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# Monetary Policy Report to the Congress

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*Report submitted to the Congress on July 22, 1997, pursuant to the Full Employment and Balanced Growth Act of 1978*

## *MONETARY POLICY AND THE ECONOMIC OUTLOOK*

The economy continued to perform exceptionally well in the first half of 1997. Real output grew briskly, while inflation ebbed. Sizable further increases in payrolls pushed the unemployment rate below 5 percent for the first time in nearly twenty-five years. Although growth in real gross domestic product appears to have slowed in the spring, this slackening came on the heels of a dramatic surge in the opening months of the year; all indications are that the expansion remains well intact. The members of the Board of Governors and the Reserve Bank presidents anticipate that the economy will grow at a moderate pace in the second half of this year and in 1998 and that inflation will remain low. Conditions in financial markets are supportive of continued growth: Longer-term interest rates are in the lower portion of the range observed in this decade, the stock market has registered all-time highs, and credit remains readily available to private borrowers.

Since the February report on monetary policy, Federal Reserve policymakers have revised upward their expectations for growth of real activity in 1997 and trimmed their forecasts of inflation. This combination of revisions highlights the extraordinarily positive conditions still prevailing more than six years into the current economic expansion. In part, the recent confluence of higher-than-expected output and lower inflation has reflected the favorable influences on prices of retreating oil prices and a strong dollar. But it may also be attributable to more durable changes in our economy, notably a greater flexibility and competitiveness in labor and product markets and more rapid, technology-driven gains in efficiency. In essence, the economy may be experiencing an upward shift in its longer-range output potential.

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NOTE. The charts for the report are available on request from Publications Services, Mail Stop 127, Board of Governors of the Federal Reserve System, Washington, DC 20551.

To the extent that aggregate supply is expanding more rapidly, monetary policy can accommodate extra growth in demand without fostering increased inflationary pressures. In late March, however, the Federal Open Market Committee (FOMC) concluded that there was a significant risk that aggregate demand would grow faster in the coming quarters than available supply, which, with utilization already at a very high level, would place the economy's resources under increasing strain. If such unsustainable growth persisted, the resulting inflationary imbalances would eventually undermine the health of the expansion—the all too frequent pattern of past business cycles. To protect against the possibility of such an outcome, the Committee tightened policy slightly. With the softening of demand in the spring, the Committee was able to maintain a steady posture in the money market while closely monitoring economic developments. The ongoing objective of monetary policy is to help the nation achieve maximum sustainable economic growth and the highest average living standards. The Federal Reserve recognizes that it can best accomplish this objective by keeping inflation in check, because an environment of price stability is most conducive to sound, long-term planning by households and businesses.

## *Monetary Policy, Financial Markets, and the Economy over the First Half of 1997*

The rapid economic growth observed in the closing months of 1996 continued in the first quarter of this year, with real gross domestic product advancing almost 6 percent at an annual rate. Consumer spending surged, fueled by a significant increase in income, upbeat consumer attitudes, and the effects of the huge run-up in equity prices over the past couple of years on household net worth. Business fixed investment was strong, and companies restocked inventories that had become thin as sales soared. The advance in real output provided support for considerable new hiring; rising pay and greater job availability drew additional people into the workforce, lifting the labor force participation rate to a new high during the first quarter of the year. The underlying trend in consumer

price inflation was still subdued. Inflation pressures were held in check by smaller food price increases, declining prices for non-oil imports, the marked expansion of industrial capacity in recent years, and continuing efforts by businesses to boost efficiency.

At their meeting in late March, FOMC members expected that the growth of economic activity would ease in the coming months, but they were uncertain about the likely extent of that slowing. Although the first-quarter burst in production had owed importantly to a number of temporary factors, many of the fundamentals underlying consumer and business demand remained quite positive. The Committee was concerned about the risk that if outsized gains in real output continued, pressures on costs and prices would emerge that could eventually undermine the expansion. Therefore, to help foster more sustainable trends in output and guard against potential inflationary imbalances, the Committee firmed policy slightly by raising the expected federal funds rate from around 5¼ percent to around 5½ percent.

The unsustainably strong pace of economic growth in the first quarter weighed on financial markets. Interest rates rose substantially, even before the System's action, despite favorable news on inflation. Because the policy tightening was widely anticipated, rates were little affected by the announcement, but they moved up a little more in the following weeks as incoming data suggested persistent strength in economic activity. Equity prices rose early in the first quarter and then declined, changing relatively little on net. The trade-weighted value of the dollar in terms of the other G-10 currencies increased about 7 percent in the first quarter, reflecting the unexpectedly strong economic growth in the United States and market uncertainty about economic performance abroad.

As the second quarter progressed, it became increasingly evident that economic activity had indeed decelerated. The expansion of consumer spending eased considerably, while business fixed investment remained strong. Employment continued to climb rapidly, pushing the unemployment rate down below 5 percent on average in the second quarter—the lowest level since the early 1970s. Despite high levels of employment and production through the first half of the year, there were few signs that inflation was deviating significantly from recent trends. Although overall consumer price inflation dipped in the second quarter as energy prices declined, consumer prices excluding food and energy increased at about the same pace in the first half of the year as in 1996.

Continued favorable price movements and the slowing of economic growth suggested to financial market participants that inflation might remain damped without a further tightening of financial conditions, and this belief prompted a substantial drop in interest rates from late April to mid-July, reversing the earlier advance. With resource utilization still at very high levels, and with economic and financial conditions conducive to robust increases in spending, the FOMC at its May meeting continued to view the risks as skewed toward the re-emergence of inflationary pressures. But the moderation in aggregate demand and uncertainty about the relationship between utilization rates and inflation led the Committee to leave reserve conditions unchanged in May and again in July. The drop in market interest rates in the second quarter may also have been encouraged by favorable news about this year's federal budget deficit and by the agreement between the President and the Congress to balance the budget in fiscal year 2002. Spurred by lower rates and greater optimism about the long-term outlook for earnings, the stock market surged in the second quarter and into July. The value of the dollar rose somewhat further in foreign exchange markets, on balance, an increase more than accounted for by an appreciation against continental European currencies.

During the first half of the year, credit remained available on favorable terms to most households and businesses. High delinquency rates for consumer loans encouraged many banks to tighten standards, but consumer loan rates generally stayed fairly low relative to benchmark Treasury rates, and consumer credit continued to grow faster than income and only a little below the pace of 1996. Home mortgage debt advanced at a moderate rate, with home equity loans expanding especially rapidly in the spring. Businesses continued to have access to ample external funding both directly in capital markets and through financial intermediaries. The spreads between yields on corporate bonds and Treasury securities stayed low or fell further, and, relative to market rates, bank business loan rates held near the lower end of the range seen in the current expansion.

Total domestic nonfinancial debt expanded more slowly in the first half of 1997 than in 1996, mainly because of a reduced pace of federal borrowing. Trends in the monetary aggregates during the first half of 1997 were similar to those in 1996, with M2 near the upper end of the range set by the FOMC and M3 somewhat above its range. This outcome was in line with FOMC expectations, because the ranges had been set to be consistent with conditions of price

stability, and inflation, while damped, remained above this level. The behavior of M2 in the first part of the year was again reasonably well explained by changes in nominal GDP and interest rates.

### *Economic Projections for 1997 and 1998*

After growing swiftly on balance over the first half of the year, economic activity is expected to expand more moderately in the second half of 1997 and in 1998. For this year, the central tendency of the GDP growth forecasts put forth by members of the Board of Governors and the Reserve Bank presidents is 3 percent to 3¼ percent, measured as the change in real output between the final quarter of 1996 and the final quarter of 1997. For 1998, most of the forecasts anticipate growth of real GDP within a range of 2 percent to 2½ percent. With this pace of continued economic expansion over the next six quarters, the central tendency of forecasts for the civilian unemployment rate remains a little under 5 percent through 1998, about the average for the second quarter of this year.

Economic activity appears to have entered the second half with considerable positive momentum. Households have experienced hefty gains in employment, income, and wealth, and their optimism about

the future is quite high. These factors seem likely to outweigh any drag on consumer demand that might be associated with the debt-servicing problems that some households have experienced. Lower mortgage rates are buttressing demand for homes. In the business sector, healthy balance sheets and profits and a moderate cost of external funds, along with a continuing desire to install new technology, are providing support and impetus for investment in equipment. Meanwhile, investment in structures should follow last year's strong performance with further increases, because of declining vacancy rates in some sectors and ready access to financing.

Notwithstanding the economy's positive momentum, growth is expected to be more moderate in the next year and a half than in the first half of 1997. In part, this deceleration is likely to reflect the influence on demand of the substantial buildup of stocks of household durables and business plant and equipment thus far in the expansion. As well, the pace of inventory investment will need to slacken considerably relative to that observed in the first part of this year, lest stock-to-sales ratios become uncomfortably high. In the external sector, the strength of the dollar on exchange markets since last year could damp export sales and encourage U.S. firms and households to purchase foreign-produced goods and services.

Federal Reserve policymakers believe that this year's rise in the CPI will be smaller than that of 1996, mostly because of favorable developments in the food and, especially, energy sectors. After last year's run-up, crude oil prices have dropped back significantly, pulling down the prices of petroleum products. Food price increases also have been subdued this year, as the decline in grain prices that began in the middle of last year has been working its way through to the retail level. Looking ahead to next year, the governors and Reserve Bank presidents expect larger increases in the CPI, with a central tendency from 2½ percent to 3 percent. Food and energy prices are not expected to repeat this year's salutary performance, and non-oil import prices may be less of a restraining influence than in 1997, absent a continued uptrend in the dollar. Moreover, there is a risk that high levels of resource utilization could begin putting upward pressure on business costs.

As noted in past monetary policy reports, the CPI forecasts of Federal Reserve policymakers incorporate the technical improvements that the Bureau of Labor Statistics is making to the CPI in 1997 and 1998. A series of technical changes is estimated to have trimmed reported rates of CPI inflation slightly in recent years, and the additional changes will affect

#### 1. Economic projections for 1997 and 1998

Percent

Indicator	Federal Reserve governors and Reserve Bank presidents	
	Range	Central tendency
	1997	
<i>Change, fourth quarter to fourth quarter</i> <sup>1</sup>		
Nominal GDP .....	5-6	5-5½
Real GDP .....	3-3½	3-3¼
Consumer price index <sup>2</sup> .....	2-2¾	2¼-2½
<i>Average level in the fourth quarter</i>		
Civilian unemployment rate .....	4¾-5¼	4¾-5
	1998	
<i>Change, fourth quarter to fourth quarter</i> <sup>1</sup>		
Nominal GDP .....	4¼-5¾	4½-5
Real GDP .....	2-3	2-2½
Consumer price index <sup>2</sup> .....	2½-3	2½-3
<i>Average level in the fourth quarter</i>		
Civilian unemployment rate .....	4½-5¼	4¾-5

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

2. All urban consumers.

the index this year and next. In light of the challenges of accurately measuring price changes in a complex and dynamic economy, the governors and Reserve Bank presidents will continue placing substantial weight on other price indexes, along with the CPI, in gauging progress toward the long-run goal of price stability.

The Administration has not yet released an update of the economic projections contained in the February *Economic Report of the President*. The earlier Administration forecasts were broadly similar to those in the Federal Reserve's February report, with Administration forecasts for growth and inflation within or near the range anticipated by Federal Reserve policymakers in February. Because of developments in the economy since that time, the central tendency of forecasts for real GDP growth put forth by the members of the Board of Governors and the Reserve Bank presidents has moved higher, while their forecasts for the CPI have moved down.

### *Money and Debt Ranges for 1997 and 1998*

At its meeting earlier this month, the Committee reaffirmed the ranges for 1997 growth of money and debt that it had established in February: 1 percent to 5 percent for M2, 2 percent to 6 percent for M3, and 3 percent to 7 percent for the debt of the domestic nonfinancial sectors. The Committee also set provisional ranges for 1998 at the same levels as for 1997.

In choosing the ranges for M2 and M3, the Committee recognized the continuing uncertainty about the future behavior of the velocities of the two aggregates. For several decades until the 1990s, these aggregates exhibited fairly stable trends relative to nominal spending, and variations in M2 growth around its trend were reasonably closely related to changes in the spread between market rates and yields on the assets in M2. These relationships were disrupted in the first part of this decade. Between 1991 and early 1994, the velocities of M2 and M3 climbed well above the levels that were predicted by past experience, as households shifted substantial amounts

out of lower-yielding deposits into higher-yielding stock and bond mutual funds, and as banks and thrift institutions sharply curtailed their lending to focus on rebuilding capital. Since mid-1994, the velocities have been moving more nearly in line with their historical patterns with respect to changes in opportunity costs—albeit at higher levels. This recent period of renewed stability is still brief, however, and has occurred at a time of relatively stable financial and economic conditions, leaving open the important question of whether the stability would be sustained in the future under a wider variety of circumstances.

In light of this uncertainty, the Committee again decided to view the ranges as benchmarks for monetary growth rates that would be consistent with approximate price stability and historical velocity relationships. If velocities change little over the next year and a half, Committee members' expectations of nominal GDP growth in 1997 and 1998 imply that M2 and M3 will likely finish around the upper boundaries of their respective ranges each year. The debt of the domestic nonfinancial sectors is expected to remain near the middle of its range this year and next. The Committee will continue to monitor the behavior of the monetary aggregates and domestic nonfinancial debt—as well as a wide range of other data—for information about economic and financial developments.

### *ECONOMIC AND FINANCIAL DEVELOPMENTS IN 1997*

The economy has continued to perform exceptionally well this year. Real gross domestic product surged almost 6 percent at an annual rate in the first quarter of 1997, and available data point to a healthy, though smaller, increase in the second quarter. Financial conditions remained supportive of spending. Despite a modest tightening of money market conditions by the System, most interest rates were little changed or declined a bit on net during the first half of the year, and equity prices surged ahead. With relatively few exceptions, credit remained readily available from both intermediaries and financial markets on generally favorable terms. The rapid increases in output led to a further tightening of labor markets in the first six months of 1997, and labor costs accelerated a little from the pace of a year earlier. Price inflation has been subdued, held down in part by declines in energy prices, smaller increases in food prices, and lower prices for non-oil imports that have followed in the wake of the appreciation of the dollar. In addition, intense competition, adequate plant capacity, and

#### 2. Ranges for growth of monetary and debt aggregates

Percent

Aggregate	1996	1997	Provisional for 1998
M2 .....	1-5	1-5	1-5
M3 .....	2-6	2-6	2-6
Debt .....	3-7	3-7	3-7

NOTE. Change from average for fourth quarter of preceding year to average for fourth quarter of year indicated.

ongoing efficiency gains have helped to restrain inflation pressures in the face of rising wages.

### *The Household Sector*

#### *Spending, Income, and Saving*

After posting a sizable increase in 1996, real personal consumption expenditures jumped 5½ percent at an annual rate in the first quarter of 1997. Although the advance in spending slowed thereafter—partly because of unusually cool weather in late spring—underlying fundamentals for the household sector remain favorable to further solid gains; notably, real incomes have continued to rise, and many consumers have benefited from sizable gains in wealth. With this good news in hand, consumers have become extraordinarily upbeat about the economy's prospects. Indexes of consumer sentiment—such as those compiled by the Survey Research Center at the University of Michigan and the Conference Board—have soared to some of the highest readings since the 1960s. Despite this generally healthy picture, some households still face difficulties meeting debt obligations, and delinquency rates for consumer loans have remained at high levels.

Real outlays for consumer durables surged 18¾ percent (annual rate) in the first quarter of this year but apparently slowed considerably in the second quarter. After changing little, on net, last year, consumer purchases of motor vehicles increased rapidly early in the year, a result of sound fundamentals, a bounceback from the strike-depressed fourth quarter, and enlarged incentives offered by automakers. In the second quarter, sales were once again held down noticeably by strike-related supply constraints, as well as by some payback from the elevated first-quarter pace. Smoothing through the ups and downs, the underlying pace of demand in the first half of the year likely remained reasonably close to the 15 million unit rate that has prevailed since the second half of 1995. Purchases of durable goods other than motor vehicles also took off in the first quarter; computers and other electronic equipment were an area of notable strength, as households took advantage of rapidly falling prices to acquire the latest technology. According to available monthly data, purchases of durables other than motor vehicles and electronic equipment moderated in the second quarter. Although a pause in the growth of spending is not surprising after the strong first quarter, unusually cool spring weather, leading to the postponement of purchases of some seasonal items, may also have contributed to the moderation.

Growth of real spending for nondurables also appears to have slowed considerably from a strong first-quarter pace. Within services, weather conditions held down growth of real outlays for energy services in the first quarter and boosted them in the second. Growth of real outlays for other services—typically the steadiest component of consumption—picked up at the end of 1996 and appears to have stayed ahead of last year's 2½ percent pace in the first half of 1997.

Consumer spending continued to draw support from healthy advances in income this year, as gains in wages and salaries boosted personal disposable income. These gains translated into a 4 percent annual rate advance in real disposable income in the first quarter, after a significant 2¾ percent advance last year. Although month-to-month movements were affected by unevenness in the timing of tax payments, the underlying trend in real disposable income remained strong into the second quarter.

On top of rising incomes, further increases in net worth—primarily related to the soaring stock market—have given many households the financial wherewithal to spend. In light of the very large gains in wealth, the impetus to consumption appears to have been smaller than might have been anticipated on the basis of historical relationships, suggesting that other factors may be offsetting the effect of higher net worth. One such factor could be a greater focus on retirement savings, particularly among the large cohort of the population reaching middle age. Concerns about the adequacy of saving for retirement have likely been heightened by increased public discussion of the financial problems of social security and federal health programs. In addition, debt problems may be restraining the spending of some households.

#### *Residential Investment*

The underlying pace of housing activity has remained at a high level this year, even though some indicators suggest that activity has edged off a bit from last year's pace. In the single-family sector, housing starts through June averaged 1.14 million units at an annual rate, a shade below the pace of starts in 1996. Although starts dipped in the second quarter, the decline was from a first-quarter level that, doubtless, was boosted by mild weather. Mortgage rates have zigzagged moderately this year; the average level has differed little from that in 1996. With mortgage rates low and income growth strong, a relatively large proportion of families has been able to afford

the monthly cost of purchasing a home. Home sales have remained strong, helping to keep inventories of unsold new units relatively lean—a favorable factor for prospective building activity. Other indicators of demand remain quite positive. According to the latest survey by the National Association of Homebuilders, builders' ratings of new home sales strengthened in recent months to the highest level since last August. Moreover, consumers' assessments of conditions for homebuying, as reported by the Survey Research Center at the University of Michigan, remained very favorable into July. In addition, the volume of applications for mortgages to purchase homes has moved up recently to a high level.

The pace of multifamily starts has been well maintained. These starts averaged close to 320,000 units at an annual rate from January to June, a little above last year's figure for starts. Even so, the pace of multifamily construction remains well below peaks in the 1970s and 1980s, partly because of changes in the nation's demographic composition as the bulge of renters in the 1980s has moved on to home ownership. Another factor that has restrained multifamily construction is the growing popularity of manufactured housing ("mobile homes"), which provides an alternative to rental housing for some households. In particular, the price of a typical manufactured unit is considerably less than that of a new single-family house, making manufactured homes especially attractive to first-time buyers and to people purchasing second houses or retirement homes. Shipments of these homes trended up through last fall and then flattened out at a relatively high level.

### Household Finance

Household balance sheets strengthened in the aggregate during the first half of 1997, but debt-payment problems continued at a high level in several market segments. Indebtedness grew less rapidly than it had in 1996, and further gains in equity markets pushed up the ratio of household net worth to disposable personal income to its highest mark in recent decades. Consumer credit increased at a 6¼ percent annual rate between December 1996 and May 1997, compared with 8¼ percent in 1996. The growth of mortgage debt was somewhat slower in the first quarter than in 1996 and, according to available indicators, probably stayed at roughly the same rate during the second quarter.

The estimated ratio of required payments of loan principal and interest to disposable personal income

remained high in the first quarter, after climbing rapidly between early 1994 and early 1996 and rising more slowly in the second half of last year. This measure of the debt-service burden of households has nearly returned to the peak reached toward the end of the last business cycle expansion. Adding estimated payments on auto leases to households' scheduled monthly debt payments boosts the ratio a little more than 1 percentage point and places it just above its previous peak.

Indicators of households' ability to service their debt have been mixed. The delinquency rate for mortgage loans past due sixty days or more is at its lowest level in two decades, but delinquency rates for consumer loans are relatively high. According to data from the Report of Condition and Income filed by banks (the Call Report), the delinquency rate for credit card loans was roughly unchanged in the first quarter of 1997, remaining at its highest value since late 1992, when the economy was in the midst of a sluggish recovery and the unemployment rate was more than 2 percentage points higher than today. For auto loans at the finance companies affiliated with the major manufacturers, the delinquency rate rose again in the first quarter, continuing the steady run-up in this measure over the past three years.

Anecdotal evidence suggests that the recent increases in consumer credit delinquency rates had been partly anticipated by lenders, reflecting the normal seasoning of loans as well as banks' efforts to stimulate borrowing by making credit more broadly available and automakers' attempts to stimulate sales using the same approach. During the past several years, lenders have aggressively sought business from people who might not have been granted credit previously, in part because of lenders' confidence in new "credit scoring" models that statistically evaluate an individual's creditworthiness. Despite these new tools, banks evidently have been surprised by the extent of the deterioration of their consumer loans and have tightened lending standards as a result. Nearly half the banks responding to the Federal Reserve's May survey on bank lending practices had imposed more stringent standards for new credit card accounts over the preceding three months, with a smaller fraction reining in other consumer loans. About one-third more of the responding banks expected charge-off rates on consumer loans to increase further over the remainder of the year than expected charge-off rates to decrease; many of those expecting an increase cited consumers' growing willingness to declare bankruptcy. Rising delinquency rates have also put pressure on firms specializing in

subprime auto loans, with some reporting reduced profits and acute liquidity problems.

According to the most recently available data, personal bankruptcies surged again in the first quarter of the year after rising 30 percent in 1996. The rapid increases of late are partly related to the same increase in financial stress evident in the delinquency statistics, but they may also be tied to more widespread use of bankruptcy as a means of dealing with such stress. Changes in federal bankruptcy law effective at the start of 1995 increased the value of assets that may be protected from liquidation, and there may also be a secular trend toward less stigma being associated with declaring bankruptcy.

## *The Business Sector*

### *Investment Expenditures*

Following a fifth year of sizable increases in 1996, real business fixed investment rose at an annual rate of 11 percent in the first quarter. The underlying determinants of investment spending remain solid: strong business sales, sizable increases in cash flow, and a favorable cost of capital, especially for high-tech equipment. To be sure, a significant portion of this investment has been required to update and replace depreciated plant and equipment; nevertheless, the current pace of investment implies an appreciable expansion of the capital stock.

Real outlays for producers' durable equipment jumped at an annual rate of 12 $\frac{3}{4}$  percent in the first quarter of this year after rising 9 $\frac{3}{4}$  percent last year. As in recent years, purchases of computers and other information processing equipment contributed importantly to this gain. The computer sector has been propelled by declining prices of new and more powerful products and by a drive in the business sector to improve efficiency with these latest technological developments. Real purchases of communications equipment also have been robust, boosted by rapidly growing demand for wireless phone services and Internet connections as well as by upgrades to telephone switching and transmission equipment in anticipation of eventual deregulation of local phone markets. In addition, purchases of aircraft by domestic airlines moved higher on net in 1995 and 1996 and—on the basis of orders and production plans of aircraft makers—are expected to rise considerably further this year. For the second quarter, data on orders and shipments of nondefense capital goods in

April and May imply that healthy increases in equipment investment have continued.

Real business spending for nonresidential structures posted another sizable increase in the first quarter after advancing a hefty 9 percent in 1996. Although the latest data suggest a slowing of the pace of advance in the second quarter, the economic factors underlying this sector point to continued increases. Vacancy rates have been falling and rents have been improving. Financing for commercial construction reportedly is in abundant supply, especially with substantial amounts of capital flowing to real estate investment trusts (REITs).

Trends in construction continue to differ among sectors. Increases in office construction were especially robust in recent quarters, as vacancy rates fell for both downtown and suburban properties. With office-based employment expanding, this sector has continued to recover from the severe slump of the late 1980s and early 1990s; even so, the level of construction activity is barely more than half that of the mid-1980s. Construction of other commercial buildings has increased steadily during the past five years, and the gain in the first quarter of this year was sizable. Since the current expansion began, the non-office commercial sector has provided a large contribution to overall construction spending. Industrial construction dropped back in the first quarter after jumping at the end of last year; the trend for this sector has been relatively flat on balance in recent years.

During 1996, investment in real nonfarm business inventories was modest compared with the growth of sales, and the year ended with lean inventories in many sectors. In the first quarter of this year, businesses moved to rebuild stocks, and inventory investment picked up substantially. Outside of motor vehicles, stocks rose in the first quarter, with particularly sizable increases coming from a continued ramp-up in production of aircraft and from a restocking of petroleum products during a period when prices eased. Nevertheless, with extraordinarily strong sales, inventory–sales ratios still moved down further in the major sectors. Available monthly data suggest that vigorous inventory investment outside of motor vehicles continued through mid-spring, as firms responded to strength in current and prospective sales. For motor vehicles, inventories moved up some in the first quarter of this year, after strike-related reductions in the fourth quarter. In the second quarter, the monthly pattern of motor vehicles stocks was bounced around somewhat by strikes; cutting through the noise, inventories of light vehicles still appear to be in balance.

## Corporate Profits and Business Finance

The continued rapid advance of business investment this year has been financed through both strong cash flow and substantial borrowing at relatively favorable terms. Economic profits (book profits after inventory valuation and capital consumption adjustments) in the first quarter were  $7\frac{3}{4}$  percent higher than a year earlier. For the nonfinancial sector, domestic profits were more than 9 percent higher, reaching their highest share of those firms' domestic output in the current expansion. Despite abundant profits, the financing gap for these companies—the excess of capital expenditures (including inventory investment) over internally generated funds—has widened somewhat since the middle of 1996. To fund that gap, and the ongoing net retirement of equity shares, nonfinancial corporations increased their debt  $6\frac{1}{2}$  percent at an annual rate in the first quarter, compared with  $5\frac{1}{4}$  percent during 1996.

External funding has remained readily available to businesses on favorable terms. The spreads between yields on investment-grade bonds and yields on Treasury securities have stayed low since the beginning of the year, while the spreads on high-yield bonds have declined further to historically narrow levels. Price-earnings ratios are high, implying a low cost of equity financing. Further, banks remain accommodative lenders to businesses. According to the Federal Reserve's most recent survey of business lending, the spreads between loan rates and market rates have held about steady for borrowers of all sizes, with rate spreads for large loans near the lower end of the range seen over the past decade. Moreover, surveys by the National Federation of Independent Business indicate that small businesses have not had difficulty obtaining credit.

The plentiful supply of credit probably stems from several factors. Most banks are well positioned to lend: Their profits are strong, rates of return on equity and on assets are high, and capital is ample. In addition, continued substantial inflows into stock and high-yield bond mutual funds suggest that investors may now perceive less risk in these areas or may be more willing to accept risk. In fact, businesses generally are in very good financial condition, with the estimated ratio of operating cash flow to interest expense for the median nonfinancial corporation remaining quite high in the first part of the year. Moreover, delinquency rates for business loans at banks have stayed extremely low, as has the default rate on speculative-grade debt.

The increase in the pace of business borrowing in the first half of 1997 was widespread across sources of finance. Nonfinancial corporations stepped up their borrowing from banks. The outstanding commercial paper of these corporations also increased on net from December through June, after declining a little in 1996. Meanwhile, these businesses' net issuance of long-term bonds in the first half of the year exceeded last year's pace, with speculative-grade offerings accounting for the highest share of gross issuance on record.

At the same time, the pace of gross equity issuance by nonfinancial corporations dropped considerably in the first half of this year. In particular, the market for initial public offerings has been cooler than in 1996, despite some pickup of late; new issues have been priced below the intended range more often than above it, and first-day trading returns have been relatively low. Net equity issuance has been deeply negative again this year, as gross issuance has been more than offset by retirements through share repurchases and mergers. The bulk of merger activity in the 1980s involved share retirements financed by borrowing, but the recent surge—which largely involves friendly intra-industry mergers—has been financed about equally through borrowing and stock swaps. Structuring deals as stock swaps can reduce shareholders' tax liabilities and enable the combined firm to use a more advantageous method of financial accounting. The dollar value of nonfinancial mergers in which the target firm was worth more than a billion dollars set a record in 1996, and merger activity appears to be on a very strong track this year as well.

## *The Government Sector*

### Federal

The federal budget deficit has come down considerably in recent years and should register another substantial decline this fiscal year. Over the first eight months of fiscal year 1997—the period October through May—the deficit in the unified budget was \$65 billion, down \$43 billion from the comparable period of fiscal 1996. The recent reduction in the deficit primarily reflected extremely rapid growth of receipts for the second year in a row, although a continuation of subdued growth in outlays also contributed to the improvement. Given recent developments, the budget deficit as a share of nominal GDP

this fiscal year is likely to be at its lowest level since 1974.

Federal receipts were almost 8½ percent higher in the first eight months of fiscal year 1997 than in the year-earlier period and apparently are on track to outpace the growth of nominal GDP for the fifth year in a row. Individual income tax payments have risen sharply this fiscal year—on top of a hefty increase last year—reflecting strong increases in households' taxable labor and capital income; preliminary data from the Daily Treasury Statement indicate that individual income tax revenues remained strong in June. Moreover, corporate tax payments posted another sizable advance through May of this fiscal year.

Federal outlays during the first eight months of the fiscal year rose 3½ percent in nominal terms from the comparable period last year. Although this increase is up from the restrained rate of growth in fiscal 1996—which was held down by the government shutdown—spending growth remained subdued across most categories. Outlays for income security programs rose modestly in the first eight months of the fiscal year, partly as a result of the continued strong economy, and spending on the major health programs grew somewhat more slowly than their average pace in recent years. Although still restrained, outlays for defense have ticked up this fiscal year after trending down for several years.

As for the part of federal spending that is included directly in GDP, real federal expenditures on consumption and gross investment declined 3¼ percent in the first quarter of 1997, a shade more than the average rate of decline in recent years. An increase in real nondefense spending was more than offset by a decline in real defense outlays.

The substantial drop in the unified budget deficit reduced federal borrowing in the first half of 1997 compared with the first half of 1996. The Treasury responded to the smaller-than-expected borrowing need by reducing sales of bills; this traditional strategy of allowing borrowing swings to be absorbed primarily by variation in bill issuance enables the Treasury to have predictable coupon auctions and to issue sufficient quantities of coupon securities to maintain their liquidity. The result this past spring was an unusually large net redemption of bills, which pushed yields on short-term bills down relative to yields on other Treasury securities and on short-term private paper.

The issuance of inflation-indexed securities at several maturities has been a major innovation in fed-

eral debt management this year. The Treasury sold indexed ten-year notes in January and April and added five-year notes earlier this month. A small number of agency and other borrowers issued their own inflation-indexed debt immediately after the first Treasury auction, and the Chicago Board of Trade recently introduced futures and options contracts based on inflation-indexed securities. As one would expect at this stage, however, the market for indexed debt has not yet fully matured: Trading volume as a share of the outstanding amount is much smaller than for nominal debt, and a market for stripped securities has yet to emerge.

### State and Local

The fiscal condition of state and local governments has remained positive over the past year, as the surplus of receipts over current expenditures has been stable at a relatively high level. Strong growth in sales and incomes has led to robust growth in revenues, despite numerous small tax cuts, and many states have held the line on spending in the past several years. Additionally, the welfare reform legislation passed in August 1996, while presenting long-term challenges to state and local governments, actually has eased fiscal pressures in recent quarters: Block grants to states are based largely on 1992–94 grant levels, but caseloads more recently have been falling. Overall, at the state level, accumulated surpluses—current surpluses plus those from past years—were on track to end fiscal year 1997 at a healthy level, according to a survey by the National Association of State Budget Officers taken shortly before the end of most states' fiscal years.

Real expenditures for consumption and gross investment by state and local governments increased moderately in the first quarter of this year, about the same as the pace of advance in the past two years. For construction, the average level of real outlays during the first five months of the year was a little higher than in the fourth quarter. Hiring by state and local governments over the first half of the year was somewhat above last year's pace, with most of the increase at the local level.

The pace of gross issuance of state and local debt was roughly the same in the first half of the year as in 1996. Net issuance turned up noticeably, however, as retirements of debt that had been pre-refunded in the early 1990s waned.

## The External Sector

### Trade and the Current Account

The nominal deficit on trade in goods and services was \$116 billion at an annual rate in the first quarter, somewhat larger than the \$105 billion in the fourth quarter of last year. The current account deficit of \$164 billion (annual rate) in the first quarter exceeded the \$148 billion deficit for 1996 as a whole because of the widening of the trade deficit and further declines in net investment income. In April and May, the trade deficit was slightly narrower than in the first quarter.

The quantity of U.S. imports of goods and services surged in the first quarter at an annual rate of about 20 percent. Continued strength in the pace of U.S. economic activity largely accounted for the rapid growth, but a rebound in automotive imports from Canada from their strike-depressed fourth-quarter level boosted imports as well. Preliminary data for April and May suggest that strong real import growth continued. Non-oil import prices fell through the second quarter, extending the generally downward trend that began in mid-1995.

The quantity of U.S. exports of goods and services expanded at an annual rate a bit above 10 percent in the first quarter, about the same rapid pace as during the second half of last year. Growth of output in our major trading partners, particularly the industrial countries, helped to sustain the growth of exports, as did increased deliveries of civilian aircraft. Exports to western Europe and to Canada grew strongly, while those to the Asian developing countries declined somewhat. Preliminary data for April and May suggest that real exports rose moderately.

### Capital Flows

Large gross capital inflows and outflows continued during the first quarter of 1997, reflecting the continued trend toward globalization of financial and product markets. Both foreign direct investment in the United States and U.S. direct investment abroad were very strong, swelled by mergers and acquisitions.

Private foreign net purchases of U.S. securities amounted to \$85 billion in the first quarter, down somewhat from the very high figure in the previous quarter but still above the record pace for 1996 as a whole. Net purchases of U.S. Treasury securities were particularly robust. Private foreigners also showed increased interest in the U.S. stock market in the first quarter of 1997. U.S. net purchases of foreign securi-

ties amounted to \$15 billion in the first quarter, down from the strong pace of 1996. Private foreigners continued to add to their holdings of U.S. paper currency in the first quarter, but at a rate substantially below earlier peaks.

Foreign official assets in the United States, which rose a record \$122 billion in 1996, increased another \$28 billion in the first quarter of 1997. Apart from the oil-producing countries, which benefited from high oil prices, significant increases in holdings were associated with efforts by some emerging-market countries to temper the impact of large private capital inflows on their economies. Information for April and May suggests that official inflows have abated.

### Foreign Economies

Economic activity in the major foreign industrial countries has generally strengthened so far this year from the pace in the second half of last year. In Japan, real GDP accelerated to a 6½ percent annual growth rate in the first quarter, boosted by extremely strong growth of consumer spending ahead of an increase in the consumption tax on April 1. Activity appears to have fallen in the second quarter, but continued improvement in business sentiment suggests that the current weakness is only temporary. In Canada, growth of real output increased to 3½ percent at an annual rate in the first quarter. Final domestic demand more than accounted for this expansion, as business investment, consumption, and residential construction all provided significant contributions. Indicators suggest that output growth remained healthy in the second quarter.

Economic activity has remained vigorous so far this year in the United Kingdom and appears to have strengthened in Germany and France. In the first quarter, U.K. real GDP grew at an annual rate of 3½ percent as domestic demand, particularly investment, accelerated from its already strong pace in the fourth quarter. Strong household consumption spending supported demand in the second quarter. Weak demand for exports, associated with the appreciation of the pound since mid-1996, and some tightening of monetary conditions should moderate growth in the current quarter. In Germany, economic expansion revived in the first quarter and appears to have firmed in the second quarter. After growing very little in the fourth quarter of last year, German real GDP rose at an annual rate of 1¾ percent in the first quarter, led by government consumption, equipment investment, and exports. Manufacturing orders and indicators of business sentiment suggest additional gains in the

second quarter. French real GDP grew only three-quarters percent at an annual rate in the first quarter, as declines in investment offset strong export growth, but data on manufacturing output and consumption suggest a pickup in activity during the second quarter.

In most major Latin American countries, real output growth remained vigorous. In Mexico, real economic expansion slowed some in the first quarter from its very rapid pace in the second half of last year but remained robust. The industrial sector continued to be the source of strength, while the service sector lagged. A pickup in import growth has resulted in a narrowing of the trade surplus; through May, the trade balance of \$1¾ billion was about half the size it was in the same period last year. In Argentina, continued healthy economic growth in the first quarter has brought real GDP back to its level before the recession induced by the Mexican crisis of 1995. In Brazil, real output declined in the first quarter after three quarters of strong expansion.

Economic growth in our major Asian trading partners other than Japan slowed a bit on average in the first quarter but appears to have rebounded in the second quarter. Nationwide labor strikes in Korea affected many of the country's key export industries and were partly responsible for weakness in first-quarter output and a ballooning of the current account deficit. Data for April and May show recovery in industrial production, and the trade balance improved in the second quarter. Real output growth in Taiwan remains strong so far this year, though not quite so vigorous as during the second half of 1996. In China, real GDP continues to expand at an annual rate of nearly 10 percent, about the same brisk pace as last year.

Despite the pickup in growth, considerable excess capacity remains in the major foreign industrial countries. As a consequence, inflation has generally remained quiescent. The increase in the Japanese consumption tax lifted the twelve-month change in the consumer price index to about 1½ percent, but elevation of the inflation rate should be temporary. CPI inflation remains less than 2 percent in Germany, France, Canada, and Italy. Only in the United Kingdom, where output growth has resulted in tight labor markets and consumer prices are rising at an annual rate of more than 2½ percent, are inflation pressures currently a concern.

In most major countries in Latin America, inflation either is falling or is already low. Mexican inflation continues to improve: The monthly inflation rate was below 1 percent in May and June, the lowest monthly rates since the 1994 devaluation. In Argentina, con-

sumer prices were essentially flat through the second quarter after almost no increase last year. Brazilian inflation has declined to historically low rates. In contrast, Venezuelan inflation, though it has come down from its 1996 rate of more than 100 percent per year, remains near 50 percent. Consumer price inflation remains generally low in Asia, including in China, where it fell to less than 3 percent in the twelve months through May.

### *The Labor Market*

Payroll employment continued to expand solidly during the first half of 1997. The growth in nonfarm payrolls averaged about 230,000 per month; this figure may overstate slightly the underlying rate of employment growth in the first half because technical factors boosted payroll figures in April. The strength in labor demand drew additional people into the job market, raising the labor force participation rate to historical highs during the first half. Nevertheless, the civilian unemployment rate moved down to 4.9 percent, on average, in the second quarter.

Employment gains in the private service-producing sector, in which nearly two-thirds of all nonfarm workers are employed, accounted for much of the expansion in payrolls through June of this year. Within this sector, higher employment in services, transportation, and retail trade contributed importantly to the gain. After advancing substantially for several years, payrolls in the personnel supply industry—a category that includes temporary help agencies—actually turned down in the second quarter; anecdotal reports suggest that some temporary help firms are having difficulty finding workers, especially for highly skilled and technical positions.

Employment gains were also posted in the goods-producing sector. In the construction industry, payrolls increased substantially between December and June. Factory employment moved somewhat higher in the first part of the year after declining a little during 1996, and manufacturing overtime hours remained at a high level. Producers of durable goods increased employment further between December and June, while makers of nondurable goods continued to reduce payrolls. Since the end of 1994, factory employment and total hours worked in manufacturing have changed little. Even so, manufacturers have boosted output considerably over this period, primarily through ongoing improvements in worker productivity.

Although productivity for the broader nonfarm business sector rose substantially in the first quarter,

it was just 1 percent above its value a year earlier. Moreover, output per hour changed little from the end of 1992 to the last quarter of 1995. The average rate of measured productivity growth in the 1990s is still somewhat below that of the 1980s and is even further below the average gains realized in the twenty-five years after World War II. The slower reported productivity growth during this expansion could partly reflect measurement problems. Productivity is the ratio of real output to hours worked, and official productivity indexes rely on a measure of real output based on expenditures. In theory, a matching measure of real output should be derivable by summing labor and capital inputs on the “income side” of the national accounts. However, the income-side measure of real output has increased considerably faster than the expenditure-side measure in recent years, raising the possibility that productivity growth has been somewhat better than reported in the official indexes.

Measurement difficulties may also affect estimates of the longer-term trajectory of productivity growth. In particular, if inflation were overstated by official measures—as a considerable amount of recent research suggests it is—then real output growth would be understated. This understatement would arise because too much inflation would be removed from nominal output growth in the calculation of real output growth. Indeed, productivity growth for non-financial corporations—a sector for which output growth arguably is measured more accurately than in broader sectors—has been more rapid than for non-farm business overall. In particular, productivity for nonfinancial corporations increased at an average annual pace of about 1½ percent between 1990 and 1996, while productivity in the nonfarm business sector rose a little less than 1 percent per year over the same period. This difference—which implies very weak measured productivity growth outside of the nonfinancial corporate sector—raises the possibility that overall productivity growth is stronger than indicated by official indexes for nonfarm business.<sup>1</sup> Of course, a critical—and still unanswered—question is the extent to which any understatement of productivity growth has become larger over time. If productivity growth were more rapid than indicated by official statistics, then the economy’s capacity to produce goods and services would be increasing faster than indicated by current official statistics. But if the

amount of mismeasurement has not increased over time, then the economy’s productive capacity also increased more rapidly in earlier years than shown by published measures. In this case, the official statistics on productivity growth—though perhaps understated—would not give a misleading impression about changes in productivity trends.

After changing little, on net, since the late 1980s, the labor force participation rate turned up early last year; it reached a record high 67.3 percent in March of this year and remained at an elevated 67.1 percent in the second quarter. Better employment opportunities have drawn additional people into the workforce. Although the recent welfare reform legislation probably has not yet had a large effect on aggregate labor force dynamics, it may generate an additional, albeit small, boost to labor force participation rates over the next few years. Since the beginning of 1996, the increases in the labor force associated with a higher participation rate have eased pressures on labor markets, as additional workers have stepped in to satisfy continuing strong demand for labor. Nevertheless, hiring was sufficiently brisk during the first half of this year to pull the unemployment rate down about one-quarter percentage point between December and June.

Just as the low unemployment rate points to tightness in labor markets, anecdotal reports from many regions and industries mention the difficulties firms are having hiring workers, especially workers with specialized skills. With this tightness, labor compensation costs have accelerated slightly. Although hourly labor costs, as measured by the employment cost index (ECI), increased only 2.5 percent at an annual rate during the first three months of this year, they were up 3.0 percent over the twelve months ending in March, compared with 2.7 percent over the preceding twelve months. These increases are smaller than might have been expected on the basis of historical relationships, perhaps partly reflecting persistent worker concerns about job security. In addition, modest increases in employer-paid benefits have partly offset faster increases in wages and salaries in the past couple of years. With smaller increases in health care costs than earlier in the decade, shifts of employees into managed care plans, and requirements that employees assume a greater share of health care costs, employer costs for health-related benefits have been well contained. However, growth in employer health care costs may be in the process of bottoming out, as reports of rising premiums for health insurance have become more common. Moreover, the wages and salaries component of the ECI has continued to accelerate, rising 3.4 percent during the twelve

1. More detail is provided in a paper by Lawrence Slifman and Carol Corrado, “Decomposition of Productivity and Unit Costs,” Board of Governors of the Federal Reserve System, November 18, 1996.

months ending in March 1997, about one-quarter percentage point faster than during the previous twelve months and roughly half a percentage point faster than in 1994 and 1995.

## Prices

The underlying trend of price inflation has remained favorable this year. In particular, the CPI excluding food and energy—often referred to as the “core” CPI—increased at an annual rate of 2½ percent over the first two quarters of the year, about the same pace as in 1996. The overall CPI registered a smaller increase than the core CPI during the first half of this year. Both the overall CPI and the core CPI have been affected by a series of technical changes implemented by the Bureau of Labor Statistics over the past two and one-half years to obtain a more accurate measure of price changes. If not for these changes, increases in the CPI since 1994 would be marginally larger.

Other measures of prices also suggest that favorable inflation trends continued into 1997. Measured from the first quarter of last year to the first quarter of this year, the chain price index for personal consumption expenditures excluding food and energy rose 2 percent, the same as in the four-quarter period a year earlier.<sup>2</sup> Similarly, the chain price index for overall GDP—which covers prices of all goods and services produced in the United States—and the chain measure for gross domestic purchases—which covers

2. The price measure for personal consumption expenditures (PCE) is closely related to the CPI because components of the CPI are key inputs in the construction of the PCE price measure. Nevertheless, the PCE price measure has the advantage that by using chain weighting rather than fixed weights it avoids some of the substitution bias that affects the CPI.

### 3. Alternative measures of price change

Percent

Price measure	1995:Q1 to 1996:Q1	1996:Q1 to 1997:Q1
<i>Fixed-weight</i>		
Consumer price index .....	2.7	2.9
Excluding food and energy .....	2.9	2.5
<i>Chain-type</i>		
Personal consumption expenditures ...	2.0	2.5
Excluding food and energy .....	2.0	2.0
Gross domestic purchases .....	2.2	2.2
Gross domestic product .....	2.2	2.2
<i>Deflator</i>		
Gross domestic product .....	2.1	1.8

NOTE. Changes are based on quarterly averages.

prices of all goods purchased in the United States—increased the same amount over the year ending in the first quarter of 1997 as during the previous four quarters.

All of these price measures indicate that inflation remains muted, despite high levels of resource utilization. Several factors have contributed to the recent favorable performance of price inflation. Energy prices have declined this year. Non-oil import prices also have fallen significantly, reducing input costs for some domestic companies and likely restraining the prices charged by domestic businesses that compete with foreign producers. Besides being restrained by some price competition from imported materials and supplies, prices of manufactured goods at earlier stages of processing have been held in check by an expansion of industrial capacity that has been rapid enough to restrain increases in utilization rates over the past year. Also, to the extent that firms have succeeded in their efforts to realize large efficiency gains and reduce unit costs, upward pressure on prices may be reduced. Finally, an extended period of relatively low and steady inflation has reinforced a belief among households and businesses that the trend of inflation should remain muted, and consequently helped to hold down inflation expectations.

Developments in the food and energy sectors were favorable to consumers in the first half of 1997. Consumer energy prices declined in the first half of the year as the price of crude oil dropped back following last year’s run-up. In 1996, the price of crude oil was boosted by refinery disruptions, uncertainty about the timing of Iraqi oil sales, and unusual weather patterns that increased energy demand for heating and cooling. As these factors receded this year, crude oil prices fell. Although the downward trend was interrupted by some transitory spikes in prices—as in May when tensions in the Middle East flared up—the price of crude is now roughly back to the range that prevailed before last year’s run-up. Since December, gasoline prices have tumbled more than 16 percent at an annual rate, and heating oil prices have fallen significantly. Natural gas prices also fell as stocks, which had dwindled over the winter, were replenished. Reflecting the declines in fuel prices, the CPI for energy fell about 9 percent at an annual rate between December 1996 and June 1997.

Consumer food prices increased at an annual rate of only about 1 percent in the first half of the year. Although coffee prices jumped, the prices of many other food items were flat or edged lower. Most notably, declines in grain prices that began in mid-1996 have been working their way to the retail level

and have held down prices for a variety of grain-dependent foods, such as beef, poultry, and dairy products. Prices of foods that depend more heavily on labor costs have been rising modestly this year.

Consumer prices for goods other than food and energy rose a restrained three-quarters percent at an annual rate between December and June of this year, a touch below last year's pace. Declining prices for non-oil imports helped contain prices of goods in the CPI in the first half of the year, in part by constraining U.S. businesses in competition with importers. For example, prices of new and used passenger cars declined in the first six months of the year, and prices of light trucks were essentially flat. Also, prices of house furnishings were about unchanged, on balance, in the first half of the year, although apparel prices moved up after declining in recent years.

The CPI for non-energy services rose about 3 percent at an annual rate between December and June, a touch below last year's pace. After rising markedly last year, airfares declined, on net, in the first half of this year. Fares fell substantially early in the year when the excise tax on tickets expired, and even with the reimposition of the tax in March, ticket prices were still lower in June than in December. Increases in prices of medical services also continued to slow somewhat this year.<sup>3</sup> In addition, the CPI for auto

finance fell in May and June as automakers sweetened incentives. In contrast, price increases in the first half of the year picked up in some other areas; shelter prices rose a bit more rapidly than last year, as did tuition and prices for personal care services.

## Credit and the Monetary Aggregates

### Credit and Depository Intermediation

The total debt of domestic nonfinancial sectors increased at an annual rate of about 4¾ percent from the fourth quarter of 1996 through May of this year, placing the aggregate near the middle of the range for 1997 established by the FOMC. This pace is more than half a percentage point below that for 1996, reflecting significantly slower growth of borrowing by the federal government. The total debt of the other sectors has risen at a roughly constant pace over the past few years, even though the growth rate of nominal output has been increasing.

Credit on the books of depository institutions rose more rapidly than total debt in the first half of 1997, indicating that their share of total debt outstanding increased. Credit growth at thrift institutions eased late last year and early this year after increasing moderately in the first three quarters of 1996. However, commercial bank credit grew at a brisk pace in the first half of the year, with both securities and loans increasing more rapidly than they did last year. Real estate lending at banks rose about 9 percent at an annual rate between the fourth quarter of 1996 and

3. In January 1997, the Bureau of Labor Statistics introduced a new measure of the prices of hospital services—which account for roughly one-third of the CPI for medical services—and this new measure should, over time, provide a more accurate gauge of price movements in this area.

#### 4. Growth of money and debt

Percent

Period	M1	M2	M3	Domestic nonfinancial debt
<i>Annual</i> <sup>1</sup>				
1987 .....	6.3	4.2	5.8	10.0
1988 .....	4.3	5.7	6.3	9.0
1989 .....	.5	5.2	4.0	7.9
1990 .....	4.1	4.1	1.8	6.9
1991 .....	7.9	3.1	1.2	4.6
1992 .....	14.4	1.8	.6	4.7
1993 .....	10.6	1.3	1.1	5.2
1994 .....	2.5	.6	1.7	5.2
1995 .....	-1.6	4.0	6.2	5.5
1996 .....	-4.6	4.7	6.8	5.4
<i>Quarterly (annual rate)</i> <sup>2</sup>				
1997:1 .....	-7	6.1	8.2	4.5
2 .....	-5.4	4.3	6.8	n.a.
<i>Year-to-date</i> <sup>3</sup>				
1997 .....	-2.6	4.9	7.1	4.8

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.

3. From average for fourth quarter of 1996 to average for June (May in the case of domestic nonfinancial debt).

n.a. Not available.

June of this year, compared with 4 percent in 1996. In contrast, outstanding home mortgages at thrift institutions grew little in the first part of the year after a large run-up in 1996. Home equity credit lines from banks expanded especially rapidly in the spring, as some banks promoted these loans as a substitute for consumer loans. The growth of consumer loans at banks (including loans that were securitized as well as loans still on banks' books) fell from about 11 percent in 1996 to 3¼ percent at an annual rate between the fourth quarter of 1996 and June of this year.

### The Monetary Aggregates

Growth of the monetary aggregates during the first half of 1997 was similar to growth in 1996. Between the fourth quarter of last year and June, M2 expanded at an annual rate of almost 5 percent; as the Committee had anticipated, the aggregate was running close to the upper bound of its growth cone, which had been chosen to be consistent with price stability. The behavior of M2 over this period can be reasonably well explained by changes in nominal GDP and interest rates, using historical velocity relationships. In the first quarter, the velocity of M2 (defined as the ratio of nominal GDP to M2) increased a little more than might have been anticipated from its recent relationship to the opportunity cost of holding M2—the interest earnings forgone by owning M2 assets rather than market instruments such as Treasury bills. M2 may have been held down a bit by savers' preferences for equity market funds, for which inflows were quite strong. Growth of M2 was much slower in the second quarter than in the first quarter (4¼ percent compared with 6 percent at an annual rate), consistent with the slowing of the economy and almost unchanged M2 opportunity cost. The monthly pattern of M2 growth in the second quarter was heavily influenced by unusually high individual non-withheld tax payments. M2 surged in April, as households apparently accumulated additional liquid balances in order to make the larger tax payments, and was about unchanged on a seasonally adjusted basis in May as payments cleared and balances returned to normal.

The correspondence between changes in M2 velocity and in opportunity cost during recent years may represent a return to the roughly stable relationship observed for several decades until 1990—albeit at a higher level of velocity. The relationship was disturbed in the early 1990s by households' apparent decisions to shift funds out of lower-yielding deposits into higher-yielding stock and bond mutual funds. On

one hand, the "credit crunch" at banks and the resolution of troubled thrifts curbed the eagerness of these institutions to attract retail deposits, holding down the rates of return offered on brokered deposits and similar accounts relative to the average deposit rates used in constructing measures of opportunity cost. At the same time, the appeal of longer-term assets was enhanced temporarily by the steeply sloped yield curve and more permanently by the greater variety and lower cost of mutual fund products available to investors. More recently, robust inflows into stock funds apparently have substituted to only a limited extent for holdings of M2 assets, and M2 velocity and opportunity cost have again been moving roughly together since mid-1994, although velocity has continued to drift up slightly. However, the period of renewed stability in the behavior of M2—three years—is still fairly short, and whether the stability will persist is unclear. Variations in opportunity cost and income growth during this period have been rather small, leaving considerable doubt about how M2 would respond to more significant changes in the financial and economic environment.

M3 rose about 7 percent at an annual rate between the fourth quarter of 1996 and June of this year. This pace is a little faster than last year's and again left M3 above the upper end of its growth cone, which, like the growth cone for M2, was set to be consistent with price stability. Large time deposits, which are not included in M2, continued to increase much more rapidly than other deposits. Banks have been funding their asset growth disproportionately through wholesale deposits, leaving interest rates on retail deposits further below market rates than they have been historically. Growth of institution-only money market funds eased just a little from last year's torrid pace, as the role of these funds in corporate cash management continued to increase.

M1 contracted at a 2½ percent annual rate between the fourth quarter of 1996 and June of this year. Growth of this aggregate was again depressed by the spread of so-called 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 holdings of 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. Until late last year, most retail sweep programs were limited to NOW accounts, but demand-deposit sweeps have expanded markedly since then. Adjusted for the

estimated total of balances swept owing to the introduction of new sweep programs, M1 expanded at a 4<sup>3</sup>/<sub>4</sub> percent annual rate between the fourth quarter of 1996 and June 1997, a little below its sweep-adjusted growth rate in 1996.

The drop in the amount of deposits held in transactions accounts in the first half of 1997 caused required reserves to fall about 10 percent at an annual rate, close to the rate of decline last year. Nonetheless, the monetary base has expanded at a moderate pace so far in 1997, because the runoff in required reserves has been more than offset—as it was also last year—by an increase in the demand for currency. Currency growth has been a little higher this year than last, as the effects of strong domestic spending more than offset a slight drop in net shipments of U.S. currency abroad in the first four months of the year.

Further reductions in required reserves have the potential to diminish the Federal Reserve's ability to control the federal funds rate closely on a day-to-day basis. Traditionally, the daily demand for balances at the Federal Reserve largely reflected banks' needs for required reserves, which are fairly predictable. As a result, the Federal Reserve has generally been able to supply the quantity of balances that satisfies this demand at the intended funds rate. Moreover, reserve requirements are specified in terms of an average level of balances over a two-week period, so if the funds rate on a particular day moves above the level expected to prevail on ensuing days, banks can trim their balances and thereby relieve some of the upward pressure on the funds rate. If required reserves were to fall quite low, the demand for balances would become more linked to banks' desire to avoid overnight overdrafts when conducting transactions through their accounts at Reserve Banks. Demand from this source is more variable than is requirement-related demand, and it also cannot be substituted across days; both factors would tend, all else equal, to increase the volatility of the federal funds rate.

The decline in required reserves over the past several years has not created serious problems in the federal funds market, but funds-rate volatility has risen a little, and the risk of much greater volatility would increase if required reserves were to fall substantially further. One factor mitigating an increase in funds-rate volatility has been an increase in required clearing balances. These balances, which banks can precommit to hold on a two-week average basis, earn credits that banks use to pay for Federal Reserve priced services. Like required reserve balances, required clearing balances are predictable by the Federal Reserve and can be substituted across days within the two-week maintenance period. Funds-rate

volatility has also been damped by banks' improved management of their balances at Reserve Banks, which in part reflects the improved real-time access to account information now provided by the Federal Reserve. Whether these factors could continue to restrain funds-rate volatility if required reserve balances were to become much smaller is as yet unclear. Also unclear is whether a moderate increase in funds-rate volatility would have any serious adverse consequences for interest rates farther out on the yield curve or for the macroeconomy. The Federal Reserve continues to monitor the situation closely.

### *Interest Rates, Equity Prices, and Exchange Rates*

#### **Interest Rates**

Interest rates on Treasury securities were little changed or declined a bit, on balance, between the end of 1996 and mid-July. Yields rose substantially in the first quarter as evidence mounted that the robust economic activity observed in the closing months of 1996 had continued into 1997. By the time of the March FOMC meeting, most participants in financial markets were anticipating some tightening of monetary policy, and rates moved little when the increase in the intended federal funds rate was announced. Beginning in late April, key data pointed to continued low inflation and a slowing of economic growth in the second quarter, and interest rates retraced their earlier advance.

The yield on the inflation-indexed ten-year Treasury note was little changed between mid-April and mid-July, suggesting that at least part of the roughly 60-basis-point drop in the nominal ten-year yield over that period reflected a reduction in expected inflation or in uncertainty about future inflation, or both. Yet, relative movements in these two yields should be interpreted carefully, as the market's experience in trading indexed debt is relatively brief, making its prices potentially vulnerable to small shifts in market sentiment. Moreover, the Treasury announced this spring a reduction in the frequency of nominal ten-year note auctions, perhaps putting downward pressure on their nominal yields, and some investors may have paid renewed attention to upcoming technical adjustments to the CPI, which will reduce measured inflation. Survey-based measures of expected inflation showed little change in the second quarter.

The interest rate on the three-month Treasury bill was held down in recent months by the reduced

supply of bills associated with the smaller federal deficit. Between mid-March and mid-July, the spread between the federal funds rate and the three-month yield averaged about 15 basis points above the average spread in 1996. Interest rates on private short-term instruments increased a little in the second quarter after the small System tightening in March.

### Equity Prices

Equity markets have advanced dramatically again this year. Through mid-July, most broad measures of U.S. stock prices had climbed between 20 percent and 25 percent since year-end. Stocks began the year strongly, with the major indexes reaching then-record levels in late January or February. Significant selloffs ensued, partly occasioned by the backup in interest rates, and by early April the NASDAQ index was well below its year-end mark and the S&P 500 composite index was barely above its. Equity prices began rebounding in late April, however, soon pushing these indexes to new highs. Stock prices have been somewhat more volatile this year than last.

The run-up in stock prices in the spring was bolstered by unexpectedly strong corporate profits for the first quarter. Still, the ratio of prices in the S&P 500 to consensus estimates of earnings over the coming twelve months has risen further from levels that were already unusually high. Changes in this ratio have often been inversely related to changes in long-term Treasury yields, but this year's stock price gains were not matched by a significant net decline in interest rates. As a result, the yield on ten-year Treasury notes now exceeds the ratio of twelve-month-ahead earnings to prices by the largest amount since 1991, when earnings were depressed by the economic slowdown. One important factor behind the increase in stock prices this year appears to be a further rise in analysts' reported expectations of earnings growth over the next three to five years. The average of these expectations has risen fairly steadily since early 1995 and currently stands at a level not seen since the steep recession of the early 1980s, when earnings were expected to bounce back from levels that were quite low.

### Exchange Rates

The weighted average foreign exchange value of the dollar in terms of the other G-10 currencies rose

sharply in the first quarter from its level in December and has moved up somewhat further since then. On balance, the nominal dollar is more than 10 percent above its level at the end of December. A broader measure of the dollar that includes currencies from additional U.S. trading partners and adjusts for changes in relative consumer prices shows appreciation of about 7 percent. After rising nearly 10 percent in terms of the Japanese yen to a recent peak in late April, the dollar retreated; it is currently about unchanged from its value in terms of yen at the end of December. In contrast, the dollar has risen about 17 percent in terms of the German mark since the end of last year.

Early in the year, data showing continued strengthening of U.S. economic activity surprised market participants, raised their expectations of some tightening of U.S. monetary policy, and contributed to upward pressure on the dollar. In light of the FOMC action in late March and the tendency for subsequent economic indicators to suggest a slowing of the growth of U.S. real output, pressure for dollar appreciation abated. While robust economic activity in the United States generated a rise in U.S. long-term interest rates through April, market uncertainty about the strength of output growth in several foreign industrial countries led to little change, on balance, in average long-term (ten-year) rates in other G-10 countries. Since then, U.S. rates have returned to near year-end levels, while rates abroad have moved down. Accordingly, the long-term interest differential, on balance, has shifted further in favor of dollar assets since December, consistent with the net appreciation of the dollar this year.

Despite indications of further recovery of output in Japan, the dollar rose against the yen early in the year as planned fiscal policy in Japan appeared to be more restrictive than had been expected, and Japanese long-term interest rates declined in response. Statements by G-7 officials at their meeting in Berlin in February and on subsequent occasions suggested some concern that the dollar's strength and the yen's weakness not become excessive. The dollar moved back down in terms of the yen in May and has since fluctuated narrowly. The yen has been supported by data showing a widening of Japanese external surpluses and by a partial retracing by Japanese long-term rates of their earlier decline, as indicators have suggested that the fiscal measures may not be as contractionary as previously expected.

The dollar also rose sharply early in the year in terms of the German mark and other continental European currencies. Market participants have been disappointed that the pace of economic activity has

not strengthened further in continental European countries. In addition, uncertainties about the prospects for European Monetary Union, including the possibility of delay and the question of which countries will be in the first group proceeding to Stage Three, have resulted in fluctuations in the mark and, on balance, appear to have strengthened the dollar. German long-term interest rates have declined somewhat on balance this year.

Short-term market interest rates in most of the major foreign industrial countries have changed little on average since the end of last year. Rates in the United Kingdom have risen somewhat as the new government increased the official lending rate one-quarter percentage point in May and the Bank of England raised it by the same amount in June and again in July. Short-term rates in Italy and Switzerland have eased. Stock prices have risen sharply so far this year in the major foreign industrial countries, particularly in continental Europe.

The dollar has changed little on balance in terms of the Mexican peso since December, as improved investor sentiment toward Mexico, reflected in narrowing yield spreads between Mexican and U.S. dollar-denominated bonds, has supported the peso. The trend in Mexican inflation has declined this year; nevertheless, the excess of Mexican inflation over U.S. inflation implies about a 7 percent real appreciation of the peso since December.

Since mid-May, financial pressures in Thailand, which caused authorities there to raise interest rates and have led to depreciation of the currency, have spilled over to influence financial markets in some of our Asian trading partners, particularly the Philippines and Malaysia. Interest rates in both of these countries rose sharply. Philippine officials relaxed their informal peg of the peso in terms of the dollar, and the currency declined significantly; the Malaysian ringgit and Indonesian rupiah have also depreciated. □