offset by signs of stronger inflationary pressure. On balance, the pound has lost about 6 percent against the dollar this year, while it has strengthened against the euro.

The exchange value of the Canadian dollar has swung over a wide range in 2001. In the first quarter, the Canadian dollar fell about 5 percent against the U.S. dollar as the Canadian economy showed signs of continuing a deceleration of growth that had started in late 2000. Exports—especially autos, auto equipment, and electronic equipment—suffered from weaker U.S. demand. Softer global prices for non-oil commodities also appeared to put downward pressure on the Canadian currency. With inflation well within its target range, the Bank of Canada cut its policy rate several times by a total of 125 basis points. So far this year, industries outside of manufacturing and primary resources appear to have been much less affected by external shocks, and domestic demand has maintained a fairly healthy pace. Since the end of March, the Canadian dollar has regained much of the ground it had lost earlier and is down about 2 percent on balance since the beginning of the year.

Global financial markets were rattled in February by serious problems in the Turkish banking sector. Turkish interest rates soared and, after market pressures led authorities to allow the Turkish lira to float, it experienced a sharp depreciation of more than 30 percent. An IMF program announced in mid-May that will bring $8 billion in support this year and require a number of banking and other reforms helped steady the situation temporarily, but market sentiment started to deteriorate again in early July.

In Argentina, the weak economy and the government's large and growing debt burden stoked market fears that the government would default on its debt and alter its one-for-one peg of the peso to the dollar. In April, spreads on Argentina's internationally traded bonds moved up sharply, and interest rates spiked. In June, the government completed a nearly $30 billion debt exchange with its major domestic and international creditors aimed at alleviating the government's cash flow squeeze, improving its debt amortization profile, and giving it time to enact fiscal reforms and revive the economy. Argentine financial conditions improved somewhat following agreement on the debt swap. However, this improvement proved temporary, and an apparent intensification of market concerns about the possibility of a debt default triggered a sharp fall in Argentine financial asset prices at mid-July. This financial turbulence in Argentina negatively affected financial markets in several other emerging market economies. The turmoil in Argentina took a particular toll on Brazil, where an energy crisis added to other problems that have kept growth very slow since late last year. Intervention purchases of the *real* by the Brazilian central bank and a 300 basis point increase in its main policy interest rate helped take some pressure off the currency, but the *real* has declined about 24 percent so far this year.

The weak performance of the Mexican economy at the end of last year caused largely by a fall in exports to the United States (notably including a sharp drop in exports of automotive products) and tight monetary policy carried over into early 2001. With inflation declining, the Bank of Mexico loosened monetary policy in May for the first time in three years. Problems with Mexican growth did not spill over to financial markets, however. The peso has remained strong and is up about 3 percent so far this year, and stock prices have risen.

Average growth in emerging Asia slowed significantly in the first half; GDP grew more slowly or even declined in economies that were more exposed to the effects of the global drop in demand for high-tech products. Average growth of industrial production in Malaysia, Singapore, and Hong Kong, for example, fell from a 15 percent annual rate in late 2000 to close to zero in mid-2001. The turnaround of the high-tech component of industrial production in those countries was even more abrupt—from more than a 30 percent rate of increase to a slight decline by midyear. In the Philippines and Indonesia, economic difficulties were compounded by serious political tensions. Currencies in many of these countries moved down versus the dollar, and stock prices declined. In Korea, the sharp slump in activity that began late last year continued into 2001, as weakness in the external sector spread to domestic consumption and investment. The Bank of Korea lowered its target interest rate a total of 50 basis points over the first half of the year in response to the weakening in activity. The Chinese economy, which is less dependent on technology exports than many other countries in the region, continued to expand at a brisk pace in the first half of this year, as somewhat softer export demand was offset by increased government spending. ■

Domestic Open Market Operations during 2001

Implementation of Monetary Policy in 2001

The directives pertinent to the implementation of domestic open market operations issued by the Federal Open Market Committee (FOMC) instruct the Trading Desk at the Federal Reserve Bank of New York (FRBNY) to foster conditions in the market for reserves consistent with maintaining the federal funds rate at an average around a specified rate. This indicated rate is commonly referred to as the federal funds rate target. The Desk arranges open market operations to target the funds rate, while at the same time achieving certain other objectives that may affect the structure of the Federal Reserve balance sheet.

This report reviews the conduct of open market operations in 2001. It begins with a description of the operating procedures that are used to control the funds rate and a summary of the key new developments in the policy implementation framework. The demand for balances at the Federal Reserve and the behavior of autonomous factors outside the control of the Desk that affect the supply of these balances are described in the following sections. Next, the different domestic financial assets held by the Federal Reserve, and the various types of open market operations used to adjust them, are reviewed. The behavior of the federal funds rate in 2001 and use of the discount window are discussed in the following section. The conduct of open market operations in the aftermath of the terrorist attacks on the World Trade Center and Pentagon on September 11 is reviewed in the final section.

Overview of Operating Procedures to Control the Federal Funds Rate

The FOMC lowered the federal funds rate target on eleven different occasions during 2001, reducing it by a cumulative 4¾ percentage points to end the year at a level of 1¾ percent (table). Three of these rate changes were made between regularly scheduled FOMC meetings. Associated with each FOMC policy move, the Board of Governors approved an equal-sized reduction in the basic discount rate, which preserved a 50 basis point spread of the target funds rate over the discount rate.

To target the federal funds rate, the Desk uses open market operations to

Changes in the Federal Funds Rate Specified in FOMC Directives

Percent

Date of change	Target federal funds rate	Associated discount rate
May 16, 2000	6½	6
January 3, 2001[1]	6	5¾ (5½ on Jan. 4)
January 31	5½	5
March 20	5	4½
April 18[1]	4½	4
May 15	4	3½
June 27	3¾	3¼
August 21	3½	3
September 17[1]	3	2½
October 2	2½	2
November 6	2	1½
December 11	1¾	1¼

1. Policy change came between regularly scheduled meetings.

NOTE. This chapter is adapted from the annual report of the Manager of the System Open Market Account to the Federal Open Market Committee. The original report is available at http://www.ny.frb.org/pihome/Omo/omo2001.pdf.

align the supply of balances held by depository institutions at the Federal Reserve—or Fed balances—with banks' demand for holding balances at the target rate. Each morning, the Desk considers whether open market operations are needed based on estimates of the supply of and demand for balances, taking account of possible forecast errors and minimal levels of aggregate Fed balances that in practice are needed to facilitate settlement of wholesale financial payments by banks. When the funds rate is already near its target, the Desk aims to supply a level of balances in line with its best estimate of demand. And when the funds rate deviates from the target, the Desk may adjust the level of Fed balances it aims to supply accordingly, to nudge the rate in the appropriate direction. Operations designed to alter the supply of Fed balances that same day, most commonly of a short-term temporary nature, are typically arranged around 9:30 a.m. eastern time each morning, shortly after a complete set of estimates is available. Open market operations that are designed primarily to meet other objectives that influence the size or composition of the Fed's balance sheet can generally be arranged at other times of the day, but their use must be coordinated with those operations geared toward achieving a particular level of Fed balances on each day.

The average level of balances banks demand over two-week reserve maintenance periods is in large measure determined by certain requirements to hold balances, with only a small level of additional, or excess, balances typically demanded. Levels of requirements and period-average demands for excess are relatively insensitive to changes in the target level of the federal funds rate or only respond with some lag. The ability of depository institutions to average their holdings of balances over the days within a maintenance period to meet their requirements gives them considerable leeway in managing their accounts from day to day. This flexibility limits the volatility in rates that can develop when the Desk mis-estimates either the supply of or demand for balances. Nonetheless, the funds rate will firm if the level of balances falls so low that some banks have difficulty finding sufficient funds to cover late-day deficits in their Fed accounts; the rate will soften if balances are so high that some banks risk ending a period holding undesired excess balances.

New Developments in 2001

There were no changes made to the FOMC's Authorization for Domestic Open Market Operations in 2001 (appendix A). At its January meeting, the FOMC once again extended temporarily, through its first regularly scheduled meeting in 2002, its authorization for an expanded pool of eligible collateral for the Desk's repurchase agreements (RPs). The principal effect was to continue the inclusion of pass-through mortgage securities of the Government National Mortgage Association, Freddie Mac, and Fannie Mae, and of stripped securities of government agencies. To implement this decision, the FOMC voted to extend temporarily its suspension of several provisions of its "Guidelines for the Conduct of System Open Market Operations in Federal Agency Issues," which impose restrictions on transactions in federal agency securities (appendix B). Late in 2001, the Desk began to accept permanently the direct debt obligations of the Student Loan Marketing Association as collateral on its repurchase transactions.

The Desk continued to operate under the guidelines first articulated in July

2000 that limit the permanent holdings of single Treasury securities in the System Open Market Account (SOMA) to a given share of the total outstanding amount.[1] These guidelines were prompted by the prospect of paydowns of marketable debt associated with projected budget surpluses. Meanwhile, Federal Reserve staff continued work begun in 2000 on various studies of alternative assets the Federal Reserve might hold in its portfolio.

Banks' Demand for Fed Balances

The Desk aims to satisfy banks' demand for holding Fed balances. Total demand may be viewed as the sum of two components: the portion needed to meet all requirements, and the portion held in excess of requirements.

Total Balance Requirements

A bank's total balance requirement measures the level of balances it must hold at the Federal Reserve on average over a two-week maintenance period to meet various regulatory obligations. Total balance requirements may be decomposed into two basic parts: reserve balance requirements (the level of reserve requirements not met with applied vault cash) and clearing balance requirements. In addition, various as-of accounting adjustments may be applied that affect the actual level of Fed balances a bank must hold to meet all these requirements.[2] Clearing balance requirements and, under lagged reserve accounting rules in effect since August 1998, reserve balance requirements are determined prior to the start of each maintenance period, which facilitates estimation of the demand for Fed balances. But not all as-of adjustments are known when a period starts. Most problematically, when large as-of adjustments are applied or reported to the Desk on the settlement day, it affords the Desk little or no opportunity to adjust its estimates of demand and its operations.

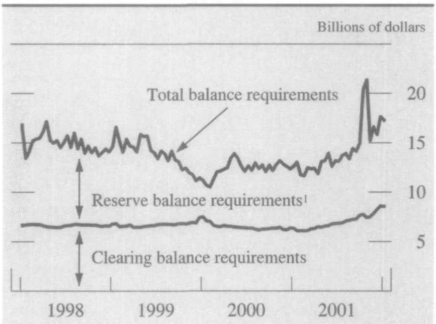
Decreases in short-term interest rates contributed to an increase in the underlying level of requirements, particularly over the second half of the year (chart). Falling interest rates spurred growth in reservable deposits over the year.[3] As a consequence, aggregate reserve requirements rose above the level of banks' applied vault cash, lifting the level of reserve balance requirements in a sustained fashion for the first time since the wholesale adoption of sweep programs in 1995. The reduction in interest rates also contributed to a rise in clearing balance requirements, which registered their first significant increase in several years. With the Fed using lower interest rates linked to the target funds rate to compute earning credits on clearing balance requirements, banks that wish to have the maximum useful

1. A detailed description of these guidelines and their motivation can be found on the web site of the Federal Reserve Bank of New York at http://www.ny.frb.org/pihome/news/announce/2000/an000705.html. They were also discussed in more detail in the Domestic Open Market Operations report for 2000.

2. Clearing balance requirements, applied vault cash, and as-of adjustments affect the level of a bank's total balance requirements, and hence its demand for Fed balances. In published data on reserves, these three variables are treated as sources of reserve supply.

3. At the same time, there was little further growth in new sweep account programs, which in the past had been a major source of decline in reserve requirements. The estimated amount of demand deposits swept by commercial banks through the introduction of new sweep programs during 2001 was about $40 billion, somewhat down from recent years and well below the peak level. A reduction in interest rates also reduces the incentive banks have to expand sweeps to reduce the level of their requirements.

Total Balance Requirements
and Components



NOTE. Maintenance period averages through January 9, 2002.

1. Reserve requirements minus applied vault cash, and less all as-of adjustments.

level of clearing balance requirements, that is, the level that generates just enough income credits to pay for all covered Fed services, had room to increase these requirements. Over the twelve months ending in December, the underlying level of total balance requirements rose about $5 billion, with somewhat more than half coming from the higher reserve balance requirements. This aggregate increase is not large when measured against the size of the Fed's balance sheet, but it is significant as a portion of total requirements.

Total balance requirements increased dramatically, but temporarily, in the two maintenance periods ended October 17 and October 31, as a byproduct of disruptions following the September 11 attacks. Reservable deposits soared at a handful of key money center banks that were not able to transfer out funds on behalf of their customers, and under lagged reserve accounting rules, these institutions faced much higher reserve requirements in October. These banks were able to restore their operational capabilities within days, and the higher levels of reserve requirements were transitory.

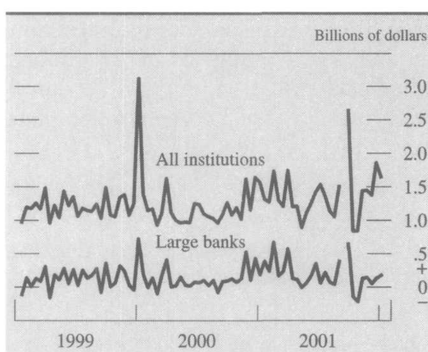
Excess Demands and Actual Excess Levels

Period-average and daily levels of Fed balances are measured relative to the period-average level of requirements, to obtain measures of excess balances. Demands for excess balances display fairly stable and predictable patterns that are insensitive to the level of requirements, and the Desk must estimate these excess demand patterns as part of estimating total demand for Fed balances.[4] The reasons for the severe distortions to excess levels in the aftermath of the September 11 attacks are described in the final section of this report.

Over the last two months of the year, period-average levels of excess balances became more elevated, most notably at smaller banking institutions where positive excess levels historically are concentrated (chart). To some degree, typi-

4. In this section, actual levels of excess balances on average over time are used as an approximation of excess demand, even though a number of factors can cause actual excess levels to deviate from demand on any day or for any period.

Excess Balances



NOTE. Maintenance period averages through January 9, 2002.

Period ended September 19, 2001, not shown (total excess, $38 billion).

Median Levels of Excess Balances,
by Day in a Maintenance Period

Millions of dollars

Day of period	1998–2000	2001
Week 1		
Thursday	725	775
Friday	–400	–1,000
Monday	975	200
Tuesday	675	0
Wednesday	725	0
Week 2		
Thursday	675	–475
Friday	–175	–625
Monday	3,450	2,550
Tuesday	2,925	4,250
Wednesday	6,075	8,150

cal seasonal factors, the size of which can vary from year to year, may account for this late-year increase. But anecdotal evidence also suggests that the low absolute level to which interest rates have dropped, thereby lowering the opportunity cost of holding excess balances, may have contributed to the increase. No evidence suggests that excess demand at larger banks has been increasing.

The daily intraperiod distribution of excess balances in 2001 continued to reflect banks' strong preference for concentrating their accumulation of Fed balances late in a maintenance period, after the second weekend (table).[5] The degree of skew was more pronounced over this past year, with banks typically holding somewhat lower levels of excess on most days ahead of the second weekend and larger excess balances on the settlement day. This greater concentration of excess accumulated on the final day was encouraged by strongly held market expectations that the FOMC would adopt a lower target rate at its meetings during the year, most of which happened to fall on the second Tuesday of a maintenance period, which pushed demands for balances toward the end of these periods.

Autonomous Factors Affecting the Supply of Fed Balances

Autonomous factors are the assets and liabilities on the Federal Reserve balance sheet that are outside the direct control of the Trading Desk.[6] They exclude the domestic financial assets controlled through open market operations, discount window loans, and the deposit balances held by depository institutions at the Fed. Federal Reserve note liabilities represent the largest single autonomous factor on the Fed's balance sheet by far, and for this reason the net value (assets minus liabilities) of all autonomous factors has a large negative value; the net value of all other factors is close to zero. Net movements in autonomous factors affect the supply of Fed balances, and thereby create a need for open market operations to change the levels of the various domestic financial assets on the Fed's balance sheet to offset the effects of these factors.[7] The behavior of key factors in the aftermath of the September 11 attacks is discussed in the final section of this report.

5. Median values are shown in table 2 because they are less influenced than average values by the extreme and unrepresentative deviations from normal levels of daily excess that arise from time to time.

6. Autonomous factors are defined to include liabilities arising from matched sale–purchase agreements arranged with foreign official institutions as part of the foreign RP pool. The foreign RP pool is not reported directly on the Fed's balance sheet, but it is a factor that affects the supply of Fed balances.

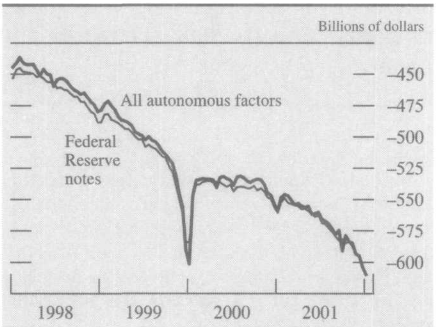
7. In fact, the Desk retains a small degree of discretionary influence over the levels of some autonomous factors, which may be used to shape the need for open market operations on some days.

Federal Reserve Notes

Federal Reserve notes expanded by nearly $50 billion over the year and were once again the largest source of exogenous change on the Fed's balance sheet (chart).[8] Federal Reserve notes outstanding increased at an 8 percent pace over the twelve-month period ending in December, somewhat faster than their 6¾ percent average annual rate of expansion over the preceding five-year interval. Lower interest rates likely spurred demand for Federal Reserve notes in 2001 by reducing the economic cost of holding non-interest-bearing notes. Foreign demand also contributed to faster growth late in the year, compounding the seasonal increase in Federal Reserve notes that occurred ahead of the holidays. Unsettled economic conditions in Argentina seemed to stimulate demand throughout much of the second half of the year.

8. The unusual decline in Federal Reserve notes over the twelve months ended in December 2000 was a byproduct of the temporary bulge in Federal Reserve notes outstanding around the century date change.

Net Value of All Autonomous Factors and Value of Federal Reserve Notes



NOTE. Net value equals assets minus liabilities. Maintenance period averages through January 9, 2002.

Changes in Other Autonomous Factors

By comparison, the change in the net value of all other autonomous factors was small over the year. Some huge temporary changes in the foreign RP pool, Federal Reserve float, and foreign exchange holdings followed the September 11 attacks, but most quickly returned to their pre-attack values. The greatest exception was the level of the foreign RP pool, which remained elevated throughout the fourth quarter of the year. Primarily as a consequence of these higher pool levels, the net value of autonomous factors other than Federal Reserve notes fell a bit, by roughly $2 billion, over 2001.

Volatility and Predictability of Key Autonomous Factors

Excluding the roughly two-week period following the September 11 attacks, the average of the daily absolute changes in the net value of autonomous factors was down from the previous year, and same-day predictability showed a slight improvement (table). Reduced volatility in currency in circulation, which is used as a proxy for Federal Reserve notes in putting together daily forecasts of autonomous factors, mostly reflected the impact of the huge swings in this factor around the century date change, which elevated volatility in each of the two previous years.[9] Although the foreign RP pool was somewhat more volatile

9. Currency in circulation consists mostly of Federal Reserve notes, but it also includes about $30 billion of coins, which are liabilities of the Treasury. In absolute terms, changes in currency in circulation almost entirely reflected movements in Federal Reserve notes.

Daily Changes and Forecast Misses in Key Autonomous Factors: Average and Maximum of Absolute Values

Millions of dollars

Item	1999		2000		2001 excluding Sept. 11–28		2001, Sept.11–28	
	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
Daily change								
Currency in circulation	918	5,379	970	8,087	851	2,696	919	2,537
Treasury balance	911	7,446	1,460	23,434	823	7,413	2,297	5,671
Foreign RP pool	588	6,050	485	4,015	586	3,273	3,699	7,812
Float	712	6,217	887	9,677	894	4,923	6,888	32,099
Net value	1,709	17,653	2,058	23,896	1,828	7,918	7,028	30,770
Daily forecast miss								
Currency in circulation	233	1,361	238	1,648	210	1,043	502	1,135
Treasury balance	599	3,284	615	6,866	534	2,975	608	1,821
Foreign RP pool	224	1,817	129	976	81	1,127	2,070	4,966
Float	394	4,274	392	2,742	447	2,084	2,312	10,398
Net value	811	5,443	787	7,218	762	3,503	2,568	12,723

NOTE. Forecast misses are based on New York staff estimates. Currency in circulation is used as a proxy for Federal Reserve notes.

during 2001, forecasting errors were down.

The Treasury's Fed balance was much less volatile during 2001 than it was during 2000, and somewhat more predictable. Over the past few years, the ability of the staff to forecast the Treasury's Fed balance on a same-day basis has benefited from improved methods for collecting tax payment information early each morning from around the financial system. In 2001, predictability was also enhanced by a new cash management technique adopted by the Treasury, called dynamic investing, that enabled it to move some portion of unexpected flows arriving in its Fed account into its Treasury tax and loan (TT&L) accounts at commercial banks on a same-day basis. Throughout the year, TT&L capacity remained high relative to the level of Treasury's total cash balances. This helped moderate volatility in the Treasury's Fed balance by reducing the number of days on which the Fed balance jumped because of insufficient TT&L capacity, and it also may have improved indirectly the ability to forecast the Treasury's Fed balance.[10]

Domestic Financial Assets on the Federal Reserve Balance Sheet and Open Market Operations

The total value of all domestic financial assets (less any matched sale–purchase

10. In 2001, the Treasury's general cash balance exceeded TT&L capacity, including Special Direct Investment capacity, by more than the normal level of balances placed at the Fed (usually $5 billion) on only two days, compared with six days in 2000. The number of such occasions was seven in 1999 and sixteen in 1998.

agreements arranged in the market) held by the Federal Reserve mirrors the net level of autonomous factors and of Fed balances.[11] More substantively, the behavior of various autonomous factors and of sources of demand for Fed balances will influence the choice of open market operations used to adjust the Fed's domestic financial portfolio.[12]

Permanent Holdings in the System Open Market Account and Outright Open Market Activity

The domestic SOMA includes all the domestic securities held on an outright basis. By and large, changes in the level of the SOMA have been used to accommodate net changes in autonomous factors and in demands for Fed balances that are expected to endure. For this reason, these holdings are often characterized as being "permanent," although their net value can be reduced whenever needed. The par value of the SOMA stood at $575 billion at year-end, consisting almost entirely of Treasury securities, about $42 billion higher than one year earlier.[13] The expansion in the SOMA in 2001, as in many years, roughly corresponded to the increase in Federal Reserve note liabilities.[14]

The distribution of SOMA holdings by remaining maturity and across individual issues is intended to achieve various objectives associated with having a liquid portfolio without distorting the yield curve or impairing the liquidity of the market for individual Treasury securities. In pursuit of these objectives, the Desk continued to adhere to the per-issue guideline limits on SOMA holdings of individual Treasury issues, articulated in July 2000. It also continued to limit SOMA purchases of newly issued Treasury securities, as it has no particular portfolio need for some of the liquidity characteristics that can add to the value of these issues in the market.

Auction Participation and Redemptions

Typically, any needed expansion of the SOMA is achieved by making outright purchases of Treasury securities in the secondary market, which are then sustained by replacing maturing holdings with newly issued debt at Treasury auctions. At Treasury auctions of coupons and bills in 2001, the FRBNY continued to place add-on bids for the SOMA equal to the lesser of (1) its maturing holdings on the issue date of a new security or (2) the amount that would bring SOMA holdings as a percentage of the issue to the percentage guideline limits.[15] There were no issues maturing

11. In this report, the securities sold under temporary matched sale–purchase agreements (MSPs) as part of the foreign RP pool or in the market are considered financial assets held by the Fed, although they are not officially recorded as such on the Fed's balance sheet. See footnote 6 for the treatment of the foreign RP pool as an autonomous factor liability. In keeping with this treatment, in this report MSPs arranged in the market are considered a financial liability arranged at the discretion of the Desk.

12. Discount window activity is discussed in the section "The Federal Funds Rate and Discount Window Credit."

13. The increase reflects almost entirely new purchases in excess of redemptions but also includes a $529 million increase in the inflation compensation component of inflation-indexed securities, bringing its level to $961 million.

14. By comparison, the slight increase in net balance sheet liabilities from movements in other autonomous factors and the rise in total balance requirements added only modestly to any need for a "permanent" increase in the value of financial assets in the Fed's portfolio.

15. Foreign add-ons, which are not known at the time the Desk determines its level of participation at auctions, were assumed to be zero in this calculation.

on dates when newly auctioned Treasury Inflation Indexed Securities (TIIS) settled. In cases where maturing holdings were to be rolled into more than one new issue of different maturities, the Desk allocated the maturing amount in such a way as to leave the same gap, measured in percentage points, between the per-issue cap and the actual percentage holding of each new issue. A slightly different approach was taken for the weekly bill auctions after the introduction of the new twenty-eight-day bill because of the potential volatility in amounts of twenty-eight-day bills auctioned from week to week. The Desk determined the amount of maturing bills to be rolled over and its allocation on the basis of the smallest twenty-eight-day bill auction size experienced to date, rather than the actual auction size.

Remaining within the per-issue percentage caps while the Treasury continued to cut back on auction sizes through the first half of the year forced another $27 billion of redemptions of maturing Treasury holdings in 2001, roughly equal to the previous year's total; this includes about $1.5 billion of maturing holdings that were redeemed because of the cancellation of a twenty-eight-day bill auction on September 11. Redemptions tapered off over the year, largely as a consequence of the changed federal budget situation and Treasury issuance patterns. Also during the year, $120 million of holdings of Federal agency securities were called, which left a mere $10 million of agency holdings in the SOMA at year-end.

Secondary Market Purchases and Operational Techniques

With redemptions again so large over the year as a whole and growth in Federal Reserve notes strong, the necessary expansion of the SOMA required a record value of outright purchases of Treasury securities by the Trading Desk, amounting to $68.5 billion (table). There were no sales of securities.

About $15 billion of bills were purchased, and bill holdings increased by a significant amount for the first time in several years. Altogether, the Desk purchased $8 billion of bills in the market in four operations. Another $7 billion were purchased directly from foreign central banks, in small daily increments on days when sell orders from these accounts were available and consistent with SOMA portfolio guidelines.[16]

16. The Desk sets a $250 million limit on total daily purchases from foreign accounts, subject to review if reserve needs or orders warrant an exception.

Purchases and Redemptions of Treasury Bills and Coupons

Billions of dollars

Item	1997	1998	1999	2000	2001
Treasury bills					
Purchased outright	5.5	0	0	6.2	8.4
Purchased from internal foreign accounts	3.6	3.6	0	2.5	7.1
Redemptions	0	−2.0	0	−23.8	−10.1
Treasury coupons					
Purchased outright	35.0	26.4	45.4	35.7	53.2
Redemptions	−2.0	−.6	−1.4	−4.1	−16.8

The Desk also purchased $53 billion of coupon securities in the market, arranging a record sixty-four coupon operations.[17] These operations continued to be segmented into separate tranches across different portions of the yield curve to facilitate rapid execution. Given the frequent need for secondary market purchases, the Desk sought to distribute its purchases evenly over time as much as possible and did not attempt to concentrate operations in periods when Federal Reserve note growth was fastest.

The selection of specific issues in each operation was based on the relative attractiveness of propositions and portfolio considerations. In addition to remaining within the per-issue-guideline limits and avoiding on-the-run issues, the Desk avoided purchases that would be expected to cause a sizable redemption on any day in the foreseeable future, and it bought no issues in the secondary market that had less than four weeks remaining to maturity.

General Characteristics of Domestic Permanent SOMA Holdings at Year-End

The average maturity of the entire SOMA portfolio of Treasury securities was 53.5 months at year-end, up slightly from 52.9 months one year earlier. The share of all outstanding marketable Treasury securities held in the SOMA was 19 percent, about a percentage point higher than a year earlier. The SOMA held 25 percent of all bills (compared with 31 percent a year ago), and 17 percent of all coupons including TIIS (compared with 14 percent a year earlier). At the end of the year, approximately $228 billion of marketable Treasury securities remained purchasable under the Desk's guidelines for percentage holdings—compared with $260 billion at the end of the previous year. The gross remaining purchasable amount was $183 billion if account is taken of the practices of avoiding purchases of recently issued debt, purchases that would contribute to sizable redemptions, and purchases of issues that mature within four weeks.

17. This total includes five TIIS operations, totaling $3.3 billion. On one day, two separate coupon operations were arranged.

Temporary Holdings and Open Market Operations

Long-Term Repurchase Agreements

Over the past two years, long-term RPs, defined as operations with an original maturity of more than fifteen days, have been a standard asset in the Fed's domestic financial portfolio.[18] Temporarily increasing the total size of outstanding long-term RPs has proved to be an effective way of addressing significant increases in the net value of autonomous factor liabilities or increases in demands for Fed balances that are expected to last for a number of weeks or months, but not permanently. Long-term RPs can also be adjusted readily to accommodate an extended mismatch between changes in the permanent SOMA and in levels of autonomous factors and total balance requirements.

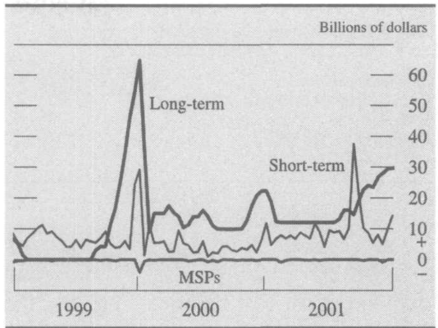
During the year, the Desk adhered to the practice of arranging an RP with a

18. The choice of any maturity to distinguish long-term from short-term RPs is somewhat arbitrary. Fifteen days had been the maximum allowable maturity under the FOMC's Authorization for many years until 1998, and it approximates the length of a reserve maintenance period. Fifteen days is designated to be the longest "short-term" maturity because, as noted in this section, the RPs the Desk used that carried a fifteen-day maturity had a clear short-term operational focus.

twenty-eight-day maturity on the Monday or Thursday (or both) of each week.[19] These operations are typically arranged early in the morning, before final daily reserve estimates are available, as their use is not geared toward addressing daily volatility in autonomous factors and excess demands. In other respects, these RPs are operationally just like those for short-term maturities. Dealer participation in these long-term RPs has consistently been very strong, measured by the size of propositions.

The sizes of the twenty-eight-day RPs arranged over the year ranged from \$2 billion to \$5 billion. Over most of the first half of 2001, their total outstanding value stood at \$12 billion, which was also the lowest outstanding total for the year (chart). In the third quarter, the Desk built up their underlying level modestly, but in the immediate aftermath of the September 11 attacks the Desk allowed two long-term RPs to mature without replacement, to simplify its market involvement at the time. As reserve deficiencies deepened late in the year, at first when requirements bulged in October and then as Federal Reserve notes began to grow from seasonal factors, long-term RPs were gradually increased, peaking at a level of \$31 billion in the year-end maintenance period.

Temporary Operations Outstanding



NOTE. Maintenance period averages through January 9, 2002.

Short-term RPs and MSPs

Short-term temporary operations, RPs and matched sale-purchases (MSPs), are the primary tool used to address day-to-day volatility in autonomous factors and in demands for Fed balances. These operations are also used to fill temporarily the gaps left by more-enduring changes in autonomous factors and Fed balance demands that are not immediately met by changes in the permanent SOMA or long-term RPs outstanding.

Daily volatility in short-term temporary operations outstanding (RPs less MSPs), measured by the average of absolute daily changes in short-term agreements outstanding, has been around \$3½ billion in each of the past two years. Daily levels of net short-term operations outstanding ranged from –\$4 billion to +\$81 billion; excluding the days immediately following the September 11 attacks, the peak was +\$31 billion. On a period-average basis, short-term operations outstanding ranged from \$4 billion to \$38 billion; excluding the two exceptionally high period-average levels that covered late September, the period-average peak was \$14 billion. For the year as a whole, short-term temporary operations outstanding averaged \$10 billion. The average was closer to \$8 billion excluding the September 19 maintenance period, which was somewhat above the \$5 billion average outstanding level in 2000.

19. This practice was first begun in March 2000. In January 2002, the Desk began to arrange these twenty-eight-day RPs just once per week, on each Thursday, adjusting the size of each operation to achieve the same desired total outstanding amount. This weekly schedule will continue to provide the desired flexibility to the portfolio at even lower operational cost.

Number of Temporary Operations, by Maturity and Type

Item	1998	1999	2000	2001
One business day	144	147	142	133
Term RPs up to fifteen days	62	83	46	85
Term RPs over fifteen days	3	14	61	88
One-business-day MSPs	21	13	16	10
Term MSPs	1	0	3	0

Volatility in autonomous factors and in demand for Fed balances requires the Desk to be prepared to arrange these operations each day, and often an overlapping structure of short-term operations is constructed. By far the most common operation was an overnight RP (which includes all RPs that cover just one business day), of which 133 were arranged in 2001 (table). As usual, the Fed's portfolio continued to be structured in such a way as to keep reliance on MSPs relatively low.[20]

In general, propositions were sufficient to cover the intended size of the short-term operations the Desk wished to arrange. However, ahead of days on which propositions were expected to run low, the Desk sometimes layered-in term agreements of short duration to ensure this outcome. For example, dealer participation on overnight RPs was relatively low on quarter-end dates, when high excess needs usually required a large amount of short-term RPs to be outstanding. Propositions on RPs on FOMC meeting dates in 2001 also tended to be low, as a byproduct of expected imminent rate cuts. On these dates, by the time the Desk was prepared to arrange its short-term operations, dealers had already met a greater-than-normal share of their total overnight borrowing needs, in response to heightened demand from their institutional customers. These cash investors had greater amounts to invest on an overnight basis with the dealers because the borrowers with whom they normally placed cash on a term basis were issuing less term debt on days of expected rate cuts.

Also in 2001, the Desk arranged two short-term RPs, an overnight operation and a term agreement of up to fifteen days, on seven different maintenance period settlement dates, usually out of concern that propositions on the overnight RP alone might not be adequate to address all of the remaining period need. Given banks' usual preference for holding higher excess levels on settlement dates, which was even more pronounced in 2001, the Desk sometimes faced a larger remaining "add need" on these days than it was comfortable addressing with a single, overnight operation. The term agreements arranged on these occasions were used to help meet needs in the following maintenance period.

Collateral Distribution

The Desk solicited propositions across the entire pool of eligible collateral on all RPs arranged in 2001. But with the exception of nine RPs arranged on the

20. One reason the Desk avoids heavy reliance on MSPs is that propositions on these operations in general are low compared with RPs, reflecting dealers' net borrowing needs. Also, given the structure of the Fed's balance sheet, routine reliance on MSPs would require expanding the Fed's holdings of financial assets above the level that is needed to meet its net autonomous factor liabilities and demands for Fed balances.

Average Annual RPs Outstanding, by Collateral Tranche
Billions of dollars

Item	2000		2001	
	Short-term RPs	Long-term RPs	Short-term RPs	Long-term RPs
Treasury	2.3	7.1	4.1	8.0
Agency	1.3	3.7	2.2	4.1
Mortgage-backed	1.5	5.3	3.4	4.5
Total	**5.1**	**16.1**	**9.7**	**16.6**

days immediately following the September 11 attacks, all RPs were arranged as three separate simultaneous operations differentiated by type of collateral eligible. In the first of these, only Treasury debt was accepted; in the second, direct federal agency obligations (in addition to Treasury debt) were eligible; and in the third, mortgage-backed agency debt was eligible (in addition to the other two categories of debt). For the purposes of this report, these separate operations are counted as different tranches of a single RP. In order to simplify the structure of its operations, for several days after September 11 the Desk arranged only RPs with a single tranche, under which dealers had the option to deliver Treasury, agency, or mortgage-backed collateral. All RPs arranged in 2001 settled under the triparty agreements established with two clearing banks in 1999. Under these agreements, dealers have flexibility to choose, and to change from day to day, the specific securities they deliver within each tranche.

The distribution of accepted propositions across collateral categories on multi-tranche RPs was determined by the relative attractiveness of rates in each tranche benchmarked against current market financing rates for that class of collateral. Distributions of collateral by tranche on outstanding RPs tend to be reasonably stable, but they can be very volatile from one operation to the next. In 2001, tranches in which mortgage-backed securities were eligible tended to account for a somewhat smaller share of total outstanding RPs. Their share on short-term RPs in 2001 was about the same as in the previous year, but only because of the large, single-tranche RPs arranged in the aftermath of September 11 (table).[21]

The Federal Funds Rate and Discount Window Credit

The Federal Funds Rate

Daily volatility in the federal funds rate and deviations of effective rates from target in 2001 were slightly higher than in the preceding year, but still to the low side of recent norms (table). Deviations of morning funds rates from target, often a measure of market expectations for likely rate behavior later in the day, continued to show the kinds of recurring patterns associated with certain calendar events seen in previous years. The deviations of the morning rate from target on high-payment-flow days and on Fridays were a touch smaller than in past years. However, morning premiums

21. These tranches reflect options that dealers have for delivering different categories of collateral on outstanding RPs where, for example, a dealer has the option to deliver Treasury debt on agency RPs but not vice versa.

Federal Funds Rate Behaviors: Medians and Averages of Daily Values

Basis points

Item	1998	1999	2000	2001
Deviations of effective rate from target				
Median	0	−1	1	0
Average	2	−1	2	−1
Absolute deviations of effective rate from target				
Median	8	7	4	5
Average	13	11	7	9
Intraday standard deviations				
Median	12	9	6	7
Medians of morning rates less target rate on				
High-payment-flow days (excluding quarter-ends)	25	19	19	16
Fridays	−6	−6	−6	−3
Maintenance period settlement days	13	0	0	6

on maintenance period settlement days, which had been common in the past but which had largely disappeared over the preceding couple of years, were again evident in 2001, averaging around 6 basis points. The higher levels of excess reserves that had to be accumulated on the final day to meet requirements in 2001 may have contributed to funding anxieties of bank reserve managers.

Discount Window Credit

Discount window credit makes up a relatively small portion of the total domestic financial assets held by the Federal Reserve (table). Much of this credit is seasonal borrowing, which behaviorally is more akin to an autonomous factor in terms of its implications for open market operations.[22] Adjustment credit is typically quite small, but the existence of the adjustment credit facility is an important part of the monetary policy implementation framework. It acts as a stabilizer, moderating the upward movements in the federal funds rate in the event a shortage of Fed balances leaves a bank overdrawn on its Fed account at the end of any day or deficient in meeting its requirements on a maintenance period settlement day.

22. There were no instances of extended credit borrowing at the discount window.

Discount Window Borrowing Activity

Item	1998	1999	2000	2001	2001 excluding Sept. 11–13
Average daily amount outstanding (millions of dollars)					
Seasonal credit	96	127	258	73	73
Adjustment credit	66	95	108	319	77
Number of days on which total adjustment borrowing by large banks					
More than $100 million–$500 million	23	17	12	10	10
More than $500 million	10	13	14	11	8

The critical role of the adjustment credit facility during times of severe stress in financing markets is highlighted by the discussion in the following section of its use immediately following the September 11 attacks. For meeting more-routine reserve shortfalls and payments difficulties, even levels of adjustment borrowing that are small relative to the total supply of Fed balances can help alleviate the degree of upward rate pressure that can develop in the market.

Large banks as a group borrowed an amount in excess of $500 million on eleven different days in 2001, including three occasions coming in the immediate aftermath of the September 11 attacks. This total is in line with the number of occasions banks borrowed at least that much in the preceding three years. Large banks borrowed a somewhat smaller but still significant amount, in excess of $100 million, on another ten occasions in 2001, but this number was somewhat below the frequency in most other recent years.

The Conduct of Monetary Operations after September 11

This section presents an overview of the context and conduct of open market operations in the aftermath of the terrorist attacks on the World Trade Center and Pentagon on Tuesday, September 11.

General Financing Market Conditions

Immediately following the attacks, many financial markets effectively ceased operations. But with Fedwire and other wholesale payments networks remaining open, securities dealers and banks faced a continuing need to obtain funding for large pre-existing positions that they typically finance on an overnight basis. Communications disruptions prevented many borrowers from having normal access to their investor base for the first few days after September 11, even among those not directly affected by the attacks, and the impaired ability of a major clearing bank to process funds and securities transfers for itself and on behalf of its customers created additional uncertainties. Banks and dealers, uncertain about their general cash position or the availability of financing, tended to refrain from making cash outlays until later than normal in the day. In the federal funds market, several of the major brokers ceased operations for a time, and many large banks resorted to arranging trades directly with one another. Although not fully back to normal levels of operating efficiency, the payments and communications infrastructure most critical to the functioning of the financing market had recovered considerably by Monday, September 17, and participation levels were much improved.

Behavior of Autonomous Factors

Levels of several of the autonomous factors on the Fed's balance sheet were dramatically affected by some of the responses to the World Trade Center and Pentagon attacks. Over the three-day interval September 12 through September 14 (Wednesday through Friday), net autonomous factor movements increased the supply of Fed balances dramatically, and then net factor movements began to drain large quantities. The level of float in the banking system, normally around $1 billion, peaked at $47 billion on that Thursday as a result of the temporary curtailment of air traffic nationwide. Another $20 billion of Fed balances was created that day when the European Central Bank drew on a temporary foreign currency swap line that had just been established. Meanwhile, investments in the foreign RP pool jumped between $15 billion and $20 billion above recent norms, reducing the supply of Fed balances. The factors that were adding to the supply of Fed balances returned to something like normal levels by Monday, September 17, but persistent high levels of the pool began to leave large underlying deficiencies.

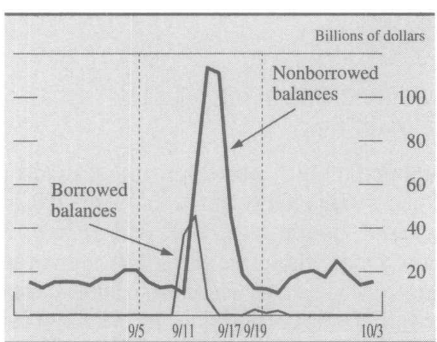
Federal Reserve Monetary Operations, and the Level and Distribution of Fed Balances

On the morning of September 11, the Federal Reserve issued a public release stating, "The Federal Reserve System is open and operating. The discount window is available to meet liquidity needs," to encourage banks to view the discount window as a source of liquidity. September 11 fell in the middle of the maintenance period ended September 19; for the remainder of that period, the Desk arranged only overnight RPs for same-day settlement because of the high degree of volatility in the needed level of RPs outstanding from one day to the next.

From Wednesday through the following Monday, the sizes of open market operations were aimed at satisfying all the financing that dealers wished to arrange with the Desk, in order to mitigate to the extent possible the disruptions to normal trading and settlement arrangements.[23] On these four days, all propositions with rates at or above the prevailing target were accepted, which was the vast majority. Dealers' total demands for financing far surpassed any need to arrange operations simply to provide an aggregate level of Fed balances that would help banks meet their requirements or their desired end-of-day holdings of balances at the Fed. To more effectively serve as a source of financing of last resort and to help encourage dealers to continue to intermediate on behalf of some of their own customers, the Desk operated relatively late in the day, after dealers had a good opportunity to assess their full financing needs and to secure all available financing in the market.

The size of the overnight RPs, which typically may be around $3 billion, peaked on Thursday and Friday at $70 billion and $81 billion, respectively, the same days that autonomous factors also added the most to the supply of Fed balances. Before discount window borrowing, Fed balances on both those days topped $110 billion, and, in general, Fed balances before borrowing were extraordinarily elevated from Wednesday through Monday (chart). But even with such high levels of Fed balances, severe dislocations that interfered with their distribution in the first few days after

Total Federal Reserve Balances around September 11



NOTE. Vertical dashed lines separate reserve maintenance periods.

23. The RP on September 12 was arranged from the FRBNY's Main Building. Subsequent operations were arranged out of the contingency site at the Bank's East Rutherford Operations Center.

the attacks caused many banks to borrow at the discount window to cover overdraft positions. As a result, levels of adjustment borrowing soared to record levels on Tuesday and Wednesday.

By the final days of the maintenance period, after financing markets began to function more normally, the Desk aimed its operations at maintaining a more traditional balance between the supply of and demand for Fed balances, consistent with the federal funds rate trading around the target level, lowered to 3 percent on September 17. With cumulative excess positions so high and with financing rates generally quite low, reflecting the weight of these excess positions, the Desk was aiming to leave relatively low levels of Fed balances in place each day. The size of the RPs needed to provide even these relatively low levels of balances remained large for a time, reflecting the impact of autonomous factors that were now reducing the supply of Fed balances below normal levels. As dealers increasingly were able to communicate with and obtain financing from their usual customers, the Desk had to move up its operating time to ensure a sufficient level of participation for the large RPs that were still needed, and it had to accept the vast majority of propositions—even those offered at rates well below the new 3 percent target level—in order to arrange RPs of sufficient size.

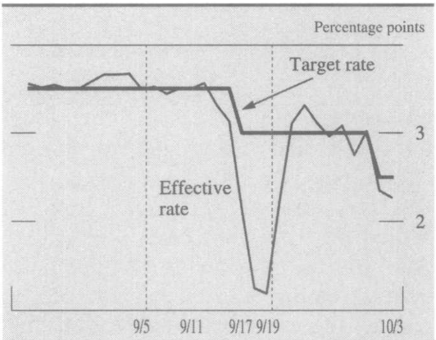
Even with the low levels of excess provided late in the maintenance period, the average level of excess balances for the period ended September 19 was $38 billion. This excess was highly concentrated at a small number of institutions that accumulated high balances as a result of an inability to make payments or to sell funds in the first days after the attacks, and it did not reflect any desire to hold huge excess balances.

In part to simplify the nature of our direct market involvement under exigent circumstances, from September 11 through the remainder of the maintenance period under way, the Desk did not replace any of its maturing long-term RPs, and it arranged no outright operations. On the settlement day, the Desk arranged three term RPs that settled on a forward basis on the first day of the following maintenance period, totaling $23 billion, in order to reduce the level of intervention that would be needed in financing markets in upcoming days. Other changes were also made to simplify operations. Instead of differentiating between collateral types, each RP was arranged as a single tranche where dealers had the option to deliver any of the three categories of collateral. Because some dealers lacked connectivity at their contingency sites, the Desk operated in a semi-manual mode, inputting propositions for many dealers (although the automated trade processing system continued to operate uninterrupted). Because of the time required to establish voice communications with dealers lacking electronic connections and the time needed to receive bids by phone, the time between when an operation was first announced and when it was closed was lengthened, and the Desk often pre-announced its time frame for operating.

Financing Rate Behavior

From Tuesday, September 11, through most of Thursday, September 13, market participants in both the government securities RP markets and in the federal funds market simply priced their trades at the target funds rate, a response to the attacks that likely helped maintain some order in these markets. The high levels of excess balances provided through the Desk's RPs first began to weigh heavily

Federal Funds Rates around September 11



NOTE. Vertical dashed lines separate reserve maintenance periods.

on the funds rate during late trading on Thursday and again on Friday, although through Monday, September 17, morning rates generally reverted back to the target (chart). Thereafter, extremely low rates prevailed in the funds and RP markets for several days, falling even below 1 percent. These low rates in large measure reflected misperceptions that the Desk was continuing to provide high levels of balances, a view reinforced by the continuing large sizes of the RPs and widespread reports that were crediting the Desk with providing abundant liquidity to the market. Several episodes of rates being pushed higher in late-day trading, induced by the relatively low levels of Fed balances the Desk was leaving in place, were needed to nullify these perceptions and to bring the funds rate back up closer to the target.

Appendix A: Authorization for Domestic Open Market Operations

Open market operations were conducted under the Authorization for Domestic Open Market Operations. The Authorization in effect at the end of 2001 is reprinted below.

Authorization for Domestic Open Market Operations

1. The Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York, to the extent necessary to carry out the most recent domestic policy directive adopted at a meeting of the Committee:

(a) To buy or sell U.S. Government securities, including securities of the Federal Financing Bank, and securities that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States in the open market, from or to securities dealers and foreign and international accounts maintained at the Federal Reserve Bank of New York, on a cash, regular, or deferred delivery basis, for the System Open Market Account at market prices, and, for such Account, to exchange maturing U.S. Government and Federal agency securities with the Treasury or the individual agencies or to allow them to mature without replacement; provided that the aggregate amount of U.S. Government and Federal agency securities held in such Account (including forward commitments) at the close of business on the day of a meeting of the Committee at which action is taken with respect to a domestic policy directive shall not be increased or decreased by more than $12.0 billion during the period commencing with the opening of business on the day following such meeting and ending with the close of business on the day of the next such meeting;

(b) To buy U.S. Government securities, obligations that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States, from dealers for the account of the Federal Reserve Bank of New York under agreements for repurchase of such securities or obligations in 65 business days or less, at rates that, unless otherwise expressly authorized by the Committee, shall be determined by competitive bidding, after applying reasonable limitations on the volume of agreements with individual dealers; provided that in the event Government securities or agency issues covered by any such agreement are not repurchased by the dealer pursuant to the agreement or a renewal thereof, they shall be sold in the market or transferred to the System Open Market Account.

(c) To sell U.S. Government securities that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States to dealers for System Open Market Account under agreements for the resale by dealers of such securities or obligations in 65 business days or less, at rates that, unless otherwise expressly authorized by the Committee, shall be determined by competitive bidding, after applying reasonable limitations on the volume of agreements with individuals dealers.

2. In order to ensure the effective conduct of open market operations, the Federal Open Market Committee authorizes the Federal Reserve Bank of New York to lend on an overnight basis U.S. Government securities held in the System Open Market Account to dealers at rates that shall be determined by competitive bidding but that in no event shall be less than 1.0 percent per annum of the market value of the securities lent. The Federal Reserve Bank of New York shall apply reasonable limitations on the total amount of a specific issue that may be auctioned and on the amount of securities that each dealer may borrow. The Federal Reserve Bank of New York may reject bids which could facilitate a dealer's ability to control a single issue as determined solely by the Federal Reserve Bank of New York.

3. In order to ensure the effective conduct of open market operations, while assisting in the provision of short-term investments for foreign and international accounts maintained at the Federal Reserve Bank of New York, the Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York (a) for System Open Market Account, to sell U.S. Government securities to such foreign and international accounts on the bases set forth in paragraph 1(a) under agreements providing for the resale by such accounts of those securities in 65 business days or less on terms comparable to those available on such transactions in the market; and (b) for New York Bank account, when appropriate, to undertake with dealers, subject to the conditions imposed on purchases and sales of securities in paragraph 1(b), repurchase agreements in U.S. Government and agency securities, and to arrange corresponding sale and repurchase agreements between its own account and foreign and international accounts maintained at the Bank. Transactions undertaken with such accounts under the provisions of this paragraph may provide for a service fee when appropriate.

4. In the execution of the Committee's decision regarding policy during any intermeeting period, the Committee authorizes and directs the Federal Reserve Bank of New York, upon the instruction of the Chairman of the Committee, to adjust somewhat in exceptional circumstances the degree of pressure on reserve positions and hence the intended federal funds rate. Any such adjustment shall be made in the context of the Committee's discussion and decision at its most recent meeting and the Committee's long-run objectives for price stability and sustainable economic growth, and shall be based on economic, financial, and monetary developments during the intermeeting period. Consistent with Committee practice, the Chairman, if feasible, will consult with the Committee before making any adjustment.

Appendix B: Guidelines for the Conduct of System Open Market Operations in Federal Agency Issues

The FOMC has established specific guidelines for operations in agency securities to ensure that Federal Reserve operations do not have undue market effects and do not serve to support individual issuers. Provisions 3–6 of the guidelines were first temporarily suspended in August 1999, in order to expand the types of agency securities the Desk could accept in its operations around the century date change. This suspension was extended in March 2000, in light of anticipated paydowns of federal debt, and it was reaffirmed in January 2001 until the FOMC's first meeting in 2002.

Guidelines for the Conduct of System Open Market Operations in Federal Agency Issues

1. System open market operations in Federal agency issues are an integral part of total System open market operations designed to influence bank reserves, money market conditions, and monetary aggregates.

2. System open market operations in Federal agency issues are not designed to support individual sectors of the market or to channel funds into issues of particular agencies.

3. System holdings of agency issues shall be modest relative to holdings of U.S. Government securities, and the amount and timing of System transactions in agency issues shall be determined with due regard for the desirability of avoiding undue market effects.

4. Purchases will be limited to fully taxable issues not eligible for purchase by the Federal Financing Bank, for which there is an active secondary market. Purchases will also be limited to issues outstanding in amounts of $300 million or over in cases where the obligations have maturity of five years or less at the time of issuance, and to issues outstanding in amounts of $200 million or over in cases where the securities have a maturity of more than five years at the time of issuance.

5. System holdings of any one issue at any one time will not exceed 30 percent of the amount of the issue outstanding. Aggregate holdings of the issues of any one agency will not exceed 15 percent of the amount of outstanding issues of that agency.

6. All outright purchases, sales, and holdings of agency issues will be for the System Open Market Account. ■

Federal Reserve Operations

Consumer and Community Affairs

In 2001, the Division of Consumer and Community Affairs of the Federal Reserve Board was active in several important areas:

- Curbing abusive lending practices
- Fostering research in community development and consumer economics
- Preparing for a review of the regulations that implement the Community Reinvestment Act
- Expanding access to consumer information.

In addition, the division continued its work in drafting regulations that govern providers of consumer financial services; reviewing applications for mergers and acquisitions; monitoring fair lending activities and compliance with the Community Reinvestment Act; supporting community development activities throughout the System; analyzing data gathered under the Home Mortgage Disclosure Act; monitoring compliance with consumer protection regulations; and addressing consumer complaints.

Curbing Abusive Lending

In December, the Board of Governors revised the provisions of Regulation Z (Truth in Lending) that implement the Home Ownership and Equity Protection Act (HOEPA). Enacted in 1994 in response to evidence of abusive lending practices in the home-equity-lending markets, the act imposes substantive limitations on, and additional disclosure requirements in connection with, home equity loans that have interest rates above a certain level or fees above a certain amount. It also authorizes the Board to expand HOEPA's coverage to more loans and to prohibit certain acts and practices in mortgage lending. The Board had published proposed revisions to Regulation Z in December 2000.

The final revisions broaden the scope of loans subject to HOEPA's protections by adjusting the price triggers that determine coverage under the act. The rate-based trigger was lowered two percentage points for first-lien loans (from 10 to 8 percentage points) but was kept at 10 percentage points for subordinate-lien loans. The fee-based trigger was revised to count as fees any amounts paid at closing for optional credit insurance and similar debt-protection products obtained in connection with the mortgage.

The revisions also restrict certain acts and practices in home-secured transactions. For example, creditors may not refinance their HOEPA loans within one year of extension if the refinancing is not in the borrower's interest. To strengthen the existing prohibition against extending credit on the basis of homeowner equity without regard to ability to repay, creditors must verify and document the homeowner's repayment ability. The disclosures that must be given three days before closing to borrowers obtaining HOEPA-covered loans must state the total amount borrowed and must indicate whether that amount includes payment for optional credit insurance or similar products.

Fostering Research

The Federal Reserve continues to foster research in community development and consumer economics. In April, the System's Community Affairs Offices held a second biennial research conference, "Changing Financial Markets and Community Development." The conference featured the work of economists and other scholars on the delivery of financial services to lower-income populations and small businesses; presentations were made on the Community Reinvestment Act, predatory lending, credit scoring, wealth creation, and alternative financial services. The importance of financial literacy and consumer education was discussed by Board Chairman Alan Greenspan in his keynote address. The proceedings of the conference, including speeches, papers, and discussant statements, are available on the web site of the Federal Reserve Bank of Chicago, at http://www.chicagofed.org/cedric/2001/sessionone.cfm. Members of the Board's Community Affairs staff, in partnership with research colleagues at the Board and the Reserve Banks, are now planning for the 2003 research conference, which will focus on "Sustainable Community Development: What Works, What Doesn't, and Why."

Also during the year, the Reserve Banks sponsored programs focused on emerging issues in community development to encourage research and facilitate discussion among academics and practitioners. Topics included

- "Smart Growth and Community Development: Working Together Smartly" (Philadelphia, Richmond, and Atlanta Reserve Banks)
- "Smart Codes: A Local Perspective on Planning and Growth" (St. Louis Reserve Bank)
- "Making Small Cities and Towns Work" (Philadelphia and Richmond Reserve Banks)
- "New Roads and e-Roads: Market Innovations in Community Development" (Dallas Reserve Bank).

On the consumer economics side, members of the Board's Consumer Policies staff conducted research on a wide range of subjects. Studies on households with high-cost home-secured loans and consumers' choice of financial institutions for home-secured loans were conducted in support of the division's efforts to address concerns about abusive lending practices. Studies on low-income and underserved consumers, including research on reasons consumers do not have checking accounts and on changes in account ownership over time, supported Federal Reserve initiatives regarding financial access for the unbanked. Other research focused on electronic banking, consumers' complaints about credit card problems, consumers' satisfaction with the Federal Reserve's complaint process, and financial literacy. The division staff received an award from the Association for Financial Planning and Counseling Education for research on the ability of low-income households to save.

Preparing for the Community Reinvestment Act Review

The current regulations implementing the Community Reinvestment Act (CRA) were adopted in 1995 by the supervisory agencies that have CRA responsibilities—the Federal Reserve, the Federal Deposit Insurance Corporation (FDIC), the Office of the Comptroller of the Currency (OCC), and the Office of Thrift Supervision (OTS). The regulations reflect the agencies' efforts to (1) emphasize an institution's actual performance in addressing its CRA responsibilities rather than the process, (2) promote consistency in evaluations, and (3) eliminate unnecessary burden on institutions. To this end, CRA examinations focus on the quantitative aspects of an institution's performance, such as the number and dollar amount of loans and investments made; they also include a review of qualitative aspects, such as whether the bank is innovative in meeting the credit needs of the community.

The regulations require large institutions to collect, report, and disclose data on small-business, small-farm, and community development loans and, for institutions already reporting Home Mortgage Disclosure Act data, data on home mortgage lending outside metropolitan areas.[1] Large retail institutions are evaluated on their record of providing loans, investments, and services to their communities. Small institutions, in contrast, are evaluated under a streamlined approach that focuses on their lending; some small institutions elect to have their investment and service activities reviewed as well in order to be considered for an "outstanding" CRA rating. The regulations also include a community development test for limited-purpose and wholesale banks and an option for any bank to be examined under a strategic plan.

When they adopted the regulations, the supervisory agencies committed to conducting a full review in 2002 to determine whether their stated goals are being achieved. The agencies began the review process in July 2001 by publishing an advance notice of proposed rulemaking.

By the end of 2001, the agencies had received approximately 400 comments in response to the notice. These comments will be taken into account in the agencies' analysis for determining whether regulatory changes are needed to increase the CRA regulations' effectiveness.

Expanding Access to Consumer Information

The Board substantially expanded the Spanish-language offerings of its consumer education program in 2001: Spanish-language versions of material on three subjects—mortgages, vehicle leasing, and consumer complaints—were launched on the Board's public web site, and Spanish-language versions of two consumer brochures—*Looking for the Best Mortgage* and *How to File a Consumer Complaint*—were released. The materials can be found at http://www.federalreserve.gov/consumers.htm.

In 2001, the Board also completed a major revision of its consumer brochure on credit cards, *Shop—The Credit Card You Pick Can Save You Money*, incorporating information on new disclosure requirements under Regulation Z and information from the re-instituted Survey of Credit Card Plans conducted by the Board. A design review of all the Board's consumer education publications is under way to ensure that the materials are meeting consumers' needs. In addition to enhancing its own consumer education program, the Board also worked with other agencies on resources to help consumers make decisions on financial privacy (see box) and avoid abusive lending practices.

In recognition of the importance of financial education in increasing economic opportunity, the Community

1. A large institution is an institution that as of December 31 of the previous two calendar years either had total assets of $250 million or more or was affiliated with a holding company that had total banking and thrift assets of $1 billion or more.

Financial Information and Consumers' Rights to Privacy

Gramm–Leach–Bliley also contains very important and far-reaching privacy provisions. . . . Our objective is to devise disclosure requirements and consumer "opt-out" procedures that protect consumer privacy without overwhelmingly burdening financial institutions or consumers.

Laurence H. Meyer, *Member*, Board of Governors

July 1, 2001, marked the deadline for financial companies—banks, brokers, and insurance companies, among others—to provide privacy notices to their existing customers. Companies were required to tell their customers

- What kinds of personal information the company collects (for example, income, assets, and account balances)
- How the company uses the information, and whether it intends to make the information available to nonaffiliated third parties (such as mortgage brokers, direct marketers, or nonprofit organizations)
- What customers can do to limit some of that information sharing
- How the company safeguards personal nonpublic information against fraudulent access.

Consumers must now be given a privacy notice at the time they enter into a customer relationship with the company—for instance, when they open a checking account. And consumers, whether or not they have actually become "customers" (for example, consumers who have simply filled out an application), must be given a notice before their personal financial information is shared with a third party. In addition to this initial notice, customers, as long as they remain customers, must be given an annual notice describing the company's privacy policies and practices.

Consumers must be given an opportunity to tell the company not to share the information—that is, they must be allowed to "opt out." Opting out must be reasonably convenient—accomplished by checking a box on an application, returning a preaddressed reply form, or calling a toll-free telephone number, for example. And consumers must be allowed a "reasonable" length of time to respond (generally thirty days).

The opt-out right does not apply to all types of personal information. For example, it does not apply to a consumer's telephone number if that number is published in a telephone directory. The right also does not apply in certain situations—for example, consumers may not stop their banks from sharing information needed to process their credit card or check transactions, to comply with a court order, or to prevent fraud. A financial company may also disclose personal financial information to comply with federal, state, or local requirements—such as a local law requiring mortgage documents to be recorded in public records—without providing consumers an opt-out right.

Affairs Offices at the Board and the Reserve Banks offer resources and programs to promote personal financial literacy skills. In 2001, the Community Affairs staff at the Board organized workshops for Board employees on preparation for home ownership and on the effective use of credit. The Dallas Reserve Bank launched an interactive web-based version of *Building Wealth: A Beginner's Guide to Securing Your Financial Future*, a program to help

Origins of the New Rights to Financial Privacy

Financial companies share information about customers for a variety of reasons. In some instances, they may do so simply in the course of providing basic services to their customers—when they process credit card payments or arrange for the printing of personalized checks, for example. They may also use the information in offering additional services or introducing new banking products. Some consumers want to take advantage of these opportunities and are willing to have their personal financial information shared with third parties. Others prefer to limit the promotional materials they receive and do not want marketers and others to have such information.

Concern about consumer privacy led to passage of federal legislation governing the protection and disclosure of nonpublic personal information by financial companies as part of the Gramm–Leach–Bliley Act. Regulations implementing the act's privacy provisions were issued in June 2000 and became effective the following November. Eight federal agencies have responsibilities for enforcing the privacy provisions: the Board of Governors of the Federal Reserve System, the Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, the Office of Thrift Supervision, and the National Credit Union Administration (which collectively make up the Federal Financial Institutions Examination Council, or FFIEC); the Securities and Exchange Commission; the Federal Trade Commission; and the Commodity Futures Trading Commission.

Compliance with the Privacy Provisions

Financial companies supervised by the FFIEC agencies are subject to examination to ensure that they are complying with the provisions of the Gramm–Leach–Bliley Act. Examination procedures were developed by the FFIEC, and examinations began in July 2001 as part of regular consumer compliance examinations. As of the end of 2001, few violations had been found. Of those that were found, many concerned not giving notices on time or giving notices that did not contain all of the necessary information.

To help financial institutions in their efforts, the Board, working with the other agencies, has issued a set of frequently asked questions for financial institutions (available at http://www.federalreserve.gov/boarddocs/press/general/2001/200112122/attachment.pdf).

The eight federal agencies hosted a daylong workshop, "Get Noticed: Effective Financial Privacy Notices," in December 2001 to discuss how financial institutions can provide consumers with more effective notice of their privacy policies and practices. Information on the workshop is available at http://www.ftc.gov/bcp/workshops/glb/index.html.

Consumer Education

The Board and the other agencies have prepared information for consumers explaining their financial privacy rights under Gramm–Leach–Bliley. The information is available at http://www.federalreserve.gov/pubs/privacy.

consumers develop a plan for building personal wealth that includes setting financial goals, budgeting, saving and investing, and managing debt (http://www.dallasfed.org/htm/wealth/index.html). The Cleveland Reserve Bank continues to support the Consumer Federation of America's "Cleveland Saves" program to help low- and moderate-income families create personal savings plans. The New York and San Francisco Reserve Banks, in cooperation with a national nonprofit organization dedicated to the economic self-sufficiency of inner-city residents, are developing programs focused on enhancing economic as well as computer literacy.

Regulatory Matters

In March 2001, the Board revised Regulation E to implement amendments to the Electronic Fund Transfer Act concerning ATM fees. Under the amendments, ATM operators that impose a fee on consumers for providing electronic fund transfer (EFT) services must post a notice to that effect in a prominent location on or at the ATM where the transfer is initiated. Before a consumer commits to completing the transaction, the operator must disclose that a fee will be imposed and the amount of the fee. When a consumer contracts with a financial institution for an EFT service, such as obtaining an ATM or debit card, the institution's initial disclosures must include notice that a fee may be charged for transfers initiated at an ATM operated by another entity.

Also in March, the Board published interim rules establishing standards for the electronic delivery of federally mandated disclosures under five consumer protection regulations: Regulation B (Equal Credit Opportunity), Regulation E (Electronic Fund Transfers), Regulation M (Consumer Leasing), Regulation Z (Truth in Lending), and Regulation DD (Truth in Savings). In keeping with the Electronic Signatures in Global and National Commerce Act (the "E-Sign Act"), which was enacted in June 2000, financial institutions, creditors, and others may, under the Board's interim rules, deliver disclosures electronically if they obtain the consumer's consent. The interim rules are not final; they serve as guidance until final rules are adopted.

In addition to these rulemaking activities, the Board took the following regulatory and interpretive actions during the year:

- Raised from $465 to $480 the total dollar amount of points and fees that trigger additional requirements for certain mortgage loans under HOEPA, to reflect changes in the consumer price index (CPI), effective in January 2002

- Increased from $31 million to $32 million the exemption threshold for depository institutions required to collect data in the year 2002 under the Home Mortgage Disclosure Act, to reflect changes in the consumer price index for urban wage earners and clerical workers (CPI–W), as prescribed by the statute

- Revised the official staff commentary for Regulation E to provide guidance on transactions that involve electronic check conversion, whereby a consumer authorizes a merchant's use of a check to capture encoded information that is then used to initiate an electronic debit from the consumer's account. The commentary revisions also provide guidance on computer-initiated bill payments, the authorization of recurring debits from a consumer's account, and telephone-initiated transfers.

CRA Bank Examinations and Activities

The Community Reinvestment Act requires the Board and other banking agencies to encourage financial institutions to help meet the credit needs of the local communities in which they do business, consistent with safe and sound business practices. To carry out this mandate, the Federal Reserve has a three-faceted program that includes

- Examining institutions to assess compliance with the CRA
- Analyzing applications for mergers and acquisitions from state member banks and bank holding companies in relation to CRA performance
- Disseminating information on community development techniques to bankers and the public through Community Affairs Offices at the Reserve Banks.

Examinations for Compliance with the CRA

The Federal Reserve assesses the CRA performance of state member banks during regularly scheduled examinations for compliance with consumer protection regulations. By law, small banks (banks with assets of less then $250 million) that are rated "satisfactory" for CRA performance are examined not more than once every forty-eight months, and those that are rated "outstanding" for CRA purposes are examined not more than once every sixty months. During the 2001 reporting period, the Federal Reserve conducted 183 CRA examinations.[2] Of the banks examined, 29 were rated "outstanding" in meeting community credit needs, 151 were rated "satisfactory," 1 was rated "needs to improve," and 2 were rated as being in "substantial noncompliance."

Also during 2001, the Federal Reserve worked with the other agencies that have CRA responsibilities (the FDIC, OCC, and OTS) and issued the Board's Regulation G (Disclosure and Reporting of CRA-Related Agreements), the implementing regulation for the CRA Sunshine provisions of the Gramm–Leach–Bliley Act. The act requires insured depository institutions and nongovernmental entities or persons who are parties to CRA-related agreements to make certain of those agreements public and to file annual reports about their activities under the agreements.

Analysis of Applications in Relation to CRA Performance

Actions on bank and bank holding company applications during 2001 included the following:

- In February, the Board approved an application by FleetBoston Corp. (Boston, Mass.) to acquire Summit Bancorp (Princeton, N.J.).
- Also in February, the Board approved an application by MetLife, Inc. (New York, N.Y.), to become a bank holding company by acquiring Grand Bank, N.A. (Kingston, N.J.). This was the first application by an insurance company to become simultaneously a bank holding company and a financial holding company under the Gramm–Leach–Bliley Act.
- In April, the Board approved an application by Countrywide Credit Industries, Inc. (Calabasas, Calif.), to acquire Treasury Bank, Ltd. (Washington, D.C.). This was the first application by a nonbanking financial company engaged primarily in mortgage banking activities to become simultaneously a bank holding company and a financial holding company under the Gramm–Leach–Bliley Act.
- In July, the Board approved an application by Citigroup, Inc. (New York,

2. The 2001 reporting period was from July 1, 2000, through June 30, 2001.

N.Y.), to acquire European American Bank (Uniondale, N.Y.).

- Also in July, the Board approved an application by Citigroup, Inc. (New York, N.Y.), to acquire Grupo Financiero Banamex Accival, S.A. de C.V. and Banco Nacional de Mexico, S.A. (both in Mexico City, Mexico).

- In August, the Board approved an application by First Union Corp. (Charlotte, N.C.) to acquire Wachovia Corp. (Winston–Salem, N.C.). SunTrust Banks, Inc. (Atlanta, Ga.), submitted a competing bid for Wachovia, which it withdrew after Wachovia shareholders voted against SunTrust's proposal.

Comments from the public on each of these applications in relation to CRA performance raised allegations primarily about predatory lending, insufficient lending to lower-income areas, or inadequate banking services in lower-income areas. In each case, the Board found that the CRA records of the depository institutions were consistent with approval. In the case of the acquisition of European American Bank, the Board ordered an on-site examination of Citigroup's subprime-lending affiliates. The Board also stipulated that Citigroup must report quarterly for two years on the status of litigation involving subprime lending and on their compliance with court orders or court-approved settlements.

During the year, the Board acted on fourteen other bank and bank holding company applications that involved protests by members of the public concerning the performance of insured depository institutions in relation to the CRA. The Federal Reserve also reviewed three applications involving institutions having less than "satisfactory" CRA ratings (that is, "needs to improve" or "substantial noncompliance") and another thirty-nine applications involving other issues related to the CRA, fair lending, or compliance with consumer credit protection laws.[3]

Dissemination of Community Development Information

The Community Affairs Offices at the Reserve Banks continue to hold regular roundtable discussions with financial institutions in their Districts on issues related to the Community Reinvestment Act and community development. During 2001, some of the Banks sponsored training for lenders and community groups on the disclosure and reporting requirements for CRA-related agreements. (Also see the next section, "Community Affairs.")

Community Affairs

The System's Community Affairs program supports the economic growth objectives of the Federal Reserve by providing information and technical assistance to facilitate efficient markets in historically underserved communities. The year 2001 marked twenty years since the program's inception.

Community Affairs Offices throughout the System continued outreach activities and programs in rural markets. The Federal Reserve Banks of Atlanta, Cleveland, Richmond, Kansas City, and Minneapolis sponsored conferences to foster workforce development and encourage integration of community-

3. In addition, one application involving a CRA protest, another application involving an adverse CRA rating, and nine applications involving other CRA issues, fair lending issues, or compliance with consumer credit protection regulations were withdrawn in 2001.

based research, policies, and practices with community development activities. The Board's staff continued to work with the Rural Home Loan Partnership, an interagency group committed to increasing affordable housing in rural communities.

The San Francisco, Minneapolis, and Chicago Reserve Banks convened meetings and workshops for bankers, developers, and tribal representatives to provide information on the legal and policy aspects of financing housing and small businesses on Native American tribal lands. The Board's Community Affairs staff continued to participate in a task force with representatives of other federal agencies, nonprofit organizations, financial institutions, and other entities to promote financial literacy programs for members of Native American communities.

Recognizing the importance of support services to workforce development, the Community Affairs Offices participated in programs to improve access to child care. The Seattle Branch of the San Francisco Reserve Bank facilitated development of a micro-loan fund for child-care providers unable to secure conventional lending, and the New York and Philadelphia Reserve Banks sponsored a conference on investment and lending models for child-care facilities.

The Community Affairs program has expanded its reach to diverse communities and populations through effective use of information technology and communication tools. The Boston Reserve Bank cosponsors a web site to support faith-based community developers (http://www.faithandcommunityatwork.com), and the Dallas Reserve Bank publishes *e–Perspectives*, an electronic version of its community affairs newsletter (http://www.dallasfed.org / htm / pubs / perspectonline.html).

The preservation of affordable housing remains a central concern of the Community Affairs program. During 2001, Board staff served in various capacities to support housing activities conducted by external partners. They served as liaison to the advisory board for the Local Initiatives Support Corporation's Center for Home Ownership and assisted with planning an annual summit on housing issues. They also provided support to Board member Edward Gramlich, who chairs the board of directors of the Neighborhood Reinvestment Corporation—a national nonprofit organization charged by the Congress with revitalizing older, distressed communities.

Also during the year, the Board's Community Affairs Office engaged in interagency efforts to raise awareness of issues having national scope. For example, staff members worked with other agencies to publish *Crossing the Bridge to Self-Employment: A Federal Microenterprise Resource Guide*.

Through the programs described above, the Federal Reserve System during 2001 sponsored more than 300 conferences and workshops, conducted approximately 1,500 outreach meetings, facilitated research, and distributed more than 250,000 community economic development publications.

Consumer Advisory Council

The Consumer Advisory Council, whose members represent consumer and community organizations, the financial services industry, academic institutions, and state agencies, advises the Board of Governors on matters concerning laws that the Board administers and other issues related to consumer financial services. Council meetings are open to the public.

In 2001, the Council met in March, June, and October. The rules implementing the Community Reinvestment Act, scheduled for review by banking and thrift institution regulators in 2002, were a major topic at all three meetings. In March and June, Council members commented on the definition of "assessment area," the investment test, and the service test. They agreed that the assessment area definition needs to recognize that technological change has affected how and where financial institutions conduct business. Regarding the investment and service tests, members concluded that investments are important but challenging and difficult to make and that the service test provides opportunities for lenders to find innovative ways to serve communities and build banking relationships. In October, members offered views on the definition of small-business and community-development lending and on whether loan originations should receive more credit than loan purchases under the lending test.

The proposed amendments to Regulation Z, designed to broaden the scope of mortgage loans subject to the Home Ownership and Equity Protection Act, were a key topic at the March and June meetings. In March, Council members discussed expanding the dollar test applied to the points and fees trigger to include amounts paid at loan closing for single-premium credit life insurance. The June discussion focused on a proposal that creditors be prohibited from refinancing a zero-interest or low-interest loan into a higher-rate loan during the first five years of the loan unless the refinancing is in the borrower's interest; members considered the difficulty of defining "borrower's interest" and of identifying low-cost loans.

In March and June, the Council discussed the Board's proposed changes to Regulation C to improve the quality, clarity, and utility of data collected under the Home Mortgage Disclosure Act. At both meetings, members focused on the proposed requirements regarding the reporting of the annual percentage rate (APR) on home mortgage loans and discussed the burdens and benefits of having lenders report pricing and other data. Some members asserted that the reliability and validity of APR data for pricing analysis was questionable, but others believed that the reporting of the data would facilitate public debate and enable pricing concerns to be more readily addressed.

Also discussed during 2001 were the interim final rules governing the electronic delivery of disclosures required under Regulations B (Equal Credit Opportunity), E (Electronic Fund Transfers), M (Consumer Leasing), Z (Truth in Lending), and DD (Truth in Savings). In June and October, Council members discussed the requirement that an e-mail message be sent to the consumer when a disclosure is placed on a company's web site and supported flexibility in the rules for delivery of these alerts. They also discussed the challenges of re-delivering returned e-mail messages and provided differing views on the requirement that an institution maintain disclosures on a web site for ninety days.

In October, the Council began to identify issues for an upcoming review by the Board of Regulation Z. Members discussed the differences in disclosure requirements for open- and closed-end lending and noted that greater flexibility exists for open-end disclosures. Future discussions will focus on the types of disclosures that are important for credit card products and on streamlining the disclosures for closed-end mortgage loans to facilitate consumer comparisons of loan costs among lenders.

HMDA Data and Mortgage Lending Patterns

The Home Mortgage Disclosure Act requires that mortgage lenders covered by the act collect and make public certain data about their home purchase, home improvement, and refinancing loan transactions. Depository institutions generally are covered if they were located in metropolitan areas, met the asset threshold at the end of the preceding year, and originated at least one home purchase loan (or refinancing) in the preceding year. For 2000, the asset threshold was $30 million; for 2001, it was $31 million. Mortgage companies are covered if (1) they were located in or made loans in metropolitan areas, (2) had assets of more than $10 million (when combined with the assets of any parent company) at the end of the preceding year or originated 100 or more home purchase loans and refinancings in the preceding year, and (3) their home purchase loans (and refinancings) accounted for 10 percent or more of their total loans by dollar volume.

In 2001, a total of 6,704 depository institutions and affiliated mortgage companies and 1,009 independent mortgage companies reported HMDA data for calendar year 2000. Lenders submitted information about the geographic location of the properties related to loans and loan applications, the disposition of loan applications, and, in most cases, the race or national origin, income, and sex of applicants and borrowers. The Federal Financial Institutions Examination Council (FFIEC) processed the data and produced disclosure statements on behalf of the Department of Housing and Urban Development (HUD) and the FFIEC member agencies.[4]

The FFIEC prepared individual disclosure statements for each lender that reported data—one statement for each metropolitan area in which the lender had offices and reported loan activity. In 2001, the FFIEC prepared 52,776 disclosure statements, reporting data for calendar year 2000. Each institution made its disclosure statement public in July, and reports containing aggregate data for all lenders in a given metropolitan area were made available at central depositories in the nation's approximately 330 metropolitan areas. These data are used by the FFIEC member agencies, the reporting institutions, the public, the Department of Justice, and HUD. The data also assist HUD, the Department of Justice, and state and local agencies in responding to allegations of lending discrimination and in targeting lenders for further inquiry.[5]

The data reported for 2000 covered 19.2 million loans and applications, about 16 percent fewer than in 1999. The decline was due primarily to a decline of about 30 percent in refinancing activity. The number of home purchase loans extended in 2000 compared with 1999 increased 8 percent for Asians and 7 percent for Hispanics but fell 1 percent for blacks, 5 percent for Native Americans, and 6 percent for whites. Between 1993 and 2000, the number of home purchase loans extended increased 138 percent for Hispanics, 109 percent for Native Ameri-

4. The FFIEC member agencies are the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, the Office of Thrift Supervision, and the National Credit Union Administration.

5. On behalf of the nation's seven active private mortgage insurance (PMI) companies, the FFIEC also compiles information on applications for PMI similar to the information on home mortgage lending collected under HMDA. Lenders typically require PMI for conventional mortgages that involve small down payments.

cans, 89 percent for blacks, 84 percent for Asians, and 25 percent for whites.

For most income categories, the number of home purchase loans extended was lower in 2000 than in 1999; the number made to lower-income applicants fell 4 percent, but the number made to upper-income applicants rose 3 percent. From 1993 through 2000, the number of home purchase loans to lower-income and upper-income applicants increased 79 percent and 56 percent respectively.

In 2000, 31 percent of Hispanic applicants and 27 percent of black applicants for home purchase loans sought government-backed mortgages; the comparable figure for white and Native American applicants was 14 percent, and for Asian applicants 9 percent. Twenty-five percent of lower-income applicants for home purchase loans, compared with 9 percent of upper-income applicants, applied for government-backed mortgages.

Overall, the denial rate for conventional (that is, non-government-backed) home purchase loans was 27 percent in 2000. The rate rose steadily from 1993 through 1998 but has now fallen slightly (about 1 percentage point) for the second consecutive year. Denial rates for conventional home purchase loans in 2000 were 45 percent for black applicants, 42 percent for Native American applicants, 31 percent for Hispanic applicants, 22 percent for white applicants, and 12 percent for Asian applicants. Except for Asian applicants, each of these rates was lower than the comparable rate for 1999.

Economic Effects of the Electronic Fund Transfer Act

As required by the Electronic Fund Transfer Act (EFTA), the Board monitors the effects of the act on institutions' costs as well as the benefits of the act for consumers.

The proportion of U.S. households using EFT services has grown over the past decade at an annual rate of 3 percent, according to data from the Survey of Consumer Finances (the most recent data available from these triennial surveys were gathered in 1998; data from the 2001 survey are not yet available). Approximately 85 percent of households use one or more EFT services—for example, they use an ATM or debit card, direct deposit, or direct payment.

Automated teller machines remain the most widely used EFT service. About two-thirds of U.S. households have an ATM card. In 2001, the average number of ATM transactions a month exceeded 1.1 billion, a slight increase over the preceding year. The number of installed ATMs rose about 19 percent, to about 324,000.

Direct deposit is also widely used. About 60 percent of U.S. households have funds deposited directly into their transaction accounts (checking or savings). Use of the service is particularly common in the public sector, accounting for 78 percent of social security payments, 98 percent of federal salary and retirement payments, and 33 percent of federal income tax refunds during fiscal year 2001.

A less widely used EFT payment mechanism is direct bill-paying. About 36 percent of U.S. households have payments automatically deducted from their transaction accounts.

About one-third of U.S. households have debit cards, which are used at merchant terminals to debit their transaction accounts. Point-of-sale (POS) systems account for a fairly small share of electronic transactions, but their use continued to grow rapidly in 2001. From 2000 to 2001, the average number of POS transactions a month rose about 34 percent, from about 258.9 million to about 348.0 million, and the number of POS terminals rose about 30 percent, to about 3.6 million.

The incremental costs associated with the EFTA are difficult to quantify because no one knows how industry practices would have evolved in the absence of statutory requirements. The benefits of the act to consumers are also difficult to measure, because the protections afforded by the act cannot be isolated from protections that would have been provided in the absence of regulation. The available evidence suggests that there have been no serious consumer problems in relation to the act (see the section "Agency Reports on Compliance with Consumer Protection Laws and Regulations").

Compliance Activities

The Federal Reserve conducts compliance examinations to carry out its responsibility for ensuring that state member banks and certain foreign banking organizations comply with federal laws and regulations concerning fair lending and consumer protections. The Board provides consumer compliance training for the System's specialized examiners and participates in compliance-related activities of the Federal Financial Institutions Examination Council.

Compliance Examinations

During the 2001 reporting period (July 1, 2000, through June 30, 2001), the Federal Reserve conducted 343 consumer compliance examinations—261 examinations of state member banks and 82 examinations of foreign banking organizations.[6] To ensure that supervisory resources are targeting higher-risk areas, a consumer compliance risk-focused supervision program was fully implemented in 2001. The program emphasizes evaluating the appropriateness of an institution's risk-management practices and tailors supervisory activities to fit the institution's risk profile. The program also incorporates various monitoring procedures that are designed to identify high-risk institutions and to facilitate a more continuous supervisory process.

Fair Lending

Pursuant to a 1991 amendment to the Equal Credit Opportunity Act, the Board refers to the Department of Justice any violation of the act that it has reason to believe constitutes a "pattern or practice" of discrimination. During 2001 the Board referred one case involving disparate treatment in the underwriting of automobile loans.

In May the Board supplemented the interagency procedures for fair lending examinations by adopting alternative procedures for banks having low-discrimination-risk profiles. Typically, such banks are stable community banks, commonly specializing in commercial or agricultural lending, that are located in suburban or rural markets having a low percentage of minority residents. The alternative procedures are expected to reduce the resources devoted to these banks and to facilitate the allocation of resources for more intensive analysis of higher-risk institutions.

6. The foreign banking organizations examined by the Federal Reserve are organizations operating under section 25 or 25(a) of the Federal Reserve Act (Edge Act and agreement corporations) and state-chartered commercial lending companies owned or controlled by foreign banks. These institutions are not subject to the Community Reinvestment Act and typically engage in relatively few activities that are covered by consumer protection laws.

Examiner Training

Reserve Bank examiners receive training in consumer protection laws, fair lending laws, and the Community Reinvestment Act as well as in complaint analysis and investigation. During the 2001 reporting period, 221 examiners were trained in thirteen sessions of varying lengths. Offerings included basic and advanced compliance courses and courses on fair lending, the Community Reinvestment Act, and commercial lending. The consumer compliance curriculum is continually monitored and updated to reflect regulatory and marketplace changes.

Participation in FFIEC Activities

Through cooperation among its member agencies, the FFIEC develops uniform examination principles, standards, procedures, and report formats. In 2001, the FFIEC issued a revised report format and standardized tables for use in CRA performance evaluations; host-state loan-to-deposit ratios for determining compliance with section 109 of the Riegle–Neal Interstate Banking and Branching Efficiency Act of 1994; and documents providing answers to frequently asked questions about Regulation P (Consumer Privacy) and the CRA.

Agency Reports on Compliance with Consumer Protection Laws and Regulations

The Board is required to report annually on compliance with consumer protection laws and regulations by entities supervised by the various federal agencies. Summarized in this section are data collected from the twelve Federal Reserve Banks, the FFIEC member agencies, and other federal supervisory agencies.[7]

Regulation B (Equal Credit Opportunity)

The FFIEC agencies reported that 83 percent of the institutions examined during the 2001 reporting period were in compliance with Regulation B, compared with 81 percent for the 2000 reporting period. Of the institutions not in full compliance, 20 percent had five or fewer violations. The most frequent violations involved the failure to take one or more of the following actions:

- Provide a written notice of credit denial or other adverse action containing a statement of the action taken, the name and address of the creditor, a notice of rights, and the name and address of the federal agency that enforces compliance
- Provide a statement of reasons for credit denial or other adverse action that is specific and indicates the principal reasons for the adverse action
- Collect information for monitoring purposes about the race or national origin, sex, marital status, and age of the applicants seeking credit primarily for the purchase or refinancing of a principal residence
- Notify the credit applicant of the action taken within the time frames specified in the regulation.

Four formal enforcement actions containing provisions relating to Regula-

7. Because the agencies use different methods to compile the data, the information presented here supports only general conclusions. The 2001 reporting period was from July 1, 2000, through June 30, 2001.

tion B were issued during the 2001 reporting period—three by the FDIC and one by the OCC. The Federal Trade Commission (FTC) filed one action and continued other litigation against two mortgage lenders for alleged violations of the Equal Credit Opportunity Act (ECOA). The alleged violations include, among other things, failing to take written applications for mortgage loans, failing to provide rejected applicants with written notice of adverse action, and failing to collect required information about the race or national origin, sex, marital status, and age of applicants.

The other agencies that enforce the ECOA—the Farm Credit Administration (FCA), the Department of Transportation (DOT), the Securities and Exchange Commission (SEC), the Small Business Administration (SBA), and the Grain Inspection, Packers and Stockyards Administration of the Department of Agriculture—reported substantial compliance among the entities they supervise. The FCA's examination and enforcement activities revealed violations of the ECOA mostly attributable to creditors' failure to collect information for monitoring purposes and failure to comply with rules regarding adverse action notices. No formal enforcement actions containing provisions relating to Regulation B were initiated by these agencies.

Regulation E (Electronic Fund Transfers)

The FFIEC agencies reported that approximately 95 percent of the institutions examined during the 2001 reporting period were in compliance with Regulation E, compared with 94 percent for the 2000 reporting period. The most frequent violations involved the failure to comply with the following requirements:

- Investigate an alleged error promptly after receiving a notice of error
- Determine whether an error actually occurred, and transmit the results of the investigation and determination to the consumer within ten business days
- Credit the customer's account in the amount of the alleged error within ten business days of receiving the error notice if more time is needed to conduct the investigation
- Provide initial disclosures at the time a consumer contracts for an electronic fund transfer service or before the first electronic fund transfer involving the consumer's account is made.

In 2001, the FDIC issued three formal enforcement actions containing provisions relating to Regulation E. The FTC continued its efforts to educate consumers and businesses in this area and released a new brochure, *Electronic Check Conversion*, that gives consumers information about this new form of electronic banking.

Regulation M (Consumer Leasing)

The FFIEC agencies reported that more than 99 percent of the institutions examined during the 2001 reporting period were in full compliance with Regulation M. This level of compliance is comparable to the level during the 2000 reporting period. The few violations noted involved failure to adhere to specific disclosure requirements. The agencies did not issue any formal enforcement actions containing provisions relating to Regulation M.

Regulation Z (Truth in Lending)

The FFIEC agencies reported that 79 percent of the institutions examined during the 2001 reporting period were in compliance with Regulation Z, compared with 77 percent for the 2000 reporting period. Of the institutions not in full compliance, 75 percent had five or fewer violations, compared with 64 percent in 2000. The most frequent violations involved the failure to take one or more of the following actions:

- Accurately disclose the finance charge, payment schedule, annual percentage rate, security interest in collateral, or amount financed
- Disclose the annual percentage rate on a periodic statement using the term "annual percentage rate"
- Provide disclosures within three business days of application as required for applications for residential mortgages covered by the Real Estate Settlement Procedures Act
- Ensure that disclosures reflect the terms of the legal obligation between the parties
- Provide the index value for adjustments to variable-rate loans.

Four formal enforcement actions containing provisions relating to Regulation Z were issued during the 2001 reporting period—three by the FDIC and one by the OCC. In addition, 218 institutions supervised by the Federal Reserve, the FDIC, or the OTS were required, under the Interagency Enforcement Policy on Regulation Z, to refund a total of approximately $891,000 to consumers in 2001 because of improper disclosures.

In 2001, the FTC continued its efforts to curb abusive practices by some subprime mortgage lenders, initiating one new action and pursuing two ongoing litigations against mortgage lenders for alleged violations of the Truth and Lending Act (TILA) and the Home Ownership and Equity Protection Act. In addition, the FTC obtained settlements in two cases that alleged violations of the TILA and Regulation Z—one involving vacation travel packages and the other, Internet-access products and services.

The DOT is currently investigating cases involving four different air carriers regarding possible violations of the TILA. All four cases involve the timeliness of processing requests for credit card refunds. In 2001, the DOT continued to prosecute a cease-and-desist consent order issued in 1993 against a travel agency and a charter operator. The complaint alleged that the two organizations had violated Regulation Z by routinely failing to send credit statements for refund requests to credit card issuers within seven days of receiving fully documented credit refund requests from customers.

Regulation AA (Unfair or Deceptive Acts or Practices)

The three banking regulators with responsibility for enforcing Regulation AA's Credit Practices Rule—the Federal Reserve, the OCC, and the FDIC—reported that 99 percent of institutions examined during the 2001 reporting period were in compliance. Of the institutions not in full compliance, the most frequently cited violations involved

- Failing to provide a clear, conspicuous disclosure regarding a cosigner's liability for a debt

- Entering into a consumer credit contract containing a nonpossessory security interest in household goods.

No formal enforcement actions containing provisions relating to Regulation AA were issued during the 2001 reporting period.

Regulation DD (Truth in Savings)

The FFIEC agencies reported that 88 percent of institutions examined during the 2001 reporting period were in compliance with Regulation DD. Of the institutions not in full compliance, the most frequently cited violations involved

- Advertisements that were inaccurate or misleading (or both)
- Use of the phrase "annual percentage yield" in an advertisement without disclosing additional terms and conditions of customer accounts
- Failure to provide all applicable information on account disclosures.

No formal enforcement actions containing provisions relating to Regulation DD were issued during the 2001 reporting period.

Consumer Complaints

The Federal Reserve investigates complaints against state member banks and forwards to the appropriate enforcement agency complaints it receives that involve other creditors and businesses.

During 2001, the Federal Reserve fully implemented an automated system for generating letters designed to help Reserve Banks expedite responses to consumer complaints. The letter-generation system is a component of the Complaints Analysis Evaluation System and Reports (CAESAR) database, which is used to track complaints and inquiries. The CAESAR system produces

Consumer Complaints against State Member Banks and Other Institutions Received by the Federal Reserve System, 2001

Subject	State member banks	Other institutions[1]	Total
Regulation B (Equal Credit Opportunity)	59	27	86
Regulation E (Electronic Fund Transfers)	41	55	96
Regulation H (Bank Sales of Insurance)	0	0	0
Regulation M (Consumer Leasing)	0	1	1
Regulation P (Privacy of Consumer Financial Information)	14	19	33
Regulation Q (Payment of Interest)	0	0	0
Regulation Z (Truth in Lending)	300	560	860
Regulation BB (Community Reinvestment)	3	2	5
Regulation CC (Expedited Funds Availability)	22	28	50
Regulation DD (Truth in Savings)	38	55	93
Fair Credit Reporting Act	178	270	448
Fair Debt Collection Practices Act	8	13	21
Fair Housing Act	8	5	13
Flood insurance rules	2	5	7
Regulations T, U, and X	0	0	0
Real Estate Settlement Procedures Act	7	11	18
Unregulated practices	1,359	1,412	2,771
Total	**2,039**	**2,463**	**4,502**

1. Complaints against these institutions were referred to the appropriate regulatory agencies.

Consumer Complaints Received by the Federal Reserve System, by Subject of Complaint, 2001

Subject of complaint	Complaints against state member banks: Total: Number	Total: Percent	Not investigated: Unable to obtain sufficient information from consumer	Not investigated: Explanation of law provided to consumer	Investigated: Bank legally correct: No reimbursement or other accommodation	Investigated: Bank legally correct: Goodwill reimbursement or other accommodation
Loans						
Discrimination alleged						
Real estate loans	15	1	0	3	4	1
Credit cards	19	1	0	1	13	2
Other loans	25	1	1	8	5	0
Other type of complaint						
Real estate loans	22	1	1	7	10	0
Credit cards	797	39	7	25	213	460
Other loans	254	13	2	75	94	28
Deposits	608	30	5	99	257	112
Electronic fund transfers	41	2	0	5	17	7
Trust services	25	1	2	8	11	0
Other	233	11	12	75	79	18
Total	**2,039**	**100**	**30**	**306**	**703**	**628**

acknowledgment letters based on information maintained in the database but also allows Reserve Banks to tailor letters to particular circumstances.

Besides conducting training for Reserve Bank staff in complaint analysis and investigation during the year, Board staff also held sessions on the CAESAR query facility, which allows the System to track individual complaints as well as to aggregate data for purposes of trend analysis.

Also continuing in 2001 was the System's residency program for Reserve Bank staff who come to the Board for several weeks at a time to work with complaint staff on projects and to gain familiarity with complaint operations in Washington.

Complaints against State Member Banks

In 2001 the Federal Reserve received a total of 4,502 complaints—3,875 by mail, 545 by telephone, 10 in person, and 72 electronically via the Internet. Complaint volume was reduced in the fourth quarter because of problems in the national mail system, including mail facilities in the Washington metropolitan area.

About 45 percent of the complaints were against state member banks (see tables). Of the complaints against state member banks, 56 percent involved credit transactions: 3 percent alleged discrimination on a basis prohibited by law (race, color, religion, national

Consumer Complaints Received—Continued

Complaints against state member banks						Referred to other agencies	Total complaints
Investigated					Pending, December 31		
Customer error	Bank error	Factual or contractual dispute—resolvable only by courts	Possible bank violation—bank took corrective action	Matter in litigation			
0	0	0	1	0	6	13	28
0	0	0	0	0	3	8	27
0	0	1	1	1	8	6	31
0	1	0	1	2	0	18	40
1	59	6	0	1	25	807	1,604
1	30	9	1	7	7	401	655
1	80	19	0	12	23	509	1,117
0	6	1	2	2	1	55	96
0	0	3	0	1	0	14	39
1	21	10	1	3	13	632	865
4	**197**	**49**	**7**	**29**	**86**	**2,463**	**4,502**

origin, sex, marital status, age, the fact that the applicant's income comes from a public assistance program, or the fact that the applicant has exercised any right under the Consumer Credit Protection Act), and 53 percent concerned other credit-related practices, such as the imposition of annual membership fees on credit card accounts, the amount of interest banks charge on credit card accounts, or credit denial on a basis not prohibited by law (for example, credit history or length of residence). Thirty percent of the complaints against state member banks involved disputes about interest on deposits and general deposit account practices, and the remaining 14 percent concerned disputes about electronic fund transfers, trust services, or other practices. Information on the outcomes of the investigations of these complaints is provided in the table.

During 2001, the System completed investigations of 181 complaints against state member banks that were pending at year-end 2000 and found three violations of regulations. In the vast majority of cases, the banks had correctly handled customers' accounts; notwithstanding, banks chose to reimburse or otherwise accommodate consumers in more than half of these cases.

The Federal Reserve received more than 1,800 inquiries about consumer credit and banking policies and practices during the year. In responding to these inquiries, the Board and the Reserve Banks gave specific explanations of laws, regulations, and banking practices and provided relevant printed materials on consumer issues.

To assess satisfaction with the System's handling of complaints, the Board sends complainants follow-up questionnaires. Because of mail disruptions during the fourth quarter of 2001, analysis of data for the entire year was impossible. However, data for the first three quarters show that consumers were satisfied or very satisfied with the System's handling of their complaints.

Unregulated Practices

As required by section 18(f) of the Federal Trade Commission Act, the Board continues to monitor complaints about banking practices that are not subject to existing regulations and to focus on those complaints that concern possible unfair or deceptive practices. In 2001 the Board received a wide range of complaints about unregulated practices. The category that received the most complaints involved credit cards: Consumers complained about penalty charges (125), interest rates and terms (118), other miscellaneous problems involving credit cards (113), and customer service problems (101). The remainder of the complaints concerned a wide range of unregulated practices in other areas, including such matters as check-cashing problems experienced by non–account holders, consumer dissatisfaction with reduced availability of branch tellers, and the marketing practice of banks' sending what appear to be "live" checks in the mail.

Complaint Referrals to HUD

In 2001 the Federal Reserve, in accordance with a memorandum of understanding between the Department of Housing and Urban Development and the federal bank regulatory agencies, referred nine complaints to HUD that alleged state member bank violations of the Fair Housing Act. Of the six investigations completed by the Federal Reserve, five revealed no evidence of unlawful discrimination. The parties in the sixth complaint were seeking resolution through the courts; the Federal Reserve does not intervene in consumer cases that are in litigation. ▪

Banking Supervision and Regulation

The U.S. banking system maintained its overall financial strength in 2001 despite having weathered some of the most challenging operating conditions in a decade. An already slowing economy slid into recession, dampening consumer confidence and equity markets generally. Conditions became even worse in the aftermath of the September 11 terrorist attacks in New York and Washington, D.C. The effects of the attacks and the bursting of the high-tech bubble, together with the largest chapter 11 bankruptcy ever (filed by domestic energy-trading company Enron) and events in Argentina, exacerbated a deterioration in credit conditions.

Nevertheless, banking industry net income rose 6 percent during the year. Asset growth continued, and the return on assets remained at a historically high level. Net interest margins narrowed slightly, particularly at community banks, in response to very low market interest rates and reluctance by banks to fully reflect lower rates in their core deposit pricing. Monetary easing induced a record volume of mortgage loan originations and refinancings, which contributed to strong growth in fee income. However, depressed financial markets constrained larger banks' ability to generate revenue from nontraditional banking activities, particularly investment banking, asset management, private equity investments, and trading. Even with reduced market-sensitive revenues, total non-interest income improved somewhat, buttressed by securities gains (versus losses a year earlier).

Credit costs mounted as banks raised provisioning rates in excess of net charge-off rates, both of which reached the highest levels since 1992. Commercial net charge-off rates surged, reflecting the adverse effect on corporate earnings of a retrenchment in business investment, particularly investment in equipment and software. With unemployment rates and personal bankruptcies rising, consumer net charge-off rates rose moderately. Compared with the previous year, the banking industry's nonperforming assets grew 28 percent, to $44.9 billion, or 1.1 percent of loans and foreclosed assets, still well below the peak that prevailed during the last recession. Through this period, banks maintained adequate loss reserves and improved their capital ratios.

The generally benign effect of relatively stressful events on the financial condition of U.S. banks in 2001 may reflect, at least in part, the progress that banks and their regulators have made in identifying and responding promptly to emerging weakness. Many banking organizations, particularly large organizations, have developed and are implementing more sophisticated risk-measurement and risk-management systems that help them evaluate and price credit risk better and identify changing levels of risk as they occur.

Through the Basel Committee on Banking Supervision, the Federal Reserve and other bank supervisors worldwide are building on banks' internal risk-measurement systems in revising regulatory capital requirements for internationally active banks. In January 2001, the Basel Committee issued for public comment a proposal to base capital requirements on an institution's internal credit-risk ratings and other factors, such as its estimates of expected loss. This development effort continues.

The terrorist attacks of September 11 temporarily disrupted many interbank and securities settlement activities and strained the activities of key institutions in these markets before communications and operating systems were fully restored. Throughout the period, Federal Reserve System supervisory staff facilitated communications within the banking and regulatory systems and worked to minimize the disruptive effects. The experience highlighted the need to review and strengthen contingency plans within the financial system and its oversight process. That work is also actively under way.

November 2001 marked the second anniversary of enactment of the Gramm–Leach–Bliley Act, which allows bank holding companies to become "financial holding companies" (FHCs) and to conduct a broad range of banking, securities, and insurance-underwriting activities. As the "umbrella supervisor" of all FHCs, the Federal Reserve relies as much as possible on the supervisory efforts of an institution's primary bank supervisor and nonbank functional regulator(s) to ensure that any nonbank activities do not present unacceptable risks to affiliated banks. By year-end, 567 domestic bank holding companies and 23 foreign banking organizations had received FHC status, suggesting potentially widespread interest in the expanded powers provided by the legislation. To date, however, many FHCs are such in name only, conducting little or no expanded activity permissible under the law (see box, "Organizational Evolution: Results of the Gramm–Leach–Bliley Act").

Uncertainty is a key factor in any commercial activity, and 2001 presented significant challenges to many banks. Nevertheless, the U.S. banking system remains strong in its ability to deal with adversities and to continue supporting domestic and worldwide economic growth.

Scope of Responsibilities for Supervision and Regulation

The Federal Reserve is the federal supervisor and regulator of all U.S. bank holding companies (including financial holding companies formed under the authority of the Gramm–Leach–Bliley Act) and of state-chartered commercial banks that are members of the Federal Reserve System. In overseeing these organizations, the Federal Reserve seeks primarily to promote their safe and sound operation and their compliance with laws and regulations, including the Bank Secrecy Act and consumer protection and civil rights laws.[1]

The Federal Reserve also has responsibility for the supervision of all Edge Act and agreement corporations; the international operations of state member banks and U.S. bank holding companies; and the operations of foreign banking companies in the United States.

The Federal Reserve exercises important regulatory influence over entry into the U.S. banking system and the structure of the system through its administration of the Bank Holding Company

1. The Board's Division of Consumer and Community Affairs is responsible for coordinating the Federal Reserve's supervisory activities with regard to the compliance of banking organizations with consumer protection and civil rights laws. To carry out this responsibility, the Federal Reserve trains a number of its bank examiners in the evaluation of institutions with regard to such compliance. The chapter of this volume covering consumer and community affairs describes these regulatory responsibilities. Compliance with other banking statutes and regulations, which is treated in this chapter, is the responsibility of the Board's Division of Banking Supervision and Regulation and the Federal Reserve Banks, whose examiners also check for safety and soundness.

Act, the Bank Merger Act (with regard to state member banks), the Change in Bank Control Act (with regard to bank holding companies and state member banks), and the International Banking Act. The Federal Reserve is also responsible for imposing margin requirements on securities transactions. In carrying out these responsibilities, the Federal Reserve coordinates its supervisory activities with other federal banking agencies, state agencies, functional regulators, and the bank regulatory agencies of other nations.

Supervision for Safety and Soundness

To ensure the safety and soundness of banking organizations, the Federal Reserve conducts on-site examinations and inspections and off-site surveillance and monitoring. It also undertakes enforcement and other supervisory actions.

Examinations and Inspections

The Federal Reserve conducts examinations of state member banks, branches and agencies of foreign banks, and Edge Act and agreement corporations. In a process distinct from examinations, it conducts inspections of holding companies and their nonbank subsidiaries. Preexamination planning and on-site review of operations are integral parts of the overall effort to ensure the safety and soundness of financial institutions. Whether it is an examination or an inspection, the review entails (1) an assessment of the quality of the processes in place to identify, measure, monitor, and control risks, (2) an appraisal of the quality of the institution's assets, (3) an evaluation of management, including an assessment of internal policies, procedures, controls, and operations, (4) an assessment of the key financial factors of capital, earnings, liquidity, and sensitivity to market risk, and (5) a review for compliance with applicable laws and regulations.

State Member Banks

At the end of 2001, 970 state-chartered banks (excluding nondepository trust companies and private banks) were members of the Federal Reserve System. These banks represented approximately 12.1 percent of all insured U.S. commercial banks and held approximately 25.9 percent of all insured commercial bank assets in the United States.

The guidelines for Federal Reserve examinations of state member banks are fully consistent with section 10 of the Federal Deposit Insurance Act, as amended by section 111 of the Federal Deposit Insurance Corporation Improvement Act of 1991 and by the Riegle Community Development and Regulatory Improvement Act of 1994. A full-scope, on-site examination of these banks is required at least once a year; exceptions are certain well-capitalized, well-managed institutions having assets of less than $250 million, which may be examined once every eighteen months.

During 2001 the Federal Reserve Banks conducted 534 examinations of state member banks (some of them jointly with state agencies), and state banking departments conducted 264 independent examinations of state member banks.

Bank Holding Companies

At year-end 2001, a total of 6,318 U.S. bank holding companies were in operation. These organizations controlled 6,420 insured commercial banks and held approximately 94.2 percent of all insured commercial bank assets.

Organizational Evolution: Results of the Gramm–Leach–Bliley Act

With passage of the Gramm–Leach–Bliley Act (GLBA) in 1999, the Congress removed long-standing legal impediments to the combining of banking, insurance, and securities activities within a single financial institution. Since then, more than 550 domestic bank holding companies have elected to become financial holding companies (FHCs). In addition, a few U.S. securities firms and one large insurance company have elected financial holding company status. Data collected by the Federal Reserve (summarized in the table) document the increase in the number of domestic financial holding companies since the act's implementation. They also show a substantial increase in U.S. financial holding company assets associated with GLBA activities.

Many of the largest bank holding companies are FHCs; most domestic FHCs, however, are relatively small. As of December 31, 2001, domestic FHCs reported $6.1 trillion in total assets, or about 80 percent of U.S. bank holding company assets. Many large FHCs have used the authority granted by the GLBA to conduct securities underwriting and merchant banking activities; several have also engaged in insurance underwriting. About one-fifth of domestic financial holding companies have established insurance agencies under GLBA authority; insurance brokerage is the only financial activity that many smaller FHCs are conducting under the act.

Twenty-three foreign banking organizations had also received FHC status as of December 31, 2001. Sixteen of these companies were conducting financial activities under GLBA authority as of year-end 2001, primarily as broker–dealers (thirteen) and merchant banks (nine). Five of the sixteen had insurance underwriting subsidiaries, and two were operating insurance agencies.

Federal Reserve guidelines call for annual inspections of large bank holding companies as well as smaller companies that have significant nonbank assets. In judging the financial condition of the subsidiary banks owned by holding companies, Federal Reserve examiners consult examination reports prepared by the federal and state banking authorities that have primary responsibility for the supervision of these banks, thereby minimizing duplication of effort and reducing the burden on banking organizations. In 2001, Federal Reserve examiners conducted 1,212 bank holding company inspections, of which 1,118 were on site and 94 were off site, and state examiners conducted 79 independent inspections.

Small, non-complex bank holding companies—those that have less than $1 billion in consolidated assets, do not have debt outstanding to the public, and do not engage in significant nonbank activities—are subject to a special supervisory program that became effective in 1997.[2] The program permits a more flexible approach to supervision of those entities in a risk-focused environment. Each such holding company is subject to off-site review once during the examination cycle for the com-

2. Certain modifications to this supervisory program will be adopted at the beginning of 2002. These modifications will extend the program to *all* bank holding companies that have less than $1 billion in consolidated assets.

Domestic FHCs and their activities under GLBA authority

Item	2000		2001	
	June 30	Dec. 31	June 30	Dec. 31
Number of FHCs				
Large	74	91	112	114
Small	250	371	416	453
Using GLBA authority				
Large	36	44	58	58
Small	28	47	60	77
GLBA activities, by number of FHCs and related assets or investments (billions of dollars)				
Securities underwriting activities				
Number	31	35	41	39
Assets	529	519	619	668
Merchant banking activities				
Number	16	16	21	25
Carrying value of investments	5	8	9	8
Insurance underwriting activities				
Number	7	11	15	21
Assets	114	116	327	342
Insurance agency activities				
Number				
Large	13	19	30	33
Small	25	43	58	68

NOTE. Large financial holding companies (FHCs) are defined here as those with assets of $1 billion or more; small FHCs, those with assets of less than $1 billion.

pany's lead bank. In 2001 the Federal Reserve conducted 2,594 reviews of these companies.

Financial Holding Companies

As of year-end 2001, 567 domestic bank holding companies and 23 foreign banking organizations had received financial holding company status. Of the domestic institutions, 34 had consolidated assets of $15 billion or more, 80 between $1 billion and $15 billion, 54 between $500 million and $1 billion, and 399 less than $500 million.

Specialized Examinations

The Federal Reserve conducts specialized examinations of banking organizations in the areas of information technology, fiduciary activities, transfer agent activities, and government and municipal securities dealing and brokering. The Federal Reserve also conducts specialized examinations of certain entities, other than banks, brokers, or dealers, who extend credit subject to the Board's margin regulations.

With passage of the Gramm–Leach–Bliley Act in 1999, the Federal Reserve ceased conducting routine annual examinations of securities underwriting and dealing activities through so-called section 20 subsidiaries of bank holding companies. Under the act, the Federal Reserve is generally required to rely on the supervisory activities of the "functional regulator" for broker–dealer subsidiaries unless the Board has cause to believe that a broker–dealer poses a material risk to an insured depository affiliate. No such examinations for cause were conducted during 2001.

The Federal Reserve has developed a series of case studies to educate System personnel responsible for supervising nonbank activities about communications with, and reliance on the supervisory activities of, functional regulators (that is, regulators for securities, commodities, and insurance activities).

Information Technology

In recognition of the importance of information technology to safe and sound operations in the financial industry, the Federal Reserve reviews the information technology activities of the banking institutions it examines as well as certain independent data centers that provide information technology services to these institutions. In 2000, the information technology reviews of banking institutions were integrated into the overall process of supervision, and thus all safety and soundness examinations are now expected to include a review of information technology risks and activities. During the year, the Federal Reserve was the lead agency in one examination of a large, multiregional data processing servicer examined in cooperation with the other federal banking agencies.

Fiduciary Activities

The Federal Reserve has supervisory responsibility for institutions that together hold more than $15 trillion of assets in various fiduciary capacities. During on-site examinations of fiduciary activities, the institution's compliance with laws, regulations, and general fiduciary principles and potential conflicts of interest are reviewed; its management and operations, including its asset- and account-management, risk-management, and audit and control procedures, are also evaluated. In 2001, Federal Reserve examiners conducted 177 on-site trust examinations.

Transfer Agents and Securities Clearing Agencies

As directed by the Securities Exchange Act of 1934, the Federal Reserve conducts specialized examinations of those state member banks and bank holding companies that are registered with the Board as transfer agents. Among other things, transfer agents countersign and monitor the issuance of securities, register the transfer of securities, and exchange or convert securities. On-site examinations focus on the effectiveness of the institution's operations and its compliance with relevant securities regulations. During 2001, the Federal Reserve conducted on-site examinations at 33 of the 108 state member banks and bank holding companies that were registered as transfer agents. Also during the year the Federal Reserve examined one state member limited-purpose trust company acting as a national securities depository.

Government and Municipal Securities Dealers and Brokers

The Federal Reserve is responsible for examining state member banks and foreign banks for compliance with the Government Securities Act of 1986 and with Department of the Treasury regulations governing dealing and brokering in government securities. Thirty-nine state member banks and 9 state branches of foreign banks have notified the

Board that they are government securities dealers or brokers not exempt from Treasury's regulations. During 2001 the Federal Reserve conducted 11 examinations of broker–dealer activities in government securities at these institutions.

The Federal Reserve is also responsible for ensuring compliance with the Securities Act Amendments of 1975 by state member banks and bank holding companies that act as municipal securities dealers. Of the 31 entities that dealt in municipal securities during 2001, 10 were examined during the year.

Securities Credit Lenders

Under the Securities Exchange Act of 1934, the Federal Reserve Board is responsible for regulating credit in certain transactions involving the purchase or carrying of securities. In addition to examining banks under its jurisdiction for compliance with the Board's margin regulations as part of its general examination program, the Federal Reserve maintains a registry of persons other than banks, brokers, and dealers who extend credit subject to those regulations. The Federal Reserve may conduct specialized examinations of these lenders if they are not already subject to supervision by the Farm Credit Administration, the National Credit Union Administration, or the Office of Thrift Supervision.

At the end of 2001, 802 lenders other than banks, brokers, or dealers were registered with the Federal Reserve. Other federal regulators supervised 183 of these lenders, and the remaining 619 were subject to limited Federal Reserve supervision. On the basis of regulatory requirements and annual reports, the Federal Reserve exempted 273 lenders from its on-site inspection program. The securities credit activities of the remaining 346 lenders were subject to either a biennial or triennial inspection. Sixty-five inspections were conducted during the year, compared with 147 in 2000.

Enforcement Actions and Civil Money Penalties

In 2001 the Federal Reserve initiated 21 enforcement cases involving 30 separate actions, such as cease-and-desist orders, written agreements, removal and prohibition orders, and civil money penalties. The Board of Governors collected $66.4 million in civil money penalties, which included a substantial collection from the BCCI case, a long-standing litigation matter. All funds collected were remitted to the U.S. Department of the Treasury.

All final enforcement orders issued by the Board and all written agreements executed by the Reserve Banks in 2001 are available to the public and can be accessed from the Board's public web site (http://www.federalreserve.gov/boarddocs/enforcement).

In addition to formal enforcement actions, the Reserve Banks in 2001 completed 111 informal enforcement actions, such as resolutions with boards of directors and memorandums of understanding.

Risk-Focused Supervision

In recent years the Federal Reserve has created several programs aimed at enhancing the effectiveness of the supervisory process. The main objective of these initiatives has been to sharpen the focus on (1) those business activities posing the greatest risk to banking organizations and (2) the organizations' management processes for identifying, measuring, monitoring, and controlling their risks.

Regional Banking Organizations

The risk-focused supervision program for regional banking organizations applies to institutions having a functional management structure, a broad array of products, and operations that span multiple supervisory jurisdictions. For smaller regional banking organizations, the supervisory program may be implemented with a point-in-time inspection; for larger institutions, the program may take the form of a series of targeted reviews. For the largest, most complex institutions, the process is continuous, as described in the next section. To minimize burden on the institution, work is performed off site to the greatest extent possible. Additionally, to reduce the number of information requests to the institution, examiners make use of public and regulatory financial reports, market data, information from the automated surveillance screening systems (see later section "Surveillance and Monitoring Programs"), and internal management reports.

Large, Complex Banking Organizations

The Federal Reserve applies a risk-focused supervision program to large, complex banking organizations (LCBOs).[3] The key features of the LCBO supervision program are (1) identifying those LCBOs that, based on their shared risk characteristics, present the highest level of supervisory risk to the Federal Reserve System, (2) maintaining continual supervision of these institutions to keep current the Federal Reserve's assessment of each organization's condition, (3) assigning to each LCBO a supervisory team composed of Reserve Bank staff members who have skills appropriate for the organization's risk profile (the team leader is the central point of contact, has responsibility for only one LCBO, and is supported by specialists skilled in evaluating the risks of LCBO business activities and functions), and (4) promoting Systemwide and interagency information-sharing through an automated system.

Supporting the supervision process is an automated application and database—the Banking Organization National Desktop (BOND)—which is being developed to facilitate real-time, secure information-sharing and collaboration across the Federal Reserve System and with certain other federal and state regulators. The final stage of phase I of BOND development was implemented during 2001, and work was begun on phase II, which will add functionality that promotes analysis across institutions.

The events of September 11, 2001, directly and adversely affected the functioning of U.S. payment and clearing systems, requiring an extraordinary cooperative and coordinated effort among bank supervisory agencies both domestically and internationally. In addition to providing supervisory guidance for regulated institutions during the crisis, LCBO supervisory staffs across the Federal Reserve System facilitated the sharing of information among financial regulatory agencies worldwide; in many instances, examiners were sent on site to lend assistance to and assess the status of key institutions.

Community Banks

The risk-focused supervision program for community banks emphasizes that certain elements are critical to the suc-

3. For an overview of the Federal Reserve's LCBO program, see the article by Lisa M. DeFerrari and David E. Palmer, "Supervision of Large Complex Banking Organizations," in the *Federal Reserve Bulletin*, vol. 87 (February 2001), pp. 47–57.

cess of the risk-focused process. These elements include adequate planning time, completion of a pre-examination visit, preparation of a detailed scope-of-examination memorandum, thorough documentation of the work done, and preparation of an examination report tailored to the scope of the examination. The framework for risk-focused supervision of community banks was developed jointly with the Federal Deposit Insurance Corporation and has been adopted by the Conference of State Bank Supervisors.

Surveillance and Monitoring Programs

The Federal Reserve uses automated screening systems to monitor the financial condition and performance of state member banks and bank holding companies between on-site examinations. The screening systems analyze supervisory data and regulatory financial reports to identify companies that appear to be weak or deteriorating. This analysis helps to direct examination resources to institutions exhibiting higher risk profiles. Screening systems also assist in the planning of examinations by identifying companies that are engaging in new or complex activities. Also used in the monitoring process are quarterly Bank Holding Company Performance Reports prepared by the Federal Reserve.

During 2001, the Federal Reserve refined its surveillance program for small bank holding companies to respond to changes in supervisory procedures for these institutions. The revised screening systems focus on identifying potential problems at parent companies and nonbank subsidiaries that could adversely affect affiliated insured depository institutions. In particular, the screens address parent company cash flow, intercompany transactions, parent company leverage, and consolidated capital ratios. Also during the year the Federal Reserve revised the Bank Holding Company Performance Report to incorporate new information on sources of nonbank income and on insurance activities.

The Federal Reserve works with the other federal banking agencies to enhance and coordinate surveillance activities through the Task Force on Surveillance Systems of the Federal Financial Institutions Examination Council (FFIEC).[4]

International Activities

The Federal Reserve supervises the foreign branches of member banks; overseas investments by member banks, Edge Act and agreement corporations, and bank holding companies; and investments by bank holding companies in export trading companies. It also supervises the activities that foreign banking organizations conduct through entities in the United States, including branches, agencies, representative offices, and subsidiaries.

Foreign-Office Operations of U.S. Banking Organizations

The Federal Reserve examines the international operations of state member banks, Edge Act corporations, and bank holding companies principally at the U.S. head offices of these organizations, where the ultimate responsibility for their foreign offices lies. In 2001 the

4. The member agencies of the FFIEC are the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation (FDIC), the National Credit Union Administration (NCUA), the Office of the Comptroller of the Currency (OCC), and the Office of Thrift Supervision (OTS).

Federal Reserve examined 3 foreign branches of state member banks and 7 foreign subsidiaries of Edge Act corporations and bank holding companies. The examinations abroad were conducted with the cooperation of the supervisory authorities of the countries in which they took place; when appropriate, the examinations were coordinated with the Office of the Comptroller of the Currency. Examiners also make visits to the overseas offices of U.S. banks to obtain financial and operating information and, in some instances, to evaluate their efforts to implement corrective measures or to test their adherence to safe and sound banking practices.

Foreign Branches of Member Banks

At the end of 2001, 64 member banks were operating 937 branches in foreign countries and overseas areas of the United States; 34 national banks were operating 725 of these branches, and 30 state member banks were operating the remaining 212. In addition, 18 nonmember banks were operating 22 branches in foreign countries and overseas areas of the United States.

Edge Act and Agreement Corporations

Edge Act corporations are international banking organizations chartered by the Board to provide all segments of the U.S. economy with a means of financing international business, especially exports. Agreement corporations are similar organizations, state chartered or federally chartered, that enter into an agreement with the Board to refrain from exercising any power that is not permissible for an Edge Act corporation.

Under sections 25 and 25(A) of the Federal Reserve Act, Edge Act and agreement corporations may engage in international banking and foreign financial transactions. These corporations, which in most cases are subsidiaries of member banks, may (1) conduct a deposit and loan business in states other than that of the parent, provided that the business is strictly related to international transactions, and (2) make foreign investments that are broader than those of member banks because they may invest in foreign financial organizations, such as finance companies and leasing companies, as well as in foreign banks.

Edge Act and agreement corporations numbered 75 and were operating 17 branches at year-end 2001. These corporations are examined annually.

U.S. Activities of Foreign Banks

The Federal Reserve has broad authority to supervise and regulate the U.S. activities of foreign banks that engage in banking and related activities in the United States through branches, agencies, representative offices, commercial lending companies, Edge Act corporations, commercial banks, and certain nonbank companies. Foreign banks continue to be significant participants in the U.S. banking system.

As of year-end 2001, 208 foreign banks from 56 countries were operating 287 state-licensed branches and agencies (of which 13 were insured by the Federal Deposit Insurance Corporation) as well as 51 branches licensed by the Office of the Comptroller of the Currency (of which 6 had FDIC insurance). These foreign banks also directly owned 15 Edge Act corporations and 3 commercial lending companies; in addition, they held an equity interest of at least 25 percent in 90 U.S. commercial banks. Further, 23 foreign banks and certain of their affiliates were granted financial holding company status.

Altogether, these U.S. offices of foreign banks at the end of 2001 controlled approximately 19.0 percent of U.S. commercial banking assets. These foreign banks also operated 181 representative offices; an additional 97 foreign banks operated in the United States solely through a representative office.

State-licensed and federally licensed branches and agencies of foreign banks are examined on site at least once every eighteen months, either by the Federal Reserve or by a state or other federal regulator; in most cases, on-site examinations are conducted at least once every twelve months, but the period may be extended to eighteen months if the branch or agency meets certain criteria. The Federal Reserve conducted or participated with state and federal regulatory authorities in 289 examinations during 2001.

Joint Program for Supervising the U.S. Operations of Foreign Banking Organizations

The Federal Reserve, in cooperation with the other federal banking agencies and with state banking agencies, conducts a joint program for supervising the U.S. operations of foreign banking organizations. The program has two main parts. One part focuses on the examination process for those foreign banking organizations that have multiple U.S. operations and is intended to improve coordination among the various U.S. supervisory agencies. The other part is a review of the financial and operational profile of each organization to assess its general ability to support its U.S. operations and to determine what risks, if any, the organization poses through its U.S. operations. Together, these two processes provide critical information to U.S. supervisors in a logical, uniform, and timely manner. During 2001 the program was refined further in light of experience in using it over the past five years.

Technical Assistance

In 2001 the Federal Reserve System continued to provide technical assistance on bank supervisory matters to foreign central banks and supervisory authorities. Technical assistance involves visits by System staff members to foreign authorities as well as consultations with foreign supervisors who visit the Board or the Reserve Banks. Technical assistance in 2001 was concentrated in Latin America, the Far East, and former Soviet bloc countries.

During the year, the Federal Reserve offered supervision training courses in Washington, D.C., and in a number of foreign jurisdictions exclusively for foreign supervisory authorities. System staff also took part in technical assistance and training missions led by the International Monetary Fund, the World Bank, the Inter-American Development Bank, the Asian Development Bank, the Basel Committee on Banking Supervision, and the Financial Stability Institute.

Supervisory Policy

Within the supervisory policy function, the Federal Reserve develops guidance for examiners and financial institutions as well as regulations for financial institutions under the supervision of the Federal Reserve. Staff members also participate in international supervisory forums and provide support for the work of the Federal Financial Institutions Examination Council.

Capital Adequacy Standards

During 2001 the Federal Reserve, together with the other federal banking agencies, issued a final rule that amended the capital standards for recourse, direct credit substitutes, and residual interests in asset securitizations. The agencies also continued discussions on a possible notice of proposed rulemaking to simplify the risk-based capital framework. The Federal Reserve revised its policy of generally applying its capital adequacy guidelines to top-tier U.S. bank holding companies owned by foreign banks qualifying as financial holding companies under the Gramm–Leach–Bliley Act. Finally, the agencies continued to work on developing final rules governing securities borrowing transactions and claims on securities firms.

Recourse, Direct Credit Substitutes, and Residual Interests in Asset Securitizations

On November 29, 2001, the Federal Reserve, together with the other federal banking agencies, issued a final rule to amend their respective risk-based and leverage capital standards for the treatment of recourse obligations, direct credit substitutes, and residual interests that expose banks, bank holding companies, and thrift institutions to credit risk. The final rule combined two earlier proposals on these matters that had overlapped in some respects. It makes use of external credit ratings to match the risk-based capital assessment more closely to an institution's relative risk of loss in asset securitizations. The rule requires that institutions hold risk-based capital in an amount equal to the amount of residual interests that arise in securitizations (or other transfers of assets) and that are retained on the balance sheet. In addition, credit-enhancing interest-only strips receivables, either purchased or retained, are limited to 25 percent of tier 1 capital. Amounts exceeding 25 percent are to be deducted from tier 1 capital, which will have the effect of reducing the leverage ratio as well as the risk-based capital ratios. The portion of the rule dealing with interest-only strips receivables will go into effect at the end of 2002.

Simplified Capital Framework for Non-Complex Institutions

In November 2000, the federal banking agencies published an advance notice of proposed rulemaking and solicited comments on proposals for creating a simpler capital framework for non-complex domestic financial institutions. Most comments did not support significant substantive changes to the existing framework. After considering the comments, the agency staffs in 2001 decided not to proceed with a simplified capital approach. Instead, they are continuing discussions on possible ways to modify the regulatory capital rules more broadly.

Supervisory Policy on the Application of Capital Requirements to Bank Holding Companies Owned by Foreign Banking Organizations

In January 2001, the Federal Reserve revised its policy of subjecting all top-tier U.S. bank holding companies to the U.S. minimum regulatory capital requirements. A limited exception was made for top-tier U.S. bank holding companies owned by foreign banks qualifying as financial holding companies under the Gramm–Leach–Bliley Act. For a foreign bank to qualify as a financial holding company, the Board must have determined that it is well capitalized and well managed under standards comparable to those applied to U.S. banks owned by bank holding companies qualifying as financial holding companies. A top-tier U.S. bank holding company owned by such a foreign bank will continue to be required to report its capital under the U.S. capital adequacy guidelines for bank holding companies but will not be required to meet the regulatory minimums. Minimum levels of capital for these organizations will instead be determined on a supervisory basis. In making this revision, the Federal Reserve determined that relying on the capital strength of the consolidated foreign bank, as well as requiring subsidiary banks to meet appropriate capital and management standards, is consistent with the Federal Reserve's supervisory assessment process for domestic bank holding companies.

Capital for Nonfinancial Equity Investments

In February 2001, the Federal Reserve, together with the OCC and the FDIC, issued a proposal concerning the regulatory capital treatment of equity investments in nonfinancial companies held by banks, bank holding companies, and financial holding companies. The proposal represented a modification of a proposal that had been issued in March 2000. Under the revised proposal, a capital charge would be imposed that would increase in steps as the banking organization's level of concentration in equity investments increased. Agency monitoring also would increase as the level of concentration in equity investments increased.

Securities Borrowing Transactions

In December 2000, the Federal Reserve, together with the FDIC and the OCC, issued an interim rule to revise the capital treatment of cash collateral that is posted in connection with securities borrowing transactions. The change was intended to align the capital requirements for these transactions more appropriately with the risk involved and to level the playing field for banking organizations vis-à-vis their domestic and foreign competitors. Among the public comments submitted by the due date of January 19, 2001, support for the interim rule was unanimous. The interim rule remains in effect.

Claims on Securities Firms

In December 2000, the federal banking agencies proposed to reduce from 100 percent to 20 percent the risk weight accorded to claims on, and claims guaranteed by, qualifying securities firms in countries that are members of the Organisation for Economic Co-operation and Development. The change would bring the risk weight in line with a 1998 revision to the Basel Capital Accord. Qualifying U.S. securities firms would be broker–dealers registered with the Securities and Exchange Commission (SEC) that are in compliance with the SEC's net capital rule and meet certain other requirements. Work continued during 2001, and the agencies expect to issue a final rule in the first quarter of 2002.

Fiduciary Activities

In February 2001, the Federal Reserve issued guidance concerning the integration of trust and transfer agency examinations into safety and soundness examinations. Fiduciary activities and related services generally include traditional trust services—such as personal trust, corporate trust, and transfer agent services—and employee benefit account products and services, as well as custodial and securities lending services and clearing-and-settlement, asset-management, and investment-advisory activities. The intent of the guidance is to improve integration of the supervisory assessment of banking organizations' fiduciary activities into the overall safety and soundness supervision process and to focus supervisory resources on areas of greatest risk.

Securities Activities of State Member Banks

On May 14, 2001, the Federal Reserve issued guidance to examiners and other supervisory personnel regarding changes to the permissible securities activities of state member banks under the Gramm–Leach–Bliley Act. The act authorized well-capitalized state member banks to underwrite, deal in, and invest in municipal revenue bonds without limitation as to the level of these activities that may be conducted relative to the bank's capital. Until that time, state member banks could, without capital limitation, underwrite, deal in, or invest in only general obligation municipal bonds backed by the full faith and credit of an issuer having general powers of taxation.

Joint Agency Advisory on Rate-Sensitive Deposits

In May 2001, the Federal Reserve, together with the other federal banking agencies, issued an interagency advisory outlining the risk-management procedures that banking organizations should follow in assessing and controlling the risks associated with significant reliance on brokered and rate-sensitive deposits. The advisory states that deposits raised through intermediary sources, such as deposit brokers, the Internet, and other automated service providers, may be less stable than traditional deposits, primarily because depositors making deposits through intermediary sources may not have other relationships with the depository institution and may rapidly shift funds to another institution or investment in search of a higher return. The advisory states that banking organizations should employ appropriate systems to identify and control this risk. Such systems include appropriate funds-management policies, adequate due diligence in assessing deposit brokers and financial risks, reasonable control and limit structures, adequate information systems, and contingency funding plans.

International Guidance on Supervisory Policies

As a member of the Basel Committee on Banking Supervision (Basel Committee), the Federal Reserve in 2001 participated in efforts to revise the international capital regime and to develop international supervisory guidance. The Federal Reserve's goals in these activities are to advance sound supervisory policies for internationally active banking institutions and to improve the stability of the international banking system. The efforts are described in the following sections.

Capital Adequacy

The Federal Reserve continued to participate in a number of technical working groups of the Basel Committee in efforts to develop a new capital accord. These groups, in grappling with a number of difficult issues, released several consultative papers during 2001:

- In January, the Basel Committee issued for public consultation a series of papers setting forth proposals for a new capital accord. This consultative package laid the groundwork for formal and informal discussions with the banking industry and other interested parties on a revised international capital framework.

- In continuing its work on a new capital accord, and in response to public comments on the January consultative package, the Basel Committee issued for further consultation a number of technical working papers, including "Internal Ratings-Based (IRB) Treatment of Expected Losses and Future Margin Income" (July); "Risk-Sensitive Approaches for Equity Exposures in the Banking Book for IRB Banks" (August); "Pillar 3—Market Discipline" (September); "Regulatory Treatment of Operational Risk" (September); "Internal Ratings-Based Approach to Specialized Lending Exposures" (October); and "Treatment of Asset Securitizations" (October).

Risk Management

The Federal Reserve contributed to a number of supervisory policy papers, reports, and recommendations issued by the Basel Committee during 2001. These documents were generally aimed at improving the supervision of banks' risk-management practices. The paper "Review of Issues Relating to Highly Leveraged Institutions" (issued in February) set forth sound risk-management practices when dealing with highly leveraged institutions. "Risk Management Principles for Electronic Banking" (issued in May) was intended to help banking institutions expand their existing risk-management policies and practices to cover their electronic-banking activities. The paper "Customer Due Diligence for Banks" (issued in October) provides guidance on effective controls and procedures for getting to know customers. The consultative paper "Sound Practices for the Management and Supervision of Operational Risk" (issued in December) solicited banking industry comments on a proposed range of sound practices for the management of operational risk.

Joint Forum

In its work with the Basel Committee, the Federal Reserve also continued its participation in the Joint Forum, a group made up of representatives of the committee, the International Organization of Securities Commissions, and the International Association of Insurance Supervisors. The Joint Forum works to increase mutual understanding of issues related to the supervision of firms operating in each of the financial sectors. In this regard, the Federal Reserve contributed to two Joint Forum papers issued in November 2001: "Risk Management Practices and Regulatory Capital," which compares current industry practices in all three sectors, and "Core Principles: Cross-Sectoral Comparison," which identifies similarities and differences among the core principles of the three sectors.

Internal Control, Accounting, and Disclosure

The Federal Reserve participates in the Basel Committee's Task Force on Accounting Issues and its Transparency Group and represents the Basel Committee at international meetings on the issues addressed by these groups. In particular, during 2001 the Federal Reserve represented the Basel Committee at meetings of the committee of the International Accounting Standards Board (IASB) that works to improve accounting guidance concerning financial instruments. In addition, a representative of the Federal Reserve was appointed a member of the IASB's Standards Advisory Council.

During 2001 the Federal Reserve also contributed to a letter and several papers on internal control, accounting, and disclosure issued by the Basel Committee, including the following:

- "Comment Letter on Fair Value Accounting"—In this letter (issued in September) the IASB solicited views on the benefits and costs associated with a fair value accounting model for financial instruments. The Basel Committee recommended that the IASB explore additional disclosure of fair value information and improve standards for loan loss allowances and disclosures about credit risk in lieu of introducing a comprehensive fair value accounting model at this time.

- "The Relationship Between Banking Supervisors and Banks' External Auditors"—This joint paper by the Basel Committee and the International Auditing Practices Committee (to be issued in January 2002) provides guidance on ways to strengthen the relationship between bank auditors and supervisors and incorporates the Basel Committee's core principles for effective banking supervision.

- "Internal Audit in Banks and the Supervisor's Relationship with Auditors"—This paper (issued in August) sets forth objectives and principles for an effective bank internal-audit function, the role of internal audit, and the banking supervisors' views on ways to strengthen the relationship between banking supervisors and internal and external auditors.

Staff members also supported the Basel Committee's Task Force on Accounting Issues in the development of comment letters on major proposals of the International Federation of Accountants (IFAC) and of IFAC's International Auditing Practices Committee (IAPC). Staff also represented the Basel Committee's Task Force on Accounting Issues at meetings with representatives of the IAPC and the International Forum on Accountancy Development to encourage the adoption of enhanced international auditing standards and practices.

In December the Board sent a comment letter to the IASB on an international proposal to adopt fair value accounting. The comment letter attached a staff research report that explored a number of issues arising from the proposal's suggestion that banks and other companies use their internal credit-grading systems to estimate fair values when certain criteria are met.

Gramm–Leach–Bliley Act

The Gramm–Leach–Bliley Act (GLBA) repealed those provisions of the Glass–Steagall Act and the Bank Holding Company Act that restricted the ability of bank holding companies to affiliate with securities firms and insurance companies. The provisions of GLBA, and the Federal Reserve's final rule, which was adopted in January 2001, establish conditions that a bank holding company or a foreign bank must meet to be deemed a financial holding company and to engage in expanded activities.

In addition to controlling depository institutions, financial holding companies may engage in securities underwriting and dealing, serve as an insurance agent and insurance underwriter, act as a futures commission merchant, and engage in merchant banking. Permissible activities also include activities that the Board and the Secretary of the Treasury jointly determine to be financial in nature or incidental to financial activities and activities that the Federal Reserve determines are complementary to a financial activity and do not pose a substantial risk to the safety and soundness of depository institutions or the financial system generally.

On January 2, 2001, the Federal Reserve and the Department of the Treasury issued an interim rule defining the following as permissible activities: lending, exchanging, transferring, investing for others, or safeguarding financial assets other than money or securities; providing any device or other instrumentality for transferring money or other financial assets; and arranging, effecting, or facilitating financial transactions for the account of third parties. In addition, in February 2001 the Federal Reserve and the Department of the Treasury extended the comment period for a December 2000 proposal that would include real estate brokerage and real estate management as permissible activities under GLBA.

Under GLBA, the Federal Reserve has supervisory oversight authority and responsibility for bank holding companies, including those that operate as financial holding companies. The statute streamlines the Federal Reserve's supervision for all bank holding companies and sets forth parameters for the relationship between the Federal Reserve and other regulators. The statute differentiates between the Federal Reserve's relations with regulators of depository institutions and its relations with functional regulators (that is, regulators for insurance, securities, and commodities). During 2001, the Federal Reserve continued its efforts to ensure that supervisory policies applied to banking institutions are consistent with the provisions of GLBA.

In its role as the holding company supervisor, the Federal Reserve in 2001 hosted two cross-sector meetings with representatives of the banking agencies, securities and commodities and futures authorities, and state insurance commissions. Cross-sector forums provide an opportunity for multiple supervisors (both federal and state) to discuss issues of common interest and to enhance communication and cooperation. At the October meeting, the group focused on the impact and implications of the September 11 terrorist attacks on each of the sectors. Three cross-sector meetings are scheduled for 2002.

Merchant Banking Activities

On January 31, 2001, the Board and the Secretary of the Treasury jointly adopted a final rule governing merchant banking investments made by financial holding companies.[5] The rule implements provisions of GLBA that permit financial holding companies to make investments as part of a bona fide securities underwriting or merchant or investment banking activity. The Board and the Secretary incorporated a number of amendments to the final rule to address issues raised by public commenters, to reduce potential regulatory burdens, and to clarify the application of the rule. These changes included expanding the definition of "securities affiliate" to include a department or division of a bank registered as a municipal securities dealer; modifying the provisions defining prohibited routine management and operation of portfolio companies; adopting a sunset provision for the investment thresholds under the interim rule and eliminating the dollar-based threshold for the review of a financial holding company's merchant banking activities; streamlining the rule's reporting and recordkeeping requirements; broadening the definition

5. "Merchant banking" investments may be made in any type of ownership interest and in any type of nonfinancial entity (portfolio company) and may represent any amount of the equity of a portfolio company.

of "private equity" funds and clarifying the rule's application to such funds; and adopting several safe harbors to the presumptions in the rule governing the definition of "affiliate" for purposes of sections 23A and 23B of the Federal Reserve Act. The final rule became effective February 15, 2001.

Information-Security Standards

Under section 501(b) of GLBA, the federal banking agencies are required to issue standards for information security. In February 2001, after soliciting public comment on a June 2000 proposal, the agencies published "Interagency Guidelines Establishing Standards for Safeguarding Customer Information." The guidelines require banks and holding companies to establish a written information-security program and to control the risk of unauthorized access or other threats to the security and confidentiality of customer information.

Financial Subsidiary Provisions

On August 16, 2001, the Board adopted a final rule implementing the financial subsidiary provisions of GLBA for state member banks. The act authorizes state member banks that comply with the requirements of the rule to control, or hold an interest in, a financial subsidiary, which may conduct certain financial activities that the parent bank may not conduct directly. The final rule is substantially similar to the interim rule adopted by the Board in March 2000.

Federal Financial Institutions Examination Council

During 2001, the Federal Reserve continued its active participation as a member of the Federal Financial Institutions Examination Council. Among other things, the FFIEC issued substantial revisions to the Call Report; a statement regarding a major revision of article 9 of the Uniform Commercial Code; a policy statement on methodologies and documentation in connection with allowances for loan and lease losses; and guidance on risk-management issues.

Bank Call Reports

As the federal supervisor of state member banks, the Federal Reserve, acting in concert with the other federal banking agencies through the FFIEC, requires banks to submit quarterly Reports of Condition and Income (the Call Report). This report is the primary source of data used in the supervision and regulation of banks and in the ongoing assessment of the overall soundness of the nation's financial structure. Call Report data, which also serve as benchmarks for the financial information required in many other Federal Reserve regulatory financial reports, are widely used by state and local governments, state banking supervisors, the banking industry, securities analysts, and the academic community.

For the 2001 reporting period, the FFIEC implemented substantial revisions to the Call Report to streamline the reporting requirements and to add new items that focus on areas of increasing supervisory concern. The principal revisions included

- Combining the three separate report forms for banks of various sizes that have only domestic offices (FFIEC 032, 033, and 034) into a single form (designated FFIEC 041), while retaining the separate form for banks having foreign offices (FFIEC 031)

- Eliminating a number of data items that were no longer warranted

- Introducing a revised regulatory capital schedule that takes a step-by-step "building block" approach to computing the key elements of the capital ratios for all banks

- Collecting new information on asset sales and certain nontraditional bank activities. In addition, collection of the Annual Report of Trust Assets (FFIEC 001) and the Annual Report of International Fiduciary Activities (FFIEC 006) was discontinued and a streamlined fiduciary-activities schedule was added to the Call Report. Also, the Report of Assets and Liabilities of U.S. Branches and Agencies of Foreign Banks (FFIEC 002) was revised, effective with the June 2001 report, to maintain consistency with the Call Report.

In October, the Federal Reserve and the other federal banking agencies proposed a few revisions to the Call Report to facilitate effective supervision. The revisions would, effective with the March 2002 report, add a few items to conform with changes in generally accepted accounting principles, specifically, the reporting requirements of Statement of Financial Accounting Standard No. 141, *Business Combinations*, and No. 142, *Goodwill and Other Intangible Assets*. The revisions would also add several items to address new safety and soundness considerations.

Revisions to Article 9 of the Uniform Commercial Code

On February 28, 2001, the FFIEC issued a statement regarding a major revision of article 9 of the Uniform Commercial Code and its effect on financial institutions. Article 9 governs transactions involving the granting of credit secured by personal property. Revised article 9 contains a number of new or revised rules for secured transactions that affect financial institutions' procedures, systems, documentation, and the enforceability of security interests. In the statement, the FFIEC advised financial institutions and their legal counsel to consider carefully the changes in state law brought about by revised article 9 in order to ensure the attachment and perfection of their existing and future security interests.

Risk-Management Controls in the Use of Electronic Financial Services

In August 2001, the Federal Reserve issued a new policy, developed by the FFIEC member agencies, addressing authentication in an electronic banking environment. In recognition of the importance of effective authentication measures in reducing the risk of fraud and strengthening information-security programs, the guidance describes risk-management issues that banks should consider as they design and update their on-line customer-authentication systems. The main portion of the guidance gives background information and describes sound risk-management measures. Processes for verifying the identity of prospective customers and authenticating existing customers who use on-line systems, such as Internet banking services, are discussed, and details are provided concerning various authentication technologies and issues to consider when implementing these processes.

Efforts to Enhance Transparency and Bank Regulatory Financial Reports

The Federal Reserve has long supported sound accounting policies and meaningful public disclosure by banking and financial organizations to improve market discipline and foster stable financial markets. Effective market discipline can be an important complement to bank supervision and regulation. As financial institutions make more information available, market participants are able to make better evaluations of counterparty risk and better adjustments to the availability and pricing of funds. Thus, transparency can promote efficiency in financial markets and sound practices by banks. The Federal Reserve also seeks to strengthen audit and control standards for banks; the quality of management information and financial reporting is dramatically affected by internal control systems, including internal and external audit programs.

To advance these objectives, the Federal Reserve works with other regulators, the accounting profession, and a wide variety of market participants, both domestically and internationally.

Interagency Guidance on the Allowance for Loan and Lease Losses

In July 2001, the Federal Reserve, the Securities and Exchange Commission, and the other federal banking agencies issued joint guidance regarding documentation of the allowance for loan and lease losses. The Federal Reserve and the other federal banking agencies issued the guidance as an FFIEC policy statement, and the SEC issued parallel guidance as Staff Accounting Bulletin 102. The guidance clarifies the agencies' expectations in regard to documentation supporting the methodology used to calculate allowances for loan and lease losses (ALLL). It requires that a financial institution's ALLL methodology be consistent with generally accepted accounting principles (GAAP) and all outstanding supervisory guidance. Further, the methodology should be systematic, consistently applied, and auditable; validated periodically; and modified as needed to incorporate new events or findings. The guidance also provides examples of appropriate documentation and illustrations showing how the guidance should be implemented.

Interagency Guidance on Loans Held for Sale

In March the Federal Reserve, the other federal banking agencies, and the National Credit Union Administration issued guidance regarding the appropriate treatment of loans that an institution intends to sell. Consistent with GAAP, the guidance requires an institution to record a charge-off against the ALLL when it decides to sell loans whose fair value has declined for any reason other than a change in the general market level of interest or foreign exchange rates.

Private-Sector Working Group on Public Disclosure

The Private-Sector Working Group on Public Disclosure, a group composed of senior executives from major domestic and foreign banking organizations and securities firms, was established by the Federal Reserve to recommend ways to enhance public financial statement disclosures. The SEC and OCC also participated in the effort. In January, the working group released a report recommending enhanced and more-frequent public disclosure of financial information by banking and securities firms. Subsequently, the Federal Reserve, SEC, and OCC issued supervisory guidance encouraging banking organizations and securities firms to follow these recommendations. Private-sector efforts, such as those of the working group, and official regulatory initiatives can help foster consensus and advance thinking on what constitutes sound or best practice regarding public disclosure.

Bank Holding Company Regulatory Financial Reports

The Federal Reserve requires that U.S. bank holding companies submit periodic regulatory financial reports. These reports, the FR Y–9 and FR Y–11 series, provide information essential to the supervision of the organizations and to the formulation of regulations and supervisory policies. The Federal Reserve also uses the information in responding to requests from the Congress and the public for information on bank holding companies and their nonbank subsidiaries.

The FR Y–9 series of reports provides standardized financial statements for the consolidated bank holding company. The reports are used to detect emerging financial problems, review performance and conduct pre-inspection analysis, monitor and evaluate risk profiles and capital adequacy, evaluate proposals for bank holding company mergers and acquisitions, and analyze the holding company's overall financial condition.

The FR Y–11 series of reports aids the Federal Reserve in determining the condition of bank holding companies that are engaged in nonbanking activities and in monitoring the volume, nature, and condition of their nonbanking subsidiaries.

In March 2001, the Federal Reserve implemented numerous revisions to the FR Y–9C report that streamlined the reporting requirements. The streamlining was part of the Federal Reserve's effort to achieve the objectives set forth in section 307(c) of the Riegle Community Development and Regulatory Improvement Act of 1994, which directs the banking agencies to review the information that institutions report in the Call Report and the bank holding company reports and eliminate requirements that are not warranted for safety and soundness or other public policy purposes.

As part of the streamlining process, the Federal Reserve made changes to other FR Y–9 and FR Y–11 series reports to introduce more uniformity to certain aspects of regulatory reporting. The changes not only increased uniformity within the holding company reports but also brought several reporting items into closer alignment with the Call Report and the Thrift Financial Report. Other modifications to the holding company reports were made so that their form and content would more closely resemble the manner in which information is presented in financial statements that banking organizations prepare in accordance with generally accepted accounting principles for other financial reporting purposes.

Besides streamlining the FR Y–9C reporting requirements by eliminating information no longer of significant value, the Federal Reserve also improved the relevance of the FR Y–9C by identifying new types of information that are expected to be critical to the Federal Reserve's future supervisory data needs. The improvements focus on new activities and other recent developments that may expose institutions to new or different types of risk.

In light of the Gramm–Leach–Bliley Act and the increased involvement of banking organizations in merchant banking and equity investment in nonfinancial companies, the Federal Reserve implemented the new Consolidated Bank Holding Company Report of Equity Investments in Nonfinancial Companies (FR Y–12), effective September 30, 2001.

Supervisory Information Technology

The Supervisory Information Technology (SIT) function within the Board's Division of Banking Supervision and Regulation facilitates management of information technology within the Federal Reserve's supervision function. Its goals are to ensure that

- IT initiatives support a broad range of supervisory activities without duplication or overlap
- The underlying IT architecture fully supports those initiatives
- The supervision function's use of technology takes advantage of the systems and expertise available more broadly within the Federal Reserve System.

SIT works through assigned staff at the Board of Governors and the Reserve Banks and through a committee structure that ensures that key staff members throughout the Federal Reserve System participate in identifying requirements and setting priorities for IT initiatives. SIT also houses the management of the National Information Center, a comprehensive repository for vital supervision information.

SIT Activities

In 2001 SIT revised and updated the operating plan for the ongoing approval and reassessment of IT projects, which was prepared in 2000. It is developing a capital planning and information technology investment guide to ensure that IT investments in proposed projects and products support the function's strategic goals. SIT is undertaking an enterprise document management project to identify, implement, and deploy a common document-management technology for the supervision function on a Systemwide basis. In 2001, as part of its project-management training for Board and Reserve Bank staff, it also revised and updated the project managers' handbook, which draws on the best practices in private industry and government.

Enhancements to the National Information Center

The National Information Center (NIC) is the Federal Reserve's comprehensive repository for supervisory, financial, and banking-structure data and documents. NIC includes the National Examination Data (NED) system, software that provides supervisory personnel and state banking authorities with access to NIC data, and the Central Document and Text Repository (CDTR), which contains documents supporting the supervisory process.

In 2001 much work was accomplished to make the NED system available over the web and to add functionality to further support the supervision of banking institutions. Implementation of this new version of NED is planned for the second quarter of 2002.

In September, new structure report forms were put into use to capture changes in the organizational structure of bank holding companies (FR Y–10) and foreign banking organizations (FR Y–10F). Also, extensive revisions were made to NIC to support the collection of data and the quality of reports. In addition, an Internet-based reporting mechanism was implemented to allow bank holding companies to submit reports electronically. During the year, progress was made on enhancements to the CDTR so that it will be able to handle more documents, accept documents from other agencies, and permit web-based access. Implementation is planned for June 2002.

Staff Training

The System Staff Development Program trains staff members at the Board of Governors, the Reserve Banks, and state banking departments who have supervisory and regulatory responsibilities; students from foreign supervisory authorities attend training sessions on a space-available basis. The program's goal is, in part, to provide greater cross-training. Training is offered at the basic, intermediate, and advanced levels in the four disciplines of bank supervision: bank examinations, bank holding company inspections, surveillance and monitoring, and applications analysis. Classes are conducted in Washington, D.C., as well as at other locations and are sometimes held jointly with other regulators.

The Federal Reserve System also participates in training offered by the FFIEC and by certain other regulatory agencies. The System's involvement includes developing and implementing basic and advanced training in relation to various emerging issues as well as in specialized areas such as trust activities,

Training Programs for Banking Supervision and Regulation, 2001

Program	Number of sessions conducted	
	Total	Regional
Schools or seminars conducted by the Federal Reserve		
Core schools		
Banking and supervision elements	10	8
Operations and analysis	6	5
Bank management	4	1
Report writing	20	20
Management skills	9	9
Conducting meetings with management	16	16
Other schools		
Loan analysis	6	5
Examination management	5	3
Real estate lending seminar	3	2
Specialized lending seminar	3	1
Senior forum for current banking and regulatory issues	4	4
Banking applications	1	...
Principles of fiduciary supervision	2	1
Commercial lending essentials for consumer affairs	3	3
Consumer compliance examinations I	3	1
Consumer compliance examinations II	2	1
CRA examination techniques	2	1
Fair lending examination techniques	3	2
Foreign banking organizations	5	5
Information systems continuing education	2	...
Capital markets seminars	11	8
Technology risk integration	24	24
Leadership dynamics	4	4
Seminar for senior supervisors of foreign central banks [1]	...	...
Other agencies conducting courses [2]		
Federal Financial Institutions Examination Council	37	3
The Options Institute	1	1

1. Conducted jointly with the World Bank.
2. Open to Federal Reserve employees.

... Not applicable.

Student Examination Results, First Track, 2001

Result	Core proficiency	Specialty			
		Safety and soundness	Consumer affairs	Trust	Information technology
Passed	35	25	8	3	1
Failed	19	4	9	1	3
Total	**54**	**29**	**17**	**4**	**4**

NOTE. These examinations are for examiners hired before February 28, 1998.

international banking, information technology, municipal securities dealing, capital markets, payment systems risk, white collar crime, and real estate lending. In addition, the System co-hosts the World Bank Seminar for students from developing countries.

In 2001 the Federal Reserve trained 2,832 students in System schools, 645 in schools sponsored by the FFIEC, and 15 in other schools, for a total of 3,492, including 234 representatives of foreign central banks (see accompanying table). The number of training days in 2001 totaled 18,483.

The System gave scholarship assistance to the states for training their examiners in Federal Reserve and FFIEC schools. Through this program, 445 state examiners were trained—277 in Federal Reserve courses, 166 in FFIEC programs, and 2 in other courses.

A staff member seeking an examiner's commission follows one of two training tracks. One track, for staff members hired before February 28, 1998, involves a "core proficiency examination" as well as a specialty examination in an area of the student's choice—safety and soundness, consumer affairs, trust, or information technology. Students on this track had to complete the commissioning requirements by December 31, 2001. In 2001, 35 examiners passed the core proficiency examination (see table).

The other track, for staff members hired after February 27, 1998, involves a "first proficiency examination" as well as a "second proficiency examination" in one of the four specialty areas. The table below reflects 2001 pass rates for the second track. At the end of 2001, the System had 1,242 field examiners, of which 861 were commissioned.

Student Examination Results, Second Track, 2001

Result	First proficiency	Second proficiency			
		Safety and soundness	Consumer affairs	Trust	Information technology
Passed	199	49	17	5	3
Failed	3	11	4	0	0
Total	**202**	**60**	**21**	**5**	**3**

NOTE. These examinations are for examiners hired after February 27, 1998.

Regulation of the U.S. Banking Structure

The Board of Governors administers the Bank Holding Company Act, the Bank Merger Act, the Change in Bank Control Act, and the International Banking Act, each in relation to bank holding companies, financial holding companies, member banks, and foreign banking organizations, as appropriate. In doing so, the Federal Reserve acts on a variety of proposals that directly or indirectly affect the structure of U.S. banking at the local, regional, and national levels; the international operations of domestic banking organizations; and the U.S. banking operations of foreign banks.

In November 2001, revisions to Regulation K—which governs the foreign operations of U.S. banking organizations and the U.S. operations of foreign banking organizations—were implemented. In general, the revisions streamlined foreign branching procedures for U.S. banking organizations, authorized expanded activities at foreign branches of U.S. banks, and implemented recent statutory changes. Changes were also made to the provisions governing permissible foreign activities of U.S. banking organizations, including securities activities, and investments made under general consent procedures. In addition, the revisions streamlined the application procedures applicable to foreign banks seeking to expand their operations in the United States.

Bank Holding Company Act

Under the Bank Holding Company Act, a corporation or similar organization must obtain the Federal Reserve's approval before forming a bank holding company through the acquisition of one or more banks in the United States. Once formed, a bank holding company must receive Federal Reserve approval before acquiring or establishing additional banks. The act also identifies other activities permissible for bank holding companies; depending on the circumstances, these activities may or may not require Federal Reserve approval in advance of their commencement.

Bank holding companies generally may engage in only those activities that the Board has previously determined to be closely related to banking under section 4(c)(8) of the act. Since 1996, the act has provided an expedited prior-notice procedure for certain permissible nonbank activities and for acquisitions of small banks and nonbank entities. Since that time the act has also permitted well-run bank holding companies that satisfy certain criteria to commence certain other nonbank activities on a de novo basis without first obtaining Federal Reserve approval.

When reviewing a bank holding company application or notice to engage in an activity that requires prior approval, the Federal Reserve considers the financial and managerial resources of the applicant, the future prospects of both the applicant and the firm being acquired, the convenience and needs of the community to be served, the potential public benefits, the competitive effects of the proposal, and the applicant's ability to make available to the Board information deemed necessary to ensure compliance with applicable law. In the case of a foreign banking organization seeking to acquire control of a U.S. bank, the Federal Reserve also considers whether the foreign bank is subject to comprehensive supervision or regulation on a consolidated basis by its home country supervisor. Data on decisions regard-

Decisions by the Federal Reserve on Domestic and International Applications, 2001

Proposal	Direct action by the Board of Governors			Action under authority delegated by the Board of Governors					Total
				Director of the Division of Banking Supervision and Regulation		Office of the Secretary	Federal Reserve Banks		
	Approved	Denied	Permitted	Approved	Denied	Approved	Approved	Permitted	
Formation of bank holding company	28	0	0	0	0	3	170	59	260
Merger of bank holding company	8	0	0	0	0	6	40	22	76
Acquisition or retention of bank	19	0	0	0	0	6	86	39	150
Acquisition of nonbank	0	0	62	0	0	7	0	124	193
Merger of bank	10	0	0	0	0	9	106	0	125
Change in control	0	0	0	0	0	3	0	111	114
Establishment of a branch, agency, or representative office by a foreign bank	12	0	4	3	0	0	9	0	28
Other	360	0	29	56	0	69	1,081	155	1,750
Total	**437**	**0**	**95**	**59**	**0**	**103**	**1,492**	**510**	**2,696**

ing domestic and international applications in 2001 are shown in the accompanying table.

Since 2000, the Bank Holding Company Act has permitted the creation of a special type of bank holding company called a financial holding company. Financial holding companies are allowed to engage in a broader range of nonbank activities than are traditional bank holding companies: Among other things, they may affiliate with securities firms and insurance companies and engage in certain merchant banking activities. Bank holding companies seeking financial holding company status must file a written declaration with the Federal Reserve System; most declarations are acted on by one of the Reserve Banks under authority delegated by the Board of Governors. In 2001, 135 domestic financial holding company declarations and 3 foreign bank declarations were approved.

Financial holding companies do not have to obtain the Board's prior approval to engage in or acquire a company engaged in new financial activities under GLBA. Instead, the financial holding company must notify the Board within thirty days after commencing a new activity or acquiring a company engaged in a new activity. A financial holding company also may engage in certain other activities that have been determined to be financial in nature or incidental to a financial activity or that are determined to be complementary to a financial activity.

Bank Merger Act

The Bank Merger Act requires that all proposals involving the merger of insured depository institutions be acted on by the appropriate federal banking agency. If the institution surviving the merger is a state member bank, the Federal Reserve has primary jurisdiction. Before acting on a merger proposal, the Federal Reserve considers the financial and managerial resources of the applicant, the future prospects of the existing and combined institutions, the convenience and needs of the community to be served, and the competitive effects of the proposed merger. It also considers the views of certain other agencies regarding the competitive factors involved in the transaction. During 2001 the Federal Reserve approved 125 merger applications.

When the FDIC, the OCC, or the OTS has jurisdiction over a merger, the Federal Reserve is asked to comment on the competitive factors; by using standard terminology in assessing competitive factors in merger cases, the four agencies have sought to ensure consistency in administering the act. The Federal Reserve submitted 653 reports on competitive factors to the other agencies in 2001.

Change in Bank Control Act

The Change in Bank Control Act requires persons seeking control of a U.S. bank or bank holding company to obtain approval from the appropriate federal banking agency before completing the transaction. The Federal Reserve is responsible for reviewing changes in the control of state member banks and bank holding companies. In its review, the Federal Reserve considers the financial position, competence, experience, and integrity of the acquiring person; the effect of the proposed change on the financial condition of the bank or bank holding company being acquired; the effect of the proposed change on competition in any relevant market; the completeness of information submitted by the acquiring person; and whether the proposed change would have an adverse effect on the federal deposit insurance funds. As part of the process, the Federal Reserve may contact other regulatory or law enforcement agencies for information about each acquiring person.

The appropriate federal banking agencies are required to publish notice of each proposed change in control and to invite public comment, particularly from persons located in the markets served by the institution being acquired.

In 2001 the Federal Reserve approved 114 proposed changes in control of state member banks and bank holding companies.

International Banking Act

The International Banking Act, as amended by the Foreign Bank Supervision Enhancement Act of 1991, requires foreign banks to obtain Federal Reserve approval before establishing branches, agencies, commercial lending company subsidiaries, or representative offices in the United States.

In reviewing proposals, the Federal Reserve generally considers whether the foreign bank is subject to comprehensive supervision or regulation on a consolidated basis by its home country supervisor. It also considers whether the home country supervisor has consented to the establishment of the U.S. office; the financial condition and resources of the foreign bank and its existing U.S. operations; the managerial resources of the foreign bank; whether the home country supervisor shares information regarding the operations of the foreign bank with other supervisory authorities; whether the foreign bank has provided adequate assurances that information concerning its operations and activities will be made available to the Board, if deemed necessary to determine and enforce compliance with applicable law; whether the foreign bank has adopted and implemented procedures to combat money laundering and whether the home country of the foreign bank is developing a legal regime to address money laundering or is participating in multilateral efforts to combat money laundering; and the record of the foreign bank with respect to compliance with U.S. law.

In 2001 the Federal Reserve approved 28 applications by foreign banks to establish branches, agencies, and representative offices in the United States.

Overseas Investments by U.S. Banking Organizations

U.S. banking organizations may engage in a broad range of activities overseas. Many of the activities are conducted indirectly through Edge Act and agreement corporation subsidiaries. Although most foreign investments are made under general consent procedures that involve only an after-the-fact notification to the Board, large and other significant investments require the prior approval of the Board. Excluding proposals relating to recent large domestic mergers, the Federal Reserve in 2001 approved 26 proposals for significant overseas investments by U.S. banking organizations. The Federal Reserve also approved 1 application to acquire an Edge Act corporation, 3 to extend the corporate existence of an established Edge Act corporation, and 12 to establish or acquire a new agreement corporation.

Applications by Member Banks

State member banks must obtain Federal Reserve approval to establish domestic branches, and all member banks (including national banks) must obtain Federal Reserve approval to establish foreign branches. When reviewing proposals to establish domestic branches, the Federal Reserve considers the scope and character of the proposed banking activities to be conducted. When reviewing proposals for foreign branches, the Federal Reserve considers, among other things, the condition of the bank and the bank's experience in international banking. Once a member bank has received authority to open a branch in a particular foreign country, that bank may open additional branches in that country without prior approval from the Federal Reserve. Excluding proposals related to recent large domestic mergers, the Federal Reserve in 2001 acted on proposals involving 1,399 new or merger-related domestic branches and granted prior approval for the establishment of 13 foreign branches.

State member banks also must obtain Federal Reserve approval to establish financial subsidiaries. These subsidiaries may engage in activities that are financial in nature or incidental to financial activities, including certain securities- and insurance-related activities that the parent bank may not conduct directly. In 2001, 6 applications for financial subsidiaries were approved.

Stock Repurchases by Bank Holding Companies

A bank holding company may repurchase its own shares from its shareholders. When the company borrows money to buy the shares, the transaction increases the company's debt and decreases its equity. The Federal Reserve may object to stock repurchases by holding companies that fail to meet certain standards, including the Board's capital adequacy guidelines. In 2001 the Federal Reserve reviewed 20 stock repurchase proposals by bank holding companies; all were approved by a Reserve Bank under delegated authority.

Public Notice of Federal Reserve Decisions

Most decisions by the Federal Reserve that involve a bank holding company, a bank merger, a change in control, or the establishment of a new U.S. banking presence by a foreign bank are effected by an order or an announcement. Orders state the decision, the essential facts of the application or notice, and the basis for the decision; announcements state only the decision. All orders and announcements are made public immediately; they are subsequently reported in the Board's weekly H.2 statistical release and in the monthly *Federal Reserve Bulletin*. The H.2 release also includes announcements of applications and notices received by the Federal Reserve but not yet acted on. For each pending application and notice, the related H.2A states the deadline for comments. The Board's public web site (http://www.federalreserve.gov) continues to provide information relevant to the applications process.

Timely Processing of Applications

The Federal Reserve sets internal target time frames for the processing of applications. The setting of targets promotes efficiency at the Board and the Reserve Banks and reduces the burden on applicants. Generally, the length of the target period ranges from twelve to sixty days, depending on the type of application or notice filed. In 2001, 92 percent of applications were processed within the established time period.

Delegation of Applications

Historically, the Board of Governors has delegated certain regulatory functions, including the authority to approve, but not to deny, certain types of applications, to the Reserve Banks, to the Director of the Board's Division of Banking Supervision and Regulation, and to the Secretary of the Board. In 2001, 80 percent of the applications processed were handled under delegated authority.

Enforcement of Other Laws and Regulations

The Board's enforcement responsibilities also extend to financial disclosures by state member banks; securities credit; and efforts, under the Bank Secrecy Act, to counter money laundering.

Financial Disclosures by State Member Banks

State member banks that issue securities registered under the Securities Exchange Act of 1934 must disclose certain information of interest to investors, including annual and quarterly financial reports and proxy statements. By statute, the Board's financial disclosure rules must be substantially similar to those of the Securities and Exchange Commission. At the end of 2001, twenty-three state member banks were registered with the Board under the Securities Exchange Act.

Securities Credit

Under the Securities Exchange Act, the Board is responsible for regulating credit in certain transactions involving the purchase or carrying of securities. The Board's Regulation T limits the amount of credit that may be provided by securities brokers and dealers when the credit is used to trade debt and equity securities. The Board's Regulation U limits the amount of credit that may be provided by lenders other than brokers and dealers when the credit is used to purchase or carry publicly held equity securities if the loan is secured by those or other publicly held equity securities. The Board's Regulation X applies these credit limitations, or margin requirements, to certain borrowers and to certain credit extensions, such as credit obtained from foreign lenders by U.S. citizens.

Several regulatory agencies enforce the Board's securities credit regulations. The SEC, the National Association of Securities Dealers, and the national securities exchanges examine brokers and dealers for compliance with Regulation T. The federal banking agencies examine banks under their respective jurisdictions for compliance with Regulation U; the Farm Credit Administration, the National Credit Union Administration, and the Office of Thrift Supervision examine lenders under their respective jurisdictions for compliance with Regulation U, and the Federal Reserve examines other Regulation U lenders.

Since 1990 the Board has published a list of foreign stocks that are eligible for margin treatment at broker–dealers on the same basis as domestic margin securities. In 2001 the foreign list was revised in March and September.

Anti–Money Laundering

The Department of the Treasury's regulation (31 CFR 103) implementing the Currency and Foreign Transactions Reporting Act (commonly referred to as the Bank Secrecy Act) requires banks and other types of financial institutions to file certain reports and maintain certain records. These documents record information on persons involved in large currency transactions and on suspicious activity related to possible violations of federal law, including money laundering and other financial crimes. The act is a primary tool in the fight against money laundering; its requirements inhibit money laundering by creating a paper trail of financial transactions that helps law enforcement and regulators identify and trace the proceeds of illegal activity.

In addition to the specific requirements of the Bank Secrecy Act (BSA), the Board's Regulation H (12 CFR 208.63) requires each banking organization supervised by the Federal Reserve to develop a written program for BSA compliance that is formally approved by the institution's board of directors. The compliance program must (1) establish a system of internal controls to ensure compliance with the act, (2) provide for independent compliance testing, (3) identify individuals responsible for coordinating and monitoring day-to-day compliance, and (4) provide training for personnel as appropriate. To monitor compliance, each Reserve Bank has designated a senior, experienced examiner as the Bank Secrecy Act and anti-money-laundering contact. During examinations of state member banks and U.S. branches and agencies of foreign banks, specially trained examiners review the institution's compliance with the act.

The Board has a special investigations section in the Division of Banking Supervision and Regulation that conducts financial investigations, provides expertise to the U.S. law enforcement community for investigation and training initiatives, and offers training to various foreign central banks and government agencies; section staff speak at banking conferences to promote best practices in the industry. Internationally, the section has provided anti-money-laundering training and technical assistance to countries in Asia; in Eastern Europe, including the newly independent states; in South and Central America; and in the Caribbean. Staff members have also participated in numerous multilateral anti-money-laundering initiatives such as the Financial Action Task Force and the Basel Committee on Banking Supervision.

In 2001, the Federal Reserve continued to provide expertise and guidance to the Bank Secrecy Act Advisory Group, a committee established by the Congress at the Department of the Treasury to seek measures to reduce unnecessary burdens created by the act and to increase the utility of data gathered under the act to aid regulators and law enforcement. The Federal Reserve also assisted the Treasury Department in providing feedback to financial institutions on the reporting of suspicious activity.

Since the terrorist attacks of September 11, the Federal Reserve has played an important role in many joint activities with bank supervisory and law enforcement authorities and the banking community, both domestically and abroad, to combat money laundering and terrorist financing. In addressing the mandates of the anti-money-laundering provisions of the USA PATRIOT Act, the Federal Reserve issued a supervisory letter in November to all domestic and foreign banking organizations under its supervision. The letter described the act's provisions, highlighted those provisions needing immediate attention by financial institutions and supervisory staff, and described the new rules that would be issued under the act.

At the request of Treasury staff and consistent with statutory requirements for consultation, the Federal Reserve has been actively assisting in the development of these new rules. Of the twenty working groups established by the Treasury Department to carry out the different regulatory projects required by the act, Federal Reserve staff are involved in fifteen. The Federal Reserve also established a PATRIOT Act Working Group composed of senior, experienced Bank Secrecy Act/anti-money-laundering examiners from throughout the System. This group, which is charged with overseeing the System's implementation of the new law, worked on drafting new examination procedures and developing a new training curriculum for examiners who conduct Bank Secrecy Act and anti-money-laundering examinations.

Loans to Executive Officers

Under section 22(g) of the Federal Reserve Act, a state member bank must

Loans by State Member Banks to their Executive Officers, 2000 and 2001

Period	Number	Amount (dollars)	Range of interest rates charged (percent)
2000			
October 1–December 31	702	59,232,000	5.5–20.8
2001			
January 1–March 31	633	65,663,000	2.0–21.0
April 1–June 30	710	51,109,000	3.9–18.0
July 1–September 30	665	56,830,000	4.6–19.5

SOURCE. Call Reports.

include in its quarterly Call Report information on all extensions of credit by the bank to its executive officers since the date of the preceding report. The accompanying table summarizes this information for 2001.

Federal Reserve Membership

At the end of 2001, 3,058 banks were members of the Federal Reserve System and were operating 49,102 branches. These banks accounted for 38 percent of all commercial banks in the United States and for 74 percent of all commercial banking offices. ■

Federal Reserve Banks

The Federal Reserve Banks devoted considerable attention in 2001 to improving security, operational efficiency, and service quality. This chapter describes those efforts as well as other activities affecting the Reserve Banks.

Major Initiatives

Since the terrorist attacks on September 11, the Federal Reserve has reevaluated its contingency and business continuity plans and operations and is taking steps to enhance them. All information technology infrastructures—both within and outside the Federal Reserve's control—that support critical operations are being reexamined to ensure that they have appropriate security, redundancy, and diversity. Experience gained from preparing for the century date change and in the aftermath of the attacks is being applied to strengthen further the Federal Reserve's national incident-response procedures and communications.

In 2001, the Federal Reserve Banks made an ambitious commitment to reduce System costs in certain areas significantly over the next three years. To achieve this objective, they initiated several cost-reduction projects in the information technology, accounting, and human resources functions.

Among the cost-reduction projects are several to centralize or standardize common information technology utilities and resources. The Reserve Banks are also collaborating on several projects to eliminate duplication of efforts in application development and to identify commercially available alternatives to software planned for development. These efforts will enable the Banks to be more cost effective while continuing to provide high-quality, reliable services.

Another cost-reduction project begun during the year was a concentrated multiyear effort to reduce employee benefit costs by consolidating health and welfare plans and their administration, by outsourcing, and by implementing cost-effective benefit-plan design strategies. The savings from these efforts are expected to fully offset enhancements of employee benefits that are intended to make employment at the Federal Reserve more attractive and thus improve the institution's ability to compete for and retain the skilled professionals, technical staff, and key executives needed to carry out the Federal Reserve's mission.

Developments in Federal Reserve Priced Services

The Monetary Control Act of 1980 requires that the Federal Reserve set fees for providing "priced services" to depository institutions that, over the long run, recover all the direct and indirect costs of providing the services as well as the imputed costs, such as the taxes that would have been paid and the return on equity that would have been earned had the services been provided by a private firm. The imputed costs and imputed profit are collectively referred to as the private-sector adjustment factor (PSAF).[1] Over the past ten years, the

1. Along with income taxes and the return on equity, the PSAF is made up of three additional imputed costs: interest on debt, sales taxes, and assessments for deposit insurance from the Federal Deposit Insurance Corporation. Also allocated to priced services are assets and personnel costs of

September 11 and the Payments System

We are blessed with a financial system that is creative, that is flexible, that is innovative. Banks—including the central bank—were there when they were needed and did what was required with dispatch. We should be proud of the banking system's role in minimizing the economic fallout of that tragic day.

Alan Greenspan, *Chairman*, Board of Governors

For several days after the terrorist attacks on September 11, 2001, communications and connectivity problems disrupted portions of the nation's payments system infrastructure, requiring many banks, securities dealers, and settlement utilities in lower Manhattan to relocate their operations to contingency sites. Although most backup procedures worked as planned, telecommunications problems impaired some firms' ability to communicate with counterparties and employees and to transmit payment and settlement instructions. Transportation problems in the Manhattan area also made it difficult to move employees to contingency sites.

Disruptions to the payments system due to telecommunications and transportation problems resulted in payment delays and liquidity dislocations among financial market participants for several days. As one indication of liquidity dislocations, from September 12 to 14, the balances that depository institutions held in their Federal Reserve accounts averaged ten times their usual level, with more than 70 percent of those balances held by just six institutions, compared with the 20 percent this group normally holds. Disruptions in large payment flows also resulted from problems in the clearance and settlement of U.S. government securities transactions and the redemption of maturing commercial paper transactions.

Although electronic funds transfer systems, such as Fedwire, CHIPS, the automated clearinghouse (ACH), and credit and debit card networks, were not directly affected by the attacks, some participants experienced connectivity problems, resulting in a decline in payments activity. The value of aggregate daily payments over CHIPS, for example, was lower than normal through September 14 but recovered the following week, while the value of government securities transfers over the Fedwire securities transfer system remained low through the week of Septem-

Federal Reserve Banks have recovered 99.8 percent of their priced services costs, including the PSAF (table).

Overall, fees charged in 2001 for priced services increased approximately 5.2 percent from 2000.[2] Revenue from priced services was \$926.5 million, other income related to priced services was \$33.9 million, and costs related to priced services were \$901.9 million, resulting in net revenue of \$58.5 million and a recovery rate of 95.0 percent of costs, including the PSAF.[3]

the Board of Governors that are related to priced services; in the pro forma statements at the end of the chapter, Board expenses are included in operating expenses, and Board assets are part of long-term assets.

2. Based on a chained Fisher Ideal price index not adjusted for quality changes.

3. Financial data reported throughout this chapter—revenue, other income, cost, net revenue, and income before taxes—can be linked to the pro forma statements at the end of the chapter. *Other income* is revenue from investment of clearing balances, net of earnings credits, an amount

ber 17. Although the value of Fedwire funds transfers initially declined on September 11, the value of transfers increased materially starting on September 12 and remained high throughout the month.

The Federal Reserve responded to these disruptions in a variety of ways. On the morning of September 11, the Federal Reserve announced, "The Federal Reserve System is open and operating. The discount window is available to meet liquidity needs." Depository institutions affected by the disruptions to the payments system borrowed heavily from the window for several days. In addition, the Federal Reserve provided a large volume of reserves through open market operations. Daylight and overnight overdrafts also increased dramatically, reflecting the difficulties that account holders experienced in managing their Federal Reserve accounts as a result of payments system disruptions. In view of these difficulties, the Reserve Banks waived daylight overdraft fees and overnight overdraft penalty fees from September 11 through 21 for all account holders. To support the direct provision of U.S. dollar liquidity to foreign-based entities, the Federal Reserve arranged currency swaps with the Bank of Canada, the Bank of England, and the European Central Bank.

The Federal Reserve also worked closely with the financial industry to restore connectivity and the normal flow of payments. The Board used its authority under the Telecommunications Service Priority program to expedite emergency provision of telecommunications circuits for the Reserve Banks and several key payment providers and market utilities in the New York City area. In addition, the Federal Reserve extended the operating hours of the Fedwire funds and securities transfer systems to give financial institutions and their customers more time to process each day's intended payments. The Federal Reserve also executed a significant number of off-line Fedwire funds payment orders on behalf of institutions that were experiencing connectivity problems. Finally, the Reserve Banks continued to credit the value of all check deposits to depositing institutions' accounts, even if the Reserve Banks could not present the checks to (and debit the accounts of) paying banks because airplanes were grounded. As a result of the decision to credit these deposits, daily check float, which normally is less than $1 billion, peaked at $47.4 billion on September 13, providing an additional significant source of liquidity to the banking system.

Check Collection

Federal Reserve Bank operating expenses and imputed costs for commercial check services in 2001 totaled $754.4 million, compared with $680.1 million in 2000. Revenue from check operations totaled $764.7 million, and other income amounted to $28.5 million. Net income from check services was $38.9 million, a $44.4 million, or 53.3 percent, decrease compared with 2000 net income.

The Reserve Banks handled 16.9 billion checks in 2001, a decrease of 0.5 percent from 2000 (see table). The volume of checks deposited that required processing by the Reserve Banks increased 0.8 percent, a slightly slower rate than the 1.1 percent increase in 2000. The volume of fine-sort checks,

termed net income on clearing balances. *Total cost* is the sum of operating expenses, imputed costs (interest on debt, interest on float, sales taxes, and the Federal Deposit Insurance Corporation assessment), imputed income taxes, and the targeted return on equity. *Net revenue* is revenue plus net income on clearing balances minus total cost.

Priced Services Cost Recovery, 1992–2001

Millions of dollars except as noted

Year	Revenue from services[1]	Operating expenses and imputed costs[2]	Targeted return on equity	Total costs	Cost recovery (percent)[3]
1992	760.8	710.7	24.9	735.6	103.4
1993	774.5	820.4	17.5	837.9	92.4
1994	767.2	760.2	21.0	781.2	98.2
1995	765.2	752.7	31.5	784.2	97.6
1996	815.9	746.4	42.9	789.3	103.4
1997	818.8	752.8	54.3	807.1	101.5
1998	839.8	743.2	66.8	809.9	103.7
1999	867.6	775.7	57.2	833.0	104.2
2000	922.8	**818.2**	98.4	**916.6**	**100.7**
2001	960.4	901.9	109.2	1,011.1	95.0
1992–2001	8,293.0	7,782.2	523.7	8,305.9	99.8

NOTE. In this and the following tables, components may not sum to totals or yield percentages shown because of rounding. Amounts in bold are restatements due to errors in previously reported data.

1. Includes revenue from services of $8,025.2 million and other income and expense (net) of $267.8 million for the ten-year period.

2. Includes operating expenses of $6,861.3 million, imputed costs of $552.4 million, and imputed income taxes of $275.0 million for the ten-year period. Also, the effect of one-time accounting changes net of taxes of $74.1 million and $19.4 million is included for 1993 and 1995 respectively.

3. Revenue from services divided by total costs.

which are presorted by the depositing banks according to paying bank, declined 10.4 percent, compared with a 10.7 percent decrease in 2000.

The Reserve Banks continued to encourage the use of electronic check products to make the collection system more efficient. In 2001, the percentage of all checks presented electronically by the Reserve Banks to paying banks was 21.7 percent (approximately 3.7 billion checks), compared with 20.4 percent in 2000. The Reserve Banks captured images of 8.1 percent of the checks they collected, compared with 7.2 percent in 2000.

To assess the potential benefits, in terms of error corrections and operational processes, of keeping image copies of all checks processed, the New York Reserve Bank's Utica office continued a pilot project to capture images of the checks processed on all its high-speed check sorters. The Minneapolis Bank's Helena Branch concluded its pilot project to use check images to expedite check returns; lessons learned during the project are being incorporated into new proposals to exploit technology and reduce transportation costs in check clearing.

During 2001, the Federal Reserve Banks continued a five-year check modernization project to install uniform software and hardware for check processing, check imaging, and check adjustments in forty-five Reserve Bank offices and to give depository institutions web-based access to check services. The project costs are expected to be recovered over the long run because the modernization effort will increase operating efficiency and make it possible to offer additional services to depository institutions.

Automated Clearinghouse

Reserve Bank operating expenses and imputed costs for commercial automated clearinghouse (ACH) services totaled $67.7 million in 2001. Revenue from

Activity in Federal Reserve Priced Services, 2001, 2000, and 1999

Thousands of items

Service	2001	2000	1999	Percent change	
				2000 to 2001	1999 to 2000
Commercial checks	16,905,016	16,993,800	17,075,008	-.5	-.5
Funds transfers	115,308	111,175	105,408	3.7	5.5
Securities transfers	6,708	5,666	5,147	18.4	10.1
Commercial ACH	4,448,361	3,812,191	3,343,615	16.7	14.0
Noncash services	412	519	613	-20.7	-15.3
Cash transportation	18	19	18	-5.3	5.6

NOTE. Activity in *commercial checks* is the total number of commercial checks collected, including processed and fine-sort items; in *funds transfers* and *securities transfers*, the number of transactions originated on line and off line; in *commercial ACH*, the total number of commercial items processed; in *noncash services*, the number of items on which fees are assessed; and in *cash transportation*, the number of registered mail shipments and FRB-arranged armored carrier stops.

ACH operations and other income totaled $79.4 million, resulting in net income of $11.9 million. The Reserve Banks processed 4.4 billion commercial ACH transactions (worth $12.7 trillion), an increase of 16.7 percent from 2000.

In 2000, the Board approved a new approach to pricing ACH transactions that the Reserve Banks deliver through and receive from private-sector ACH operators (PSOs). Among other things, the Board authorized the Reserve Banks to initiate discussions with the PSOs to negotiate the structure and level of fees that the Reserve Banks charge the PSOs for processing inter-operator transactions as well as the fees that the Reserve Banks pay the PSOs. Negotiations continued into 2001, and a new inter-operator fee structure became effective on October 1. On that same date, the Reserve Banks also implemented a new pricing method for their depository institution ACH customers. Monthly fixed fees were increased, and per-item fees were decreased. The new method better corresponds to the Reserve Banks' ACH cost structure, which is characterized by high fixed and low variable costs.

In August, the Reserve Banks began the process of consolidating at two Reserve Bank offices the support for ACH operations once provided by each of the twelve Federal Reserve Banks. Support activities being consolidated include ensuring the timely and accurate processing of payments, maintaining the integrity of the ACH application, monitoring file processing, and responding to customers' questions. The consolidation, which is expected to reduce ACH costs while maintaining service quality, is scheduled to be complete by the end of the first quarter of 2002.

Fedwire Funds Transfer and Net Settlement

Reserve Bank operating expenses and imputed costs for Fedwire funds transfer and net settlement services totaled $56.7 million in 2001. Revenue from these operations totaled $61.8 million, and other income amounted to $2.0 million, resulting in net income of $7.1 million.

Funds Transfer

The Fedwire funds transfer system allows depository institutions to draw

Fees Paid by Depository Institutions for Selected Federal Reserve Priced Services, 2000 and 2001

Dollars

Item	2000	2001
FEDWIRE FUNDS TRANSFERS, BY VOLUME TIER[1]		
Tier		
(number of transfers per month)[2]		
1 *(1 to 2,500)*	.33	.33
2 *(2,501 to 80,000)*	.24	.24
3 *(80,001 and more)*	.17	.16
Off-line surcharge	15.00	15.00
NET SETTLEMENT, BY TYPE OF SERVICE		
Net settlement sheet		
Entries, each	.95	.95
Files, each	12.00	12.00
Minimum per month	60–175	60–100
FEDWIRE SECURITIES		
Account maintenance		
Per issue	.45	.45
Per account	15.00	15.00
Transfers, each[2]	.70	.70
Off-line surcharge	18.00	25.00
NONCASH COLLECTION		
Bonds, each	40.00	40.00
Deposit envelopes		
(per envelope of coupons)[3]		
1–5	4.75	4.75
6–50	2.50	2.50
Cash letters		
(flat fee, by number of envelopes of coupons)[3]		
1–5	7.50	7.50
6–50	15.00	15.00
Return items, each	15.00	20.00

NOTE. Rates for 2000 are as of April 3.

1. Rates apply only to their specified volume tiers.
2. Originated and received.
3. Deposits and cash letters may contain no more than 50 envelopes of coupons.

on their reserve or clearing balances at the Reserve Banks and transfer funds to other institutions. The number of Fedwire funds transfers originated by depository institutions increased 3.7 percent in 2001, to 115,308 million. In August, the Reserve Banks reduced the transfer fee for the highest-volume tier while keeping other fees unchanged (table). The off-line funds transfer surcharge also remained unchanged.[4]

In September, the Reserve Banks began the final phase of consolidating the operations of the Fedwire funds transfer service.[5] The consolidation is expected to reduce operating costs upon its completion in August 2002.

Net Settlement

Private clearing arrangements that exchange and settle transactions may use the Reserve Banks' net settlement service to settle their transactions. The Reserve Banks provide settlement services to approximately 70 local and national private arrangements, including local check clearinghouse associations, automated clearinghouse networks, and credit card processors. In 2001, the Reserve Banks processed more than 417,000 settlement entries for these arrangements, and fees remained at their 2000 levels.

Fedwire Securities Service

The Fedwire securities service allows depository institutions to transfer securities issued by the U.S. Treasury, federal government agencies, and other entities electronically to other institutions in the United States. Reserve Bank operating expenses and imputed costs for providing this service totaled \$19.5 million in 2001. Revenue totaled \$19.0 million, and other income amounted to \$0.7 million, resulting in net income of \$0.2 million. Approximately 6,708 million transfers were processed on the

4. Depository institutions that do not have an electronic connection to the Fedwire funds transfer system can originate transfers via "off-line" telephone instructions.

5. The first phase of this and the Fedwire securities service consolidation was completed in March 1999.

system during the year, an increase of 18.4 percent from 2000.[6] The basic per-transfer fee for transfers originated and received by depository institutions and the monthly account maintenance fees were unchanged in 2001, while the off-line securities transaction surcharge was increased from $18.00 to $25.00.

In September, the Reserve Banks began the final phase of consolidation of the Fedwire securities service in an effort to reduce costs. The consolidation is expected to be complete in August 2002.

The Government National Mortgage Association (Ginnie Mae) announced plans in 2001 to have its securities clear and settle on the Fedwire securities transfer system. The conversion is expected to be complete by March 2002.

Noncash Services

The Federal Reserve provides a service to collect and process municipal bearer bonds and coupons issued by state and local governments (referred to as "non-cash" items). The service, which has been centralized at one Federal Reserve office, processed 412,000 noncash transactions in 2001.

Operating expenses and imputed costs for noncash services totaled $1.6 million in 2001. Revenue from noncash operations totaled $2.0 million, resulting in net income of $0.4 million. The return-item fee was increased from $15 to $20, and the other collection fees remained the same.

Special Cash Services

The Reserve Banks charge fees for providing special cash-related services, such as currency packaged in a non-standard way. These services—collectively referred to as "special cash services"—account for a very small proportion (less than 1 percent) of the total cost of cash services provided by the Reserve Banks to depository institutions. Operating expenses and imputed costs for special cash services totaled $2.1 million in 2001. Revenue and other income totaled $2.3 million, resulting in net income of $0.2 million.

Float

Federal Reserve float decreased in 2001 to a daily average of $604.6 million, from a daily average of $774.2 million in 2000. The Federal Reserve recovers the cost of float associated with priced services as part of the fees for those services.

Developments in Currency and Coin

Currency volume in the Federal Reserve System continued to be high in 2001. Reserve Banks received 33.5 billion notes from circulation in 2001, a slight increase from the 33.3 billion notes received in 2000, the Y2K flowback year (when depository institutions returned the extra vault cash they had held in anticipation of the century date change). Reserve Banks also made payments of 34.3 billion notes to circulation in 2001, a 7 percent increase from 2000.

The Federal Reserve Bank of San Francisco officially opened the Phoenix

6. The expenses, revenues, and volumes reported here are for transfers of securities issued by federal government agencies, government-sponsored enterprises, and international institutions such as the World Bank. The Fedwire securities service also provides account maintenance, transfer, and settlement services for U.S. Treasury securities. When the Reserve Banks provide these services, they act as fiscal agents of the United States. The Treasury Department assesses fees on depository institutions for some of these services. For details, see the section "Fiscal Agency Services" later in this chapter.

cash-processing center on September 4. The center will operate as a satellite office of the Los Angeles Branch.

Developments in Fiscal Agency and Government Depository Services

The total cost of providing fiscal agency and depository services to the Treasury in 2001 amounted to $246.5 million, compared with $262.5 million in 2000 (table). The cost of providing services to other government agencies was $38.9 million, compared with $39.4 million in 2000. In 2001, the Reserve Banks requested reimbursement by the Treasury and other government agencies of $285.4 million for fiscal agency and depository expenses, a decrease of $16.6 million from 2000.

Fiscal Agency Services

As fiscal agents, Reserve Banks provide to the Treasury services related to the federal debt. For example, they issue, transfer, reissue, exchange, and redeem marketable Treasury securities and savings bonds; they also process secondary market transfers initiated by depository institutions.

Marketable Treasury Securities

Reserve Bank operating expenses for activities related to marketable Treasury securities in 2001 (Treasury Direct,

Expenses of Federal Reserve Banks for Fiscal Agency and Depository Services, 2001, 2000, and 1999

Thousands of dollars

Agency and service	2001	2000	1999
DEPARTMENT OF THE TREASURY			
Bureau of the Public Debt			
Savings bonds	69,569.8	70,786.7	70,285.8
Treasury Direct	37,326.6	41,259.3	40,446.2
Commercial book entry	9,998.1	13,924.6	15,744.2
Marketable Treasury issues	11,366.8	14,224.3	13,715.1
Definitive securities and Treasury coupons	610.9	1,069.3	4,886.7
Other services	150.7	132.5	100.4
Total	129,022.9	141,404.7	145,178.4
Financial Management Service			
Treasury tax and loan and Treasury general account	31,106.0	38,649.0	34,971.0
Government check processing	30,310.2	31,866.9	33,365.4
Automated clearinghouse	9,665.2	10,799.1	11,263.4
Government agency check deposits	2,272.9	2,218.8	2,422.7
Fedwire funds transfers	199.2	182.9	187.7
Other services	30,771.5	27,015.4	20,423.5
Total	104,324.9	110,732.2	102,633.7
Other Treasury			
Total	13,149.8	10,362.8	7,786.8
Total, Treasury	246,497.5	262,499.7	255,598.9
OTHER FEDERAL AGENCIES			
Department of Agriculture			
Food coupons	13,197.2	16,463.7	18,643.9
U.S. Postal Service			
Postal money orders	11,255.0	9,213.5	6,623.3
Miscellaneous agencies			
Other services	14,434.0	13,747.1	13,983.0
Total, other agencies	38,886.2	39,424.3	39,250.2
Total reimbursable expenses	**285,383.7**	**301,924.0**	**294,849.1**

Fedwire book-entry system, marketable issues, definitive securities, and Treasury coupons) totaled $59.3 million, a 15.9 percent decrease from 2000. The Reserve Banks processed nearly 258,000 tenders for Treasury securities, compared with 220,000 in 2000, and handled 2.8 million reinvestment requests, compared with 2.0 million in 2000.

The Reserve Banks operate two book-entry securities systems for Treasury securities: the Fedwire system, which provides custody and transfer, and Treasury Direct, which provides custody services only.[7] Almost all book-entry Treasury securities, 97.5 percent of the total par value outstanding at year-end 2001, were maintained on Fedwire; the remainder were maintained on Treasury Direct. The Reserve Banks in 2001 originated 7.8 million Fedwire transfers of Treasury securities, a 1.9 percent increase from 2000.

On behalf of Treasury Direct customers, the Reserve Bank designated to handle sales sold nearly 15,000 securities worth $699.9 million, compared with more than 16,000 securities worth $581.2 million in 2000, collecting almost $510,000 in fees on behalf of the Treasury, a decrease of 8.4 percent from the almost $557,000 in fees collected in 2000.

Savings Bonds

Reserve Bank operating expenses for savings bond activities totaled $69.6 million in 2001, a decrease of 1.7 percent from 2000. The Banks printed and mailed 37.8 million savings bonds on behalf of the Treasury's Bureau of the Public Debt, a 3.3 percent increase from 2000. They also processed nearly 5.5 million original-issue transactions for the Series I (inflation-indexed) savings bond and 26.2 million original-issue transactions for the Series EE savings bond. In addition, the Banks processed approximately 563,000 redemption, reissue, and exchange transactions, a 1.0 percent decrease from 2000. Reserve Bank staff responded to 1.6 million service calls from owners of savings bonds, a 4.4 percent increase from 2000.

7. The Fedwire book-entry securities mechanism is also used for safekeeping and transfer of securities issued by federal government agencies, government-sponsored enterprises, or international institutions. For details, see the section "Fedwire Securities Service" earlier in this chapter.

Depository Services

The Reserve Banks maintain the Treasury's funds account, accept deposits of federal taxes and fees, pay checks drawn on the Treasury's account, and make electronic payments on behalf of the Treasury.

Federal Tax Payments

Reserve Bank operating expenses related to federal tax payments in 2001 totaled $31.1 million. The Federal Reserve enhanced the Treasury tax and loan program at midyear 2001 by enabling the Treasury to invest funds with eligible depository institutions throughout the afternoon rather than just in the morning, adding approximately $3.0 million to Treasury's investment income. It also worked with the Treasury to develop a pilot program whereby the Treasury could place investments with depository institutions for a set term, the interest rate being determined by auction.

Payments Processed for the Treasury

Reserve Bank operating expenses related to government payments in 2001 amounted to $42.4 million. The Banks processed 900.4 million ACH transactions for the Treasury, an increase of 7.4 percent from 2000. They also processed 345.8 million paper government checks, an increase of 32.0 percent from 2000. In addition, the Banks issued nearly 435,000 paper fiscal agency checks, a decrease of 17.4 percent from 2000.

During the year, a Reserve Bank assisted Treasury's efforts to facilitate electronic payments to the federal government. The Bank began sending ACH debits and making related accounting entries for Treasury's Pay.gov web site and began converting checks received by the Treasury at the point of sale at four overseas military bases.

Services Provided to Other Entities

The Reserve Banks provide fiscal agency and depository services to other domestic and international agencies when they are required to do so by the Secretary of the Treasury or when they are required or permitted to do so by federal statute. One such service is the provision of food coupon services for the Department of Agriculture. Reserve Bank operating expenses for food coupon services in 2001 totaled $13.2 million, 19.8 percent lower than in 2000. The Banks redeemed 587 million food coupons, a decrease of 14.5 percent from 2000. The Federal Reserve System is consolidating food coupon processing and expects 2001 consolidations to save more than $500,000 per year.

As fiscal agents of the United States, the Reserve Banks also process all postal money orders deposited by banks for collection. In 2001, they processed 229.4 million postal money orders, approximately the same number as in 2000.

Information Technology

The Federal Reserve continued in 2001 to provide highly reliable and secure electronic services and expanded its electronic access options to depository institutions. Significant progress was made on the System's project to implement frame relay technology on Fednet, the telecommunications network that supports both external electronic connections between the Federal Reserve and depository institutions and internal communications among Reserve Banks. The improvements will improve the speed, reliability, and performance of the depository institutions' electronic connections during contingencies and will also increase the capacity and flexibility to support new electronic services using web-based technologies. The Reserve Banks continued to improve electronic access options for depository institutions and to offer web-based applications for check imaging, cash ordering, and savings bonds processing. The Banks plan to offer other new web-based services over the next several years.

Examinations of Federal Reserve Banks

Section 21 of the Federal Reserve Act requires the Board of Governors to order an examination of each Federal Reserve Bank at least once a year. The Board engages a public accounting firm to perform an annual audit of the combined financial statements of the Reserve Banks (see the section "Federal Reserve Bank Combined Financial Statements"). The public accounting firm also audits the annual financial statements of each of the twelve Banks. The Reserve Banks use the framework established by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in assessing their internal controls over financial reporting, including the safeguarding of assets. Within this framework, each Reserve Bank provides an assertion letter to its board of directors annually confirming adherence to the COSO standards, and a public accounting firm certifies management's assertion and issues an attestation report to the Bank's board of directors and to the Board of Governors.

The firm engaged for the audits of the individual and combined financial statements of the Reserve Banks for 2001 was PricewaterhouseCoopers LLP (PwC). Fees for these services totaled $1.3 million. In order to ensure auditor independence, the Board requires that PwC be independent in all matters relating to the audit. Specifically, PwC may not perform services for the Reserve Bank or others that would place it in a position of auditing its own work, making management decisions on behalf of the Reserve Banks, or in any other way impairing its audit independence. In 2001 the Reserve Banks engaged PwC for advisory services totaling $0.9 million, $0.7 million of which was for project management advisory services related to the System's check modernization project. The Board believes that these advisory services do not directly affect the preparation of the financial statements audited by PwC and are not incompatible with the services provided by PwC as an independent auditor.

In 2001, the examinations by the Board's Division of Reserve Bank Operations and Payment Systems of the Reserve Banks, using a format consistent with the integrated COSO framework, assessed the efficiency and effectiveness of operations, the reliability of financial reporting, compliance with applicable laws and regulations, and the safeguarding of assets. The annual attention at each Reserve Bank includes an assessment of the effectiveness of the Bank's internal audit function.

Each year, to assess compliance with the policies established by the Federal Reserve's Federal Open Market Committee (FOMC), the division also examines the accounts and holdings of the System Open Market Account at the Federal Reserve Bank of New York and the foreign currency operations conducted by that Bank. In addition, a public accounting firm certifies the schedule of participated asset and liability accounts and the related schedule of participated income accounts at year-end. Division personnel follow up on the results of these audits. The FOMC receives the external audit reports and the report on the division's follow-up.

Income and Expenses

The accompanying table summarizes the income, expenses, and distributions of net earnings of the Federal Reserve Banks for 2000 and 2001.

Income in 2001 was $31,871 million, compared with $33,964 million in 2000. Total expenses were $2,718 million ($1,834 million in operating expenses, $250 million in earnings credits granted to depository institutions, and $295 million in assessments for expenditures by the Board of Governors). The cost of new currency was $339 million. Revenue from priced services was $926.5 million.

The profit and loss account showed a net loss of $1,117 million. The loss was due primarily to unrealized losses on assets denominated in foreign currencies revalued to reflect current market exchange rates. Statutory dividends paid to member banks totaled $428 million, $18 million more than in 2000; the rise reflects an increase in the capital and surplus of member banks and a conse-

Income, Expenses, and Distribution of Net Earnings of Federal Reserve Banks, 2001 and 2000

Millions of dollars

Item	2001	2000
Current income	31,871	33,964
Current expenses	2,085	1,972
Operating expenses[1]	1,834	1,586
Earnings credits granted	250	385
Current net income	29,786	31,992
Net additions to (deductions from, –) current net income	−1,117	−1,492
Cost of unreimbursed services to Treasury	0	8
Assessments by the Board of Governors	634	624
For expenditures of Board	295	188
For cost of currency	339	436
Net income before payments to Treasury	28,035	29,868
Dividends paid	428	410
Transferred to surplus	518	4,115
Payments to Treasury[2]	27,089	25,344

1. Includes a net periodic credit for pension costs of $331 million in 2001 and $393 million in 2000.

2. Interest on Federal Reserve notes.

quent increase in the paid-in capital stock of the Reserve Banks.

Payments to the Treasury in the form of interest on Federal Reserve notes totaled $27,089 million in 2001, up from $25,344 million in 2000; the payments equal net income after the deduction of dividends paid and of the amount necessary to bring the surplus of the Reserve Banks to the level of capital paid in.

In the "Statistical Tables" section of this volume, table 5 details the income and expenses of each Federal Reserve Bank for 2001, and table 6 shows a condensed statement for each Bank for the years 1914 through 2001. A detailed account of the assessments and expenditures of the Board of Governors appears in the section "Board of Governors Financial Statements."

Holdings of Securities and Loans

The Reserve Banks' average daily holdings of securities and loans during 2001 amounted to $559,323 million, an increase of $31,184 million from 2000 (see table). Holdings of U.S. government securities increased $31,152 million, and holdings of loans increased $32 million.

The average rate of interest earned on the Reserve Banks' holdings of government securities declined to 5.46 percent, from 6.20 percent in 2000, and the average rate of interest earned on loans declined to 3.18 percent, from 6.27 percent.

Volume of Operations

Table 8 in the "Statistical Tables" section shows the volume of operations in the principal departments of the Federal Reserve Banks for the years 1996 through 2001.

Federal Reserve Bank Premises

In 2001, construction of the Atlanta Reserve Bank's new headquarters building and the San Francisco Bank's new cash-processing center in Phoenix was completed.

Securities and Loans of Federal Reserve Banks, 1999–2001

Millions of dollars except as noted

Item and year	Total	U.S. government securities[1]	Loans[2]
Average daily holdings[3]			
1999	495,606	495,384	221
2000	528,139	527,774	365
2001	559,323	558,926	397
Earnings			
1999	28,227	28,216	11
2000	32,760	32,737	23
2001	30,536	30,523	13
Average interest rate (percent)			
1999	5.70	5.70	5.02
2000	6.20	6.20	6.27
2001	5.46	5.46	3.18

1. Includes federal agency obligations.
2. Does not include indebtedness assumed by the Federal Deposit Insurance Corporation.
3. Based on holdings at opening of business.

The Board approved a new building program for the Chicago Bank's Detroit Branch. The Bank relocated its check-processing function from its headquarters building to leased space near Midway Airport in Chicago and sold its Westgate warehouse in suburban Chicago.

Design work for the Dallas Bank's new Houston Branch building continued. The Kansas City Bank continued to analyze the long-term planning options for its headquarters facility, and the St. Louis Bank initiated a similar analysis of its headquarters facility.

The San Francisco Bank began a study of the long-term business needs and planning options for its Seattle and Portland Branches. The lease on the Cleveland Bank's regional check-processing center in Columbus, Ohio, was renewed.

The multiyear renovation program and the cleaning and repair of the exterior stonework continued at the New York Bank's headquarters building. An improvement program for the main chiller plant in the headquarters building continued. Also, the improvements to the New York Bank's leased office facility in New York City were completed.

At all facilities, security enhancement programs were undertaken as a result of the events of September 11. ■

Pro Forma Financial Statements for Federal Reserve Priced Services

Pro Forma Balance Sheet for Priced Services, December 31, 2001 and 2000

Millions of dollars

Item	2001		2000	
Short-term assets (Note 1)				
Imputed reserve requirements on clearing balances	860.8		667.0	
Investment in marketable securities	7,747.3		6,002.6	
Receivables	76.5		74.9	
Materials and supplies	3.1		3.2	
Prepaid expenses	30.5		35.2	
Items in process of collection	1,772.1		4,094.6	
Total short-term assets		10,490.3		10,877.4
Long-term assets (Note 2)				
Premises	473.0		471.9	
Furniture and equipment	176.1		171.2	
Leases and leasehold improvements	88.1		65.3	
Prepaid pension costs	760.8		659.9	
Total long-term assets		1,498.0		1,368.3
Total assets		11,988.3		12,245.7
Short-term liabilities				
Clearing balances and balances arising from early credit of uncollected items	8,524.5		**6,886.1**	
Deferred-availability items	1,855.7		**3,878.1**	
Short-term debt	20.8		113.2	
Short-term payables	89.2		.0	
Total short-term liabilities		10,490.3		10,877.4
Long-term liabilities				
Long-term debt	519.7		443.0	
Postretirement/postemployment benefits obligation	257.8		243.9	
Total long-term liabilities		777.4		686.9
Total liabilities		11,267.7		11,564.3
Equity		720.6		681.4
Total liabilities and equity (Note 3)		11,988.3		12,245.7

NOTE. Components may not sum to totals because of rounding. Amounts in bold are restatements due to errors in previously reported data.

The accompanying notes are an integral part of these pro forma priced services financial statements.

Pro Forma Income Statement for Federal Reserve Priced Services, 2001 and 2000

Millions of dollars

Item	2001		2000	
Revenue from services provided to depository institutions (Note 4)		926.5		881.5
Operating expenses (Note 5)		814.9		**716.5**
Income from operations		111.7		**165.1**
Imputed costs (Note 6)				
Interest on float	15.5		12.8	
Interest on debt	32.0		31.5	
Sales taxes	12.6		9.3	
FDIC insurance	.0	60.1	.0	53.6
Income from operations after imputed costs		51.6		**111.4**
Other income and expenses (Note 7)				
Investment income	273.3		411.8	
Earnings credits	–239.4	33.9	–370.5	41.3
Income before income taxes		85.4		**152.7**
Imputed income taxes (Note 8)		26.9		**48.1**
Net income		58.5		**104.6**
MEMO: Targeted return on equity (Note 9)		109.2		98.4

NOTE. Components may not sum to totals because of rounding. Amounts in bold are restatements due to errors in previously reported data.

The accompanying notes are an integral part of these pro forma priced services financial statements.

Pro Forma Income Statement for Federal Reserve Priced Services, by Service, 2001

Millions of dollars

Item	Total	Commercial check collection	Funds transfer and net settlement	Fedwire securities	Commercial ACH	Noncash services	Cash services
Revenue from services (Note 4)	926.5	764.7	61.8	19.0	76.9	2.0	2.2
Operating expenses (Note 5)	814.9	684.3	50.3	18.4	58.5	1.3	2.0
Income from operations	111.7	80.4	11.4	.6	18.4	.7	.2
Imputed costs (Note 6)	60.1	52.2	3.1	1.0	3.8	.1	.0
Income from operations after imputed costs	51.6	28.2	8.4	–.4	14.6	.6	.2
Other income and expenses, net (Note 7)	33.9	28.5	2.0	.7	2.5	.0	.1
Income before income taxes	85.4	56.7	10.4	.3	17.2	.6	.2
Imputed income taxes (Note 8)	26.9	17.9	3.3	.1	5.4	.2	.1
Net income	58.5	38.9	7.1	.2	11.8	.4	.2
MEMO: Targeted return on equity (Note 9)	109.2	90.2	7.4	2.3	8.9	.2	.1

NOTE. Components may not sum to totals because of rounding.

The accompanying notes are an integral part of these pro forma priced services financial statements.

Pro Forma Income Statement for Federal Reserve Priced Services, by Service, 2000

Millions of dollars

Item	Total	Commercial check collection	Funds transfer and net settlement	Fedwire securities	Commercial ACH	Noncash services	Cash services
Revenue from services (Note 4)	881.5	728.6	61.9	17.8	68.8	2.3	2.1
Operating expenses (Note 5)	**716.5**	**595.5**	**49.5**	14.0	53.6	1.7	2.1
Income from operations	**165.1**	**133.1**	**12.4**	3.8	15.2	.6	.0
Imputed costs (Note 6)	53.6	**46.3**	**3.1**	**.8**	3.3	**.1**	.0
Income from operations after imputed costs	**111.4**	**86.8**	**9.3**	3.0	11.9	.4	.0
Other income and expenses, net (Note 7)	41.3	34.7	2.7	.8	2.9	.1	.1
Income before income taxes	**152.7**	**121.5**	**12.0**	3.8	14.8	**.6**	.1
Imputed income taxes (Note 8)	**48.1**	**38.3**	**3.8**	1.2	4.7	.2	.0
Net income	**104.6**	**83.2**	**8.2**	2.6	**10.1**	.4	.1
MEMO: Targeted return on equity (Note 9)	98.4	80.8	7.5	1.9	8.0	.2	.1

NOTE. Components may not sum to totals because of rounding. Amounts in bold are restatements due to errors in previously reported data.

The accompanying notes are an integral part of these pro forma priced services financial statements.

FEDERAL RESERVE BANKS

NOTES TO PRO FORMA FINANCIAL STATEMENTS FOR PRICED SERVICES

(1) SHORT-TERM ASSETS

The imputed reserve requirement on clearing balances held at Reserve Banks by depository institutions reflects a treatment comparable to that of compensating balances held at correspondent banks by respondent institutions. The reserve requirement imposed on respondent balances must be held as vault cash or as non-earning balances maintained at a Reserve Bank; thus, a portion of priced services clearing balances held with the Federal Reserve is shown as required reserves on the asset side of the balance sheet. The remainder of clearing balances is assumed to be invested in three-month Treasury bills, shown as investment in marketable securities.

Receivables are (1) amounts due the Reserve Banks for priced services and (2) the share of suspense-account and difference-account balances related to priced services.

Materials and supplies are the inventory value of short-term assets.

Prepaid expenses include salary advances and travel advances for priced-service personnel.

Items in process of collection is gross Federal Reserve cash items in process of collection (CIPC) stated on a basis comparable to that of a commercial bank. It reflects adjustments for intra-System items that would otherwise be double-counted on a consolidated Federal Reserve balance sheet; adjustments for items associated with non-priced items, such as those collected for government agencies; and adjustments for items associated with providing fixed availability or credit before items are received and processed. Among the costs to be recovered under the Monetary Control Act is the cost of float, or net CIPC during the period (the difference between gross CIPC and deferred-availability items, which is the portion of gross CIPC that involves a financing cost), valued at the federal funds rate.

(2) LONG-TERM ASSETS

Consists of long-term assets used solely in priced services, the priced-services portion of long-term assets shared with nonpriced services, and an estimate of the assets of the Board of Governors used in the development of priced services. Effective Jan. 1, 1987, the Reserve Banks implemented the Financial Accounting Standards Board's Statement of Financial Accounting Standards No. 87, *Employers' Accounting for Pensions* (SFAS 87). Accordingly, the Reserve Banks recognized credits to expenses of $101.0 million in 2001 and $115.5 million in 2000 and corresponding increases in this asset account.

(3) Liabilities and Equity

Under the matched-book capital structure for assets, short-term assets are financed with short-term payables and short-term debt in 2001 and only short-term debt in 2000. Long-term assets are financed with long-term debt and equity in a proportion equal to the ratio of long-term debt to equity for the fifty largest bank holding companies, which are used in the model for the private-sector adjustment factor (PSAF). The PSAF consists of the taxes that would have been paid and the return on capital that would have been provided had priced services been furnished by a private-sector firm. Other short-term liabilities include clearing balances maintained at Reserve Banks and deposit balances arising from float. Other long-term liabilities consist of accrued postemployment and postretirement benefits costs and obligations on capital leases.

(4) Revenue

Revenue represents charges to depository institutions for priced services and is realized from each institution through one of two methods: direct charges to an institution's account or charges against its accumulated earnings credits.

(5) Operating Expenses

Operating expenses consist of the direct, indirect, and other general administrative expenses of the Reserve Banks for priced services plus the expenses for staff members of the Board of Governors working directly on the development of priced services. The expenses for Board staff members were $4.9 million in 2001 and $4.2 million in 2000. The credit to expenses under SFAS 87 (see note 2) is reflected in operating expenses.

The income statement by service reflects revenue, operating expenses, and imputed costs. Certain corporate overhead costs not closely related to any particular priced service are allocated to priced services in total based on an expense-ratio method, but are allocated among priced services based on management decision. Corporate overhead was allocated among the priced services during 2001 and 2000 as follows (in millions):

	2001	2000
Check	43.5	40.3
ACH	4.4	3.7
Funds transfer	3.5	4.3
Book entry	1.9	1.1
Noncash services	.1	.1
Special cash services	.0	.1
Total	53.4	49.6

(6) Imputed Costs

Imputed costs consist of interest on float, interest on debt, sales taxes, and the FDIC assessment. Interest on float is derived from the value of float to be recovered, either explicitly or through per-item fees, during the period. Float costs include costs for checks, book-entry securities, noncash collection, ACH, and funds transfers.

Interest is imputed on the debt assumed necessary to finance priced-service assets. The sales taxes and FDIC assessment that the Federal Reserve would have paid had it been a private-sector firm are among the components of the PSAF (see note 3).

Float costs are based on the actual float incurred for each priced service. Other imputed costs are allocated among priced services according to the ratio of operating expenses less shipping expenses for each service to the total expenses for all services less the total shipping expenses for all services.

The following list shows the daily average recovery of actual float by the Reserve Banks for 2001 in millions of dollars:

Total float	1,056.3
Unrecovered float	112.3
Float subject to recovery	944.0
Sources of recovery of float	
Income on clearing balances	94.4
As-of adjustments	451.7
Direct charges	505.3
Per-item fees	(107.4)

Unrecovered float includes float generated by services to government agencies and by other central bank services. Float recovered through income on clearing balances is the result of the increase in investable clearing balances; the increase is produced by a deduction for float for cash items in process of collection, which reduces imputed reserve requirements. The income on clearing balances reduces the float to be recovered through other means. As-of adjustments and direct charges refer to float that is created by interterritory check transportation and the observance of non-standard holidays by some depository institutions. Such float may be recovered from the depository institutions through adjustments to institution reserve or clearing balances or by billing institutions directly. Float recovered through direct charges and per-item fees is valued at the federal funds rate; credit float recovered through per-item fees has been subtracted from the cost base subject to recovery in 2001. The 2001 float levels were unusually high because of the effect of September 11 events.

(7) Other Income and Expenses

Consists of investment income on clearing balances and the cost of earnings credits. Investment income on clearing balances represents the average coupon-equivalent yield on three-month Treasury bills applied to the *total* clearing balance maintained, adjusted for the effect of reserve requirements on clearing balances. Expenses for earnings credits granted to depository institutions on their clearing balances are derived by applying the average federal funds rate to the *required* portion of the clearing balances, adjusted for the net effect of reserve requirements on clearing balances.

(8) Income Taxes

Imputed income taxes are calculated at the effective tax rate derived from the PSAF model (see note 3).

(9) Return on Equity

The after-tax rate of return on equity that the Federal Reserve would have earned had it been a private business firm, as derived from the PSAF model (see note 3).

The Board of Governors and the Government Performance and Results Act

Under the Government Performance and Results Act of 1993 (GPRA), federal agencies are required, in consultation with the Congress and outside stakeholders, to prepare a strategic plan covering a multiyear period and to submit annual performance plans and performance reports. Although it is not covered by the act, the Board of Governors has chosen to voluntarily comply with the act.

Strategic and Performance Plans

The Board's most recent strategic plan in the GPRA format, released in December 2001, covers the period 2001–05. Like the earlier plan, which covered 1997–2002, the most recent document states the Board's mission, articulates major goals for the period, outlines strategies for achieving those goals, and discusses the environment and other factors that could affect their achievement. It also addresses issues that cut across agency jurisdictional lines, identifies key quantitative measures of performance, and discusses the evaluation of performance.

The Board's most recent performance plan covers its 1998–99 budget.[1] The plan sets forth specific targets for some of the performance measures identified in the strategic plan (except those associated with the monetary policy function). It also describes the operational processes and resources needed to meet those targets and discusses validation and verification of results.

The strategic and performance plans are available on the Board's public web site (http://www.federalreserve.gov/boarddocs/rptcongress). The Board's mission statement and a summary of the goals and objectives set forth in the strategic and performance plans are given below.

Mission

The mission of the Board is to foster the stability, integrity, and efficiency of the nation's monetary, financial, and payment systems so as to promote optimal macroeconomic performance.

Goals and Objectives

The Federal Reserve has three primary goals with interrelated and mutually reinforcing elements:

Goal

To conduct monetary policy that promotes the achievement of maximum sustainable long-term growth; price stability fosters that goal.

Objectives

- Stay abreast of recent developments and prospects in the U.S. economy

1. The Board's budget covers two calendar years (making it slightly incongruent with the act's requirement that a performance plan be submitted for each fiscal year). Neither a performance plan for 2000–01 nor a performance report for 1998–99 was prepared, as staff attention was diverted to matters associated with the century date change and the Gramm–Leach–Bliley Act. A performance plan for 2002–03 will be issued in the second quarter of 2002.

and financial markets and in those abroad, so that monetary policy decisions will be well informed

- Enhance our knowledge of the structural and behavioral relationships in the macroeconomic and financial markets and improve the quality of the data used to gauge economic performance, through developmental research activities
- Implement monetary policy effectively in rapidly changing economic circumstances and in an evolving financial market structure
- Contribute to the development of U.S. international policies and procedures, in cooperation with the Department of the Treasury and other agencies
- Promote understanding of Federal Reserve policy among other government policy officials and the general public.

Goal

To promote a safe, sound, competitive, and accessible banking system and stable financial markets.

Objectives

- Provide comprehensive and effective supervision of U.S. banks, bank and financial holding companies, U.S. operations of foreign banking organizations, and related entities
- Promote overall financial stability, manage and contain systemic risk, and ensure that emerging financial crises are identified early and successfully resolved
- Improve efficiency and effectiveness and reduce burden on supervised institutions
- Promote equal access to banking services
- Administer and ensure compliance with consumer protection statutes relating to consumer financial transactions (Truth in Lending, Truth in Savings, Consumer Leasing, and Electronic Funds Transfer) to carry out congressional intent, striking the proper balance between protection of consumers and burden to the industry.

Goal

To provide high-quality professional oversight of Reserve Bank operations and to foster the integrity, efficiency, and accessibility of U.S. payment and settlement systems.

Objectives

- Develop sound, effective policies and regulations that foster payment system integrity, efficiency, and accessibility
- Produce high-quality assessments of Federal Reserve Bank operations, projects, and initiatives that assist Federal Reserve management in fostering and strengthening sound internal control systems and efficient and effective performance
- Conduct research and analysis that contributes to policy development and/or increases the Board's and others' understanding of payment system dynamics and risk.

Interagency Coordination

Interagency coordination helps focus efforts to eliminate redundancy and lower costs. As required by the Government Performance and Results Act and in conformance with past practice, the Board has worked closely with other federal agencies to consider plans and strategies for programs, such as bank supervision, that cross jurisdictional lines. In particular, coordination with the Department of the Treasury and other agencies is evident throughout both the strategic and performance plans. Much of the Board's formal effort to plan jointly has been made through the Federal Financial Institutions Examination Council (FFIEC), a group made up of the five federal agencies that regulate depository institutions.[2] In addition, a coordinating committee of representatives of the chief financial officers of the five agencies has been created to address and report on strategic planning issues of mutual concern. This working group has been meeting since June 1997. These and similar planning efforts can significantly lower the government's costs for data processing and other activities as well as depository institutions' costs for complying with federal regulations. ■

2. The FFIEC consists of the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the National Credit Union Administration, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision. It was established in 1979 pursuant to title X of the Financial Institutions Regulatory and Interest Rate Control Act of 1978. The FFIEC is a formal interagency body empowered to prescribe uniform principles, standards, and report forms for the federal examination of financial institutions and to make recommendations to promote uniformity in the supervision of financial institutions. The FFIEC also provides uniform examiner training and has taken a lead in developing standardized software needed for major data collection programs to support the requirements of the Home Mortgage Disclosure Act and the Community Reinvestment Act.

Federal Legislative Developments

One federal law was enacted during 2001 that significantly affects the Federal Reserve System and the institutions it supervises. In addition, legislation was proposed by the Board of Governors that would, if enacted, facilitate check truncation and enhance the efficiency of the nation's payments system as a whole.

USA PATRIOT Act

The Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act), Public Law 107-56, enacted on October 26, 2001, adds to and amends existing laws, including laws pertaining to financial institutions, to enhance domestic security following the September 11, 2001, attacks. Title III of the act amends various federal banking laws and other laws related to financial institutions or products, principally the Bank Secrecy Act but also the Bank Holding Company Act of 1956, the Fair Credit Reporting Act, and the Right to Financial Privacy Act. In addition, the USA PATRIOT Act amends the Federal Reserve Act to authorize certain System personnel to act as law enforcement officers and carry firearms to protect and safeguard System premises and staff.

Title III of the act directs certain government agencies, principally the Department of the Treasury in consultation with the Board of Governors of the Federal Reserve System, to take steps to investigate and curtail money laundering and other activities that might be undertaken to finance terrorist actions or disrupt legitimate banking operations. The following discussion summarizes title III and describes the portions that bear significantly on the Federal Reserve System and the institutions it supervises.

Title III requires a broad range of financial institutions in the United States to establish anti-money-laundering programs, including policies, procedures, controls, and audit functions.[1] Covered financial institutions must establish controls that are reasonably designed to detect instances of money laundering through certain correspondent or private banking accounts. In addition, these institutions generally may not establish or administer correspondent accounts in the United States for, or on behalf of, a foreign shell bank.

Title III also directs the Secretary of the Treasury (Secretary), in consultation with the Board of Governors and the Securities and Exchange Commission (SEC), to issue regulations that generally would require securities brokers and dealers to submit suspicious activity reports regarding suspected money-laundering transactions. The Secretary and the federal financial regulators must also issue joint regulations for financial institutions regarding the verification of customer identification upon account opening.

Under title III, the Secretary, in consultation with certain other government officials, including the Chairman of the Board of Governors, may impose

1. Financial institutions supervised by the Board and other federal financial regulators are subject to existing regulations that direct the institutions to implement anti-money-laundering programs.

special measures to address money-laundering problems associated with specific foreign jurisdictions, foreign financial institutions, and transactions involving such jurisdictions or institutions. Title III also amends the Bank Holding Company Act and the Bank Merger Act to reflect the Board's practice of considering the effectiveness of an institution's anti-money-laundering activities when evaluating certain applications under these acts.

Title III directs the Secretary, in consultation with certain agencies and parties, including the Chairman, to evaluate certain provisions of the USA PATRIOT Act and to report to the Congress on the findings. The report must include recommendations for any additional legislative action. Moreover, the Secretary, the SEC, and the Board must submit joint recommendations to the Congress on regulations that would apply certain provisions of the Bank Secrecy Act to registered and unregistered investment companies and on whether personal holding companies should be required to disclose their beneficial owners when conducting certain actions at domestic financial institutions.

Proposed Check Truncation Act

In December, the Board proposed that Congress adopt legislation to facilitate check truncation.[2] The proposed legislation, titled the Check Truncation Act, is designed to foster payment system innovation and enhance payment system efficiency by reducing some of the legal impediments to check truncation that exist under current law. If enacted, the proposed legislation would enable banks to expand the use of electronics in the collection and return of checks, reducing the industry's reliance on transportation to move checks across the nation. Details are available on the Board's web site at http://www.federalreserve.gov/paymentsys.htm. ■

2. *Check truncation* refers to any of a number of arrangements in which the original paper checks are removed from the collection or return process before reaching either paying or depositary banks, respectively, or reaching their customers.

Records

Record of Policy Actions of the Board of Governors

Regulation B
Equal Credit Opportunity

Regulation E
Electronic Fund Transfers

Regulation M
Consumer Leasing

Regulation Z
Truth in Lending

Regulation DD
Truth in Savings

March 19, 2001—Interim Rules

The Board approved interim rules to provide uniform standards for the electronic delivery of disclosures required under Regulations B, E, M, Z, and DD, effective March 30, 2001, with mandatory compliance by a date to be designated in the final rules.[1]

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich.

Several federal statutes and the implementing regulations administered by the Board require that written disclosures be provided in connection with certain consumer financial services transactions. Under the Electronic Signatures in Global and National Commerce Act (E–Sign Act), electronic documents and signatures have the same validity as paper documents and handwritten signatures. In this light, the Board approved interim amendments to Regulations B, E, M, Z, and DD to accommodate electronic disclosures if the consumer has affirmatively consented in accordance with the E–Sign Act. The amendments also provide guidance on complying with the regulations' timing and delivery requirements when electronic disclosures are used, to ensure that consumers have an adequate opportunity to access and retain the information. In addition, the Board requested public comment on the interim rules.

Regulation D
Reserve Requirements of Depository Institutions

October 9, 2001—Amendments

The Board amended Regulation D to decrease the amount of net transaction accounts at depository institutions to which a lower reserve requirement applies (low reserve tranche) and to increase the amount of reservable liabilities exempt from reserve requirements (reserve exemption level) for 2002, effective for the reserve computation period beginning November 27, 2001, for institutions reporting weekly.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich.

NOTE. In voting records throughout this chapter, Board members, except Chairman Greenspan and Vice Chairman Ferguson, are listed in order of seniority.

1. The interim rules originally required mandatory compliance by October 1, 2001. Because it is considering adjustments to the rules to provide additional flexibility, on August 1, 2001, the Board lifted the mandatory compliance date for the interim rules.

Under the Monetary Control Act of 1980, depository institutions, Edge corporations, agreement corporations, and U.S. agencies and branches of foreign banks are subject to reserve requirements set by the Board. The act directs the Board to adjust annually the amount of the low reserve tranche to reflect changes in net transaction accounts at depository institutions. Recent declines in net transaction accounts warranted a decrease in the low reserve tranche from $42.8 million to $41.3 million, and the Board amended Regulation D accordingly.

The Garn–St Germain Depository Institutions Act of 1982 establishes a zero percent reserve requirement on the first $2 million of an institution's reservable liabilities. The act also provides for annual adjustments to that exemption amount based on increases in reservable liabilities at depository institutions. Recent growth in reservable liabilities warranted an increase in the amount exempted from reserve requirements from $5.5 million to $5.7 million, and the Board amended Regulation D accordingly.

For institutions reporting weekly, the amendments are effective with the reserve computation period beginning November 27, 2001, and the corresponding reserve maintenance period beginning December 27, 2001. For institutions reporting quarterly, the amendments are effective with the reserve computation period beginning December 18, 2001, and the corresponding reserve maintenance period beginning January 17, 2002.

To reduce the reporting burden on small institutions, depository institutions having total deposits below specified levels are required to report their deposits and reservable liabilities quarterly or less frequently, while larger institutions must report weekly.[2] To reflect increases in the rate of growth of total deposits at all depository institutions, the Board increased the deposit cutoff levels used in determining the frequency and detail of reporting from $101 million to $106.9 million for nonexempt depository institutions, beginning in September 2002.

Exempt institutions (those with total reservable liabilities not exceeding the reserve exemption level of $5.7 million) that have at least $5.7 million in total deposits may report annually, and exempt institutions that have less than $5.7 million in total deposits are not required to file deposit reports.

Regulation E
Electronic Fund Transfers

February 27, 2001—Amendments

The Board amended Regulation E to require disclosure of certain fees associated with automated teller machine (ATM) transactions, effective March 9, 2001, with mandatory compliance by October 1, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Meyer, and Gramlich. Absent and not voting: Mr. Kelley.

The Electronic Fund Transfer Act, which is implemented by Regulation E, was amended by the Gramm–Leach–

2. All U.S. branches and agencies of foreign banks and Edge and agreement corporations are required to submit the Report of Transaction Accounts, Other Deposits, and Vault Cash (FR 2900) weekly regardless of size. In addition, depository institutions that obtain funds from non-U.S. sources or that have foreign branches or international banking facilities continue to be required to file the Report of Certain Eurocurrency Transactions (FR 2950/FR 2951) at the same frequency as they file the FR 2900 report.

Bliley Act to add certain requirements for ATM transactions. The amendments to Regulation E implement these provisions by requiring ATM operators that impose a fee to post a notice to that effect on or at the ATM and to disclose the amount of the fee either on the screen or on a paper notice before the customer is committed to completing the transaction. Financial institutions are also required to include in their initial disclosures to a customer contracting for electronic fund transfer services a notice that a fee may be imposed by an ATM operator not holding the customer's account or by any national, regional, or local network used to complete the transaction.

Regulation H
Membership of
State Banking Institutions
in the Federal Reserve System

January 17, 2001—Amendments

The Board approved a final rule that provides an alternative to the debt-rating requirement for certain large state member banks that propose to own a financial subsidiary, effective March 5, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, and Gramlich. Absent and not voting: Mr. Meyer.

The Board and the Department of the Treasury jointly approved a final rule that establishes an alternative to the debt-rating requirement that certain large banks may meet when they seek to acquire a financial subsidiary and thereby engage in expanded financial activities. The final rule is substantially similar to the interim rule adopted in March 2000.

Under the Gramm–Leach–Bliley Act, a national or state member bank that is among the 100 largest insured banks may control or hold an interest in a financial subsidiary if the bank has at least one issue of outstanding eligible debt that is rated in one of the three highest rating categories by a nationally recognized statistical rating organization. Banks among the second 50 largest insured banks may also qualify under an alternative standard that the Board and the Secretary of the Treasury determine by regulation to be comparable and consistent with the debt-rating requirement.

The final rule, which for state member banks is incorporated in Regulation H, provides that a bank qualifies under the alternative standard if it has a current long-term issuer credit rating from a nationally recognized statistical rating organization that is within the organization's three highest investment-grade rating categories. A long-term credit rating is defined as a written opinion that assesses the bank's overall capacity and willingness to pay in a timely manner its unsecured, dollar-denominated financial obligations that mature in not less than one year.

March 7, 2001—Delay of Effective Date

The Board extended, from April 1 to October 1, 2001, the effective date for a new rule that provides consumer protections in connection with insurance sales by state member banks.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich.

The Board, jointly with the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision, approved a six-month extension of the effective date of a new interagency final rule on the sale of insurance by depository institutions that had been published on December 4, 2000. The new joint rule implements the consumer protection provisions of the Gramm–Leach–Bliley Act applicable to the retail sale, solicitation, advertising, or offer of an insurance product or annuity by a depository institution or by a person engaged in such activities at an office of or on behalf of a depository institution. The agencies provided the extension to give institutions sufficient time to ensure implementation of the new protections.

August 8, 2001—Amendments

The Board approved a final rule amending Regulation H to permit qualifying state member banks to engage in expanded financial activities through financial subsidiaries, effective September 17, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich.

The Board approved a final rule implementing the provisions of the Gramm–Leach–Bliley Act that authorize qualifying state member banks to control or hold an interest in a financial subsidiary, which may engage in certain activities that are financial in nature, or incidental thereto, but that the parent bank may not conduct directly. The final rule is substantially similar to the interim rule approved by the Board in March 2000 and to the rule adopted by the Office of the Comptroller of the Currency for financial subsidiaries of national banks.

The final rule provides a streamlined prior-notice procedure for acquiring an interest in a financial subsidiary; incorporates the capital, managerial, Community Reinvestment Act (CRA), and other qualifying criteria for a state member bank to own a financial subsidiary; and describes the procedures and restrictions that would apply if a state member bank or an affiliate ceased to meet these criteria. It also provides guidance on how the act's capital deduction and CRA requirements apply to a state member bank having a financial subsidiary.

Regulation H
Membership of State Banking Institutions in the Federal Reserve System

Regulation Y
Bank Holding Companies and Change in Bank Control

October 15, 2001—Amendments

The Board approved amendments to Regulations H and Y to revise the regulatory capital treatment of securitization transactions by state member banks and bank holding companies, including financial holding companies, effective January 1, 2002.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich.

The Board, jointly with the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision, amended the regulatory capital standards to address the treatment of recourse obligations, residual interests, and direct credit substitutes related to securitization transactions that expose banking and thrift institutions to credit risk. The amended standards better reflect the institutions' relative exposure to credit risks and provide a more consistent regulatory capital treatment for certain transactions that involve similar risk. They also increase consistency among the supervisory agencies in the area of regulatory capital requirements. For transactions entered into before the effective date, institutions may either adopt any portion of the final rule that would reduce their capital requirements or defer adoption until December 31, 2002, if complying with the rule would increase their capital requirements.

December 10, 2001—Amendments

The Board amended the capital guidelines in Regulations H and Y to establish minimum capital requirements for equity investments in nonfinancial companies by state member banks and bank holding companies, including financial holding companies, effective April 1, 2002.

Votes for this action: Messrs. Greenspan, Ferguson, Meyer, and Gramlich, Ms. Bies, and Mr. Olson. Absent and not voting: Mr. Kelley.

The Board, jointly with the Federal Deposit Insurance Corporation and the Office of the Comptroller of the Currency, adopted special minimum capital requirements for equity investments in nonfinancial companies by banks and bank holding companies, including financial holding companies. The final rule imposes a series of marginal capital charges on covered equity investments that increase with the level of the banking organization's overall exposure to nonfinancial equity investments relative to its tier 1 capital. The new capital requirements apply symmetrically to equity investments made by banks and bank holding companies in nonfinancial companies. The new charges apply to equity investments held under the merchant banking authority of the Gramm–Leach–Bliley Act, the authority to acquire up to 5 percent of the voting shares of any company under section 4(c)(6) or 4(c)(7) of the Bank Holding Company Act, the portfolio investment authority under Regulation K (International Banking Operations), the authority to make investments in small business investment companies (SBICs) under the Small Business Investment Act, and the authority to make investments under section 24 of the Federal Deposit Insurance Act (other than section 24(f)). The rule exempts from the new capital charges any individual investment made by a bank or bank holding company before March 13, 2000. In addition, the new charges do not apply to investments made in or through SBICs to the extent that such investments, in the aggregate, represent 15 percent or less of the banking organization's tier 1 capital.

Regulation K
International Banking Operations

Rules Regarding Delegation of Authority

October 10, 2001—Amendments

The Board approved amendments to Regulation K to eliminate unnecessary regulatory burden, increase transparency, and streamline the approval process for U.S. banking organizations seeking to expand their operations abroad and for foreign banks seeking to expand their U.S. operations, effective November 26, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Meyer, and Gramlich. Absent and not voting: Mr. Kelley.

Consistent with the Riegle Community Development and Regulatory Improvement Act, the Federal Reserve Act, and the International Banking Act, the Board approved amendments in connection with its review of Regulation K.

The amended provisions regulate the foreign investments and activities of all member banks, Edge and agreement corporations, and bank holding companies (subpart A); U.S. activities of foreign banking organizations (subpart B); and export trading companies (subpart C). The Board also requested public comment on proposed amendments to provisions on international lending supervision (subpart D).

The amendments provide streamlined foreign branching procedures for U.S. banking organizations, authorize expanded activities by foreign branches of U.S. banks, and implement recent statutory amendments that permit member banks to invest up to 20 percent of their capital and surplus in Edge corporations. Regulation K's provisions governing permissible foreign activities of U.S. banking organizations, including securities activities, and investments by U.S. banking organizations under the general consent procedures also were amended. Other revisions streamline the applications procedures for foreign banks seeking to expand operations in the U.S., modify provisions concerning the qualification of foreign banking organizations for exemption from the nonbanking prohibitions in section 4 of the Bank Holding Company Act, and implement provisions of the Riegle–Neal Interstate Banking and Branching Efficiency Act that affect foreign banks.

The Board also delegated authority to Board staff and the Reserve Banks to approve certain transactions.

Regulation Y
Bank Holding Companies and Change in Bank Control

January 10, 2001—Amendments

The Board approved a final rule on the merchant banking activities of financial holding companies, effective February 15, 2001, replacing the Board's interim rule on this subject, which had become effective on March 17, 2000.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich.

The Board and the Department of the Treasury jointly approved a final rule incorporated in Regulation Y to implement the merchant banking provisions of the Gramm–Leach–Bliley Act. Like the interim rule it replaces, the final rule defines the scope of permissible merchant banking activities and implements the limitations in the act on the potential mixing of banking and commerce. The rule contains provisions designed to protect the safety and soundness of depository institutions. It also contains streamlined recordkeeping and reporting provisions to assist in monitoring compliance with, and to prevent evasions of, the Bank Holding Company and Gramm–Leach–Bliley Acts.

The final rule differs from the interim rule in several key respects. It modifies the interim rule's provisions defining prohibited routine management and operation of portfolio companies and provides three situations in which financial holding companies will not be presumed to control portfolio companies for purposes of applying sections 23A and 23B of the Federal Reserve Act. In addition, the final rule broadens the definition of "private equity funds," clarifies the rule's application to such funds, and expands the types of financial holding companies that may engage in merchant banking activities. The final rule also adopts a sunset provision for the aggregate investment thresholds included in the interim rule and eliminates immediately the dollar-based investment threshold for the review of a financial holding company's merchant banking activities.

Regulation Z
Truth in Lending

December 12, 2001—Amendments

The Board amended Regulation Z to expand the applicability of the Home Ownership and Equity Protection Act, effective December 20, 2001, with mandatory compliance by October 1, 2002.

Votes for this action: Messrs. Greenspan, Ferguson, Meyer, and Gramlich, Ms. Bies, and Mr. Olson. Absent and not voting: Mr. Kelley.

The Home Ownership and Equity Protection Act amended the Truth in Lending Act to address potentially abusive practices in connection with closed-end home-equity loans that are not home-purchase loans. It imposes substantive limitations, such as restrictions on short-term balloon notes and prepayment penalties, and additional disclosure requirements on these types of loans if annual percentage rates or fees exceed specified threshold amounts. The Board is authorized to expand the act's applicability and to prohibit certain practices.

The Board approved amendments that make more home-equity loan transactions subject to the act by lowering the rate-based threshold for first-lien loans and by including certain charges for optional credit insurance and credit-protection plans in the calculation of the fee-based threshold. The amendments also restrict certain acts and practices, such as refinancing a covered loan within one year unless the refinancing is in the borrower's interest and wrongfully documenting a covered loan as an open-end credit transaction to evade the act. In addition, the amendments strengthen the act's prohibition on loans based on homeowners' equity without regard to their ability to repay the loan and revise the consumer disclosures that must be provided before a loan closing.

Miscellaneous Interpretations

Applicability of Sections 23A and 23B of the Federal Reserve Act to Derivative Transactions with Affiliates and Intraday Extensions of Credit to Affiliates

May 2, 2001—Interim Amendments

The Board adopted interim rules on the applicability of sections 23A and 23B of the Federal Reserve Act to derivative transactions and intraday extensions of credit involving insured depository institutions and their affiliates, effective January 1, 2002.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich.

The interim amendments implement provisions of the Gramm–Leach–Bliley Act that require the Board to adopt rules under section 23A to address credit exposure arising out of derivative transactions between insured depository institutions and their affiliates and intraday extensions of credit by insured depository institutions to their affiliates. The interim rules require insured depository institutions to adopt policies and procedures reasonably designed to monitor, manage, and control credit exposures in derivative transactions with their affiliates and in intraday extensions of credit to their affiliates. In addition, they clarify that these transactions are subject to section 23B. The Board also requested public comment on the interim rules.

Applicability of Section 23A of the Federal Reserve Act to the Purchase of Securities from Certain Affiliates

Applicability of Section 23A of the Federal Reserve Act to Loans and Extensions of Credit Made by a Member Bank to a Third Party

May 2, 2001—Amendments

The Board adopted rules regarding the applicability of section 23A of the Federal Reserve Act to certain transactions involving securities affiliates of insured depository institutions, effective June 11, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich.

Section 23A restricts the ability of a member bank to fund its affiliates through investments, loans, asset acquisitions, or certain other transactions, including transactions that involve a member bank and a nonaffiliated party to the extent that the proceeds from the transaction are used for the benefit of or are transferred to an affiliate of the bank. The amendments provide that certain transactions involving securities affiliates of insured depository institutions are not covered under section 23A.

The Board adopted an interpretation that expands the types of asset purchases eligible for exemption under the provision in section 23A that exempts the purchase from an affiliate of an asset that has a readily identifiable and publicly available market quotation. The interpretation increases the ability of insured depository institutions to purchase securities from their registered broker–dealer affiliates while ensuring that the transactions are conducted in a manner consistent with safe and sound banking practices.

The Board also adopted an interpretation and provided exemptions applicable to certain loans made by insured depository institutions to customers who use the loan proceeds to purchase a security or other asset through an affiliate of the depository institution. The interpretation confirms that section 23A does not apply to such loan and purchase transactions as long as the affiliate is acting exclusively as a broker in the transaction and the affiliate retains no portion of the loan proceeds. The Board also exempted from section 23A any portion of the loan that an affiliate retains as a market-rate brokerage commission or agency fee. In addition, the Board provided exemptions for transactions in which loan proceeds are used by a customer to purchase a third party's security through a broker–dealer affiliate of the institution that makes the loan if the affiliate is acting as a riskless principal in the securities transaction. Finally, the Board provided an exemption for extensions of credit used by customers to purchase securities from a broker–dealer affiliate of the institution extending the credit under a preexisting credit line not entered into in contemplation of the securities purchase.

Rules Regarding Equal Opportunity

January 2, 2001—Interim Amendments

The Board approved interim amendments to its Rules Regarding Equal Opportunity, effective January 25, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich.

The Board's Rules Regarding Equal Opportunity require a workplace that is free of discrimination based on race, color, religion, sex, national origin, age, physical or mental disability, or retaliation and provide a procedure for processing discrimination complaints. The rules, which were adopted under the Federal Reserve Act, are substantially similar to the Equal Employment Opportunity Commission's regulations for federal sector employment. In November 1999, the Commission amended its regulations, and the Board's interim amendments implement the changes that are applicable to Board employment. In addition, the interim amendments revise provisions in the rules that prohibit discrimination on the basis of disability and address the employment of noncitizens, which are not covered by the Commission's regulations. The Board also requested public comment on the interim amendments.

Policy Statements and Other Actions

April 4, 2001—Policy Statement on Payments System Risk

The Board rescinded the third-party access policy for Fedwire transactions in connection with its review of the Federal Reserve's Policy Statement on Payments System Risk, effective April 9, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich.

In 1987, the Board, as part of its policy to reduce payments system risk, approved a set of conditions under which Fedwire third-party access arrangements could be established. The Board allowed institutions meeting the conditions to establish third-party access arrangements under which a sending or receiving institution ("participant") designates another depository institution or other service provider to initiate, receive, or otherwise process Fedwire funds transfers or book-entry securities transfers that are posted to the participant's account at the Federal Reserve. The Federal Reserve's experience with the Fedwire third-party access policy indicates that, properly managed, such arrangements pose little additional risk to the Federal Reserve. Supervisory guidance on outsourcing, issued by the Board and the other federal banking regulators in 2000, addresses domestic and foreign arrangements and sets forth basic supervisory expectations for outsourcing of Fedwire and other information- and transaction-processing activities conducted by banking organizations. Fedwire outsourcing arrangements will continue to be reviewed as appropriate during the normal supervisory process. In this light, the Board concluded that the administrative burden on participants of complying with a separate third-party access policy warranted its rescission.

May 29, 2001—Policy Statement on Payments System Risk

The Board rescinded its interaffiliate transfer policy, effective January 1, 2002.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich.

In 1987, the Board modified its Policy Statement on Payments System Risk to include a policy on interaffiliate transfers that addressed potential risks arising from credit decisions among affiliates that are not at arm's length. The Board has rescinded the interaffiliate transfer policy because the risks addressed by the policy are appropriately addressed through the existing supervisory process and the Reserve Banks' credit-risk-management controls.

May 29, 2001—Policy Statement on Payments System Risk

The Board approved an interim policy statement that gives depository institutions access to intraday credit from the Federal Reserve Banks above their self-assessed net debit caps, effective May 30, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich.

Controlling depository institutions' use of intraday Federal Reserve credit, commonly known as daylight overdrafts, is an integral part of the Board's Policy Statement on Payments System Risk. The interim policy statement promotes risk-reduction efforts while minimizing disruptions to the payments system. It allows depository institutions having self-assessed net debit caps, which are maximum limits on their daylight overdrafts, to pledge collateral for additional daylight overdraft capacity above their net debit caps, subject to Reserve Bank approval. The interim policy statement reflects the Board's ongoing efforts to ensure that the payments system functions effectively and efficiently. The Board also requested public comment on the interim policy statement.

December 7, 2001—Policy Statement on Payments System Risk

The Board approved revisions to its Policy Statement on Payments System Risk, effective December 10, 2001, except as noted below.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich.

The Board adopted, with minor modifications, the interim policy statement on depository institutions' use of Federal Reserve intraday credit, or daylight overdrafts, that was approved on May 29, 2001, and is discussed above. In addition, the Board approved modifications to the criteria for determining foreign banking organizations' U.S. capital equivalency measure for purposes of calculating their net debit caps, effective February 21, 2002. The Board also approved modifications to the posting time for electronic check presentments to a depository institution's Federal Reserve account for purposes of measuring daylight overdrafts; the modifications, made in order to remove a potential impediment to the use of electronic check presentment, became effective April 1, 2002. Finally, the Board decided to retain the $50 million limit on the value of book-entry securities transfers.

Discount Rates in 2001

During 2001, the Board of Governors approved twelve reductions, totaling 4¾ percentage points, in the basic discount rate charged by the Federal Reserve Banks. These actions lowered the basic rate from 6 percent at the start of the year to 1¼ percent in December. There were no rate increases during 2001. The rates for seasonal and extended credit, which are recalculated biweekly in keeping with market-related formulas, exceeded the basic rate by varying amounts during the year.

Basic Discount Rate

The Board's decisions on the basic discount rate were made against the background of the policy actions of the Federal Open Market Committee (FOMC) and related economic and financial developments. These developments are reviewed more fully in other parts of this Report, including the minutes of the FOMC meetings held in 2001.

Reductions in the Basic Rate during 2001

From January 3 to December 11, 2001, the Board approved twelve reductions in the basic rate in conjunction with similar decreases in the target for the federal funds rate set at meetings of the FOMC. As the year began, information relating notably to sales and production suggested that the expansion had begun to weaken considerably in late 2000. Against that background and given indications that inflation pressures remained contained, the FOMC lowered the target federal funds rate by 50 basis points and the Board decided that an equal reduction in the basic discount rate was also appropriate. Over the months that followed, evidence of a marked slowdown in the growth of economic activity intensified. Businesses substantially reduced their investment spending in response to weakening demand for their goods and services, an oversupply of some types of capital, and declining profits. Many business firms also sought to reduce what they viewed as excessive inventories, fostering a decline in manufacturing output and an upturn in unemployment. Concurrently, business and consumer confidence eroded, although household spending continued to grow, albeit at a somewhat reduced pace. Against this background, the Board and the FOMC eased monetary policy aggressively in a series of coordinated 50 basis point rate reductions over the first five months of the year.

In late June and again in August, lesser reductions of 25 basis points in the basic discount rate and the federal funds rate were made in the context of continuing indications of a softening economy characterized by further weakness in capital spending, inventory liquidation, and deteriorating export markets. However, household spending was being well maintained, and Federal Reserve officials took account of the considerable easing of monetary policy undertaken in recent months, whose effect had not yet been fully felt, and of Congressional approval of tax cuts that would help to support the economy in coming quarters. Even so, the risks were seen as still tilted toward further economic weakness that called for some added easing in monetary policy.

Despite cumulative reductions of 3 percentage points in the basic discount rate and the federal funds rate by August, the economy appeared to remain vulnerable to further deterioration, with more-widespread indications of weakness and mounting job losses. Against this background, the terrorist attacks on September 11 posed a severe threat to financial markets and the economy. The uncertainty created by the attacks depressed equity prices, raised risk premiums, and further restrained economic activity. In these circumstances, the Federal Reserve acted promptly to provide massive amounts of liquidity on a temporary basis to facilitate the functioning of financial markets and took several actions to reduce its policy rates further. Three reductions of 50 basis points were made in the basic discount rate and the federal funds rate from mid-September through early November. By the first part of December, there were signs that the weakness in aggregate demand might be abating, though those indications were still quite limited and tentative. Over the closing months of the year, efforts to liquidate inventories and reduce capital spending continued to induce production cutbacks. However, after displaying some weakness immediately after the events in September, household spending subsequently appeared to have returned to a moderate growth trend. Low interest rates and widespread price discounting, among other factors, were helping to hold up expenditures on household durables and residential construction despite a high degree of consumer caution. Moreover, stock prices reversed their post-attack losses and an upturn in new orders for capital goods suggested that business confidence might be returning. In this situation, while the risks to the economy were still viewed as tilted toward weakness, the Board and the FOMC agreed that further reductions in their policy rates should be limited to 25 basis points. At year-end, the key policy rates were at their lowest nominal levels in four decades.

Structure of Discount Rates

The basic discount rate is the rate normally charged on loans to depository institutions for short-term adjustment credit, while flexible, market-related rates generally apply to seasonal and extended credit. The flexible rates are calculated every two weeks in accordance with formulas that are approved by the Board.

The objective of the seasonal credit program is to help smaller institutions meet liquidity needs arising from a clear pattern of intra-yearly movements in their deposits and loans. Funds may be provided for longer periods than those permitted under adjustment credit. Since its introduction in early 1992, the flexible rate charged on seasonal credit has been closely aligned with short-term market rates; it is never less than the basic rate applicable to adjustment credit.

The purpose of extended credit is to assist depository institutions that are under sustained liquidity pressure and are not able to obtain funds from other sources. The rate for extended credit is 50 basis points higher than the rate for seasonal credit and is at least 50 basis points above the basic rate. In appropriate circumstances, the basic rate may be applied to extended-credit loans for up to thirty days, but any further borrowings would be charged the flexible, market-related rate.

Exceptionally large adjustment-credit loans that arise from computer breakdowns or other operating problems not clearly beyond the reasonable control of the borrowing institution are assessed the highest rate applicable to any credit extended to depository institutions. No loans of this type were made during 2001.

At the end of 2001, the structure of discount rates was as follows: a basic rate of 1.25 percent for short-term adjustment credit and rates of 1.80 percent for seasonal credit and 2.30 percent for extended credit. During 2001, the rate for seasonal credit ranged from a high of 6.45 percent to a low of 1.80 percent; that for extended credit ranged from a high of 6.95 percent to a low of 2.30 percent.

Board Votes

Under the Federal Reserve Act, the boards of directors of the Federal Reserve Banks must establish rates on loans to depository institutions at least every fourteen days and must submit such rates to the Board of Governors for review and determination. The Reserve Banks are also required to submit on the same schedule requests to renew the formulas based on short-term market interest rates for calculating the rates on seasonal and extended credit. Votes on the reestablishment of the formulas for these flexible rates are not shown in this summary. All votes taken by the Board of Governors during 2001 were unanimous.

Votes on the Basic Discount Rate[3]

January 3, 2001. Effective this date, the Board approved actions taken by the directors of the Federal Reserve Banks of New York, Cleveland, Atlanta, Kansas City, Dallas, and San Francisco to reduce the basic discount rate by ¼ percentage point, to 5¾ percent. The same decrease was approved for the Federal Reserve Bank of St. Louis, effective January 4, 2001. The Board also indicated that it stood ready to approve Federal Reserve Bank requests to lower the basic rate further, to 5½ percent.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich. Votes against this action: None.

January 4, 2001. Effective this date, the Board approved actions taken by the directors of the Federal Reserve Banks of Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, Minneapolis, Kansas City, Dallas, and San Francisco to lower the basic discount rate by ¼ or ½ percentage point, to 5½ percent. The Board also approved an action taken by the directors of the Federal Reserve Bank of St. Louis to reduce the basic rate by ¼ percentage point, to 5½ percent, effective January 5, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich. Votes against this action: None.

January 31, 2001. Effective this date, the Board approved actions taken by the directors of the Federal Reserve Banks of New York, Philadelphia, Cleveland, Atlanta, Chicago, Minneapolis, Dallas, and San Francisco to reduce the basic discount rate by ½ percentage point, to 5 percent. The same decrease was approved for the Federal Reserve Bank of St. Louis, effective February 1, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich. Votes against this action: None.

The Board subsequently approved the same reduction for the Federal Reserve Banks of Boston and Richmond, effective January 31, 2001, and the Federal Reserve Bank of Kansas City, effective February 1, 2001.

March 20, 2001. Effective this date, the Board approved actions taken by the directors of the Federal Reserve Banks of Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, Minneapolis, Kansas City, Dallas, and San Francisco to reduce the basic discount rate by ½ percentage point, to 4½ percent. The same reduction was approved for the Federal Reserve Bank of St. Louis, effective March 21, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich. Votes against this action: None.

April 18, 2001. Effective this date, the Board approved actions taken by the directors of the Federal Reserve Banks of Boston, New York, Philadelphia, Cleveland, Atlanta, Minneapolis, Kansas City, Dallas, and San Francisco to reduce the basic discount rate by ½ percentage point, to 4 percent.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich. Votes against this action: None.

3. There were two vacancies on the Board of Governors from the start of the year until December 7, 2001.

The Board subsequently approved the same actions taken by the directors of the Federal Reserve Banks of Richmond and Chicago, effective April 19, 2001, and by the directors of the Federal Reserve Bank of St. Louis, effective April 20, 2001.

May 15, 2001. Effective this date, the Board approved actions taken by the directors of the Federal Reserve Banks of New York, Richmond, Chicago, and San Francisco to reduce the basic discount rate by ½ percentage point, to 3½ percent. An identical decrease was approved for the Federal Reserve Bank of St. Louis, effective May 16, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich. Votes against this action: None.

The Board subsequently approved the same actions taken by the directors of the Federal Reserve Banks of Boston, Atlanta, Kansas City, and Dallas, effective May 16, 2001, and by the directors of the Federal Reserve Banks of Philadelphia, Cleveland, and Minneapolis, effective May 17, 2001.

June 27, 2001. Effective this date, the Board approved actions taken by the directors of the Federal Reserve Banks of Boston, New York, Philadelphia, Atlanta, Chicago, Dallas, and San Francisco to reduce the basic discount rate by ¼ percentage point, to 3¼ percent.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich. Votes against this action: None.

The Board subsequently approved identical actions taken by the directors of the Federal Reserve Banks of Cleveland, Richmond, Minneapolis, and Kansas City, effective June 28, 2001, and by the directors of the Federal Reserve Bank of St. Louis, effective June 29, 2001.

August 21, 2001. Effective this date, the Board approved actions taken by the directors of the Federal Reserve Banks of Boston, New York, Philadelphia, Richmond, Chicago, Kansas City, Dallas, and San Francisco to reduce the basic discount rate by ¼ percentage point, to 3 percent.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich. Votes against this action: None.

The Board subsequently approved the same actions taken by the directors of the Federal Reserve Bank of Minneapolis, effective August 22, 2001, and by the directors of the Federal Reserve Banks of Cleveland, Atlanta, and St. Louis, effective August 23, 2001.

September 17, 2001. Effective this date, the Board approved actions taken by the directors of the Federal Reserve Banks of Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, Minneapolis, Kansas City, Dallas, and San Francisco to reduce the basic discount rate by ½ percentage point, to 2½ percent. An identical decrease was approved for the Federal Reserve Bank of St. Louis, effective September 18, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich. Votes against this action: None.

October 2, 2001. Effective this date, the Board approved actions taken by the directors of the Federal Reserve Banks of Boston, New York, Cleveland, Richmond, Atlanta, Chicago, Kansas City, Dallas, and San Francisco to reduce the basic discount rate by ½ percentage point, to 2 percent. A similar decrease was approved for the Federal Reserve Bank of St. Louis, effective October 3, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich. Votes against this action: None.

The Board subsequently approved the same actions taken by the directors of the Federal Reserve Banks of Minneapolis and Philadelphia, effective October 3 and 4, 2001, respectively.

November 6, 2001. Effective this date, the Board approved actions taken by the directors of the Federal Reserve Banks of New York, Richmond, and San Francisco to reduce the basic discount rate by ½ percentage point, to 1½ percent.

Votes for this action: Messrs. Greenspan, Ferguson, Kelley, Meyer, and Gramlich. Votes against this action: None.

The Board subsequently approved identical actions taken by the directors of the Federal Reserve Banks of Philadelphia, Chicago, St. Louis, and Minneapolis, effective November 7, 2001, and by the directors of the Federal Reserve Banks of Boston, Cleveland, Atlanta, Kansas City, and Dallas, effective November 8, 2001.

December 11, 2001. Effective this date, the Board approved actions taken by the directors of the Federal Reserve Banks of Boston, New York, Philadelphia, Chicago, and San Francisco to reduce the basic discount rate by ¼ percentage point, to 1¼ percent. An identical decrease was approved for the Federal Reserve Bank of St. Louis, effective December 12, 2001.

Votes for this action: Messrs. Greenspan, Ferguson, Meyer, Gramlich, Ms. Bies, and Mr. Olson. Votes against this action: None. Absent and not voting: Mr. Kelley.

The Board subsequently approved the same actions taken by the directors of the Federal Reserve Banks of Cleveland, Richmond, Atlanta, Minneapolis, Kansas City, and Dallas, effective December 13, 2001. ■

Minutes of Federal Open Market Committee Meetings

The policy actions of the Federal Open Market Committee, contained in the minutes of its meetings, are presented in the ANNUAL REPORT of the Board of Governors pursuant to the requirements of section 10 of the Federal Reserve Act. That section provides that the Board shall keep a complete record of the actions taken by the Board and by the Federal Open Market Committee on all questions of policy relating to open market operations, that it shall record therein the votes taken in connection with the determination of open market policies and the reasons underlying each policy action, and that it shall include in its annual report to the Congress a full account of such actions.

The minutes of the meetings contain the votes on the policy decisions made at those meetings as well as a résumé of the information and discussions that led to the decisions. The summary descriptions of economic and financial conditions are based on the information that was available to the Committee at the time of the meetings rather than on data as they may have been revised later.

Members of the Committee voting for a particular action may differ among themselves as to the reasons for their votes; in such cases, the range of their views is noted in the minutes. When members dissent from a decision, they are identified in the minutes and a summary of the reasons for their dissent is provided.

Policy directives of the Federal Open Market Committee are issued to the Federal Reserve Bank of New York as the Bank selected by the Committee to execute transactions for the System Open Market Account. In the area of domestic open market operations, the Federal Reserve Bank of New York operates under three sets of instructions from the Federal Open Market Committee: an Authorization for Domestic Open Market Operations, Guidelines for the Conduct of System Open Market Operations in Federal Agency Issues, and a Domestic Policy Directive. (A new Domestic Policy Directive is adopted at each regularly scheduled meeting.) In the foreign currency area, the Committee operates under an Authorization for Foreign Currency Operations, a Foreign Currency Directive, and Procedural Instructions with Respect to Foreign Currency Operations. These policy instruments are shown below in the form in which they were in effect at the beginning of 2001. Changes in the instruments during the year are reported in the minutes for the individual meetings.

Authorization for Domestic Open Market Operations

In Effect January 1, 2001

1. The Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York, to the extent necessary to carry out the most recent domestic policy directive adopted at a meeting of the Committee:

(a) To buy or sell U.S. Government securities, including securities of the Federal Financing Bank, and securities that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the

United States in the open market, from or to securities dealers and foreign and international accounts maintained at the Federal Reserve Bank of New York, on a cash, regular, or deferred delivery basis, for the System Open Market Account at market prices, and, for such Account, to exchange maturing U.S. Government and Federal agency securities with the Treasury or the individual agencies or to allow them to mature without replacement; provided that the aggregate amount of U.S. Government and Federal agency securities held in such Account (including forward commitments) at the close of business on the day of a meeting of the Committee at which action is taken with respect to a domestic policy directive shall not be increased or decreased by more than $12.0 billion during the period commencing with the opening of business on the day following such meeting and ending with the close of business on the day of the next such meeting;

(b) To buy U.S. Government securities and obligations that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States, from dealers for the account of the Federal Reserve Bank of New York under agreements for repurchase of such securities or obligations in 90 calendar days or less, at rates that, unless otherwise expressly authorized by the Committee, shall be determined by competitive bidding, after applying reasonable limitations on the volume of agreements with individual dealers; provided that in the event Government securities or agency issues covered by any such agreement are not repurchased by the dealer pursuant to the agreement or a renewal thereof, they shall be sold in the market or transferred to the System Open Market Account.

(c) To sell U.S. Government securities and securities that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States to dealers for System Open Market Account under agreements for the resale by dealers of such securities or obligations in 90 calendar days or less, at rates that, unless otherwise expressly authorized by the Committee, shall be determined by competitive bidding, after applying reasonable limitations on the volume of agreements with individual dealers.

2. In order to ensure the effective conduct of open market operations, the Federal Open Market Committee authorizes the Federal Reserve Bank of New York to lend on an overnight basis U.S. Government securities held in the System Open Market Account to dealers at rates that shall be determined by competitive bidding but that in no event shall be less than 1.0 percent per annum of the market value of the securities lent. The Federal Reserve Bank of New York shall apply reasonable limitations on the total amount of a specific issue that may be auctioned, and on the amount of securities that each dealer may borrow. The Federal Reserve Bank of New York may reject bids which could facilitate a dealer's ability to control a single issue as determined solely by the Federal Reserve Bank of New York.

3. In order to ensure the effective conduct of open market operations, while assisting in the provision of short-term investments for foreign and international accounts maintained at the Federal Reserve Bank of New York, the Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York (a) for System Open Market Account, to sell U.S. Government securities to such foreign and international accounts on the bases set forth in paragraph 1(a) under agreements providing for the resale by such accounts of those securities within 90 calendar days on terms comparable to those available on such transactions in the market; and (b) for New York Bank account, when appropriate, to undertake with dealers, subject to the conditions imposed on purchases and sales of securities in paragraph 1(b), repurchase agreements in U.S. Government and agency securities, and to arrange corresponding sale and repurchase agreements between its own account and foreign and international accounts maintained at the Bank. Transactions undertaken with such accounts under the provisions of this paragraph may provide for a service fee when appropriate.

4. In the execution of the Committee's decision regarding policy during any intermeeting period, the Committee authorizes and directs the Federal Reserve Bank of New York, upon the instruction of the Chairman of the Committee, to adjust somewhat

in exceptional circumstances the degree of pressure on reserve positions and hence the intended federal funds rate. Any such adjustment shall be made in the context of the Committee's discussion and decision at its most recent meeting and the Committee's long-run objectives for price stability and sustainable economic growth, and shall be based on economic, financial, and monetary developments during the intermeeting period. Consistent with Committee practice, the Chairman, if feasible, will consult with the Committee before making any adjustment.

Guidelines for the Conduct of System Open Market Operations in Federal Agency Issues

In Effect January 1, 2001

1. System open market operations in Federal agency issues are an integral part of total System open market operations designed to influence bank reserves, money market conditions, and monetary aggregates.

2. System open market operations in Federal agency issues are not designed to support individual sectors of the market or to channel funds into issues of particular agencies.

Domestic Policy Directive

In Effect January 1, 2001[1]

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with maintaining the federal funds rate at an average of around 6½ percent.

The Committee also approved the sentence below for inclusion in the press statement to be released shortly after the December 19, 2000, meeting:

1. Adopted by the Committee at its meeting on December 19, 2000.

Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes that the risks are weighted mainly toward conditions that may generate economic weakness in the foreseeable future.

Authorization for Foreign Currency Operations

In Effect January 1, 2001

1. The Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York, for System Open Market Account, to the extent necessary to carry out the Committee's foreign currency directive and express authorizations by the Committee pursuant thereto, and in conformity with such procedural instructions as the Committee may issue from time to time:

A. To purchase and sell the following foreign currencies in the form of cable transfers through spot or forward transactions on the open market at home and abroad, including transactions with the U.S. Treasury, with the U.S. Exchange Stabilization Fund established by Section 10 of the Gold Reserve Act of 1934, with foreign monetary authorities, with the Bank for International Settlements, and with other international financial institutions:

Canadian dollars	Mexican pesos
Danish kroner	Norwegian kroner
Euro	Swedish kronor
Pounds sterling	Swiss francs
Japanese yen	

B. To hold balances of, and to have outstanding forward contracts to receive or to deliver, the foreign currencies listed in paragraph A above.

C. To draw foreign currencies and to permit foreign banks to draw dollars under the reciprocal currency arrangements listed in paragraph 2 below, provided that drawings by either party to any such arrangement shall be fully liquidated within 12 months after any amount outstanding at that time was first drawn, unless the Committee, because of exceptional circumstances, specifically authorizes a delay.

D. To maintain an overall open position in all foreign currencies not exceeding \$25.0 billion. For this purpose, the overall open position in all foreign currencies is defined as the sum (disregarding signs) of net positions in individual currencies. The net position in a single foreign currency is defined as holdings of balances in that currency, plus outstanding contracts for future receipt, minus outstanding contracts for future delivery of that currency, i.e., as the sum of these elements with due regard to sign.

2. The Federal Open Market Committee directs the Federal Reserve Bank of New York to maintain reciprocal currency arrangements ("swap" arrangements) for the System Open Market Account for periods up to a maximum of 12 months with the following foreign banks, which are among those designated by the Board of Governors of the Federal Reserve System under Section 214.5 of Regulation N, Relations with Foreign Banks and Bankers, and with the approval of the Committee to renew such arrangements on maturity:

Foreign bank	Amount of arrangement (millions of dollars equivalent)
Bank of Canada	2,000
Bank of Mexico	3,000

Any changes in the terms of existing swap arrangements, and the proposed terms of any new arrangements that may be authorized, shall be referred for review and approval to the Committee.

3. All transactions in foreign currencies undertaken under paragraph 1.A. above shall, unless otherwise expressly authorized by the Committee, be at prevailing market rates. For the purpose of providing an investment return on System holdings of foreign currencies, or for the purpose of adjusting interest rates paid or received in connection with swap drawings, transactions with foreign central banks may be undertaken at non–market exchange rates.

4. It shall be the normal practice to arrange with foreign central banks for the coordination of foreign currency transactions. In making operating arrangements with foreign central banks on System holdings of foreign currencies, the Federal Reserve Bank of New York shall not commit itself to maintain any specific balance, unless authorized by the Federal Open Market Committee. Any agreements or understandings concerning the administration of the accounts maintained by the Federal Reserve Bank of New York with the foreign banks designated by the Board of Governors under Section 214.5 of Regulation N shall be referred for review and approval to the Committee.

5. Foreign currency holdings shall be invested to ensure that adequate liquidity is maintained to meet anticipated needs and so that each currency portfolio shall generally have an average duration of no more than 18 months (calculated as Macaulay duration). When appropriate in connection with arrangements to provide investment facilities for foreign currency holdings, U.S. Government securities may be purchased from foreign central banks under agreements for repurchase of such securities within 30 calendar days.

6. All operations undertaken pursuant to the preceding paragraphs shall be reported promptly to the Foreign Currency Subcommittee and the Committee. The Foreign Currency Subcommittee consists of the Chairman and Vice Chairman of the Committee, the Vice Chairman of the Board of Governors, and such other member of the Board as the Chairman may designate (or in the absence of members of the Board serving on the Subcommittee, other Board members designated by the Chairman as alternates, and in the absence of the Vice Chairman of the Committee, his alternate). Meetings of the Subcommittee shall be called at the request of any member, or at the request of the Manager, System Open Market Account ("Manager"), for the purposes of reviewing recent or contemplated operations and of consulting with the Manager on other matters relating to his responsibilities. At the request of any member of the Subcommittee, questions arising from such reviews and consultations shall be referred for determination to the Federal Open Market Committee.

7. The Chairman is authorized:

A. With the approval of the Committee, to enter into any needed agreement or understanding with the Secretary of the Treasury about the division of responsibility for foreign currency operations between the System and the Treasury;

B. To keep the Secretary of the Treasury fully advised concerning System foreign currency operations, and to consult with the Secretary on policy matters relating to foreign currency operations;

C. From time to time, to transmit appropriate reports and information to the National Advisory Council on International Monetary and Financial Policies.

8. Staff officers of the Committee are authorized to transmit pertinent information on System foreign currency operations to appropriate officials of the Treasury Department.

9. All Federal Reserve Banks shall participate in the foreign currency operations for System Account in accordance with paragraph 3 G(1) of the Board of Governors' Statement of Procedure with Respect to Foreign Relationships of Federal Reserve Banks dated January 1, 1944.

Foreign Currency Directive

In Effect January 1, 2001

1. System operations in foreign currencies shall generally be directed at countering disorderly market conditions, provided that market exchange rates for the U.S. dollar reflect actions and behavior consistent with the IMF Article IV, Section 1.

2. To achieve this end the System shall:

A. Undertake spot and forward purchases and sales of foreign exchange.

B. Maintain reciprocal currency ("swap") arrangements with selected foreign central banks.

C. Cooperate in other respects with central banks of other countries and with international monetary institutions.

3. Transactions may also be undertaken:

A. To adjust System balances in light of probable future needs for currencies.

B. To provide means for meeting System and Treasury commitments in particular currencies, and to facilitate operations of the Exchange Stabilization Fund.

C. For such other purposes as may be expressly authorized by the Committee.

4. System foreign currency operations shall be conducted:

A. In close and continuous consultation and cooperation with the United States Treasury;

B. In cooperation, as appropriate, with foreign monetary authorities; and

C. In a manner consistent with the obligations of the United States in the International Monetary Fund regarding exchange arrangements under the IMF Article IV.

Procedural Instructions with Respect to Foreign Currency Operations

In Effect January 1, 2001

In conducting operations pursuant to the authorization and direction of the Federal Open Market Committee as set forth in the Authorization for Foreign Currency Operations and the Foreign Currency Directive, the Federal Reserve Bank of New York, through the Manager, System Open Market Account ("Manager"), shall be guided by the following procedural understandings with respect to consultations and clearances with the Committee, the Foreign Currency Subcommittee, and the Chairman of the Committee. All operations undertaken pursuant to such clearances shall be reported promptly to the Committee.

1. The Manager shall clear with the Subcommittee (or with the Chairman, if the Chairman believes that consultation with the Subcommittee is not feasible in the time available):

A. Any operation that would result in a change in the System's overall open position in foreign currencies exceeding $300 million on any day or $600 million since the most recent regular meeting of the Committee.

B. Any operation that would result in a change on any day in the System's net position in a single foreign currency exceeding \$150 million, or \$300 million when the operation is associated with repayment of swap drawings.

C. Any operation that might generate a substantial volume of trading in a particular currency by the System, even though the change in the System's net position in that currency might be less than the limits specified in 1.B.

D. Any swap drawing proposed by a foreign bank not exceeding the larger of (i) \$200 million or (ii) 15 percent of the size of the swap arrangement.

2. The Manager shall clear with the Committee (or with the Subcommittee, if the Subcommittee believes that consultation with the full Committee is not feasible in the time available, or with the Chairman, if the Chairman believes that consultation with the Subcommittee is not feasible in the time available):

A. Any operation that would result in a change in the System's overall open position in foreign currencies exceeding \$1.5 billion since the most recent regular meeting of the Committee.

B. Any swap drawing proposed by a foreign bank exceeding the larger of (i) \$200 million or (ii) 15 percent of the size of the swap arrangement.

3. The Manager shall also consult with the Subcommittee or the Chairman about proposed swap drawings by the System and about any operations that are not of a routine character.

Meeting Held on January 30–31, 2001

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., beginning on Tuesday, January 30, 2001, at 9:00 a.m. and continuing on Wednesday, January 31, 2001, at 9:00 a.m.

Present:

Mr. Greenspan, Chairman
Mr. McDonough, Vice Chairman
Mr. Ferguson
Mr. Gramlich
Mr. Hoenig
Mr. Kelley
Mr. Meyer
Ms. Minehan
Mr. Moskow
Mr. Poole

Messrs. Jordan, McTeer, Santomero, and Stern, Alternate Members of the Federal Open Market Committee

Messrs. Broaddus, Guynn, and Parry, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco respectively

Mr. Kohn, Secretary and Economist
Mr. Bernard, Deputy Secretary
Ms. Fox, Assistant Secretary
Mr. Gillum, Assistant Secretary
Mr. Mattingly, General Counsel
Mr. Baxter, Deputy General Counsel
Ms. Johnson, Economist
Mr. Stockton, Economist

Ms. Cumming, Messrs. Fuhrer, Hakkio, Howard, Hunter, Lindsey, Rasche, Reinhart, and Slifman, Associate Economists

Mr. Fisher, Manager, System Open Market Account

Mr. Winn,[2] Assistant to the Board, Office of Board Members, Board of Governors

Ms. Johnson,[3] Secretary of the Board, Office of the Secretary, Board of Governors

Mr. Simpson, Senior Adviser, Division of Research and Statistics, Board of Governors

2. Attended Tuesday session only.
3. Attended portion of meeting relating to a staff study of the Federal Reserve asset portfolio.

Mr. Madigan, Associate Director, Division of Monetary Affairs, Board of Governors

Messrs. Oliner, Struckmeyer, and Whitesell, Assistant Directors, Divisions of Research and Statistics, Research and Statistics, and Monetary Affairs respectively, Board of Governors

Messrs. Morton,[2] Rosine,[2] and Sack,[2] Senior Economists, Divisions of International Finance, Research and Statistics, and Monetary Affairs respectively, Board of Governors

Mr. Reifschneider,[4] Section Chief, Division of Research and Statistics, Board of Governors

Ms. Garrett,[4] Economist, Division of Monetary Affairs, Board of Governors

Ms. Low, Open Market Secretariat Assistant, Division of Monetary Affairs, Board of Governors

Mr. Lang, Executive Vice President, Federal Reserve Bank of Philadelphia

Messrs. Beebe, Eisenbeis, Goodfriend, Kos, Ms. Krieger, Messrs. Rosenblum, and Sniderman, Senior Vice Presidents, Federal Reserve Banks of San Francisco, Atlanta, Richmond, New York, New York, Dallas, and Cleveland respectively

Mr. Weber, Vice President, Federal Reserve Bank of Minneapolis

In the agenda for this meeting, it was reported that advices of the election of the following members and alternate members of the Federal Open Market Committee for the period commencing January 1, 2001, and ending December 31, 2001, had been received and that these individuals had executed their oaths of office.

The elected members and alternate members were as follows:

William J. McDonough, President of the Federal Reserve Bank of New York, with Jamie B. Stewart, Jr., First Vice President of the Federal Reserve Bank of New York, as alternate

Cathy E. Minehan, President of the Federal Reserve Bank of Boston, with Anthony M. Santomero, President of the Federal Reserve Bank of Philadelphia, as alternate

Michael H. Moskow, President of the Federal Reserve Bank of Chicago, with Jerry L. Jordan, President of the Federal Reserve Bank of Cleveland, as alternate

William Poole, President of the Federal Reserve Bank of St. Louis, with Robert D. McTeer, Jr., President of the Federal Reserve Bank of Dallas, as alternate

Thomas M. Hoenig, President of the Federal Reserve Bank of Kansas City, with Gary H. Stern, President of the Federal Reserve Bank of Minneapolis, as alternate

By unanimous vote, the following officers of the Federal Open Market Committee were elected to serve until the election of their successors at the first regularly scheduled meeting of the Committee after December 31, 2001, with the understanding that in the event of the discontinuance of their official connection with the Board of Governors or with a Federal Reserve Bank, they would cease to have any official connection with the Federal Open Market Committee:

Alan Greenspan	Chairman
William J. McDonough	Vice Chairman

4. Attended Wednesday session only.

Donald L. Kohn	Secretary and Economist
Normand R.V. Bernard	Deputy Secretary
Lynn S. Fox and Gary P. Gillum	Assistant Secretaries
J. Virgil Mattingly, Jr.	General Counsel
Thomas C. Baxter, Jr.	Deputy General Counsel
Karen H. Johnson and David J. Stockton	Economists

Christine M. Cumming, Jeffrey C. Fuhrer, Craig S. Hakkio, William C. Hunter, David H. Howard, David E. Lindsey, Robert H. Rasche, Vincent R. Reinhart, and Lawrence Slifman, Associate Economists

By unanimous vote, Peter R. Fisher was selected to serve at the pleasure of the Committee as Manager, System Open Market Account, on the understanding that his selection was subject to being satisfactory to the Federal Reserve Bank of New York.

Secretary's note: Advice subsequently was received that the selection of Mr. Fisher as Manager was satisfactory to the board of directors of the Federal Reserve Bank of New York.

By unanimous vote, the minutes of the meetings of the Federal Open Market Committee held on December 19, 2000, and January 3, 2001, were approved.

The next item on the agenda encompassed issues relating in part to the discount window and other matters that are within the legal purview of the Board of Governors. Accordingly, a Board meeting was formally convened and this item was considered in a joint Board–Federal Open Market Committee session. The Board members voted unanimously at the outset to close the Board meeting.

At its meeting in March 2000, the Committee asked the staff to undertake a broad study of alternative approaches to the management of the System asset portfolio in the current and prospective environment of large budget surpluses and rapid associated declines in the amount of Treasury debt outstanding. Such paydowns were having favorable effects on the macroeconomy and would not impair the Committee's ability to pursue its overall economic objectives. But the FOMC's historical reliance on purchases and sales of Treasury securities to implement monetary policy would be difficult to maintain if steep paydowns of debt were, as seemed likely, to continue. To prepare for such a contingency, the Committee needed to identify and explore alternative instruments for the conduct of monetary policy.

In their discussion at this meeting, the members agreed that continuing paydowns of Treasury debt outstanding could create complications for the implementation of monetary policy well before the full repayment of marketable federal debt. In particular, the Treasury market could be expected to become less liquid over time, making it more difficult for the Federal Reserve to accommodate the trend growth of currency through outright purchases of Treasuries without unduly affecting market prices. Reduced activity in the Treasury repurchase agreement (RP) market could complicate the use of such obligations to respond to seasonal and unexpected variations in the aggregate supply of reserves.

In reviewing the possibilities, the members noted that relative to investments in Treasury securities, all of the options could entail significant drawbacks, including increases in credit risk, reductions in liquidity, and potentially distorting effects on relative prices in financial markets. In light of these potential issues, the Committee agreed that it should proceed cautiously and maintain the current emphasis on Treasury securities in the SOMA portfolio, especially the portion of the portfolio held outright, for as long as practicable. In that regard, some members suggested that the Committee look carefully at whether it could loosen the limits it currently imposes on holdings of individual Treasury issues without causing undue market distortions. Some felt it would be desirable to consider buying and holding Ginnie Mae mortgage-backed securities, which are guaranteed by the full faith and credit of the United States. A few members suggested that consideration might be given to the possibility of continuing to rely on Treasury securities, even as the publicly held debt is paid down, by acquiring such securities through special arrangements with the Treasury.

In the near term, the members agreed that it would be useful to extend for at least another year the temporary authority, in effect since late August 1999, of the Manager to supplement repurchase agreements in Treasuries and direct agency debt with repurchase transactions in mortgage-backed securities guaranteed by a federal agency or a government-sponsored enterprise. They also asked the staff to investigate the possibility of authorizing the Desk to engage in RP operations using assets that could be purchased under existing legal authority but were not currently authorized by the Committee—specifically, certain debt obligations of U.S. state and local governments and of foreign governments. Making a wider range of assets available for RP operations would reduce the potential for distortions to the pricing of instruments collateralizing RPs, but would entail resolving a number of issues. The Congress and market participants would need to be consulted before the Committee decided to undertake any such operations.

From a somewhat longer-term perspective, Committee members identified several alternative issues for further study. One involved the appropriate degree of reliance on outright purchases of a broader array of assets relative to greater use of temporary short-term transactions undertaken through intermediaries. A number of members saw advantages to the greater reliance on the latter—RPs with security dealers and discount window loans to depository institutions—especially when they involved a wide range of underlying assets. It was noted that such instruments would afford the Federal Reserve considerable protection against credit risks, could be structured to provide substantial liquidity to respond to unanticipated changes in the supply or demand for reserves, and, relative to outright purchases of the underlying collateral, could help to mitigate potential distortions to asset pricing and credit allocation. Many members indicated that a potentially attractive approach to expanding the role of the discount window might involve auctioning such credit to financially sound depository institutions. Some members expressed reservations about this option, noting that such a program would have to be carefully structured in order to avoid situations in which some institutions might become heavily dependent on such credit or engage in excessive risk taking. But extremely heavy reliance on temporary transactions could itself influence credit flows, suggesting that approaches to staying longer with Treasury securities or adding new assets not currently allowed by law to the permanent portfolio would also need to be studied.

The use of private securities for temporary transactions or permanent portfolio holdings had a number of risk-management and accounting implications that would need to be examined carefully. Another aspect that required further examination was the approach to diversification of the System portfolio in order to minimize any effects on credit conditions. In this context, the members compared the merits of an incremental approach in which classes of private securities were gradually added to the RP pool or the permanent portfolio, with the safest and most liquid being used first, to an alternative approach in which very broad diversification was sought quickly through investment in diverse pools of assets.

In view of the importance of these issues and their complexity, the Committee determined to explore various means to seek the input of the public and the Congress to develop and refine alternatives and to investigate all the associated policy issues.

By unanimous vote, the Committee approved amendments to paragraphs 1(b), 1(c), and 3 of the Authorization for Domestic Open Market Operations to permit temporary operations with a maturity limit of 65 business days.

Authorization for Domestic Open Market Operations (Amended January 30, 2001)

1. The Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York, to the extent necessary to carry out the most recent domestic policy directive adopted at a meeting of the Committee:

(a) To buy or sell U.S. Government securities, including securities of the Federal Financing Bank, and securities that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States in the open market, from or to securities dealers and foreign and international accounts maintained at the Federal Reserve Bank of New York, on a cash, regular, or deferred delivery basis, for the System Open Market Account at market prices, and, for such Account, to exchange maturing U.S. Government and Federal agency securities with the Treasury or the individual agencies or to allow them to mature without replacement; provided that the aggregate amount of U.S. Government and Federal agency securities held in such Account (including forward commitments) at the close of business on the day of a meeting of the Committee at which action is taken with respect to a domestic policy directive shall not be increased or decreased by more than $12.0 billion during the period commencing with the opening of business on the day following such meeting and ending with the close of business on the day of the next such meeting;

(b) To buy U.S. Government securities and obligations that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States, from dealers for the account of the Federal Reserve Bank of New York under agreements for repurchase of such securities or obligations in 65 business days or less, at rates that, unless otherwise expressly authorized by the Committee, shall be determined by competitive bidding, after applying reasonable limitations on the volume of agreements with individual dealers; provided that in the event Government securities or agency issues covered by any such agreement are not repurchased by the dealer pursuant to the agreement or a renewal thereof, they shall be sold in the market or transferred to the System Open Market Account;

(c) To sell U.S. Government securities and obligations that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States to dealers for System Open Market Account under agreements for the resale by dealers of such securities or obligations in 65 business days or less, at rates that, unless otherwise expressly authorized by the Committee, shall be determined by competitive bidding, after applying reasonable limitations on the volume of agreements with individual dealers.

2. In order to ensure the effective conduct of open market operations, the Federal Open Market Committee authorizes the Federal Reserve Bank of New York to lend on an

overnight basis U.S. Government securities held in the System Open Market Account to dealers at rates that shall be determined by competitive bidding but that in no event shall be less than 1.0 percent per annum of the market value of the securities lent. The Federal Reserve Bank of New York shall apply reasonable limitations on the total amount of a specific issue that may be auctioned, and on the amount of securities that each dealer may borrow. The Federal Reserve Bank of New York may reject bids which could facilitate a dealer's ability to control a single issue as determined solely by the Federal Reserve Bank of New York.

3. In order to ensure the effective conduct of open market operations, while assisting in the provision of short-term investments for foreign and international accounts maintained at the Federal Reserve Bank of New York, the Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York (a) for System Open Market Account, to sell U.S. Government securities to such foreign and international accounts on the bases set forth in paragraph 1(a) under agreements providing for the resale by such accounts of those securities in 65 business days or less on terms comparable to those available on such transactions in the market; and (b) for New York Bank account, when appropriate, to undertake with dealers, subject to the conditions imposed on purchases and sales of securities in paragraph 1(b), repurchase agreements in U.S. Government and agency securities, and to arrange corresponding sale and repurchase agreements between its own account and foreign and international accounts maintained at the Bank. Transactions undertaken with such accounts under the provisions of this paragraph may provide for a service fee when appropriate.

4. In the execution of the Committee's decision regarding policy during any intermeeting period, the Committee authorizes and directs the Federal Reserve Bank of New York, upon the instruction of the Chairman of the Committee, to adjust somewhat in exceptional circumstances the degree of pressure on reserve positions and hence the intended federal funds rate. Any such adjustment shall be made in the context of the Committee's discussion and decision at its most recent meeting and the Committee's long-run objectives for price stability and sustainable economic growth, and shall be based on economic, financial, and monetary developments during the intermeeting period. Consistent with Committee practice, the Chairman, if feasible, will consult with the Committee before making any adjustment.

By unanimous vote, the Committee approved until the Committee's first scheduled meeting in 2002 an extension of the temporary suspension of paragraphs 3 to 6 of the Guidelines for the Conduct of System Operations in Federal Agency Issues. For the year ahead, the Guidelines therefore continued to read as follows:

Guidelines for the Conduct of System Open Market Operations in Federal Agency Issues (Reaffirmed January 30, 2001)

1. System open market operations in Federal agency issues are an integral part of total System open market operations designed to influence bank reserves, money market conditions, and monetary aggregates.

2. System open market operations in Federal agency issues are not designed to support individual sectors of the market or to channel funds into issues of particular agencies.

By unanimous vote, the Foreign Currency Authorization was reaffirmed in the form shown below.

Authorization for Foreign Currency Operations (Reaffirmed January 30, 2001)

1. The Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York, for System Open Market Account, to the extent necessary to carry out the Committee's foreign currency directive and express authorizations by the Committee pursuant thereto, and in conformity with such procedural instructions as the Committee may issue from time to time:

A. To purchase and sell the following foreign currencies in the form of cable transfers through spot or forward transactions on the open market at home and abroad, including transactions with the U.S. Treasury, with the U.S. Exchange Stabilization Fund established by Section 10 of the Gold Reserve Act of 1934, with foreign monetary authorities, with the Bank for International Settlements, and with other international financial institutions:

Canadian dollars	Mexican pesos
Danish kroner	Norwegian kroner
Euro	Swedish kronor
Pounds sterling	Swiss francs
Japanese yen	

B. To hold balances of, and to have outstanding forward contracts to receive or to deliver, the foreign currencies listed in paragraph A above.

C. To draw foreign currencies and to permit foreign banks to draw dollars under the reciprocal currency arrangements listed in paragraph 2 below, provided that drawings by either party to any such arrangement shall be fully liquidated within 12 months after any amount outstanding at that time was first drawn, unless the Committee, because of exceptional circumstances, specifically authorizes a delay.

D. To maintain an overall open position in all foreign currencies not exceeding \$25.0 billion. For this purpose, the overall open position in all foreign currencies is defined as the sum (disregarding signs) of net positions in individual currencies. The net position in a single foreign currency is defined as holdings of balances in that currency, plus outstanding contracts for future receipt, minus outstanding contracts for future delivery of that currency, i.e., as the sum of these elements with due regard to sign.

2. The Federal Open Market Committee directs the Federal Reserve Bank of New York to maintain reciprocal currency arrangements ("swap" arrangements) for the System Open Market Account for periods up to a maximum of 12 months with the following foreign banks, which are among those designated by the Board of Governors of the Federal Reserve System under Section 214.5 of Regulation N, Relations with Foreign Banks and Bankers, and with the approval of the Committee to renew such arrangements on maturity:

Foreign bank	Amount of arrangement (millions of dollars equivalent)
Bank of Canada	2,000
Bank of Mexico	3,000

Any changes in the terms of existing swap arrangements, and the proposed terms of any new arrangements that may be authorized, shall be referred for review and approval to the Committee.

3. All transactions in foreign currencies undertaken under paragraph 1.A. above shall, unless otherwise expressly authorized by the Committee, be at prevailing market rates. For the purpose of providing an investment return on System holdings of foreign currencies, or for the purpose of adjusting interest rates paid or received in connection with swap drawings, transactions with foreign central banks may be undertaken at non-market exchange rates.

4. It shall be the normal practice to arrange with foreign central banks for the coordination of foreign currency transactions. In making operating arrangements with foreign central banks on System holdings of foreign currencies, the Federal Reserve Bank of New York shall not commit itself to maintain any specific balance unless authorized by the Federal Open Market Committee. Any agreements or understandings concerning the administration of the accounts maintained by the Federal Reserve Bank of New York with the foreign banks designated by the Board of Governors under Section 214.5 of Regulation N shall be referred for review and approval to the Committee.

5. Foreign currency holdings shall be invested to ensure that adequate liquidity is maintained to meet anticipated needs and so that each currency portfolio shall generally have an average duration of no more than 18 months (calculated as Macaulay duration). When appropriate in connection with arrangements to provide investment facilities for foreign currency holdings, U.S. Government securities may be purchased from foreign central banks under agreements for repurchase of such securities within 30 calendar days.

6. All operations undertaken pursuant to the preceding paragraphs shall be reported

promptly to the Foreign Currency Subcommittee and the Committee. The Foreign Currency Subcommittee consists of the Chairman and Vice Chairman of the Committee, the Vice Chairman of the Board of Governors, and such other member of the Board as the Chairman may designate (or in the absence of members of the Board serving on the Subcommittee, other Board members designated by the Chairman as alternates, and in the absence of the Vice Chairman of the Committee, his alternate). Meetings of the Subcommittee shall be called at the request of any member, or at the request of the Manager, System Open Market Account ("Manager"), for the purposes of reviewing recent or contemplated operations and of consulting with the Manager on other matters relating to his responsibilities. At the request of any member of the Subcommittee, questions arising from such reviews and consultations shall be referred for determination to the Federal Open Market Committee.

7. The Chairman is authorized:

A. With the approval of the Committee, to enter into any needed agreement or understanding with the Secretary of the Treasury about the division of responsibility for foreign currency operations between the System and the Treasury;

B. To keep the Secretary of the Treasury fully advised concerning System foreign currency operations, and to consult with the Secretary on policy matters relating to foreign currency operations;

C. From time to time, to transmit appropriate reports and information to the National Advisory Council on International Monetary and Financial Policies.

8. Staff officers of the Committee are authorized to transmit pertinent information on System foreign currency operations to appropriate officials of the Treasury Department.

9. All Federal Reserve Banks shall participate in the foreign currency operations for System Account in accordance with paragraph 3 G(1) of the Board of Governors' Statement of Procedure with Respect to Foreign Relationships of Federal Reserve Banks dated January 1, 1944.

By unanimous vote, the Foreign Currency Directive was reaffirmed in the form shown below.

Foreign Currency Directive (Reaffirmed January 30, 2001)

1. System operations in foreign currencies shall generally be directed at countering disorderly market conditions, provided that market exchange rates for the U.S. dollar reflect actions and behavior consistent with the IMF Article IV, Section 1.

2. To achieve this end the System shall:

A. Undertake spot and forward purchases and sales of foreign exchange.

B. Maintain reciprocal currency ("swap") arrangements with selected foreign central banks.

C. Cooperate in other respects with central banks of other countries and with international monetary institutions.

3. Transactions may also be undertaken:

A. To adjust System balances in light of probable future needs for currencies.

B. To provide means for meeting System and Treasury commitments in particular currencies, and to facilitate operations of the Exchange Stabilization Fund.

C. For such other purposes as may be expressly authorized by the Committee.

4. System foreign currency operations shall be conducted:

A. In close and continuous consultation and cooperation with the United States Treasury;

B. In cooperation, as appropriate, with foreign monetary authorities; and

C. In a manner consistent with the obligations of the United States in the International Monetary Fund regarding exchange arrangements under the IMF Article IV.

By unanimous vote, the Procedural Instructions with Respect to Foreign Currency Operations were reaffirmed in the form shown below.

Procedural Instructions with Respect to Foreign Currency Operations (Reaffirmed January 30, 2001)

In conducting operations pursuant to the authorization and direction of the Federal Open Market Committee as set forth in the Authorization for Foreign Currency Operations and the Foreign Currency Directive, the Federal Reserve Bank of New York, through the Manager, System Open Market Account ("Manager"), shall be guided by the following procedural understandings with respect to consultations and clearances with the Committee, the Foreign Currency Subcommittee, and the Chairman of the Committee. All operations undertaken pursuant to such clearances shall be reported promptly to the Committee.

1. The Manager shall clear with the Subcommittee (or with the Chairman, if the Chairman believes that consultation with the Subcommittee is not feasible in the time available):

A. Any operation that would result in a change in the System's overall open position in foreign currencies exceeding \$300 million on any day or \$600 million since the most recent regular meeting of the Committee.

B. Any operation that would result in a change on any day in the System's net position in a single foreign currency exceeding \$150 million, or \$300 million when the operation is associated with repayment of swap drawings.

C. Any operation that might generate a substantial volume of trading in a particular currency by the System, even though the change in the System's net position in that currency might be less than the limits specified in 1.B.

D. Any swap drawing proposed by a foreign bank not exceeding the larger of (i) \$200 million or (ii) 15 percent of the size of the swap arrangement.

2. The Manager shall clear with the Committee (or with the Subcommittee, if the Subcommittee believes that consultation with the full Committee is not feasible in the time available, or with the Chairman, if the Chairman believes that consultation with the Subcommittee is not feasible in the time available):

A. Any operation that would result in a change in the System's overall open position in foreign currencies exceeding \$1.5 billion since the most recent regular meeting of the Committee.

B. Any swap drawing proposed by a foreign bank exceeding the larger of (i) \$200 million or (ii) 15 percent of the size of the swap arrangement.

3. The Manager shall also consult with the Subcommittee or the Chairman about proposed swap drawings by the System and about any operations that are not of a routine character.

On January 22, 2001, the continuing rules, regulations, and other instructions of the Committee had been distributed with the advice that, in accordance with procedures approved by the Committee, they were being called to the Committee's attention before the January 30–31 organization meeting to give members an opportunity to raise any questions they might have concerning them. Members were asked to indicate if they wished to have any of the instruments in question placed on the agenda for consideration at this meeting. The Guidelines for the Conduct of System Operations in Federal Agency Issues were placed on the agenda and an extension of their temporary amendment was approved as noted above.

The Manager of the System Open Market Account reported on recent developments in foreign exchange markets. There were no open market operations in foreign currencies for the System's account in the period since the previous meeting.

The Manager also reported on developments in domestic financial markets and on System open market transactions in government securities and federal agency obligations during the period December 20, 2000, through January 30, 2001. By unanimous vote, the Committee ratified these transactions.

The Committee then turned to a discussion of the economic and financial outlook and the implementation of monetary policy over the intermeeting period ahead. A summary of the economic and financial information available at the time of the meeting and of the Committee's discussion is provided below, followed by the domestic policy directive that was approved by the Committee and issued to the Federal Reserve Bank of New York.

The information reviewed at this meeting indicated that the expansion of economic activity had slowed appreciably over the fourth quarter. Consumer and business spending decelerated further, with outlays for consumer durables and business equipment particularly weak. Housing construction remained relatively firm, though significantly below its brisk pace of earlier in the year. The slower growth of final spending resulted in inventory overhangs in a number of industries, most notably those related to the motor vehicle sector. Manufacturing production declined sharply as a result, and overall employment gains moderated further. Price inflation was still relatively subdued.

Labor demand softened further in December, with private nonfarm payroll employment continuing to increase slowly and the average workweek to decline. Nonetheless, the labor market remained very tight and the unemployment rate held at 4 percent, its average for the year. Reduced labor demand in manufacturing accounted for much of the slowdown in nonfarm payroll gains in the fourth quarter, with factory payrolls falling sharply further in December, but in addition sizable cuts in net new hires were recorded in the help-supply and construction industries.

The contraction in industrial production that began in October, largely in the motor vehicle sector, deepened and broadened in November and December. For the fourth quarter as a whole, the drop in production was concentrated in manufacturing; mining activity fell by less while utilities output surged late in the year in response to unseasonably cold weather. Most of the initial weakness in manufacturing output was related directly or indirectly to the slowing in the motor vehicle sector, but by year-end all major market groups had registered steep declines in production. Weaker factory activity in December resulted in a sizable drop in the rate of capacity utilization in manufacturing to a level further below its long-run average.

Against a background of slowing growth of disposable personal income and abrupt declines in consumer sentiment, consumer spending decelerated substantially in the fourth quarter. Purchases of motor vehicles slumped and outlays for other goods increased only a little. However, spending on services picked up somewhat in November (latest data), reflecting at least in part higher expenditures for heating services owing to unseasonably cold weather.

The decline in mortgage rates since the middle of last year had provided some support to residential building activity. Total housing starts increased slightly further in December, with single-family starts recording a brisk rise that might have been, in part, a response to the lower mortgage rates. By contrast, multifamily starts slowed, more than reversing November's run-up. Sales of new homes jumped in December to a very high level, but sales of existing homes dropped considerably.

Business fixed investment contracted slightly in the fourth quarter, reflecting a sizable decline in business spending on equipment and software that was offset in part by a large increase in nonresidential construction. Data on nominal shipments of nondefense capital goods in the fourth quarter indicated a drop in office and computing equipment, only a small gain in communications equipment, and a decline, on net, in non-high-tech equipment. By contrast, investment in nonresidential structures increased briskly further in October and November (latest data). While spending for new office buildings was rising less rapidly, outlays for other commercial structures picked up, and investment in industrial structures remained robust.

Business inventories on a book-value basis mounted further in October and November. Despite production cutbacks, stockbuilding in manufacturing remained rapid and sizable inventory overhangs had emerged in some industries, particularly those related to the motor vehicle sector. As a result, the aggregate stock–sales ratio for the manufacturing sector continued its upward drift that began early last year. Sizable inventory buildups and associated overhangs also were apparent in portions of the retail sector, and the aggregate inventory–sales ratio for the sector remained at the upper end of its range over the past year. At the wholesale level, inventory accumulation was moderate in October and November, but the sector's inventory–sales ratio continued to be at the top of its range for the last twelve months.

The U.S. trade deficit in goods and services fell slightly in October and November after having posted a new record high in September. Nevertheless, the average deficit for October and November was larger than the rate for the third quarter. The value of exports declined in both months, and the average value for the two-month period was below the third-quarter level; the weakness in exports was spread across a number of trade categories. The value of imports for the first two months of the fourth quarter was slightly above the third-quarter average. Economic growth in foreign industrial countries moderated in the second half of last year. The pace of economic expansion in the euro area softened somewhat further in the fourth quarter, as consumer spending remained weak. In Japan, available indicators suggested that economic activity had stagnated in the fourth quarter. Economic growth in Canada and the United Kingdom seemed to have slowed somewhat in the fourth quarter. In addition, the latest data for the major developing countries pointed to reduced expansion in many of those countries.

By most measures, price inflation had remained moderate in recent months. Judging by the consumer price index (CPI), total and core consumer prices rose mildly over November and December, but both accelerated somewhat on a year-over-year basis. In terms of the personal consumption expenditure (PCE) chain-type price index, however, core consumer price inflation was modest in both November (latest data) and the twelve months ended in November, and there was essentially no change year over year. At the producer level, core prices edged up over the November–December period, and the rise in core prices over the year was minimal as well. With regard to labor costs, the employment cost index of hourly compensation for private industry workers (ECI) decelerated noticeably in the fourth quarter, with both the wage and benefit components recording smaller gains. However, growth of ECI compensation picked up somewhat in 2000 from 1999, probably owing in large part to the upward trend in productivity growth. Productivity improvements also showed through to the average hourly earnings of production or nonsupervisory workers, which exhibited a roughly similar acceleration.

At its meeting on December 19, 2000, the Committee adopted a directive that continued to call for maintaining conditions in reserve markets consistent with an unchanged federal funds rate of about 6½ percent. At the same time, however, the members concluded that the balance of risks had shifted sufficiently that they had become weighted toward conditions that could generate economic weakness in the foreseeable future. Indeed, very recent information had seemed to signal sudden further weakness, but it was largely anecdotal and most of the aggregate data on spending and employment suggested continued economic expansion, albeit at a relatively slow rate. As a result, most members believed that it would be prudent to await further confirmation of a noticeably weaker expansion before implementing any monetary easing, particularly given the current high level of resource utilization and the record over the last several years of strong rebounds from brief lulls in growth. If, however, incoming data were to reinforce the recent anecdotal indications, the Committee would be prepared to respond promptly.

Open market operations during the intermeeting period were initially directed toward maintaining the federal funds rate at the Committee's targeted level of 6½ percent. However, information that became available in the weeks after the December meeting tended to confirm the earlier indications of weakness in spending, and at a telephone conference on January 3, 2001, the Committee approved a ½ percentage point reduction in the federal funds rate, to 6 percent, and also agreed that the risks remained weighted toward economic weakness. The federal funds rate remained close to the Committee's targets over the intermeeting period, and interest rates on short-term Treasury securities and high-quality private debt obligations declined over the period almost as much as the funds rate. The Committee's action seemed to help ease some concerns about the longer-term outlook, and risk spreads on lower-grade bonds fell substantially while broad indexes of U.S. stock market prices rose on balance over the intermeeting period.

In foreign exchange markets, the trade-weighted value of the dollar changed little on balance over the intermeeting interval in terms of an index of major foreign currencies. The dollar lost ground against the euro as market participants took note of the deterioration of near-term prospects for economic growth in the United States relative to those for Europe. However, that decline was roughly counterbalanced by a rise in the dollar against the yen, reflecting continuing economic stagnation in Japan. The dollar posted a small gain against an index of the currencies of other important trading partners, largely reflecting expectations that some emerging economies might be adversely affected by slower growth in the United States.

The broad monetary aggregates accelerated sharply in December and apparently strengthened further in January. The pickup in M2 growth evidently reflected a flight from heightened equity market volatility late last year to the safety and liquidity of M2 assets along with a recent narrowing of the opportunity costs of holding funds in M2 accounts. M3 grew even faster than M2, boosted in part by stepped-up issuance of large time deposits to fund a pickup in bank credit. The expansion of domestic nonfinancial debt increased in November and December (latest data), reflecting greater business borrowing, perhaps to finance growing inventories and smaller contractions in the amount of federal debt outstanding.

The staff forecast prepared for this meeting suggested that, after a pause associated in part with an inventory correction, the economic expansion would regain strength over the next two years and gradually move to a rate near the staff's current estimate of the growth of the economy's potential output. The period of subpar activity was expected to foster an appreciable slackening of resource utilization and some moderation in core price inflation. The forecast anticipated that the expansion of domestic final demand would be held back to some extent by the decline in household net worth associated with the downturn that had occurred in equity prices, the remaining effects of prior monetary restraint, and the continuation of somewhat stringent credit terms and conditions on some types of loans by financial institutions. As a result, growth of spending on consumer durables was expected to be appreciably below that of the first half of last year and housing demand to be about unchanged from its recent level. Business fixed investment, notably outlays for equipment and software, was projected to resume relatively robust growth after a comparatively brief period of adjustment of capital stocks to more desirable levels; growth abroad was seen as supporting the expansion of U.S. exports; and fiscal policy was assumed to become more expansionary.

In the Committee's discussion of current and prospective economic developments, members commented that while a slowdown in the expansion over the second half of 2000 was not unexpected in light of the previously unsustainable rate of increase in output, the speed and extent of the slowdown were much more pronounced than they had anticipated. Consumer spending and business capital investment had decelerated markedly, partly in association with a sharp decline in consumer and business confidence. This weakening, which was especially evident in durable goods producing industries, had led to large cutbacks in manufacturing output as numerous business firms attempted to pare what they now viewed as excessive inventories. The eventual degree and duration of the softening in economic conditions were difficult to predict. In particular, it was unclear whether the pause in the economic expansion would be largely limited to a relatively short inventory correction or would involve a more extensive cyclical adjustment.

In general, members saw favorable prospects for an appreciable recovery in overall business activity as the year progressed. Members referred to indications that both residential and nonresidential construction activity had remained relatively robust and to fragmentary data and anecdotal reports suggesting that consumer spending had steadied or possibly turned up early this year. Several commented that the sound condition of the banking system was another supportive factor. Some also observed that, counter to the experience generally associated with the onset of earlier recessions, monetary growth had been well maintained in recent months, and a few noted that long-term interest rates currently were appreciably below their peaks of the past year. The prospect that fiscal policy might begin to move in an expansionary direction later in the year was cited as another factor in the outlook for stronger economic activity. A decline in energy prices, should it materialize as anticipated in futures markets, would have a positive effect on both business and consumer spending by lowering business costs and raising disposable consumer incomes adjusted for energy costs. Perhaps the most critical element in this outlook was the persistence of elevated growth in structural labor productivity, which seemed likely to play a vital role in supporting growth in incomes and aggregate demand while also helping to limit inflation pressures.

At the same time, members also saw considerable downside risks to the economic expansion. Energy prices remained elevated and were continuing to depress business and household purchasing power; the overhang of excess capital stocks in some sectors could turn out to be sizable, depressing investment spending for some time; consumer confidence could worsen appreciably more in the face of weaker expansion of incomes and higher job layoffs; and investor concerns about earnings could increase further, sparking lower equity prices and tighter standards and terms on credit.

Except for prices of energy and medical services, the currently available information indicated relatively subdued rates of inflation, and recent surveys pointed to little change in inflation expectations. Looking ahead, members anticipated that somewhat reduced pressures in labor and product markets would foster some softening in consumer price inflation over coming quarters, a development that would be abetted should prices of oil and natural gas ease during the year in line with current market expectations.

In preparation for a semi-annual report to Congress, the members of the Board of Governors and the presidents of the Federal Reserve Banks provided individual projections of the growth in nominal and real GDP, the rate of unemployment, and the rate of inflation for the year 2001. The forecasts were concentrated in ranges of 4 to 5 percent for the growth in nominal GDP and 2 to 2½ percent for the expansion in real GDP, implying some strengthening of economic activity as the year progressed. With growth in business activity falling short of the expansion in the economy's potential, the rate of unemployment was expected to rise somewhat to an average of about 4½ percent by the fourth quarter of the year. Forecasts of the rate of inflation, as measured by the chain-type price index for personal consumption expenditures, were centered in a range of 1¾ to 2¼ percent, reflecting declines from the inflation rate last year largely stemming from the projected reductions in energy prices.

The marked deceleration in final sales experienced late last year was concentrated in consumer spending for motor vehicles and other durable goods and in business expenditures for equipment and software. In the household sector, rapidly declining consumer confidence, apparently associated in important measure with increasing worker layoffs and growing concerns about future job prospects, had contributed to generally disappointing retail sales during the holiday season. There was some evidence that sales had stabilized and possibly risen slightly in January, though a part of the improvement could reflect steep price discounts for the purpose of reducing inventories. Other negative factors cited by the members included the adverse wealth effects of the decrease in stock market valuations, relatively high consumer debt service burdens, and possible retrenchment by consumers after an extended period of large increases in purchases and related buildups of consumer durables. Nonetheless, in the absence of possible developments leading to further deterioration in consumer sentiment, the members saw reasonable prospects for strengthening consumer spending this year even assuming some decline in such expenditures relative to income. An important factor in this outlook was the expectation of some reduction in energy prices, which would boost disposable incomes available for nonenergy expenditures and likely provide a fillip to consumer sentiment in the process. Moreover, with the relatively high rate of growth in structural productivity showing little or no signs of waning, the longer-run prospects for household incomes remained positive. On balance, the various factors weighing on the outlook for consumer spending later this year seemed favorable, though substantial downside risks clearly would persist for some interim period of uncertain duration.

The depressing effects of lagging final sales on business investment spending, notably for equipment and software, were reinforced by deterioration in the financial balance sheets of some business firms, tighter supply conditions in segments of the credit markets, and a buildup in excess capacity that had eroded profitability. In this regard, members referred to earlier unsustainable rates of investment by many high-tech firms that were now obliged to retrench despite still high rates of growth in the demand for their products and services. With regard to the nonresidential construction sector, members provided anecdotal reports of continued high levels of activity in several parts of the country and little evidence of the substantial overbuilding that had characterized the construction industry in earlier periods of developing economic weakness. On balance, while the business investment outlook seemed vulnerable to somewhat greater than projected weakness in the short run, the members were persuaded that, against the background of large continuing gains in structural productivity and cost savings from further investment in equipment and software, business firms were likely to accelerate their spending for new capital after a period of adjustment.

Concerning the outlook for housing activity, recent statistical and anecdotal reports indicated that housing sales and construction were being well maintained and indeed were a bright spot in several regions. Reduced mortgage interest rates appeared to be largely offsetting the marked decline in consumer confidence. Accordingly, and contrary to the experience in earlier periods of softening economic activity, the stabilization of housing activity at a pace near its current fairly high level was seen as a reasonable expectation.

The outlook for inventory investment was more uncertain. The drop in final sales during late 2000 evidently was much faster than generally expected, and inventories rose considerably over the fourth quarter as a whole despite sharp downward adjustments in manufacturing output. In keeping with just-in-time inventory policies, which had been furthered in recent years by advances in technology that allowed faster and more complete readings on sales and adjustments in orders, efforts to reduce inventories were continuing in recent weeks and net inventory liquidation was anticipated in the current quarter. Looking further ahead, a number of members commented that they expected a period of inventory correction that would be relatively sharp but short by historical standards. Improvements in inventory management and related indications that inventory overhangs were small compared to earlier historical experience were factors in this assessment. At the same time, members recognized that the inventory correction had just begun and its duration would depend importantly on the ongoing strength of final sales. In this regard, developments bearing on business and consumer confidence and willingness to spend would play a crucial, though at this point uncertain, role.

Members expressed some divergence of views regarding the outlook for foreign economic activity and the implications for the domestic economy. Some emphasized that most of the nation's important trading partners had growing economies that were likely to provide support for expanding U.S. exports. Other members were concerned about indications of growing weakness in a number of foreign economies that might increasingly inhibit U.S. exports and add to competitive pressures on U.S. producers in domestic markets. The large current account deficit was seen as a factor pointing to potential depreciation of the dollar over time, with adverse repercussions on domestic inflation albeit favorable effects on exports.

In their comments about the outlook for inflation, members noted that current indicators continued on the whole to point to subdued price increases, with lagging demand and strong competitive pressures in many markets severely limiting the ability of business firms to raise their prices. Labor markets were described as still tight across the nation, but reports of layoffs in specific industries were increasing and numerous business contacts indicated that openings were now much easier to fill in many job markets. There were some related indications that wage pressures might be easing. Against the background of a sluggish economy in the near term and forecasts of only moderate economic growth, the members anticipated that inflation would remain contained over the forecast horizon. A key factor in this assessment continued to be their outlook for rapid further gains in structural productivity that would help to hold down increases in unit labor costs. Other factors included the prospect of some decline in energy prices and the persistence of generally benign inflation expectations. On balance, with pressures in labor and product markets ebbing, the outlook for inflation was a source of diminished though persisting concern.

In the Committee's discussion of policy for the intermeeting period ahead, all the members endorsed a proposal calling for a further easing in reserve conditions consistent with a 50 basis point decrease in the federal funds rate to a level of 5½ percent. Such a policy move in conjunction with the 50 basis point reduction in early January would represent a relatively aggressive policy adjustment in a short period of time, but the members agreed on its desirability in light of the rapid weakening in the economic expansion in recent months and associated deterioration in business and consumer confidence. The extent and duration of the current economic correction remained uncertain, but the stimulus provided by the Committee's policy easing actions would help guard against cumulative weakness in economic activity and would support the positive factors that seemed likely to promote recovery later in the year. Several members observed that the evolving nature of the domestic economy, including the ongoing improvements in inventory management and the increase in managerial flexibility to alter the level and mix of capital equipment, associated in part with the greater availability of information, appeared to have fostered relatively prompt adjustments by businesses to changing economic conditions. As a consequence, monetary policy reactions to shifts in economic trends needed in this view to be undertaken more aggressively and completed sooner than in the past. In current circumstances, members saw little inflation risk in such a "front-loaded" easing policy, given the reduced pressures on resources stemming from the sluggish performance of the economy and relatively subdued expectations of inflation.

All the members agreed that the balance of risks sentence in the press statement to be released shortly after this meeting should continue to indicate that the risks would remain tilted toward economic weakness even after today's easing action. The members saw substantial underlying strength and resilience in the economy and they remained optimistic about its prospects beyond the near term in light of the monetary policy stimulus that was being implemented and the persistence of rapid advances in productivity. In this regard, some members commented that the upside risks could not be totally dismissed. But with the adjustments to the stock of capital, consumer durable goods, and inventories to more sustainable levels likely only partly completed and with investors in financial markets remaining skittish, the risks that growth would persist below that of the economy's productivity-enhanced potential continued to dominate the outlook.

At the conclusion of this discussion, the Committee voted to authorize and direct the Federal Reserve Bank of New York, until it was instructed otherwise, to execute transactions in the System Account in accordance with the following domestic policy directive:

> The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with reducing the federal funds rate to an average of around 5½ percent.

The vote encompassed approval of the sentence below for inclusion in the press statement to be released shortly after the meeting:

> Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes that the risks are weighted mainly toward conditions that may generate economic weakness in the foreseeable future.

> Votes for this action: Messrs. Greenspan, McDonough, Ferguson, Gramlich, Hoenig, Kelley, Meyer, Ms. Minehan, Messrs. Moskow and Poole. Votes against this action: None.

By notation vote completed on March 15, 2001, the Federal Open Market Committee voted unanimously to select Dino Kos as Manager for Domestic and Foreign Operations of the System Open Market Account to serve in that capacity until the first regularly scheduled meeting after December 31, 2001, subject to the understanding that in the event of the discontinuance of his official connection with the Federal Reserve Bank of New York he would cease to have any official connection with the Federal Open Market Committee. It also was understood that this selection needed to be satisfactory to the Federal Reserve Bank of New York. Advice subsequently was received that the selection of Mr. Kos as Manager was satisfactory to the board of directors of that Bank.

It was agreed that the next meeting of the Committee would be held on Tuesday, March 20, 2001.

The meeting adjourned at 10:50 a.m. on January 31, 2001.

Donald L. Kohn
Secretary

Meeting Held on March 20, 2001

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., beginning at 9:00 a.m. on Tuesday, March 20, 2001.

Present:

Mr. Greenspan, Chairman
Mr. McDonough, Vice Chairman
Mr. Ferguson
Mr. Gramlich
Mr. Hoenig
Mr. Kelley
Mr. Meyer
Ms. Minehan
Mr. Moskow
Mr. Poole

Messrs. Jordan, McTeer, Santomero, Stern, and Stewart, Alternate Members of the Federal Open Market Committee

Messrs. Broaddus, Guynn, and Parry, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco respectively

Mr. Kohn, Secretary and Economist
Mr. Bernard, Deputy Secretary
Mr. Gillum, Assistant Secretary
Ms. Fox, Assistant Secretary
Mr. Baxter, Deputy General Counsel
Ms. Johnson, Economist
Mr. Stockton, Economist

Ms. Cumming, Messrs. Fuhrer, Hakkio, Howard, Hunter, Lindsey, Rasche, Reinhart, Slifman, and Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

Ms. Smith and Mr. Winn, Assistants to the Board, Office of Board Members, Board of Governors

Mr. Ettin, Deputy Director, Division of Research and Statistics, Board of Governors

Mr. Simpson, Senior Adviser, Division of Research and Statistics, Board of Governors

Messrs. Madigan, Oliner, and Struckmeyer, Associate Directors, Divisions of Monetary Affairs, Research and Statistics, and Research and Statistics, Board of Governors

Mr. Whitesell, Assistant Director, Division of Monetary Affairs, Board of Governors

Ms. Low, Open Market Secretariat Assistant, Division of Monetary Affairs, Board of Governors

Mr. Barron, First Vice President, Federal Reserve Bank of Atlanta

Messrs. Eisenbeis and Goodfriend, Mses. Krieger and Mester, and Mr. Rolnick, Senior Vice Presidents, Federal Reserve Banks of Atlanta, Richmond, New York, Philadelphia, and Minneapolis respectively

Ms. Orrenius, Economist, Federal Reserve Bank of Dallas

Mr. Trehan, Research Advisor, Federal Reserve Bank of San Francisco

Mr. Haubrich, Consultant, Federal Reserve Bank of Cleveland

By unanimous vote, the minutes of the meeting of the Federal Open Market Committee held on January 30–31, 2001, were approved.

By unanimous vote, David Wilcox was elected to serve as an Associate Economist for the period until the first regularly scheduled meeting of the Committee after December 31, 2001.

The Manager of the System Open Market Account reported on developments in foreign exchange markets. There had been no operations in foreign currencies for the System's account since the previous meeting.

The Manager also reported on developments in domestic financial markets and on System open market transactions in U.S. government securities and federal agency obligations during the period January 31, 2001, through March 19, 2001. By unanimous vote, the Committee ratified these transactions.

The Committee then turned to a discussion of the economic and financial outlook and the implementation of monetary policy over the intermeeting period ahead. A summary of the economic and financial information available at the time of the meeting and of the Committee's discussion is provided below, followed by the domestic policy directive that was approved by the Committee and issued to the Federal Reserve Bank of New York.

The information reviewed at this meeting suggested that economic activity continued to expand very slowly in the first quarter. Growth of final spending apparently picked up slightly, with consumer expenditures recording another moderate gain, business purchases of equipment and software increasing sluggishly after a fourth-quarter decline, and homebuilding remaining relatively firm. However, inventory overhangs were still apparent in some industries, and manufacturing production was cut sharply further. Overall employment gains were relatively well maintained, and labor markets were still tight though showing signs of softening. Price inflation had picked up a little but, abstracting from energy, had remained relatively subdued.

After a sluggish fourth quarter, private nonfarm payroll employment rose at a slightly higher rate on average in January and February, though still considerably below the pace of the first three quarters of 2000. Manufacturing and related industries, notably help-supply and wholesale trade, experienced further large declines in payrolls in the January–February period. However, hiring elsewhere held up relatively well, especially in construction, which recorded a surge in employment in January. While the labor market remained tight on balance, the unemployment rate increased to 4.2 percent in February, and other indicators such as initial claims for unemployment insurance suggested that pressures in labor markets had begun to abate.

The contraction in industrial production that began in October accelerated and broadened in the first two months of the year. In manufacturing, output fell further in the motor vehicle sector, and production continued to decelerate in high-tech industries. The rate of capacity utilization in manufacturing dropped noticeably in January and February to a level further below its long-run average.

Against a background of slowing income gains and a sizable pullback in consumer sentiment since last autumn, consumer spending evidently grew only moderately on balance in January and February. Purchases of motor vehicles picked up in response to increased marketing incentives put in place by Chrysler and General Motors, and retail sales of items other than motor vehicles climbed moderately. Spending on services was held down in January (latest data) by reduced expenditures for heating services as winter temperatures returned to more seasonal levels following unusually cold weather late last year; excluding heating, however, spending on other services rose slowly.

The decline in mortgage rates that began around the middle of last year continued to provide support to residential building activity. Total housing starts rose somewhat further in January and February, reflecting net increases in both single-family and, especially, multifamily units. Sales of new homes dropped sharply in January (latest data), after having surged in December, but remained quite robust by historical standards. Sales of existing homes rebounded in January after having fallen considerably in December and were up slightly on balance over the two months.

The limited available information suggested that business fixed investment was firming early this year after a decline in the fourth quarter of last year. Nominal shipments of nondefense capital goods other than aircraft and parts changed little on balance in December and January, while prices of high-tech equipment continued to fall. Moreover, orders for nondefense capital goods turned up briskly in January after a sharp fourth-quarter drop. Nonresidential construction activity continued its robust rise early in the year. Strength in building activity was widespread across the sector, most notably in new office construction.

Business inventories on a book-value basis increased in January at about the rapid fourth-quarter pace; inventory positions appeared to be especially large for construction materials, metals, electrical equipment, paper, chemicals, and textiles. In the manufacturing sector, overall stocks jumped in January while shipments fell, and the aggregate inventory–shipments ratio rose to its highest level in two years. In the wholesale trade sector, aggregate stocks fell again in January and the sector's inventory–sales ratio edged down to the middle of its very narrow range for the past year. Retail stocks continued to climb in January, but sales rose by more; the sector's inventory–sales ratio also edged lower, but it remained near the top of its range for the past twelve months.

The U.S. trade deficit in goods and services changed little in December but posted a new record high for the fourth quarter. The value of exports dropped substantially in that quarter, with notable declines occurring in agricultural products, aircraft, automotive products, computers and semiconductors, consumer goods, and telecommunications equipment. The value of imports remained at the high level recorded in the third quarter. Lower imports of automotive products, chemicals, computers and semiconductors, and steel were offset by higher imports of consumer goods and telecommunications equipment and smaller increases in other categories of trade. Economic growth in the foreign industrial countries was at a moderate rate on average in the fourth quarter. Expansion in the euro area picked up, while growth in Canada and the United Kingdom slowed significantly. The Japanese economy rebounded in the fourth quarter but was little changed on balance over the second half of the year, and recent indicators suggested a sharply weaker performance in the early part of this year. In addition, growth in the major developing countries slowed markedly in the fourth quarter, with the slowdown in most of those countries reflecting weaker demand for their exports.

Price inflation had picked up a bit recently. The consumer price index (CPI) jumped in January (latest data), reflecting a surge in energy prices; moreover, the index increased considerably more during the twelve months ending in January than it did during the previous twelve months. The core component of the CPI also accelerated in January and on a year-over-year basis, but by lesser amounts than did the total index. The increase in the core personal consumption expenditure (PCE) chain-type price index in January matched that of the core CPI; on a year-over-year basis, however, the pickup in core PCE inflation was a little smaller than that for the core CPI. At the producer level, core finished goods retraced in February only part of the sizable step-up in prices recorded in January, and core producer price inflation was up somewhat on a year-over-year basis. With regard to labor costs, recent data also pointed to some acceleration. Compensation per hour in the nonfarm business sector advanced appreciably more rapidly in the fourth quarter of 2000 and for the year as a whole. That trend also showed through to the average hourly earnings of production or nonsupervisory workers through February, which exhibited a roughly similar acceleration.

At its meeting on January 30–31, 2001, the Committee adopted a directive that called for maintaining conditions in reserve markets consistent with a decrease of 50 basis points in the intended level of the federal funds rate, to about 5½ percent. This move, in conjunction with the easing on January 3, was intended to help guard against cumulative weakness in economic activity and to provide some support to a rebound in growth later in the year. In the existing circumstances, the members agreed that the balance of risks remained weighted toward conditions that could generate economic weakness in the foreseeable future. Though rapid advances in underlying productivity were expected to continue, the adjustments to stocks of capital, consumer goods, and inventories to more sustainable levels were only partly completed, and financial markets remained unsettled.

Open market operations were directed throughout the intermeeting period toward maintaining the federal funds rate at the Committee's reduced target level of 5½ percent, and the funds rate stayed close to that target. However, incoming economic data, a steady flow of disappointing corporate earnings reports, related sharp declines in stock prices, and a notable drop in consumer confidence led market participants to conclude that more monetary easing would be required. Yields on Treasury securities, both short- and long-term, moved appreciably lower. However, rates on high-yield private debt obligations fell only a little, and banks further tightened standards and terms on business loans, given the weakening outlook for profits. Broad indexes of U.S. stock market prices moved sharply lower, with the tech-heavy Nasdaq experiencing an especially large drop. Nonetheless, the trade-weighted value of the dollar rose somewhat over the intermeeting interval in terms of many of the major foreign currencies. The dollar strengthened most against the currencies of countries that were seen to have the greatest potential for economic weakening, notably Japan. The dollar also posted a small gain against an index of the currencies of other important trading partners.

The broad monetary aggregates continued to grow rapidly in February, though at slightly lower rates than in January. The strength in M2 was concentrated in its liquid components, apparently in response to the further narrowing of opportunity costs, the yield advantage of money funds relative to longer-term investments, and the appeal of a safe haven from volatile equity markets. M3 grew somewhat less rapidly than M2; a pullback in the issuance of bank-managed liabilities, particularly large time deposits, was associated with slower expansion of bank credit. Growth of domestic nonfinancial debt decelerated noticeably in January (latest data), reflecting reduced expansion of debt in the nonfederal sectors coupled with a larger contraction in the amount of federal debt outstanding.

The staff forecast prepared for this meeting suggested that, after a period of slow growth associated in part with an inventory correction, the economic expansion would gradually regain strength over the next two years and move toward a rate near the staff's current estimate of the growth of the economy's potential output. The period of subpar expansion was expected to foster an appreciable easing of pressures on resources and some moderation in core price inflation. The forecast anticipated that the expansion of domestic final demand would be held back to an extent by the decline in household net worth associated with the downturn that had occurred in equity prices, the lingering effects of last year's relatively high interest rates, and the continuation of relatively stringent terms and conditions on some types of loans by financial institutions. As a result, growth of spending on consumer durables was expected to be appreciably below the rapid pace in the first half of last year, and housing demand would increase only a little from its recent level. Business fixed investment, notably outlays for equipment and software, was projected to resume relatively robust growth after a period of adjustment of capital stocks to more desirable levels; growth abroad was seen as supporting the expansion of U.S. exports; and fiscal policy was assumed to become more expansionary.

In the Committee's discussion of current and prospective economic developments, members commented that the recent statistical and anecdotal information had been mixed, but they viewed evolving business conditions as consistent on the whole with a continued softness in economic activity. Members noted that consumer spending had strengthened early in the year and housing activity had remained at a relatively high level. These positive developments needed to be weighed against an appreciable weakening in business investment spending and the near-term restraining effects of a drawdown in inventories. Looking ahead, while sales and production data suggested that excess inventories were being worked off, the adjustment did not appear to have been completed. Beyond the inventory correction, the members continued to anticipate an acceleration of the expansion over time, though likely on a more delayed basis and at a more gradual pace than they had forecast earlier. They noted a number of favorable underlying factors that would tend to support a rebound, including solid productivity growth, stable low inflation, generally sound financial institutions, lower interest rates, and relatively robust expansion in many measures of money. However, the members saw clear downside risks in the outlook for consumer and investment spending in the context of the marked decline that had occurred in equity prices and consumer confidence, and in expected business profitability, and they were concerned that weaker exports might also hold down the expansion of economic activity. With regard to the outlook for inflation, some recent measures of increases in core prices had fluctuated on the high side of earlier expectations, but apart from energy prices and medical costs, inflation was still relatively quiescent. With the growth in output likely to remain below the expansion of the economy's potential for a while, members anticipated that inflation would remain subdued.

Mirroring the statistics for the nation as a whole, business conditions in different parts of the country displayed mixed industry patterns, but members reported that overall business activity currently appeared to be growing at a sluggish pace in most regions, and business contacts were exhibiting a heightened sense of caution, or even concern, in some industries. In their review of developments in key sectors of the economy, members indicated that they saw favorable prospects for continued moderate growth in consumer expenditures, though considerable uncertainty surrounded this outlook. Downside risks cited by the members included the substantial declines that had already occurred in measures of consumer confidence and equity wealth, and the possibility that consumer sentiment might be undermined even further by continued volatility and additional declines in the stock market and by rising concerns about job losses amid persistent announcements of layoffs. Members also referred to the retarding effects on consumer expenditures of elevated levels of household debt and high energy costs. Against this background, consumers might well endeavor to boost their savings, and even a fairly small increase in what currently was a quite low saving rate would have large damping effects on aggregate demand that could weaken, if not abort, the expansion. To date, however, overall consumer spending had remained relatively strong and seemingly at odds with measures of consumer confidence and reduced equity wealth. How this divergence might eventually be resolved was a significant source of uncertainty and downside risk. On balance, while there were reasons to be concerned about the outlook for consumer spending, members believed that recent spending trends and the outlook for further growth in employment and incomes pointed to continued expansion in this key sector of the economy, though likely at a relatively sluggish pace.

Another major source of downside risk to the expansion was business fixed investment. Spending for equipment and software declined in the fourth quarter, and the available statistical and anecdotal reports pointed to weakness during the first half of this year, largely reflecting developments in high-tech industries. Substantial downward adjustments to expected near-term business earnings had persisted, suggesting that firms saw investment as much less profitable than they had before and that cash flows would be constrained. Many businesses also were inhibited in their investment activities by less accommodative financial conditions associated with weaker equity markets and tighter credit terms and conditions imposed by banking institutions. As a consequence, a substantial volume of planned investment was being postponed, if not canceled. The capital stock had grown at an unsustainable pace for a time, so some downshifting in investment was inevitable. Moreover, those earlier very substantial investment outlays seemed to have created excess capacity in a number of industries, and how large an adjustment in spending for business equipment might now be under way was still unclear, especially with regard to high-tech industries. At the same time, the information available for the first quarter indicated considerable strength in nonresidential construction activity, including large outlays on public-sector infrastructure projects in some areas. On balance, business spending for plant and equipment was likely to pick up only gradually this year. Over the longer term, however, a return to more robust business investment seemed likely, and indeed business earnings forecasts beyond the nearer term had not declined very much, reflecting continuing expectations of substantial profit opportunities related to persisting strong gains in productivity.

Housing activity was generally holding up well across the country, as the effects of appreciably reduced mortgage interest rates apparently compensated for the negative effects of declining financial wealth on the demand for housing. While housing construction was generally described as elevated, some members referred to overbuilding or weakness in some local housing markets. It was noted that homebuilders were generally optimistic about the prospects for the year ahead, given their current backlogs and expectations of further growth in employment and incomes.

The ongoing adjustments in business inventories had played a significant role in curbing the growth of economic activity in recent months, but such adjustments seemed likely gradually to become a more neutral factor over the balance of this year. In the motor vehicle industry, inventory liquidation had been especially pronounced and the process now seemed largely completed. However, the inventory-correction process in high-tech industries apparently was not as far along. In the absence of renewed weakness in overall final demand, which could not be ruled out given current consumer and business confidence, production would need to pick up at some point to accommodate ongoing final demand. Some members observed that the adjustment in inventories might require more time than they had anticipated earlier. In any event, completion of the process clearly would foster an upturn in manufacturing activity.

Members commented on the downside risks to U.S. exports and the U.S. expansion from what appeared to be softening economic conditions in a number of important foreign economies. In some countries, the risks were exacerbated by the apparent inability or unwillingness of government officials to address underlying structural problems in their economies and financial systems. Members noted anecdotal reports of weakening business conditions in a number of Asian and South American nations. The potential impact on exports of less vigor in the global economy would be augmented, of course, by the strength of the dollar in foreign exchange markets.

Although labor markets in general remained tight throughout the nation, anecdotal reports of less scarce labor resources were becoming more frequent in some areas or occupations. Some price increases had been noted; however, apart from the energy and health care sectors, price inflation had remained relatively subdued, evidently reflecting the combination of diminished growth in overall demand and strong competitive pressures in most markets. With regard to the outlook for wages and prices, members commented that the prospects for an extended period of growth in demand at a pace below the economy's potential should ease pressures on labor and other resources and help to contain inflation.

In the Committee's discussion of policy for the intermeeting period ahead, most of the members preferred and all could support a further easing of reserve conditions consistent with a 50 basis point reduction in the federal funds rate, to 5 percent. The members agreed that a strengthening in the economic expansion over coming quarters was a reasonable expectation, but absent further easing in monetary policy that pickup was unlikely to bring growth to an acceptable pace in the foreseeable future. Business investment would be held back by lower earnings expectations and a capital overhang of unknown dimensions; consumption was subject to downside risks from previous decreases in equity wealth and declining confidence; and the strong dollar and weaker foreign growth would constrain exports. Inflation was likely to be damped by ebbing pressures on labor and product markets. While many of the members generally believed that additional policy easing might well prove to be necessary at some time, the easing favored by most members incorporated what they viewed as an adequate degree of stimulus under current economic conditions and represented an appropriately calibrated step given the uncertainties in the economic outlook. It was noted in this regard that in combination with the two easing actions earlier this year, the Committee would have implemented in a relatively short period a considerable amount of monetary easing whose economic effects would be felt over time. However, some commented that the amount of financial stimulus was much smaller than might otherwise be expected from policy easing of this cumulative amount because it had been accompanied by further declines in stock market prices, more stringent financing terms for many business borrowers, and a stronger dollar, all of which would be holding down domestic spending and production. Indeed, financial markets had come to place some odds on a larger move of 75 basis points in recent days, importantly reflecting the possibility of a presumed policy response to the sizable declines in equity prices that had occurred as earnings prospects proved disappointing. Most members agreed, however, that in the context of their focus on the economy, smaller, possibly more frequent, policy adjustments were appropriate to afford them the opportunity to recalibrate policy in rapidly changing and highly uncertain circumstances.

A few members expressed a preference for a 75 basis point reduction in the federal funds rate. In their view, a more forceful action was justified by current and prospective economic conditions.

The members agreed that even with a further 50 basis point reduction in the federal funds rate, the risks to the economy would remain decidedly to the downside. This conclusion would be reflected in the press statement to be released after today's meeting. The statement also would emphasize the need for close monitoring of rapidly evolving economic conditions. The members anticipated that in the relatively long interval before the next regularly scheduled meeting on May 15, 2001, economic developments might suggest the desirability of a Committee conference call to assess business conditions across the nation and to consider the possible need for a further policy adjustment.

At the conclusion of this discussion, the Committee voted to authorize and direct the Federal Reserve Bank of New York, until it was instructed otherwise, to execute transactions in the System Account in accordance with the following domestic policy directive:

> The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with reducing the federal funds rate to an average of around 5 percent.

The vote encompassed approval of the sentence below for inclusion in the press statement to be released shortly after the meeting:

> Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes that the risks are weighted mainly toward conditions that may generate economic weakness in the foreseeable future.

> Votes for this action: Messrs. Greenspan, McDonough, Ferguson, Gramlich, Hoenig, Kelley, Meyer, Ms. Minehan, Messrs. Moskow and Poole. Votes against this action: None.

The Chairman called for a recess after this vote and convened a meeting of the Board of Governors to consider reductions of one-half percentage point in the discount rate that had been proposed by all the Federal Reserve Banks. After the recess, the Chairman informed the Committee that the pending reductions had been approved.

It was agreed that the next meeting of the Committee would be held on Tuesday, May 15, 2001. The meeting adjourned at 1:15 p.m.

Telephone Conferences

On April 11, 2001, the Committee reviewed economic and financial developments since its last meeting and discussed the possible need for some further easing of monetary policy. The data and anecdotal information were mixed: They did not indicate that the economy had been weakening further, but they raised questions about the potential strength of a rebound in growth over coming quarters. In particular, heightened business concerns about future sales and further downward revisions to expected earnings threatened to restrain capital spending for some time. In the circumstances, the members could see the need for a further easing of policy at some point, though some had a strong preference for taking such actions at regularly scheduled meetings. They all agreed that an easing on this date would not be advisable, inasmuch as the attendant surprise to most outside observers risked unpredictable reactions in financial markets that had been especially volatile in recent days, and additional important data would become available over the near term.

A week later, on April 18, 2001, the Committee held a telephone conference meeting for the purpose of considering a policy easing action. The members noted that the statistical and anecdotal information received since the last conference call had supported their view that an easing of policy would be appropriate. In addition to the continuing concerns about business plans for capital investment, consumer spending had leveled out and confidence had fallen further. In these circumstances, lower interest rates were likely to be necessary to foster more satisfactory economic expansion. With financial markets more settled, and with nearly a month until the Committee's May meeting, an easing move was called for at this time.

Although a few preferred to wait until the next scheduled meeting, all the members supported or could accept a proposal for an easing of reserve conditions consistent with a reduction of 50 basis points in the federal funds rate to a level of 4½ percent. The Committee voted to authorize and direct the Federal Reserve Bank of New York, until it was instructed otherwise, to execute transactions in the System Account in accordance with the following domestic policy directive:

> The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with reducing the federal funds rate to an average of around 4½ percent.

The vote encompassed approval of the sentence below for inclusion in the press statement to be released shortly after the meeting:

> Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes that the risks are weighted mainly toward conditions that may generate economic weakness in the foreseeable future.

> Votes for this action: Messrs. Greenspan, McDonough, Ferguson, Gramlich, Hoenig, Kelley, Meyer, Ms. Minehan, Messrs. Moskow and Poole. Votes against this action: None.

Chairman Greenspan indicated that shortly after this meeting the Board of Governors would consider pending requests of eight Federal Reserve Banks to reduce the discount rate by 50 basis points.

Donald L. Kohn
Secretary

Meeting Held on May 15, 2001

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Tuesday, May 15, 2001, starting at 9:00 a.m.

Present:

Mr. Greenspan, Chairman
Mr. McDonough, Vice Chairman
Mr. Ferguson
Mr. Gramlich
Mr. Hoenig
Mr. Kelley
Mr. Meyer
Ms. Minehan
Mr. Moskow
Mr. Poole

Messrs. Jordan, McTeer, Santomero, and Stern, Alternate Members of the Federal Open Market Committee

Messrs. Broaddus, Guynn, and Parry, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco respectively

Mr. Kohn, Secretary and Economist
Mr. Gillum, Assistant Secretary
Ms. Fox, Assistant Secretary
Mr. Mattingly, General Counsel
Ms. Johnson, Economist
Mr. Stockton, Economist

Ms. Cumming, Messrs. Fuhrer, Hakkio, Howard, Lindsey, Rasche, Reinhart, Slifman, and Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

Mr. Ettin, Deputy Director, Division of Research and Statistics, Board of Governors

Mr. Simpson, Senior Adviser, Division of Research and Statistics, Board of Governors

Messrs. Connors,[5] Madigan, Oliner, and Struckmeyer, Associate Directors, Divisions of International Finance, Monetary Affairs, Research and Statistics, and Research and Statistics, Board of Governors

Mr. Whitesell, Assistant Director, Division of Monetary Affairs, Board of Governors

Mr. Skidmore, Special Assistant to the Board, Office of Board Members, Board of Governors

Mr. Kumasaka, Assistant Economist, Division of Monetary Affairs, Board of Governors

Ms. Low, Open Market Secretariat Assistant, Division of Monetary Affairs, Board of Governors

Mr. Connolly, First Vice President, Federal Reserve Bank of Boston

Messrs. Beebe, Eisenbeis, and Goodfriend, Mses. Mester and Perlmutter, Messrs. Rosenblum and Sniderman, Senior Vice Presidents, Federal Reserve Banks of San Francisco, Atlanta, Richmond, Philadelphia, New York, Dallas, and Cleveland respectively

Mr. Sullivan, Vice President, Federal Reserve Bank of Chicago

Mr. Weber, Senior Research Officer, Federal Reserve Bank of Minneapolis

5. Attended portion of meeting relating to staff briefings.

By unanimous vote, the minutes of the meeting of the Federal Open Market Committee held on March 20, 2001, were approved.

The Manager of the System Open Market Account reported on recent developments in foreign exchange markets. There were no open market operations in foreign currencies for the System's account in the period since the previous meeting.

The Manager also reported on developments in domestic financial markets and on System open market transactions in government securities and federal agency obligations during the period March 20, 2001, through May 14, 2001. By unanimous vote, the Committee ratified these transactions.

By unanimous vote, the Committee approved the extension for one year beginning in December 2001 of the System's reciprocal currency ("swap") arrangements with the Bank of Canada and the Bank of Mexico. The arrangement with the Bank of Canada is in the amount of $2 billion equivalent and that with the Bank of Mexico in the amount of $3 billion equivalent. Both arrangements are associated with the Federal Reserve's participation in the North American Framework Agreement. The early vote to renew the System's participation in the swap arrangements maturing in December relates to the provision that each party must provide six months prior notice of an intention to terminate its participation.

The Committee then turned to a discussion of the economic and financial outlook and the implementation of monetary policy over the intermeeting period ahead. A summary of the economic and financial information available at the time of the meeting and of the Committee's discussion is provided below, followed by the domestic policy directive that was approved by the Committee and issued to the Federal Reserve Bank of New York.

The information reviewed at this meeting suggested that the economic expansion remained very sluggish. Household spending, especially for housing and motor vehicles, had held up relatively well, but business investment was quite weak and appeared to be decreasing further. Persistent inventory overhangs in a number of sectors had led to additional substantial cuts in manufacturing production. Reflecting in part the downtrend in manufacturing output, labor demand had weakened considerably and unemployment had risen. Price inflation had picked up a little but, abstracting from energy, had remained relatively subdued.

Private nonfarm payroll employment fell sharply in April after a small drop in March. Manufacturing, construction, and the service sector recorded large payroll declines in April, and gains elsewhere were small. The unemployment rate increased further, to 4.5 percent in April, and initial claims for unemployment insurance averaged over the four weeks ended April 28 were at their highest level since 1993.

Industrial production declined appreciably further in April. Manufacturing output registered a seventh consecutive monthly drop, while a robust boost to mining activity associated with strong gains in crude oil and gas production was offset by a decrease in utilities output in a period of unusually warm weather. In manufacturing, the production of motor vehicles and parts was unchanged in April after having surged in February and March, but the output of high-tech equipment continued to trend steeply downward, and there was widespread weakness in the manufacture of other industrial products. Reflecting the production cutbacks, the rate of utilization of manufacturing capacity fell even further below its long-run average.

Consumer spending had held up relatively well thus far this year despite the deceleration in personal incomes, reduced household net worth, and deterioration in consumer sentiment since last autumn. After a solid first-quarter gain, nominal retail sales rose briskly in April, reflecting strong outlays at general merchandise and apparel stores, building and material outlets, and automotive dealers. Growth of spending on services slowed in the first quarter (latest data), partly because of a weather-related drop in consumption of energy services.

Low mortgage rates continued to provide support to residential building activity. The first-quarter average for total housing starts was the strongest quarterly reading in a year despite a March decline in starts that might have been exaggerated by unusual weather patterns. In addition, sales of new and existing homes remained brisk through March. New home sales reached a new high in March, and sales of existing homes were only a little below their record high in June 1999.

Against the background of a sluggish economy and deteriorating earnings, business capital spending on equipment and software declined somewhat further in the first quarter. Increased purchases of cars and trucks were among the few areas of strength in business equipment expenditures; elsewhere, outlays for high-tech equipment decreased on a quarterly basis for the first time since the 1990 recession, and spending for equipment such as industrial machinery changed little. Moreover, recent data on orders for nondefense capital goods suggested that some further slippage in future spending for equipment was likely. By contrast, nonresidential construction continued to expand briskly; expenditures for oil and gas exploration surged in the first quarter, and nonresidential building activity continued at a rapid pace, with sizable gains recorded for most major categories of buildings.

Business inventories on a book-value basis fell steeply further in March, with roughly half of the decline reflecting a runoff of motor vehicle stocks at the wholesale and retail levels. Despite the sharp liquidation of inventories in the manufacturing sector in February and March, the aggregate inventory–shipments ratio for that sector edged higher in March to a level well above that of a year ago. In the wholesale trade sector, aggregate stocks dropped somewhat on balance in the first quarter and the sector's stock–sales ratio edged lower; nonetheless, the sector's ratio in March also was above its level of a year earlier. Retail inventories ran off in February and March after a small January rise, and the sector's inventory–sales ratio decreased somewhat on balance to around the middle of its range for the past twelve months.

The U.S. trade deficit in goods and services narrowed considerably in February, reflecting a further rise in the value of exports and a sharp drop in the value of imports. The average deficit for the first two months of the year was smaller than that for the fourth quarter. Nonetheless, exports for the January–February period were below the fourth-quarter average, with notable declines occurring in automotive products, industrial supplies, and semiconductors. The slowdown in imports in January–February was broadly spread across trade categories, with the largest decreases occurring in automotive products, high-tech goods, and oil. Recent information indicated that economic activity in the foreign industrial countries had decelerated since the fourth quarter. Expansion in the euro area, the

United Kingdom, and Canada appeared to have slowed significantly, while the Japanese economy seemed to have faltered after a brief rebound late last year. In addition, economic growth in the major developing countries had softened markedly, with the slowdown in most of those countries reflecting weaker external demand.

Overall inflation had been held down thus far this year by a deceleration in energy prices, but by some measures core price inflation had picked up a bit. The total consumer price index (CPI) increased moderately in February and March (latest data), and the increase in that index during the past twelve months was smaller than that during the previous twelve-month period, reflecting reduced increases in energy prices. By contrast, core CPI inflation picked up slightly in the February–March period and on a year-over-year basis. However, inflation as measured by the core personal consumption expenditure (PCE) chain-type price index, though also running a little higher in February–March, recorded a small decline on a year-over-year basis. At the producer level, core finished goods inflation was subdued in March and April but moved up somewhat on a year-over-year basis. With regard to labor costs, growth in the employment cost index (ECI) for hourly compensation picked up noticeably in the first quarter of this year; however, the gain in compensation for the four quarters ended in March was a little below the large increase for the four-quarter period ended in March 2000. By contrast, average hourly earnings of production or nonsupervisory workers rose more briskly in April and on a year-over-year basis.

At its meeting on March 20, 2001, the Committee adopted a directive that called for maintaining conditions in reserve markets consistent with a decrease of 50 basis points in the intended level of the federal funds rate, to about 5 percent. This action, in conjunction with a further easing of ½ percentage point on April 18, was intended to help promote a more satisfactory economic expansion going forward. Under then-current conditions, the members agreed that the balance of risks remained weighted toward conditions that could generate economic weakness in the foreseeable future.

Federal funds traded at rates near the Committee's target levels over the intermeeting period. Other short-term interest rates generally fell somewhat less than the reduction in the federal funds rate because the markets had anticipated the easing in policy, though only in part. In contrast to the declines in short-term rates, longer-term yields rose on balance as investors apparently became more confident of a pickup in output growth, supported in part by improved prospects for substantial federal tax reductions. The more optimistic assessment of the economic outlook and the unexpected intermeeting easing action apparently contributed to a narrowing of risk premiums on lower-grade private debt obligations and to a rise in equity prices. Better-than-expected first-quarter earnings also boosted stock prices, and broad indexes of U.S. stock market prices moved substantially higher.

In foreign exchange markets, the trade-weighted value of the dollar in terms of many of the major foreign currencies changed little on balance over the intermeeting interval. A number of major foreign central banks cut their policy rates during the period, but by less than the two easing steps in the United States. The dollar's appreciation against the euro was offset by its decline in terms of the yen and the Canadian dollar. The dollar also was essentially unchanged in terms of an index of the currencies of other important trading partners. The value of the Mexican peso rose appreciably against the dollar as monetary authorities maintained their tight policy stance and as spreads on Mexican debt narrowed. In contrast, concerns about potential spillovers from Argentina's worsening financial difficulties depressed the value of the Brazilian *real* relative to the dollar.

The broad monetary aggregates continued to grow rapidly in March and April. In addition to the effects of lower market interest rates, extensive mortgage financing activity and a flight to safety from volatile equity markets likely added to M2's strong upward trend. The expansion of M3 was bolstered by robust growth of institution-only money funds and by greater issuance of managed liabilities included in this aggregate to help finance faster growth of bank credit and a shift in bank funding from foreign to U.S. sources. The debt of domestic nonfinancial sectors had grown at a moderate pace on balance through April.

The staff forecast prepared for this meeting suggested that, after a period of slow growth associated in part with an inventory correction, the economic expansion would gradually regain strength over the next two years and move back toward a rate near the staff's current estimate of the growth of the economy's potential output. The period of subpar expansion was expected to foster an easing of pressures on resources and some moderation in core price inflation. Despite the substantial easing in the stance of monetary policy, the forecast anticipated that the expansion of domestic final demand would be held back to an extent by some of the developments in financial markets—in particular, the decline in household net worth associated with the earlier downturn in equity prices, the continuation of relatively stringent terms and conditions on some types of loans by financial institutions, and the appreciation of the dollar. Partly as a result of the decline in household wealth, growth of consumer spending was expected to remain relatively low for some time, and housing demand would increase only a little from its recent level. However, business fixed investment, notably outlays for equipment and software, would resume relatively good growth after a period of adjustment of capital stocks to more desirable levels; a projected recovery in the growth of foreign economies was seen as providing increased support for U.S. exports; and fiscal policy was assumed to become more expansionary.

In the Committee's discussion of current and prospective economic developments, members commented that the slowdown in the expansion to a now quite sluggish pace was likely to be more prolonged than they had anticipated earlier and indeed, with the economy displaying some signs of fragility and inventories still appearing excessive in some sectors, it was not entirely clear that the slowing in the growth of the economy had bottomed out. Despite the crosscurrents and uncertainties that were involved, members saw an upturn in the economic expansion by later in the year as the most likely outlook. This view was premised in large measure on the lagged effects of the Committee's relatively aggressive easing actions this year, including any further easing that might be adopted at this meeting, growing prospects of some fiscal policy stimulus later in the year, and more generally the favorable effects of still substantial productivity gains on profit opportunities and income growth and hence on business and household demands for goods and services. As business profits stabilized and final demand firmed, inventory liquidation would come to an end, adding to the upward momentum of economic activity. The members were uncertain as to the degree and timing of the strengthening in final demand, and although a relatively prompt and strong rebound could not be ruled out, many saw a variety of factors that pointed to the possibility that the upturn could be weaker or more delayed than the central tendencies of their expectations. With regard to the outlook for inflation, a number of members expressed concern about a tendency for some measures of inflation to edge higher this year, but many members expected that the easing of pressures in labor and product markets that already had occurred, and that was likely to continue in the months ahead, would damp inflation going forward.

In their review of developments across the nation, members referred to quite sluggish economic conditions in many parts of the country. Weakness remained especially pronounced in manufacturing, but as reflected in the employment data for April and in widespread anecdotal reports, softening had spread to other sectors of the economy as well. At the same time, pockets of strength could be found in a number of industries, notably in energy and construction, and overall business activity continued to display considerable vigor in a number of regions. Members noted that business confidence had deteriorated, but some also observed that the pessimism tended to be limited to the nearer term and was accompanied by favorable expectations regarding the outlook later in the year and in 2002.

With regard to the outlook for key sectors of the economy, a number of members commented that consumer spending had held up reasonably well in recent months despite a variety of adverse developments including the negative wealth effects of stock market declines, widely publicized job cutbacks, heavy consumer debt loads, and previous overspending by many consumers. A recent survey had indicated that consumer sentiment had firmed a little, but the survey results had yet to be confirmed by additional surveys and the level of consumer confidence was still well below earlier highs. As in the past, consumer spending attitudes likely would depend importantly on trends in employment and income, and further increases in unemployment in the period just ahead along with the negative wealth effects of earlier stock market price declines and the persistence of high energy costs were likely to constrain the growth in consumer expenditures over coming quarters.

Household expenditures on home construction had been maintained at a relatively robust level in recent months, evidently reflecting the cushioning effects of very attractive mortgage interest rates. Housing activity was described as a source of strength in many regions. Housing prices had tended to edge higher across the nation, though there were signs that the price appreciation had eased in some parts of the country, notably on the West Coast. While the prevailing negative influences on household spending might spill over a bit more to housing activity during the year ahead, there were few current developments in housing markets that might be read as signaling any marked weakening in this sector of the economy.

A softening in business demand for capital equipment had accounted for much of the slowdown in the growth of final demand in late 2000 and early 2001. The latest available data on new orders pointed to further, and possibly larger, declines in business spending on equipment and software over the months ahead. Members cited anecdotal and survey reports that indicated many business firms were canceling, cutting back, or stretching out planned capital expenditures. It was difficult to see any signs of a significant near-term turnaround in business spending for equipment and software, and the timing and strength of a subsequent rebound would depend importantly on the outlook for sales and profits. With regard to profit expectations, the most recent data showed continued markdowns, but the pace of downward revisions was diminishing. It was too early to conclude that the outlook for profits might be approaching a degree of stability or be near the point of turning up, and in any event it was clear that business sentiment currently was quite gloomy. Looking to the future, however, members anticipated that continuing gains in efficiency engendered by new technologies would provide substantial profit opportunities and likely strengthen investment spending during the course of the year ahead. In the meantime, nonresidential construction and energy-related investments were a source of some support to investment spending, but they provided only a very partial offset to widespread weakness in other business spending.

Ongoing efforts to reduce excess inventories were continuing to curb output in manufacturing industries and to restrain growth in overall economic activity. A number of members commented that anecdotal and other evidence suggested that considerable progress already had been made in scaling down unwanted inventories, notably of motor vehicles, but substantial further progress probably would be needed in high-tech industries where sales were still falling. How long inventory cutbacks would continue to exert a significant drag on the economic expansion remained a key uncertainty in the economic outlook. In the view of many members, the adjustment process might not be substantially completed until much later in the year and could take even longer for high-tech firms. This evaluation assumed continued sluggish growth in final demand during the period immediately ahead. Stronger growth, which could not be ruled out, would of course bring inventory–sales ratios to desired levels more quickly.

Members also expressed concern about the potential implications for U.S. expansion from developments abroad. To some extent, economic difficulties in foreign nations had occurred in concert with softening activity in the United States, and notable weakness in world high-tech markets along with the downward adjustment in equity prices globally represented a downside risk factor worldwide. The anticipated recovery in this country would help to strengthen many foreign economies and in turn improve prospects for U.S. exports. Members noted, however, that in some nations persisting structural problems presented threats to national economic prosperity and international trade. On balance, while the external risks to the U.S. economy clearly were to the downside, at least over the nearer term, the prospective rebound in U.S. economic activity and stimulative macroeconomic policies abroad were expected to contribute to strengthening growth worldwide and to improving prospects for exports during the year ahead.

The nation's fiscal outlook was seen as supportive of aggregate demand. While the exact structure of tax cuts was still being negotiated, passage of new fiscal measures seemed imminent and likely would help bolster consumption spending beginning later in the year. Whatever its precise timing, the expansionary fiscal package would undoubtedly join at some point in coming quarters with the lagged effects of the System's policy easing actions to foster strengthening economic expansion.

A number of members commented that the persisting updrift in some key measures of core inflation had become increasingly worrisome. In this regard, they noted that some of the recent increases in bond yields could represent a rise in long-term inflation expectations. Such a rise would not be entirely unexpected in the context of improving sentiment about the strength of the expansion, the potentially adverse implications for costs of the cyclical weakness in productivity, and the possibility that high energy prices and their passthrough effects might persist longer than had been anticipated earlier. To a considerable extent, however, any uptick in inflation expectations likely represented a reversal of anticipated declines in inflation earlier this year when economic prospects had seemed weaker and survey data did not confirm any increase in long-term inflation expectations. Moreover, not all measures of core inflation had accelerated; in particular, core PCE price inflation had been quite stable on a twelve-month basis for some time.

Looking ahead, most members did not foresee a significant rise in inflation as a likely prospect. They cited the prevalence of highly competitive conditions in most markets, which continued to make it very difficult for business firms to raise prices despite pressures to do so in a period of rising labor, energy, and other costs. Widespread evidence of some lessening of pressures in most labor markets across the nation had not yet resulted in lower wage inflation, but the members expected that recent and anticipated ebbing of pressures on labor and other resources and associated slack in product markets in a period of continuing subpar economic growth, along with projected declines in energy prices, would hold down inflation over the forecast horizon. Nonetheless, there were some risks of rising inflation. An unexpectedly strong rebound in economic growth could begin to put added upward pressure on prices at a time when labor markets were still tight by historical standards and accelerating productivity no longer held down increases in unit labor costs. Given the lags in the effectiveness of monetary policy, such pressure might materialize before the effects of countervailing actions by the Committee had a chance to take hold.

In the Committee's discussion of policy for the forthcoming intermeeting period, all but one of the members indicated that they could support a proposal calling for further easing of reserve conditions consistent with a 50 basis point reduction in the federal funds rate to a level of 4 percent. One member expressed a strong preference for a 25 basis point reduction and two others indicated that they could have accepted that more limited easing move. Despite their somewhat differing preferences, all the members agreed that further easing was desirable in light of what they viewed as the continuing weakness in the economy, the absence of evidence that growth had stabilized or was about to rebound, and still decidedly downside risks to the economic expansion. Some members noted that, although policy had been eased substantially, it might still be considered to be only marginally accommodative in relation to the forces that were damping aggregate demand. Accordingly, the action contemplated for today was needed to provide adequate stimulus to an economy whose outlook for significant strengthening remained tenuous in a climate of fragile business and consumer confidence. Members noted that the lagged effects of the monetary policy easing implemented earlier this year were still very hard to discern, though they should be felt increasingly over the year ahead. In this regard the risks of rising inflation could not be dismissed, and while those risks appeared to be quite limited for the nearer term, excessive monetary stimulus had to be avoided to avert rising inflation expectations and added inflation pressures over time. Members who preferred or could support a 25 basis point easing action gave particular emphasis to the desirability at this point of taking and signaling a more cautious approach to policy, relative to the 50 basis point federal funds rate reductions the Committee had been implementing, given the lagged effects of the substantial reduction in the federal funds rate to date, the accompanying buildup in liquidity, and the related risk that a further aggressive easing action would increase the odds of an overly accommodative policy stance and rising inflation pressures in the future.

All the members accepted a proposal to include in the press statement to be released after this meeting a sentence indicating that the Committee continued to regard the risks to the economic outlook as being tilted toward weakness even after today's easing action. Forecasts of growth in business earnings and spending continued to be revised down, and until that process ended, weakness in demand seemed to be the main threat to satisfactory economic performance. At the same time the members anticipated that a neutral balance of risks statement could be appropriate before long, probably well before substantial evidence had emerged that economic growth had strengthened appreciably, once the Committee could see that policy had eased enough to promote a future return to maximum sustainable economic growth. Indeed, it was not clear how much more the federal funds rate might have to be reduced after today in the absence of further significantly adverse shocks, and some members noted that the end of the easing process might be near. Even so, with the economy perhaps still in the midst of a process of weakening growth in aggregate demand of unknown persistence and dimension, the members generally agreed that, given prevailing uncertainties, it would be premature for the Committee to shift its balance of risks statement at this time.

At the conclusion of this discussion, the Committee voted to authorize and direct the Federal Reserve Bank of New York, until it was instructed otherwise, to execute transactions in the System Account in accordance with the following domestic policy directive:

> The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with reducing the federal funds rate to an average of around 4 percent.

The vote encompassed approval of the sentence below for inclusion in the press statement to be released shortly after the meeting:

> Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes that the risks continue to be weighted mainly toward conditions that may generate economic weakness in the foreseeable future.

Votes for this action: Messrs. Greenspan, McDonough, Ferguson, Gramlich, Kelley, Meyer, Ms. Minehan, Messrs. Moskow and Poole. Vote against this action: Mr. Hoenig.

Mr. Hoenig dissented because he preferred a less aggressive easing action involving a reduction of 25 basis points in the federal funds rate. While the risks of weaker economic growth still tended to dominate those of rising inflation and called for some further easing, the Committee had added significant liquidity to the economy this year through its cumulatively large easing actions. The lagged effects of those actions should be felt increasingly over time. Moreover, following the rapid and aggressive policy actions already taken, a more cautious policy move at this point would in his view appropriately limit the risks of producing an overly accommodative policy stance and rising inflation over time.

The Chairman called for a recess after this vote and convened a meeting of the Board of Governors to consider one-half percentage point reductions in the discount rate that had been proposed by a number of Federal Reserve Banks. After the recess, the Chairman informed the Committee that the pending reductions had been approved.

It was agreed that the next meeting of the Committee would be held on Tuesday–Wednesday, June 26–27, 2001.

The meeting adjourned at 1:15 p.m.

Donald L. Kohn
Secretary

Meeting Held on June 26–27, 2001

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., beginning on Tuesday, June 26, 2001, at 2:00 p.m. and continuing on Wednesday, June 27, 2001, at 9:00 a.m.

Present:

Mr. Greenspan, Chairman
Mr. McDonough, Vice Chairman
Mr. Ferguson
Mr. Gramlich
Mr. Hoenig
Mr. Kelley
Mr. Meyer
Ms. Minehan
Mr. Moskow
Mr. Poole

Messrs. Jordan, McTeer, Santomero, and Stern, Alternate Members of the Federal Open Market Committee

Messrs. Broaddus, Guynn, and Parry, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco respectively

Mr. Kohn, Secretary and Economist
Mr. Bernard, Deputy Secretary
Mr. Gillum, Assistant Secretary
Ms. Fox, Assistant Secretary
Mr. Mattingly, General Counsel
Mr. Baxter, Deputy General Counsel
Ms. Johnson, Economist
Mr. Stockton, Economist

Messrs. Fuhrer, Hakkio, Howard, Hunter, Lindsey, Rasche, Reinhart, Slifman, and Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

Ms. Smith and Mr. Winn, Assistants to the Board, Office of Board Members, Board of Governors

Mr. Ettin, Deputy Director, Division of Research and Statistics, Board of Governors

Mr. Simpson, Senior Adviser, Division of Research and Statistics, Board of Governors

Mr. Madigan, Associate Director, Division of Monetary Affairs, Board of Governors

Messrs. Oliner and Struckmeyer, Associate Directors, Division of Research and Statistics, Board of Governors

Messrs. Freeman[6] and Whitesell, Assistant Directors, Divisions of International Finance and Monetary Affairs, Board of Governors

Ms. Kusko[6] and Mr. Sichel,[7] Senior Economists, Division of Research and Statistics, Board of Governors

Mr. Nelson,[6] Senior Economist, and Ms. Garrett, Economist, Division of Monetary Affairs, Board of Governors

Mr. Fleischman,[7] Economist, Division of Research and Statistics, Board of Governors

Ms. Low, Open Market Secretariat Assistant, Division of Monetary Affairs, Board of Governors

Ms. Pianalto, First Vice President, Federal Reserve Bank of Cleveland

Messrs. Beebe, Eisenbeis, and Goodfriend, Mses. Krieger and Mester, Messrs. Rolnick, Rosenblum, and Steindel, Senior Vice Presidents, Federal Reserve Banks of San Francisco, Atlanta, Richmond, New York, Philadelphia, Minneapolis, Dallas, and New York respectively

Mr. Altig, Vice President, Federal Reserve Bank of Cleveland

Mr. Fernald,[8] Economist, Federal Reserve Bank of Chicago

By unanimous vote, the minutes of the meeting of the Federal Open Market Committee held on May 15, 2001, were approved.

6. Attended portion of meeting relating to staff presentations.

7. Attended portion of meeting relating to productivity developments.

8. Attended Tuesday's session only.

The Manager of the System Open Market Account reported on recent developments relating to foreign exchange markets. There were no open market operations in foreign currencies for the System's account in the period since the previous meeting.

The Manager also reported on developments in domestic financial markets and on System open market transactions in government securities and federal agency obligations during the period May 15, 2001, through June 26, 2001. By unanimous vote, the Committee ratified these transactions.

The Committee then turned to a discussion of the economic and financial outlook and the implementation of monetary policy over the intermeeting period ahead. A summary of the economic and financial information available at the time of the meeting and of the Committee's discussion is provided below, followed by the domestic policy directive that was approved by the Committee and issued to the Federal Reserve Bank of New York.

The information reviewed at this meeting suggested that economic activity continued to grow little, if at all, in the second quarter. Employment fell somewhat over the first two months of the quarter, industrial output dropped sharply, and the limited available information suggested that both probably continued to decline in June. Expansion in consumer spending appeared to have slowed and business purchases of equipment and software had fallen appreciably, though homebuilding had been well maintained. Energy prices had been relatively flat recently, at a high level, and core price inflation had moderated a little.

Private nonfarm payroll employment fell slightly further in May after a sharp drop in April and lackluster growth in the first quarter. Manufacturing recorded additional widespread job losses in May, and there were signs that weakness in employment was spreading to related sectors, notably wholesale trade and help-supply services. By contrast, construction employment rebounded in May, retracing part of its large April loss, and hiring in finance, insurance, and real estate remained brisk. The unemployment rate edged lower in May, to 4.4 percent, but initial unemployment insurance claims and other data suggested persisting softening in the labor market in that month.

The rapid contraction in industrial production continued unabated in May, with manufacturing output registering an eighth consecutive monthly drop. Moreover, output from electric utility plants fell, and mining activity slowed further in May following a strong first-quarter gain. Within manufacturing, decreases in output were widely spread across sectors, and the production of high-tech equipment continued to plummet. The motor vehicle industry was one of the few sectors to record a rise in production. The further contraction in production in May brought the rate of utilization of manufacturing capacity to its lowest level since 1983.

Growth of consumer spending seemed to have slowed in the second quarter, reflecting the deceleration in personal income, the rise in unemployment, and the earlier decline in household net worth. Nominal retail sales were up only slightly in May after a brisk rise in April, and the average rate of increase over the two months was somewhat slower than that of the first quarter.

Low mortgage rates continued to provide support to residential building activity in April and May despite a weakening labor market and sluggish growth in personal income. Total housing starts in April–May remained at the high first-quarter level, as stronger single-family starts offset a slower pace of multifamily starts. Sales of new and existing homes slipped in April (latest data) after both reached near-record levels in March.

Business spending on equipment and software declined further early in the second quarter in response to sluggish sales, an erosion of earnings and corporate cash flows, and an uncertain outlook for future sales and earnings. Shipments of nondefense capital goods slumped in April, and the weakness in incoming orders suggested that shipments would fall further in coming months. Fleet sales of cars and trucks, which had been among the few areas of strength in business equipment expenditures in the first quarter, also slowed. By contrast, nonresidential construction remained robust, though the level of activity slipped a little in April and slightly higher vacancy rates and smaller increases in rents suggested that the profitability of new nonresidential investment might be lessening. Strength was particularly evident in outlays for industrial structures, partly reflecting construction of electric power plants and facilities for cogeneration of power by industrial companies, and in continuing strong oil and gas exploration activity.

Business inventories on a book-value basis edged higher in April after a sizable runoff in the first quarter. Excluding motor vehicles, manufacturing stocks were little changed in April, but shipments were down sharply and the aggregate inventory–shipments ratio for the sector remained on a steep upward trend, with many industries facing sizable inventory overhangs. In the wholesale sector, inventories rose in step with sales; the sector's inventory–sales ratio was unchanged in April and remained at the top of its range for the past twelve months. Retail inventories continued to decline in April, and the sector's inventory–sales ratio decreased further and was near the middle of its range for the past twelve months.

The U.S. trade deficit in goods and services continued to shrink in April. The value of exports fell, with most of the drop occurring in capital goods, notably computers and semiconductors. The value of imports also decreased but by slightly more than exports, reflecting sizable declines in capital and consumer goods that were partly offset by increases in oil and automotive products. Recent information indicated that economic growth in the euro area and the United Kingdom in the first quarter was at about the reduced pace seen in the fourth quarter, and growth likely stayed relatively slow more recently. Expansion in Canada appeared to have weakened recently after a slight pickup in the first quarter. In Japan, the contraction in economic activity that began early in the year appeared to have continued into the second quarter. Most of the developing countries, with the notable exception of China, also were experiencing an economic slowdown that was related at least in part to weaker external demand.

Core price inflation had moderated a little recently after a pickup earlier in the year. The core consumer price index (CPI) rose relatively slowly in April and May, and the increase in that index during the past twelve months was about the same as that during the previous twelve-month period. The core personal consumption expenditure (PCE) chain-type price index presented a similar picture, with inflation in April and May a little lower than earlier in the year and no change in inflation on a year-over-year basis. Core producer price inflation for finished goods also was subdued in the April–May period but edged higher on a year-over-year basis. There also were indications that upward pressures on energy prices had abated somewhat. In particular, the return of some domestic refineries to operation after maintenance or breakdowns and a surge in imports had replenished gasoline stocks, and as a result wholesale and retail gasoline prices had retreated recently. With regard to labor costs, average hourly earnings of production or nonsupervisory workers continued to rise in April and May at the relatively brisk rate that had prevailed over the past year.

At its meeting on May 15, 2001, the Committee adopted a directive that called for maintaining conditions in reserve markets consistent with a decrease of 50 basis points in the intended level of the federal funds rate, to about 4 percent. The members generally agreed that this action was necessary in light of the continuing weakness of the economic expansion and the lack of evidence that output growth had stabilized or was about to rebound, coupled with a climate of fragile business and consumer confidence. In addition, the members believed that the balance of risks remained weighted toward conditions that could generate economic weakness in the foreseeable future.

Federal funds traded at rates near the Committee's target level over the intermeeting period. Other short-term market rates declined somewhat following the Committee's announcement of the easing action and subsequently moved down noticeably further in response to weaker-than-expected news on economic activity and corporate earnings. Yields on long-term Treasury and investment-grade corporate securities fell appreciably during the intermeeting interval, but rates on speculative-grade bonds rose sharply in response to the adverse earnings news. The pessimistic earnings reports also weighed on equity prices, which edged lower on balance.

In foreign exchange markets, the trade-weighted value of the dollar in terms of many of the major foreign currencies increased slightly over the intermeeting interval, as the dollar's appreciation against the euro and other European currencies more than offset the U.S. dollar's further decline against the Canadian dollar. European currencies weakened in response to disappointing data on economic activity, with inflation concerns seen as constraining countervailing monetary easing actions. The dollar also was up slightly on net in terms of an index of the currencies of other important trading partners. The *real* was adversely affected by Brazil's internal problems and spillovers from Argentina's financial difficulties, while the Mexican peso benefited from continued foreign interest in Mexican investments and from high oil prices.

The broad monetary aggregates continued to grow rapidly in the second quarter, reflecting the effects of lower opportunity costs of holding liquid deposits and money market mutual funds, a buildup in deposits associated with extensive mortgage financing activity, and a flight to liquidity and safety from volatile equity markets. The debt of domestic nonfinancial sectors expanded at a moderate pace on balance through May.

The staff forecast prepared for this meeting suggested that after a period of very slow growth associated in large part with an inventory correction, a sizable decline in capital spending, and a related sharp contraction in manufacturing output, the economic expansion would gradually regain strength over the forecast horizon and move back to a rate around the staff's current estimate of the growth of the economy's potential output. The period of subpar expansion was expected to foster an appreciable easing of pressures on resources and some moderation in core price inflation. Despite the substantial monetary easing that had been implemented already and the fiscal stimulus, including federal tax rebates, that was in train, the forecast anticipated that sluggish hiring and the decline in household wealth would restrain the growth of both consumer spending and housing demand. Business fixed investment, notably outlays for equipment and software, would be weaker for a while but would return to relatively robust growth after a period of adjustment of capital stocks to more desirable levels. The gradual strengthening of investment, together with a projected improvement in foreign economies that was seen as providing some support for U.S. exports, would foster the pickup in growth of demand and output.

In the Committee's discussion of current and prospective economic developments, members noted that by some measures overall economic activity remained at a reasonably high level. However, recent data indicated that growth of spending and output was quite sluggish and below the pace many members had anticipated at the time of the previous meeting. Weakness in business spending for equipment and software, efforts to reduce excess inventories, and the ongoing adaptation to lower equity prices in the United States and around the world were likely to hold back economic activity in the short run. Nonetheless, the members continued to anticipate a strengthening as the year progressed and during 2002, fostered to a large extent by the lagged effects on spending of the substantial easing in monetary policy since early this year, the stimulus from recently enacted tax cuts, and the positive effects on household and business purchasing power of some recent reductions in energy prices. In addition, the abatement and eventual turnaround of the downward adjustments to capital spending and inventories would add impetus to economic growth going forward. It was noted, however, that the unique characteristics of the current cyclical experience, including the heavy concentration of weakness in business expenditures and manufacturing output, increased the uncertainty that surrounded any forecast. Most of the members believed that the risks to the expansion, notably for the nearer term, remained to the downside of current forecasts. Potential sources of shortfalls included the effects of possible further increases in unemployment on consumer and business confidence; the risks of disappointing business earnings that could damp investment and, through lower equity prices, consumption; and the growing indications of weakness in foreign economies that could limit demand for exports. In an environment of diminished pressures in product and labor markets and of lower energy costs, members commented that price pressures were likely to remain contained, at least over the near to intermediate term.

In preparation for the midyear monetary policy report to Congress, the members of the Board of Governors and the presidents of the Federal Reserve Banks provided individual projections of the growth of GDP, the rate of unemployment, and the rate of inflation for the years 2001 and 2002. The forecasts of the rate of expansion in real GDP had central tendencies of 1¼ to 2 percent for 2001, suggesting at least a little acceleration in the second half of the year, and 3 to 3¼ percent for 2002. The civilian rates of unemployment associated with these forecasts had central tendencies of 4¾ to 5 percent in the fourth quarter of 2001 and 4¾ to 5¼ percent in the fourth quarter of 2002. Forecasts of the rate of inflation, as measured by the chain price index for personal consumption expenditures, were centered on a range of 2 to 2½ percent for this year and 1¾ to 2½ percent in 2002.

Continuing softness in the expansion of economic activity was mirrored in anecdotal reports of business conditions in much of the nation. Typical regional reports referred to slowing increases in economic activity from an already reduced pace or to the persistence of sluggish business activity and generally downbeat business sentiment. Manufacturing continued to display particular weakness. However, actions to reduce excess inventories or to address problems relating to overcapacity in some sectors of the economy, including telecommunications and other high-tech industries, were under way and were likely to exert a decreasing drag on economic activity over coming quarters as corrective adjustments were completed. Financial conditions, while generally supportive of greater spending, presented a mixed picture in some respects. Short- and intermediate-term interest rates had fallen substantially this year, and long-term yields had moved down late last year. But equity prices were only holding their own after a substantial decline earlier and the dollar had appreciated. Though lenders were cautious about marginally creditworthy firms, most businesses were finding ample credit available at attractive terms.

In their comments about developments in key sectors of the economy, members noted that overall business activity had been supported, at least to this point, by the relative strength of household demand. Growth in consumer spending for goods and services, while moderating appreciably since earlier in the year, had nonetheless held up unexpectedly well given the adverse wealth effects associated with the declines in stock market prices, relatively high levels of consumer indebtedness, and job losses in a growing number of industries. Members referred in particular to the persisting strength in demand for light motor vehicles, which evidently was boosted by continuing sales incentives and attractive financing terms. Looking ahead, the outlook for consumer spending was subject to a number of downside risks that included the possibility of rising unemployment and further weakness in the stock market, which could damp consumer confidence as well as income and wealth. However, some further growth in consumer spending remained the most likely prospect for the balance of the year in light of the impetus provided by monetary and fiscal policy and the apparent stabilization in consumer sentiment in recent months after its earlier decline.

Housing activity remained at a high level as attractive mortgage interest rates evidently continued to counterbalance the negative effects on consumer attitudes of somewhat weaker labor markets and reduced stock market wealth. While housing activity in a number of areas continued to be described as fairly robust, members noted that residential sales and construction had slipped in some parts of the nation. Even so, given existing backlogs and the continued availability of attractive mortgage rates, nationwide housing construction was expected to remain near its currently elevated level.

The near-term outlook for business fixed investment seemed less promising. The weakness in spending for new equipment and software had played a key role in the softening of the overall expansion of economic activity in recent quarters, and a material pickup in such expenditures did not appear likely until the latter part of this year or early next year. Indeed, anecdotal reports from many business firms indicated that they were delaying at least some equipment and software outlays until evidence of an upturn in their sales and earnings began to accumulate. Caution was especially pronounced among high-tech firms, many of which had experienced major cutbacks in the demand for their products and services. An analysis prepared for this meeting suggested that in the aggregate the apparent overhang of excess capital might not be large, but the dimensions and duration of the adjustment in spending on capital goods were a major source of uncertainty in the outlook, and there was some risk of substantially greater weakness in investment spending than was forecast for coming months. Beyond the nearer term, however, the prospects for an upturn in investment outlays seemed favorable in the context of profit opportunities associated with expectations of continued elevated rates of technological progress and rapid declines in the prices of new equipment. In this regard the members reviewed several staff reports that generally concluded that the growth of productivity in the years ahead was highly likely to remain appreciably stronger than it had been from the mid-1970s to the mid-1990s, though how much stronger was an open question. With regard to the outlook for nonresidential construction activity, members referred to signs of developing weakness in some commercial real estate markets, but there were few reports of overbuilding and the construction of commercial facilities was being well maintained in other parts of the country. On balance, further modest growth in nonresidential construction, though well below the average pace in recent quarters, was seen as a likely prospect.

Business efforts to bring their inventories into better alignment with sales were a key factor in the deceleration of overall economic activity in recent quarters and in forecasts that the upturn in economic activity would be relatively limited over the balance of the year. Net inventory liquidation appeared to have diminished in the current quarter from its pace earlier in the year, but inventory–sales ratios had risen further in recent months, especially for high-tech equipment. Accordingly, liquidation was not likely to abate substantially further for some time.

With regard to the foreign sector of the economy, members commented that economic activity had softened more than anticipated in many nations that were important trading partners, with clearly negative implications for U.S. exports. Major Latin American countries were experiencing particularly severe economic difficulties, but growth was slowing or economic activity declining in many industrial countries as well. At the same time, a number of important U.S. industries were subject to increased domestic competition from foreign imports. While growth abroad could be expected to rebound next year, responding in part to faster expansion in the U.S. economy, the nearer-term outlook for U.S. and indeed world trade was less favorable.

In their review of the outlook for inflation, members generally anticipated that increases in consumer prices would remain relatively subdued over the next several quarters. Factors underlying that assessment included the emergence of less taut conditions in labor markets, relatively low capacity utilization rates in manufacturing, and the persistence of highly competitive conditions in most product markets that made it very difficult for business firms to preserve or increase their profit margins by raising prices. Moreover, energy prices recently had declined appreciably, and the earlier inflationary effects of energy price increases on a broad range of costs and prices appeared to have begun to subside as a result. Inflation expectations that currently appeared by various measures and survey results to be essentially flat or even to have declined a bit were reinforcing the factors holding down price increases. Some negatives in the inflation outlook also were noted, such as some increase in labor compensation including rapid advances in health care costs, and a consequent squeeze on profit margins that was exacerbated by a cyclical decline in productivity gains. Labor pressures on business costs might persist for a time in lagged response to earlier advances in headline consumer price inflation and labor productivity, but their effects would tend to diminish or to be offset over time if, in line with the members' forecasts, pressures on labor resources continued to ease. Some members expressed concern about the longer-run prospects for wages and prices if the stimulative stance of monetary policy was maintained too long and allowed demand pressures to outrun the economy's potential.

In the Committee's discussion of policy for the intermeeting period ahead, all but one of the members supported both some further easing of reserve conditions consistent with a 25 basis point reduction in the target federal funds rate and the retention of the Committee's public statement that the risks were weighted toward excessively soft economic performance. The information received since the May meeting suggested a somewhat weaker economic performance than most had anticipated, and the members were persuaded that in the absence of firm evidence that the deceleration in the economic expansion had run its course a further easing action was needed at this point to help stabilize the economy. With greater slack in labor and product markets, and with inflation expectations contained, an added easing ran very little risk of exacerbating price pressures, provided the Committee was prepared to firm the stance of policy promptly if and when demand pressures threatened to intensify. One member was persuaded that policy had already become so expansionary that further easing ran an unacceptable risk of exacerbating inflation over time.

A smaller easing move than those the Committee had been making earlier this year was deemed desirable by the members in light of the substantial easing that already had been implemented since the start of this year. By a number of measures—including the level of real federal funds rates, the robust growth of the monetary aggregates, and the ready availability of finance to most borrowers—policy had become stimulative. Such a policy stance was appropriate for a time to counter the various forces holding back economic expansion. But much of the lagged effects of the Committee's earlier easing actions had not yet been felt in the economy, and they would be supplemented in coming quarters by the implementation of the recently legislated tax cut stimulus. In these circumstances, a smaller move than those undertaken earlier this year would have the advantage of reducing the odds on adding to inflation pressures later and of underlining the Committee's assessment of its policy stance. In the view of a number of members, the Committee might well be near the end of its easing cycle. At the same time, several emphasized that they did not want to rule out further easing later if warranted by the tenor of incoming economic information.

All except one of the members accepted a proposal to retain the Committee's press statement that the risks would continue to be weighted toward economic weakness after today's easing move. The member who opposed additional policy easing expressed strong reservations about such a statement because in his view it likely would be interpreted as an intention to ease policy further, which was contrary to his own assessment that a more neutral outlook regarding the future course of policy was desirable. In the view of most members, however, the weakness of the recent information relating to the performance of the economy was consistent with unbalanced risks at least insofar as it pertained to the outlook for the rest of this year, and their primary policy concern at this point remained the strength of economic activity rather than potentially worsening inflation over the longer term.

At the conclusion of this discussion, the Committee voted to authorize and direct the Federal Reserve Bank of New York, until it was instructed otherwise, to execute transactions in the System Account in accordance with the following domestic policy directive:

> The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with reducing the federal funds rate to an average of around 3¾ percent.

The vote encompassed approval of the sentence below for inclusion in the press statement to be released shortly after the meeting:

> Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes that the risks continue to be weighted mainly toward conditions that may generate economic weakness in the foreseeable future.

Votes for this action: Messrs. Greenspan, McDonough, Ferguson, Gramlich, Hoenig, Kelley, Meyer, Ms. Minehan, and Mr. Moskow. Vote against this action: Mr. Poole.

Mr. Poole dissented because he believed that FOMC actions this year had already established a highly stimulative monetary policy stance. The M2 and MZM measures of money had risen at annual rates in excess of 10 percent and 20 percent respectively over the past six months, and the real federal funds rate was very likely below its equilibrium level. Other more qualitative information on financial conditions pointed in the same direction. Economic forecasts were that the economy's growth would resume later this year and the fact that long-term interest rates had not declined since December also indicated that the market anticipated a revival of faster economic growth before long. Given the lags in monetary processes, he believed that adding further monetary policy stimulus raised an undue risk of fostering higher inflation in the future. Moreover, against this background, he was especially concerned that a statement that the Committee continued to view the balance of risks as weighted toward weakness would be read in the market as a sign that the Committee was likely to ease further in the near term. He thought future developments were equally likely to warrant an action in either direction, and he did not think the Committee should take a step that probably would cause expectations of further easing to become embedded in market interest rates.

It was agreed that the next meeting of the Committee would be held on Tuesday, August 21, 2001.

The meeting adjourned at 12:25 p.m.

Notation Vote

By notation vote completed on August 16, 2001, the Committee members voted unanimously to elect Vincent R. Reinhart to the position of economist for the period until the first regularly scheduled meeting in 2002, with the understanding that in the event of the discontinuance of his official connection with the Board of Governors he would cease to have any official connection with the Federal Open Market Committee.

Donald L. Kohn
Secretary

Meeting Held on August 21, 2001

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Tuesday, August 21, 2001, at 9:00 a.m.

Present:

Mr. Greenspan, Chairman
Mr. McDonough, Vice Chairman
Mr. Ferguson
Mr. Gramlich
Mr. Hoenig
Mr. Kelley
Mr. Meyer
Ms. Minehan
Mr. Moskow
Mr. Poole

Messrs. Jordan, McTeer, Santomero, and Stern, Alternate Members of the Federal Open Market Committee

Messrs. Broaddus, Guynn, and Parry, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco respectively

Mr. Kohn, Secretary and Economist
Mr. Bernard, Deputy Secretary
Mr. Gillum, Assistant Secretary

Mr. Mattingly, General Counsel
Mr. Baxter, Deputy General Counsel
Ms. Johnson, Economist
Mr. Reinhart, Economist
Mr. Stockton, Economist

Ms. Cumming, Messrs. Hakkio, Howard, Hunter, Lindsey, Rasche, Slifman, and Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

Ms. Smith, Assistant to the Board, Office of Board Members, Board of Governors

Mr. Ettin, Deputy Director, Division of Research and Statistics, Board of Governors

Mr. Madigan, Deputy Director, Division of Monetary Affairs, Board of Governors

Mr. Simpson, Senior Adviser, Division of Research and Statistics, Board of Governors

Messrs. Oliner and Struckmeyer, Associate Directors, Division of Research and Statistics, Board of Governors

Mr. Helkie, Assistant Director, Division of International Finance, Board of Governors

Mr. Whitesell, Assistant Director, Division of Monetary Affairs, Board of Governors

Mr. Skidmore, Special Assistant to the Board, Office of Board Members, Board of Governors

Mr. Kumasaka, Assistant Economist, Division of Monetary Affairs, Board of Governors

Ms. Low, Open Market Secretariat Assistant, Office of Board Members, Board of Governors

Ms. Browne, Executive Vice President, Federal Reserve Bank of Boston

Messrs. Eisenbeis and Lacker, Ms. Mester, Messrs. Rosenblum and Sniderman, Senior Vice Presidents, Federal Reserve Banks of Atlanta, Richmond, Philadelphia, Dallas, and Cleveland respectively

Ms. Hargraves and Mr. Judd, Vice Presidents, Federal Reserve Banks of New York and San Francisco respectively

Mr. Webber, Senior Research Officer, Federal Reserve Bank of Minneapolis

By unanimous vote, the minutes of the meeting of the Federal Open Market Committee held on June 26–27, 2001, were approved.

The Manager of the System Open Market Account reported on recent developments relating to foreign exchange markets. There were no open market operations in foreign currencies for the System's account in the period since the previous meeting.

The Manager also reported on developments in domestic financial markets and on System open market transactions in U.S. government securities and securities issued or fully guaranteed by federal agencies during the period June 27, 2001, through August 20, 2001. By unanimous vote, the Committee ratified these transactions.

The Committee then turned to a discussion of the economic and financial outlook and the implementation of monetary policy over the intermeeting period ahead. A summary of the economic and financial information available at the time of the meeting and of the Committee's discussion is provided below.

The information reviewed at this meeting suggested that economic activity exhibited little, if any, upward movement in midsummer. Increases in household expenditures on consumer items and housing appeared to have been relatively well maintained, but business capital expenditures had weakened substantially since early in the year. Efforts to reduce inventories were continuing, and manufacturing activity had decreased further. Employment had declined over recent months. With energy prices having turned down, overall consumer price inflation had eased slightly in recent months, while core measures of consumer prices showed mixed changes on a twelve-month basis. Measures of labor costs had decelerated on balance.

Private nonfarm payroll employment, after declining appreciably during the second quarter, fell further in July, led by additional job losses in manufacturing and help-supply services. Labor demand remained weak in other sectors, with employment in most industries flat to down. The unemployment rate edged up to 4.5 percent in June and remained at that level in July. Although initial claims for unemployment insurance had declined in recent weeks, on balance data suggested persisting softening in the labor market.

Industrial production edged lower in July after larger drops in each of the previous three months. Motor vehicle assemblies rose markedly, but production of high-tech equipment continued to plummet, registering its largest one-month decline in more than a decade. Outside those two industries, manufacturing production either moved sideways or fell slightly. The rate of utilization of manufacturing capacity was little changed in July and remained well below its long-run average.

Growth in consumer spending slowed somewhat in the second quarter, but except for automotive dealers, retailers reported sizable gains in July. Consumer confidence appeared to have stabilized at moderately favorable levels in recent months. Supported by low mortgage rates, residential building activity had held up well this year. In July, single-family starts increased slightly from a strong pace in the first and second quarters, though permits fell marginally. Sales of new homes rose in June (latest data), and sales of existing homes edged down but remained only slightly below their historical peak.

Business spending on equipment and software declined substantially in the second quarter after falling somewhat in the preceding two quarters. The weakness stemmed from sluggish growth in business sales, significantly reduced corporate cash flows, and continued uncertainty about prospects for future sales and earnings. Shipments of nondefense capital goods declined in June after a modest increase in May, but for the second quarter as a whole they contracted at more than twice the first-quarter pace. Moreover, orders data for June were extraordinarily weak, led by a steep decline in communications equipment. Those data, as well as numerous anecdotal reports, suggested further weakness in spending for equipment and software going forward. Nonresidential construction, which had held up well in the first quarter, was down substantially in the second quarter, as spending for office, industrial, and lodging facilities contracted sharply. Vacancy rates, particularly in high-tech centers, had increased significantly in recent months, as demand for office space and data centers plunged. In contrast, expenditures for drilling and mining equipment soared further in the second quarter.

Business inventory liquidation was sizable in the second quarter, at a pace estimated to be a bit more rapid than in the first quarter. Manufacturing stocks, particularly of computers and electronic products, were reduced substantially;

however, shipments of those products also plunged and the inventory–sales ratio in the computer and electronics sector rose further from an already high level. Elsewhere in manufacturing, the ratio of stocks to sales held steady, with stocks remaining high in a number of manufacturing industries despite aggressive production cutbacks. Inventories rose in the wholesale sector and, given sluggish sales of late, the ratio of inventories to sales moved sharply higher in the second quarter. Stocks in the automobile sector declined over the quarter and moved lower in July. Retail inventories, excluding motor vehicles, fell moderately and the sector's inventory–sales ratio edged lower.

The U.S. trade deficit in goods and services narrowed over the May–June period and was about $20 billion smaller at an annual rate in the second quarter than in the first. The value of imports dropped sharply in the second quarter. The value of exports also decreased significantly, with most of the decline in capital goods, primarily computers and semiconductors. Recent information on foreign industrial economies suggested that growth weakened further in the second quarter. The Japanese economy contracted in the quarter, and growth in the euro area appeared to have weakened substantially. Among the developing countries, economic and financial conditions had deteriorated further in Argentina. In most other developing countries, the pace of economic growth continued to decline.

Consumer price inflation had eased in recent months, as energy prices turned down and increases in core consumer prices subsided after a pickup early in the year. The core consumer price index (CPI) rose in July at about the same pace as in the second quarter, but the twelve-month change in that index had increased slightly. However, revised data indicated that the core personal consumption expenditure (PCE) chain index had decelerated on a year-over-year basis. At the producer level, prices fell in July, leaving the twelve-month change in the producer price index for finished goods somewhat below the twelve-month change of a year earlier. With regard to labor costs, the employment cost index (ECI) increased at a somewhat slower pace in the twelve months ended in June than over the preceding twelve months.

At its meeting on June 26–27, 2001, the Committee adopted a directive that called for maintaining conditions in reserve markets consistent with a decrease of 25 basis points in the intended level of the federal funds rate, to about 3¾ percent. This action was deemed appropriate in light of incoming information indicating somewhat weaker economic performance than most members had anticipated and the absence of firm evidence that the deceleration in the economic expansion had run its course or that output growth was about to rebound. With greater slack in labor and product markets and with inflation expectations contained, the members agreed that the balance of risks continued to be weighted toward conditions that could generate economic weakness in the foreseeable future.

Federal funds traded at rates near the Committee's reduced target level over the intermeeting period, and other short-term rates also fell. Market participants became less optimistic regarding the economic outlook over the intermeeting period, inducing widespread declines in longer-term Treasury yields over the period that were most pronounced at the shorter end of the coupon maturity spectrum. Except for the obligations of the most troubled sectors, declines in investment-grade corporate bond yields were about in line with those on Treasury issues of comparable maturity, leaving most risk spreads little changed on balance. A spate of weak second-quarter earnings reports and sizable reductions in analysts' earnings projections for the remainder of the year took a toll on equity markets, however, and broad stock market indexes moved down appreciably over the intermeeting interval.

The trade-weighted value of the dollar, after an extended period of strength, fell against most major foreign currencies, with much of the decline occurring in the days just before this meeting. The decline was particularly marked against the yen, the euro, and the Swiss franc. In contrast, the dollar was little changed against the currencies of some major trading partners, including Canada and Mexico.

Growth in the broad monetary aggregates remained strong in July but was below the average pace over the first half of the year. Despite some recent slowing, deposit growth was held up by a flight to liquidity and safety in light of the poor performance and substantial volatility in equity markets. Foreign demands for U.S. currency also boosted money growth in July.

The staff forecast prepared for this meeting suggested that, after a period of very slow growth associated in large part with very weak business fixed investment and to some extent with an inventory correction, the economic expansion would gradually regain strength over the forecast horizon and move back to a rate around the staff's current estimate of the growth of the economy's potential output. The period of subpar expansion was expected to foster an appreciable easing of pressures on resources and some moderation in core price inflation. Although substantial monetary easing had already been implemented and fiscal stimulus was in train, the forecast anticipated that the expansion of domestic final demand would continue to be held back by the effects on household net worth of recent and possible future declines in stock market prices and by damped consumer and business sentiment in a weaker job market. With long-term trends in innovation holding up reasonably well, business fixed investment, notably outlays for equipment and software, likely would return to relatively robust growth after a period of adjustment of capital stocks to more desirable levels, and a projected pickup in foreign economies was seen as providing some support for U.S. exports.

In the Committee's discussion of current and prospective economic developments, many of the members commented that the anticipated strengthening in economic expansion had not yet occurred and, indeed, that the economy and near-term economic prospects appeared to have deteriorated marginally further in the period since the previous meeting. Several members referred to a number of recently available economic indicators that in their view suggested the possibility that the string of disappointing readings on the economy might be about to end, but those indicators were insufficiently robust and too recent to provide conclusive evidence of emerging stabilization, much less that some overall strengthening might be under way. Among other things, the economy was still adjusting to downward revisions to expected earnings and to perceptions of greater risk and associated declines in wealth. In sum, the timing of the pickup in the growth of the economy had again been pushed back. Even so, the prospects for an upswing over coming quarters remained favorable against the backdrop of the lagged effects of substantial monetary policy easing already implemented this year, the recent passage and initial implementation of stimulative fiscal policy measures, the progress businesses had already achieved toward completing inventory adjustments, and the underlying support for business investments from continued technological innovations. Nonetheless, the members recognized that the recovery in business fixed investment, the major source of weakness in the economy, was likely to follow a more extended period of adjustment than had been anticipated in their earlier forecasts. With regard to the outlook for inflation, members reported on widespread indications of some slackening in what were still generally tight labor markets and also noted that capacity utilization rates had declined substantially in many industries. The reduced pressures on resources along with expectations of some further declines in energy prices were seen by many members as likely to foster a modest deceleration in many measures of wages and prices.

Statistical evidence of an ongoing, though gradual, worsening in overall business conditions was supported by anecdotal reports from around the nation. Weakness continued to be concentrated in manufacturing, notably in the high-tech sector and in high-tech service industries. Indications that the softening was spreading more generally were still fairly limited as suggested by employment data and anecdotal reports. At the same time, members cited some still quite tentative signs that declines in manufacturing had slowed or that activity had steadied in some depressed industries.

In their review of developments in key sectors of the economy, members again emphasized the ongoing strength in household spending and its vital role in moderating the weakness in overall economic activity. Tax rebates, declining energy prices, and widespread discounting of retail prices were cited as positive factors in support of consumer spending on a wide range of goods and services. In addition, increasingly persuasive evidence indicated that realized capital gains from the sale of homes were a source of fairly significant amounts of consumer purchasing power in the economy. Looking ahead, members expressed some concern about how long the household sector would continue to prop up the economy in the absence of an upturn in business expenditures. While accommodative financial conditions and reduced income tax rates should continue to undergird consumer spending and the data on retail sales for July displayed relatively impressive gains, negative wealth effects from falling stock market prices, declining payrolls, and sluggish income gains—should they persist—might well depress consumer expenditures over coming months. In this regard, some recent anecdotal reports pointed to weaker retail sales, importantly including motor vehicles. There also were some recent indications of declining consumer confidence, and many retailers had become less optimistic about the outlook for sales over the balance of the year.

Homebuilding generally had remained robust in recent months, as relatively low mortgage interest rates continued to offset weakness in employment and incomes and the negative effects of declining stock market wealth. Most regions continued to report strong housing markets, albeit with evidence of some weakening in sales of high-priced homes in a number of areas. For now, however, there were few signs that overall housing activity might be softening, though members noted that potentially bearish factors relating to the outlook for consumer spending might at some point also affect housing.

With household spending already elevated relative to income and its rate of increase unlikely to strengthen materially, if at all, under foreseeable near-term economic conditions, the anticipated upturn in overall economic expansion would depend critically on business investment spending and in turn on improved prospects for business profits and cash flows. Business capital expenditures appeared to be slowing sharply further after posting large declines earlier in the year in conjunction with the marking down of the expected growth of demand for and profitability of capital equipment, weak sales, the emergence of substantial excess capacity in many industries, notably in high-tech facilities, and the resulting decline in earnings. Market forecasts of business profits were progressively being reduced, and as a consequence members saw little likelihood of a marked turnaround in business capital investment over the months ahead despite some elements of strength such as sizable construction projects involving public utilities, energy, and, in some areas, public works. Indeed, history strongly suggested that capital spending might well fall below sustainable levels for a time as business firms over adjusted on the downside to previously excessive or misdirected buildups of capital resources. While the near-term outlook for business investment was not promising and considerable uncertainty surrounded the timing of the eventual upturn, members remained optimistic about the longer-term prospects for capital expenditures. In the context of a still favorable outlook for continued elevated rates of technological progress, business firms reportedly had not yet exploited many potentially profitable investment opportunities.

The persistence of substantial inventory liquidation was another negative factor in the current performance of the economy. While considerable progress reportedly had been made by numerous business firms in reducing their inventories to bring them into better alignment with sales, a rebound to inventory accumulation did not appear imminent for the economy as a whole. Unexpected weakness in final demands would, of course, lead to additional efforts to pare inventories, which would tend to damp and delay the rebound. Even so, leaner inventories had favorable implications for production going forward.

Fiscal policy developments were a supportive factor in the economy. The tax rebates currently being distributed undoubtedly were having a limited but positive effect on consumers, which likely would continue over coming months. The impetus could not be measured precisely, but it was reflected in available anecdotal reports. Moreover, the reductions in income tax rates would have an ongoing effect in boosting disposable household incomes. On the negative side, financial difficulties in a number of states were being met in part through higher taxes that implied at least some offset to the federal tax relief.

Many of the members expressed concern about what appeared to be cumulating weakness in numerous foreign economies that would feed back to the U.S. economy through reduced demand for U.S. exports and potentially through perceptions of greater risks in financial markets. A number of major industrial economies were growing more slowly than had been expected earlier in the summer. Moreover, severe economic and financial problems in a few developing nations could spill over to their trading partners and other similarly situated countries that could in turn have adverse repercussions more generally on the world economy.

The members generally viewed a modest decline in inflation as a reasonable prospect, at least for a while. Reports from around the nation indicated that labor market conditions had eased, though they remained generally tight and workers available to fill a variety of skilled job openings continued to be in short supply. On balance, however, upward pressures on labor compensation appeared to be easing somewhat despite large increases in the costs of medical care. Competitive pressures continued to make it very difficult for business firms to raise their prices, and there were no signs that widespread discounting might be coming to an end. An apparent downtrend in the costs of energy was another favorable factor in the outlook for inflation. Some members expressed a degree of concern, however, about the longer-term outlook for inflation. Pressures on resources would rise as the anticipated upturn and possible above-trend growth brought the economy closer to full capacity utilization. An important uncertainty in this regard was the outlook for productivity, whose growth might have moderated from the unusually high growth rates of 1999 and 2000, with possibly adverse implications for labor costs at very low levels of unemployment.

In the Committee's discussion of policy for the intermeeting period ahead, all the members endorsed a proposal calling for a slight further easing in reserve conditions consistent with a 25 basis point reduction in the federal funds rate to a level of 3½ percent. No member expressed a preference for leaving policy unchanged or easing by more than 25 basis points. The economy had continued to be weak—indeed, weaker than many had expected—and data and anecdotal reports from around the country had yet to point to persuasive signs of a turnaround. The monetary and fiscal policy stimulus already in train seemed adequate to promote and support an eventual appreciable rise in the growth of business activity to a pace near that of the economy's potential, but the strength and timing of the pickup remained uncertain and further weakness was a distinct threat in the nearer term. In particular, possible faltering in household expenditures at a time when business firms were still adjusting to inventory imbalances and to capital overinvestments would exacerbate the slowdown in the economy and delay its anticipated recovery. Growing concerns about foreign economies added to the current unease about potential near-term developments.

Against the considerable forces of restraint on aggregate demand, the federal funds rate had been lowered substantially and the monetary aggregates were growing rapidly, but some members noted that in a number of respects financial conditions did not indicate as much oncoming stimulus. Since the start of the year, long-term interest rates generally had not extended earlier declines, prices in equity markets had fallen substantially further, and the dollar had appreciated in foreign exchange markets. Accordingly, the inflation risks of some further monetary stimulus seemed limited and were outweighed by the need to lean against actual and potential shortfalls in demand and business activity.

The members recognized that in light of the lags in the effects of policy, the easing process probably would have to be terminated before available measures of economic activity provided clear evidence of a substantial strengthening trend. In the view of some members, this point might come relatively soon. Beyond the nearer term members also envisaged the desirability of moving preemptively to offset some of the extra monetary stimulus now in the economy in advance of inflation pressures beginning to build. The members were fully prepared to act on a timely basis, but several emphasized the recognition lags that would be involved in stopping and subsequently beginning to reverse the policy easing.

Given their views about the risks to the economy, notably over the nearer term, all the members supported the retention of the sentence in the press statement indicating that the risks continued to be weighted toward further weakness in the foreseeable future.

At the conclusion of this discussion, the Committee voted to authorize and direct the Federal Reserve Bank of New York, until it was instructed otherwise, to execute transactions in the System Account in accordance with the following domestic policy directive:

> The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with reducing the federal funds rate to an average of around 3½ percent.

The vote encompassed approval of the sentence below for inclusion in the press statement to be released shortly after the meeting:

> Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes that the risks continue to be weighted mainly toward conditions that may generate economic weakness in the foreseeable future.

> Votes for this action: Messrs. Greenspan, McDonough, Ferguson, Gramlich, Hoenig, Kelley, Meyer, Ms. Minehan, Messrs. Moskow and Poole. Votes against this action: None.

It was agreed that the next meeting of the Committee would be held on Tuesday, October 2, 2001.

The meeting adjourned at 12:40 p.m.

Reciprocal Currency Arrangements

Following the terrorist attacks on September 11, 2001, the Committee established or enlarged reciprocal currency (swap) arrangements with the European Central Bank, the Bank of Canada, and the Bank of England. The purpose of these arrangements was to facilitate the functioning of U.S. financial markets by providing as necessary through the foreign central banks the liquidity in dollars needed by European, Canadian, and British banks whose U.S. operations had been disrupted by the disturbances in the United States. These central bank arrangements would mature in thirty days unless extended by the Committee. Except for an initial drawing of up to $12 billion by the European Central Bank on September 12, individual drawings were subject to approval by the Foreign Currency Subcommittee of the Federal Open Market Committee. Under the agreements, dollars would be made available in the form of deposits at the Federal Reserve Bank of New York in exchange for deposits in the counterparty central banks of an equivalent amount of their currencies. The individual actions and votes were as follows:

> On September 12, 2001, available members of the Committee voted unanimously to establish a $50 billion swap line with the European Central Bank with a maturity of thirty days unless renewed.

> Votes for this action: Messrs. Greenspan, Ferguson, Gramlich, Hoenig, Ms. Minehan, Messrs. Moskow, Poole, and Stewart. Absent and not voting: Messrs. Kelley and

Meyer. Mr. Stewart voted as alternate for Mr. McDonough.

On September 13, 2001, available members of the Committee voted unanimously to increase the System's swap line with the Bank of Canada from $2 billion to $10 billion, with the added facility to mature in thirty days unless renewed.

Votes for this action: Messrs. Greenspan, McDonough, Ferguson, Gramlich, Hoenig, Kelley, Ms. Minehan, Messrs. Moskow and Poole. Absent and not voting: Mr. Meyer.

On September 14, 2001, available members of the Committee voted unanimously to establish a $30 billion swap line with the Bank of England, with a maturity of thirty days unless renewed.

Votes for this action: Messrs. Greenspan, McDonough, Ferguson, Hoenig, Kelley, Ms. Minehan, Messrs. Moskow and Poole. Absent and not voting: Messrs. Gramlich and Meyer.

Intermeeting Policy Action

On September 13, 2001, the Committee met by telephone conference to assess economic and financial developments stemming from the terrorist attacks on September 11 and the possible need for a monetary policy response. Banking and other financial market conditions, notably in New York City but also around the nation, were discussed in some detail as well as the outlook for reopening the stock exchanges. While the ongoing reactions to the recent tragedy were undoubtedly a negative factor in the economic outlook, the members agreed that financial markets were still too disrupted and the economic outlook too uncertain to provide an adequate basis for a policy move at this time. However, the members contemplated the need for some policy easing in the very near future. In the interim, the System would continue to stand ready to provide whatever liquidity might be needed to counter unusual strains and help assure the effective functioning of the banking system and restore more normal conditions in financial markets.

Subsequently, on September 17, 2001, the Committee members voted unanimously to ease reserve conditions appreciably further, consistent with a reduction in the federal funds rate of 50 basis points to a level of 3 percent. This policy action was associated with the approval by the Board of Governors of a reduction of equal size in the discount rate to a level of 2½ percent. These actions were taken against the backdrop of heightened concerns and uncertainty created by the recent terrorist attacks and their potentially adverse effects on asset prices and the performance of the economy. In conjunction with these policy moves, the Federal Reserve would continue to supply, as needed, an atypically large volume of liquidity to the financial system. As a consequence, the Committee recognized that the federal funds rate might fall below its target on occasion until more normal conditions were restored in the functioning of the financial system. The Committee's vote encompassed the retention of a statement in its press release indicating that the balance of risks remained weighted toward weakness for the foreseeable future.

Votes for this action: Messrs. Greenspan, McDonough, Ferguson, Gramlich, Hoenig, Kelley, Meyer, Ms. Minehan, Messrs. Moskow and Poole. Votes against this action: None.

Donald L. Kohn
Secretary

Meeting Held on October 2, 2001

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Tuesday, October 2, 2001, at 9:00 a.m.

Present:

Mr. Greenspan, Chairman
Mr. McDonough, Vice Chairman
Mr. Ferguson
Mr. Gramlich
Mr. Hoenig
Mr. Kelley
Mr. Meyer
Ms. Minehan
Mr. Moskow
Mr. Poole

Messrs. Jordan, McTeer, Santomero, and Stern, Alternate Members of the Federal Open Market Committee

Messrs. Broaddus, Guynn, and Parry, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco respectively

Mr. Kohn, Secretary and Economist
Mr. Bernard, Deputy Secretary
Ms. Fox, Assistant Secretary
Mr. Mattingly, General Counsel
Ms. Johnson, Economist
Mr. Reinhart, Economist
Mr. Stockton, Economist

Ms. Cumming, Messrs. Fuhrer, Hakkio, Howard, Lindsey, Rasche, Slifman, and Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

Ms. Smith, Assistant to the Board, Office of Board Members, Board of Governors

Messrs. Ettin and Madigan, Deputy Directors, Divisions of Research and Statistics and Monetary Affairs respectively, Board of Governors

Mr. Simpson, Senior Adviser, Division of Research and Statistics, Board of Governors

Mr. Connors, Associate Director, Division of International Finance, Board of Governors

Messrs. Oliner and Struckmeyer, Associate Directors, Division of Research and Statistics, Board of Governors

Mr. Whitesell, Assistant Director, Division of Monetary Affairs, Board of Governors

Mr. Kumasaka, Assistant Economist, Division of Monetary Affairs, Board of Governors

Ms. Low, Open Market Secretariat Assistant, Office of Board Members, Board of Governors

Messrs. Eisenbeis and Goodfriend, Ms. Mester, Messrs. Rolnick, Rosenblum, and Sniderman, Senior Vice Presidents, Federal Reserve Banks of Atlanta, Richmond, Philadelphia, Minneapolis, Dallas, and Cleveland respectively

Messrs. Evans, Hilton, and Judd, Vice Presidents, Federal Reserve Banks of Chicago, New York, and San Francisco respectively

By unanimous vote, the minutes of the meeting of the Federal Open Market Committee held on August 21, 2001, and the conference calls held on September 13 and 17, 2001, were approved.

The Manager of the System Open Market Account reported on recent developments in foreign exchange markets. There were no open market operations in foreign currencies for the System's account in the period since the previous meeting. The Manager also reported on developments in domestic financial markets and on System open market transactions in government securities and securities issued or fully guaranteed by federal agencies during the period August 21, 2001, through October 1, 2001. By unanimous vote, the

Committee ratified these transactions. The Committee expressed its appreciation of the outstanding manner in which the Federal Reserve Bank of New York had carried out its open market operations and other responsibilities under very difficult circumstances after the terrorist attacks on September 11, 2001.

The Committee then turned to a discussion of the economic and financial outlook and the implementation of monetary policy over the intermeeting period ahead. A summary of the economic and financial information available at the time of the meeting and of the Committee's discussion is provided below.

The information reviewed at this meeting suggested that the attacks of September 11 might well have induced a mild downturn in economic activity after several months of little movement in the level of economic activity. While few nonfinancial economic data were available on developments since the attacks, anecdotal and survey reports suggested that heightened uncertainty and sharply reduced confidence had curtailed consumer spending and had intensified the downward trajectory in business capital expenditures. Consumer price inflation had remained relatively subdued over the summer months.

Data for August portrayed some continued softening in overall labor market conditions. Private nonfarm payroll employment fell appreciably further, with the decline more than accounted for by additional job losses in manufacturing. Labor demand remained sluggish in most other sectors, though some pickup was reported in services. The unemployment rate rose to 4.9 percent in August, its highest level in four years. A sharp increase in initial claims for unemployment insurance in recent weeks was suggestive of additional deterioration in labor markets.

Industrial production fell substantially further in August after posting monthly losses starting in October of last year. Motor vehicle assemblies were down sharply, reversing a large advance in July, and production of high-tech equipment continued to register large declines. Outside of those two industries, production of business equipment, business supplies, consumer nondurables, and materials also moved appreciably lower. The rate of capacity utilization in manufacturing continued to fall, reaching its lowest level since mid-1983.

Growth in consumer spending picked up somewhat in July and August from a reduced pace in the second quarter despite a small drop in sales of new motor vehicles. However, anecdotal reports from around the nation pointed to a downturn in September, largely reflecting marked weakness after the terrorist attacks. Indicators of consumer confidence fell further in September.

Despite low mortgage interest rates, residential building activity softened somewhat in August and some indicators of housing demand, including mortgage applications for home purchases, had downshifted a bit further in recent weeks. However, builder backlogs appeared to be large enough to sustain homebuilding activity at a fairly elevated level for several months. Sales of new homes edged up in August but were little changed on balance since April.

Business capital spending contracted substantially further over the summer months, and anecdotal information after September 11 pointed to even deeper cutbacks by many firms. The added weakness evidently stemmed from increased concerns about future sales and earnings, which also was reflected in the sharp declines in stock market prices after the equity markets reopened on September 17. Available indicators suggested that expenditures for equipment and software had remained on a sharp downward trajectory into late summer, though the overall decline in such spending was moderated by sizable outlays for aircraft in July and August. New orders for nondefense capital goods edged up in August but were still well below their average for the second quarter. Nonresidential construction activity appeared to be falling appreciably further after a sharp downturn in the second quarter.

Business inventory liquidation remained substantial in July, extending the sizable declines since the start of the year. Large drawdowns were recorded in manufacturing and, excluding motor vehicles, in both wholesale and retail trade. The limited data available for August indicated some reduction in dealer stocks of motor vehicles and sizable further liquidation of durable goods by firms in the manufacturing sector. Nonetheless, the aggregate inventory–sales ratio for producers of durable goods edged up in August, led by a further rise in the ratio for computers and electronic products. In the days following the terrorist attacks, anecdotal reports indicated that disruptions in transportation facilities, including the temporary suspension of air cargo service and lengthy trucking delays at the nation's borders, caused some backups in inventories at some firms and shortages at others, but these problems generally seemed to ease within a few days.

The U.S. trade deficit in goods and services was about unchanged in July from its June level, but both exports and imports dropped sharply as weakness in worldwide economic activity continued to affect the nation's foreign trade. The reduced value of exports in July was spread among most trade categories but was especially pronounced in machinery, industrial supplies, and automotive products. The reduction in imports was led by declines in oil, semiconductors, other machinery, automotive products, and consumer goods. Data for foreign industrial economies confirmed earlier indications of little or no growth in those economies in the second quarter, and more recent information for the period prior to the terrorist attacks pointed to further weakness, including evidence of declining activity in Japan. Available information on conditions in major developing countries also suggested slowing or negative growth in recent months, in part as a consequence of weakness in their exports to the United States and, notably for some Asian economies, the poor performance of the global high-tech industry.

Consumer price inflation remained relatively limited in July and August, with core personal consumption expenditure (PCE) price inflation on an appreciably lower track than core consumer price index (CPI) inflation. For the twelve months ending in August, core PCE prices rose a bit less, and core CPI prices a bit more, than over the previous twelve-month period. Consumer energy prices fell sharply in July and August, but a sizable rebound was anticipated in September as prices of petroleum products moved higher after midsummer in response to refinery disruptions and tightening supplies. In electricity markets, upward price pressures dissipated over the summer, while the sharp run-up of natural gas prices continued to unwind as inventories rose further in the context of persisting high levels of production and sluggish demand. At the producer level, core prices declined in August, notably at the early stages of processing. With regard to labor costs, the rise in average hourly earnings of production or nonsupervisory workers diminished somewhat over July and

August, but the year-over-year advance was still appreciably above that for the previous twelve-month period. In addition, large increases in health insurance costs were continuing to add to overall employment costs.

At its meeting on August 21, 2001, the Committee adopted a directive that called for implementing conditions in reserve markets consistent with a reduction of 25 basis points in the intended level of the federal funds rate to a level of about 3½ percent. The Committee took this action in light of the absence of firm evidence that the deceleration in the economic expansion had run its course or that a recovery in output was imminent. With increasing slack in labor and product markets and with inflation expectations contained, the members agreed that the balance of risks continued to be weighted toward conditions that could generate economic weakness in the foreseeable future. Subsequently, on September 17, the Committee reduced its target for the federal funds rate by a further ½ percentage point. This action was taken against the backdrop of heightened concerns and uncertainty created by the recent terrorist attacks and their potentially adverse effects on asset prices and the performance of the economy. In conjunction with this easing move, the Federal Reserve indicated that it would continue to supply unusually large volumes of liquidity, and the Committee recognized that the federal funds rate might fall below its new target until the normal functioning of financial markets was restored.

In the period before the terrorist attacks, federal funds traded at rates near the reduced target level established at the August meeting. Most market interest rates edged lower over that period in response to generally downbeat news on the economy, and broad stock market indexes fell appreciably. For a few days after September 11, with federal funds brokerage disrupted, banks generally agreed to trade reserves at the 3½ percent federal funds target rate then prevailing. As more normal functioning resumed in the federal funds market, the rate fell well below the Committee's formal targets, including the reduced rate set on September 17. By the latter part of September and early October, however, the effective rate was fluctuating around the new target level. After the terrorist attacks, rates on short- and intermediate-term Treasury securities fell appreciably further, as did yields on highly rated obligations such as federal agency debt. However, the yield declines did not extend to long-term Treasury bonds, which changed little as investors apparently reacted to the deteriorating outlook for the federal budget surplus and prospectively larger Treasury bond supplies. Yields on investment-grade corporate bonds also were little changed, but rates on high-yield bonds, evidently reflecting increased investor aversion to holding risky securities, rose sharply in very thin markets. In the stock market, broad equity price measures fell considerably further in volatile trading after the markets reopened on September 17, but part of those losses had been recovered by the time of this meeting.

The trade-weighted value of the dollar against the other major foreign currencies was about unchanged on average over the period since the August meeting, as modest dollar appreciation early in the period was reversed after September 11. The dollar ended the period somewhat lower against the yen and the euro but registered an advance against the Canadian dollar. The dollar rose over the period against the currencies of other important trading partners.

Growth of M2 remained relatively robust in July and August, though below the average pace in the first half of the year, while the expansion of M3 weakened markedly over the two months. More recently, a record surge in M2 components in the week ending September 17, which was largely reversed in the following week, resulted in very rapid growth in both aggregates on a monthly average basis in September. In the immediate aftermath of the terrorist attacks, disruptions to the infrastructure of financial markets, including communications and transportation facilities, led to massive dislocations in the distribution of deposits and reserves. At the same time, greatly heightened demand for safe and liquid assets encouraged shifts from equity markets into deposit assets. These financial disturbances called for and were accommodated by record infusions of Federal Reserve credit through open market operations, the discount window, and other sources. In addition, the Federal Reserve eased its rules for lending securities to dealers and took a number of other steps to facilitate the operation of financial markets. To a considerable extent, more normal functioning was restored to those markets by the latter part of September, and the unusual demand for reserves abated.

In the presentation of its forecast to the Committee, the staff indicated that its downward revised outlook was subject to a very wide range of uncertainty regarding the ongoing effects of the tragic events of September 11. A mild downturn in overall economic activity probably was now under way and business conditions would continue to be depressed for some uncertain period by the sharp further deterioration in business and consumer confidence triggered by the terrorist attacks. However, a gradual recovery was anticipated during the first half of 2002, especially against the backdrop of a very accommodative monetary policy and an increasingly stimulative fiscal policy. The recovery would gather momentum during 2002 to a pace late in the year near the staff's current estimate of the growth in the economy's potential. With long-term trends in innovations and business opportunities expected to remain favorable, business fixed investment after the completion of ongoing adjustments likely would return to robust rates of growth, with favorable implications for employment, labor productivity, and consumer spending. The current and prospective slack in resource use over coming quarters, augmented by the pass-through effects of lower oil prices, would result in some modest deceleration in core PCE and CPI inflation.

In the Committee's discussion of current and prospective economic developments, the members focused on the shock to consumer and business confidence occasioned by the events of September 11 and the adverse repercussions on an already weak economy. The economy appeared to have been growing very little, if at all, prior to the terrorist attacks, and the dislocations arising from the latter seemed to have induced a downturn in overall economic activity against the backdrop of heightened anxiety and uncertainty about economic prospects and a sharp drop, at least initially, in stock prices after the equity markets reopened on September 17. Looking ahead, the members generally saw a relatively mild and short contraction followed by a gradual recovery next year as a plausible forecast but one that was subject to an unusually wide range of uncertainty, notably in the direction of a potentially much weaker outcome in the nearer term. In the short period since the attacks, anecdotal reports provided indications of a rebound from the sharp cutback in spending that characterized the immediate aftermath of those tragic events, but on balance business activity seemed to be in the process of moving lower. It was especially difficult to assess the outlook for consumer sentiment and spending in the period immediately ahead, which likely would depend to an important extent on the progress of the war against terrorism and reactions to any further terrorist activities. One risk bearing on that outlook was the possibility that prices in equity markets might continue to decline and perhaps even overadjust to lower earnings expectations. The confluence of worldwide economic weakness added to current uncertainties and concerns. In these circumstances a substantial further drop in consumer and business confidence and spending could not be ruled out.

The members nonetheless saw favorable prospects for an upturn in business activity next year, though the recovery clearly would be more delayed than they had anticipated before September 11. Major reasons for optimism about the outlook were the substantial easing in monetary policy, whose lagged effects would be felt increasingly in the year ahead, and the fiscal stimulus measures that already had been enacted and might well be supplemented over coming months. Other supportive elements included a likely rebound in business high-tech investment after its sharp retrenchment and a gradual turnaround in inventory investment as stocks became better aligned with expected sales. A sound banking system and low inflation were seen as sources of underlying strength in the economy that would contribute to the eventual pickup in economic activity. Even with a rebound in activity next year, however, consumer price inflation appeared likely to remain subdued or perhaps trend a bit lower in association with reduced pressures on labor and other resources and declining energy prices.

The Committee's review of recent and prospective developments in key sectors of the economy underscored the uncertainty that surrounded the overall economic outlook. The major question at this point was the extent to which the recent tragedies would continue to weigh on consumer spending and business investment. In the consumer sector, spending had with some exceptions held up well through late summer, but confidence had begun to deteriorate even before September 11. A factor that seemed to be exerting an increasingly depressing effect on consumer attitudes was the persisting stream of worker layoffs and rising unemployment. The adverse wealth effects stemming from the cumulative declines in stock market prices were a further negative, though one that had been cushioned by continued increases in the value of real estate. Retail sales along with expenditures associated with travel-related services had fallen dramatically in the immediate aftermath of the terrorist attacks. Very recent anecdotal reports suggested some improvement in consumer spending, though not a total recovery, with mixed indications ranging from a rebound to levels near pre-attack norms to still relatively depressed activity. Looking ahead, many retailer contacts anticipated sluggish sales over coming months. There were no historical precedents for judging the likely effects on consumer confidence and spending of the unique recent events, though it seemed likely that prospects for added job losses and the decline in equity wealth already experienced would hold down consumer expenditures over the months ahead. Even so, the members did not rule out a stronger-than-anticipated pickup later, depending in part on the size of additional fiscal policy actions.

Housing demand had remained at a relatively elevated level across much of the nation, though signs of some softening were apparent prior to September 11, especially in the high-priced segment of the housing market. The near-term outlook suggested some further waning in housing demand in association with the prospective weakness in employment and income. Some members noted in this regard that they sensed growing caution among homebuilders. However, the outlook for housing activity over the intermediate to longer term remained fairly promising against the backdrop of relatively low mortgage interest rates and a prospective recovery in overall economic activity that would foster rising employment and incomes.

The events of September 11 produced a marked increase in uncertainty and anxiety among contacts in the business sector. Spending for equipment and software and for commercial structures had been declining sharply through the summer, with only a few tentative signs that the pace of decline might be about to ebb. According to contacts, intensified concerns about prospects for sales and profits were depressing investment further by fostering an increasingly widespread wait-and-see attitude about undertaking new investment expenditures. While nationwide statistics on expenditures in the period since the terrorist attacks were not yet available, anecdotal reports pointed to especially large cutbacks in planned spending for commercial aircraft and rental cars stemming from the sudden and sharp deterioration of activity in the travel and tourist industries. Reports from banking contacts also indicated a substantial drop in demand for business loans that was attributed in part to the diminished willingness of small businesses in particular to undertake new investments in capital equipment and other production facilities. More generally, the increase in uncertainty and the decline in business confidence and corporate profits along with the currently high levels of excess capacity in many industries pointed to the persistence of poor prospects for capital spending over the short to intermediate term, with declines in outlays for high-tech products expected to remain especially pronounced. Looking further ahead, however, a robust upturn in business capital spending was still a probable outcome. Businesses likely would respond to profit opportunities stemming not only from rising demand resulting in part from fiscal and monetary stimulus but also from ongoing technological improvements and the need for new capital equipment as the process of retrenchment from earlier overinvestments was completed.

With a few short-lived exceptions, production on the whole had not been directly disrupted by the effects of the terrorist attacks. Consequently, some unintended accumulation of inventories probably had occurred as a result of sizable and unanticipated declines in the demand for many products. Even so, the pronounced downtrend in overall inventory spending appeared to be continuing, and with many business firms evidently still trying to liquidate what they viewed as excessive stocks, the inventory adjustment process was likely to persist for some time. Nonetheless, as progress was made in reducing unwanted stocks, the rate of inventory liquidation would diminish and an eventual turn toward accumulation would emerge, with positive implications for economic activity. Indeed, this buildup could be larger than previously anticipated if businesses now felt the need to hold larger stocks against the contingency of supply-chain slowdowns and disruptions.

The members saw the international sector as contributing to weakness in the domestic economy, especially over the nearer term. Downshifts in the U.S. economy were reinforcing more sluggish performance in many foreign economies, which in association with continued firmness in the dollar was in turn depressing the outlook for U.S. exports to those countries. In this regard, several members cited anecdotal evidence of flagging foreign markets for a variety of U.S. products. On the positive side, weakness in world demand for oil was fostering a significant downtrend in energy prices, albeit with adverse effects on energy producers in this country and abroad.

Members viewed the outlook for inflation as favorable. Expectations of greater and longer-lasting slack in labor and product markets than anticipated earlier had led to downward revisions to forecasts of wage and price inflation. This outlook was abetted by substantial declines in oil and other commodity prices. On the negative side, increases in spending on insurance and security and continued upward pressure on costs in the healthcare industry likely would impinge on business margins, limiting the downward adjustment of inflation.

In the discussion of policy for the intermeeting period ahead, all the members endorsed a proposal calling for some further easing of reserve conditions consistent with a 50 basis point reduction in the federal funds rate to a level of 2½ percent. While monetary policy had already been eased substantially this year, the increased evidence of a faltering economy and the decidedly downside risks in the outlook called for a further move at this meeting. Easing would help limit the extent of the downturn and later provide impetus to the eventual upturn in economic activity. Further vigorous easing action would tend to support business and household confidence, which a number of members saw as especially important in the current circumstances. Even after a 50 basis point reduction, the federal funds rate would not reflect an unusually accommodative policy stance in that, in real terms, it would still be positive by many measures and above its typical level in most earlier periods of economic weakness. Moreover, the decline in stock market prices and the widening of risk spreads had damped the stimulative financial effects of the Committee's earlier easing actions. The relatively low level of inflation and well-contained inflationary expectations allowed the Committee flexibility to focus on countering the downside risks to the economy without incurring a significant threat of fostering expectations of higher inflation. Monetary policy is a flexible instrument and, with inflation expectations likely to remain relatively benign, policy could be reversed in a timely manner later should stimulative policy measures and the inherent resiliency of the economy begin to foster an unsustainable pace of economic expansion.

In keeping with their views about the risks to the economy, all the members supported the retention of the sentence in the press statement indicating that the risks continued to be weighted toward further weakness in the foreseeable future.

At the conclusion of this discussion, the Committee voted to authorize and direct the Federal Reserve Bank of New York, until it was instructed otherwise, to execute transactions in the System Account in accordance with the following domestic policy directive:

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with reducing the federal funds rate to an average of around 2½ percent.

The vote encompassed approval of the sentence below for inclusion in the press statement to be released shortly after the meeting.

Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes that the risks continue to be weighted mainly toward conditions that may generate economic weakness in the foreseeable future.

Votes for this action: Messrs. Greenspan, McDonough, Ferguson, Gramlich, Hoenig, Kelley, Meyer, Ms. Minehan, Messrs. Moskow and Poole. Votes against this action: None.

It was agreed that the next meeting of the Committee would be held on Tuesday, November 6, 2001.

The meeting adjourned at 12:30 p.m.

Donald L. Kohn
Secretary

Meeting Held on November 6, 2001

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Tuesday, November 6, 2001, at 9:00 a.m.

Present:

Mr. Greenspan, Chairman
Mr. McDonough, Vice Chairman
Mr. Ferguson
Mr. Gramlich
Mr. Hoenig
Mr. Kelley
Mr. Meyer
Ms. Minehan
Mr. Moskow
Mr. Poole

Messrs. Jordan, McTeer, Santomero, and Stern, Alternate Members of the Federal Open Market Committee

Messrs. Broaddus, Guynn, and Parry, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco respectively

Mr. Kohn, Secretary and Economist
Mr. Bernard, Deputy Secretary
Mr. Gillum, Assistant Secretary
Ms. Smith, Assistant Secretary
Mr. Mattingly, General Counsel
Ms. Johnson, Economist
Mr. Reinhart, Economist
Mr. Stockton, Economist

Ms. Cumming, Messrs. Fuhrer, Hakkio, Howard, Hunter, Lindsey, Slifman, and Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

Mr. Winn, Assistant to the Board, Office of Board Members, Board of Governors

Messrs. Ettin and Madigan, Deputy Directors, Divisions of Research and Statistics and Monetary Affairs respectively, Board of Governors

Mr. Simpson, Senior Adviser, Division of Research and Statistics, Board of Governors

Messrs. Oliner and Struckmeyer, Associate Directors, Division of Research and Statistics, Board of Governors

Messrs. Kamin and Whitesell, Assistant Directors, Divisions of International Finance and Monetary Affairs respectively, Board of Governors

Mr. Skidmore, Special Assistant to the Board, Office of Board Members, Board of Governors

Ms. Low, Open Market Secretariat Assistant, Office of Board Members, Board of Governors

Mr. Stewart, First Vice President, Federal Reserve Bank of New York

Messrs. Cox and Goodfriend, Mses. Mester and Perlmutter, Messrs. Rolnick and Sniderman, Senior Vice Presidents, Federal Reserve Banks of Dallas, Richmond, Philadelphia, New York, Minneapolis, and Cleveland respectively

Mr. Thornton, Vice President, Federal Reserve Bank of St. Louis

Mr. Robertson, Assistant Vice President, Federal Reserve Bank of Atlanta

Mr. Rudebusch, Senior Research Advisor, Federal Reserve Bank of San Francisco

By unanimous vote, the minutes of the meeting of the Federal Open Market Committee held on October 2, 2001, were approved.

The Manager of the System Open Market Account reported on recent developments in foreign exchange markets. There were no open market operations in foreign currencies for the System's account in the period since the previous meeting.

The Manager also reported on developments in domestic financial markets and on System open market transactions in government securities and securities issued or fully guaranteed by federal agencies during the period October 2, 2001, through November 5, 2001. By unanimous vote, the Committee ratified these transactions.

By notation vote circulated before this meeting, the Committee members unanimously approved the selection of Michelle A. Smith to serve as an assistant secretary of the Committee for the period until the first regularly scheduled meeting in 2002.

The Committee then turned to a discussion of the economic and financial outlook and the implementation of monetary policy over the intermeeting period ahead. A summary of the economic and financial information available at the time of the meeting and of the Committee's discussion is provided below.

The information reviewed at this meeting indicated that economic activity, already weak in late summer, had softened further after the terrorist attacks. Overall consumer spending faltered, though purchases of motor vehicles reached a near-record level, and the downward trajectory in business capital expenditures steepened. With sales contracting and inventory imbalances still substantial, the manufacturing sector continued its sharp slide, and aggregate employment plunged. Energy prices were moderating somewhat in response to lower worldwide demand, and core price inflation remained subdued.

Conditions in the labor market deteriorated sharply further in October, with private nonfarm payroll employment suffering its worst monthly decline since 1975. The largest drop was in manufacturing, but nearly every major sector experienced sizable job losses. Among other job market indicators, the average workweek edged down, initial claims for unemployment insurance remained very high, and the unemployment rate jumped to 5.4 percent, an increase of one-half percentage point.

Industrial production recorded another large decrease in September (latest data), and the weakness was spread across most market groups and industries. Motor vehicle assemblies registered a further sharp contraction, and output of high-technology goods plunged still lower. The additional decline in production in September brought the rate of utilization of overall manufacturing capacity to its lowest reading since May 1983.

Personal consumption expenditures fell sharply in September; purchases of goods plummeted and consumption of services, particularly transportation and recreation services, declined as well. In October, sales of light vehicles surged to near-record levels in response to special financing packages offered by many automakers, but available information suggested that non-auto spending was weak.

Residential building activity edged down during the August–September period, and signs of some further softness had emerged in recent weeks. Nonetheless, in an environment of very low mortgage rates, residential construction had been sustained at a comparatively high level despite a weakening labor market and sluggish growth in personal income. Sales of new and existing homes slipped in September but were not far below the near-record levels of last March.

Business capital spending on equipment and software fell sharply further in the third quarter. Moreover, the available information on orders and shipments of nondefense capital goods suggested another steep drop in such spending in the latter part of this year in the current environment of eroding corporate earnings and cash flows and a very uncertain outlook for future sales and earnings. The weakness in demand for durable equipment was spread across almost all categories of equipment but was particularly prominent for high-tech goods, aircraft, automobiles, and trucks. Nonresidential construction activity also declined in the spring and summer.

Total business inventories on a book-value basis decreased in July and August (latest data for wholesalers and retailers) at a rate close to that of the second quarter. At the manufacturing level, stocks continued to run off at a brisk pace through September; however, shipments weakened by more in the third quarter, and the aggregate inventory–shipments ratio for the sector reached its highest level in more than five years. Wholesalers also experienced a sizable decline in inventories over July and August that resulted in a slight reduction in their aggregate inventory–sales ratio, but that ratio was still in the upper end of its range for the past two years. Retail inventories climbed somewhat in July and August, but the sector's inventory–sales ratio was little changed in August and was in the lower end of its range for the past year.

The U.S. trade deficit in goods and services contracted slightly in August after having changed little in July, and the deficit for July and August combined was considerably smaller than that for the second quarter. The value of exports fell in the July–August period, with most of the drop occurring in capital goods, consumer goods, and industrial supplies. The value of imports was down appreciably more than that of exports, with decreases occurring in almost all major trade categories; automotive products, food, and aircraft were the only exceptions. Recent information indicated that foreign economic activity had changed little in the third quarter, and some forward indicators and anecdotal information pointed to reduced activity later in the year. Economic activity in the euro area and the United Kingdom appeared to be reviving in the summer months, but renewed softening stemming from a downturn in business and consumer confidence seemed to have emerged in September and October. Japan remained the weakest of the major foreign industrial economies; the sharp contraction in economic activity that began early in the year continued in the third quarter, and the unemployment rate reached a record high in September. Most major emerging-market economies, with the notable exception of China, also were continuing to experience an economic slowdown that was related at least in part to weakness in the industrialized world.

Core consumer price inflation remained at a relatively subdued pace in August and September; and with energy prices having moderated over the past year, total consumer price inflation had moved down, on a year-over-year basis, to the slower pace of its core component. Both the core consumer price (CPI) index and the personal consumption expenditure (PCE) chain-type index exhibited this general pattern. Core producer price inflation for finished goods also held at a low rate in the August–September period and on a year-over-year basis. With regard to labor costs, total hourly compensation of private industry workers decelerated further in the third quarter, despite a surge in benefit costs, and also slowed noticeably on a year-over-year basis. Average hourly earnings of production or nonsupervisory workers continued to rise in August and September at the relatively moderate rate that had prevailed in earlier months.

At its meeting on October 2, 2001, the Committee adopted a directive that called for maintaining conditions in reserve markets consistent with a decrease of 50 basis points in the intended level of the federal funds rate, to about 2½ percent. The members recognized that monetary policy already had been eased substantially this year, but they believed that the increased evidence of a faltering economy and the decidedly downside risks to the outlook called for a further move. The additional rate reduction would help limit the extent of the downturn and later would contribute to an upturn. Moreover, the recent declines in equity prices and widening of risk spreads tended to offset some of the stimulative effects of earlier easings, and the relatively low level of inflation and inflationary expectations provided room to counter downside forces without incurring significant risks of higher inflation. The members also believed that the balance of risks remained weighted toward conditions that could generate economic weakness in the foreseeable future.

Federal funds traded at rates near the Committee's target level over the intermeeting period. Most interest rates declined significantly during the period even though the reduction in the target level for the federal funds rate had been anticipated by market participants. They apparently saw the Committee's announcement and the subsequent release of weaker-than-expected data as portending further policy easing. With yields on private debt securities down sharply and investors perhaps becoming more confident about long-term business prospects, major indexes of equity prices moved higher over the intermeeting period.

In foreign exchange markets, the trade-weighted value of the dollar in terms of the major foreign currencies had increased slightly on balance since the October meeting. Incoming data for the foreign industrial economies were weaker than expected, and market interest rates abroad declined in response to reductions in policy interest rates in Canada and the United Kingdom and to market expectations that the European Central Bank would lower its policy rates by year-end. The dollar moved down slightly on balance in terms of an index of the currencies of other important trading partners. The Brazilian *real* was adversely affected by spillovers from Argentina's financial difficulties, while the Mexican peso rebounded from its decline against the dollar in the wake of the September terrorist attacks.

M2 changed little in October after a surge in September that was related in important measure to a temporary bulge in transaction deposits stemming largely from delayed settlements of security trades in the aftermath of the terrorist attacks. On balance, M2 grew rapidly over the September–October period, reflecting the sharp drop in market interest rates and perhaps the deposit of federal tax rebates. M3 also increased rapidly over September and October, largely in conjunction with the expansion of M2. The debt of domestic nonfinancial sectors grew at a moderate pace on balance through August.

The staff forecast prepared for this meeting emphasized the continuing wide range of uncertainty surrounding the outlook in the wake of the September attacks. The mild downturn in economic activity in the third quarter was seen as likely to deepen over the remainder of the year and to continue for a time next year. However, the cumulative easing that had occurred in the stance of monetary policy, coupled with the fiscal stimulus already in place and prospective additional measures, would provide support for economic activity. Moreover, the ongoing liquidation of inventories would eventually abate and give a sizable boost to production, while an expected pickup in foreign economies would provide some support for U.S. exports. As a result, economic expansion was projected to resume and gradually gain strength through 2003, reaching a rate around the staff's current estimate of the growth of the economy's potential output. The period of subpar expansion was expected to foster an appreciable easing of pressures on resources and some moderation in core price inflation.

In the Committee's discussion of current and prospective economic conditions, members commented that widespread anecdotal reports supported statistical indications that the economy was contracting, and they saw no significant evidence that overall business conditions were in the process of stabilizing prior to recovering. While the members continued to see a fairly brief and limited decrease in economic activity as the most likely outcome, they also agreed that the risks to such a forecast were strongly tilted to the downside. Business investment expenditures clearly seemed likely to continue to decline over coming months. On the other hand, consumer spending had held up reasonably well thus far, but further job losses could undermine consumer confidence and spending. Looking further ahead, the longer-term prospects for productivity and growth in the U.S. economy remained bright and an upturn during 2002 was a likely prospect. Such a recovery would be fostered by the lagged stimulus from both fiscal and monetary policies interacting with progress by business firms toward completing their adjustments to overhangs in capital resources and excess inventories. However, the strength and timing of the eventual recovery remained subject to question especially in light of the marked degree of uncertainty that surrounded the prospects for further fiscal policy legislation, developments in the war against terrorism, and weakness in foreign economies. In the context of diminished pressures on labor and other resources, the members expected underlying consumer price inflation to remain benign and possibly to drift lower over coming quarters, abetted by the indirect effects of generally weaker energy prices.

In their review of developments in key sectors of the economy, members noted that surveys and anecdotal commentary pointed to a considerable decline in consumer confidence, though in the view of some members the decline seemed less than might have been expected given prevailing circumstances. Retail sales, led by a surge in motor vehicles, had improved considerably following a downturn in the weeks after September 11. Even so, retail sales were still generally below their levels prior to the terrorist attacks, and overall spending on consumer services had decelerated considerably, notably reflecting continuing weakness in expenditures on airline travel and related travel activities. The extraordinary increase in sales of light motor vehicles in October clearly was propelled by exceptionally attractive financing incentives, but such inducements were temporary and many of the resulting sales undoubtedly borrowed from the future. Still, the jump in motor vehicle sales was a sign that underlying consumer confidence and willingness to spend had held up reasonably well in this period. Looking ahead, reports from retailer contacts were somewhat mixed; many anticipated relatively depressed holiday sales and where possible were making efforts to limit buildups of holiday merchandise, while other retailers were confident that sales would be reasonably well maintained, albeit generally somewhat below levels or growth rates experienced in previous holiday seasons. Beyond the months immediately ahead, members anticipated that, in addition to a drop in motor vehicle sales to more sustainable levels, consumer spending was likely to be held back by the persistence of widespread caution among households and by the decline in stock market wealth over the last year or so. Consumer confidence was vulnerable to renewed terrorism and to further weakness in labor markets.

Housing activity, though still at a relatively elevated level, had displayed signs of some slippage in recent months. There were anecdotal reports of excess inventories of unsold homes in some areas, and members again cited indications of particular softness in the high-price segment of the housing market. Weakness in employment and more generally the rise in uncertainty were having a depressing effect on homebuilding activity, which likely would persist over coming months. Nonetheless, low mortgage interest rates continued to provide important support to homebuilding, and in the absence of a much weaker economy than was currently anticipated or of a further sizable shock to consumer confidence, there appeared to be little basis in ongoing trends and housing finance conditions to expect substantial additional erosion in residential construction.

Business fixed investment currently seemed to be declining at an even faster rate than earlier in the year, and the sharp decrease in new orders of capital goods in September pointed to marked additional weakness over the months ahead. According to widespread anecdotal reports, business confidence appeared to have worsened considerably further since late summer in the context of a generally deteriorating outlook for sales and earnings. In these circumstances, business firms were likely to persist in their efforts to reduce what they viewed as excess capacity, notably in high-tech and travel-related industries. Some exceptions related to the expansion of healthcare and security-enhancing facilities. However, the longer-term attractiveness of efficiency-inducing capital investment would at some point promote a robust upturn in such expenditures. The timing remained uncertain, but a number of members saw a reasonable prospect that the decline in expenditures for capital equipment and software would abate early next year and that such spending probably would turn up during the second half of the year as businesses succeeded in better aligning actual and desired capital stocks. With regard to nonresidential construction, widespread increases in vacancy rates around the country suggested that the turnaround in overall activity might be more delayed despite some near-term stimulus from reconstruction activity in New York City. In general and given prevailing wait-and-see business attitudes, members believed that the risks over the forecast horizon remained in the direction of a shortfall in capital expenditures from what were already weak expectations.

A key uncertainty in the outlook for investment spending was the outcome of the ongoing Congressional debate relating to tax incentives for investment in equipment and software. Both the passage and the specific contents of such legislation remained in question. Moreover, several members stressed the difficulty of assessing the effectiveness of temporary fiscal policy measures directed at boosting investment expenditures. Though undoubtedly helpful in fostering greater capital spending while the tax incentives remained in place, members expressed reservations about the extent of the favorable effects in the nearer term when marked disincentives existed for many firms to make capital expenditures in the context of excess capacity, weak markets, and poor profit opportunities. More generally, forecasts of a reasonably vigorous rebound in the economy over 2002 depended in part on expectations of added fiscal stimulus, but prospects appeared to have diminished for prompt passage of fiscal policy initiatives that could significantly boost economic activity in the next several quarters.

Business firms were continuing to cut back production in efforts to adjust output to faltering demand and to pare excess inventories. Even so, with demand generally tending to be weaker than expected, inventory–sales ratios had remained on the high side for many firms and strong efforts to reduce inventories were persisting, including efforts by many retailers in light of their expectations that holiday sales would prove disappointing. The pace of inventory liquidation was thought likely to moderate in coming quarters and subsequently turn to accumulation as inventories came into better balance with sales, with increasingly positive implications for overall production and economic activity.

Weakness in foreign economies was continuing to foster declines in U.S. exports in what appeared to be an increasingly synchronous and mutually reinforcing pattern of economic activity among the world's nations. With recent indications that on the whole foreign economic activity was deteriorating somewhat further and by more than previously anticipated, members viewed the risks for activity in foreign nations and their related demand for U.S. goods and services as tilted decidedly to the downside.

The considerable slack in labor markets, evidenced by both statistical and widespread anecdotal reports, was expected to exert appreciable downward pressure on wage increases over the forecast period. Concurrently, however, the favorable impact of wage disinflation on business costs would be offset in part by increasing costs of healthcare insurance, slower gains in structural productivity associated with reduced business capital investment, and by the necessity to divert some resources to enhance security. The passthrough effects of the substantial decline in energy prices over the past year were a favorable factor in the outlook for core inflation. On balance, core consumer price inflation was projected to remain subdued and quite possibly edge lower.

In the Committee's discussion of policy for the intermeeting period ahead, all the members indicated that they could support a proposal calling for further easing in reserve conditions consistent with a 50 basis point reduction in the federal funds rate to a level of 2 percent.

The heightened degree of uncertainty and risk aversion following the terrorist attacks seemed to be having a pronounced effect on business and household spending. The continued contraction in the economy and marking down of most forecasts of inflation and resource utilization going forward strongly suggested the desirability of further easing in the stance of policy. Although policy had been eased substantially in 2001, the forces restraining demand had been considerable, and a variety of factors had limited the passthrough of lower short-term interest rates into long-term rates, equity prices, bank lending rates, and the foreign exchange value of the dollar. In circumstances in which inflation was already reasonably low and pressures on resources and prices were likely to abate further in coming months, the risks were quite small that additional monetary stimulus aimed at bolstering the economy would foster a pickup in inflation.

A number of members noted that the choice between 25 and 50 basis points of easing was a close call. Three favored a smaller move on balance, although they could accept the larger decrease in the current environment of substantial uncertainty about the course of the economy and the appropriate stance of policy. These members noted that policy was already accommodative. Indeed, policy had been eased substantially further in September and October, and the effects of those actions and any added easing at this meeting would be felt mostly during the year ahead when fiscal stimulus and the inherent resilience of the economy should already be boosting growth substantially. Some also were concerned that the more sizable action in combination with an announcement of the Committee's continuing concern about further economic weakness would lead markets to build in inappropriate expectations of even more monetary stimulus.

Most members, however, favored a 50 basis point reduction in the Committee's target federal funds rate. These members stressed the absence of evidence that the economy was beginning to stabilize and some commented that indications of economic weakness had in fact intensified. Moreover, it was likely in the view of these members that core inflation, which was already modest, would decelerate further. In these circumstances insufficient monetary policy stimulus would risk a more extended contraction of the economy and possibly even downward pressures on prices that could be difficult to counter with the current federal funds rate already quite low. Should the economy display unanticipated strength in the near term, the emerging need for a tightening action would be a highly welcome development that could be readily accommodated in a timely manner to forestall any potential pickup in inflation.

All the members indicated that with the risks to the economy clearly tilted toward further weakness, they could vote in favor of retaining a statement to that effect in the press statement to be released shortly after today's meeting. Several stressed that such a statement did not constitute a commitment by the Committee to ease policy further at the next meeting. While the members agreed that significant further weakness in the economy might indeed warrant additional easing, a decision in that regard would depend entirely on the nature of future economic and financial developments.

At the conclusion of this discussion, the Committee voted to authorize and direct the Federal Reserve Bank of New York, until it was instructed otherwise, to execute transactions in the System Account in accordance with the following domestic policy directive:

> The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with reducing the federal funds rate to an average of around 2 percent.

The vote encompassed approval of the sentence below for inclusion in the press statement to be released shortly after the meeting.

> Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes that the risks continue to be weighted mainly toward conditions that may generate economic weakness in the foreseeable future.

Votes for this action: Messrs. Greenspan, McDonough, Ferguson, Gramlich, Hoenig, Kelley, Meyer, Ms. Minehan, Messrs. Moskow and Poole. Votes against this action: None.

It was agreed that the next meeting of the Committee would be held on Tuesday, December 11, 2001.

The meeting adjourned at 1:20 p.m.

Donald L. Kohn
Secretary

Meeting Held on December 11, 2001

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Tuesday, December 11, 2001, at 9:00 a.m.

Present:

Mr. Greenspan, Chairman
Mr. McDonough, Vice Chairman
Ms. Bies
Mr. Ferguson
Mr. Gramlich
Mr. Hoenig
Mr. Meyer
Ms. Minehan
Mr. Moskow
Mr. Olson
Mr. Poole

Messrs. Jordan, McTeer, Santomero, and Stern, Alternate Members of the Federal Open Market Committee

Messrs. Broaddus, Guynn, and Parry, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco respectively

Mr. Kohn, Secretary and Economist
Mr. Bernard, Deputy Secretary
Mr. Gillum, Assistant Secretary
Ms. Smith, Assistant Secretary
Mr. Mattingly, General Counsel
Mr. Baxter, Deputy General Counsel
Ms. Johnson, Economist
Mr. Reinhart, Economist
Mr. Stockton, Economist

Ms. Cumming, Messrs. Fuhrer, Hakkio, Howard, Lindsey, Rasche, Slifman, and Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

Mr. Winn, Assistant to the Board, Office of Board Members, Board of Governors

Messrs. Ettin and Madigan, Deputy Directors, Divisions of Research and Statistics and Monetary Affairs respectively, Board of Governors

Mr. Simpson, Senior Adviser, Division of Research and Statistics, Board of Governors

Mr. Connors, Associate Director, Division of International Finance, Board of Governors

Messrs. Oliner and Struckmeyer, Associate Directors, Division of Research and Statistics, Board of Governors

Mr. Whitesell, Assistant Director, Division of Monetary Affairs, Board of Governors

Mr. Skidmore, Special Assistant to the Board, Office of Board Members, Board of Governors

Ms. Low, Open Market Secretariat Assistant, Office of Board Members, Board of Governors

Mr. Rasdall, First Vice President, Federal Reserve Bank of Kansas City

Messrs. Eisenbeis and Goodfriend, Mses. Krieger and Mester, and Mr. Rosenblum, Senior Vice Presidents, Federal Reserve Banks of Atlanta, Richmond, New York, Philadelphia, and Dallas respectively

Messrs. Bryan, Judd, and Krane, Vice Presidents, Federal Reserve Banks of Cleveland, San Francisco, and Chicago respectively

Mr. Weber, Senior Research Officer, Federal Reserve Bank of Minneapolis

Prior to this meeting, Ms. Susan Schmidt Bies and Mr. Mark W. Olson had executed their oaths of office as members of the Board of Governors and the Federal Open Market Committee.

By unanimous vote, the minutes of the meeting of the Federal Open Market Committee held on November 6, 2001, were approved.

The Manager of the System Open Market Account reported on recent developments in foreign exchange markets. There were no open market operations in foreign currencies for the System's account in the period since the previous meeting.

The Manager also reported on developments in domestic financial markets and on System open market transactions in government securities and securities issued or fully guaranteed by federal agencies during the period November 6, 2001, through December 10, 2001. By unanimous vote, the Committee ratified these transactions.

The Committee then turned to a discussion of the economic and financial outlook and the conduct of monetary policy over the intermeeting period ahead. A summary of the economic and financial information available at the time of the meeting and of the Committee's discussion is provided below.

The information reviewed at this meeting indicated that economic activity had continued to decline into the fourth quarter, although some very recent data suggested that the rate of decline might be moderating. Labor market conditions had worsened further, especially in manufacturing and related industries, and industrial production had fallen in October and probably also in November. However, purchases of motor vehicles were very strong in both months, and other household and business spending seemed to have recovered somewhat from the sharp September decline. Energy prices were moderating noticeably in response to lower worldwide demand, and core price inflation remained subdued.

The labor market deteriorated substantially in October and November. Nonfarm payroll employment fell significantly in both months, with the largest job losses occurring in manufacturing, help supply services, and retail trade. Steep cuts in employment also occurred in industries directly affected by the September attacks, notably transportation, lodging, and tourism. Among the few industries that had not been adversely affected were health services, which continued to add workers, and finance, insurance, and real estate, which maintained stable employment on balance. The heavy job losses boosted the unemployment rate to 5.7 percent in November.

Industrial production fell sharply further in October, and the cuts continued to be spread widely across groups and industries, reflecting weak demand for business equipment, efforts by firms to pare inventories, and foreign competition. Motor vehicle assemblies slowed for a third straight month from the relatively high levels attained in the spring and early summer, and the output of high-technology goods remained on a steep downward trajectory, though a few positive signs had begun to emerge in the semiconductor and computer industries. The rate of utilization of total manufacturing capacity contracted further in October and was at a level substantially below the trough reached in the 1990–91 recession.

Personal consumption expenditures are estimated to have rebounded in October, following the large September decline, and were slightly above the third-quarter average. Purchases of motor vehicles surged in response to aggressive zero-rate financing packages offered by automakers, while spending on other goods made a partial recovery from the September drop. Outlays on consumer services strengthened in October, but they remained below their third-quarter average.

Residential building activity softened somewhat further in October, but in an environment of very low mortgage rates, homebuilding remained at a relatively high level despite the weak labor market and sluggish growth in personal income. Demand for single-family housing had held up relatively well. Sales of new single-family homes changed little in October and had been relatively steady since May, while sales of existing homes partially retraced the sharp drop-off that occurred in September.

Recent information suggested that the downward trend in business spending on durable equipment and software might be moderating somewhat. After plunging during the spring and summer, orders and shipments of nondefense capital goods turned up in October. Of particular note, both orders and shipments of office and computing equipment increased in October after having declined sharply for most of the year. For durable equipment in general, shipments had exceeded new orders since the first of the year, and as a result the backlog of unfilled orders was now below its level of a year ago. Nonresidential construction also had been weak during the spring and summer, reflecting an upward trend in vacancy rates and uncertainties regarding rents and property values. Although spending on industrial structures dropped further in October, outlays for office buildings and other commercial structures picked up noticeably.

The book value of business inventories fell steeply in the third quarter. The bulk of the reduction occurred in the manufacturing sector, but the sharp drop in stocks was matched by a contraction in shipments and the aggregate stock–shipments ratio for the sector remained at a very high level. In October, an additional sizable decline in manufacturing stocks resulted in a decrease in the sector's aggregate stock–shipments ratio, though it remained elevated. Wholesalers also experienced a sizable drop in inventories in the third quarter that produced a slight reduction in their aggregate inventory–sales ratio, but the latter was still in the upper portion of its range for the past two years. Retail inventories and the sector's inventory–sales ratio both edged up in the third quarter. Nonetheless, the sector's ratio remained in the lower end of its range for the past year.

The U.S. trade deficit in goods and services narrowed significantly in September and the third quarter, though most of those declines reflected estimated payments by foreign insurers related to the events of September 11. Abstracting from those payments, the trade deficit fell only a little in the third quarter as the value of exports fell by less than the value of imports. The softness in exports was widespread, with steep declines occurring in consumer goods, capital goods, and industrial supplies. Reductions in imports also were widespread, and as with exports, capital goods and industrial supplies were down sharply. The limited available information suggested a further weakening of economic activity in the foreign industrial countries in the current quarter, but there were some indications of a possible brightening of the economic outlook in the period ahead despite a sharp decline in business confidence in the aftermath of the September terrorist attacks. Additional monetary easing actions by the European Central Bank, the Bank of England, and the Bank of Canada contributed to that brighter outlook. Japan remained the weakest of the major foreign industrial economies, and the available information suggested further contraction in economic activity and worsened labor market conditions this quarter. Economic conditions in the major emerging-market countries remained weak, but there were signs that the worst might be over in some of the Asian economies most affected by the global downdraft in the high-tech sector. Economic growth in China seemed to have slowed a little. In Latin America, Argentina remained mired in recession, and the global slowdown continued to depress the economies of other nations in that region.

Core consumer price inflation remained at a relatively subdued pace in September and October, and a renewed decline in energy prices in October contributed to a sizable drop in total consumer price inflation during the twelve months ended in October when compared with the previous twelve-month period. The core personal consumption expenditure (PCE) chain-type price index also indicated that consumer inflation was significantly lower during the year ended in October, while the core consumer price index (CPI), with its narrower range of spending categories, had changed little over the past year. Core producer prices for finished goods edged up on balance during September and October, but inflation as measured by this index moderated slightly on a year-over-year basis. With regard to labor costs, growth of average hourly earnings of production or nonsupervisory workers slowed in September and October from the relatively moderate rate that had prevailed in earlier months.

At its meeting on November 6, 2001, the Committee adopted a directive that called for implementing conditions in reserve markets consistent with a decrease of 50 basis points in the intended level of the federal funds rate, to about 2 percent. The members referred to the heightened degree of uncertainty and risk aversion following the terrorist attacks that was having a significant effect on business and household spending, and they noted that the substantial easing of monetary policy that had been put in place this year had not shown through fully to long-term interest rates, equity prices, bank lending rates, and the foreign exchange value of the dollar. In these circumstances, with price inflation relatively low and pressures on prices and resources likely to ebb further, the members concluded that further monetary stimulus would provide some added insurance against a more extended contraction of the economy at little risk of a pickup in inflation. The members also believed that the balance of risks remained weighted toward conditions that could generate economic weakness in the foreseeable future.

Federal funds traded at rates close to the Committee's target level of 2 percent during the intermeeting period. Against the background of better-than-expected incoming economic data and of favorable news on military operations in Afghanistan, short-term interest rates declined a little over the intermeeting interval while intermediate- and long-term Treasury rates rose substantially. With market concerns about the economic outlook diminishing, yields on investment-grade corporate debt securities increased considerably less than those on comparable-maturity Treasuries, rates on speculative-grade bonds fell sharply, and major indexes of equity prices moved significantly higher.

In foreign exchange markets, the trade-weighted value of the dollar in terms of the major foreign currencies increased slightly on balance over the intermeeting period; the release of better-than-expected U.S. economic data lifted the dollar early in the intermeeting period, but subsequent data releases led to some erosion of that gain. Abroad, central bank policy rates were lowered in the euro area, England, and Canada in response to indications of flagging economic activity. In Japan, disappointing economic news and comments by Japanese officials about possible intervention to weaken the yen contributed to a decline in that currency. Meanwhile, the dollar was about unchanged on balance in terms of an index of the currencies of other important trading partners. The Mexican peso changed little on balance, the Brazilian *real* firmed despite the deepening problems of Argentina, and the Korean won rose against the background of incoming data that suggested the persistence of resilient domestic demand.

M2 growth in November was robust though well below the average pace of the two previous months. Liquid deposits continued to increase rapidly, reflecting the sharp drop in market interest rates this year, but inflows to retail money funds slowed as the economic outlook improved and the equity markets rallied. M3 expansion remained at a very high rate in November, bolstered by the growth of M2 and heavy bank acquisitions of nondeposit liabilities. The debt of domestic nonfinancial sectors grew at a moderate pace on balance through October.

The staff forecast prepared for this meeting suggested that economic activity would extend its decline for a time in 2002 but then would begin to turn upward. The recovery would be supported in part by the cumulative easing that had occurred in the stance of monetary policy, along with the fiscal stimulus already in place and some assumed additional measures not yet enacted. The turnaround in the economy and the gradual strengthening of the recovery would also be fostered by the completion of downward adjustments to inventories, a marked slowing in the contraction of business capital investments, and the added purchasing power arising from the recent declines in oil prices. Economic expansion was projected to strengthen appreciably by the second half of 2002 as the climate for business fixed investment improved and a strengthening of foreign economies led to somewhat greater demand for U.S. exports. Subpar expansion in the next few quarters was expected to foster an appreciable further easing of pressures on resources and some moderation in core price inflation.

In the Committee's discussion of current and prospective economic developments, members commented that the economy clearly was continuing to contract, led by further inventory liquidation and ongoing reductions in capital spending. The decline in inventories was likely to abate before long, boosting production, but the course of a recovery would depend on the behavior of final demand. The recent statistical and anecdotal information was more mixed than had been the case earlier and pointed on balance toward some moderation in the decline of overall final demand; for the first time in a long while the incoming data did not call for a downward revision to current forecasts. The members agreed, however, that the evidence of emerging stabilization in the economy remained quite tentative and the timing and strength of the eventual recovery continued to be surrounded by a high degree of uncertainty, with the risks to the economy still clearly tilted toward economic weakness. Among those risks, members cited the apparently reduced prospects for additional fiscal stimulus legislation, the vulnerability of current stock market valuations should forecasts of a robust rebound in earnings fail to materialize, the possibility of further terrorist incidents, and especially the potentially adverse effect on consumer confidence and spending of additional deterioration in labor market conditions. Nonetheless, with the critical consumer sector holding up relatively well thus far, members continued to anticipate an upturn in the economy during the year ahead in light of the progress already made by business firms in reducing excess inventories and unwinding capital overhangs, and the beneficial effects of the decline of energy prices. The lagged effects of the substantial easing in monetary policy this year and the fiscal stimulus measures already enacted into law were expected to buttress demand and economic recovery over the next year. The outlook for inflation was viewed as favorable, given the slack in labor and product markets, subdued inflationary expectations, and the prospect that aggregate demand would remain well below the economy's potential output over the next several quarters.

In the consumer sector, a major downside concern was the possibility that substantial further deterioration in labor market conditions, which was widely anticipated, could have a significant inhibiting effect on consumer confidence, incomes, and spending. Other potentially adverse economic factors cited by members included rising consumer debt burdens, the risk of a downturn in the stock market, and the recent rise in mortgage interest rates. That increase, among other things, would impinge on the extraction of capital gains from the turnover or refinancing of existing homes, which had provided important support for consumer spending. However, consumer expenditures appeared to have been relatively well sustained thus far, evidently in part the result of widespread price discounting and low interest rates, including zero rates on many motor vehicle loans, that were helping to overcome a currently high degree of caution and price consciousness among consumers. Moreover, recent survey evidence suggested that consumer confidence might be stabilizing after earlier declines. The significant decreases that had occurred in the prices of fuel oil and gasoline were a positive factor that would continue to bolster household spending for a while. Looking ahead, it was unclear how the various factors affecting consumers would interact, though apart from a likely downward adjustment in sales of motor vehicles to a more sustainable level following their recent surge, members generally anticipated that solid gains in consumer spending would underpin the economic recovery.

Like consumer spending, new home construction and sales had displayed considerable resilience in recent months, apparently in large part as a result of relatively attractive mortgage interest rates and perhaps to some extent as a consequence of favorable weather conditions in many parts of the country. Though overall housing activity remained at a high level, members reported softening activity in a few areas of the nation, notably in apartment units in some major cities. Sales of high-end houses also continued to be relatively depressed. With regard to the outlook, the recent rise in mortgage interest rates could be expected to have a retarding effect on housing activity. Even so, in the absence of seriously adverse shocks to confidence, housing activity seemed likely to hold near current levels over the quarters immediately ahead.

Business capital spending appeared to be continuing to decline at a rapid pace as business firms persisted in their efforts to bring production capacity into better alignment with forecasts for the growth of sales. With the near-term outlook for sales and profits remaining relatively depressed, the prospects for a significant pickup in spending for equipment and software did not seem favorable for the period immediately ahead. Businesses were reported to be very cautious, with many business executives awaiting concrete indications of improving markets before proceeding with planned investment expenditures. Even so, members referred to some tentative indications, such as an uptick in orders for durable goods and expectations of improving sales of some high-tech products, that might be signaling a turnaround in overall capital spending over coming quarters. Further progress in adjusting capacity and strengthening profit expectations would at some point lead to an upturn in spending for new equipment and software, but business contacts indicated that the timing for individual firms would vary considerably, with delays extending in some cases into 2003. New construction of nonresidential structures had declined sharply over the past several quarters, and with vacancy rates still rising in many key markets a further sizable decline was anticipated over the year ahead. Some members reported that higher insurance costs since the September 11 terrorist attacks were exerting an inhibiting effect on some nonresidential construction activity in their regions.

The liquidation of business inventories appeared to have accelerated in the current quarter, fostered to an important extent by very large declines in stocks of motor vehicles. Inventories now seemed to be approaching levels where firms would start to reduce their rate of liquidation early next year and perhaps turn to inventory accumulation as the year ahead progressed, giving a boost to production and incomes. Anecdotal reports provided some support for such an outlook, including widespread indications that retail inventories were already at quite lean levels, even outside the motor vehicle sector. At the same time, recent survey results pointed to less discomfort with current inventory levels though some further inventory correction was anticipated in manufacturing.

Further fiscal stimulus remained under active debate in the Congress, but with the rapid approach of the date for adjourning the current session, it was now questionable whether the legislation would be enacted this year. Although an expansionary fiscal policy was already in place as a result of earlier legislation and more stimulus might be legislated next year, especially if the economy continued to deteriorate, members saw an additional boost to near-term economic activity from new fiscal initiatives as increasingly unlikely. Some members also commented on mounting state and local government deficits, largely the result of diminishing income and sales tax receipts, and the adverse implications for governmental budgets and spending in various parts of the country.

Reflecting unusually synchronous global economic developments, foreign nations also were experiencing sluggish economic activity and in many instances actual recessions. The weakness was reflected in declining U.S. exports. Members saw little prospect that foreign economies would strengthen sufficiently on their own to provide significant independent impetus to U.S. exports, at least over the near term. Instead, an upturn in foreign economic activity would depend more on recovery in the United States.

Expectations that output would remain below the economy's potential for some time led many members to believe that underlying inflation might well edge lower from its currently modest levels. Reinforcing this outlook was recent evidence of somewhat faster than anticipated productivity growth, the prospect that world economic conditions would hold down energy prices, and a sharp drop in near-term inflation expectations of households as reported in recent surveys. Moreover, labor compensation appeared to be on a decelerating trend despite rapid increases in the cost of healthcare and other worker benefits. In these circumstances and given the persistence of highly competitive conditions in domestic and international markets, the ability of most businesses to raise prices was likely to remain quite limited or even nonexistent. While a number of members referred to the possibility of further disinflation, some also noted that the risks of a deflationary spiral seemed very limited, given the economy's self-correcting resilience and the ongoing effects of stimulative fiscal and monetary policies.

In the Committee's discussion of policy for the intermeeting period ahead, all but one member indicated their support of a proposal to ease reserve conditions slightly further, consistent with a 25 basis point reduction in the federal funds rate to a level of 1¾ percent. While there were signs that the weakness in aggregate demand might be abating, those signs were still quite limited and tentative. For now, contractionary forces continued to depress overall economic activity, and subpar economic performance seemed likely to persist, at least for a time. Moreover, a number of members saw substantial risks that economic activity could even fall short of a projection of stabilization in the near term and moderate recovery later next year. In these circumstances, the consequences of inactivity at this meeting could turn out to be considerable, and several members viewed an easing action as a measure of insurance against the potential for greater or more prolonged economic weakness than they currently anticipated. If a modest easing action taken today turned out to be unneeded, the Committee would have ample opportunity to reverse its action without incurring any real risk of allowing inflationary pressures to gather momentum, given the projected degree of slack in resource use and the current absence of significant inflationary pressures. The risk that a policy reversal, should it prove to be needed in the near term, would foster significant market unsettlement seemed limited in light of widespread expectations of some further easing at this meeting to be followed by a policy turnaround next year.

At the same time, members emphasized that the stance of policy was already quite accommodative, that much of the effects of recent easings had yet to be felt, and that tentative signs suggested the economy and the economic outlook were beginning to stabilize. In these circumstances several saw a decision to ease as a close call, but they favored it on balance given their weighting of the possible consequences should restraining forces in the economy persist to a greater extent than they currently expected. In the view of one member, policy was already sufficiently stimulative and the outlook improved enough to warrant a pause to assess further developments. In any event, members commented that the Committee's easing cycle was likely to be approaching its completion, and several suggested the desirability of signaling that view to the public.

Given their views about the risks to the economy, the members supported the retention of the sentence in the press statement to be released shortly after this meeting indicating that the risks continued to be weighted mainly toward conditions that could foster economic weakness in the foreseeable future. Such a statement was not intended to convey the impression that the Committee necessarily contemplated further easing actions. Members felt that the reduced size of today's action along with a reference in the statement to the emergence of signs that weakness in the economy could be moderating would tend to mitigate such an interpretation.

At the conclusion of this discussion, the Committee voted to authorize and direct the Federal Reserve Bank of New York, until it was instructed otherwise, to execute transactions in the System Account in accordance with the following domestic policy directive:

> The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with reducing the federal funds rate to an average of around 1¾ percent.

The vote encompassed approval of the sentence below for inclusion in the press statement to be released shortly after the meeting:

> Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes that the risks continue to be weighted mainly toward conditions that may generate economic weakness in the foreseeable future.

Votes for this action: Messrs. Greenspan, and McDonough, Ms. Bies, Messrs. Ferguson, Gramlich, Meyer, Ms. Minehan, Messrs. Moskow, Olson, and Poole. Votes against this action: Mr. Hoenig. Absent and not voting: Mr. Kelley.

Mr. Hoenig dissented because he preferred to leave the federal funds rate unchanged. He judged that a 2 percent federal funds rate was already quite stimulative and that a more stimulative policy was not needed. Following the rapid and aggressive policy actions already taken, it would be prudent to give the current policy more time to work through the economy. It was also his position that reducing the federal funds rate at this meeting could increase interest rate volatility by creating an expectation of a faster or a more aggressive reversal of policy.

It was agreed that the next meeting of the Committee would be held on Tuesday–Wednesday, January 29–30, 2002.

The meeting adjourned at 1:20 p.m.

Donald L. Kohn
Secretary

Litigation

During 2001 the Board of Governors was a party in seven lawsuits or appeals filed that year and was a party in thirteen other cases pending from previous years, for a total of twenty cases; in 2000, the Board had been a party in a total of twenty-seven cases. None of the lawsuits or appeals filed in 2001 raised questions under the Bank Holding Company Act. As of December 31, 2001, eight cases were pending.

Judicial Review of Board Orders under the Bank Holding Company Act

Dime Bancorp, Inc. v. Board of Governors, No. 00-4249 (2nd Circuit, filed December 11, 2000), was a petition for review of a Board order dated September 27, 2000, approving the applications of North Fork Bancorporation, Inc., Melville, New York, to acquire control of Dime Bancorp, Inc., and to thereby acquire its wholly owned subsidiary, The Dime Savings Bank of New York, FSB, both of New York, New York (86 *Federal Reserve Bulletin* 767). The petition was dismissed on the parties' stipulation on July 23, 2001.

Litigation under the Financial Institutions Supervisory Act

Board of Governors v. Pharaon, No. 91-CIV-6250 (S.D. New York, filed September 17, 1991), was an action brought to recover assets of an individual subject to a civil money penalty imposed by the Board. The case was remanded from the U.S. Court of Appeals for the Second Circuit for determination of the penalty amount following the court of appeals's determination requiring a 10 percent surcharge and prejudgment interest on the penalty imposed. On January 29, 2001, the court approved a settlement and terminated the action.

Litigation under the Gramm–Leach–Bliley Act

Trans Union LLC v. Federal Trade Commission, et al., No. 01-5202 (D.C. Circuit, filed June 4, 2001), is an appeal of a district court order upholding challenged provisions of an interagency rule regarding Privacy of Consumer Financial Information (145 F. Supp. 2d 6, April 30, 2001). The action was consolidated with *Individual Reference Services Group, Inc., v. Board of Governors,* No. 01-5175 (D.C. Circuit, filed May 25, 2001), *Reed Elsevier, Inc. v. Board of Governors,* No. 00-1289 (D.C. Circuit, filed June 30, 2000), and related petitions for review filed against other federal agencies challenging the same rules. On August 1, 2001, all appeals and petitions other than *Trans Union LLC* were dismissed on the motion of the appellants and petitioners.

Other Actions

Community Bank & Trust v. United States, No. 01-571C (Court of Federal Claims, filed October 3, 2001), is an action challenging on constitutional grounds the failure to pay interest on reserve accounts held at Federal Reserve Banks.

Emran v. Greenspan, No. 1:01CV1992 (D. District of Columbia, filed September 20, 2001), was an employment discrimination claim. On December 21, 2001, the case was dismissed by stipulation of the parties.

Laredo National Bancshares, Inc. v. Whalen v. Board of Governors, No. 01-CV-134 (S.D. Texas, removed on September 5, 2001, from Webb County, Texas, district court), is a third-party petition seeking indemnification or contribution from the Board in connection with a claim asserted against defendant Whalen alleging tortious interference with a contract.

Radfar v. United States, No. 1:01CV1292 (D. District of Columbia, filed June 11, 2001), is an action under the Federal Tort Claims Act for injury on Board premises.

Howe v. Bank for International Settlements, No. 00CV12485 RCL (D. Massachusetts, filed December 7, 2000), is an action seeking damages in connection with gold market activities and the repurchase by the Bank for International Settlements of its privately owned shares.

Barnes v. Reno, No. 1:00CV02900 (D. District of Columbia, filed December 4, 2000), was a civil rights action. On June 13, 2001, the district court dismissed the action.

Guerrero v. United States, No. 99-6771 (E.D. California, service effected November 21, 2000), was a suit brought by a prisoner. On October 30, 2001, the district court dismissed the action.

El Bey v. United States, No. 00-5293 (D.C. Circuit, filed August 31, 2000), was an appeal of a district court order dismissing a pro se action against the Federal Reserve and other defendants as lacking an arguable basis in law. On January 11, 2001, the court dismissed the appeal.

Sedgwick v. Board of Governors, No. 00-16525 (9th Circuit, filed August 16, 2000), was an appeal of the district court's dismissal of an action under the Federal Tort Claims Act alleging violation of bank supervision requirements. On May 31, 2001, the court of appeals affirmed the district court judgment. A petition for *certiorari* (No. 01-5654, filed August 6, 2001) was denied by the U.S. Supreme Court on October 1, 2001.

Bettersworth v. Board of Governors, No. 00-50262 (5th Circuit, filed April 14, 2000), was an appeal of the district court's dismissal of appellant's Privacy Act claims. On April 12, 2001, the court denied the petition for review. A petition for *certiorari* (No. 01-444, filed September 10, 2001) was denied by the U.S. Supreme Court on November 13, 2001.

Albrecht v. Board of Governors, No. 00-CV-317 (CKK) (D. District of Columbia, filed February 18, 2000), is an action challenging the method of funding of the retirement plan for certain Board employees.

Artis v. Greenspan, No. 1:99CV02073 (EGS) (D. District of Columbia, filed August 3, 1999), is an employment discrimination action. An identical action, No. 1:00CV0400 (filed February 22, 2001), was consolidated with this action.

Nelson v. Greenspan, No. 1:99CV00215 (EGS) (D. District of Columbia, filed January 28, 1999), was an employment discrimination complaint. On August 15, 2001, the court granted the Board's motion for summary judgment and dismissed the case.

In *Fraternal Order of Police v. Board of Governors,* No. 98-3116 (D. District of Columbia, filed December 22, 1998), plaintiff seeks a declaratory judgment regarding the Board's labor policy governing Federal Reserve Banks. ■

Federal Reserve System Organization

Board of Governors

December 31, 2001

Members

Term expires January 31,

ALAN GREENSPAN, of New York, *Chairman*[1] 2006
ROGER W. FERGUSON, JR., of Massachusetts, *Vice Chairman*[1] 2014
LAURENCE H. MEYER, of Missouri 2002
EDWARD W. KELLEY, JR., of Texas[2] 2004
EDWARD M. GRAMLICH, of Virginia 2008
MARK W. OLSON, of Maryland 2010
SUSAN S. BIES, of Tennessee 2012

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1. The designations as Chairman and Vice Chairman expire on June 20, 2004, and October 5, 2003, respectively, unless the service of these members of the Board shall have terminated sooner.
2. Resigned December 31, 2001.

Board of Governors—Continued

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Robert F. Taylor, *Assistant Director*

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Barry R. Snyder, *Inspector General*
Donald L. Robinson, *Deputy Inspector General*

Federal Open Market Committee

December 31, 2001

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WILLIAM J. MCDONOUGH, *Vice Chairman,* President, Federal Reserve Bank of New York
SUSAN SCHMIDT BIES, Board of Governors
ROGER W. FERGUSON, JR., Board of Governors
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ANTHONY M. SANTOMERO, President, Federal Reserve Bank of Philadelphia
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JAMIE B. STEWART, JR., First Vice President, Federal Reserve Bank of New York

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VINCENT R. REINHART, *Economist*

Federal Open Market Committee—Continued

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CHRISTINE M. CUMMING, *Associate Economist*
JEFFREY C. FUHRER, *Associate Economist*
CRAIG S. HAKKIO, *Associate Economist*
DAVID H. HOWARD, *Associate Economist*
WILLIAM C. HUNTER, *Associate Economist*
DAVID E. LINDSEY, *Associate Economist*
ROBERT H. RASCHE, *Associate Economist*
LAWRENCE SLIFMAN, *Associate Economist*
DAVID W. WILCOX, *Associate Economist*

DINO KOS, *Manager, System Open Market Account*

During 2001 the Federal Open Market Committee held eight regularly scheduled meetings (see "Minutes of Federal Open Market Committee Meetings" in this volume.)

Federal Advisory Council

December 31, 2001

Members

District 1—LAWRENCE K. FISH, *Chairman, President, and Chief Executive Officer*, Citizens Financial Group, Inc., Providence, Rhode Island

District 2—DOUGLAS A. WARNER III, *Chairman*, J.P. Morgan Chase & Co., Incorporated, New York, New York

District 3—RONALD L. HANKEY, *Chairman and Chief Executive Officer*, Adams County National Bank, Gettysburg, Pennsylvania

District 4—DAVID A. DABERKO, *Chairman and Chief Executive Officer*, National City Corporation, Cleveland, Ohio

District 5—L.M. BAKER, JR., *Chairman and Chief Executive Officer*, Wachovia Corporation, Winston Salem, North Carolina

District 6—L. PHILLIP HUMANN, *Chairman, President, and Chief Executive Officer*, SunTrust Banks, Inc., Atlanta, Georgia

District 7—ALAN G. MCNALLY, *Chairman and Chief Executive Officer*, Harris Bancorp, Inc., Chicago, Illinois

District 8—KATIE S. WINCHESTER, *President and Chief Executive Officer*, First Citizens National Bank, Dyersburg, Tennessee

District 9—R. SCOTT JONES, *President and Chief Executive Officer*, Signal Financial Corporation, Mendota Heights, Minnesota

District 10—CAMDEN R. FINE, *President and Chief Executive Officer*, Midwest Independent Bank, Jefferson City, Missouri

District 11—RICHARD W. EVANS, JR., *Chairman and Chief Executive Officer*, Frost National Bank, San Antonio, Texas

District 12—STEVEN L. SCHEID, *Vice Chairman and President*, Charles Schwab Corporation, San Francisco, California

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LAWRENCE K. FISH, *Vice President*
JAMES E. ANNABLE, *Co–Secretary*
WILLIAM J. KORSVIK, *Co–Secretary*

Federal Advisory Council—Continued

The Federal Advisory Council met on February 1–2, May 3–4, September 6–7, and December 13–14, 2001. The Board of Governors met with the council on February 2, May 4, September 7, and December 14, 2001. The council, which is composed of one representative of the banking industry from each of the twelve Federal Reserve Districts, is required by the Federal Reserve Act to meet in Washington at least four times each year and is authorized by the act to consult with, and advise, the Board on all matters within the jurisdiction of the Board.

Consumer Advisory Council

December 31, 2001

Members

ANTHONY ABBATE, *President and Chief Executive Officer,* Interchange Bank, Saddle Brook, New Jersey

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MALCOLM BUSH, *President,* Woodstock Institute, Chicago, Illinois

MANUEL CASANOVA, JR., *Executive Vice President,* International Bank of Commerce, Brownsville, Texas

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MARY ELLEN DOMEIER, *President,* State Bank and Trust Company of New Ulm, New Ulm, Minnesota

LESTER WM. FIRSTENBERGER, *Attorney,* Pittsfield, New Hampshire

JOHN C. GAMBOA, *Executive Director,* The Greenlining Institute, San Francisco, California

EARL JAROLIMEK, *Vice President and Corporate Compliance Officer,* Community First Bankshares, Fargo, North Dakota

WILLIE JONES, *Senior Vice President,* The Community Builders, Inc., Boston, Massachusetts

ANNE S. LI, Former *Executive Director,* New Jersey Community Loan Fund, Trenton, New Jersey

J. PATRICK LIDDY, *Director of Compliance,* Fifth Third Bancorp, Cincinnati, Ohio

OSCAR MARQUIS, *Attorney,* Hunton and Williams, Park Ridge, Illinois

JEREMY NOWAK, *Chief Executive Officer,* The Reinvestment Fund, Philadelphia, Pennsylvania

MARTA RAMOS, *Vice President and Community Reinvestment Act Officer,* Banco Popular de Puerto Rico, San Juan, Puerto Rico

RONALD REITER, *Supervising Deputy Attorney General,* California Department of Justice, San Francisco, California

ELIZABETH RENUART, *Staff Attorney,* National Consumer Law Center, Boston, Massachusetts

RUSSELL W. SCHRADER, *Senior Vice President and Assistant General Counsel,* Visa U.S.A., San Francisco, California

FRANK TORRES III, *Legislative Counsel,* Consumers Union, Washington, District of Columbia

Consumer Advisory Council—Continued

GARY S. WASHINGTON, *Senior Vice President,* ABN AMRO, Chicago, Illinois

ROBERT L. WYNN II, *Financial Education Officer,* Wisconsin Department of Financial Institutions, Madison, Wisconsin

Officers

LAUREN ANDERSON, *Chair*
Executive Director,
Neighborhood Housing Services of New Orleans, Inc.,
New Orleans, Louisiana

DOROTHY BROADMAN, *Vice Chair*
Director of Corporate Citizenship,
Capital One Financial Corporation,
Falls Church, Virginia

The Consumer Advisory Council met with members of the Board of Governors on March 22, June 28, and October 25, 2001. The council is composed of academics, state and local government officials, representatives of the financial industry, and representatives of consumer and community interests. It was established pursuant to the 1976 amendments to the Equal Credit Opportunity Act to advise the Board on consumer financial services.

Thrift Institutions Advisory Council

December 31, 2001

Members

TOM R. DORETY, *President and Chief Executive Officer*, Suncoast Schools Federal Credit Union, Tampa, Florida

RONALD S. ELIASON, *President and Chief Executive Officer*, Utah Community Federal Credit Union, Provo, Utah

D.R. GRIMES, *Vice Chairman and Chief Executive Officer*, NetBank, Alpharetta, Georgia

THOMAS S. JOHNSON, *Chairman and Chief Executive Officer*, GreenPoint Bank, New York, New York

CORNELIUS D. MAHONEY, *Chairman, President, and Chief Executive Officer*, Woronco Savings Bank, Westfield, Massachusetts

KAREN L. MCCORMICK, *President and Chief Executive Officer*, First Federal Savings and Loan Association, Port Angeles, Washington

JAMES F. MCKENNA, *President and Chief Executive Officer*, North Shore Bank, FSB, Brookfield, Wisconsin

CHARLES C. PEARSON, JR., *Co-Chairman and Chief Executive Officer*, Waypoint Bank, Harrisburg, Pennsylvania

HERBERT M. SANDLER, *Chairman and Chief Executive Officer*, World Savings Bank, FSB, Oakland, California

EVERETT STILES, *President and Chief Executive Officer*, Macon Bank, Franklin, North Carolina

Thrift Institutions Advisory Council—Continued

MARK H. WRIGHT, *President and Chief Executive Officer*, USAA Federal Savings Bank, San Antonio, Texas

CLARENCE ZUGELTER, *President, Chief Executive Officer, and Chairman*, First Federal Bank, FSB, Kansas City, Missouri

Officers

THOMAS S. JOHNSON, *President*

MARK H. WRIGHT, *Vice President*

The members of the Thrift Institutions Advisory Council met with the Board of Governors on February 23, July 13, and November 9, 2001. The council, which is composed of representatives from credit unions, savings and loan associations, and savings banks, consults with, and advises, the Board on issues pertaining to the thrift industry and on various other matters within the Board's jurisdiction.

Officers of Federal Reserve Banks and Branches

December 31, 2001

BANK or Branch	Chairman[1] Deputy Chairman	President First Vice President	Vice President in charge of Branch
BOSTON[2]	William C. Brainard William O. Taylor	Cathy E. Minehan Paul M. Connolly	
NEW YORK[2]	Peter G. Peterson Gerald M. Levin	William J. McDonough Jamie B. Stewart, Jr.	
Buffalo	Bal Dixit		Barbara L. Walter[3]
PHILADELPHIA	Charisse R. Lillie Glenn A. Schaeffer	Anthony M. Santomero William H. Stone, Jr.	
CLEVELAND[2]	David H. Hoag Robert W. Mahoney	Jerry L. Jordan Sandra Pianalto	
Cincinnati	George C. Juilfs		Barbara B. Henshaw
Pittsburgh	Charles E. Bunch		Robert B. Schaub
RICHMOND[2]	Jeremiah J. Sheehan Wesley S. Williams, Jr.	J. Alfred Broaddus, Jr. Walter A. Varvel	
Baltimore	George L. Russell, Jr.		William J. Tignanelli[3]
Charlotte	James F. Goodmon		Dan M. Bechter[3]
ATLANTA	John F. Wieland Paula Lovell	Jack Guynn Patrick K. Barron	James M. McKee[3]
Birmingham	Catherine Sloss Crenshaw		Andre T. Anderson
Jacksonville	Julie K. Hilton		Robert J. Slack[3]
Miami	Mark T. Sodders		James T. Curry III
Nashville	Whitney Johns Martin		Melvyn K. Purcell[3]
New Orleans	Ben Tom Roberts		Robert J. Musso[3]

Officers of Federal Reserve Banks and Branches—Continued

BANK or Branch	Chairman[1] Deputy Chairman	President First Vice President	Vice President in charge of Branch
CHICAGO[2]	Arthur C. Martinez Robert J. Darnall	Michael H. Moskow Gordon R.G. Werkema	
Detroit	Timothy D. Leuliette		David R. Allardice[3]
ST. LOUIS	Charles W. Mueller Walter L. Metcalfe, Jr.	William Poole W. LeGrande Rives	
Little Rock	Vick M. Crawley		Robert A. Hopkins
Louisville	Roger Reynolds		Thomas A. Boone
Memphis	Gregory M. Duckett		Martha Perine Beard
MINNEAPOLIS	James J. Howard Ronald N. Zwieg	Gary H. Stern James M. Lyon	
Helena	Thomas O. Markle		Samuel H. Gane
KANSAS CITY	Terrence P. Dunn Jo Marie Dancik	Thomas M. Hoenig Richard K. Rasdall	
Denver	Kathryn A. Paul		Maryann F. Hunter[3]
Oklahoma City	Patricia B. Fennell		Dwayne E. Boggs
Omaha	Gladys Styles Johnston		Steven D. Evans
DALLAS	H.B. Zachry, Jr. Patricia M. Patterson	Robert D. McTeer, Jr. Helen E. Holcomb	
El Paso	Beauregard Brite White		Sammie C. Clay
Houston	Edward O. Gaylord		Robert Smith III[3]
San Antonio	Patty P. Mueller		James L. Stull[3]
SAN FRANCISCO	Nelson C. Rising George M. Scalise	Robert T. Parry John F. Moore	
Los Angeles	William D. Jones		Mark L. Mullinix[4]
Portland	Nancy Wilgenbusch		Raymond H. Laurence[3]
Salt Lake City	H. Roger Boyer		Andrea P. Wolcott
Seattle	Richard R. Sonstelie		David K. Webb[3]

NOTE. A current list of these officers appears each month in the *Federal Reserve Bulletin.*

1. The Chairman of a Federal Reserve Bank serves, by statute, as Federal Reserve Agent.

2. Additional offices of these Banks are located at Windsor Locks, Connecticut; Utica at Oriskany, New York; East Rutherford, New Jersey; Columbus, Ohio; Charleston, West Virginia; Columbia, South Carolina; Indianapolis, Indiana; Milwaukee, Wisconsin; Des Moines, Iowa; and Peoria, Illinois.

3. Senior Vice President

4. Executive Vice President

Conference of Chairmen

The chairmen of the Federal Reserve Banks are organized into the Conference of Chairmen, which meets to consider matters of common interest and to consult with, and advise, the Board of Governors. Such meetings, attended also by the deputy chairmen, were held in Washington on May 30 and 31, and on November 28 and 29, 2001.

The members of the Executive Committee of the Conference of Chairmen during 2001 were John F. Wieland, chair; Peter G. Peterson, vice chair; and Charisse R. Lillie, member.

On November 29, 2001, the Conference elected its Executive Committee for 2002; it named Peter G. Peterson as chair, Charisse R. Lillie as vice chair, and Robert J. Darnall as the third member.

Conference of Presidents

The presidents of the Federal Reserve Banks are organized into the Conference of Presidents, which meets periodically to consider matters of common interest and to consult with, and advise, the Board of Governors.

J. Alfred Broaddus, Jr., President of the Federal Reserve Bank of Richmond, served as chair of the conference in 2001, and Michael H. Moskow, President of the Federal Reserve Bank of Chicago, served as its vice chair. Betty M. Fahed, of the Federal Reserve Bank of Richmond, served as its secretary, and Valerie J. Van Meter, of the Federal Reserve Bank of Chicago, served as its assistant secretary.

Conference of First Vice Presidents

The Conference of First Vice Presidents of the Federal Reserve Banks was organized in 1969 to meet periodically for the consideration of operations and other matters.

Richard K. Rasdall, Jr., First Vice President of the Federal Reserve Bank of Kansas City, served as chair of the conference in 2001, and Paul M. Connolly, First Vice President of the Federal Reserve Bank of Boston, served as its vice chair. Leesa M. Guyton, of the Federal Reserve Bank of Kansas City, served as its secretary, and David K. Park, of the Federal Reserve Bank of Boston, served as its assistant secretary.

On October 16, 2001, the conference elected Paul M. Connolly as its chair for 2002–2003, and Walter A. Varvel, First Vice President of the Federal Reserve Bank of Richmond, as its vice chair.

Directors

The following list of directors of Federal Reserve Banks and Branches shows for each director the class of directorship, the director's principal organizational affiliation, and the date the director's term expires. Each Federal Reserve Bank has a nine-member board: three Class A and three Class B directors, who are elected by the stockholding member banks, and three Class C directors, who are appointed by the Board of Governors of the Federal Reserve System.

Class A directors represent the stockholding member banks in each Federal Reserve District. Class B and Class C directors represent the public and are chosen with due, but not exclusive, consideration to the interests of agriculture, commerce, industry, services, labor, and consumers; they may not be officers, directors, or employees of any bank or bank holding company. In addition, Class C directors may not be stockholders of any bank or bank holding company.

For the election of Class A and Class B directors, the Board of Governors classifies the member banks of each Federal Reserve District into three groups. Each group, which comprises banks with similar capitalization, elects one Class A director and one Class B director. Annually, the Board of Governors designates one of the Class C directors as chair of the board and Federal Reserve Agent of each District Bank, and it designates another Class C director as deputy chair.

Federal Reserve Branches have either five or seven directors, a majority of whom are appointed by the parent Federal Reserve Bank; the others are appointed by the Board of Governors. One of the directors appointed by the Board is designated annually as chair of the board of that Branch in a manner prescribed by the parent Federal Reserve Bank.

For the name of the chair and deputy chair of the board of directors of each Reserve Bank and of the chair of each Branch, see the preceding table, "Officers of Federal Reserve Banks and Branches."

Directors of Federal Reserve Banks and Branches

		Term expires Dec. 31
DISTRICT 1—BOSTON		
Class A		
Terrence Murray	Chairman and Chief Executive Officer, FleetBoston Financial Corporation, Boston, Massachusetts	2001
David S. Outhouse	President and Chief Executive Officer, First & Ocean National Bank, Newburyport, Massachusetts	2002
Richard C. White	Chairman, President, and Chief Executive Officer, Community National Bank, Derby, Vermont	2003
Class B		
Robert R. Glauber	President and Chief Executive Officer, National Association of Securities Dealers, Inc., Washington, D.C.	2001
Orit Gadiesh	Chairman, Bain & Company, Inc., Boston, Massachusetts	2002
Sherwin Greenblatt	President and Chief Operating Officer, Bose Corporation, Framingham, Massachusetts	2003
Class C		
William C. Brainard	Professor of Economics, Yale University, New Haven, Connecticut	2001
William O. Taylor	Chairman Emeritus, The Boston Globe, Boston, Massachusetts	2002
James J. Norton	Vice President, AFL-CIO, Washington, D.C.	2003
DISTRICT 2—NEW YORK		
Class A		
T. Joseph Semrod	Vice Chairman, FleetBoston Financial, Princeton, New Jersey	2001
George W. Hamlin IV	President and Chief Executive Officer, The Canandaigua National Bank and Trust Company, Canandaigua, New York	2002
Sanford I. Weill	Chairman and Chief Executive Officer, Citigroup Inc., New York, New York	2003

		Term expires Dec. 31

DISTRICT 2, NEW YORK—Continued

Class B

Ronay Menschel	Chairman, Phipps Houses, New York, New York	2001
Ann M. Fudge	Retired Executive Vice President, Kraft Foods, Inc., and Retired President, Coffee & Cereals Division, Tarrytown, New York, Westport, Connecticut	2002
Jerry I. Speyer	President and Chief Executive Officer, Tishman Speyer Properties, New York, New York	2003

Class C

Peter G. Peterson	Chairman, The Blackstone Group, New York, New York	2001
Albert J. Simone	President, Rochester Institute of Technology, Rochester, New York	2002
Gerald M. Levin	Chief Executive Officer, AOL Time Warner, Inc., New York, New York	2003

BUFFALO BRANCH

Appointed by the Federal Reserve Bank

Kathleen R. Whelehan	Executive Vice President, Consumer Finance Division, HSBC, Buffalo, New York	2001
Geraldine C. Ochocinska	Director, Region 9, UAW, Buffalo, New York	2002
Peter G. Humphrey	President and Chief Executive Officer, Financial Institutions, Inc., Warsaw, New York	2003
Maureen Torrey Marshall	Co-Owner, Torrey Farms, Inc., Elba, New York	2003

Appointed by the Board of Governors

Bal Dixit	President and Chief Executive Officer, Newtex Industries, Inc., Victor, New York	2001
Patrick P. Lee	Chairman and Chief Executive Officer, International Motion Control, Inc., Buffalo, New York	2002
John E. Friedlander	President and Chief Executive Officer, Kaleida Health, Buffalo, New York	2003

DISTRICT 3—PHILADELPHIA

Class A

Rufus A. Fulton, Jr.	Chairman and Chief Executive Officer, Fulton Financial Corporation, Lancaster, Pennsylvania	2001
Frank Kaminski, Jr.	Chairman, Atlantic Central Bankers Bank, Camp Hill, Pennsylvania	2002

		Term expires Dec. 31
DISTRICT 3, *Class A*—Continued		
Robert J. Vanderslice	President and Chief Operating Officer, Pennsville National Bank, Pennsville, New Jersey	2003
Class B		
Howard E. Cosgrove	Chairman and Chief Executive Officer, Conectiv, Wilmington, Delaware	2001
Robert E. Chappell	Chairman and Chief Executive Officer, Penn Mutual Life Insurance Co., Horsham, Pennsylvania	2002
Doris M. Damm	President and Chief Executive Officer, Accu Staffing Services, Cherry Hill, New Jersey	2003
Class C		
Charisse R. Lillie	Partner, Ballard Spahr Andrews & Ingersoll, Philadelphia, Pennsylvania	2001
Ronald J. Naples	Chairman and Chief Executive Officer, Quaker Chemical Corporation, Conshohocken, Pennsylvania	2002
Glenn A. Schaeffer	President, Pennsylvania Building and Construction Trades Council, Harrisburg, Pennsylvania	2003

DISTRICT 4—CLEVELAND

Class A		
John R. Cochran	Chairman and Chief Executive Officer, FirstMerit Corporation, Akron, Ohio	2001
Tiney M. McComb	Chairman and President, Heartland BancCorp, Gahanna, Ohio	2002
Stephen P. Wilson	President and Chief Executive Officer, Lebanon Citizens National Bank, Lebanon, Ohio	2003
Class B		
Wayne R. Embry	Retired President and Chief Operating Officer, Cleveland Cavaliers, Cleveland, Ohio	2001
David L. Nichols	President and Chief Operating Officer, Rich's/Lazarus/Goldsmith's, Atlanta, Georgia	2002
Cheryl L. Krueger-Horn	President and Chief Executive Officer, Cheryl&Co., Westerville, Ohio	2003

		Term expires Dec. 31

DISTRICT 4, CLEVELAND—Continued

Class C

David H. Hoag	Former Chairman, The LTV Corporation, Cleveland, Ohio	2001
Phillip R. Cox	President and Chief Executive Officer, Cox Financial Corporation, Cincinnati, Ohio	2002
Robert W. Mahoney	Retired Chairman and Chief Executive Officer, Diebold Incorporated, Canton, Ohio	2003

CINCINNATI BRANCH

Appointed by the Federal Reserve Bank

Jean R. Hale	Vice Chairman, President, and Chief Executive Officer, Community Trust Bancorp, Inc., Pikeville, Kentucky	2001
Mary Ellen Slone	Chief Executive Officer and Chairman, Meridian Communications, Lexington, Kentucky	2002
V. Daniel Radford	Executive Secretary-Treasurer, Cincinnati AFL-CIO Labor Council, Cincinnati, Ohio	2002
Bick Weissenrieder	Chairman, President, and Chief Executive Officer, Hocking Valley Bank, Athens, Ohio	2003

Appointed by the Board of Governors

Thomas Revely III	President and Chief Executive Officer, CBS Technologies, LLC, Cincinnati, Ohio	2001
George C. Juilfs	Chairman and Chief Executive Officer, SENCORP, Newport, Kentucky	2002
Charles Whitehead	President, Ashland Inc. Foundation, Covington, Kentucky	2003

PITTSBURGH BRANCH

Appointed by the Federal Reserve Bank

Edward V. Randall, Jr.	Management Advisor and Consultant, Babst, Calland, Clements, & Zomnir, P.C., Pittsburgh, Pennsylvania	2001
Georgia Berner	President, Berner International Corp., New Castle, Pennsylvania	2002
Peter N. Stephans	Chairman and Chief Executive Officer, Trigon Incorporated, McMurray, Pennsylvania	2002
Kristine N. Molnar	President, Upper Ohio Valley Region, WesBanco Bank, Inc., Wheeling, West Virginia	2003

		Term expires Dec. 31
DISTRICT 4, PITTSBURGH BRANCH—Continued		
Appointed by the Board of Governors		
Gretchen R. Haggerty	Vice President, Accounting and Finance, U.S. Steel Group, Pittsburgh, Pennsylvania	2001
Charles E. Bunch	Executive Vice President, PPG Industries, Inc., Pittsburgh, Pennsylvania	2002
James I. Mitnick	Senior Vice President, Turner Construction Company, Pittsburgh, Pennsylvania	2003

DISTRICT 5—RICHMOND

Class A

James M. Culberson, Jr.	Chairman Emeritus, First National Bank and Trust Company, Asheboro, North Carolina	2001
Fred L. Green III	Chairman, President and Chief Executive Officer, The National Bank of South Carolina, Columbia, South Carolina	2002
William W. Duncan, Jr.	President/Chief Executive Officer, St. Michaels Bank, St. Michaels, Maryland	2003

Class B

Craig A. Ruppert	President, Ruppert Nurseries Inc., Laytonsville, Maryland	2001
W. Henry Harmon	President and Chief Executive Officer, Triana Energy, LLC, Charleston, West Virginia, Union Drilling, Inc., Bridgeville, Pennsylvania	2002
James E. Haden	President/Chief Executive Officer, Martha Jefferson Hospital, Charlottesville, Virginia	2003

Class C

Irwin Zazulia	Retired President and Chief Executive Officer, Hecht's, Arlington, Virginia	2001
Jeremiah J. Sheehan	Retired Chairman, Reynolds Metals Company, Richmond, Virginia	2002
Wesley S. Williams, Jr.	Partner, Covington & Burling, Washington, D.C.	2003

BALTIMORE BRANCH

Appointed by the Federal Reserve Bank

Jeremiah E. Casey	Director and Former Chairman, Allfirst Financial, Inc., Baltimore, Maryland	2001
Dyan Brasington	President, Technology Council of Maryland, Rockville, Maryland	2002

		Term expires Dec. 31
DISTRICT 5, BALTIMORE BRANCH		
Appointed by the Federal Reserve Bank—Continued		
William L. Jews	President and Chief Executive Officer, CareFirst BlueCross BlueShield, Owings Mills, Maryland	2003
Kenneth C. Lundeen	President, C. J. Langenfelder & Son, Inc., Baltimore, Maryland	2003
Appointed by the Board of Governors		
Owen E. Herrnstadt	Director, International Department, International Association of Machinists and Aerospace Workers, AFL-CIO, Upper Marlboro, Maryland	2001
George L. Russell, Jr.	Law Offices of Peter G. Angelos, Baltimore, Maryland	2002
William C. Handorf	Professor of Finance, School of Business and Public Management, The George Washington University, Washington, D.C.	2003
CHARLOTTE BRANCH		
Appointed by the Federal Reserve Bank		
William H. Nock	President and Chief Executive Officer, Sumter National Bank, Sumter, South Carolina	2001
Lucy J. Reuben	Dean, School of Business, South Carolina State University, Orangeburg, South Carolina	2002
Elleveen T. Poston	President, Quality Transport, Inc., Lake City, South Carolina	2003
Cecil W. Sewell, Jr.	Chairman and Chief Executive Officer Emeritus, RBC Centura Banks, Inc., Raleigh, North Carolina	2003
Appointed by the Board of Governors		
James F. Goodmon	President and Chief Executive Officer, Capitol Broadcasting Company, Inc., Raleigh, North Carolina	2001
Michael A. Almond	President and Chief Executive Officer, Charlotte Regional Partnership, Charlotte, North Carolina	2002
Jim Lowry	President, High Point Chevrolet Jeep, High Point, North Carolina	2003
DISTRICT 6—ATLANTA		
Class A		
Waymon L. Hickman	Chairman and Chief Executive Officer, First Farmers and Merchants National Bank, Columbia, Tennessee	2001

Term expires Dec. 31

DISTRICT 6, *Class A*—Continued

Richard G Hickson ....President and Chief Executive Officer, Trustmark Corporation, Jackson, Mississippi — 2002

William G. Smith, Jr. ....President and Chief Executive Officer, Capital City Bank Group, Inc., Tallahassee, Florida — 2003

Class B

Suzanne E. Boas ....President, Consumer Credit Counseling Service, Inc., Atlanta, Georgia — 2001

Juanita P. Baranco ....Executive Vice President, Baranco Automotive Group, Morrow, Georgia — 2002

John Dane III ....President and Chief Executive Officer, Trinity Yachts, Inc., New Orleans, Louisiana — 2003

Class C

Maria Camila Leiva ....Executive Vice President, MFZ Management Corporation, Coral Gables, Florida — 2001

John F. Wieland ....Chief Executive Officer and Chairman, John Wieland Homes and Neighborhoods, Inc., Atlanta, Georgia — 2002

Paula Lovell ....President, Lovell Communications, Inc., Nashville, Tennessee — 2003

BIRMINGHAM BRANCH

Appointed by the Federal Reserve Bank

Robert M. Barrett ....Chairman, President, and Chief Executive Officer, First Community Bank of Central Alabama, Wetumpka, Alabama — 2001

W. Charles Mayer III ....Senior Executive Vice President, Alabama Banking Group Head, and Commercial Banking Group Head, AmSouth Bank, Birmingham, Alabama — 2002

James A. Vickery ....International Representative, Laborers' International Union of North America, Gadsden, Alabama — 2003

Hundley Batts, Sr. ....Owner and Managing General Agent, Hundley Batts & Associates, Huntsville, Alabama — 2003

Appointed by the Board of Governors

Catherine Sloss Crenshaw ...President, Sloss Real Estate Group, Inc., Birmingham, Alabama — 2001

V. Larkin Martin ....Managing Partner, Martin Farm, Courtland, Alabama — 2002

W. Miller Welborn ....Chairman, Welborn & Associates, Inc., Tuscaloosa, Tennessee — 2003

		Term expires Dec. 31

DISTRICT 6, ATLANTA—Continued

JACKSONVILLE BRANCH

Appointed by the Federal Reserve Bank

Harvey R. Heller	President, Heller Brothers Packing Corp., Winter Garden, Florida	2001
Jerry M. Smith	Chairman and President, First National Bank of Alachua, Alachua, Florida	2002
Robert L. Fisher	President and Chief Executive Officer, MacDill Federal Credit Union, Tampa, Florida	2003
Michael W. Poole	Poole Carbone Eckbert, Winter Park, Florida	2003

Appointed by the Board of Governors

Julie K. Hilton	Vice President and Co-Owner, Hilton Inc., Panama City Beach, Florida	2001
Marsha G. Rydberg	Partner, The Rydberg Law Firm, Tampa, Florida	2002
William E. Flaherty	Former Chairman, Blue Cross and Blue Shield of Florida, Inc., Jacksonville, Florida	2003

MIAMI BRANCH

Appointed by the Federal Reserve Bank

Rudy E. Schupp	Chairman, Florida Banking, Wachovia, N.A., West Palm Beach, Florida	2001
D. Keith Cobb	Managing Director, Cobb Consulting Group, Ft. Lauderdale, Florida	2002
James W. Moore	Managing Partner, Riverside Capital, LLC, Fort Myers, Florida	2002
Miriam Lopez	President and Chief Executive Officer, TransAtlantic Bank, Miami, Florida	2003

Appointed by the Board of Governors

Rosa Sugranes	Chairman, Iberia Tiles Corp., Miami, Florida	2001
Mark T. Sodders	President, Lakeview Farms, Inc., Pahokee, Florida	2002
Brian E. Keeley	President and Chief Executive Officer, Baptist Health Systems of South Florida, Coral Gables, Florida	2003

		Term expires Dec. 31

DISTRICT 6, NASHVILLE BRANCH

Appointed by the Federal Reserve Bank

Dale W. Polley	Past President, First American Corporation, Nashville, Tennessee	2001
L.A. Walker, Jr.	Chairman, BB&T McMinn/Monroe Counties, Tennessee, Athens, Tennessee	2002
James W. Spradley, Jr.	President, Standard Candy Company, Inc., Nashville, Tennessee	2003
Emil Hassan	Senior Vice President, North America Manufacturing, Purchasing, Quality and Logistics, Nissan North America, Inc., Smyrna, Tennessee	2003

Appointed by the Board of Governors

Frances F. Marcum	General Partner, Marcum Capital, L.L.C., Tullahoma, Tennessee	2001
Beth Dortch Franklin	President and Chief Executive Officer, Star Transportation, Inc., Nashville, Tennessee	2002
Whitney Johns Martin	Chairman and Chief Executive Officer, Capital Across America, Nashville, Tennessee	2003

NEW ORLEANS BRANCH

Appointed by the Federal Reserve Bank

David E. Johnson	Chairman and Chief Executive Officer, The First Bancshares, Inc., and The First National Bank of South Mississippi, Hattiesburg, Mississippi	2001
C.R. Cloutier	President and Chief Executive Officer, MidSouth Bank, Lafayette, Louisiana	2002
Teri G. Fontenot	President and Chief Executive Officer, Woman's Hospital, Baton Rouge, Louisiana	2003
David Guidry	President and Chief Executive Officer, Guico Machine Works, Inc., Harvey, Louisiana	2003

Appointed by the Board of Governors

Dave Dennis	President, Specialty Contractors & Assoc., Inc., Gulfport, Mississippi	2001
R. Glenn Pumpelly	President and Chief Executive Officer, Pumpelly Oil Inc., Sulphur, Louisiana	2002
Ben Tom Roberts	Senior Executive Vice President, Roberts Brothers, Inc., Realtors, Mobile, Alabama	2003

Term expires Dec. 31

DISTRICT 7—CHICAGO

Class A

Alan R. Tubbs	President, Maquoketa State Bank and Ohnward Bancshares Inc., Maquoketa, Iowa	2001
William A. Osborn	Chairman and Chief Executive Officer, Northern Trust Corporation and The Northern Trust Company, Chicago, Illinois	2002
Robert R. Yohanan	Managing Director and Chief Executive Officer, First Bank & Trust, Evanston, Illinois	2003

Class B

James H. Keyes	Chairman and Chief Executive Officer, Johnson Controls, Inc., Milwaukee, Wisconsin	2001
Connie E. Evans	President and Chief Executive Officer, WSEP Ventures, Chicago, Illinois	2002
Jack B. Evans	President, The Hall-Perrine Foundation, Cedar Rapids, Iowa	2003

Class C

Arthur C. Martinez	Retired Chairman and Chief Executive Officer, Sears, Roebuck and Co., Chicago, Illinois	2001
Robert J. Darnall	Chairman, Prime Advantage Chicago, Chicago, Illinois	2002
W. James Farrell	Chairman and Chief Executive Officer, Illinois Tool Works Inc., Glenview, Illinois	2003

DETROIT BRANCH

Appointed by the Federal Reserve Bank

Richard M. Bell	Retired President and Chief Executive Officer, The First National Bank of Three Rivers, Three Rivers, Michigan	2001
Mark T. Gaffney	President, Michigan State AFL-CIO, Lansing, Michigan	2002
Irma B. Elder	President, Elder Ford, Troy, Michigan	2002
David J. Wagner	Chairman, Fifth Third Bank, Grand Rapids, Michigan	2003

Appointed by the Board of Governors

Stephen R. Polk	Chairman and Chief Executive Officer, R. L. Polk & Co., Southfield, Michigan	2001
Edsel B. Ford II	Board Director, Ford Motor Company, Dearborn, Michigan	2002
Timothy D. Leuliette	President and Chief Executive Officer, Metaldyne, Plymouth, Michigan	2003

		Term expires Dec. 31

DISTRICT 8—St. Louis

Class A

Thomas H. Jacobsen	Chairman Emeritus, Firstar Corporation (now U.S. Bancorp), St. Louis, Missouri	2001
Lunsford W. Bridges	President and Chief Executive Officer, Metropolitan National Bank, Little Rock, Arkansas	2002
Bradley W. Small	President and Chief Executive Officer, The Farmers and Merchants National Bank, Nashville, Illinois	2003

Class B

Bert Greenwalt	Partner, Greenwalt Company, Hazen, Arkansas	2001
Joseph E. Gliessner, Jr.	Executive Director, New Directions Housing Corp., Louisville, Kentucky	2002
Robert L. Johnson	Chairman and Chief Executive Officer, Johnson Bryce, Inc., Memphis, Tennessee	2003

Class C

Charles W. Mueller	Chairman and Chief Executive Officer, Ameren Corporation, St. Louis, Missouri	2001
Gayle P.W. Jackson	Managing Director, Fond Elec Group, Inc., St. Louis, Missouri	2002
Walter L. Metcalfe, Jr.	Chairman, Bryan Cave LLP, St. Louis, Missouri	2003

Little Rock Branch

Appointed by the Federal Reserve Bank

Lawrence A. Davis, Jr.	Chancellor, University of Arkansas at Pine Bluff, Pine Bluff, Arkansas	2001
Everett Tucker III	Chairman, Moses Tucker Real Estate, Inc., Little Rock, Arkansas	2002
David R. Estes	President and Chief Executive Officer, First State Bank, Lonoke, Arkansas	2002
Raymond E. Skelton	Regional President, U.S. Bank, Little Rock, Arkansas	2003

Appointed by the Board of Governors

Vick M. Crawley	Plant Manager, Baxter Healthcare Corporation, Mountain Home, Arkansas	2001
A. Rogers Yarnell II	President, Yarnell Ice Cream Co., Inc., Searcy, Arkansas	2002
Cynthia J. Brinkley	President, Arkansas Southwestern Bell Telephone Company, Little Rock, Arkansas	2003

Term expires Dec. 31

DISTRICT 8, LOUISVILLE BRANCH

Appointed by the Federal Reserve Bank

Orson Oliver	President, Mid-America Bank of Louisville, Louisville, Kentucky	2001
Marjorie Z. Soyugenc	Executive Director and Chief Executive Officer, Welborn Foundation, Evansville, Indiana	2002
Thomas W. Smith	President and Chief Executive Officer, Ephraim McDowell Health, Danville, Kentucky	2002
Frank J. Nichols	Chairman, President, and Chief Executive Officer, Community Financial Services, Inc., Benton, Kentucky	2003

Appointed by the Board of Governors

Roger Reynolds	President and Chief Executive Officer, Interlink Logistics LLC, Louisville, Kentucky	2001
J. Stephen Barger	Executive Secretary-Treasurer, Kentucky State District Council of Carpenters, AFL-CIO, Frankfort, Kentucky	2002
Norman E. Pfau, Jr.	President and Chief Executive Officer, Geo. Pfau's Sons Company, Inc., Jeffersonville, Indiana	2003

MEMPHIS BRANCH

Appointed by the Federal Reserve Bank

Walter L. Morris, Jr.	President, H&M Lumber Co., Inc., West Helena, Arkansas	2001
James A. England	Chairman, President, and Chief Executive Officer, Decatur County Bank, Decaturville, Tennessee	2002
John C. Kelley, Jr.	President, Business Financial Services, First Tennessee Bank, Memphis, Tennessee	2002
E.C. Neelly III	Management Consultant, First American National Bank, Iuka, Mississippi	2003

Appointed by the Board of Governors

Gregory M. Duckett	Senior Vice President and Corporate Counsel, Baptist Memorial Health Care Corporation, Memphis, Tennessee	2001
Mike P. Sturdivant, Jr.	Partner, Due West, Glendora, Mississippi	2002
Russell Gwatney	President, Gwatney Companies, Memphis, Tennessee	2003

Term expires Dec. 31

DISTRICT 9—MINNEAPOLIS

Class A

W.W. LaJoie	Chief Executive Officer and Chairman, Central Savings Bank, Sault Ste. Marie, Michigan	2001
Roger N. Berglund	Chairman and President, Dakota Western Bank, Bowman, North Dakota	2002
Dan M. Fisher	Chief Information Officer, Community First Bankshares, Inc., Fargo, North Dakota	2003

Class B

Jay F. Hoeschler	President and Owner, Hoeschler Corporation, La Crosse, Wisconsin	2001
Rob L. Wheeler	Vice President, Wheeler Mfg. Co., Inc., Lemmon, South Dakota	2002
D. Greg Heineman	Chairman, Williams Insurance Agency, Sioux Falls, South Dakota	2003

Class C

James J. Howard	Chairman Emeritus, Xcel Energy, Inc., Minneapolis, Minnesota	2001
Linda Hall Whitman	Former President, Ceridian, Minneapolis, Minnesota	2002
Ronald N. Zwieg	President, United Food & Commercial Workers, Local 653, Plymouth, Minnesota	2003

HELENA BRANCH

Appointed by the Federal Reserve Bank

Richard E. Hart	President, Senior Lender, and Director, Mountain West Bank, Kalispell, Montana	2001
Emil W. Erhardt	Chairman and President, Citizens State Bank, Hamilton, Montana	2002
Marilyn F. Wessel	Dean and Director, Museum of the Rockies, Bozeman, Montana	2002

Appointed by the Board of Governors

Thomas O. Markle	President and Chief Executive Officer, Markle's Inc., Glasgow, Montana	2001
William P. Underriner	President, Selover Buick Inc., Billings, Montana	2002

		Term expires Dec. 31

DISTRICT 10—KANSAS CITY

Class A

Jeffrey L. Gerhart	President and Chief Executive Officer, First National Bank, Newman Grove, Nebraska	2001
Dennis E. Barrett	Vice Chairman, FirstBank Holding Company of Colorado, Lakewood, Colorado	2002
Bruce A. Schriefer	President, Bankers' Bank of Kansas, Wichita, Kansas	2003

Class B

Frank A. Potenziani	M&T Trust, Albuquerque, New Mexico	2001
Paula Marshall-Chapman	Chief Executive Officer, The Bama Companies, Inc., Tulsa, Oklahoma	2002
Hans C. Helmerich	President and Chief Executive Officer, Helmerich & Payne, Inc., Tulsa, Oklahoma	2003

Class C

Jo Marie Dancik	Regional Managing Partner, Ernst & Young LLP, Minneapolis, Minnesota	2001
Rhonda Holman	Vice President, Kauffman Center for Entrepreneurial Leadership at the Ewing Marion Kauffman Foundation, Kansas City, Missouri	2002
Terrence P. Dunn	President and Chief Executive Officer, J. E. Dunn Construction Company, Kansas City, Missouri	2003

DENVER BRANCH

Appointed by the Federal Reserve Bank

Albert C. Yates	President, Colorado State University, Ft. Collins, Colorado	2001
Virginia K. Berkeley	President, Colorado Business Bank N.A., Denver, Colorado	2002
Robert M. Murphy	President, Sandia Properties Ltd., Co., Albuquerque, New Mexico	2003
John W. Hay III	President, Rock Springs National Bank, Rock Springs, Wyoming	2003

Appointed by the Board of Governors

James A. King	Chief Executive Officer, BT, Inc., Riverton, Wyoming	2001
Kathleen Avila	Partner and Chief Executive Officer, Avila Retail, Albuquerque, New Mexico	2002
Kathryn A. Paul	President, Delta Dental Plan of Colorado, Denver, Colorado	2003

		Term expires Dec. 31

DISTRICT 10, OKLAHOMA CITY BRANCH

Appointed by the Federal Reserve Bank

Betty Bryant Shaull	President-Elect and Director, Bank of Cushing and Trust Company, Cushing, Oklahoma	2001
W. Carlisle Mabrey III	President and Chief Executive Officer, Citizens Bank & Trust Co., Okmulgee, Oklahoma	2001
Robert A. Funk	Chairman and Chief Executive Officer, Express Personnel Services International, Oklahoma City, Oklahoma	2002
Russell W. Teubner	Founder and Director, Esker, Inc., Stillwater, Oklahoma	2003

Appointed by the Board of Governors

Vacancy		2001
J. Clifford Hudson	Chairman and Chief Executive Officer, Sonic Corp., Oklahoma City, Oklahoma	2002
Patricia B. Fennell	Executive Director, Latino Community Development Agency, Oklahoma City, Oklahoma	2003

OMAHA BRANCH

Appointed by the Federal Reserve Bank

Vacancy		2001
Judith A. Owen	President and Chief Executive Officer, Wells Fargo Bank Nebraska, N.A., Omaha, Nebraska	2002
Frank L. Hayes	President, Hayes & Associates, L.L.C., CPAs, Omaha, Nebraska	2003
H.H. Kosman	Chairman, President, and Chief Executive Officer, Platte Valley National Bank, Scottsbluff, Nebraska	2003

Appointed by the Board of Governors

Gladys Styles Johnston	Chancellor, University of Nebraska at Kearney, Kearney, Nebraska	2001
Bob L. Gottsch	Vice President, Gottsch Feeding Corporation, Hastings, Nebraska	2002
A.F. Raimondo	Chairman and Chief Executive Officer, Behlen Mfg. Co., Columbus, Nebraska	2003

Term expires Dec. 31

DISTRICT 11—DALLAS

Class A

Dudley K. Montgomery	Director, The Security State Bank of Pecos, Pecos, Texas	2001
Kenneth T. Murphy	Chairman, President, and Chief Executive Officer, First Financial Bankshares, Inc., Abilene, Texas	2002
Matthew T. Doyle	Vice Chairman and Chief Executive Officer, Texas First Bank, Texas City, Texas	2003

Class B

Julie Spicer England	Vice President, Texas Instruments, Dallas, Texas	2001
Malcolm Gillis	President, Rice University, Houston, Texas	2002
Judy Ley Allen	Owner, Allen Investments, Houston, Texas	2003

Class C

Ray L. Hunt	Chairman and Chief Executive Officer, Hunt Consolidated, Inc., Dallas, Texas	2001
Patricia M. Patterson	President, Patterson Investments, Inc., Dallas, Texas	2002
H.B. Zachry, Jr.	Chairman and Chief Executive Officer, H. B. Zachry Company, San Antonio, Texas	2003

EL PASO BRANCH

Appointed by the Federal Reserve Bank

Lester L. Parker	President and Chief Executive Officer, United Bank of El Paso del Norte, El Paso, Texas	2001
James D. Renfrow	President and Chief Executive Officer, The Carlsbad National Bank, Carlsbad, New Mexico	2002
Melissa W. O'Rourke	President, Charlotte's Inc., El Paso, Texas	2002
Ron C. Helm	Owner, Helm Cattle Company, El Paso, Texas	2003

Appointed by the Board of Governors

Beauregard Brite White	Rancher, J. E. White, Jr. & Sons, Marfa, Texas	2001
James Haines	Chief Executive Officer and President, El Paso Electric Company, El Paso, Texas	2002
Gail S. Darling	President, Gail Darling Inc., El Paso, Texas	2003

		Term expires Dec. 31

DISTRICT 11, HOUSTON BRANCH

Appointed by the Federal Reserve Bank

Richard W. Weekley	Chairman, Weekley Development Company, Houston, Texas	2001
Priscilla D. Slade	President, Texas Southern University, Houston, Texas	2002
Ray B. Nesbitt	President (Retired), Exxon Chemical Company, Houston, Texas	2002
Alan R. Buckwalter III	Chairman and Chief Executive Officer, J.P. Morgan Chase Bank, Texas Region, Houston, Texas	2003

Appointed by the Board of Governors

Edward O. Gaylord	Chairman, Jacintoport Terminal Company, Houston, Texas	2001
Lupe Fraga	President and Chief Executive Officer, Tejas Office Products, Inc., Houston, Texas	2002
Jeffrey K. Skilling	President and Chief Executive Officer, Veld Interests, Inc., Houston, Texas	2003

SAN ANTONIO BRANCH

Appointed by the Federal Reserve Bank

R. Tom Roddy	Chairman, Clear Lake National Bank, San Antonio, Texas	2001
Mary Rose Cardenas	Executive Vice President, Cardenas Motors, Inc., Brownsville, Texas	2002
Daniel B. Hastings, Jr.	President and Owner, Daniel B. Hastings, Inc., Laredo, Texas	2002
Arthur R. Emerson	Chairman and Chief Executive Officer, Groves Rojas Emerson, San Antonio, Texas	2003

Appointed by the Board of Governors

Ron R. Harris	President and Chief Executive Officer, Pervasive Software Inc., Austin, Texas	2001
Patty P. Mueller	Vice President, Mueller Energetics Corp., Corpus Christi, Texas	2002
Marvin L. Ragsdale	President, Iron Workers District Council of the State of Texas, Austin, Texas	2003

		Term expires Dec. 31
DISTRICT 12—SAN FRANCISCO		
Class A		
Warren K.K. Luke	Chairman, President, and Chief Executive Officer, Hawaii National Bank, Honolulu, Hawaii	2001
E. Lynn Caswell	Chairman and Managing Director, Zurich American Trust Co., AG, Laguna Niguel, California	2002
Richard C. Hartnack	Vice Chairman, Union Bank of California, Los Angeles, California	2003
Class B		
Jack McNally	Business Manager, IBEW, Local Union 1245, and Principal, JKM Consulting, Sacramento, California	2001
Robert S. Attiyeh	Senior Vice President, Chief Financial Officer (Retired), and Consultant, Amgen, Inc., Thousand Oaks, California	2002
Barbara L. Wilson	Idaho and Regional Vice President (Retired) and Consultant, Qwest Corporation, Boise, Idaho	2003
Class C		
Sheila D. Harris	Director, Governor's Office of Housing Development, Phoenix, Arizona	2001
George M. Scalise	President, Semiconductor Industry Association, San Jose, California	2002
Nelson C. Rising	Chairman and Chief Executive Officer, Catellus Development Corporation, San Francisco, California	2003
LOS ANGELES BRANCH		
Appointed by the Federal Reserve Bank		
Russell Goldsmith	Chairman and Chief Executive Officer, City National Bank, Beverly Hills, California	2001
John H. Gleason	Regional President, California and Texas, Del Webb Corporation, Phoenix, Arizona	2002
D. Linn Wiley	President and Chief Executive Officer, Citizens Business Bank, Ontario, California	2003
Linda Griego	Managing Partner, Engine Co. No. 28, Los Angeles, California	2003
Appointed by the Board of Governors		
William D. Jones	Chairman, President, and Chief Executive Officer, CityLink Investment Corporation, San Diego, California	2001
Lori R. Gay	President, Los Angeles Neighborhood Housing Service, Inc., Los Angeles, California	2002
Lonnie Kane	President, Karen Kane, Inc., Los Angeles, California	2003

DISTRICT 12, PORTLAND BRANCH

		Term expires Dec. 31
Appointed by the Federal Reserve Bank		
George J. Passadore	President, Oregon Wells Fargo Bank, Portland, Oregon	2001
Phyllis A. Bell	President, Oregon Coast Aquarium, Newport, Oregon	2002
Martin Brantley	President and General Manager (Retired), Oregon's 12-KPTV, Portland, Oregon	2002
Guy L. Williams	President and Chief Executive Officer, Security Bank, Coos Bay, Oregon	2003
Appointed by the Board of Governors		
Karla S. Chambers	Vice President and Co-Owner, Stahlbush Island Farms, Inc., Corvallis, Oregon	2001
Nancy Wilgenbusch	President, Marylhurst University, Marylhurst, Oregon	2002
Patrick Borunda	Principal, The Navigator Group, Yacolt, Washington	2003

SALT LAKE CITY BRANCH

Appointed by the Federal Reserve Bank		
Curtis H. Harris	Chairman, President, and Chief Executive Officer, Barnes Banking Company, Kaysville, Utah	2001
J. Pat McMurray	President and Chief Executive Officer, Idaho Region, Wells Fargo Bank, Boise, Idaho	2002
Maria Garciaz	Executive Director, Salt Lake Neighborhood Housing Services, Inc., Salt Lake City, Utah	2002
Peggy A. Stock	President, Westminster College, Salt Lake City, Utah	2003
Appointed by the Board of Governors		
Gary L. Crocker	Chairman, ARUP Laboratories, Salt Lake City, Utah	2001
H. Roger Boyer	Chairman, The Boyer Company, Salt Lake City, Utah	2002
William C. Glynn	President, Intermountain Industries, Inc., Boise, Idaho	2003

		Term expires Dec. 31
DISTRICT 12, SEATTLE BRANCH		
Appointed by the Federal Reserve Bank		
Peter H. van Oppen	Chairman and Chief Executive Officer, Advanced Digital Information Corp., Redmond, Washington	2001
Mary E. Pugh	President, Pugh Capital Management, Inc., Seattle, Washington	2002
James C. Hawkanson	Chairman (Retired), The Commerce Bank of Washington, N.A., Seattle, Washington	2002
Betsy Lawer	Vice Chair and Chief Operating Officer, First National Bank of Alaska, Anchorage, Alaska	2003
Appointed by the Board of Governors		
Helen M. Rockey	Chief Executive Officer and President (Retired), Just for Feet, Inc., Seattle, Washington	2001
Boyd E. Givan	Senior Vice President and Chief Financial Officer (Retired), The Boeing Company, Seattle, Washington	2002
Richard R. Sonstelie	Chairman (Retired), Puget Sound Energy, Inc., Bellevue, Washington	2003

Membership of the Board of Governors, 1913–2001

Appointed Members

Name	Federal Reserve District	Date initially took oath of office	Other dates[1]
Charles S. Hamlin	Boston	Aug. 10, 1914	Reappointed in 1916 and 1926. Served until Feb. 3, 1936.[2]
Paul M. Warburg	New York	Aug. 10, 1914	Term expired Aug. 9, 1918.
Frederic A. Delano	Chicago	Aug. 10, 1914	Resigned July 21, 1918.
W.P.G. Harding	Atlanta	Aug. 10, 1914	Term expired Aug. 9, 1922.
Adolph C. Miller	San Francisco	Aug. 10, 1914	Reappointed in 1924. Reappointed in 1934 from the Richmond District. Served until Feb. 3, 1936.[2]
Albert Strauss	New York	Oct. 26, 1918	Resigned Mar. 15, 1920.
Henry A. Moehlenpah	Chicago	Nov. 10, 1919	Term expired Aug. 9, 1920.
Edmund Platt	New York	June 8, 1920	Reappointed in 1928. Resigned Sept. 14, 1930.
David C. Wills	Cleveland	Sept. 29, 1920	Term expired Mar. 4, 1921.
John R. Mitchell	Minneapolis	May 12, 1921	Resigned May 12, 1923.
Milo D. Campbell	Chicago	Mar. 14, 1923	Died Mar. 22, 1923.
Daniel R. Crissinger	Cleveland	May 1, 1923	Resigned Sept. 15, 1927.
George R. James	St. Louis	May 14, 1923	Reappointed in 1931. Served until Feb. 3, 1936.[3]
Edward H. Cunningham	Chicago	May 14, 1923	Died Nov. 28, 1930.
Roy A. Young	Minneapolis	Oct. 4, 1927	Resigned Aug. 31, 1930.
Eugene Meyer	New York	Sept. 16, 1930	Resigned May 10, 1933.
Wayland W. Magee	Kansas City	May 18, 1931	Term expired Jan. 24, 1933.
Eugene R. Black	Atlanta	May 19, 1933	Resigned Aug. 15, 1934.
M.S. Szymczak	Chicago	June 14, 1933	Reappointed in 1936 and 1948. Resigned May 31, 1961.
J.J. Thomas	Kansas City	June 14, 1933	Served until Feb. 10, 1936.[2]
Marriner S. Eccles	San Francisco	Nov. 15, 1934	Reappointed in 1936, 1940, and 1944. Resigned July 14, 1951.
Joseph A. Broderick	New York	Feb. 3, 1936	Resigned Sept. 30, 1937.
John K. McKee	Cleveland	Feb. 3, 1936	Served until Apr. 4, 1946.[2]
Ronald Ransom	Atlanta	Feb. 3, 1936	Reappointed in 1942. Died Dec. 2, 1947.
Ralph W. Morrison	Dallas	Feb. 10, 1936	Resigned July 9, 1936.
Chester C. Davis	Richmond	June 25, 1936	Reappointed in 1940. Resigned Apr. 15, 1941.
Ernest G. Draper	New York	Mar. 30, 1938	Served until Sept. 1, 1950.[2]
Rudolph M. Evans	Richmond	Mar. 14, 1942	Served until Aug. 13, 1954.[2]
James K. Vardaman, Jr.	St. Louis	Apr. 4, 1946	Resigned Nov. 30, 1958.
Lawrence Clayton	Boston	Feb. 14, 1947	Died Dec. 4, 1949.
Thomas B. McCabe	Philadelphia	Apr. 15, 1948	Resigned Mar. 31, 1951.
Edward L. Norton	Atlanta	Sept. 1, 1950	Resigned Jan. 31, 1952.
Oliver S. Powell	Minneapolis	Sept. 1, 1950	Resigned June 30, 1952.
Wm. McC. Martin, Jr.	New York	April 2, 1951	Reappointed in 1956. Term expired Jan. 31, 1970.
A.L. Mills, Jr.	San Francisco	Feb. 18, 1952	Reappointed in 1958. Resigned Feb. 28, 1965.
J.L. Robertson	Kansas City	Feb. 18, 1952	Reappointed in 1964. Resigned Apr. 30, 1973.
C. Canby Balderston	Philadelphia	Aug. 12, 1954	Served through Feb. 28, 1966.
Paul E. Miller	Minneapolis	Aug. 13, 1954	Died Oct. 21, 1954.

Appointed Members—Continued

Name	Federal Reserve District	Date initially took oath of office	Other dates [1]
Chas. N. Shepardson	Dallas	Mar. 17, 1955	Retired Apr. 30, 1967.
G.H. King, Jr.	Atlanta	Mar. 25, 1959	Reappointed in 1960. Resigned Sept. 18, 1963.
George W. Mitchell	Chicago	Aug. 31, 1961	Reappointed in 1962. Served until Feb. 13, 1976.[2]
J. Dewey Daane	Richmond	Nov. 29, 1963	Served until Mar. 8, 1974.[2]
Sherman J. Maisel	San Francisco	Apr. 30, 1965	Served through May 31, 1972.
Andrew F. Brimmer	Philadelphia	Mar. 9, 1966	Resigned Aug. 31, 1974.
William W. Sherrill	Dallas	May 1, 1967	Reappointed in 1968. Resigned Nov. 15, 1971.
Arthur F. Burns	New York	Jan. 31, 1970	Term began Feb. 1, 1970. Resigned Mar. 31, 1978.
John E. Sheehan	St. Louis	Jan. 4, 1972	Resigned June 1, 1975.
Jeffrey M. Bucher	San Francisco	June 5, 1972	Resigned Jan. 2, 1976.
Robert C. Holland	Kansas City	June 11, 1973	Resigned May 15, 1976.
Henry C. Wallich	Boston	Mar. 8, 1974	Resigned Dec. 15, 1986.
Philip E. Coldwell	Dallas	Oct. 29, 1974	Served through Feb. 29, 1980.
Philip C. Jackson, Jr.	Atlanta	July 14, 1975	Resigned Nov. 17, 1978.
J. Charles Partee	Richmond	Jan. 5, 1976	Served until Feb. 7, 1986.[2]
Stephen S. Gardner	Philadelphia	Feb. 13, 1976	Died Nov. 19, 1978.
David M. Lilly	Minneapolis	June 1, 1976	Resigned Feb. 24, 1978.
G. William Miller	San Francisco	Mar. 8, 1978	Resigned Aug. 6, 1979.
Nancy H. Teeters	Chicago	Sept. 18, 1978	Served through June 27, 1984.
Emmett J. Rice	New York	June 20, 1979	Resigned Dec. 31, 1986.
Frederick H. Schultz	Atlanta	July 27, 1979	Served through Feb. 11, 1982.
Paul A. Volcker	Philadelphia	Aug. 6, 1979	Resigned August 11, 1987.
Lyle E. Gramley	Kansas City	May 28, 1980	Resigned Sept. 1, 1985.
Preston Martin	San Francisco	Mar. 31, 1982	Resigned April 30, 1986.
Martha R. Seger	Chicago	July 2, 1984	Resigned March 11, 1991.
Wayne D. Angell	Kansas City	Feb. 7, 1986	Served through Feb. 9, 1994.
Manuel H. Johnson	Richmond	Feb. 7, 1986	Resigned August 3, 1990.
H. Robert Heller	San Francisco	Aug. 19, 1986	Resigned July 31, 1989.
Edward W. Kelley, Jr.	Dallas	May 26, 1987	Resigned Dec. 31, 2001.
Alan Greenspan	New York	Aug. 11, 1987	Reappointed in 1992.
John P. LaWare	Boston	Aug. 15, 1988	Resigned April 30, 1995.
David W. Mullins, Jr.	St. Louis	May 21, 1990	Resigned Feb. 14, 1994.
Lawrence B. Lindsey	Richmond	Nov. 26, 1991	Resigned Feb. 5, 1997.
Susan M. Phillips	Chicago	Dec. 2, 1991	Served through June 30, 1998.
Alan S. Blinder	Philadelphia	June 27, 1994	Term expired Jan. 31, 1996.
Janet L. Yellen	San Francisco	Aug. 12, 1994	Resigned Feb. 17, 1997.
Laurence H. Meyer	St. Louis	June 24, 1996	
Alice M. Rivlin	Philadelphia	June 25, 1996	Resigned July 16, 1999.
Roger W. Ferguson, Jr.	Boston	Nov. 5, 1997	Reappointed in 2001.
Edward M. Gramlich	Richmond	Nov. 5, 1997	
Susan S. Bies	Chicago	Dec. 7, 2001	
Mark W. Olson	Minneapolis	Dec. 7, 2001	

NOTE. Under the original Federal Reserve Act, the Federal Reserve Board was composed of five appointed members, the Secretary of the Treasury (ex-officio chairman of the Board), and the Comptroller of the Currency. The original term of office was ten years; the five original appointed members had terms of two, four, six, eight, and ten years. In 1922 the number of appointed members was increased to six, and in 1933 the term of office was raised to twelve years. The Banking Act of 1935 changed the name to the Board of Governors of the Federal Reserve System and provided that the Board be composed of seven appointed members; that the Secretary of the Treasury and the Comptroller of the Currency continue to serve until Feb. 1, 1936; that the appointed members in office on Aug. 23, 1935, continue to serve until Feb. 1, 1936, or until their successors were appointed and had

CHAIRMEN[3]

Charles S. Hamlin	Aug. 10, 1914–Aug. 9, 1916
W.P.G. Harding	Aug. 10, 1916–Aug. 9, 1922
Daniel R. Crissinger	May 1, 1923–Sept. 15, 1927
Roy A. Young	Oct. 4, 1927–Aug. 31, 1930
Eugene Meyer	Sept. 16, 1930–May 10, 1933
Eugene R. Black	May 19, 1933–Aug. 15, 1934
Marriner S. Eccles	Nov. 15, 1934–Jan. 31, 1948[4]
Thomas B. McCabe	Apr. 15, 1948–Mar. 31, 1951
Wm. McC. Martin, Jr.	Apr. 2, 1951–Jan. 31, 1970
Arthur F. Burns	Feb. 1, 1970–Jan. 31, 1978
G. William Miller	Mar. 8, 1978–Aug. 6, 1979
Paul A. Volcker	Aug. 6, 1979–Aug. 11, 1987
Alan Greenspan	Aug. 11, 1987–[5]

VICE CHAIRMEN[3]

Frederic A. Delano	Aug. 10, 1914–Aug. 9, 1916
Paul M. Warburg	Aug. 10, 1916–Aug. 9, 1918
Albert Strauss	Oct. 26, 1918–Mar. 15, 1920
Edmund Platt	July 23, 1920–Sept. 14, 1930
J.J. Thomas	Aug. 21, 1934–Feb. 10, 1936
Ronald Ransom	Aug. 6, 1936–Dec. 2, 1947
C. Canby Balderston	Mar. 11, 1955–Feb. 28, 1966
J.L. Robertson	Mar. 1, 1966–Apr. 30, 1973
George W. Mitchell	May 1, 1973–Feb. 13, 1976
Stephen S. Gardner	Feb. 13, 1976–Nov. 19, 1978
Frederick H. Schultz	July 27, 1979–Feb. 11, 1982
Preston Martin	Mar. 31, 1982–Apr. 30, 1986
Manuel H. Johnson	Aug. 4, 1986–Aug. 3, 1990
David W. Mullins, Jr.	July 24, 1991–Feb. 14, 1994
Alan S. Blinder	June 27, 1994–Jan. 31, 1996
Alice M. Rivlin	June 25, 1996–July 16, 1999
Roger W. Ferguson, Jr.	Oct. 5, 1999–

Ex-Officio Members

SECRETARIES OF THE TREASURY

W.G. McAdoo	Dec. 23, 1913–Dec. 15, 1918
Carter Glass	Dec. 16, 1918–Feb. 1, 1920
David F. Houston	Feb. 2, 1920–Mar. 3, 1921
Andrew W. Mellon	Mar. 4, 1921–Feb. 12, 1932
Ogden L. Mills	Feb. 12, 1932–Mar. 4, 1933
William H. Woodin	Mar. 4, 1933–Dec. 31, 1933
Henry Morgenthau, Jr.	Jan. 1, 1934–Feb. 1, 1936

COMPTROLLERS OF THE CURRENCY

John Skelton Williams	Feb. 2, 1914–Mar. 2, 1921
Daniel R. Crissinger	Mar. 17, 1921–Apr. 30, 1923
Henry M. Dawes	May 1, 1923–Dec. 17, 1924
Joseph W. McIntosh	Dec. 20, 1924–Nov. 20, 1928
J.W. Pole	Nov. 21, 1928–Sept. 20, 1932
J.F.T. O'Connor	May 11, 1933–Feb. 1, 1936

qualified; and that thereafter the terms of members be fourteen years and that the designation of Chairman and Vice Chairman of the Board be for four years.

1. Date following "Resigned" and "Retired" denotes final day of service.
2. Successor took office on this date.
3. Before Aug. 23, 1935, Chairmen and Vice Chairmen were designated Governor and Vice Governor.
4. Served as Chairman Pro Tempore from February 3, 1948, to April 15, 1948.
5. Served as Chairman Pro Tempore from March 3, 1996, to June 20, 1996.

Statistical Tables

1. Statement of Condition of the Federal Reserve Banks, by Bank, December 31, 2001 and 2000

Millions of dollars

Item	Total		Boston	
	2001	2000	2001	2000
Assets				
Gold certificate account	11,045	11,046	546	535
Special drawing rights certificate account	2,200	2,200	115	115
Coin	1,047	949	54	46
Loans				
To depository institutions	34	110	2	1
Other	0	0	0	0
Securities purchased under agreements to resell (triparty)	50,250	43,375	0	0
Federal agency obligations				
Bought outright	10	130	1	7
Held under repurchase agreements	0	0	0	0
U.S. Treasury securities				
Bought outright[1]	551,675	511,703	33,146	29,376
Held under repurchase agreements	0	0	0	0
Total loans and securities	601,969	555,318	33,149	29,385
Items in process of collection	3,829	8,019	317	473
Bank premises	1,512	1,460	91	93
Other assets				
Denominated in foreign currencies[2]	14,559	15,670	757	703
Other[3]	20,819	19,769	1,076	955
Interdistrict settlement account	0	0	−2,362	2,782
Total assets	**656,980**	**614,431**	**33,743**	**35,088**
Liabilities				
Federal Reserve notes	611,757	563,450	31,806	31,891
Deposits				
Depository institutions	17,478	19,045	626	1,645
U.S. Treasury, general account	6,645	5,149	0	0
Foreign, official accounts	61	216	2	1
Other[4]	828	1,390	40	63
Total deposits	25,012	25,800	668	1,709
Deferred credit items	3,131	7,225	283	521
Other liabilities and accrued dividends[5]	2,395	4,165	149	249
Total liabilities	**642,295**	**600,640**	**32,906**	**34,371**
Capital Accounts				
Capital paid in	7,373	6,997	418	358
Surplus	7,312	6,794	418	358
Other capital accounts	0	0	0	0
Total liabilities and capital accounts	**656,980**	**614,431**	**33,743**	**35,088**
Federal Reserve Note Statement				
Federal Reserve notes outstanding (issued to Bank)	751,540	751,714	35,614	36,707
Less: Held by Bank	139,783	188,264	3,808	4,816
Federal Reserve notes, net	**611,757**	**563,450**	**31,806**	**31,891**
Collateral for Federal Reserve notes				
Gold certificate account	11,045	11,046	...	...
Special drawing rights certificate account	2,200	2,200	...	...
Other eligible assets	0	0	...	...
U.S. Treasury and federal agency securities	598,512	550,205	...	...
Total collateral	**611,757**	**563,450**	...	...

1.—Continued

New York		Philadelphia		Cleveland		Richmond	
2001	2000	2001	2000	2001	2000	2001	2000
4,451	4,428	454	414	538	520	741	750
874	874	83	83	104	104	147	147
63	74	44	52	61	67	165	117
0	0	0	2	0	0	1	5
0	0	0	0	0	0	0	0
50,250	43,375	0	0	0	0	0	0
4	50	0	5	1	7	1	8
0	0	0	0	0	0	0	0
225,984	197,518	22,659	21,313	32,298	28,635	32,957	30,038
0	0	0	0	0	0	0	0
276,239	240,944	22,660	21,320	32,298	28,643	32,958	30,051
473	893	526	384	218	282	174	658
177	166	49	51	152	154	132	128
3,099	3,230	481	486	996	1,083	3,544	4,121
9,787	8,577	810	769	1,087	964	1,231	1,689
-29,004	-3,255	-2,239	1,353	-2,008	2,260	13,211	2,402
266,158	**255,930**	**22,868**	**24,911**	**33,448**	**34,078**	**52,304**	**40,063**
251,766	240,061	21,773	23,114	30,620	31,183	45,208	34,048
3,092	4,570	413	702	1,103	1,249	3,191	1,641
6,645	5,149	0	0	0	0	0	0
37	192	1	1	2	2	7	8
447	646	29	46	30	112	70	42
10,221	10,556	443	749	1,135	1,363	3,269	1,691
381	943	100	404	224	349	109	683
782	1,435	110	188	139	239	205	283
263,150	**252,995**	**22,425**	**24,456**	**32,118**	**33,134**	**48,790**	**36,706**
1,504	1,468	221	228	665	472	1,757	1,679
1,504	1,468	221	228	665	472	1,757	1,679
0	0	0	0	0	0	0	0
266,158	**255,930**	**22,868**	**24,911**	**33,448**	**34,078**	**52,304**	**40,063**
293,294	300,366	28,335	31,820	34,936	36,272	55,438	50,845
41,528	60,305	6,562	8,706	4,316	5,089	10,230	16,797
251,766	**240,061**	**21,773**	**23,114**	**30,620**	**31,183**	**45,208**	**34,048**
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1. Statement of Condition of the Federal Reserve Banks, by Bank, December 31, 2001 and 2000—Continued

Millions of dollars

Item	Atlanta 2001	Atlanta 2000	Chicago 2001	Chicago 2000
ASSETS				
Gold certificate account	871	802	1,028	1,064
Special drawing rights certificate account	166	166	212	212
Coin	113	83	117	114
Loans				
To depository institutions	7	6	15	25
Other	0	0	0	0
Securities purchased under agreements to resell (triparty)	0	0	0	0
Federal agency obligations				
Bought outright	1	9	1	16
Held under repurchase agreements	0	0	0	0
U.S. Treasury securities				
Bought outright[1]	37,935	34,060	62,482	61,207
Held under repurchase agreements	0	0	0	0
Total loans and securities	37,943	34,075	62,497	61,248
Items in process of collection	149	514	526	1,119
Bank premises	281	251	105	104
Other assets				
Denominated in foreign currencies[2]	1,046	1,122	1,333	1,409
Other[3]	1,278	1,147	2,005	1,953
Interdistrict settlement account	7,088	4,499	6,071	-770
Total assets	**48,934**	**42,658**	**73,895**	**66,453**
LIABILITIES				
Federal Reserve notes	46,323	39,286	68,119	61,206
Deposits				
Depository institutions	1,169	1,097	3,498	2,796
U.S. Treasury, general account	0	0	0	0
Foreign, official accounts	2	2	3	3
Other[4]	37	86	44	134
Total deposits	1,208	1,185	3,544	2,933
Deferred credit items	138	877	386	575
Other liabilities and accrued dividends[5]	196	320	258	476
Total liabilities	**47,864**	**41,668**	**72,308**	**65,190**
CAPITAL ACCOUNTS				
Capital paid in	535	495	793	632
Surplus	535	495	793	632
Other capital accounts	0	0	0	0
Total liabilities and capital accounts	**48,934**	**42,658**	**73,895**	**66,453**
FEDERAL RESERVE NOTE STATEMENT				
Federal Reserve notes outstanding (issued to Bank)	65,085	60,948	74,543	70,685
Less: Held by Bank	18,763	21,662	6,424	9,479
Federal Reserve notes, net	**46,323**	**39,286**	**68,119**	**61,206**

NOTE. Components may not sum to totals because of rounding

1. Includes securities loaned—fully guaranteed by U.S. Treasury securities pledged with Federal Reserve Banks—and excludes securities sold and scheduled to be bought back under matched sale–purchase transactions.

1.—Continued

St. Louis		Minneapolis		Kansas City		Dallas		San Francisco	
2001	2000	2001	2000	2001	2000	2001	2000	2001	2000
343	359	143	158	317	340	477	514	1,136	1,162
71	71	30	30	66	66	98	98	234	234
58	51	31	33	69	67	128	91	144	155
3	8	3	5	3	31	0	5	0	23
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	5	0	1	0	4	0	4	1	14
0	0	0	0	0	0	0	0	0	0
19,884	19,438	1,721	2,154	17,028	17,052	10,001	15,140	55,580	55,770
0	0	0	0	0	0	0	0	0	0
19,888	19,451	1,725	2,159	17,031	17,087	10,001	15,148	55,581	55,807
215	539	526	516	236	579	202	334	267	1,727
43	34	123	126	49	49	137	138	171	166
291	385	563	572	378	436	398	513	1,673	1,609
655	643	122	140	575	571	385	544	1,807	1,816
721	–740	12,065	–642	–358	–818	4,041	–5,829	–7,226	–1,241
22,286	**20,793**	**15,329**	**3,093**	**18,363**	**18,377**	**15,866**	**11,552**	**53,788**	**61,435**
21,435	19,410	14,055	1,587	16,960	16,646	14,378	9,754	49,314	55,263
344	596	460	456	758	722	695	939	2,129	2,632
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	3	3
22	39	0	1	24	53	31	32	54	137
366	636	462	458	783	776	727	972	2,187	2,771
79	296	457	451	135	433	349	298	490	1,394
107	175	57	63	103	164	83	151	206	422
21,988	**20,517**	**15,031**	**2,560**	**17,981**	**18,020**	**15,538**	**11,175**	**52,196**	**59,850**
149	138	180	368	191	179	164	188	796	792
149	138	118	165	191	179	164	188	796	792
0	0	0	0	0	0	0	0	0	0
22,286	**20,793**	**15,329**	**3,093**	**18,363**	**18,377**	**15,866**	**11,552**	**53,788**	**61,435**
24,022	23,180	16,070	9,581	21,077	21,578	33,441	32,467	69,686	77,265
2,586	3,770	2,015	7,994	4,117	4,932	19,062	22,713	20,372	22,001
21,435	**19,410**	**14,055**	**1,587**	**16,960**	**16,646**	**14,378**	**9,754**	**49,314**	**55,263**

2. Valued monthly at market exchange rates.

3. The System total includes depository institution overdrafts of $22 million for 2001 and $8 million for 2000.

4. Includes international organization deposits of $127 million for 2001 and $133 million for 2000 These deposits are held solely by the Federal Reserve Bank of New York.

5. Includes exchange-translation account reflecting the monthly revaluation at market exchange rates of foreign exchange commitments.

2. Federal Reserve Open Market Transactions, 2001

Millions of dollars

Type of security and transaction	Jan.	Feb.	Mar.	Apr.
U.S. TREASURY SECURITIES				
Outright transactions (excluding matched transactions)				
Treasury bills				
Gross purchases	520	2,683	579	308
Gross sales	0	0	0	0
Exchanges	40,769	42,767	46,712	38,317
New bills	40,769	42,767	46,712	38,317
Redemptions	228	638	211	3,537
Others within 1 year				
Gross purchases	0	1,605	67	3,027
Gross sales	0	0	0	0
Maturity shift	10,296	5,609	0	12,204
Exchanges	−6,667	−6,799	0	−7,000
Redemptions	2,422	1,529	0	4,368
0 to 5 years				
Gross purchases	925	2,983	1,883	4,480
Gross sales	0	0	0	0
Maturity shift	−10,296	−2,784	0	−12,204
Exchanges	6,667	4,945	0	7000
5 to 10 years				
Gross purchases	1,283	0	0	1,390
Gross sales	0	0	0	0
Maturity shift	0	−1,855	0	0
Exchanges	0	971	0	0
More than 10 years				
Gross purchases	296	495	1,000	913
Gross sales	0	0	0	0
Maturity shift	0	−971	0	0
Exchanges	0	883	0	0
All maturities				
Gross purchases	3,024	7,766	3,529	10,118
Gross sales	0	0	0	0
Redemptions	2,650	2,166	211	7,905
Matched transactions				
Gross purchases	356,250	320,060	396,029	381,667
Gross sales	352,336	322,056	395,151	381,895
Repurchase agreements				
Gross purchases	0	0	0	0
Gross sales	0	0	0	0
Net change in U.S. Treasury securities	4,289	3,604	4,196	1,984

2.—Continued

May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
624	2,165	718	2,899	348	772	3,075	812	15,503
0	0	0	0	0	0	0	0	0
47,112	40,363	42,001	55,231	42,268	50,274	59,292	43,771	548,879
47,112	40,363	42,001	55,231	42,268	50,274	59,292	43,771	548,879
3,939	0	0	0	1,543	0	0	0	10,095
2,174	1,410	235	1,385	0	1,411	1,408	2,942	15,663
0	0	0	0	0	0	0	0	0
8,117	0	7,088	9,379	0	6,535	5,873	0	0
−8,965	0	−7,667	−6,873	0	−11,809	−9,559	0	0
2,287	0	4,668	1,055	0	473	0	0	16,802
2,685	1,428	4,193	810	851	22	1,920	634	22,814
0	0	0	0	0	0	0	0	0
−1,913	0	1,838	−9,379	0	−2,164	−3,073	0	0
6,508	0	7,667	5,290	0	11,809	7,967	0	0
657	0	756	935	0	422	459	101	6,003
0	0	0	0	0	0	0	0	0
−5,130	0	−8,926	1,043	0	−4,372	−1,824	0	0
2,457	0	0	1,043	0	0	1,592	0	0
1,241	1,419	815	720	0	1,184	0	448	8,531
0	0	0	0	0	0	0	0	0
−1,074	0	0	−1,043	0	0	−975	0	0
0	0	0	540	0	0	0	0	0
7,380	6,422	6,716	6,749	1,199	3,811	6,862	4,937	68,513
0	0	0	0	0	0	0	0	0
6,226	0	4,668	1,055	1,543	473	0	0	26,897
398,039	367,462	392,721	406,143	508,129	431,887	377,247	387,033	4,724,743
397,600	366,411	394,381	405,627	515,429	425,110	378,129	390,617	4,722,667
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
1,592	7,472	388	6,211	−7,645	10,114	5,980	1,354	39,540

2. Federal Reserve Open Market Transactions, 2001—Continued

Millions of dollars

Type of security and transaction	Jan.	Feb.	Mar.	Apr.
FEDERAL AGENCY OBLIGATIONS				
Outright transactions				
Gross purchases	0	0	0	0
Gross sales	0	0	0	0
Redemptions	0	120	0	0
Repurchase agreements				
Gross purchases	0	0	0	0
Gross sales	0	0	0	0
Net change in agency obligations	0	−120	0	0
TRIPARTY ARRANGEMENTS				
Repurchase agreements[1]				
Gross purchases	104,930	67,655	86,472	85,166
Gross sales	129,385	62,910	88,142	82,154
Net change in triparty arrangements	−24,455	4,745	−1,670	3,012
Total net change in System Open Market Account	**−20,166**	**8,229**	**2,526**	**4,996**

NOTE. Sales, redemptions, and negative figures reduce holdings of the System Open Market Account; all other figures increase such holdings. Components may not sum to totals because of rounding.

1. Cash value of agreements through third-party custodial banks. These agreements are collateralized by U.S. government and federal agency securities.

2.—Continued

May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	120
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	−120
120,135	65,005	106,355	103,255	406,930	110,885	121,530	117,650	1,495,968
114,832	72,065	103,255	99,850	388,805	113,715	130,080	103,900	1,489,093
5,303	−7,060	3,100	3,405	18,125	−2,830	−8,550	13,750	6,875
6,895	**412**	**3,488**	**9,616**	**10,480**	**7,284**	**−2,570**	**15,104**	**46,295**

3. Federal Reserve Bank Holdings of U.S. Treasury and Federal Agency Securities, December 31, 1999–2001

Millions of dollars

Description	December 31			Change	
	2001	2000	1999	2000 to 2001	1999 to 2000
U.S. TREASURY SECURITIES					
Held outright[1]	**574,863**	**532,815**	**517,145**	**42,048**	**15,670**
By remaining maturity					
Bills					
1–90 days	136,695	130,710	124,294	5,985	6,416
91 days to 1 year	68,567	69,143	91,405	−576	−22,262
Notes and bonds					
1 year or less	83,785	73,812	59,899	9,973	13,913
More than 1 year through 5 years	153,158	132,792	124,169	20,366	8,623
More than 5 years through 10 years	53,338	55,461	51,107	−2,123	4,354
More than 10 years	79,320	70,896	66,270	8,424	4,626
By type					
Bills	205,262	199,854	215,699	5,408	−15,845
Notes	265,941	240,177	218,467	25,764	21,710
Bonds	103,660	92,784	82,978	10,876	9,806
Repurchase agreements	**0**	**0**	**0**	**0**	**0**
MSPs, foreign accounts	**23,188**	**21,112**	**39,182**	**2,076**	**−18,070**
MSPs, in the market	**0**	**0**	**0**	**0**	**0**
FEDERAL AGENCY SECURITIES					
Held outright[1]	**10**	**130**	**181**	**−120**	**−51**
By remaining maturity					
1 year or less	0	0	51	0	−51
More than 1 year through 5 years	10	130	10	−120	120
More than 5 years through 10 years	0	0	120	0	−120
More than 10 years	0	0	0	0	0
By issuer					
Federal Farm Credit Banks	0	0	0	0	0
Federal Home Loan Banks	0	0	6	0	−6
Federal Land Banks	0	0	0	0	0
Federal National Mortgage Association	10	130	175	−120	−45
Repurchase agreements	**0**	**0**	**0**	**0**	**0**
TRIPARTY ARRANGEMENTS					
Repurchase agreements[2]	50,250	43,375	0	6,875	43,375

NOTE. Components may not sum to totals because of rounding.

1. Excludes the effects of temporary transactions—repurchase agreements and matched sale–purchase agreements (MSPs).

2. Cash value of agreements through third-party custodial banks. These arrangements are collateralized by U.S. government and federal agency securities.

4. Number and Annual Salaries of Officers and Employees of the Federal Reserve Banks, December 31, 2001

Federal Reserve Bank (including Branches)	President	Other officers		Employees			Total	
	Salary (dollars)	Number	Salaries (dollars)	Number: Full-time	Number: Part-time	Salaries (dollars)	Number	Salaries (dollars)
Boston	235,000	71	9,324,712	1,139	160	61,040,485	1,371	70,600,197
New York	297,500	264	43,353,198	3,010	76	179,465,224	3,351	223,115,922
Philadelphia	214,400	56	7,156,100	1,165	59	50,104,158	1,281	57,474,658
Cleveland	233,700	54	6,553,386	1,277	45	53,572,491	1,377	60,359,577
Richmond	232,400	91	10,710,700	1,965	129	88,446,879	2,186	99,389,979
Atlanta	253,200	91	11,153,550	2,324	64	100,365,842	2,480	111,772,592
Chicago	260,700	94	12,007,065	1,981	74	101,077,671	2,150	113,345,436
St. Louis	218,000	73	8,225,332	1,185	77	49,329,373	1,336	57,772,705
Minneapolis	243,400	43	5,271,300	1,164	132	51,068,713	1,340	56,583,413
Kansas City	235,600	70	8,275,700	1,621	67	70,398,868	1,759	78,910,168
Dallas	231,000	61	7,262,600	1,406	79	60,798,997	1,547	68,292,597
San Francisco	315,200	78	11,186,650	2,346	76	125,695,480	2,501	137,197,330
Federal Reserve Information Technology	0	31	4,112,900	684	14	46,662,374	729	50,775,274
Office of Employee Benefits	0	7	1,233,800	23	0	1,643,578	30	2,877,378
Total	**2,970,100**	**1,084**	**145,826,993**	**21,290**	**1,052**	**1,039,670,133**	**23,438**	**1,188,467,226**

5. Income and Expenses of the Federal Reserve Banks, by Bank, 2001

Thousands of dollars

Item	Total	Boston	New York	Philadelphia	Cleveland
CURRENT INCOME					
Loans	12,618	762	3,610	34	1,025
U.S. Treasury and federal agency securities	30,523,365	1,752,159	12,867,992	1,218,963	1,707,517
Foreign currencies	330,525	16,629	74,749	10,659	22,243
Priced services	926,545	57,122	98,056	47,017	64,601
Other	77,668	3,303	40,588	2,169	3,395
Total	**31,870,721**	**1,829,975**	**13,084,994**	**1,278,842**	**1,798,781**
CURRENT EXPENSES					
Salaries and other personnel expenses	1,269,156	74,413	240,012	63,303	62,853
Retirement and other benefits	347,132	19,344	75,381	15,417	17,662
Net periodic pension costs [1]	−330,683	−10	−330,726	2	−1
Fees	59,716	3,129	6,396	1,195	2,595
Travel	55,287	2,420	6,165	1,993	3,543
Software expenses	95,636	3,506	10,434	2,715	8,275
Postage and other shipping costs	86,930	1,627	5,270	1,600	2,083
Communications	15,597	2,876	2,789	376	696
Materials and supplies	54,955	3,443	9,292	4,085	3,033
Building expenses					
Taxes on real estate	32,005	4,812	4,264	1,621	2,031
Property depreciation	72,705	4,845	13,612	3,149	5,983
Utilities	32,066	3,091	6,486	2,571	2,066
Rent	35,651	747	11,293	275	350
Other	31,146	863	6,169	1,631	2,817
Equipment					
Purchases	29,515	1,816	4,888	1,596	1,037
Rentals	34,284	128	1,776	383	267
Depreciation	113,395	5,737	19,010	5,597	5,685
Repairs and maintenance	90,745	5,497	9,950	5,054	5,302
Earnings-credit costs	250,423	15,531	51,512	10,566	24,593
Other	69,801	4,715	12,275	2,573	4,393
Shared costs, net [2]	0	13,231	46,175	8,232	7,052
Recoveries	−71,509	−12,311	−9,009	−2,629	−2,789
Expenses capitalized [3]	−3,355	−38	0	−92	0
Total	**2,370,597**	**159,413**	**203,413**	**131,212**	**159,527**
Reimbursements	−285,888	−23,286	−63,190	−19,967	−23,103
Net expenses	2,084,708	136,127	140,222	111,245	136,424

For notes see end of table.

5.—Continued

Richmond	Atlanta	Chicago	St. Louis	Minneapolis	Kansas City	Dallas	San Francisco
1,350	558	2,139	542	970	537	96	996
1,756,437	2,012,875	3,403,094	1,082,307	101,786	933,808	636,494	3,049,934
79,718	23,313	29,676	6,656	12,459	8,485	9,056	36,881
78,089	134,309	109,787	53,680	51,526	72,120	64,323	95,914
3,733	4,604	7,309	2,094	400	1,755	1,159	7,158
1,919,328	**2,175,660**	**3,552,006**	**1,145,279**	**167,141**	**1,016,704**	**711,128**	**3,190,883**
159,762	119,561	123,743	61,406	59,834	84,638	75,304	144,327
42,958	34,829	32,772	19,166	17,276	18,852	20,608	32,867
1	41	–4	8	4	4	–2	0
16,763	5,436	5,085	1,230	9,935	2,155	1,720	4,079
7,005	5,354	5,786	3,126	3,857	4,285	3,538	8,213
40,391	5,201	5,480	3,465	2,807	2,499	3,230	7,634
3,695	46,699	5,552	2,744	3,130	5,311	2,624	6,597
1,356	1,343	1,780	1,017	494	876	973	1,021
6,180	5,901	5,307	3,330	1,778	3,461	3,768	5,375
1,738	2,611	4,064	448	4,613	578	2,342	2,884
6,457	6,864	5,875	3,712	4,136	3,807	5,578	8,687
2,813	2,449	2,685	1,700	1,751	1,462	1,936	3,057
12,428	4,560	1,904	1,050	118	1,384	1,370	173
3,150	2,390	5,789	895	1,281	839	2,767	2,556
4,275	2,999	2,167	1,505	1,443	2,289	1,593	3,904
28,298	746	875	214	592	171	148	685
24,923	11,507	8,900	4,885	4,900	6,528	4,855	10,869
18,652	12,334	9,512	3,454	3,395	3,407	4,838	9,350
42,292	13,815	34,433	7,628	10,740	11,884	9,000	18,428
9,171	5,631	8,809	3,691	3,439	4,674	4,264	6,165
–165,505	9,928	9,493	9,924	19,109	16,629	8,520	17,214
–21,735	–3,799	–5,750	–1,516	–1,071	–1,186	–5,276	–4,437
–393	–676	–148	–38	0	–1,938	–32	0
244,676	**295,722**	**274,106**	**133,043**	**153,561**	**172,609**	**153,667**	**289,648**
–33,982	–13,202	–10,908	–26,432	–23,163	–16,616	–11,701	–20,338
210,694	282,520	263,198	106,611	130,398	155,993	141,966	269,310

5. Income and Expenses of the Federal Reserve Banks, by Bank, 2001—Continued

Thousands of dollars

Item	Total	Boston	New York	Philadelphia	Cleveland
PROFIT AND LOSS					
Current net income	29,786,013	1,693,847	12,944,772	1,167,597	1,662,357
Additions to and deductions from (−) current net income[4]					
Profits on sales of U.S. Treasury and federal agency securities	316,308	18,826	127,996	13,030	18,346
Profits on foreign exchange transactions	0	0	0	0	0
Other additions	1,651	9	63	12	30
Total additions	317,958	18,836	128,059	13,042	18,376
Losses on sales of U.S. Treasury and federal agency securities	0	0	0	0	0
Losses on foreign exchange transactions	−1,435,178	−73,124	−304,063	−47,007	−98,360
Other deductions	−131	0	−41	−3	−1
Total deductions	−1,435,309	−73,124	−304,103	−47,010	−98,361
Net addition to or deduction from (−) current net income	−1,117,350	−54,288	−176,044	−33,968	−79,985
Cost of unreimbursed Treasury services	85	0	8	77	0
Assessments by Board					
Board expenditures[5]	295,056	15,811	62,898	9,721	19,707
Cost of currency	338,537	19,261	144,690	13,787	18,805
Net income before payment to U.S. Treasury	28,034,984	1,604,487	12,561,133	1,110,044	1,543,860
Dividends paid	428,183	24,553	87,974	13,491	30,519
Payments to U.S. Treasury (interest on Federal Reserve notes)	27,089,222	1,519,990	12,436,785	1,103,093	1,320,598
Transferred to/from surplus	517,580	59,944	36,374	−6,539	192,744
Surplus, January 1	6,793,942	358,447	1,467,657	227,900	471,943
Surplus, December 31	7,311,522	418,391	1,504,031	221,361	664,687

NOTE. Components may not sum to totals because of rounding.

1. Reflects the effect of Financial Accounting Standards Board Statement of Financial Accounting Standards No. 87, *Employers' Accounting for Pensions* (SFAS 87). The System Retirement Plan for employees is recorded on behalf of the System on the books of the Federal Reserve Bank of New York, resulting in a reduction in expenses of $330,891 thousand. The Retirement Benefits Equalization Plan is recorded by each Federal Reserve Bank.

2. Includes distribution of costs for projects performed by one Reserve Bank for the benefit of one or more other Reserve Banks.

3. Includes expenses for labor and materials temporarily capitalized and charged to activities when products are consumed.

4. Includes reimbursement from the U.S. Treasury for uncut sheets of Federal Reserve notes, gains and losses on the sale of Reserve Bank buildings, counterfeit currency that is not charged back to the depositing institution, and stale Reserve Bank checks that are written off.

5. For additional details, see the chapter "Board of Governors Financial Statements."

5.—Continued

Richmond	Atlanta	Chicago	St. Louis	Minneapolis	Kansas City	Dallas	San Francisco
1,708,634	1,893,140	3,288,808	1,038,668	36,743	860,711	569,162	2,921,573
18,827	21,604	36,248	11,530	1,059	9,927	6,497	32,416
0	0	0	0	0	0	0	0
11	31	1,471	4	1	3	5	12
18,838	21,635	37,718	11,534	1,061	9,930	6,503	32,428
0	0	0	0	0	0	0	0
−353,442	−103,039	−131,092	−29,667	−55,079	−37,610	−40,325	−162,372
−5	−4	−2	−1	−1	−66	−5	−1
−353,447	−103,043	−131,094	−29,668	−55,080	−37,676	−40,330	−162,373
−334,609	−81,408	−93,375	−18,134	−54,019	−27,746	−33,827	−129,945
0	0	0	0	0	0	0	0
71,102	21,475	27,780	5,989	10,878	7,784	7,795	34,118
20,441	23,297	36,831	11,677	958	10,026	5,781	32,985
1,282,482	1,766,960	3,130,822	1,002,869	−29,112	815,155	521,760	2,724,525
102,398	30,950	42,977	8,785	17,727	11,136	9,595	48,078
1,101,384	1,696,757	2,926,212	983,036	0	791,890	536,468	2,673,007
78,700	39,252	161,632	11,047	−46,839	12,129	−24,303	3,440
1,678,709	495,332	631,518	138,004	164,915	178,830	188,318	792,368
1,757,409	534,584	793,150	149,052	118,076	190,959	164,015	795,807

6. Income and Expenses of the Federal Reserve Banks, 1914–2001

Thousands of dollars

Federal Reserve Bank and period	Current income	Net expenses	Net additions or deductions (–)[1]	Assessments by Board of Governors	
				Board expenditures	Costs of currency
All Banks					
1914–15	2,173	2,018	6	302	. . .
1916	5,218	2,082	–193	192	. . .
1917	16,128	4,922	–1,387	238	. . .
1918	67,584	10,577	–3,909	383	. . .
1919	102,381	18,745	–4,673	595	. . .
1920	181,297	27,549	–3,744	710	. . .
1921	122,866	33,722	–6,315	741	. . .
1922	50,499	28,837	–4,442	723	. . .
1923	50,709	29,062	–8,233	703	. . .
1924	38,340	27,768	–6,191	663	. . .
1925	41,801	26,819	–4,823	709	. . .
1926	47,600	24,914	–3,638	722	1,714
1927	43,024	24,894	–2,457	779	1,845
1928	64,053	25,401	–5,026	698	806
1929	70,955	25,810	–4,862	782	3,099
1930	36,424	25,358	–93	810	2,176
1931	29,701	24,843	311	719	1,479
1932	50,019	24,457	–1,413	729	1,106
1933	49,487	25,918	–12,307	800	2,505
1934	48,903	26,844	–4,430	1,372	1,026
1935	42,752	28,695	–1,737	1,406	1,477
1936	37,901	26,016	486	1,680	2,178
1937	41,233	25,295	–1,631	1,748	1,757
1938	36,261	25,557	2,232	1,725	1,630
1939	38,501	25,669	2,390	1,621	1,356
1940	43,538	25,951	11,488	1,704	1,511
1941	41,380	28,536	721	1,840	2,588
1942	52,663	32,051	–1,568	1,746	4,826
1943	69,306	35,794	23,768	2,416	5,336
1944	104,392	39,659	3,222	2,296	7,220
1945	142,210	41,666	–830	2,341	4,710
1946	150,385	50,493	–626	2,260	4,482
1947	158,656	58,191	1,973	2,640	4,562
1948	304,161	64,280	–34,318	3,244	5,186
1949	316,537	67,931	–12,122	3,243	6,304
1950	275,839	69,822	36,294	3,434	7,316
1951	394,656	83,793	–2,128	4,095	7,581
1952	456,060	92,051	1,584	4,122	8,521
1953	513,037	98,493	–1,059	4,100	10,922
1954	438,486	99,068	–134	4,175	6,490
1955	412,488	101,159	–265	4,194	4,707
1956	595,649	110,240	–23	5,340	5,603
1957	763,348	117,932	–7,141	7,508	6,374
1958	742,068	125,831	124	5,917	5,973
1959	886,226	131,848	98,247	6,471	6,384
1960	1,103,385	139,894	13,875	6,534	7,455
1961	941,648	148,254	3,482	6,265	6,756
1962	1,048,508	161,451	–56	6,655	8,030
1963	1,151,120	169,638	615	7,573	10,063
1964	1,343,747	171,511	726	8,655	17,230
1965	1,559,484	172,111	1,022	8,576	23,603
1966	1,908,500	178,212	996	9,022	20,167
1967	2,190,404	190,561	2,094	10,770	18,790
1968	2,764,446	207,678	8,520	14,198	20,474
1969	3,373,361	237,828	–558	15,020	22,126

For notes see end of table.

6.—Continued

Dividends paid	Payments to U.S. Treasury		Transferred to surplus (section 13b)	Transferred to surplus (section 7)
	Statutory transfers [2]	Interest on Federal Reserve notes		
217	...	...	...	...
1,743	...	...	...	...
6,804	1,134	...	...	1,134
5,541	...	...	...	48,334
5,012	2,704	...	...	70,652
5.654	60,725	...	...	82,916
6,120	59,974	...	...	15,993
6,307	10,851	...	...	-660
6,553	3,613	...	...	2,546
6,682	114	...	...	-3,078
6,916	59	...	...	2,474
7,329	818	...	...	8,464
7,755	250	...	...	5,044
8,458	2,585	...	...	21,079
9,584	4,283	...	...	22,536
10,269	17	...	...	-2,298
10,030	...	...	...	-7,058
9,282	2,011	...	...	11,021
8,874	...	...	...	-917
8,782	...	...	-60	6,510
8,505	298	...	28	607
7,830	227	...	103	353
7,941	177	...	67	2,616
8,019	120	...	-419	1,862
8,110	25	...	-426	4,534
8,215	82	...	-54	17,617
8,430	141	...	-4	571
8,669	198	...	50	3,554
8,911	245	...	135	40,327
9,500	327	...	201	48,410
10,183	248	...	262	81,970
10,962	67	...	28	81,467
11,523	36	75,284	87	8,366
11,920	...	166,690	...	18,523
12,329	...	193,146	...	21,462
13,083	...	196,629	...	21,849
13,865	...	254,874	...	28,321
14,682	...	291,935	...	46,334
15,558	...	342,568	...	40,337
16,442	...	276,289	...	35,888
17,712	...	251,741	...	32,710
18,905	...	401,556	...	53,983
20,081	...	542,708	...	61,604
21,197	...	524,059	...	59,215
22,722	...	910,650	...	-93,601
23,948	...	896,816	...	42,613
25,570	...	687,393	...	70,892
27,412	...	799,366	...	45,538
28,912	...	879,685	...	55,864
30,782	...	1,582,119	...	-465,823
32,352	...	1,296,810	...	27,054
33,696	...	1,649,455	...	18,944
35,027	...	1,907,498	...	29,851
36,959	...	2,463,629	...	30,027
39,237	...	3,019,161	...	39,432

6. Income and Expenses of the Federal Reserve Banks, 1914–2001—Continued

Thousands of dollars

Federal Reserve Bank and period	Current income	Net expenses	Net additions or deductions (–)[1]	Assessments by Board of Governors	
				Board expenditures	Costs of currency
1970	3,877,218	276,572	11,442	21,228	23,574
1971	3,723,370	319,608	94,266	32,634	24,943
1972	3,792,335	347,917	–49,616	35,234	31,455
1973	5,016,769	416,879	–80,653	44,412	33,826
1974	6,280,091	476,235	–78,487	41,117	30,190
1975	6,257,937	514,359	–202,370	33,577	37,130
1976	6,623,220	558,129	7,311	41,828	48,819
1977	6,891,317	568,851	–177,033	47,366	55,008
1978	8,455,309	592,558	–633,123	53,322	60,059
1979	10,310,148	625,168	–151,148	50,530	68,391
1980	12,802,319	718,033	–115,386	62,231	73,124
1981	15,508,350	814,190	–372,879	63,163	82,924
1982	16,517,385	926,034	–68,833	61,813	98,441
1983	16,068,362	1,023,678	–400,366	71,551	152,135
1984	18,068,821	1,102,444	–412,943	82,116	162,606
1985	18,131,983	1,127,744	1,301,624	77,378	173,739
1986	17,464,528	1,156,868	1,975,893	97,338	180,780
1987	17,633,012	1,146,911	1,796,594	81,870	170,675
1988	19,526,431	1,205,960	–516,910	84,411	164,245
1989	22,249,276	1,332,161	1,254,613	89,580	175,044
1990	23,476,604	1,349,726	2,099,328	103,752	193,007
1991	22,553,002	1,429,322	405,729	109,631	261,316
1992	20,235,028	1,474,531	–987,788	128,955	295,401
1993	18,914,251	1,657,800	–230,268	140,466	355,947
1994	20,910,742	1,795,328	2,363,862	146,866	368,187
1995	25,395,148	1,818,416	857,788	161,348	370,203
1996	25,164,303	1,947,861	–1,676,716	162,642	402,517
1997	26,917,213	1,976,453	–2,611,570	174,407	364,454
1998	28,149,477	1,833,436	1,906,037	178,009	408,544
1999	29,346,836	1,852,162	–533,557	213,790	484,959
2000	33,963,992	1,971,688	–1,500,027	188,067	435,838
2001	31,870,721	2,084,708	–1,117,435	295,056	338,537
Total, 1914–2001	**567,657,077**	**40,265,428**	**2,229,219**	**3,363,583**	**6,421,466**
Aggregate for each Bank, 1914–2001					
Boston	30,746,673	2,716,458	37,003	134,297	372,028
New York	191,945,563	6,049,108[4]	1,007,062	839,477	2,154,497
Philadelphia	21,331,560	2,219,176	40,901	147,465	249,850
Cleveland	35,967,090	2,573,441	39,050	231,415	391,107
Richmond	44,018,620	3,573,035	–357,314	345,080	535,580
Atlanta	28,540,281	4,051,311	202,193	270,812	380,450
Chicago	71,484,655	5,192,166	336,971	407,278	762,168
St. Louis	19,767,905	2,083,477	29,966	88,503	238,737
Minneapolis	9,366,593	1,946,250	35,727	102,523	97,182
Kansas City	21,393,336	2,617,824	69,180	122,435	240,907
Dallas	26,867,381	2,639,056	356,111	197,173	288,269
San Francisco	66,227,420	4,604,125	432,369	477,126	710,691
Total	**567,657,077**	**40,265,428**	**2,229,219**	**3,363,583**	**6,421,466**

NOTE. Components may not sum to totals because of rounding.

... Not applicable.

1. For 1987 and subsequent years, includes the cost of services provided to the Treasury by Federal Reserve Banks for which reimbursement was not received.

2. Represents transfers made as a franchise tax from 1917 to 1932; transfers made under section 13b of the Federal Reserve Act from 1935 to 1947; and transfers made under section 7 of the Federal Reserve Act for 1996 and 1997.

6.—Continued

Dividends paid	Payments to U.S. Treasury		Transferred to surplus (section 13b)	Transferred to surplus (section 7)
	Statutory transfers [2]	Interest on Federal Reserve notes		
41,137	...	3,493,571	...	32,580
43,488	...	3,356,560	...	40,403
46,184	...	3,231,268	...	50,661
49,140	...	4,340,680	...	51,178
52,580	...	5,549,999	...	51,483
54,610	...	5,382,064	...	33,828
57,351	...	5,870,463	...	53,940
60,182	...	5,937,148	...	45,728
63,280	...	7,005,779	...	47,268
67,194	...	9,278,576	...	69,141
70,355	...	11,706,370	...	56,821
74,574	...	14,023,723	...	76,897
79,352	...	15,204,591	...	78,320
85,152	...	14,228,816	...	106,663
92,620	...	16,054,095	...	161,996
103,029	...	17,796,464	...	155,253
109,588	...	17,803,895	...	91,954
117,499	...	17,738,880	...	173,771
125,616	...	17,364,319	...	64,971
129,885	...	21,646,417	...	130,802
140,758	...	23,608,398	...	180,292
152,553	...	20,777,552	...	228,356
171,763	...	16,774,477	...	402,114
195,422	...	15,986,765	...	347,583
212,090	...	20,470,011	...	282,122
230,527	...	23,389,367	...	283,075
255,884	5,517,716	14,565,624	...	635,343
299,652	20,658,972	0	...	831,705
343,014	17,785,942	8,774,994	...	731,575
373,579	0	25,409,736	...	479,053
409,614	0	25,343,892	...	4,114,865
428,183	0	27,089,222	...	517,580
5,502,956	**44,113,958**	**458,813,715**	**−4**	**11,405,195** [3]
232,601	2,579,504	24,143,227	135	605,425
1,384,237	17,307,161	162,851,302	−433	2,367,277
251,069	1,312,118	16,829,018	291	363,475
392,645	2,827,043	28,639,575	−10	950,925
595,029	3,083,928	32,763,442	−72	2,765,284
424,450	2,713,230	20,073,486	5	828,728
654,461	4,593,811	59,040,666	12	1,171,065
145,398	1,833,837	15,156,343	−27	251,601
170,853	416,227	6,405,077	65	264,143
195,299	1,249,703	16,728,775	−9	307,583
301,497	1,510,802	21,982,890	55	303,748
755,417	4,686,594	54,199,914	−17	1,225,940
5,502,956	**44,113,958**	**458,813,715**	**−4**	**11,405,195** [3]

3. The $11,405,195 thousand transferred to surplus was reduced by direct charges of $500 thousand for charge-off on Bank premises (1927), $139,300 thousand for contributions to capital of the Federal Deposit Insurance Corporation (1934), $4 thousand net upon elimination of section 13b surplus (1958), and $106,000 thousand (1996), $107,000 thousand (1997), and $3,752,000 thousand (2000) transferred to the Treasury as statutorily required; and was increased by transfer of $11,131 thousand from reserves for contingencies (1955), leaving a balance of $7,311,522 thousand on December 31, 2001.

4. This amount is reduced $2,496,755 thousand, which is related to the System Retirement Plan. See note 1, table 5.

7. Acquisition Costs and Net Book Value of Premises of the Federal Reserve Banks and Branches, December 31, 2001

Thousands of dollars

Federal Reserve Bank or Branch	Acquisition costs				Net book value	Other real estate[3]
	Land	Buildings (including vaults)[1]	Building machinery and equipment	Total[2]		
BOSTON	22,074	100,144	15,591	137,809	91,244	...
NEW YORK	20,330	187,668	49,519	275,517	172,044	...
Buffalo	888	5,277	3,233	9,397	4,967	...
PHILADELPHIA	2,533	66,210	9,620	78,363	49,415	...
CLEVELAND	3,112	118,858	24,637	146,606	121,668	...
Cincinnati	2,247	18,717	8,693	29,657	13,337	...
Pittsburgh	1,658	13,007	9,612	24,277	16,794	...
RICHMOND	10,051	68,244	34,401	112,697	82,261	...
Baltimore	6,480	27,101	4,929	38,511	24,125	...
Charlotte	3,130	27,594	4,750	35,474	25,763	...
ATLANTA	22,116	145,789	15,571	183,475	181,549	...
Birmingham	7,098	44,406	3,239	54,743	53,308	...
Jacksonville	1,730	18,489	2,976	23,195	16,631	48
Miami	3,746	15,021	3,790	22,557	14,544	...
Nashville	629	3,672	3,042	7,342	3,791	...
New Orleans	3,709	8,614	4,206	16,530	11,039	...
CHICAGO	4,994	126,709	13,443	145,146	97,442	...
Detroit	798	7,303	3,814	11,914	7,967	...
ST. LOUIS	700	27,381	8,670	36,752	21,095	...
Little Rock	1,148	7,687	2,033	10,869	8,721	...
Louisville	800	4,697	2,053	7,549	4,741	...
Memphis	1,136	7,743	3,716	12,594	8,828	...
MINNEAPOLIS	11,377	100,472	13,381	125,230	113,029	...
Helena	2,042	9,551	944	12,537	10,049	...
KANSAS CITY	2,048	19,826	8,408	30,282	14,104	...
Denver	3,188	8,040	4,534	15,762	9,128	...
Oklahoma City	646	11,243	3,493	15,382	9,559	...
Omaha	6,535	12,823	1,337	20,695	16,047	...
DALLAS	29,049	106,245	20,359	155,653	126,730	...
El Paso	262	2,911	1,018	4,191	2,238	...
Houston	0	2,129	0	2,129	2,129	26,495
San Antonio	482	6,308	2,722	9,513	6,198	...
SAN FRANCISCO	15,600	79,472	19,536	114,608	73,708	...
Los Angeles	5,005	66,611	11,232	82,848	61,133	...
Portland	2,884	12,190	3,065	18,139	14,357	...
Salt Lake City	495	9,425	2,832	12,751	9,205	...
Seattle	325	12,724	4,706	17,755	12,951	...
Total	**201,045**	**1,510,298**	**329,105**	**2,040,448**	**1,511,836**	**26,543**

NOTE. Components may not sum to totals because of rounding.

1. Includes expenditures for construction at some offices, pending allocation to appropriate accounts.

2. Excludes charge-offs of $17,699 thousand before 1952.

3. Covers acquisitions for banking-house purposes and Bank premises formerly occupied and being held pending sale.

8. Operations in Principal Departments of the Federal Reserve Banks, 1998–2001

Operation	2001	2000	1999	1998
Millions of pieces (except as noted)				
Loans (thousands)[1]	...	...	...	4
Currency processed	33,740	31,505	23,092	26,341
Currency destroyed	7,850	8,179	7,257	7,251
Coin received[2]	6,321	5,138	6,719	8,454
Checks handled				
U.S. government checks	346	262	288	321
Postal money orders	229	230	226	213
Other	13,314	16,994	17,075	16,573
Government securities transfers	15	14	13	14
Transfer of funds	112	108	103	98
Automated clearinghouse transactions				
Commercial	4,448	3,812	3,344	2,966
Government	900	838	809	753
Food stamps redeemed	587	686	1,158	1,843
Millions of dollars				
Loans[1]	...	...	...	20,431
Currency processed	540,746	542,567	444,234	409,166
Currency destroyed	86,298	112,164	82,951	94,858
Coin received[2]	767	666	778	1,001
Checks handled				
U.S. government checks	333,849	282,791	306,077	343,670
Postal money orders	30,461	30,036	29,118	28,469
Other	11,697,711	13,849,084	13,788,037	13,076,097
Government securities transfers	212,332,604	188,133,178	179,486,282	197,781,609
Transfer of funds	423,606,365	379,756,389	343,381,658	328,748,912
Automated clearinghouse transactions				
Commercial	12,707,247	11,619,954	10,862,424	10,338,376
Government	2,528,562	2,404,491	2,233,279	1,988,335
Food stamps redeemed	2,989	3,414	6,221	9,278

1. Collection of data discontinued effective 1999.

2. For 1999 and 2000, does not include coin activity at Federal Reserve off-site coin terminals.

9. Federal Reserve Bank Interest Rates on Loans to Depository Institutions, December 31, 2001

Reserve Bank	Adjustment credit[1]	Seasonal credit[2]	Extended credit[3]	
			First thirty days of borrowing	After thirty days of borrowing
All Federal Reserve Banks	1.25	1.80	1.25	2.30

1. Adjustment credit is available on a short-term basis to help depository institutions meet temporary needs for funds that cannot be met through reasonable alternative sources. Adjustment credit is usually provided at the basic discount rate, but under certain circumstances a special rate or rates above the basic discount rate may be applied. See section 201.3(a) of Regulation A.

2. Seasonal credit is available to help smaller depository institutions meet regular seasonal needs for funds that cannot be met through special industry lenders and that arise from a combination of expected patterns of movement in their deposits and loans. The discount rate on seasonal credit takes into account rates on market sources of funds and ordinarily is reestablished on the first business day of each two-week reserve maintenance period; however, it is never lower than the discount rate applicable to adjustment credit. See section 201.3(b) of Regulation A.

3. Extended credit is available to depository institutions if similar assistance is not reasonably available from other sources, when exceptional circumstances or practices involve only a particular institution, or when an institution is experiencing difficulties adjusting to changing market conditions over a longer period of time. See section 201.3(c) of Regulation A.

Extended-credit loans outstanding more than thirty days will be charged a flexible rate somewhat above rates on market sources of funds; the rate will always be at least 50 basis points above the discount rate applicable to adjustment credit. The flexible rate is reestablished on the first business day of each two-week reserve maintenance period. At the discretion of the Federal Reserve Bank, the flexible rate may be charged on extended-credit loans that are outstanding less than thirty days.

10. Reserve Requirements of Depository Institutions, December 31, 2001

Type of deposit	Requirements	
	Percentage of deposits	Effective date
Net transaction accounts[1]		
\$0 million–\$41.3 million[2]	3	12-27-01
More than \$41.3 million[3]	10	12-27-01
Nonpersonal time deposits[4]	0	12-27-90
Eurocurrency liabilities[5]	0	12-27-90

NOTE. Required reserves must be held in the form of deposits with Federal Reserve Banks or vault cash. Nonmember institutions may maintain reserve balances with a Federal Reserve Bank indirectly, on a pass-through basis, with certain approved institutions. For previous reserve requirements, see earlier editions of the *Annual Report* or the *Federal Reserve Bulletin*. Under the Monetary Control Act of 1980, depository institutions include commercial banks, savings banks, savings and loan associations, credit unions, agencies and branches of foreign banks, and Edge Act corporations.

1. Transaction accounts include all deposits against which the account holder is permitted to make withdrawals by negotiable or transferable instruments, payment orders of withdrawal, or telephone or preauthorized transfers for the purpose of making payments to third persons or others. However, accounts subject to the rules that permit no more than six preauthorized, automatic, or other transfers per month (of which no more than three may be by check, draft, debit card, or similar order payable directly to third parties) are savings deposits, not transaction accounts.

2. The Monetary Control Act of 1980 requires that the amount of transaction accounts against which the 3 percent reserve requirement applies be modified annually by 80 percent of the percentage change in transaction accounts held by all depository institutions, determined as of June 30 each year. Effective with the reserve maintenance period beginning December 27, 2001, for depository institutions that report weekly, and with the reserve maintenance period beginning January 17, 2002, for institutions that report quarterly, the amount was decreased from \$42.8 million to \$41.3 million.

Under the Garn–St Germain Depository Institutions Act of 1982, the Board adjusts the amount of reservable liabilities subject to a zero percent reserve requirement each year for the succeeding calendar year by 80 percent of the percentage increase in the total reservable liabilities of all depository institutions, measured on an annual basis as of June 30. No corresponding adjustment is made in the event of a decrease. The exemption applies only to accounts that would be subject to a 3 percent reserve requirement. Effective with the reserve maintenance period beginning December 27, 2001, for depository institutions that report weekly, and with the reserve maintenance period beginning January 17, 2002, for institutions that report quarterly, the exemption was raised from \$5.5 million to \$5.7 million.

3. The reserve requirement was reduced from 12 percent to 10 percent on April 2, 1992, for institutions that report weekly, and on April 16, 1992, for institutions that report quarterly.

4. For institutions that report weekly, the reserve requirement on nonpersonal time deposits with an original maturity of less than 1.5 years was reduced from 3 percent to 1.5 percent for the maintenance period that began December 13, 1990, and to zero for the maintenance period that began December 27, 1990. For institutions that report quarterly, the reserve requirement on nonpersonal time deposits with an original maturity of less than 1.5 years was reduced from 3 percent to zero on January 17, 1991.

The reserve requirement on nonpersonal time deposits with an original maturity of 1.5 years or more has been zero since October 6, 1983.

5. The reserve requirement on eurocurrency liabilities was reduced from 3 percent to zero in the same manner and on the same dates as the reserve requirement on nonpersonal time deposits with an original maturity of less than 1.5 years (see note 4).

11. Initial Margin Requirements under Regulations T, U, and X

Percent of market value

Effective date	Margin stocks	Convertible bonds	Short sales, T only[1]
1934, Oct. 1	25–45	...	...
1936, Feb. 1	25–55	...	...
Apr. 1	55	...	...
1937, Nov. 1	40	...	50
1945, Feb. 5	50	...	50
July 5	75	...	75
1946, Jan. 21	100	...	100
1947, Feb. 21	75	...	75
1949, Mar. 3	50	...	50
1951, Jan. 17	75	...	75
1953, Feb. 20	50	...	50
1955, Jan. 4	60	...	60
Apr. 23	70	...	70
1958, Jan. 16	50	...	50
Aug. 5	70	...	70
Oct. 16	90	...	90
1960, July 28	70	...	70
1962, July 10	50	...	50
1963, Nov. 6	70	...	70
1968, Mar. 11	70	50	70
June 8	80	60	80
1970, May 6	65	50	65
1971, Dec. 6	55	50	55
1972, Nov. 24	65	50	65
1974, Jan. 3	50	50	50

NOTE. These regulations, adopted by the Board of Governors pursuant to the Securities Exchange Act of 1934, limit the amount of credit to purchase and carry "margin securities" (as defined in the regulations) when such value is collateralized by securities. Margin requirements on securities are the difference between the market value (100 percent) and the maximum loan value of collateral as prescribed by the Board. Regulation T was adopted effective October 15, 1934; Regulation U, effective May 1, 1936; and Regulation X, effective November 1, 1971. The former Regulation G, which was adopted effective March 11, 1968, was merged with Regulation U, effective April 1, 1998.

1. From October 1, 1934, to October 31, 1937, the requirement was the margin "customarily required" by the brokers and dealers.

12. Principal Assets and Liabilities and Number of Insured Commercial Banks in the United States, by Class of Bank, June 30, 2001 and 2000

Millions of dollars, except as noted

Item	Total	Member banks			Nonmember banks
		Total	National	State	
	2001				
ASSETS					
Loans and investments	4,561,484	3,527,619	2,508,988	1,018,632	1,033,864
Loans, gross	3,523,990	2,775,751	2,022,571	753,180	748,239
Net	3,521,897	2,774,534	2,021,662	752,873	747,362
Investments	1,037,494	751,869	486,417	265,452	285,625
U.S. Treasury and federal agency securities	233,182	148,577	79,672	68,905	84,604
Other	804,312	603,291	406,745	196,546	201,021
Cash assets, total	257,069	210,319	151,085	59,234	46,751
LIABILITIES					
Deposits, total	3,529,843	2,645,508	1,887,181	758,327	884,334
Interbank	8,327	7,829	4,168	3,661	498
Other transaction	640,057	488,456	355,567	132,889	151,601
Other nontransaction	2,881,458	2,149,223	1,527,446	621,778	732,235
Equity capital	546,649	432,466	302,735	129,731	114,183
Number of banks	8,152	3,146	2,172	974	5,006
	2000[r]				
ASSETS					
Loans and investments	4,401,363	3,471,955	2,495,087	976,868	929,408
Loans, gross	3,372,546	2,683,625	1,979,485	704,140	688,921
Net	3,370,051	2,682,145	1,978,425	703,720	687,906
Investments	1,028,818	788,330	515,602	272,728	240,488
U.S. Treasury and federal agency securities	315,139	213,706	127,525	86,181	101,433
Other	713,679	574,624	388,077	86,547	139,055
Cash assets, total	244,304	201,237	151,593	49,644	43,067
LIABILITIES					
Deposits, total	3,259,838	2,485,484	1,788,442	697,041	774,354
Interbank	53,948	44,923	32,540	12,382	9,026
Other transaction	623,032	470,638	340,530	130,108	152,393
Other nontransaction	2,582,858	1,969,922	1,415,371	554,551	612,936
Equity capital	493,861	395,963	279,305	116,658	97,898
Number of banks	8,449	3,292	2,297	995	5,157

NOTE. Components may not sum to totals because of rounding.

r. Data have been revised.

13. Reserves of Depository Institutions, Federal Reserve Bank Credit, and Related Items, Year-End 1918–2001 and Month-End 2001

Millions of dollars

Period	Factors supplying reserve funds										
	Federal Reserve Bank credit outstanding								Gold stock[6]	Special drawing rights certificate account	Treasury currency outstanding[7]
	U.S. Treasury and federal agency securities			Loans	Float[3]	All other[4]	Other Federal Reserve assets[5]	Total			
	Total	Bought outright[1]	Held under repurchase agreement[2]								
1918	239	239	0	1,766	199	294	0	2,498	2,873	...	1,795
1919	300	300	0	2,215	201	575	0	3,292	2,707	...	1,707
1920	287	287	0	2,687	119	262	0	3,355	2,639	...	1,709
1921	234	234	0	1,144	40	146	0	1,563	3,373	...	1,842
1922	436	436	0	618	78	273	0	1,405	3,642	...	1,958
1923	134	80	54	723	27	355	0	1,238	3,957	...	2,009
1924	540	536	4	320	52	390	0	1,302	4,212	...	2,025
1925	375	367	8	643	63	378	0	1,459	4,112	...	1,977
1926	315	312	3	637	45	384	0	1,381	4,205	...	1,991
1927	617	560	57	582	63	393	0	1,655	4,092	...	2,006
1928	228	197	31	1,056	24	500	0	1,809	3,854	...	2,012
1929	511	488	23	632	34	405	0	1,583	3,997	...	2,022
1930	739	686	43	251	21	372	0	1,373	4,306	...	2,027
1931	817	775	42	638	20	378	0	1,853	4,173	...	2,035
1932	1,855	1,851	4	235	14	41	0	2,145	4,226	...	2,204
1933	2,437	2,435	2	98	15	137	0	2,688	4,036	...	2,303
1934	2,430	2,430	0	7	5	21	0	2,463	8,238	...	2,511
1935	2,431	2,430	1	5	12	38	0	2,486	10,125	...	2,476
1936	2,430	2,430	0	3	39	28	0	2,500	11,258	...	2,532
1937	2,564	2,564	0	10	19	19	0	2,612	12,760	...	2,637
1938	2,564	2,564	0	4	17	16	0	2,601	14,512	...	2,798
1939	2,484	2,484	0	7	91	11	0	2,593	17,644	...	2,963
1940	2,184	2,184	0	3	80	8	0	2,274	21,995	...	3,087
1941	2,254	2,254	0	3	94	10	0	2,361	22,737	...	3,247
1942	6,189	6,189	0	6	471	14	0	6,679	22,726	...	3,648
1943	11,543	11,543	0	5	681	10	0	12,239	21,938	...	4,094
1944	18,846	18,846	0	80	815	4	0	19,745	20,619	...	4,131
1945	24,252	24,252	0	249	578	2	0	15,091	20,065	...	4,339
1946	23,350	23,350	0	163	580	1	0	24,093	20,529	...	4,562
1947	22,559	22,559	0	85	535	1	0	23,181	22,754	...	4,562
1948	23,333	23,333	0	223	541	1	0	24,097	24,244	...	4,589
1949	18,885	18,885	0	78	534	2	0	19,499	24,427	...	4,598
1950	20,778	20,725	53	67	1,368	3	0	22,216	22,706	...	4,636
1951	23,801	23,605	196	19	1,184	5	0	25,009	22,695	...	4,709
1952	24,697	24,034	663	156	967	4	0	25,825	23,187	...	4,812
1953	25,916	25,318	598	28	935	2	0	26,880	22,030	...	4,894
1954	24,932	24,888	44	143	808	1	0	25,885	21,713	...	4,985
1955	24,785	24,391	394	108	1,585	29	0	26,507	21,690	...	5,008
1956	24,915	24,610	305	50	1,665	70	0	26,699	21,949	...	5,066
1957	24,238	23,719	519	55	1,424	66	0	25,784	22,781	...	5,146
1958	26,347	26,252	95	64	1,296	49	0	27,755	20,534	...	5,234
1959	26,648	26,607	41	458	1,590	75	0	28,771	19,456	...	5,311

For notes see end of table.

13.—Continued

Factors absorbing reserve funds											
Currency in circulation	Treasury cash holdings[8]	Deposits, other than reserves, with Federal Reserve Banks: Treasury	Deposits, other than reserves, with Federal Reserve Banks: Foreign	Deposits, other than reserves, with Federal Reserve Banks: Other	Other Federal Reserve accounts[5]	Required clearing balances	Other Federal Reserve liabilities and capital[5]	Member bank reserves[9]: With Federal Reserve Banks	Member bank reserves[9]: Currency and coin[10]	Member bank reserves[9]: Required[11]	Member bank reserves[9]: Excess[11]
4,951	288	51	96	25	118	0	0	1,636	0	1,585	51
5,091	385	51	73	28	208	0	0	1,890	0	1,822	68
5,325	218	57	5	18	298	0	0	1,781	0	0	0
4,403	214	96	12	15	285	0	0	1,753	0	1,654	99
4,530	225	11	3	26	276	0	0	1,934	0	0	0
4,757	213	38	4	19	275	0	0	1,898	0	1,884	14
4,760	211	51	19	20	258	0	0	2,220	0	2,161	59
4,817	203	16	8	21	272	0	0	2,212	0	2,256	–44
4,808	201	17	46	19	293	0	0	2,194	0	2.250	–56
4,716	208	18	5	21	301	0	0	2,487	0	2,424	63
4,686	202	23	6	21	348	0	0	2,389	0	2,430	–41
4,578	216	29	6	24	393	0	0	2,355	0	2,428	–73
4,603	211	19	6	22	375	0	0	2,471	0	2,375	96
5,360	222	54	79	31	354	0	0	1,961	0	1,994	–33
5,388	272	8	19	24	355	0	0	2,509	0	1,933	576
5,519	284	3	4	128	360	0	0	2,729	0	1,870	859
5,536	3,029	121	20	169	241	0	0	4,096	0	2,282	1,814
5,882	2,566	544	29	226	253	0	0	5,587	0	2,743	2,844
6,543	2,376	244	99	160	261	0	0	6,606	0	4,622	1,984
6,550	3,619	142	172	235	263	0	0	7,027	0	5,815	1,212
6,856	2,706	923	199	242	260	0	0	8,724	0	5,519	3,205
7,598	2,409	634	397	256	251	0	0	11,653	0	6,444	5,209
8,732	2,213	368	1,133	599	284	0	0	4,026	0	7,411	6,615
11,160	2,215	867	774	586	291	0	0	12,450	0	9,365	3,085
15,410	2,193	799	793	485	256	0	0	13,117	0	11,129	1,988
20,499	2,303	579	1,360	356	339	0	0	12,886	0	11,650	1,236
25,307	2,375	440	1,204	394	402	0	0	14,373	0	12,748	1,625
28,515	2,287	977	862	446	495	0	0	15,915	0	14,457	1,458
28,952	2,272	393	508	314	607	0	0	16,139	0	15,577	562
28,868	1,336	870	392	569	563	0	0	17,899	0	16,400	1,499
28,224	1,325	1,123	642	547	590	0	0	20,479	0	19,277	1,202
27,600	1,312	821	767	750	106	0	0	16,568	0	15,550	1,018
27,741	1,293	668	895	565	714	0	0	17,681	0	16,509	1,172
29,206	1,270	247	526	363	746	0	0	20,056	0	19,667	389
30,433	1,270	389	550	455	777	0	0	19,950	0	20,520	–570
30,781	761	346	423	493	839	0	0	20,160	0	19,397	763
30,509	796	563	490	441	907	0	0	18,876	0	18,618	258
31,158	767	394	402	554	925	0	0	19,005	0	18,903	102
31,790	775	441	322	426	901	0	0	19,059	0	19,089	–30
31,834	761	481	356	246	998	0	0	19,034	0	19,091	–57
32,193	683	358	272	391	1,122	0	0	18,504	0	18,574	–70
32,591	391	504	345	694	841	0	0	18,174	310	18,619	–135

13. Reserves of Depository Institutions, Federal Reserve Bank Credit, and Related Items, Year-End 1918–2001 and Month-End 2001—Continued

Millions of dollars

Period	Factors supplying reserve funds										
	Federal Reserve Bank credit outstanding								Gold stock[6]	Special drawing rights certificate account	Treasury currency outstanding[7]
	U.S. Treasury and federal agency securities			Loans	Float[3]	All other[4]	Other Federal Reserve assets[5]	Total			
	Total	Bought outright[1]	Held under repurchase agreement[2]								
1960	27,384	26,984	400	33	1,847	74	0	29,338	17,767	...	5,398
1961	28,881	30,478	159	130	2,300	51	0	31,362	16,889	...	5,585
1962	30,820	28,722	342	38	2,903	110	0	33,871	15,978	...	5,567
1963	33,593	33,582	11	63	2,600	162	0	36,418	15,513	...	5,578
1964	37,044	36,506	538	186	2,606	94	0	39,930	15,388	...	5,405
1965	40,768	40,478	290	137	2,248	187	0	43,340	13,733	...	5,575
1966	44,316	43,655	661	173	2,495	193	0	47,177	13,159	...	6,317
1967	49,150	48,980	170	141	2,576	164	0	52,031	11,982	...	6,784
1968	52,937	52,937	0	186	3,443	58	0	56,624	10,367	...	6,795
1969	57,154	7,154[5]	0	183	3,440	64	2,743	64,584	10,367	...	6,852
1970	62,142	62,142	0	335	4,261	57	1,123	67,918	10,732	400	7,147
1971	70,804	69,481	1,323	39	4,343	261	1,068	76,515	10,132	400	7,710
1972	71,230	71,119	111	1,981	3,974	106	1,260	78,551	10,410	400	8,313
1973	80,495	80,395	100	1,258	3,099	68	1,152	86,072	11,567	400	8,716
1974	85,714	84,760	954	299	2,001	999	3,195	92,208	11,652	400	9,253
1975	94,124	92,789	1,335	211	3,688	1,126	3,312	102,461	11,599	500	10,218
1976	104,093	100,062	4,031	25	2,601	991	3,182	110,892	11,598	1,200	10,810
1977	111,274	108,922	2,352	265	3,810	954	2,442	118,745	11,718	1,250	11,331
1978	118,591	117,374	1,217	1,174	6,432	587	4,543	131,327	11,671	1,300	11,831
1979	126,167	124,507	1,660	1,454	6,767	704	5,613	140,705	11,172	1,800	13,083
1980	130,592	128,038	2,554	1,809	4,467	776	8,739	146,383	11,160	2,518	13,427
1981	140,348	136,863	3,485	1,601	1,762	195	9,230	153,136	11,151	3,318	13,687
1982	148,837	144,544	4,293	717	2,735	1,480	9,890	63,659	11,148	4,618	13,786
1983	160,795	159,203	1,592	918	1,605	418	8,728	172,464	11,121	4,618	15,732
1984	169,627	167,612	2,015	3,577	833	0	12,347	186,384	11,096	4,618	16,418
1985	191,248	186,025	5,223	3,060	988	0	15,302	210,598	11,090	4,718	17,075
1986	221,459	205,454	16,005	1,565	1,261	0	17,475	241,760	11,084	5,018	17,567
1987	231,420	226,459	4,961	3,815	811	0	15,837	251,883	11,078	5,018	18,177
1988	247,489	240,628	6,861	2,170	1,286	0	18,803	269,748	11,060	5,018	18,799
1989	235,417	233,300	2,117	481	1,093	0	39,631	276,622	11,059	8,518	19,628
1990	259,785	241,431	18,354	190	2,566	0	39,880	302,421	11,058	10,018	20,402[r]
1991	288,429	272,531	15,898	218	1,026	0	34,524	324,197	11,059	10,018	21,014[r]
1992	308,517	300,423	8,094	675	3,350	0	30,278	342,820	11,056	8,018	21,447[r]
1993	349,866	336,654	13,212	94	963	0	33,394	384,317	11,053	8,018	22,095[r]
1994	378,746	368,156	10,590	223	740	0	33,441	413,150	11,051	8,018	22,994[r]
1995	394,693	380,831	13,862	135	231	0	33,483	428,543	11,050	10,168	24,003[r]
1996	414,715	393,132	21,583	85	5,297	0	32,222	452,319	11,048	9,718	24,966[r]
1997	455,260	431,420	23,840	2,035	561	0	32,044	489,901	11,047	9,200	25,543[r]
1998	482,854	452,478	30,376	17	1,009	0	37,692	521,573	11,046	9,200	26,270
1999	618,784	478,144	140,640	233	407	0	34,799	654,223	11,048	6,200	28,013
2000	555,208	511,833	43,375	110	795	0	36,896	593,009	11,046	2,200	31,219
2001	601,935	551,685	50,250	34	698	0	36,885	639,552	11,045	2,200	33,195

13.—Continued

Factors absorbing reserve funds													
Currency in circulation	Treasury cash holdings[8]	Deposits, other than reserves, with Federal Reserve Banks			Other Federal Reserve accounts[5]	Required clearing balances	Other Federal Reserve liabilities and capital[5]	Member bank reserves[9]			
		Treasury	Foreign	Other				With Federal Reserve Banks	Currency and coin[10]	Required[11]	Excess[11,12]
32,869	377	485	217	533	941	0	0	17,081	2,544	18,988	637
33,918	422	465	279	320	1,044	0	0	17,387	2,544	18,988	96
35,338	380	597	247	393	1,007	0	0	17,454	3,262	20,071	645
37,692	361	880	171	291	1,065	0	0	17,049	4,099	20,677	471
39,619	612	820	229	321	1,036	0	0	18,086	4,151	21,663	574
42,056	760	668	150	355	211	0	0	18,447	4,163	22,848	–238
44,663	1,176	416	174	588	–147	0	0	19,779	4,310	24,321	–232
47,226	1,344	1,123	135	563	–773	0	0	21,092	4,631	25,905	–182
50,961	695	703	216	747	–1,353	0	0	21,818	4,921	27,439	–700
53,950	596	1,312	134	807	0	0	1,919	22,085	5,187	28,173	–901
57,903	431	1,156	148	1,233	0	0	1,986	24,150	5,423	30,033	–460
61,068	460	2,020	294	999	0	0	2,131	27,788	5,743	32,496	1,035
66,516	345	1,855	325	840	0	0	2,143	25,647	6,216	32,044	98[12]
72,497	317	2,542	251	1,419[13]	0	0	2,669	27,060	6,781	35,268	–1,360
79,743	185	2,113	418	1,275[13]	0	0	2,935	25,843	7,370	37,011	–3,798
86,547	483	7,285	353	1,090	0	0	2,968	26,052	8,036	35,197	–1,103[14]
93,717	460	10,393	352	1,357	0	0	3,063	25,158	8,628	35,461	–1,535
103,811	392	7,114	379	1,187	0	0	3,292	26,870	9,421	37,615	–1,265
114,645	240	4,196	368	1,256	0	0	4,275	31,152	10,538	42,694	–893
125,600	494	4,075	429	1,412	0	0	4,957	29,792	11,429	44,217	–2,835
136,829	441	3,062	411	617	0	0	4,671	27,456	13,654	40,558	675
144,774	443	4,301	505	781	0	117	5,261	25,111	15,576	42,145	–1,442
154,908	429	5,033	328	1,033	0	436	4,990	26,053	16,666	41,391	1,328
171,935	479	3,661	191	851	0	1,013	5,392	20,413	17,821	39,179	–945
183,796	513	5,316	253	867	0	1,126	5,952	20,693	n.a.	n.a.	n.a.
197,488	550	9,351	480	1,041	0	1,490	5,940	27,141	n.a.	n.a.	n.a.
211,995	447	7,588	287	917	0	1,812	6,088	46,295	n.a.	n.a.	n.a.
230,205	454	5,313	244	1,027	0	1,687	7,129	40,097	n.a.	n.a.	n.a.
247,649	395	8,656	347	548	0	1,605	7,683	37,742	n.a.	n.a.	n.a.
260,456	450	6,217	589	1,298	0	1,618	8,486	36,713	n.a.	n.a.	n.a.
286,963[r]	561	8,960	369	242	0	1,962	8,147	36,696	n.a.	n.a.	n.a.
307,756[r]	636	17,697	968	1,706	0	3,949	8,113	25,464	n.a.	n.a.	n.a.
334,701[r]	508	7,492	206	372	0	5,898	7,984	26,181	n.a.	n.a.	n.a.
365,271[r]	377	14,809	386	397	0	6,332	9,292	28,619	n.a.	n.a.	n.a.
403,843[r]	335	7,161	250	876	0	4,197	11,959	26,592	n.a.	n.a.	n.a.
424,244[r]	270	5,979	386	932	0	5,167	12,342	24,444	n.a.	n.a.	n.a.
450,648[r]	249	7,742	167	892	0	6,601	13,829	17,923	n.a.	n.a.	n.a.
482,327[r]	225	5,444	457	900	0	6,665[r]	15,500	24,173[r]	n.a.	n.a.	n.a.
517,484	85	6,086	167	1,605	0	6,784	16,354	19,522	n.a.	n.a.	n.a.
628,359	109	28,402	71	1,261	0	7,482[r]	17,256	16,545[r]	n.a.	n.a.	n.a.
593,271	450	5,149	216	1,382	0	6,332	17,962	12,713	n.a.	n.a.	n.a.
643,479	425	6,645	61	820	0	8,534	17,083	8,944	n.a.	n.a.	n.a.

13. Reserves of Depository Institutions, Federal Reserve Bank Credit, and Related Items, Year-End 1918–2001 and Month-End 2001—Continued

Millions of dollars

Period	Factors supplying reserve funds										
	Federal Reserve Bank credit outstanding								Gold stock[6]	Special drawing rights certificate account	Treasury currency outstanding[7]
	U.S. Treasury and federal agency securities			Loans	Float[3]	All other[4]	Other Federal Reserve assets[5]	Total			
	Total	Bought outright[1]	Held under repurchase agreement[2]								
2001											
Jan. ...	535,068	516,148	0	35	2,217	0	36,634	573,954	11,046	2,200	31,888
Feb. ...	543,293	519,628	0	18	1,105	0	34,395	578,811	11,046	2,200	32,087
Mar. ...	545,867	523,872	0	22	380	0	35,789	582,058	11,046	2,200	32,271
Apr. ...	550,929	525,922	0	80	–27	0	36,866	587,847	11,046	2,200	32,417
May ...	557,882	527,572	0	154	–240	0	34,704	592,499	11,046	2,200	32,562
June ...	558,370	535,120	0	150	–128	0	36,604	594,995	11,044	2,200	32,670
July ...	561,938	535,588	0	201	1,019	0	37,421	600,580	11,044	2,200	32,726
Aug. ...	571,572	541,817	0	123	655	0	36,077	608,427	11,044	2,200	32,957
Sept. ...	582,026	534,146	0	88	–295	0	37,821	619,640	11,045	2,200	33,013
Oct. ...	589,347	544,297	0	55	–157	0	38,236	627,482	11,045	2,200	33,069
Nov. ...	586,824	550,324	0	38	1,478	0	35,825	624,166	11,045	2,200	33,139
Dec. ...	601,935	551,685	0	34	698	0	36,885	639,552	11,045	2,200	33,195

NOTE. For a description of figures and discussion of their significance, see *Banking and Monetary Statistics, 1941–1970* (Board of Governors of the Federal Reserve System, 1976), pp. 507–23.

Components may not sum to totals because of rounding.

. . . Not applicable.

r. Revised.

n.a. Not available.

1. Beginning in 1969, includes securities loaned—fully guaranteed by U.S. government securities pledged with Federal Reserve Banks—and excludes securities sold and scheduled to be bought back under matched sale–purchase transactions. Beginning September 29, 1971, includes federal agency issues bought outright.

2. Beginning December 1, 1966, includes federal agency obligations held under repurchase agreements.

3. Beginning in 1960, figures reflect a minor change in concept; see *Federal Reserve Bulletin*, vol. 47 (February 1961), p. 164.

4. Principally acceptances and, until August 21, 1959, industrial loans, authority for which expired on that date.

5. For the period before April 16, 1969, includes the total of Federal Reserve capital paid in, surplus, other capital accounts, and other liabilities and accrued dividends, less the sum of bank premises and other assets, and is reported as "Other Federal Reserve accounts"; thereafter, "Other Federal Reserve assets" and "Other Federal Reserve liabilities and capital" are shown separately.

6. Before January 30, 1934, includes gold held in Federal Reserve Banks and in circulation.

7. Includes currency and coin (other than gold) issued directly by the Treasury. The largest components are fractional and dollar coins. For details see "Currency and Coin in Circulation," *Treasury Bulletin*.

8. Coin and paper currency held by the Treasury, as well as any gold in excess of the gold certificates issued to the Reserve Bank.

9. Beginning in November 1979, includes reserves of member banks, Edge Act corporations, and U.S. agencies and branches of foreign banks. Beginning on November 13, 1980, includes reserves of all depository institutions.

Beginning in 1984, data on "Currency and coin" and "Required" and "Excess" reserves changed from daily to biweekly basis.

13.—Continued

Factors absorbing reserve funds												
Currency in circulation	Treasury cash holdings[8]	Deposits, other than reserves, with Federal Reserve Banks			Other Federal Reserve accounts[9]	Required clearing balances	Other Federal Reserve liabilities and capital[5]	Member bank reserves[9]			
		Treasury	Foreign	Other				With Federal Reserve Banks	Currency and coin[10]	Required[11]	Excess[11,12]
579,782	477	5,256	199	306	0	6,092	17,648	9,328	n.a.	n.a.	n.a.
585,129	505	4,956	196	377	0	6,106	17,842	9,033	n.a.	n.a.	n.a.
585,853	478	5,657	70	248	0	6,318	17,441	11,510	n.a.	n.a.	n.a.
588,191	516	7,894	102	403	0	6,449	18,232	11,723	n.a.	n.a.	n.a.
595,911	510	4,396	85	321	0	6,778	17,845	12,460	n.a.	n.a.	n.a.
596,674	444	7,188	102	271	0	6,841	17,583	11,806	n.a.	n.a.	n.a.
604,179	418	5,592	84	330	0	7,072	18,219	10,655	n.a.	n.a.	n.a.
613,266	416	5,533	80	276	0	7,233	18,139	9,685	n.a.	n.a.	n.a.
612,069	422	9,796	609	191	0	7,650	17,875	17,287	n.a.	n.a.	n.a.
616,853	435	5,112	75	271	0	7,427	17,773	25,851	n.a.	n.a.	n.a.
624,672	434	6,219	528	236	0	8,241	18,101	12,118	n.a.	n.a.	n.a.
643,479	425	6,645	61	820	0	8,534	17,083	8,944	n.a.	n.a.	n.a.

10. Between December 1, 1959, and November 23, 1960, part was allowed as reserves; thereafter, all was allowed.

11. Estimated through 1958. Before 1929, data were available only on call dates (in 1920 and 1922 the call date was December 29). Beginning on September 12, 1968, the amount is based on close-of-business figures for the reserve period two weeks before the report date.

12. Beginning with week ending November 15, 1972, includes $450 million of reserve deficiencies on which Federal Reserve Banks are allowed to waive penalties for a transition period in connection with bank adaptation to Regulation J as amended, effective November 9, 1972. Allowable deficiencies are as follows (beginning with first statement week of quarter, in millions): 1973—Q1, $279; Q2, $172; Q3, $112; Q4, $84; 1974—Q1, $67; Q2, $58. The transition period ended with the second quarter of 1974.

13. For the period before July 1973, includes certain deposits of domestic nonmember banks and foreign-owned banking institutions held with member banks and redeposited in full with Federal Reserve Banks in connection with voluntary participation by nonmember institutions in the Federal Reserve System program of credit restraint.

As of December 12, 1974, the amount of voluntary nonmember bank and foreign-agency and branch deposits at Federal Reserve Banks that are associated with marginal reserves are no longer reported. However, two amounts are reported: (1) deposits voluntarily held as reserves by agencies and branches of foreign banks operating in the United States and (2) eurodollar liabilities.

14. Adjusted to include waivers of penalties for reserve deficiencies, in accordance with change in Board policy, effective November 19, 1975.

14. Banking Offices and Banks Affiliated with Bank Holding Companies (BHCs) in the United States, December 31, 2000 and 2001

Type of office	Total	Commercial banks[1]					State-chartered savings banks
		Total	Member			Nonmember	
			Total	National	State		
	All banking offices						
Banks							
Number, Dec. 31, 2000	**8,697**	**8,261**	**3,164**	**2,175**	**989**	**5,097**	**436**
Changes during 2001							
New banks	139	132	49	34	15	83	7
Banks converted into branches	−330	−321	−165	−86	−79	−156	−9
Ceased banking operation[2]	−45	−34	−15	−13	−2	−19	−11
Other[3]	0	1	25	−20	45	−24	−1
Net change	−236	−222	−106	−85	−21	−116	−14
Number, Dec. 31, 2001	**8,461**	**8,039**	**3,058**	**2,090**	**968**	**4,981**	**422**
Branches and Additional Offices							
Number, Dec. 31, 2000	**68,929**	**65,793**	**48,033**	**34,611**	**13,422**	**17,760**	**3,136**
Changes during 2001							
New branches	1,700	1,510	1,099	672	427	411	190
Branches converted from banks	330	323	194	110	84	129	7
Discontinued[2]	−1,230	−1,072	−948	−636	−312	−124	−158
Other[3]	0	29	724	−10	734	−695	−29
Net change	800	790	1,069	136	933	−279	10
Number, Dec. 31, 2001	**69,729**	**66,583**	**49,102**	**34,747**	**14,355**	**17,481**	**3,146**
	Banks affiliated with BHCs						
Banks							
Number, Dec. 31, 2000	**6,650**	**6,529**	**2,654**	**1,803**	**851**	**3,875**	**121**
Changes during 2001							
BHC-affiliated new banks	206	197	76	57	19	121	9
Banks converted into branches	−295	−291	−156	−79	−77	−135	−4
Ceased banking operation[2]	−40	−31	−12	−12	0	−19	−9
Other[3]	0	1	19	−19	38	−18	−1
Net change	−129	−124	−73	−53	−20	−51	−5
Number, Dec. 31, 2001	**6,521**	**6,405**	**2,581**	**1,750**	**831**	**3,824**	**116**

1. For purposes of this table, banks are entities that are defined as banks in the Bank Holding Company Act as amended and implemented in Federal Reserve Regulation Y. Generally, a bank is any institution that accepts demand deposits and is engaged in the business of making commercial loans or any institution that is defined as an insured bank in section 3(h) of the FDIC Act. Covers entities in the United States and its territories and possessions (affiliated insular areas).

2. Institutions that no longer meet the Regulation Y definition of bank.

3. Interclass changes and sales of branches.

Financial Statements

Board of Governors Financial Statements

The financial statements of the Board for 2001 were audited by KPMG LLP, independent auditors.

KPMG

2001 M Street, N.W.
Washington, D.C. 20036

Independent Auditors' Report on Financial Statements

To the Board of Governors of the
Federal Reserve System

We have audited the accompanying balance sheet of the Board of Governors of the Federal Reserve System (the Board) as of December 31, 2001 and the related statements of revenues and expenses and changes in cumulative results of operations and cash flows for the year then ended. These financial statements are the responsibility of the Board's management. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements as of and for the year ended December 31, 2000 were audited by other auditors who issued an unqualified opinion thereon dated February 21, 2001.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Board at December 31, 2001, and the results of its operations and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards*, we have also issued our reports dated March 22, 2002 on our consideration of the Board's internal control over financial reporting and its compliance with laws and regulations. Those reports are an integral part of an audit conducted in accordance with *Government Auditing Standards*, and should be read in conjunction with this report in considering the results of our audit.

KPMG LLP

March 22, 2002

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

BALANCE SHEETS

	As of December 31, 2001	2000
ASSETS		
CURRENT ASSETS		
Cash	$ 40,788,564	$22,842,252
Accounts receivable	1,325,065	1,057,901
Prepaid expenses and other assets	866,407	1,108,766
Total current assets	42,980,036	25,008,919
PROPERTY AND EQUIPMENT, NET (Note 5)	138,895,601	68,521,774
Total assets	$181,875,637	$93,530,693
LIABILITIES AND CUMULATIVE RESULTS OF OPERATIONS		
CURRENT LIABILITIES		
Accounts payable and accrued liabilities	$ 16,125,797	$10,702,740
Accrued payroll and related taxes	7,307,754	6,040,961
Accrued annual leave	10,732,356	8,492,728
Capital lease payable (current portion)	247,242	180,340
Unearned revenues and other liabilities	391,572	2,044,160
Total current liabilities	34,804,721	27,460,929
LONG-TERM LIABILITIES		
Capital lease payable (non-current portion)	80,276	280,683
Accumulated retirement benefit obligation (Note 2)	651,628	694,782
Accumulated postretirement benefit obligation (Note 3)	4,555,487	4,065,704
Accumulated postemployment benefit obligation (Note 4)	3,591,571	3,109,456
Total long-term liabilities	8,878,962	8,150,625
Total liabilities	43,683,683	35,611,554
CUMULATIVE RESULTS OF OPERATIONS		
Working capital	8,175,315	(2,452,010)
Unfunded long-term liabilities	(8,798,686)	(7,869,942)
Net investment in property and equipment	138,815,325	68,241,091
Total cumulative results of operations	138,191,954	57,919,139
Total liabilities and cumulative results of operations	$181,875,637	$93,530,693

See accompanying notes to financial statements.

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

STATEMENTS OF REVENUES AND EXPENSES AND CHANGES IN CUMULATIVE RESULTS OF OPERATIONS

	For the years ended December 31, 2001	2000
Board Operating Revenues		
Assessments levied on Federal Reserve Banks for Board operating expenses and capital expenditures	$295,055,600	$ 188,067,200
Other revenues (Note 6)	8,747,799	10,099,585
Total operating revenues	303,803,399	198,166,785
Board Operating Expenses		
Salaries	132,647,612	118,632,019
Retirement and insurance contributions	22,277,244	19,945,692
Contractual services and professional fees	19,339,948	14,503,464
Depreciation and net losses on disposals	10,394,156	8,855,763
Postage and supplies	8,252,490	5,839,569
Utilities	5,880,777	6,249,503
Software	5,415,856	4,192,658
Travel	5,037,577	5,769,788
Repairs and maintenance	4,201,386	3,375,478
Equipment and facilities rental	3,830,557	5,075,502
Printing and binding	2,095,676	2,047,590
Other expenses (Note 6)	4,157,305	5,085,135
Total operating expenses	223,530,584	199,572,161
Results of Operations	80,272,815	(1,405,376)
Issuance and Redemption of Federal Reserve Notes		
Assessments levied on Federal Reserve Banks for currency costs	338,537,426	435,837,762
Expenses for currency printing, issuance, retirement, and shipping	338,537,426	435,837,762
Currency Assessments over (under) Expenses	0	0
Total Results of Operations	80,272,815	(1,405,376)
Cumulative Results of Operations, Beginning of year	57,919,139	59,324,515
Transfers to the U.S. Treasury		
Transfers from surplus Federal Reserve Bank earnings (Note 1)	0	3,752,000,000
Transfers to the U.S. Treasury (Note 1)	0	(3,752,000,000)
Cumulative Results of Operations, End of year	$138,191,954	$ 57,919,139

See accompanying notes to financial statements.

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

STATEMENTS OF CASH FLOWS

	For the years ended December 31, 2001	2000
CASH FLOWS FROM OPERATING ACTIVITIES		
RESULTS OF OPERATIONS	$80,272,815	$(1,405,376)
Adjustments to reconcile change in results of operations to net cash provided by (used in) operating activities:		
Depreciation and net losses on disposals	10,394,156	8,855,763
(Increase) decrease in assets:		
Accounts receivable, prepaid expenses, and other assets	(24,805)	(499,519)
Increase (decrease) in liabilities:		
Accounts payable and accrued liabilities	5,423,057	(1,657,349)
Accrued payroll and related taxes	1,266,793	(1,049,793)
Accrued annual leave	2,239,628	429,073
Unearned revenues and other liabilities	(1,652,588)	(303,143)
Accumulated retirement benefit obligation	(43,154)	(52,935)
Accumulated postretirement benefit obligation	489,783	450,876
Accumulated postemployment benefit obligation	482,115	528,377
Net cash provided by (used in) operating activities	98,847,800	5,295,974
CASH FLOWS FROM INVESTING ACTIVITIES		
Proceeds from disposals	119,013	44,400
Capital expenditures	(80,886,996)	(13,609,871)
Net cash provided by (used in) investing activities	(80,767,983)	(13,565,471)
CASH FLOWS FROM FINANCING ACTIVITIES		
Capital lease payable	(133,505)	(77,499)
Capital lease obligations incurred	0	116,340
Net cash provided by (used in) financing activities	(133,505)	38,841
NET INCREASE (DECREASE) IN CASH	17,946,312	(8,230,656)
CASH BALANCE, Beginning of year	22,842,252	31,072,908
CASH BALANCE, End of year	$40,788,564	$22,842,252

See accompanying notes to financial statements.

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

NOTES TO FINANCIAL STATEMENTS FOR THE YEARS ENDED DECEMBER 31, 2001 AND 2000

(1) Significant Accounting Policies

Organization—The Federal Reserve System was founded by Congress in 1913 and consists of the Board of Governors (Board) and twelve regional Reserve Banks. The Board was established as a federal government agency and is supported by Washington staff numbering about 1,700, as it carries out its responsibilities in conjunction with other components of the Federal Reserve System. The accompanying financial statements include only the operations and activities for the Board.

Basis of Accounting—The financial statements have been prepared on the accrual basis of accounting.

Revenues—Assessments for operating expenses and additions to property are based on expected cash needs. Amounts over or under assessed due to differences between actual and expected cash needs flow into "Cumulative Results of Operations" during the year.

Issuance and Redemption of Federal Reserve Notes—The Board incurs expenses and assesses the Federal Reserve Banks for the costs of printing, issuing, shipping, and retiring Federal Reserve Notes. These assessments and expenses are separately reported in the statements of revenues and expenses because they are not Board operating transactions.

Property and Equipment—The Board's property, buildings and equipment are stated at cost less accumulated depreciation. Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets, which range from 3 to 10 years for furniture and equipment and from 10 to 50 years for building equipment and structures. Upon the sale or other disposition of a depreciable asset, the cost and related accumulated depreciation are removed from the accounts and any gain or loss is recognized.

Federal Reserve Bank Surplus Earnings—The Federal Reserve Act, as amended, required that $3,752,000,000 of surplus Federal Reserve Bank earnings be transferred from the Banks to the Board and then to the U.S. Treasury in 2000.

Estimates—The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications—Certain 2000 amounts have been reclassified to conform with the 2001 presentation.

(2) Retirement Benefits

Substantially all of the Board's employees participate in the Retirement Plan for Employees of the Federal Reserve System (System Plan). The System Plan is a multi-employer plan which covers employees of the Federal Reserve Banks, the Board, and the Plan Administrative Office.

Employees of the Board who entered on duty prior to 1984 are covered by a contributory defined benefits program under the System Plan. Employees of the Board who entered on duty after 1983 are covered by a noncontributory defined benefits program under the System Plan. Contributions to the System Plan are actuarially determined and funded by participating employers at amounts prescribed by the System Plan's administrator. Based on actuarial calculations, it was determined that employer funding contributions were not required for the years 2001 and 2000, and the Board was not assessed a contribution for these years. Excess Plan assets are expected to continue to fund future years' contributions. Because the plan is part of a multi-employer plan, information as to vested and nonvested benefits, as well as plan assets, as it relates solely to the Board, is not readily available.

A relatively small number of Board employees participate in the Civil Service Retirement System (CSRS) or the Federal Employees' Retirement System (FERS). The Board matches employee contributions to these plans. These defined benefit plans are administered by the Office of Personnel Management. The Board's contributions to these plans totaled $308,000 and $266,000 in 2001 and 2000, respectively. The Board has no liability for future payments to retirees under these programs, and it is not accountable for the assets of the plans.

Employees of the Board may also participate in the Federal Reserve System's Thrift Plan. Under the Thrift Plan, members may contribute up to a fixed percentage of their salary. Board contributions are based upon a fixed percentage of each member's basic contribution and were $5,540,000 and $5,133,000 in 2001 and 2000, respectively.

Effective January 1, 1996, Board employees covered under the System Plan are also covered under a Benefits Equalization Plan (BEP). Benefits paid under the BEP are limited to those benefits that cannot be paid from the System Plan due to limitations imposed by Sections 401(a)(17), 415(b) and 415(e) of the Internal Revenue Code of 1986. Section 401(a) of the Code was amended to increase the contribution limitation base for highly paid employees to $170,000 from $160,000 effective in 2000. This increase resulted in a reduction in the benefit obligation of the BEP for 2000. Pension costs attributed to the BEP reduce the pension costs of the System Plan. Activity for the BEP for 2001 and 2000 is summarized in the following table:

	2001	2000
Change in benefit obligation		
Benefit obligation at beginning of year	$1,804	$631,264
Service cost	450	544
Interest cost	112	99
Plan participants' contributions	0	0
Plan amendments	0	(552,770)
Actuarial (gain)/loss	(241)	(69,229)
Benefits paid	0	(8,104)
Benefit obligation at end of year	$2,125	$ 1,804

	2001	2000
Change in plan assets		
Fair value of plan assets at beginning of year	$ 0	$ 0
Actual return on plan assets	0	0
Employer contributions	0	8,104
Plan participants' contributions	0	0
Benefits paid	0	(8,104)
Fair value of plan assets at end of year	$ 0	$ 0
Reconciliation of funded status at end of year		
Funded status	$ (2,125)	$ (1,804)
Unrecognized net actuarial (gain)/ loss	(329,169)	(358,390)
Unrecognized prior service cost	(1,170,405)	(1,287,253)
Unrecognized net transition (asset)/ obligation	850,071	952,665
Prepaid/(accrued) postretirement benefit cost	$ (651,628)	$ (694,782)
Weighted-average assumptions as of December 31		
Discount rate	7.00%	7.50%
Expected asset return	N/A	N/A
Salary scale	4.50%	5.00%
Corridor	10.00%	10.00%
Components of net periodic expense for year		
Service cost	$ 450	$ 544
Interest cost	112	99
Expected return on plan assets	0	0
Amortization of prior service cost	(116,848)	(116,848)
Recognized net actuarial gain	(29,462)	(31,220)
Amortization of net (asset)/ obligation	102,594	102,594
Net periodic benefit expense	$ (43,154)	$ (44,831)

(3) Postretirement Benefits

The Board provides certain life insurance programs for its active employees and retirees. Activity for 2001 and 2000 is summarized in the following table:

	2001	2000
Change in benefit obligation		
Benefit obligation at beginning of year	$ 4,255,290	$ 4,096,411
Service cost	133,550	126,076
Interest cost	345,753	312,298
Plan participants' contributions	0	0
Plan amendments	95,993	0
Actuarial (gain)/loss	1,037,839	(278,501)
Benefits paid	0	(994)
Benefit obligation at end of year	$ 5,868,425	$ 4,255,290
Change in plan assets		
Fair value of plan assets at beginning of year	$ 0	$ 0
Actual return on plan assets	0	0
Employer contributions	0	994
Plan participants' contributions	0	0
Benefits paid	0	(994)
Fair value of plan assets at end of year	$ 0	$ 0
Reconciliation of funded status at end of year		
Funded status	$(5,868,425)	$(4,255,290)
Unrecognized net actuarial (gain)/loss	1,216,945	189,586
Unrecognized prior service cost	95,993	0
Unrecognized net transition obligation	0	0
Prepaid/(accrued) postretirement benefit cost	$(4,555,487)	$(4,065,704)
Components of net periodic expense for year		
Service cost	$ 133,550	$ 126,076
Interest cost	345,753	312,298
Amortization of prior service cost	0	0
Amortization of (gains)/losses	10,477	$ 13,497
Total net periodic expense	$ 489,780	$ 451,871

The liability and costs for the postretirement benefit plan were determined using discount rates of 7.00 percent and 7.50 percent as of December 31, 2001 and December 31, 2000 respectively. Unrecognized losses of $1,216,945 and $189,586 as of December 31, 2001 and 2000, respectively, result from changes in the discount rate used to measure the liabilities. Under Statement of Financial Accounting Standards No. 106, *Employers' Accounting for Postretirement Benefits Other Than Pensions*, the Board may have to record some of these unrecognized losses in operations in future years. The assumed salary trend rate for measuring the increase in postretirement benefits related to life insurance was an average of 5 percent.

The above accumulated postretirement benefit obligation is related to the Board sponsored life insurance programs. The Board has no liability for future payments to employees who continue coverage under the federally sponsored programs upon retiring. Contributions for active employees participating in federally sponsored programs totaled $5,364,000 and $4,792,000 in 2001 and 2000, respectively.

(4) Postemployment Benefit Plan

The Board provides certain postemployment benefits to eligible employees after employment but before retirement. Effective January 1, 1994, the Board adopted Statement of Financial Accounting Standards No. 112, *Employers' Accounting for Postemployment Benefits*, which requires that employers providing postemployment benefits to their employees accrue the cost of such benefits. Prior to January 1994, postemployment benefit expenses were recognized on a pay-as-you-go basis.

	As of December 31,	
	2001	2000
Change in benefit obligation		
Benefit obligation at beginning of year	$3,109,456	$2,581,079
Service cost	755,135	721,293
Interest cost	115,142	159,808
Plan participants' contributions	0	0
Plan amendments	0	0
Actuarial (gain)/loss	(129,585)	(29,733)
Benefits paid	(258,577)	(322,991)
Benefit obligation at end of year	$3,591,571	$3,109,456

(5) Property and Equipment

The following is a summary of the components of the Board's property, buildings and equipment, at cost, net of accumulated depreciation.

	As of December 31,	
	2001	2000
Land and improvements	$ 18,640,314	$ 1,301,314
Buildings	104,403,830	45,233,537
Furniture and equipment	54,301,936	49,090,528
Software	9,215,280	7,883,210
Construction in process	6,901,864	9,725,857
	193,463,224	113,234,446
Less accumulated depreciation	(54,567,623)	(44,712,672)
Property and equipment, net	$138,895,601	$ 68,521,774

Furniture and equipment includes $864,000 for capitalized leases as of December 31, 2001 and 2000. Accumulated depreciation includes $510,000 and $366,000 for capitalized leases as of December 31, 2001 and 2000, respectively. The Board paid interest in the amount of $32,201 and $70,830 for 2001 and 2000, respectively.

The Board began the Eccles Building Infrastructure Enhancement Project in July 1999. This $12.5 million project, scheduled for nineteen phases over three and a half years, includes asbestos removal, lighting and plumbing improvements, cabling and other enhancements. Multiple phases will be in process at the same time.

In 2001, the Board purchased land and building located at 1709 New York Avenue, N.W., Washington, DC. This purchase increased land and improvements by $17,339,000 and buildings by $48,727,000 for 2001.

(6) Other Revenues and Other Expenses

The following are summaries of the components of Other Revenues and Other Expenses.

	As of December 31,	
	2001	2000
Other revenues		
Data processing revenue	$4,427,360	$ 4,817,207
Subscription revenue	869,595	1,079,822
Reimbursable services to other agencies	568,753	607,716
National Information Center	25,591	2,606,998
Miscellaneous	2,856,500	987,842
Total Other Revenues	$8,747,799	$10,099,585
Other expenses		
Tuition, registration, and membership fees	$1,472,539	$ 1,429,231
Subsidies and contributions	851,225	837,071
Miscellaneous	1,833,541	2,818,833
Total Other Expenses	$4,157,305	$ 5,085,135

(7) Commitments

The Board has entered into several operating leases to secure office, training and warehouse space for periods ranging from one to ten years. Minimum future commitments under those leases having an initial or remaining noncancelable lease term in excess of one year at December 31, 2001, are as follows:

2002	$162,840
2003	151,038
2004	157,079
2005	163,363
2006	71,991
After 2006	0
	$706,311

Rental expenses under the operating leases were $171,000 and $155,000 in 2001 and 2000, respectively.

(8) Federal Financial Institutions Examination Council

The Board is one of the five member agencies of the Federal Financial Institutions Examination Council (the "Council"). During 2001 and 2000, the Board paid $293,000 and $256,000 respectively, in assessments for operating expenses of the Council. These amounts are included in other expenses for 2001 and 2000. ■

KPMG

2001 M Street, N.W.
Washington, D.C. 20036

INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

To the Board of Governors of the
Federal Reserve System

We have audited the financial statements of the Board of Governors of the Federal Reserve System (the Board) as of and for the year ended December 31, 2001, and have issued our report thereon dated March 22, 2002. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

In planning and performing our audit, we considered the Board's internal control over financial reporting by obtaining an understanding of the Board's internal control, determining whether these internal controls had been placed in operation, assessing control risk, and performing tests of controls in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements. The objective of our audit was not to provide assurance on internal control. Consequently, we do not provide an opinion on internal control.

Our consideration of the internal control over financial reporting would not necessarily disclose all matters in internal control over financial reporting that might be material weaknesses under standards established by the American Institute of Certified Public Accountants. Material weaknesses are conditions in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements, in amounts that would be material in relation to the financial statements being audited, may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. Because of inherent limitations in internal control, misstatements due to error or fraud may occur and not be detected. However, we noted no matters involving internal control and its operation that we consider to be material weaknesses as defined above.

This report is intended solely for the information and use of the Board and management, the U.S. Office of Management and Budget, and Congress, and is not intended to be and should not be used by anyone other than these specified parties.

KPMG LLP

March 22, 2002

KPMG

2001 M Street, N.W.
Washington, D.C. 20036

INDEPENDENT AUDITORS' REPORT ON COMPLIANCE WITH LAWS AND REGULATIONS

To the Board of Governors of the
Federal Reserve System

We have audited the financial statements of the Board of Governors of the Federal Reserve System (the Board) as of and for the year ended December 31, 2001, and have issued our report thereon dated March 22, 2002. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

The management of the Board is responsible for complying with laws and regulations applicable to the Board. As part of obtaining reasonable assurance about whether the Board's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws and regulations, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with laws and regulations was not an objective of our audit and, accordingly, we do not express such an opinion.

The results of our tests of compliance with the laws and regulations described in the preceding paragraph disclosed no instances of noncompliance that are required to be reported under *Government Auditing Standards*.

This report is intended solely for the information and use of the Board and management, the U.S. Office of Management and Budget, and Congress, and is not intended to be and should not be used by anyone other than these specified parties.

KPMG LLP

March 22, 2002

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Federal Reserve Banks
Combined Financial Statements

The combined financial statements of the Federal Reserve Banks were audited by PricewaterhouseCoopers LLP, independent accountants, for the years ended December 31, 2001 and 2000.

PRICEWATERHOUSECOOPERS

REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Governors of The Federal Reserve System
and the Board of Directors of each of The Federal Reserve Banks:

We have audited the accompanying combined statements of condition of The Federal Reserve Banks (the "Reserve Banks") as of December 31, 2001 and 2000, and the related combined statements of income and changes in capital for the years then ended. These financial statements are the responsibility of the Reserve Banks' management. Our responsibility is to express an opinion on the financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 3, the combined financial statements were prepared in conformity with accounting principles, policies, and practices established by the Board of Governors of The Federal Reserve System. These principles, policies, and practices, which were designed to meet the specialized accounting and reporting needs of The Federal Reserve System, are set forth in the *Financial Accounting Manual for Federal Reserve Banks* and constitute a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America.

In our opinion, the combined financial statements referred to above present fairly, in all material respects, the financial position of the Reserve Banks as of December 31, 2001 and 2000, and results of their operations for the years then ended, on the basis of accounting described in Note 3.

Washington, D.C.
March 4, 2002

PricewaterhouseCoopers LLP

THE FEDERAL RESERVE BANKS
COMBINED STATEMENTS OF CONDITION
December 31, 2001 and 2000

(in millions)

Assets	2001	2000
Gold certificates	$ 11,045	$ 11,045
Special drawing rights certificates	2,200	2,200
Coin	1,047	949
Items in process of collection	3,188	7,152
Loans to depository institutions	34	110
Securities purchased under agreements to resell (tri-party)	50,250	43,375
U.S. government and federal agency securities, net	561,701	518,501
Investments denominated in foreign currencies	14,559	15,670
Accrued interest receivable	5,729	6,111
Bank premises and equipment, net	2,021	1,949
Other assets	3,175	2,815
Total assets	$654,949	$609,877

Liabilities and Capital		
Liabilities		
Federal Reserve notes outstanding, net	$611,757	$563,450
Deposits		
Depository institutions	17,478	19,046
U.S. Treasury, general account	6,645	5,149
Other deposits	287	426
Deferred credit items	2,490	6,357
Interest on Federal Reserve notes due U.S. Treasury	498	560
Accrued benefit costs	882	848
Other liabilities	227	250
Total liabilities	640,264	596,086
Capital		
Capital paid-in	7,373	6,997
Surplus	7,312	6,794
Total capital	14,685	13,791
Total liabilities and capital	$654,949	$609,877

The accompanying notes are an integral part of these combined financial statements.

THE FEDERAL RESERVE BANKS
COMBINED STATEMENTS OF INCOME
for the years ended December 31, 2001 and 2000

(in millions)

	2001	2000
Interest income		
Interest on U.S. government and federal agency securities	$30,523	$32,737
Interest on investments denominated in foreign currencies	331	269
Interest on loans to depository institutions	13	23
Total interest income	30,867	33,029
Other operating income (loss)		
Income from services	926	882
Reimbursable services to government agencies	286	302
Foreign currency losses, net	(1,435)	(1,410)
Government securities gains (losses), net	316	(82)
Other income	108	82
Total other operating income (loss)	201	(226)
Operating expenses		
Salaries and other benefits	1,616	1,507
Occupancy expense	204	196
Equipment expense	268	243
Assessments by Board of Governors	634	624
Other expenses	311	357
Cost of unreimbursed Treasury services	...	8
Total operating expenses	3,033	2,935
Net income prior to distribution	$28,035	$29,868
Distribution of net income		
Dividends paid to member banks	$ 428	$ 410
Transferred to surplus	518	4,115
Payments to U.S. Treasury as interest on Federal Reserve notes	27,089	25,343
Total distribution	$28,035	$29,868

The accompanying notes are an integral part of these combined financial statements.

THE FEDERAL RESERVE BANKS
COMBINED STATEMENTS OF CHANGES IN CAPITAL
for the years ended December 31, 2001 and 2000

(in millions)

	Capital paid-in	Surplus	Total capital
Balance at January 1, 2000 (128 million shares)	$6,431	$6,431	$12,862
Net income transferred to surplus	...	4,115	4,115
Surplus transfer to the U.S. Treasury	...	(3,752)	(3,752)
Net change in capital stock issued (11 million shares)	566	...	566
Balance at December 31, 2000 (139 million shares)	$6,997	$6,794	$13,791
Net income transferred to surplus	...	518	518
Net change in capital stock issued (8 million shares)	376	...	376
Balance at December 31, 2001 (147 million shares)	$7,373	$7,312	$14,685

The accompanying notes are an integral part of these combined financial statements.

Notes to the Combined Financial Statements of the Federal Reserve Banks

(1) Organization and Basis of Presentation

The twelve Federal Reserve Banks (Reserve Banks) are part of the Federal Reserve System (System) created by Congress under the Federal Reserve Act of 1913 (Federal Reserve Act) which established the central bank of the United States. The Reserve Banks are chartered by the federal government and possess a unique set of governmental, corporate, and central bank characteristics. Other major elements of the System are the Board of Governors of the Federal Reserve System (Board of Governors), the Federal Open Market Committee (FOMC) and the Federal Advisory Council. The FOMC is composed of members of the Board of Governors, the president of the Federal Reserve Bank of New York (FRBNY) and, on a rotating basis, four other Reserve Bank presidents.

Although the Reserve Banks are chartered as independent organizations overseen by the Board of Governors, the Reserve Banks work jointly to carry out their statutory responsibilities. The majority of the assets, liabilities, and income of the Reserve Banks is derived from central bank activities and responsibilities with regard to monetary policy and currency. For this reason, the accompanying combined set of financial statements for the twelve independent Reserve Banks is prepared with adjustments to eliminate interdistrict accounts and transactions.

Structure

The Reserve Banks serve twelve Federal Reserve Districts nationwide. In accordance with the Federal Reserve Act, supervision and control of each Reserve Bank is exercised by a Board of Directors. Banks that are members of the System include all national banks and any state chartered bank that applies and is approved for membership in the System.

Board of Directors

The Federal Reserve Act specifies the composition of the Board of Directors for each of the Reserve Banks. Each board is composed of nine members serving three-year terms: three directors, including those designated as Chairman and Deputy Chairman, are appointed by the Board of Governors, and six directors are elected by member banks. Of the six elected by member banks, three represent the public and three represent member banks. Member banks are divided into three classes according to size. Member banks in each class elect one director representing member banks and one representing the public. In any election of directors, each member bank receives one vote, regardless of the number of shares of Reserve Bank stock it holds.

(2) Operations and Services

The System performs a variety of services and operations. Functions include: formulating and conducting monetary policy; participating actively in the payments mechanism, including large-dollar transfers of funds, automated clearinghouse (ACH) operations and check processing; distributing coin and currency; performing fiscal agency functions for the U.S. Treasury and certain federal agencies; serving as the federal government's bank; providing short-term loans to depository institutions; serving the consumer and the community by providing educational materials and information regarding consumer laws; supervising bank holding companies, state member banks and U.S. offices of foreign banking organizations; and administering other regulations of the Board of Governors. The Board of Governors' operating costs are funded through assessments on the Reserve Banks.

NOTES TO THE COMBINED FINANCIAL STATEMENTS OF THE FEDERAL RESERVE BANKS—CONTINUED

The FOMC establishes policy regarding open market operations, oversees these operations, and issues authorizations and directives to the FRBNY for its execution of transactions. Authorized transaction types include direct purchase and sale of U.S. government and federal agency securities, matched sale–purchase transactions, the purchase of securities under agreements to resell, and the lending of U.S. government securities. FRBNY is also authorized by the FOMC to hold balances of and to execute spot and forward foreign exchange (F/X) and securities contracts in nine foreign currencies, maintain reciprocal currency arrangements (F/X swaps) with various central banks, and "warehouse" foreign currencies for the U.S. Treasury and Exchange Stabilization Fund (ESF) through the Reserve Banks.

(3) SIGNIFICANT ACCOUNTING POLICIES

Accounting principles for entities with the unique powers and responsibilities of the nation's central bank have not been formulated by the Financial Accounting Standards Board. The Board of Governors has developed specialized accounting principles and practices that it believes are appropriate for the significantly different nature and function of a central bank as compared to the private sector. These accounting principles and practices are documented in the *Financial Accounting Manual for Federal Reserve Banks* (*Financial Accounting Manual*), which is issued by the Board of Governors. All Reserve Banks are required to adopt and apply accounting policies and practices that are consistent with the *Financial Accounting Manual*.

These combined financial statements have been prepared in accordance with the *Financial Accounting Manual*. Differences exist between the accounting principles and practices of the System and generally accepted accounting principles in the United States of America (GAAP). The primary differences are the presentation of all security holdings at amortized cost, rather than at the fair value presentation requirements of GAAP, and the accounting for matched sale–purchase transactions as separate sales and purchases, rather than secured borrowings with pledged collateral, as is generally required by GAAP. In addition, the Board of Governors and the Reserve Banks have elected not to present a Statement of Cash Flows. The Statement of Cash Flows has not been included as the liquidity and cash position of the Reserve Banks are not of primary concern to users of these combined financial statements. Other information regarding the Reserve Banks' activities is provided in, or may be derived from, the Statements of Condition, Income, and Changes in Capital. Therefore, a Statement of Cash Flows would not provide any additional useful information. There are no other significant differences between the policies outlined in the *Financial Accounting Manual* and GAAP.

The preparation of the combined financial statements in conformity with the *Financial Accounting Manual* requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the combined financial statements and the reported amounts of income and expenses during the reporting period. Actual results could differ from those estimates. Certain amounts relating to the prior year have been reclassified to conform to the current-year presentation. Unique accounts and significant accounting policies are explained below.

(A) *Gold Certificates*

The Secretary of the Treasury is authorized to issue gold certificates to the Reserve Banks to monetize gold held by the U.S. Treasury. Payment for the gold certificates by the Reserve Banks is made by crediting equivalent amounts in dollars into the account established for the U.S. Treasury. These gold certificates held by the Reserve Banks are required to be backed by the gold of the U.S. Treasury. The U.S. Treasury may reacquire the gold certificates at any time and the Reserve Banks must deliver them to the U.S. Treasury. At such time, the U.S. Treasury's account is charged and the Reserve Banks' gold certificate account is lowered. The value of gold for purposes of backing the gold certificates is set by law at $\$42\frac{2}{9}$ a fine troy ounce.

(B) *Special Drawing Rights Certificates*

Special drawing rights (SDRs) are issued by the International Monetary Fund (Fund) to its members in proportion to each member's quota in the Fund at the time of issuance. SDRs serve as a supplement to international monetary reserves and may be transferred from one national monetary authority to another. Under the law providing for United States participation in the SDR system, the Secretary of the U.S. Treasury is authorized to issue SDR certificates, somewhat like gold certificates, to the Reserve Banks. At such time, equivalent amounts in dollars are credited to the account established for the U.S. Treasury, and the Reserve Banks' SDR certificate account is increased. The Reserve Banks are required to purchase SDRs, at the direction of the U.S. Treasury, for the purpose of financing SDR certificate acquisitions or for financing exchange stabilization operations.

(C) *Loans to Depository Institutions*

The Depository Institutions Deregulation and Monetary Control Act of 1980 provides that all depository institutions that maintain reservable transaction accounts or nonpersonal time deposits, as defined in Regulation D issued by the Board of Governors, have borrowing privileges at the discretion of the Reserve Banks. Borrowers execute certain lending agreements and deposit sufficient collateral before credit is extended. Loans are evaluated for collectibility, and currently all are considered collectible and fully collateralized. If any loans were deemed to be uncollectible, an appropriate reserve would be established. Interest is accrued using the applicable discount rate established at least every fourteen days by the Board of Directors of the Reserve Banks, subject to review by the Board of Governors. Reserve Banks retain the option to impose a surcharge above the basic rate in certain circumstances.

NOTES TO THE COMBINED FINANCIAL STATEMENTS OF THE FEDERAL RESERVE BANKS—CONTINUED

(D) *U.S. Government and Federal Agency Securities and Investments Denominated in Foreign Currencies*

The FOMC has designated the FRBNY to execute open market transactions on its behalf and to hold the resulting securities in the portfolio known as the System Open Market Account (SOMA). In addition to authorizing and directing operations in the domestic securities market, the FOMC authorizes and directs the FRBNY to execute operations in foreign markets for major currencies in order to counter disorderly conditions in exchange markets or to meet other needs specified by the FOMC in carrying out the System's central bank responsibilities. Such authorizations are reviewed and approved annually by the FOMC.

Matched sale–purchase transactions are accounted for as separate sale and purchase transactions. Matched sale–purchase transactions are transactions in which the FRBNY sells a security and buys it back at the rate specified at the commencement of the transaction.

In addition to the aforementioned matched sale–purchase transactions, the FRBNY engages in tri-party agreements. Tri-party agreements are conducted with two custodial banks that manage the clearing and settlement of collateral. Acceptable collateral under tri-party repurchase agreements primarily includes U.S. Government and agency securities, pass-through mortgage securities of GNMA, FHLMC, and FNMA, STRIP securities of the U.S. Government and "stripped" securities of other government agencies. The tri-party repurchase transactions are accounted for as financing transactions with the associated interest income accrued over the life of the agreement.

The FRBNY has sole authorization by the FOMC to lend U.S. government securities held in the SOMA to U.S. government securities dealers and to banks participating in U.S. government securities clearing arrangements on behalf of the System, in order to facilitate the effective functioning of the domestic securities market. These securities-lending transactions are fully collateralized by other U.S. government securities. FOMC policy requires FRBNY to take possession of collateral in excess of the market values of the securities loaned. The market values of the collateral and the securities loaned are monitored by FRBNY on a daily basis, with additional collateral obtained as necessary. The securities loaned continue to be accounted for in the SOMA.

Foreign exchange contracts are contractual agreements between two parties to exchange specified currencies, at a specified price, on a specified date. Spot foreign contracts normally settle two days after the trade date, whereas the settlement date on forward contracts is negotiated between the contracting parties, but will extend beyond two days from the trade date. The FRBNY generally enters into spot contracts, with any forward contracts generally limited to the second leg of a swap/warehousing transaction.

The FRBNY, on behalf of the Reserve Banks, maintains renewable, short-term F/X swap arrangements with two authorized foreign central banks. The parties agree to exchange their currencies up to a pre-arranged maximum amount and for an agreed upon period of time (up to twelve months), at an agreed upon interest rate. These arrangements give the FOMC temporary access to foreign currencies that it may need for intervention operations to support the dollar and give the partner foreign central bank temporary access to dollars it may need to support its own currency. Drawings under the F/X swap arrangements can be initiated by either the FRBNY or the partner foreign central bank, and must be agreed to by the drawee. The F/X swaps are structured so that the party initiating the transaction (the drawer) bears the exchange rate risk upon maturity. The Bank will generally invest the foreign currency received under an F/X swap in interest-bearing instruments.

Warehousing is an arrangement under which the FOMC agrees to exchange, at the request of the Treasury, U.S. dollars for foreign currencies held by the Treasury or ESF over a limited period of time. The purpose of the warehousing facility is to supplement the U.S. dollar resources of the Treasury and ESF for financing purchases of foreign currencies and related international operations.

In connection with its foreign currency activities, the FRBNY, on behalf of the Reserve Banks, may enter into contracts which contain varying degrees of off-balance-sheet market risk, because they represent contractual commitments involving future settlement, and counter-party credit risk. The FRBNY controls credit risk by obtaining credit approvals, establishing transaction limits, and performing daily monitoring procedures.

While the application of current market prices to the securities currently held in the SOMA portfolio and investments denominated in foreign currencies may result in values substantially above or below their carrying values, these unrealized changes in value would have no direct effect on the quantity of reserves available to the banking system or on the prospects for future Reserve Bank earnings or capital. Both the domestic and foreign components of the SOMA portfolio from time to time involve transactions that can result in gains or losses when holdings are sold prior to maturity. However, decisions regarding the securities and foreign currencies transactions, including their purchase and sale, are motivated by monetary policy objectives rather than profit. Accordingly, earnings and any gains or losses resulting from the sale of such currencies and securities are incidental to the open market operations and do not motivate its activities or policy decisions.

U.S. government and federal agency securities and investments denominated in foreign currencies comprising the SOMA are recorded at cost, on a settlement-date basis, and adjusted for amortization of premiums or accretion of discounts on a straight-line basis. Interest income is accrued on a straight-line basis and is reported as "Interest on U.S. government and federal agency securities" or "Interest on investments denominated in foreign currencies," as appropriate. Income earned on securities lending transactions is reported as a component of "Other income." Gains and losses resulting from sales of securities are determined by specific issues based on average cost. Gains and losses on the sales of U.S. government and federal agency securities are reported as "Government securities gains (losses), net." Foreign-currency-denominated assets are revalued daily at current market exchange rates in order to report these assets in U.S. dollars. Realized and unrealized gains and losses on investments denominated in foreign currencies are

NOTES TO THE COMBINED FINANCIAL STATEMENTS OF THE FEDERAL RESERVE BANKS—CONTINUED

reported as "Foreign currency gains (losses), net." Foreign currencies held through F/X swaps, when initiated by the counterparty, and warehousing arrangements are revalued daily, with the unrealized gain or loss reported as a component of "Other assets" or "Other liabilities," as appropriate.

Statement of Financial Accounting Standards No. 133, as amended and interpreted, became effective on January 1, 2001. For the periods presented, the Reserve Banks had no derivative instruments required to be accounted for under the standard.

(E) *Bank Premises and Equipment*

Bank premises and equipment are stated at cost less accumulated depreciation. Depreciation is calculated on a straight-line basis over estimated useful lives of assets ranging from 2 to 50 years. New assets, major alterations, renovations and improvements are capitalized at cost as additions to the asset accounts. Maintenance, repairs and minor replacements are charged to operations in the year incurred. Internally developed software is capitalized based on the cost of direct materials and services and those indirect costs associated with developing, implementing, and testing software.

(F) *Federal Reserve Notes*

Federal Reserve notes are the circulating currency of the United States. These notes are issued through the various Federal Reserve agents to the Reserve Banks upon deposit with such agents of certain classes of collateral security, typically U.S. government securities. These notes are identified as issued to a specific Reserve Bank. The Federal Reserve Act provides that the collateral security tendered by the Reserve Bank to the Federal Reserve agent must be equal to the sum of the notes applied for by such Reserve Bank. In accordance with the Federal Reserve Act, gold certificates, special drawing rights certificates, U.S. government and federal agency securities, tri-party agreements, loans allowed under Section 13, and investments denominated in foreign currencies are pledged as collateral for net Federal Reserve notes outstanding. The collateral value is equal to the book value of the collateral tendered, with the exception of securities, whose collateral value is equal to the par value of the securities tendered. Tri-party agreements, however, are valued at the contract amount. The Board of Governors may, at any time, call upon a Reserve Bank for additional security to adequately collateralize the Federal Reserve notes. To satisfy the obligation to provide sufficient collateral for outstanding Federal Reserve notes, the Reserve Banks have entered into an agreement that provides that certain assets of the Reserve Banks are jointly pledged as collateral for the Federal Reserve notes of all Reserve Banks. In the event that this collateral is insufficient, the Federal Reserve Act provides that Federal Reserve notes become a first and paramount lien on all the assets of the Reserve Banks. Finally, as obligations of the United States, Federal Reserve notes are backed by the full faith and credit of the United States government.

The "Federal Reserve notes outstanding, net" account represents Federal Reserve notes reduced by currency held in the vaults of the Reserve Banks of $139,783 million and $188,264 million at December 31, 2001 and 2000, respectively.

At December 31, 2001 and 2000, all gold certificates, all special drawing rights certificates, and domestic securities with par values of $598,512 million and $550,205 million respectively, were pledged as collateral. At December 31, 2001 and 2000, no loans or investments denominated in foreign currencies were pledged as collateral.

(G) *Capital Paid-In*

The Federal Reserve Act requires that each member bank subscribe to the capital stock of the Reserve Bank in an amount equal to 6 percent of the capital and surplus of the member bank. As a member bank's capital and surplus changes, its holdings of the Reserve Bank's stock must be adjusted. Member banks are those state-chartered banks that apply and are approved for membership in the System and all national banks. Currently, only one-half of the subscription is paid-in and the remainder is subject to call. These shares are nonvoting with a par value of $100. They may not be transferred or hypothecated. By law, each member bank is entitled to receive an annual dividend of 6 percent on the paid-in capital stock. This cumulative dividend is paid semiannually. A member bank is liable for Reserve Bank liabilities up to twice the par value of stock subscribed by it.

(H) *Surplus*

The Board of Governors requires Reserve Banks to maintain a surplus equal to the amount of capital paid-in as of December 31. This amount is intended to provide additional capital and reduce the possibility that the Reserve Banks would be required to call on member banks for additional capital. Reserve Banks are required by the Board of Governors to transfer to the U.S. Treasury excess earnings, after providing for the costs of operations, payment of dividends, and reservation of an amount necessary to equate surplus with capital paid-in.

The Consolidated Appropriations Act of 2000 (Public Law 106-113, Section 302) directed the Reserve Banks to transfer to the U.S. Treasury additional surplus funds of $3,752 million during the Federal Government's 2000 fiscal year. Reserve Banks were not permitted to replenish surplus for these amounts during fiscal year 2000, which ended September 30, 2000; however, the surplus was replenished by December 31, 2000, for eleven of the twelve Reserve Banks. Surplus was not equated to capital at December 31, 2001 and 2000, at one Reserve Bank where the amount of additional surplus required exceeded the Bank's net income.

In the event of losses, or a substantial increase in capital, a Reserve Bank will suspend its payments to the U.S. Treasury until such losses or increases in capital are recovered through subsequent earnings. Weekly payments to the U.S. Treasury may vary significantly.

(I) *Income and Costs Related to Treasury Services*

Reserve Banks are required by the Federal Reserve Act to serve as fiscal agents and depositories of the United

NOTES TO THE COMBINED FINANCIAL STATEMENTS OF THE FEDERAL RESERVE BANKS—CONTINUED

States. By statute, the Department of the Treasury is permitted, but not required, to pay for these services. The costs of providing fiscal agency and depository services to the Treasury Department that have been billed but will not be paid are reported as the "Cost of unreimbursed Treasury services."

(J) *Taxes*

The Reserve Banks are exempt from federal, state, and local taxes, except for taxes on real property, which are reported as a component of "Occupancy expense."

(4) U.S. GOVERNMENT AND FEDERAL AGENCY SECURITIES

Securities bought outright are held in the SOMA at the FRBNY.

Total securities held in the SOMA at December 31, 2001 and 2000, that were bought outright, were as follows (in millions):

	2001	2000
Par value		
Federal agency	$ 10	$ 130
U.S. government		
Bills	182,074	178,741
Notes	265,941	240,178
Bonds	103,660	92,784
Total par value	551,685	511,833
Unamortized premiums	11,302	9,735
Unaccreted discounts	(1,286)	(3,067)
Total	$561,701	$518,501

The maturity distribution of U.S. government and federal agency securities bought outright and securities purchased under agreements to resell, which were held in the SOMA at December 31, 2001, were as follows (in millions):

Maturities of securities held	Par value: U.S. government securities	Par value: Federal agency obligations	Par value: Total	Repurchase agreement triparty (Contract amount)
Within 15 days	$ 10,685	$ . . .	$ 10,685	$35,250
16 days to 90 days	124,547	. . .	124,547	15,000
91 days to 1 year	130,627	. . .	130,627	. . .
Over 1 year to 5 years	153,158	10	153,168	. . .
Over 5 years to 10 years	53,338	. . .	53,338	. . .
Over 10 years	79,320	. . .	79,320	. . .
Total	$551,675	$10	$551,685	$50,250

Total securities held under agreements to resell at December 31, 2001 were $50,250 million that consisted entirely of agreements through third party custodial arrangements and are reported as Securities purchased under agreements to resell (tri-party). In January 2001, the FOMC reduced the maximum permissible maturity for securities purchased under agreements to resell from 90 days to 65 days.

At December 31, 2001 and 2000, matched sale–purchase transactions involving U.S. government securities with par values of $23,188 million and $21,112 million, respectively, were outstanding. Matched sale–purchase transactions are generally overnight arrangements.

At December 31, 2001 and 2000, U.S. government securities with par values of $7,345 million and $2,086 million, respectively, were loaned.

(5) INVESTMENTS DENOMINATED IN FOREIGN CURRENCIES

The FRBNY, on behalf of the Reserve Banks, holds foreign currency deposits with foreign central banks and the Bank for International Settlements, and invests in foreign government debt instruments. Foreign government debt instruments held include both securities bought outright and securities held under agreements to resell. These investments are guaranteed as to principal and interest by the foreign governments.

Total investments denominated in foreign currencies, valued at current exchange rates at December 31, were as follows (in millions):

	2001	2000
European Union euros		
Foreign currency deposits	$ 4,593	$ 4,633
Government debt instruments including agreements to resell	2,695	2,716
Japanese yen		
Foreign currency deposits	1,891	2,752
Government debt instruments including agreements to resell	5,315	5,497
Accrued interest	65	72
Total	$14,559	$15,670

NOTES TO THE COMBINED FINANCIAL STATEMENTS OF THE FEDERAL RESERVE BANKS—CONTINUED

The maturity distribution of investments denominated in foreign currencies at December 31, 2001, were as follows (in millions):

Maturities of Investments Denominated in Foreign Currencies	
Within 1 year	$13,714
Over 1 year to 5 years	403
Over 5 years to 10 years	442
Over 10 years	...
Total	$14,559

At December 31, 2001 and 2000, there were no open foreign exchange contracts or outstanding F/X swaps.

At December 31, 2001 and 2000, the warehousing facility was $5,000 million, with no balance outstanding.

(6) BANK PREMISES AND EQUIPMENT

A summary of bank premises and equipment at December 31 is as follows (in millions):

	2001	2000
Bank premises and equipment		
Land	$ 201	$ 192
Buildings	1,478	1,285
Building machinery and equipment	329	296
Construction in progress	32	163
Furniture and equipment	1,365	1,290
	3,405	3,226
Accumulated depreciation	(1,384)	(1,277)
Bank premises and equipment, net	$2,021	$1,949

Depreciation expense was $186 million and $182 million for the years ended December 31, 2001 and 2000, respectively.

Bank premises and equipment at December 31 include the following amounts for leases that have been capitalized (in millions):

	2001	2000
Bank premises and equipment	$21	$34
Accumulated depreciation	(14)	(22)
Capitalized leases, net	$ 7	$12

Certain of the Reserve Banks lease unused space to outside tenants. Those leases have terms ranging from 1 to 14 years. Rental income from such leases totaled $20 million and $18 million for the years ended December 31, 2001 and 2000, respectively. Future minimum lease payments under noncancelable agreements in existence at December 31, 2001, were (in millions):

2002	$17
2003	14
2004	11
2005	10
2006	7
Thereafter	16
Total	$75

(7) COMMITMENTS AND CONTINGENCIES

At December 31, 2001, the Reserve Banks were obligated under noncancelable leases for premises and equipment with terms ranging from 1 to approximately 22 years. These leases provide for increased rentals based upon increases in real estate taxes, operating costs or selected price indices.

Rental expense under operating leases for certain operating facilities, warehouses, and data processing and office equipment (including taxes, insurance and maintenance when included in rent), net of sublease rentals, was $69 million and $64 million for the years ended December 31, 2001 and 2000, respectively. Certain of the Reserve Banks' leases have options to renew.

Future minimum rental payments under noncancelable operating leases, net of sublease rentals, with terms of one year or more, at December 31, 2001, were (in millions):

	Operating
2002	$ 15
2003	11
2004	11
2005	9
2006	8
Thereafter	$145
Total	$199

At December 31, 2001, the Reserve Banks had contractual commitments through the year 2007 totaling $100.5 million for the maintenance of currency machines and check-processing-related services, none of which has been recognized. Four Reserve Banks contract for these services on behalf of the System.

The Reserve Banks are involved in certain legal actions and claims arising in the ordinary course of business. Although it is difficult to predict the ultimate outcome of these actions, in management's opinion, based on discussions with counsel, the aforementioned litigation and claims will be resolved without material adverse effect on the financial position or results of operations of the Reserve Banks.

(8) RETIREMENT AND THRIFT PLANS

Retirement Plans

The Reserve Banks currently offer two defined benefit retirement plans to their employees, based on length of service and level of compensation. Substantially all of the Reserve Banks', Board of Governors', and the Plan Administrative Office's employees participate in the Retirement Plan for Employees of the Federal Reserve System (System Plan) and the Benefit Equalization Retirement Plans offered by each individual Reserve Bank (BEP).

The System Plan is a multi-employer plan with contributions fully funded by participating employers. Certain Board employees not covered by the Social Security Act also contribute to the plan. No separate accounting is maintained of assets contributed by the participating

NOTES TO THE COMBINED FINANCIAL STATEMENTS OF THE FEDERAL RESERVE BANKS—CONTINUED

employers. FRBNY acts as a sponsor of this Plan. The prepaid pension cost includes amounts related to employees participating in the plans from the 12 Reserve Banks, the Board of Governors, and the Plan Administrative Office.

Following is a reconciliation of the beginning and ending balances of the System Plan benefit obligation (in millions):

	2001	2000
Estimated actuarial present value of projected benefit obligation at January 1	$2,810	$2,576
Service cost—benefits earned during the period	85	80
Interest cost on projected benefit obligation	207	191
Actuarial loss	125	90
Contributions by plan participants	3	3
Benefits paid	(139)	(132)
Plan amendments	...	2
Estimated actuarial present value of projected benefit obligation at December 31	$3,091	$2,810

Following is a reconciliation showing the beginning and ending balance of the System Plan assets, the funded status, and the prepaid pension benefit costs (in millions):

	2001	2000
Estimated fair value of plan assets at January 1	$6,176	$6,156
Actual return on plan assets	(245)	149
Contributions by plan participants	3	3
Benefits paid	(139)	(132)
Estimated fair value of plan assets at December 31	$5,795	$6,176
Funded status	$2,703	$3,366
Unrecognized initial net transition (obligation)	...	(45)
Unrecognized prior service cost	107	122
Unrecognized net actuarial (gain)	(228)	(1,192)
Prepaid pension benefit cost	2,582	2,251

Prepaid pension benefit costs are reported as a component of "Other assets."

The weighted-average assumptions used in developing the pension benefit obligation for the System Plan are as follows:

	2001	2000
Discount rate	7.00%	7.50%
Expected long-term rate of return on plan assets	9.00%	9.00%
Rate of compensation increase	4.50%	5.00%

The components of net periodic pension benefit credit for the System Plan as of December 31 are shown below (in millions):

	2001	2000
Service cost—benefits earned during the period	$ 85	$ 80
Interest cost on projected benefit obligation	207	190
Amortization of initial net transition obligation	(45)	(45)
Amortization of prior service cost	16	16
Recognized net (gain)	(44)	(85)
Expected return on plan assets	(550)	(549)
Net periodic pension benefit (credit)	$(331)	$(393)

Net periodic pension benefit (credit) is reported as a component of "Other expense."

The Reserve Banks' projected benefit obligation and net pension costs for the BEP at December 31, 2001 and 2000, and for the years then ended, are not material.

Thrift Plan

Employees of the Reserve Banks may also participate in the defined contribution Thrift Plan for Employees of the Federal Reserve System (Thrift Plan). The Reserve Banks' Thrift Plan contributions totaled $50 million and $47 million for the years ended December 31, 2001 and 2000, respectively, and are reported as a component of "Salaries and other benefits."

(9) POSTRETIREMENT BENEFITS OTHER THAN PENSIONS AND POSTEMPLOYMENT BENEFITS

Postretirement Benefits Other Than Pensions

In addition to the Reserve Banks' retirement plans, employees who have met certain age and length of service requirements are eligible for both medical benefits and life insurance coverage during retirement.

The Reserve Banks fund benefits payable under the medical and life insurance plans as due and, accordingly, have no plan assets. Net postretirement benefit costs are actuarially determined using a January 1 measurement date.

NOTES TO THE COMBINED FINANCIAL STATEMENTS OF THE FEDERAL RESERVE BANKS—CONTINUED

Following is a reconciliation of beginning and ending balances of the benefit obligation (in millions):

	2001	2000
Accumulated postretirement benefit obligation at January 1	$644	$600
Service cost—benefits earned during the period	16	16
Interest cost of accumulated benefit obligation	47	44
Actuarial loss	54	14
Contributions by plan participants	4	3
Benefits paid	(31)	(28)
Plan amendments	(60)	(5)
Accumulated postretirement benefit obligation at December 31	$674	$644

Following is a reconciliation of the beginning and ending balance of the plan assets, the unfunded postretirement benefit obligation and the accrued postretirement benefit costs (in millions):

	2001	2000
Fair value of plan assets at January 1	$ . . .	$ . . .
Contributions by the employer	27	25
Contributions by plan participants	4	3
Benefits paid	(31)	(28)
Fair value of plan assets at December 31	$ . . .	$ . . .
Unfunded postretirement benefit obligation	$674	$644
Unrecognized prior service cost	146	95
Unrecognized net actuarial gain/(loss)	(48)	7
Accrued postretirement benefit costs	$772	$746

Accrued postretirement benefit costs are reported as a component of "Accrued benefit costs."

At December 31, 2001 and 2000, the weighted-average discount rate assumption used in developing the postretirement benefit obligation were 7.00 percent and 7.50 percent, respectively.

For measurement purposes, a 10.00 percent annual rate of increase in the cost of covered health care benefits was assumed for 2002. Ultimately, the health care cost trend rate is expected to decrease gradually to 5.00 percent by 2008, and remain at that level thereafter.

Assumed health care cost trend rates have a significant effect on the amounts reported for health care plans. A one percentage point change in assumed health care cost trend rates would have the following effects for the year ended December 31, 2001 (in millions):

	1 Percentage Point Increase	1 Percentage Point Decrease
Effect on aggregate of service and interest cost components of net periodic postretirement benefit costs	$ 12	$ (9)
Effect on accumulated postretirement benefit obligation	86	(76)

The following is a summary of the components of net periodic postretirement benefit costs for the years ended December 31 (in millions):

	2001	2000
Service cost—benefits earned during the period	$16	$15
Interest cost of accumulated benefit obligation	47	44
Amortization of prior service cost	(9)	(9)
Recognized net actuarial loss	(1)	(1)
Net periodic postretirement benefit costs	$53	$49

Net periodic postretirement benefit costs are reported as a component of "Salaries and other benefits."

Postemployment Benefits

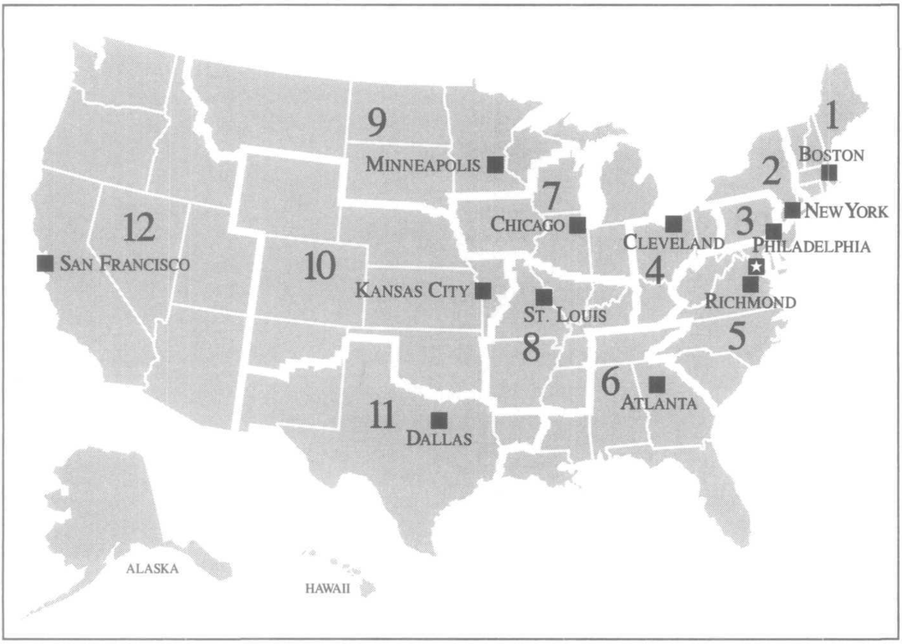
The Reserve Banks offer benefits to former or inactive employees. Postemployment benefit costs are actuarially determined and include the cost of medical and dental insurance, survivor income, disability benefits, and those workers' compensation expenses self-insured by individual Reserve Banks. Costs were projected using the same discount rate and health care trend rates as were used for projecting postretirement costs. The accrued postemployment benefit costs recognized by the Reserve Banks at December 31, 2001 and 2000, were $110 million and $102 million, respectively. This cost is included as a component of "Accrued benefit costs." Net periodic postemployment benefit costs included in 2001 and 2000 operating expenses were $21 million.

(10) SUBSEQUENT EVENT

Subsequent to December 31, 2001 Federal Reserve System management determined that it would not proceed with an ongoing technology project. Accordingly, an asset impairment of $7 million will be recognized in 2002.

Maps of the Federal Reserve System

The Federal Reserve System



LEGEND

Both pages

■ Federal Reserve Bank city

⊡ Board of Governors of the Federal Reserve System, Washington, D.C.

Facing page

• Federal Reserve Branch city

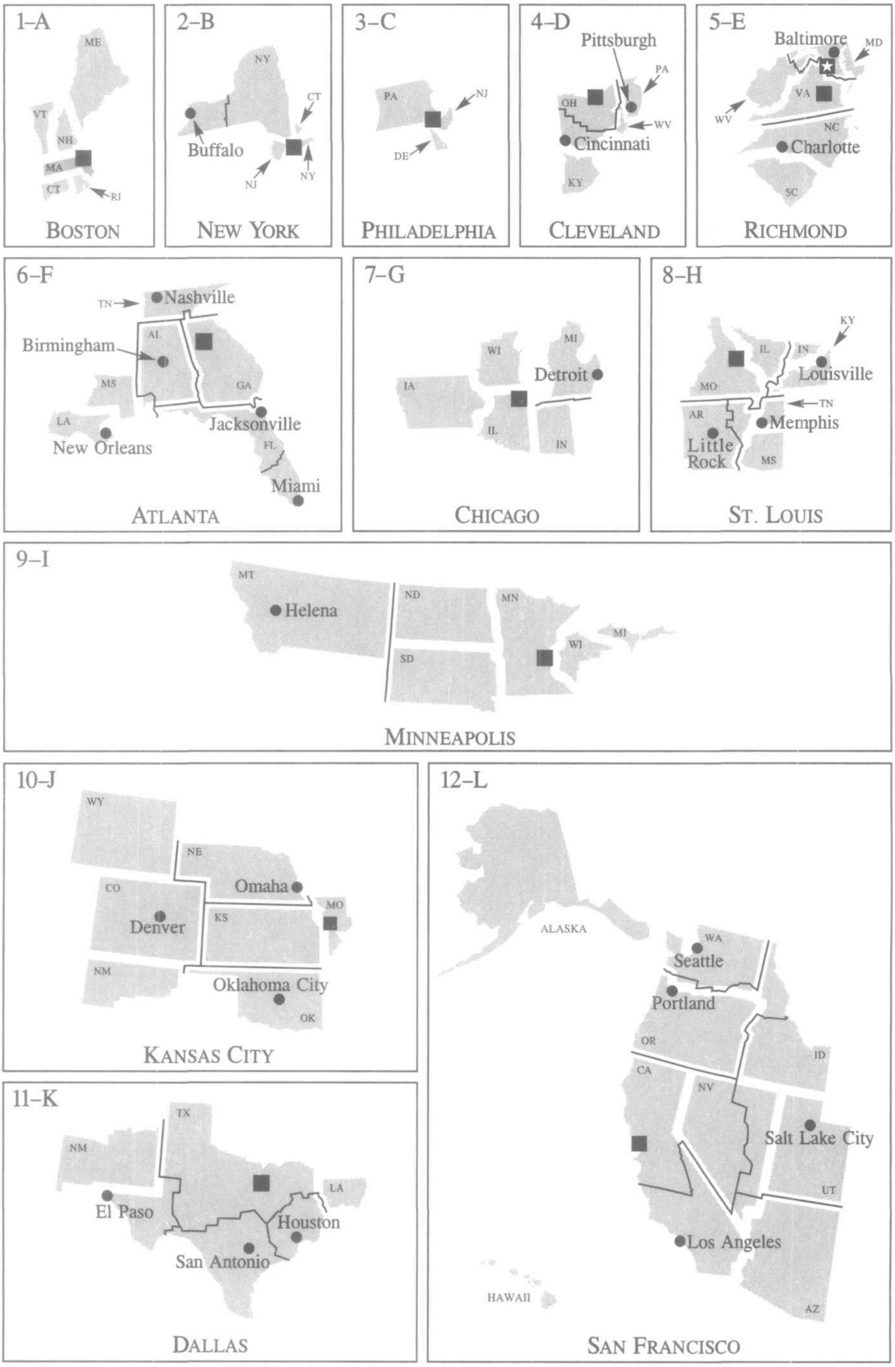
— Branch boundary

NOTE

The Federal Reserve officially identifies Districts by number and by Reserve Bank city (shown on both pages) and by letter (shown on the facing page).

In the 12th District, the Seattle Branch serves Alaska, and the San Francisco Bank serves Hawaii.

The System serves commonwealths and territories as follows: The New York Bank serves the Commonwealth of Puerto Rico and the U.S. Virgin Islands; the San Francisco Bank serves American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands. The maps show the boundaries within the System as of year-end 2001.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