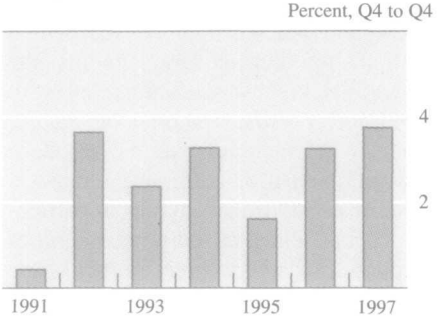
U.S. Economic and Financial Developments in 1997

The year 1997 was an exceptionally good one for the U.S. economy. Real GDP increased 3¾ percent over the four quarters of the year. Household and business expenditures continued to rise rapidly, owing in part to supportive financial conditions, including a strong stock market, ample availability of credit, and, from April onward, declining intermediate- and long-term interest rates. In the aggregate, private domestic spending on consumption and investment rose 5 percent on an inflation-adjusted basis. The strength of spending, along with a further sizable appreciation of the foreign exchange value of the U.S. dollar, brought a surge of imports, the largest in many years. The growth of exports, while lagging that of imports, also was substantial despite the appreciation of the dollar and the emergence after midyear of severe financial difficulties in several foreign economies, particularly among the advanced developing countries in Asia.

Change in Real GDP

Percent, Q4 to Q4



NOTE. The data are derived from chained (1992) dollars and come from the Department of Commerce.

Meanwhile, inflation slowed from the already reduced rates of the previous few years. Although wages and total hourly compensation accelerated in the tight labor market, the inflationary impulse from that source was more than offset by other factors, including rising competition from imports, the price restraint from increased manufacturing capacity, and a sizable gain in labor productivity.

The Household Sector

Consumption Spending, Income, and Saving

Bolstered by increases in income and wealth, personal consumption expenditures rose more than 3½ percent in 1997. Expenditures were strong for a wide variety of durable goods. Real outlays on home computers continued to soar, rising even faster than they had over the previous few years. Strength was also reported in purchases of home goods, and consumer expenditures on motor vehicles more than reversed the small declines of the previous two years. At the same time, real expenditures on services scored the largest gain of the past several years, rising 4 percent.

Real disposable personal income—after-tax income adjusted for inflation—increased about 3¾ percent over 1997, a rise that was exceeded on only one occasion in the previous decade. Income was boosted by sizable gains in wages and salaries and by another year of large increases in dividends.

Measured in terms of annual averages, the personal saving rate fell further in 1997. The yearly average of 3.9 percent was almost ½ percentage point below the 1996 average and nearly a full percentage point below the 1995 average. It also was the lowest annual reading in several decades. Various surveys of households indicated that consumers had become more optimistic about prospects for the economy, and their optimism may have led them to spend more freely from current income. Support for additional spending came from the further rise in the stock market, as the capital gains accruing to households increased the chances of their meeting longer-run net worth objectives even as they consumed a larger proportion of current income.

Residential Investment

Real residential investment increased about 5½ percent during 1997. Outlays for the construction of new single-family structures rose moderately, and spending on the construction of multifamily units continued to recover from the extreme lows that were reached earlier in the decade. Real outlays for home improvements and brokers' commissions, categories that have a combined weight of more than 35 percent in total residential investment, moved up substantially from the final quarter of 1996 to the final quarter of 1997. Spending on mobile homes, a small part of the total, also advanced.

The indicators of single-family housing activity were almost uniformly strong during the year. Sales of houses surged, driven by declines in mortgage interest rates and the increasingly favorable economic circumstances of households. Annual sales of new single-family houses were up 6 percent from the number sold in the preceding year, and sales of existing homes increased about 3 percent. House prices moved up more quickly than prices in general. Responding to the strong demand, starts of new single-family units remained at a high level, only a touch below that of 1996; the annual total for single-family units exceeded 1 million units for a sixth consecutive year, putting the current expansion in single-family housing construction nearly on a par with that of the 1980s in terms of longevity and strength.

Starts of multifamily units increased in 1997 for the fourth year in a row and were about double the record low of 1993. The increased construction of these units was supported by a firming of rents, abundant supplies of credit, and declines in vacancy rates in some markets. The national vacancy rate came down only slightly, however, and it has reversed only a portion of the sharp run-up that took place in the 1980s.

The home-ownership rate—the number of households that own their dwellings divided by the total number of households—moved up further in 1997, to about 65¾ percent, a historical high. The rate fell in the 1980s but has risen almost 2 percentage points in this decade.

Household Finance

Household net worth grew more than $3½ trillion during 1997, ending the year at its highest multiple relative to disposable personal income on record. Most of the increase was the result of upward revaluations of household assets rather than additional saving. In particular, capital gains on corporate equities accounted for about three-fourths of the increase. Flows of household assets into mutual funds, pensions, and other vehicles for holding equities indirectly were

exceeded by outflows from directly held equities.

Household borrowing not backed by real estate, including credit card balances, auto loans, and other consumer credit, increased 4½ percent in 1997. These obligations grew at double-digit rates in 1994 and 1995 but slowed fairly steadily thereafter. Mortgage borrowing, which has experienced relatively muted swings in growth during the current expansion, increased 7¼ percent in 1997, a gain that was only a bit less than the rise in 1996. Within the mortgage category, however, home equity loans advanced sharply, reflecting in part the increased use of these loans in refinancing and consolidating credit card and other consumer obligations.

An element in the slowing of consumer credit growth may have been assessments by some households that they were reaching the limits of their capacity for carrying debt and by some lenders that they needed to selectively tighten their standards for granting new loans. In the mid-1990s, the percentage of household income required to meet debt obligations rose to the upper end of its historical range, in large part because of a sharp rise in credit card debt. Between 1994 and 1996 personal bankruptcies grew at an annual rate of more than 20 percent, to some extent because of households' rising debt burden; a change in the federal bankruptcy law and a secular trend toward associating less social stigma with bankruptcy also may have contributed. Over the same period, delinquency and charge-off rates on consumer loans increased significantly.

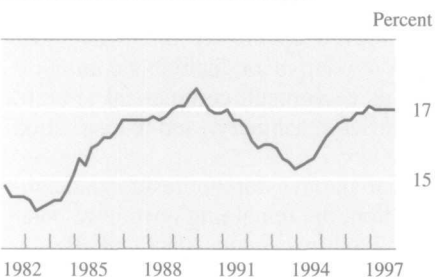
In 1997, however, because the growth of household debt only moderately outpaced that of income at the same time that interest rates were drifting lower, the household debt-service burden did not change. Reflecting, in part, the stability of the aggregate household debt burden, delinquency rates for many segments of consumer credit plateaued, although charge-off rates generally continued to rise somewhat. Personal bankruptcies advanced again in 1997 but slowed considerably in the second half of the year.

Some of the apparent flattening of household debt-repayment problems may also have resulted from efforts by lenders to stem the growth of losses on consumer loans. In both 1996 and 1997, a large percentage of the respondents to the Federal Reserve's quarterly Senior Loan Officer Opinion Survey on Bank Lending Practices reported tightened standards on consumer loans. However,

Household Net Worth

NOTE. As a percentage of disposable personal income; four-quarter moving average.

Household Debt-Service Burden



NOTE. As a percentage of disposable personal income. Debt service is the sum of estimated required interest and principal payments on consumer and household-sector mortgage debt. The data are quarterly.

the percentages reporting tightening fell a bit in the latter part of that period, suggesting that many banks felt that they had altered their standards sufficiently.

Although banks pulled back a bit from consumer lending in 1997, most households had little trouble obtaining credit. Bank restraint most commonly took the form of lower credit limits or higher finance charges on outstanding balances; credit card solicitations continued at a record pace.

The Business Sector

Investment Expenditures

Adjusted for inflation, business outlays for fixed investment rose 9 percent over 1997 after gaining about 12 percent over 1996. Spending continued to be spurred by rapid growth of the economy, favorable financial conditions, attractive purchase prices for new equipment, and optimism about the future. Business outlays for equipment, which account for more than three-fourths of total business fixed investment, moved up about 13 percent over 1997, making it the fourth year of the last five in which the annual gains have exceeded 10 percent. As in previous years of the expansion, the most striking gains were posted for computers, the power of which continued to advance rapidly at the same time prices continued to decline. Spending also moved up briskly for many other types of equipment, including communications equipment, commercial aircraft, industrial machinery, and construction machinery.

Real outlays for nonresidential construction, the remaining portion of business fixed investment, declined slightly in 1997 after moving up in each of the four previous years. Construction of office buildings continued to increase in 1997, but sluggishness was reported in the expenditure data for other commercial buildings and industrial buildings. Other indicators of market conditions pointed to underlying firmness in nonresidential construction. Vacancy rates declined, for example, and rents seemed to be picking up. In some regions of the country, more builders were putting up new office buildings on "spec"—that is, undertaking new construction before occupants had been lined up. The new projects were apparently being spurred to some degree by the ready availability of financing.

Business inventory investment picked up considerably in 1997. The level of inventories held by nonfarm businesses rose more than 5 percent in real terms over the course of the year after increasing roughly 2 percent in 1996. Accumulation was especially rapid in the commercial aircraft industry, in which production was being ramped up in response to a huge backlog of orders for new jet aircraft. With the rate of inventory growth outpacing the growth of final sales in 1997, the stock-to-sales ratio for the nonfarm sector ticked up slightly after declining slightly in the preceding year. Nonetheless, businesses in general did not appear to be uncomfortable with the levels of stocks they were carrying at year-end.

Corporate Profits and Business Finance

Despite a fourth-quarter downturn, the annual economic profits of corporate businesses—that is, book profits after inventory valuation and capital consumption adjustments—increased about 9½ in 1997 after gaining 13¼ percent in 1996. Profits from the foreign operations of these corporations rose only moderately in 1997, but the profits from domestic operations, by far the larger share of the total, posted further strong

gains—about 16 percent for financial corporations and more than 9 percent for nonfinancial corporations, in terms of annual totals. For the year, the profits of nonfinancial corporations from domestic operations amounted to about 13½ percent of the nominal domestic output of those corporations, up from 7¾ percent in 1982 and the highest annual share since the late 1960s. The elevated profit share reflected both a high level of cash flow before interest costs, which was also at a multiyear peak relative to output, and the declines in interest costs that have taken place in the 1990s. In their profit announcements for the fourth quarter, few corporations reported that they had experienced much fallout from the events in Asia, but many warned that profits in the first half of 1998 could be significantly affected.

Despite the rapid growth of profits, the financing gap for nonfinancial corporations—capital expenditures less internal cash flow—widened over the year, reflecting the strong expansion of spending on capital equipment and inventories. Furthermore, on net, firms continued to retire a large volume of equity, adding further to borrowing needs, as substantial gross issuance was swamped by stock repurchases and merger-related retirements. Given these financing requirements, the growth of nonfinancial corporate debt picked up to 8 percent in 1997.

Corporate Profits before Taxes

NOTE. Profits of nonfinancial corporations from domestic operations, with inventory valuation and capital consumption adjustments, as a percentage of the gross domestic product of the nonfinancial corporate sector.

With the debt of nonfinancial corporations advancing briskly, the ratio of their interest payments to cash flow was about unchanged in 1997 after several years of decline that had left the ratio at quite a low level. Consequently, measures of debt-repayment difficulties also were very favorable: The default rate on corporate bonds remained extremely low, and the number of upgrades of debt about equaled the number of downgrades. Similarly, only small percentages of business loans at banks were delinquent or charged off. The rate of business bankruptcies increased a bit but was still fairly low.

Businesses continued to find credit amply supplied at advantageous terms in 1997. The spreads between yields on investment-grade bonds and yields on Treasury securities of similar maturities remained narrow, varying only a little during the year. The spreads between yields on below-investment-grade bonds and those on Treasury securities fell during the year, touching new lows before widening a bit in the fall; the widening occurred in large part because these securities benefited less from the flight to U.S. assets in response to events in Asia than did securities of the Treasury. Banks also appeared eager to lend to businesses. Large percentages of respondents to the Federal Reserve surveys, citing stiff competition as the reason, said they had eased terms on business loans—particularly the spreads between loan rates and banks' cost of funds. Much smaller percentages reported having eased standards on these loans. The high ratios of stock prices to earnings indicate that equity finance was also quite cheap in 1997. Nevertheless, the market for initial public offerings of

equity was cooler than in 1996: New issues were priced below the expected range more often than above it, and first-day trading returns were smaller on average.

The pickup in business borrowing was widespread across funding sources. Outstanding commercial paper, which had declined a bit in 1996, posted strong growth in 1997, as did bank business loans. Gross issuance of bonds was extremely high, particularly bonds rated below investment grade. Such lower-rated bonds made up nearly half of all issuance, a new record. Although sales of new investment-grade bonds slowed a bit in the fall, corporations were apparently waiting out the market volatility at that time. The financing of income properties—residential apartments and commercial buildings—expanded further in 1997; banks, real estate investment trusts, and commercial-mortgage-backed securities were the most significant sources of funds.

The Government Sector

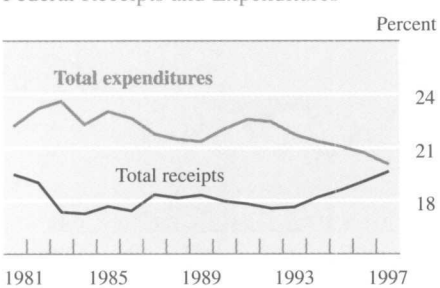
Federal Expenditures, Receipts, and Finance

Nominal outlays in the unified budget increased about 2½ percent in fiscal year 1997 after moving up 3 percent in fiscal 1996. Fiscal 1997 was the sixth consecutive year in which the growth of spending was less than the growth of nominal GDP. During that period, spending as a percentage of nominal GDP fell from about 22½ percent to just over 20 percent. The set of factors that combined to bring about this result includes implementation of fiscal policies aimed at reducing the deficit, which has helped slow the growth of discretionary spending and spending on some social and health services programs, and the strength of the economy, which has reduced outlays for income support.

In nominal terms, small to moderate increases were recorded in most major expenditure categories in fiscal 1997. Net interest outlays, which have been accounting for about 15 percent of total unified outlays in recent years, rose only a small amount in 1997, as did nominal outlays for defense and for income security. Expenditures on Medicaid rose moderately for a second year after having grown very rapidly for many years; spending in this category has been restrained of late by the strong economy, the low rate of inflation in the medical area, and policy changes in the Medicaid program. Policy shifts and the strong economy also cut into outlays for food stamps, which fell about 10 percent in fiscal 1997. By contrast, spending on Medicare continued to rise at about three times the rate of total federal outlays. Growth of outlays for social security also exceeded the rate of rise of total expenditures.

Real federal outlays for consumption and gross investment, the part of federal spending that is counted in GDP, declined slightly, on net, from the fourth quarter of 1996 to the fourth quarter of 1997. Real outlays for defense, which account for about two-thirds of the spending for consumption and invest-

Federal Receipts and Expenditures



NOTE. As a percentage of nominal GDP. Data on receipts and expenditures are from the unified budget; years are fiscal years.

ment, edged lower, as did nondefense outlays. Because of much larger declines in most other recent years, the level of real defense outlays at the end of 1997 was down about 23 percent from its level at the end of the 1980s; total real outlays for consumption and investment dropped nearly 15 percent over that period.

Federal receipts rose faster than nominal GDP in fiscal 1997 for a fifth consecutive year; receipts were 19¾ percent of GDP, up from 17¾ percent in fiscal 1992. The ratio tends to rise during business expansions, mainly because of cyclical increases in the share of profits in nominal GDP. In recent years, the ratio has also been boosted by the tax increases included in the Omnibus Reconciliation Act of 1993, by a rise in the share of income going to high-income taxpayers, and by receipts from surging capital gains realizations, which raise the numerator of the ratio but not the denominator because capital gains realizations are not part of GDP. In fiscal 1997, combined receipts from individual income taxes and social insurance taxes, which account for about 80 percent of total receipts, moved up about 9½ percent, even more than in fiscal 1996. Receipts from taxes on corporate profits were up about 6 percent after increasing about 9½ percent in fiscal 1996. The total rise in receipts in fiscal 1997, coupled with the subdued rate of increase in nominal outlays, resulted in a budget deficit of $22 billion, down from $107 billion in the preceding fiscal year.

With the budget moving close to balance, federal borrowing slowed sharply in 1997. The Treasury responded to the smaller-than-expected borrowing need by selling fewer bills so as to keep its auctions of coupon securities predictable and of sufficient volume to maintain the liquidity of the secondary markets. The result was an unusually large net redemption of bills, which at times pushed yields on short-term bills down relative to yields on other Treasury securities and on short-term private obligations.

The year saw the first issuance by the Treasury of inflation-indexed securities. The Treasury sold indexed ten-year notes in January and April, and five-year notes in July and October; a sale of indexed thirty-year bonds was scheduled for April 1998. At Treasury auctions, investor interest in the securities was substantial, with the ratios of received bids to accepted bids resembling those for nominal securities. As expected, most of the securities were quickly acquired by final investors, and the trading volume as a share of the outstanding amount was much smaller than for nominal securities.

An important macroeconomic implication of the reduced federal deficit was that the federal government ceased to be a negative influence on the level of national saving. The improvement in the federal government's saving position in recent years has more than accounted for a rise in the total gross saving of households, businesses, and governments, from about 14½ percent of gross national product earlier in the decade, when federal government saving was at a cyclical low and highly negative, to more than 17 percent in 1997. This rise in domestic saving, along with increased borrowing from abroad, has financed the rise in domestic investment during this expansion. Still higher rates of saving and investment were the norm two or three decades ago, when the personal saving rate was a good bit above its level in recent years.

State and Local Governments

The real outlays of state and local governments for consumption and invest-

ment moved up 2 percent over the four quarters of 1997, a rise similar to the average rate of increase since the start of the 1990s. Investment expenditures, which have grown about 2½ percent a year in this decade, rose at less than half that pace in 1997. However, real consumption expenditures increased 2¼ percent, a touch above the average thus far in the decade. Compensation of government employees, which accounts for about three-fifths of real consumption and investment expenditures, rose about 1¾ percent in 1997 and has increased at an annual rate of only about 1¼ percent since the end of the 1980s.

The efforts of state and local governments to hold down their labor expenses were also evident in other data. The employment cost index for nominal hourly compensation of workers employed by state and local governments increased 2¼ percent in 1997, a little less than in 1996 and the smallest annual increase in the seventeen-year history of the series. The increase in the average hourly wage of state and local government employees was about 2¾ percent, roughly the same as the gain in 1996. The average hourly cost of the benefit packages provided to state and local government employees rose only 1¼ percent, a percentage point less than the 1996 increase.

With costs contained and receipts continuing to rise as the economy has grown, financial pressures that were evident among state and local governments earlier in the expansion have diminished. The increased breathing room in the budgets of recent years is apparent in the consolidated current account of these governments: Surpluses in that account, excluding those that are earmarked for social insurance funds, had dipped to a low of about 1½ percent of nominal receipts in 1991, but they have been larger than 3 percent of receipts in each of the past three years.

State and local debt expanded about 5½ percent in 1997 after changing little in 1996 and declining in the two preceding years. In those earlier years, municipal debt outstanding had been held down by the retirement of bonds that were "advance refunded" in the early 1990s. In such operations, funds that had earlier been raised and set aside were used to refund debt as it became callable. By the end of 1996, however, the stock of such debt had apparently been largely worked down.

The Labor Market

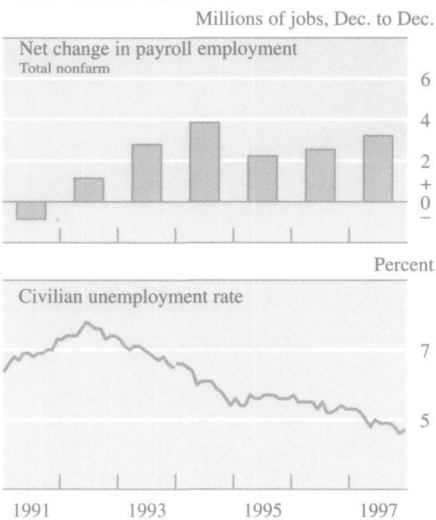
Employment, Productivity, and Labor Supply

More than 3 million jobs were added to nonfarm payrolls in 1997—a gain of nearly 2¾ percent, measured from December to December. Patterns of hiring mirrored the broadly based gains in output and spending. Manufacturing, construction, trade, transportation, finance, and services all exhibited appreciable strength. In manufacturing, the 1997 rise in the job count followed two years of little change; in the other sectors the 1997 gains came on top of substantial increases in other recent years. Especially rapid increases were posted in some of the services industries, including computer services, management services, education, and recreation. Employment at suppliers of personnel, a category that includes the agencies that supply help on a temporary basis, also increased appreciably in 1997, but the gains in this category fell considerably short of those seen in most previous years of the expansion. Help-supply firms reported that shortages of workers were limiting the pace of their expansion.

Labor productivity has risen rapidly over the past two years. The 1996 gain in output per hour in the nonfarm business sector was about 1¾ percent, and the 1997 increase was larger still—a bit more than 2 percent, according to the estimates as of March 1998. Although the average rate of productivity increase since the end of the 1980s has been only a little above 1 percent a year, the data for the past two years provide indications that sustained high levels of investment in new technologies may finally be translating into a stronger trend.

The civilian unemployment rate fell more than ½ percentage point from the fourth quarter of 1996 to the fourth quarter of 1997, to an average of just under 4¾ percent. For most of the year, the rate was somewhat below the lowest rate during the expansion of the 1980s. A variety of survey data indicated that firms were having increased difficulty filling jobs.

Labor Market Conditions



NOTE. The data are from the Department of Labor. The break in the unemployment rate data at January 1994 marks the introduction of a redesigned survey; data from that point on are not directly comparable with those of earlier periods.

After moving up a step in 1996, the labor force participation rate continued to edge higher in 1997. Without the increment to labor supply from increased participation over these two years, the unemployment rate would have fallen to an even lower level. Changes in the welfare system may have contributed to the small rise in participation in 1997; however, the extent of the contribution is unclear because of the difficulties of disentangling it from the normal tendency of participation to rise when the labor market is tight. Even though one-third of the adult population remained outside the labor force in 1997, the vast majority of those individuals likely were in pursuits that tended to preclude their workforce participation, such as retirement, schooling, or housework. The percentage of the working age population interested in work but not actively seeking it moved down further, to 2¼ percent in the fourth quarter, a record low in the history of a series that began in 1970.

Wages and Hourly Compensation

The employment cost index for hourly compensation in private industry increased 3.4 percent from December 1996 to December 1997. This rise exceeded that of the preceding year by 0.3 percentage point and that of 1995 by 0.8 percentage point. Although the patterns of change in hourly pay varied considerably by industry and occupation from 1995 to 1997, the overall step-up seems to have been prompted, in large part, by the tightening of labor markets. The implementation of a higher minimum wage also appears to have been a factor in some industries and occupations, although its impact is difficult to assess precisely.

The wage and salary component of hourly compensation rose faster in 1997

than in any previous year of the expansion. Annual increases in the employment cost index for wages and salaries in private industry amounted to 2.8 percent in both 1994 and 1995, but the increases in 1996 and 1997 were 3.4 percent and 3.9 percent respectively. Wages and salaries in the service-producing industries accelerated nearly a full percentage point in 1997, pushed up, especially, by sharp pay increases in the finance, insurance, and real estate sector, in which commissions and bonuses were boosted by high levels of mortgage refinancing and trading activity. By contrast, hourly wages in the goods-producing industries slowed a couple of tenths of a percentage point in 1997; the annual gains in these industries have been around 3 percent, on average, in each of the past six years.

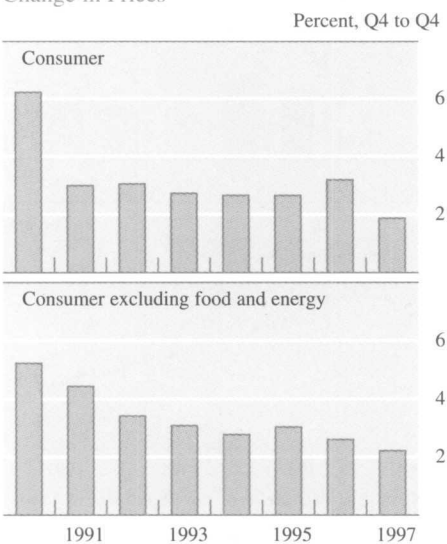
Although the costs of the fringe benefits that companies provide to their employees also picked up in 1997, the 2.3 percent increase was not large by historical standards. As in other recent years, benefit costs in 1997 were restrained by a variety of influences. Most notably, the price of health care continued to rise at a subdued pace, and the ongoing strength of the economy limited the need for payments by firms to state unemployment trust funds. Even though some firms reported seeing renewed sharp increases in health care costs during the year, the employment cost data suggest that most firms were still keeping those costs under fairly tight control.

With nominal hourly compensation in almost all industries moving ahead at a pace faster than inflation, workers' pay generally increased in real terms—and the real gains were substantial in many occupations. Indeed, the employment cost index does not capture some of the forms of compensation that employers have been using to attract and retain workers—stock options and signing bonuses, for example.

Prices

Indications of a slowing of inflation in 1997 were widespread in the various measures of aggregate price change. The consumer price index, which rose more than 3 percent over the four quarters of 1996, increased slightly less than 2 percent over the four quarters of 1997 as energy prices turned down and increases in food prices slowed. The CPI excluding food and energy—a widely used gauge of the underlying trend of inflation—rose only 2¼ percent in 1997 after increasing 3 percent in 1995 and 2½ percent in 1996. The CPI for commodities other than food and energy rose about ½ percent over the four quarters of 1997 after moving up slightly more than 1 percent over 1996. Price increases for non-energy services, which have a much larger weight than commodities in the CPI excluding food and

Change in Prices



NOTE. Consumer price index for all urban consumers. Based on data from the Department of Labor.

Change in Prices

Percent

Price measure	1996	1997
Fixed-weight		
Consumer price index	3.2	1.9
Excluding food and energy	2.6	2.2
Chain-type		
Personal consumption expenditures	2.7	1.5
Excluding food and energy	2.3	1.5
Gross domestic purchases	2.3	1.3
Gross domestic product	2.3	1.8

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.

energy, also slowed a little in 1997; the 3 percent rise was about ¼ percentage point less than the increase during 1996. Only small portions of the slowdowns from 1996 to 1997 in the total CPI and in the CPI excluding food and energy were the result of technical changes implemented by the Bureau of Labor Statistics.[1]

Other aggregate price measures also decelerated in 1997. The chain-type price index for gross domestic purchases—the broadest measure of prices paid by U.S. households, businesses, and governments—increased slightly more than 1¼ percent in 1997 after moving up 2¼ percent in 1996. The chain-type price index for gross domestic product—a measure of price change for the goods and services produced in this country (rather than the goods and services purchased)—increased 1¾ percent after rising 2¼ percent in 1996. The smaller 1997 rise in the price index for aggregate purchases relative to that for aggregate production was mainly a reflection of declines in the prices of imports. Both the price measure for production and the price measure for purchases were influenced importantly by falling computer prices; the CPI was less influenced by these prices, as it gave small weight to computers through 1997. (It has started weighting them more heavily in 1998.)

In real terms, imports of goods and services account for approximately 15 percent of the total purchases of households, businesses, and governments located in the United States. However, that figure probably understates the degree of restraint that falling import prices have imposed on inflation in recent years, because the lower prices for imports also make domestic producers of competing products less likely to raise prices. Prices have also been restrained by large additions to manufacturing capacity in this country, amounting to more than 5 percent a year over the past three years; this capacity growth has helped to stave off the bottlenecks that have so often developed in the advanced stages of other postwar business expansions. A gain in manufacturing production of more than 6 percent in 1997 was accompanied by only a moderate increase in the factory operating rate, which at year-end remained well below the highs reached in other recent expansions and the peak for this expansion, which was recorded at the start of 1995.

Reflecting the ample domestic supply and the effects of competition from goods produced abroad, the producer price index for finished goods declined about ¾ percent from the fourth quarter of 1996 to the fourth quarter of 1997;

1. In recent years, the Bureau of Labor Statistics has introduced a number of technical changes in its procedures for compiling the CPI, with the aim of obtaining a more accurate measure of price change. Typically, the changes have had only small effects on the results for any particular year, but their cumulative effects are somewhat larger and have tended to hold down the reported increases relative to what would have been reported with no changes in procedures. Apart from the procedural changes, the reported rate of rise from 1998 forward will also be affected by an updating of the CPI market basket, an action that the BLS undertakes approximately every ten years.

excluding food and energy, it rose only fractionally. Prices of domestically produced intermediate materials (other than food and energy) also rose only slightly, on net. The prices of raw industrial commodities, many of which are traded in international markets, declined over the year; the weakness of prices in these markets was especially pronounced in late 1997, when the crises in Asia were worsening.

After moving up more than 4 percent in 1996, the consumer price index for food increased only 1¾ percent in 1997. Impetus for the large increase in 1996 had come from a surge in the price of grain, which peaked around the middle of that year; thereafter, grain prices dropped back considerably. An echo of the up-and-down price pattern for grain appeared at retail in the form of sharp price increases for meats, poultry, and dairy products in 1996 followed by small to moderate declines for most of those products in 1997. Moderate price increases were posted at retail for most other food categories over the year.

The CPI for energy traced out an even larger swing than the price of food: A jump of 7½ percent over the four quarters of 1996 was followed by a decline of about 1 percent over the four quarters of 1997. As is usually the case in this sector, the key to the changes in consumer energy prices was the price of crude oil, which in 1997 more than reversed the run-up of the preceding year.

Surveys in which respondents are asked to state their expectations of future rates of price increase showed inflation expectations coming down a bit further in 1997. A lowering of inflation expectations has long been viewed as an essential ingredient in the pursuit of price stability, and the data of recent years have pointed to ongoing progress in that regard.

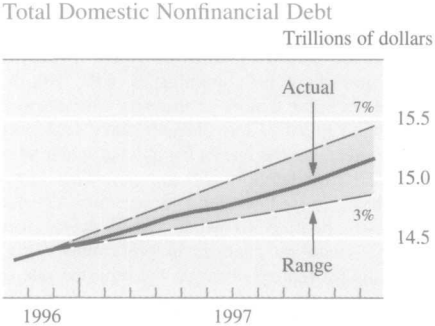
Credit, Money, Interest Rates, and Equity Prices

Credit and Depository Intermediation

The debt of the domestic nonfinancial sectors grew about 5 percent in 1997, in the middle of the range established by the FOMC and about the same as in 1996, when it grew 5¼ percent. The slight deceleration was attributable to the federal component, which, because of the reduced budget deficit, rose less than 1 percent after having risen 3¾ percent in 1996. Nonfederal debt grew 6½ percent, a bit more than in 1996, as the step-ups in borrowing by businesses and by state and local governments more than offset the deceleration of household debt.

Depository institutions increased their share of credit flows in 1997, with credit on their books expanding 6¾ percent, up appreciably from growth in 1996. The growth of bank credit, adjusted to remove the effects of mark-to-market accounting rules, picked up to an 8½ percent pace, the largest rise in ten years; and banks' share of domestic nonfinancial debt outstanding climbed to its highest level since 1988. Holdings of securities—which constitute about one-fourth of bank credit—expanded at

Total Domestic Nonfinancial Debt



NOTE. The range was adopted by the FOMC for the period from 1996:Q4 to 1997:Q4.

a brisk pace in 1997 after declining in 1995 and remaining flat in 1996. Loans—which make up the remainder of bank credit—advanced a bit more quickly in 1997 than in 1996, though more slowly than in 1995.

The increase in bank loans occurred despite a net decline in consumer loans on banks' books resulting both from sharply slower growth in loans originated by banks and from continued securitization of those loans. Real estate loans at banks, by contrast, posted solid growth, boosted by a pickup in home mortgages, rapid growth in home equity loans, which in part were substituting for consumer loans, an acceleration in commercial real estate lending, and the acquisition of thrift institutions by banks. Commercial and industrial loans also expanded considerably in 1997, reflecting both the general rise in the demand by businesses for funds and an increase in banks' share of the nonmortgage business credit market as they competed vigorously for business loans.

The rapid growth of banks' assets was facilitated by their continued high profitability and abundance of capital; at the end of the fourth quarter, 98 percent of bank assets were at well-capitalized institutions. Problems with the repayment performance of consumer loans—which, while not deteriorating further, remained elevated by historical standards—hurt some banks; however, overall loan delinquency and charge-off rates stayed quite low, and measures of banks' profitability held at the elevated levels they have occupied for several years. Profits at a few large bank holding companies were reduced in the fourth quarter by trading losses resulting from the events in Asia. Nonetheless, the profits of the industry as a whole remained robust.

The profits and capital levels of thrift institutions, like those of banks, were high in 1997, and thrifts also were aggressive lenders. The outstanding amount of credit extended by thrifts grew about ½ percent, but the sluggishness was due entirely to the acquisitions of thrifts by commercial banks; among thrifts not acquired during the year, asset growth was similar to that of banks.

The Monetary Aggregates

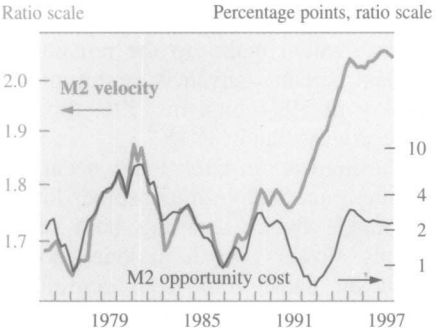
Boosted in part by the need of depository institutions to fund substantial growth in their credit, M3 shot up in 1997, expanding 8¾ percent; this growth was well above the 2 percent to 6 percent annual range established by the FOMC and intended to suggest the rate of growth over the long run that would be consistent with price stability. M3 was also boosted by a shift in sources of funding—mostly at U.S. branches and agencies of foreign banks—from borrowings from related offices abroad, which are not included in M3, to large time deposits issued in the United States, which are. Also contributing to the strength in M3 was the rapid growth of institution-only money funds, a result of gains by such funds in providing corporate cash management services. Corporations that manage their own cash often keep their funds in short-term assets that are not included in M3.

Although the growth of M2 did not match that of M3, it did increase at a brisk 5½ percent rate in 1997. As the Committee had anticipated, the growth of this aggregate was somewhat above the upper bound of its 1 percent to 5 percent annual range, which, like that of M3, had been chosen to be consistent with expected M2 growth under conditions of price stability. Because short-term interest rates responded only slightly to System tightening in March, the opportunity cost of holding M2—the interest earnings forgone by owning M2

assets rather than money market instruments such as Treasury bills—was about unchanged over the year. As M2 grew at about the same rate as nominal GDP, its velocity was also essentially unchanged. The ups and downs of M2 growth in 1997 tended to mirror those of the growth of nominal output. M2 expanded more slowly in the second quarter than in the first, consistent with the cooling of nominal GDP growth and almost unchanged opportunity costs. In the second half of the year, M2 growth picked up, roughly pacing the growth of nominal GDP. In the fall, M2 may also have been boosted a little by volatility in equity markets, which may have led some households to seek the relative safety of M2 assets.

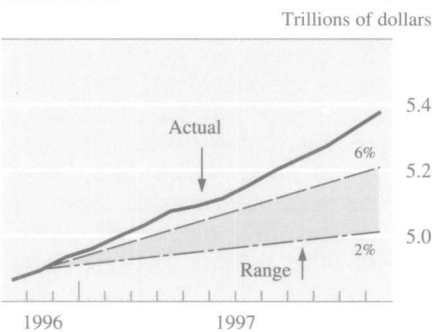
For several decades before 1990, M2 velocity responded positively to changes in its opportunity costs and otherwise showed little net movement over time. This pattern was disturbed in the early 1990s in part by households' apparent decision to shift funds out of lower-yielding M2 deposits into higher-yielding stock and bond mutual funds, which raised M2 velocity even as opportunity costs were declining. The movements in the velocity of M2 from 1994 into 1997 appear to have again been explained by changes in opportunity costs, along with some residual upward drift. This drift suggests that some households may still have been in the process of shifting their portfolios toward non-M2 assets. There was no uptrend in velocity over the second half of 1997, perhaps because of the declining yields on intermediate- and long-term debt and the greater volatility and lower average returns of stock mutual funds. However, given the aberrant behavior of velocity during the 1990s in general, considerable uncertainty remains about the relationship between the velocity and opportunity cost of M2 in the future.

M2 Velocity and M2 Opportunity Cost



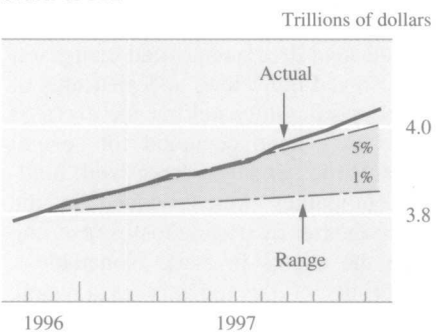
NOTE. The velocity of M2 is the ratio of nominal gross domestic product to the stock of M2. The opportunity cost of M2 is a two-quarter moving average of the three-month Treasury bill rate less the weighted average return on assets included in M2.

Stock of M3



NOTE. The range was adopted by the FOMC for the period from 1996:Q4 to 1997:Q4.

Stock of M2



NOTE. The range was adopted by the FOMC for the period from 1996:Q4 to 1997:Q4.

Annual Rate of Change in Reserves, Money Stock, and Debt Aggregates

Percent

Item	1994	1995	1996	1997				
				Year	Q1	Q2	Q3	Q4
Depository institution reserves[1]								
Total	−1.2	−4.9	−11.6	−6.3	−8.3	−14.3	−1.8	−1.3
Nonborrowed plus extended credit	−1.4	−4.9	−11.6	−6.4	−7.2	−16.0	−3.4	.7
Required	−1.1	−5.2	−11.9	−7.3	−8.4	−15.0	−2.4	−4.1
Monetary base[2]	8.4	4.0	3.8	6.0	5.3	3.7	6.3	8.1
Concepts of money[3]								
M1	2.5	−1.6	−4.5	−1.2	−1.4	−4.5	.3	.8
Currency	10.1	5.4	5.7	7.5	6.9	6.4	7.0	8.7
Demand deposits	.6	1.4	2.9	−2.0	.6	−4.9	.0	−3.7
Other checkable deposits	−1.8	−10.6	−22.8	−12.2	−16.0	−20.1	−10.1	−4.7
M2	.6	3.9	4.6	5.6	5.1	4.4	5.4	6.8
Non-M1 components	−.2	6.6	8.7	8.2	7.7	7.9	7.3	9.0
Savings (including MMDAs)	−4.2	−3.3	12.0	9.9	9.3	9.6	7.1	12.2
Small denomination time deposits	2.4	15.3	1.8	1.9	1.8	2.4	2.6	.7
Retail money market mutual funds	7.6	18.5	14.5	15.8	14.7	13.5	16.1	15.6
M3	1.7	6.1	6.9	8.8	8.0	7.7	8.1	10.2
Non-M2 components	6.7	15.4	15.7	20.0	18.0	18.9	16.8	20.8
Large-denomination time deposits	7.3	15.9	16.4	18.1	18.4	20.9	16.1	12.7
Institution-only money market mutual funds	−4.1	24.7	20.9	21.0	18.4	18.1	19.6	22.0
Repurchase agreements	13.5	5.8	4.5	17.0	6.1	6.8	13.5	38.3
Eurodollars	21.5	11.4	21.7	30.4	35.8	32.2	18.6	23.4
Domestic nonfinancial sector debt	4.9	5.4	5.3	4.9	4.4	5.0	4.2	5.8
Federal	5.7	4.4	3.7	.6	1.8	.4	−.6	.9
Nonfederal	4.6	5.8	5.8	6.5	5.4	6.6	5.9	7.4

NOTE. Changes for quarters are calculated from the average amounts outstanding in each quarter. Changes for years are measured from Q4 to Q4. Based on seasonally adjusted data.

1. Data on reserves and the monetary base incorporate adjustments for discontinuities associated with regulatory changes in reserve requirements.

2. The monetary base consists of total reserves; plus the currency component of the money stock; plus, for all quarterly reporters, and for all weekly reporters without required reserve balances, the excess of current vault cash over the amount applied to satisfy current reserve requirements. For further details, see the Federal Reserve's H.3 Statistical Release.

3. M1 consists of currency in circulation excluding vault cash; travelers checks of nonbank issuers; demand deposits at all commercial banks other than those due to depository institutions, the U.S. government, and foreign banks and official institutions, less cash items in the process of collection and Federal Reserve float; and other checkable deposits, which consist of negotiable orders of withdrawal and automatic transfer service accounts at depository institutions, credit union share draft accounts, and demand deposits at thrift institutions.

M2 is M1 plus savings deposits (including money market deposit accounts); small-denomination time deposits (including retail repurchase agreements), from which have been subtracted all individual retirement accounts (IRAs) and Keogh accounts at commercial banks and thrift institutions; and balances in taxable and tax-exempt retail money market mutual funds (money funds with minimum initial investments of less than $50,000), excluding IRAs and Keogh accounts.

M3 is M2 plus large-denomination time deposits at all depository institutions other than those due to money stock issuers; balances in institution-only money market mutual funds (money funds with minimum initial investments of $50,000 or more); wholesale RP liabilities (overnight and term) issued by all depository institutions, net of money fund holdings; and Eurodollars (overnight and term) held by U.S. residents at all banking offices in Canada and the United Kingdom and at foreign branches of U.S. banks worldwide, net of money fund holdings. For further details, see the Federal Reserve's H.6 Statistical Release.

M1 fell 1¼ percent in 1997. As has been true for the past four years, the growth of this aggregate was depressed by the adoption by banks of retail sweep programs, whereby balances in transactions accounts, which are subject to reserve requirements, are "swept" into savings accounts, which are not. Sweep programs benefit depositories by reducing their required reserves, which earn no interest. At the same time, they do not restrict depositors' access to their funds for transactions purposes, because the funds are swept back into transactions accounts when needed. The initiation of programs that sweep funds out of NOW accounts—in 1997 the most common form of retail sweep programs—appears to be slowing, but sweeps of household demand deposits have picked up, and the estimated total amount by which sweep account balances increased in 1997 was similar to that in 1996. Adjusted for the initial reduction in transactions accounts resulting from the introduction of new sweep programs, M1 expanded 6 percent in 1997, a little above its sweep-adjusted growth in 1996.

The drop in transactions accounts caused required reserves to fall 7¼ percent in 1997. Despite this decline, the monetary base grew 6 percent, boosted by a hefty advance in currency. Currency again benefited from foreign demand, as overseas shipments continued at the elevated levels seen in recent years. Moreover, domestic demand for currency expanded sharply in response to the strong domestic spending.

The Federal Reserve has been concerned that as the steady decline in required reserves of recent years is extended, the federal funds rate may become significantly more volatile. Required reserves are fairly predictable and must be maintained on only a two-week average basis. As a result, the unavoidable daily mismatches between reserves made available through open market operations and desired reserves typically have been fairly small, and their effect on the federal funds rate has been muted. However, banks also hold reserve balances at the Federal Reserve to avoid overdrafts after making payments for themselves and their customers. This component of the demand for reserves is difficult to predict, varies considerably from day to day, and must be fully satisfied each day. As required reserves have declined, the demand for balances at the Federal Reserve has become increasingly dominated by these more changeable daily payment-related needs. Nonetheless, federal funds volatility did not increase noticeably in 1997. In part this was because the Federal Reserve intervened more frequently than in the past with open market operations of overnight maturity in order to better match the supply of and demand for reserves each day. In addition, banks made greater use of the discount window, increasing the supply of reserves when the market was excessively tight. Significant further declines in reserve balances, however, do risk increased federal funds rate volatility, potentially complicating the money market operations of the Federal Reserve and of the private sector. One possible solution to this problem is to pay banks interest on their required reserve balances, reducing their incentive to avoid holding such balances.

Interest Rates and Equity Prices

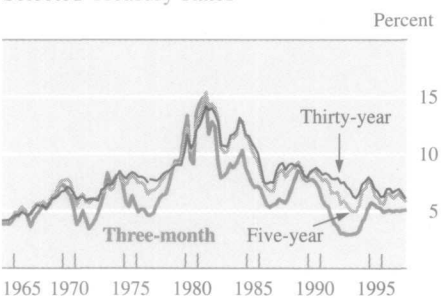
Interest rates on intermediate- and long-term Treasury securities moved lower, on balance, in 1997. Yields rose early in the year as market participants became concerned that strength in aggregate demand would further tighten resource

utilization margins and increase inflation unless the Federal Reserve took countervailing action. Over the late spring and summer, however, as growth moderated some and inflation remained subdued, these concerns abated significantly, and longer-term interest rates declined. Further reductions came in the latter part of the year as economic problems mounted in Asia. On balance, between the end of 1996 and the end of 1997, the yields on ten-year and thirty-year Treasury bonds fell about 70 basis points. At year-end, rates were approaching their levels of the late 1960s and early 1970s, when the buildup of inflation expectations was in its early stages.

Survey measures of expectations for longer-horizon inflation generally did move lower in 1997, but by less than the drop in nominal yields. As a result, estimates of the real longer-term interest rate calculated by subtracting these measures of expected inflation from nominal yields indicate a slight decline in real rates over the year. In contrast, yields on the inflation-indexed ten-year Treasury note rose about a quarter percentage point between mid-March (when market participants seem to have become more comfortable with the new security) and the end of the year. The market for the indexed securities is sufficiently small that their yields can fluctuate temporarily as a result of moderate shifts in supply or demand. Indeed, much of the rise in the indexed yield came late in the year, when, in an uncertain global economic environment, investors' heightened desire for liquidity may have made nominal securities relatively more attractive.

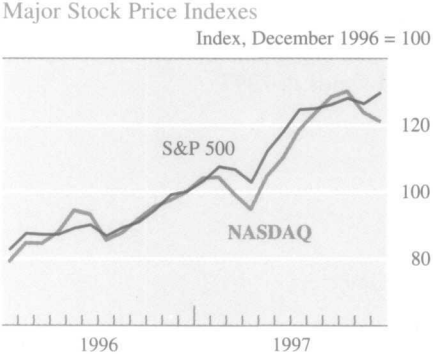
With real longer-term interest rates remaining low and corporate profits growing strongly, equities had another good year in 1997, and major stock indexes rose 20 percent to 30 percent. Although stocks rose early in the year, they fell with the upturn in interest rates in February. As interest rates subsequently declined and earnings reports remained quite upbeat, the markets again advanced, with most broad indexes of stock prices reaching new highs in the spring. Advances were much more modest, on balance, over the second half of the year. Valuations seemed already to have incorporated very robust earnings growth, and in October, deepening difficulties in Asia evidently led investors to lower their expectations for the earnings of some U.S. firms, particularly high-technology firms and money center banks. Through the remainder of the fourth quarter,

Selected Treasury Rates



NOTE. The twenty-year Treasury bond rate is shown until the first issuance of the thirty-year Treasury bond, in February 1977. The data are quarterly.

Major Stock Price Indexes



NOTE. The data are monthly.

stock prices remained volatile but displayed little trend.

Despite the strong performance of earnings in 1997 and the slower rise of stock prices in the second half of the year, valuations seemed to reflect a combination of expectations of quite rapid future earnings growth and a historically small risk premium on equities. The gap between the market's forward-looking earnings–price ratio and the real interest rate, measured by the ten-year Treasury rate less a survey measure of inflation expectations, was at the smallest sustained level in 1997 in the eighteen-year period for which these data are available. Declines in this gap generally imply either that expected real earnings growth has increased or that the risk premium over the real rate investors use when valuing those earnings has fallen, or both. Survey estimates of stock analysts' expectations of long-term nominal earnings growth were, in fact, the highest observed in the fifteen years for which these data are available. Because inflation has trended down over the past fifteen years, the implicit forecast of the growth in real earnings departs even further from past forecasts. However, even with this forecast of real earnings growth, the level of equity valuation suggested that investors were also requiring a lower risk premium on equities than has generally been the case in the past, a hypothesis supported by the low risk premiums evident in corporate bond yields in 1997. ■