

The Economy in Perspective

A moment's notice ... Those of us in the monetary policy business are used to being questioned almost daily about the meaning of a data release, a Fed official's speech, or a financial market swing. Does a depreciation in the Malaysian ringgit mean that the Federal Open Market Committee (FOMC) will hesitate to change the federal funds rate at its next meeting? If a jump in food prices can be traced to a freight car shortage in Nebraska, will the Fed look the other way? If short-order cooks now earn \$9.00 per hour in Poughkeepsie, will the Fed regard this as a cause for concern?

In an era when the news media provide continuous coverage of global happenings, the demand for instant commentary is intense. Unfortunately, there is a tendency for people to get caught up in the moment, as if one piece of information could crystallize all of the preceding pieces into a defining event. Policymakers must also guard against getting pulled into this short-term mind set: Their actions at each point in time should form a continuum with their past and future decisions. Consistency with the past enables people to anticipate how policymakers will respond to incoming information, thus avoiding costly surprises. Consistency with the future forces policymakers to anticipate the consequences of their choices, thereby avoiding the need for costly corrections to cumulative mistakes.

Time frames highlight the difference between actions and policies. A policy is not just a decision; it is a high-level plan that guides the course of future decisions. Achieving maximum sustainable economic growth through price stability is the FOMC's current monetary policy. Decisions to alter the federal funds rate are the FOMC's choices made in specific circumstances in order to achieve policy success.

Economic policymakers do not always articulate their goals. In fact, there may be strong political incentives to avoid doing so. Policy changes can make certain groups worse off immediately, even though the changes gradually improve national welfare. In these instances, policymakers may avoid adopting welfare-enhancing policies because the constituency for change cannot mobilize enough supporters. During the 1960s and 1970s, most Americans thought that inflation did not inhibit economic growth. Only when it became clear that this

premise was false did popular sentiment shift toward pushing the inflation rate down. By then, unfortunately, the damage proved costly to unwind.

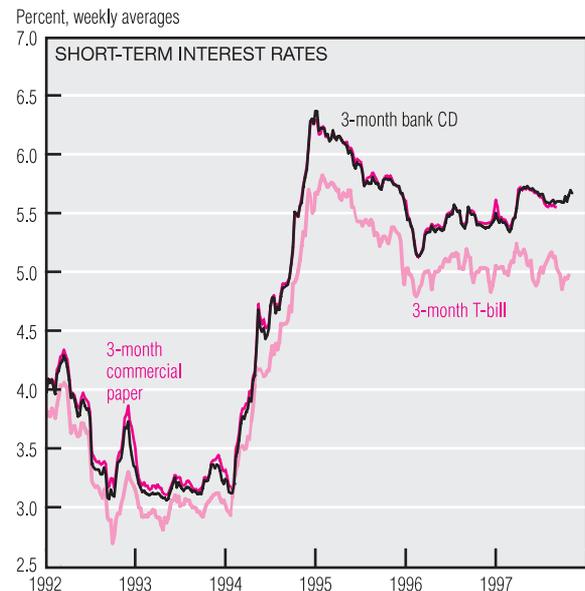
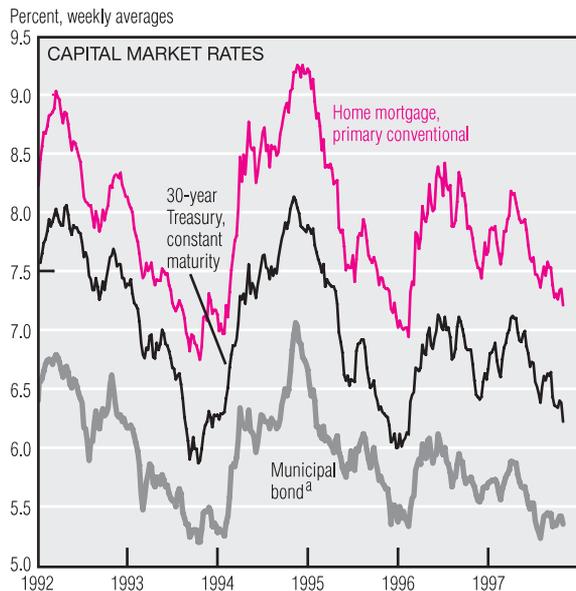
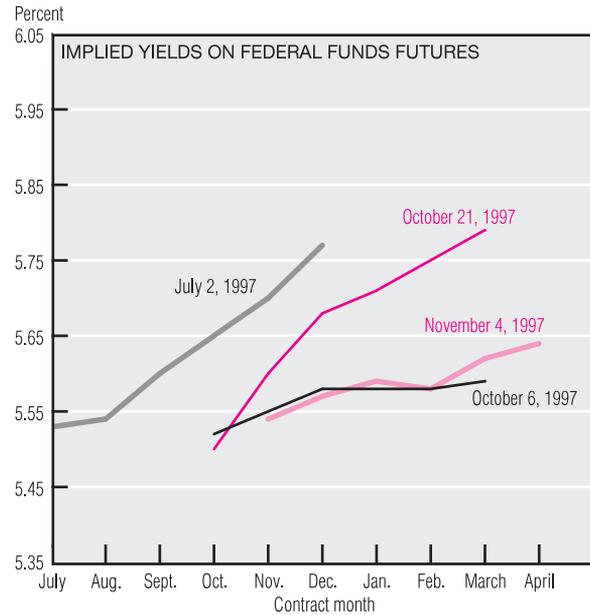
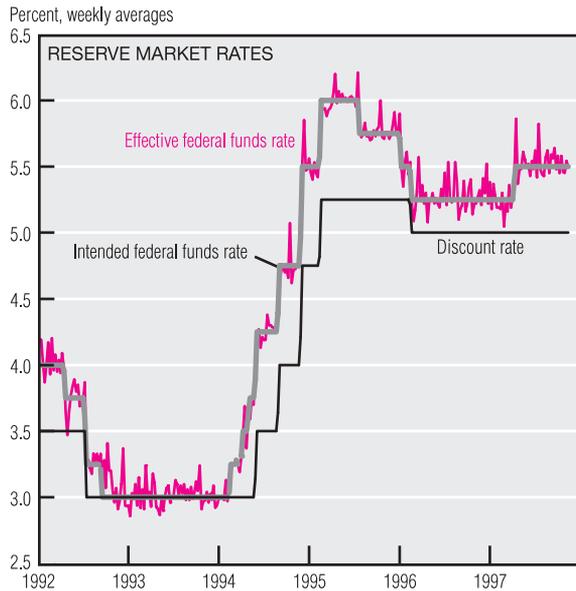
Since those high-inflation years, the FOMC not only has publicly committed itself to a price stability policy, but has displayed a deliberateness in taking actions thought to be consistent with its success. Committee members have been engaged in a series of skirmishes with inflation since the mid-1980s, always preventing the trend rate from reverting back to its 1970s trajectory and sometimes nudging the trend rate lower. With the exception of a brief and shallow economic downturn in 1990, this strategy has been highly successful. Currently, the unemployment rate is at a 24-year low, and real economic growth has been both balanced and strong.

As business cycle dynamics and unexpected shocks have caused market-determined interest rates to swing widely and repeatedly over the last dozen years, the FOMC has been maneuvering the federal funds rate both up and down to regulate the supply of reserves available to the banking system. No economic variable—not the unemployment rate, the pace of economic growth, or any variety of monetary indicator—has proved to be a consistently reliable signal of inflation or a guidepost for FOMC decisions. So why has inflation moderated?

The principal difference between today's monetary policy and that of the preceding era may well be the FOMC's willingness to be realistic about what is economically feasible and to risk occasional periods of temporarily slower economic growth for the benefit of a longer-lived economic expansion. No one should think that the FOMC's previous decisions have all been perfect. In hindsight, it is possible to pinpoint times when liquidity injections appeared too generous or unduly stingy, and when actions might have been taken too quickly or too late. At various times, the Committee erred on the side of ease and at other times on the side of restraint.

What seems to matter most is not the precise timing of funds rate moves or their exact magnitude, but the FOMC's capacity to stay with a course of action and to be patient until the desired results are obtained. To paraphrase former President Dwight Eisenhower, plans are useless, but planning is indispensable.

Monetary Policy



a. Bond Buyer Index, general obligation, 20 years to maturity, mixed quality.
SOURCES: Board of Governors of the Federal Reserve System; and the Chicago Board of Trade.

Since February 1996, the Federal Open Market Committee (FOMC) has changed the intended federal funds rate only once, raising it a modest 25 basis points at this year's March meeting. The rate's extended stability largely reflects the combination of low inflation and robust economic growth of the mid-1990s. This outcome is the product of a consistent strategy of maintaining a low-inflation environment, an objective underlying policy decisions since the early 1980s.

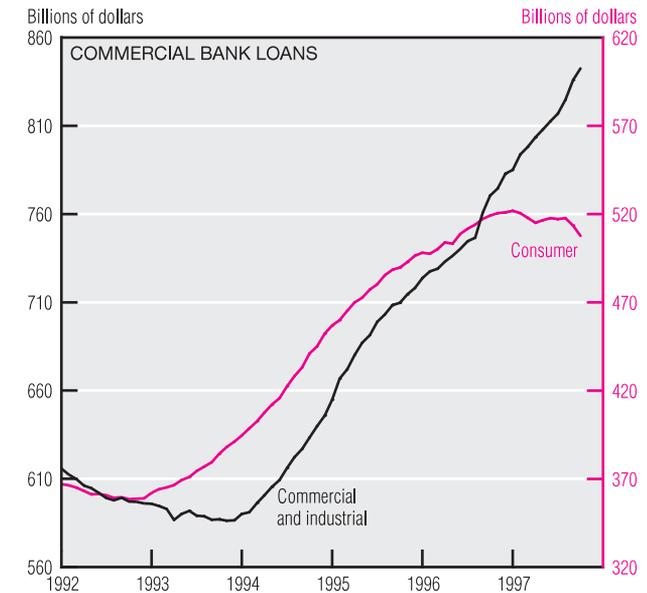
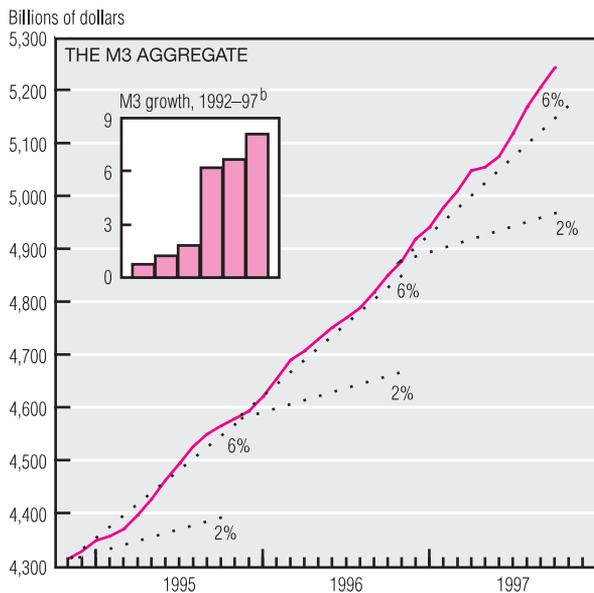
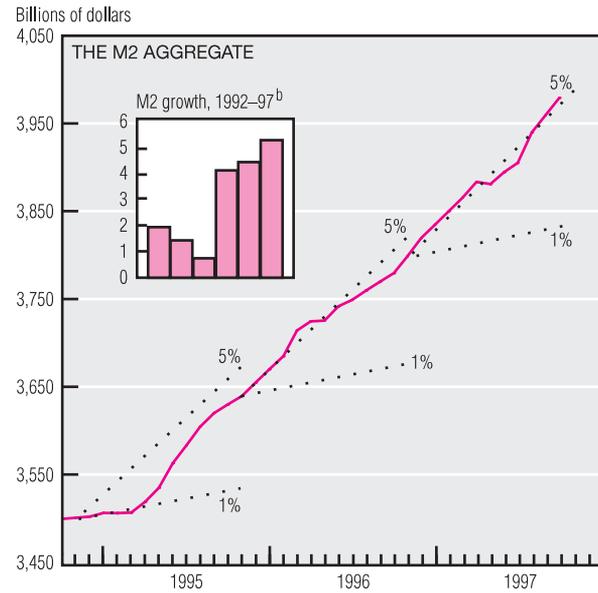
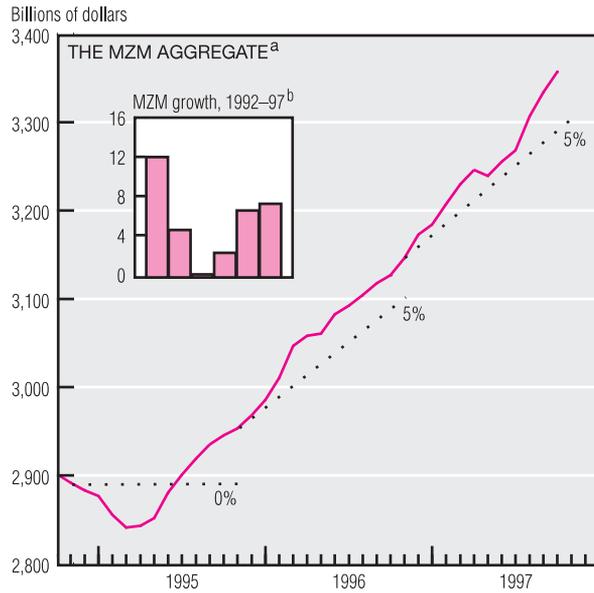
Among the chief benefits of persistent low inflation are the decline in long-term inflation expectations and the consequently low long-term interest rates that have characterized the 1990s. Consistent attention and prompt reaction to inflationary pressures have enhanced the FOMC's credibility, a necessary condition for declining inflation expectations. The wide swings in stock prices over recent weeks have been accompanied by lower long-term rates, suggesting

investors' continued confidence that the value of fixed-income securities is not threatened by a potential surge in inflation.

Federal funds futures prices reveal many occasions since midyear when market participants expected the FOMC to raise the funds rate before year's end. On October 21, for instance, this market anticipated an increase, possibly coming as early as the November meeting. However, following the sharp drop in stock

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Monetary Policy (cont.)



a. MZM is an alternative measure of money that is equal to M2 plus institutional money market funds less small time deposits.
 b. Growth rates are percentage rates calculated on a fourth quarter over fourth quarter basis. Annualized growth rate for 1997 is calculated on an estimated October over 1996:IVQ basis.
 NOTE: All data are seasonally adjusted. Last plot is estimated for October 1997. For M2 and M3, dotted lines are FOMC-determined provisional ranges. For MZM, dotted lines represent growth rates and are for reference only.
 SOURCE: Board of Governors of the Federal Reserve System.

prices, it became clear that participants had pushed out the horizon of a likely increase indefinitely.

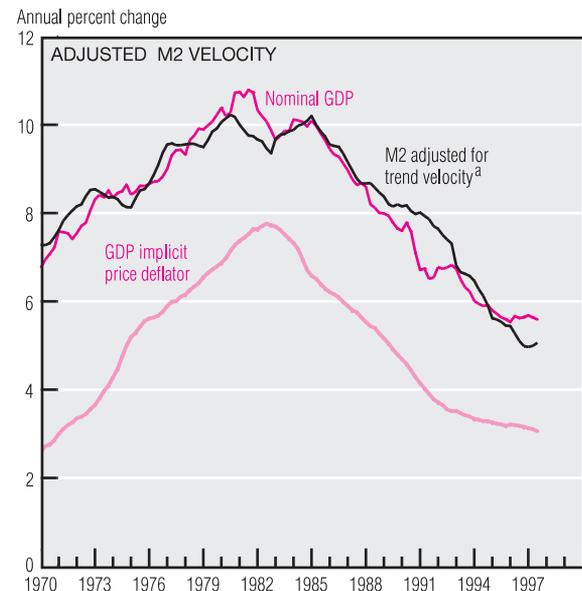
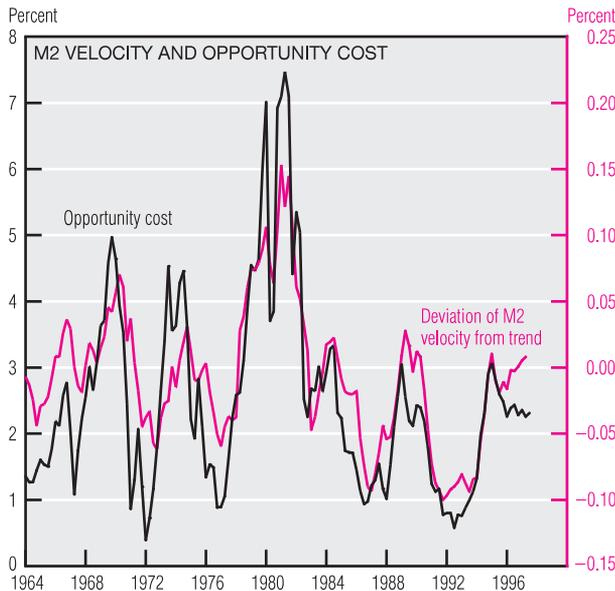
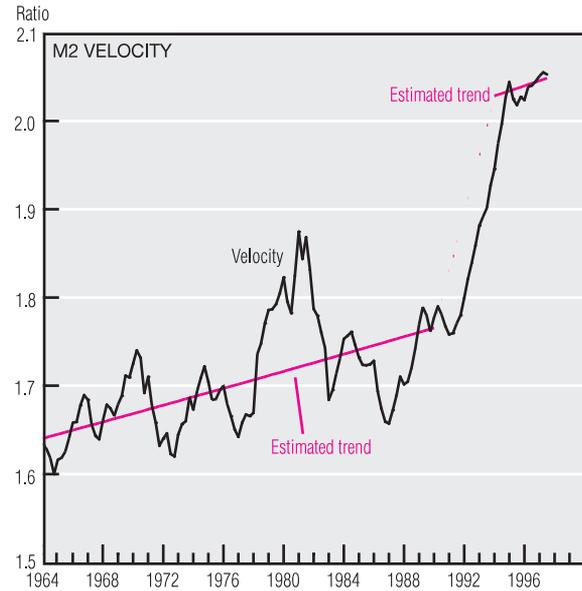
When things appear to be working well, there's a natural reluctance to tinker. For several years now, the FOMC has conducted monetary policy within a framework that pays little attention to the growth rate of money. Since the summer of 1993, when Federal Reserve Chairman Alan Greenspan reported that the reliability of M2 as

an indicator had been downgraded, economic outcomes have been quite favorable. Over the same period, output growth has accelerated to an average rate of around 3%, while inflation has fallen to around 2.1% thus far in 1997. Moreover, what is commonly called the core rate of inflation—the Consumer Price Index less food and energy—rose 2.2% over the past year, the smallest annual increase since 1966. Such results do not inspire signifi-

cant changes in the way policy is implemented.

Although the FOMC specifies annual objectives for the monetary aggregates, M2 and M3, they are treated as benchmarks for price stability. For the last three years, these ranges have been 1% to 5% for M2 and 2% to 6% for M3. Market participants thus far have little reason to believe that growth outside these ranges would, in itself, motivate the
(continued on next page)

Monetary Policy (cont.)



a. Calculated as the rate of growth of M2 less the trend growth in velocity.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; Board of Governors of the Federal Reserve System; and the Federal Reserve Bank of Cleveland.

FOMC to change the intended fed funds rate. Indeed, M2 and M3 have exceeded the upper limits of their specified growth ranges over much of the past two years, with only one increase (in March 1997) in the funds rate.

However, resurgence of growth in the monetary aggregates, particularly M2, has raised concern that inflation could accelerate. Evidence continues to accumulate that M2 velocity—the ratio of nominal GDP to M2—has stabilized into a pattern that is more consistent with histori-

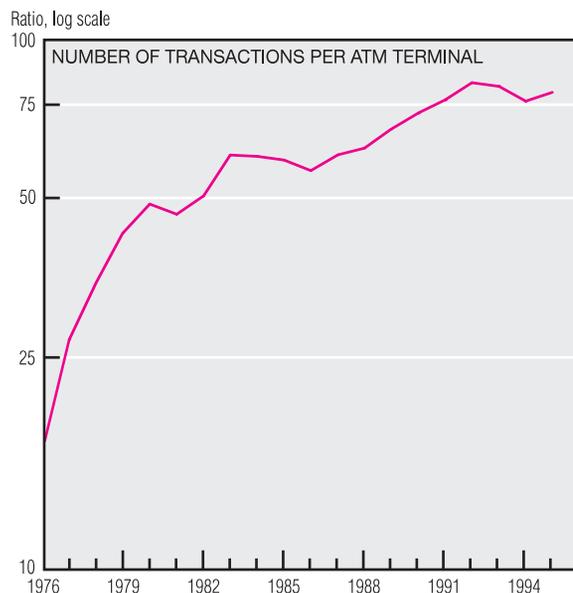
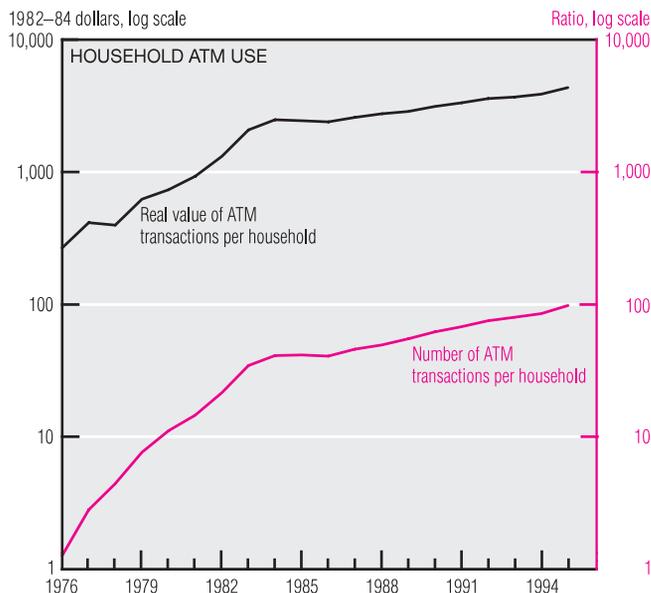
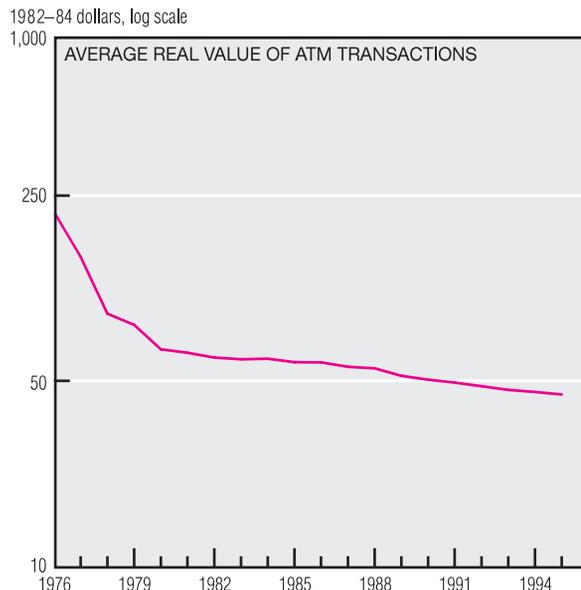
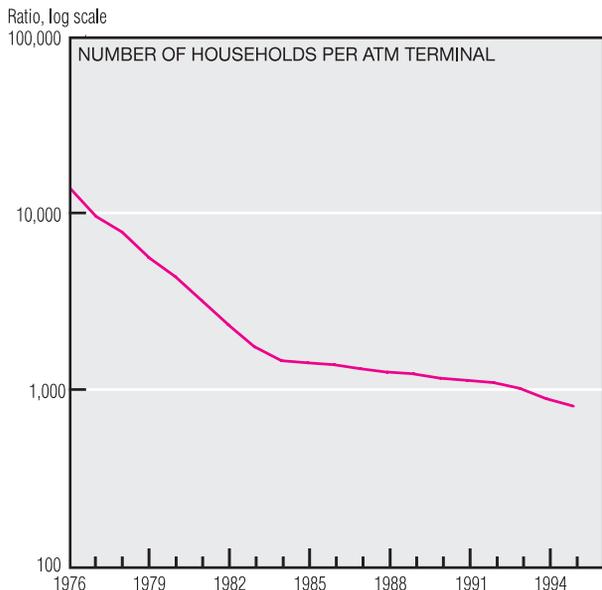
cal experience. Thus, M2 growth may now yield more reliable information about underlying economic developments than in recent years.

Historically, M2 velocity has varied directly with M2 opportunity cost—the difference between the Treasury bill yield and the cost of holding M2. The role of M2 slowly diminished in the early 1990s as evidence accumulated that its velocity was increasing much faster than past experience would suggest. After shifting upward for several years, M2 velocity resumed a rate of in-

crease that is more consistent with its historical relationship to opportunity cost.

When M2 growth is adjusted to account for changes in trend velocity, the resulting measure exhibits a stable, consistent long-term relationship to nominal GDP and inflation over the past inflation cycle. If evidence continues to accumulate that M2 velocity has indeed stabilized, an acceleration in M2 growth cannot be sustained without the risk of increasing trend inflation.

Automated Teller Machines



SOURCES: U.S. Department of Commerce, Bureau of the Census; and Board of Governors of the Federal Reserve System.

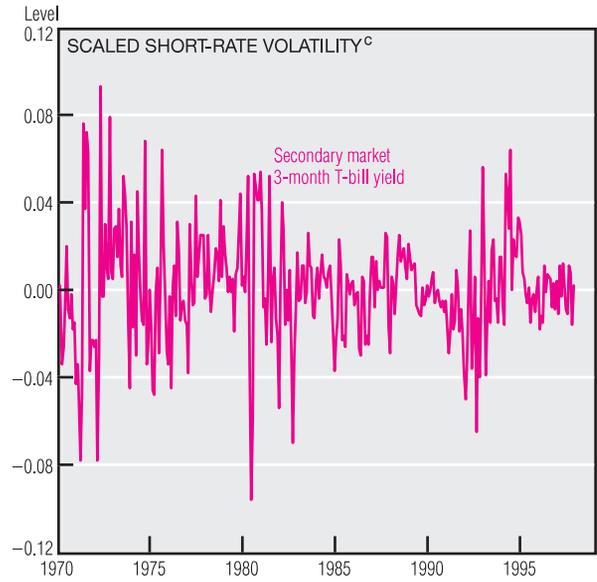
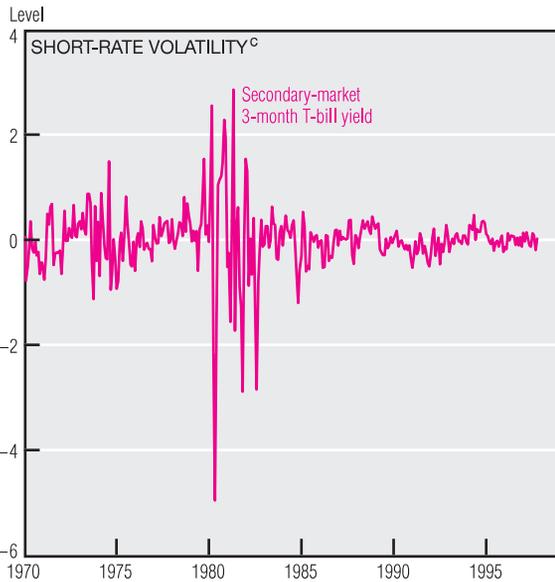
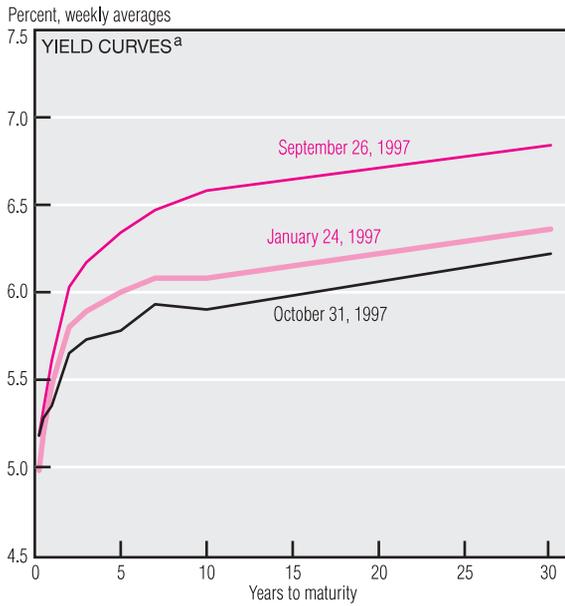
Over the past 20 years, the number of automated teller machines (ATMs) in the U.S. has increased almost 23-fold. In 1976, there was approximately one ATM per 13,700 households; by 1995, there was one per 807 households. Although the 17% annual growth in ATMs per household recorded prior to 1983 has abated, this number is still rising almost 5% yearly. The explosion in the number of ATMs has reduced the costs of banking services to consumers.

Economic theory predicts that as these costs decline, ATMs will be used more often and for smaller transactions. Both of these results have occurred. The average household now visits an ATM machine nearly twice a week, conducting a \$68 transaction (1995 dollars). The average transaction was \$211 in 1976 but only \$44 in 1995 (both in constant 1982-84 dollars). The public demand for ATMs has increased so fast that even with rapid growth

in the number of machines, the number of transactions per machine has risen since 1976.

Increasingly, banks have been charging fees for using ATMs, despite complaints that it is cheaper to process a \$200 transaction from an ATM machine than through a teller. Yet, the average transaction is smaller at an ATM than inside the bank. ATM fees are one way for banks to cover the costs of ever-smaller transactions.

Interest Rates



a. All instruments are constant-maturity series.
b. 10-year Treasury bond constant-maturity yield minus the yield quote for the Treasury Inflation-Protection Securities given by the Bloomberg Information Service.
c. Volatility measures the day-to-day change in the Treasury rate. Scaling compensates for volatility's propensity to increase and decrease as rates rise and fall and for the tendency of this relationship to be nonlinear.
SOURCES: Board of Governors of the Federal Reserve System; and Bloomberg Information Service.

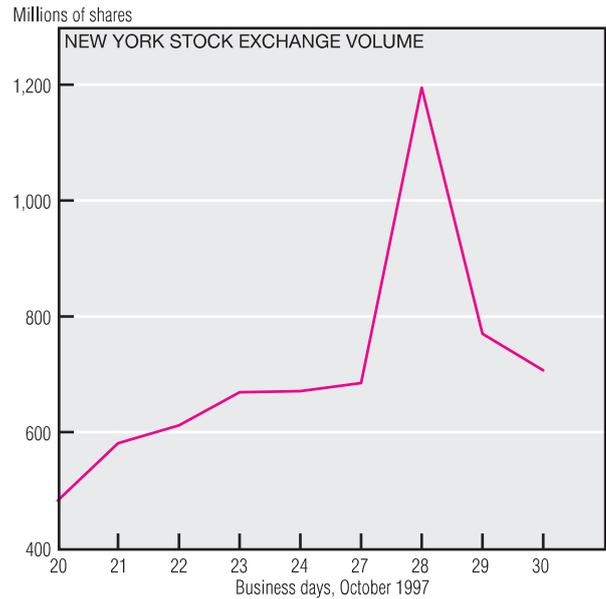
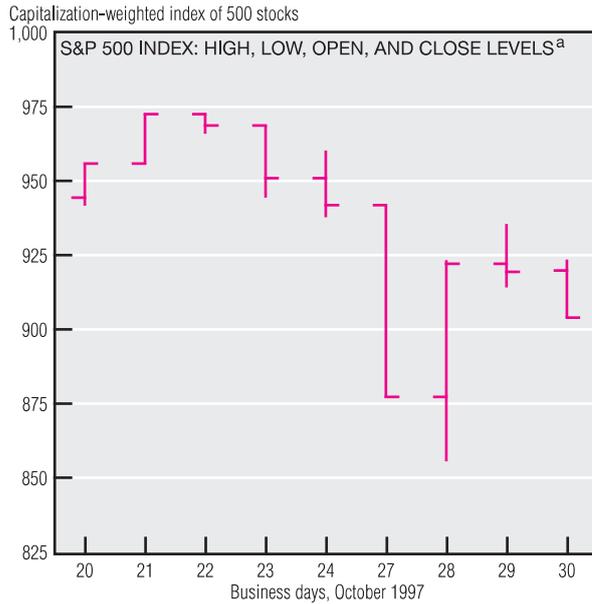
The yield curve has flattened since last month, with rates falling for Treasuries with maturities of one year or longer, and rising for those of less than a year. The most closely watched spreads have both dropped well below their long-run averages: The 3-year, 3-month spread declined from 91 basis points to 55 basis points, and the 10-year, 3-month spread from 110 to 72 points. Such a fall often predicts slower future economic growth. The middle of the yield curve has taken on a rather bumpy appear-

ance because the complicated interplay between expected rates and risk has generated some unusual movements in the wake of the stock market correction in late October.

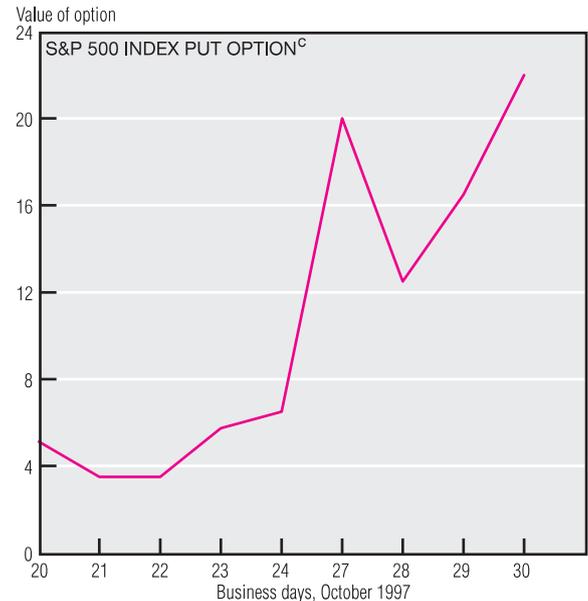
Treasury Inflation-Protection Securities (TIPS) have declined slightly to 3.54% since last month, but real yields have not deviated much since reaching 3.6% in April. A more striking change is the drop to 2.3% in the spread between 10-year Treasury bonds and TIPS (a basis-point decrease of 28 since mid-October and 100 since March), which may indicate lower inflation expectations.

It is a truism that the only constant is change, but for interest rates the change is not constant. By one measure—month-to-month changes in the 3-month Treasury bill yield—the volatility of interest rates has varied markedly in the past several decades. Some theories ascribe these differences to monetary policy shifts, and the high volatility in 1979–82 seems to bear this out. Other theories suggest that higher volatility—perhaps because it produces a risk premium—naturally accompanies higher interest rates.

The Stock Market Correction



| Rank | Date | Point drop | Percent change |
|------|------------------|------------|----------------|
| 1 | October 19, 1987 | 57.86 | -20.47 |
| 2 | October 28, 1929 | 3.38 | -12.94 |
| 3 | October 29, 1929 | 2.31 | -10.16 |
| 4 | November 6, 1929 | 2.27 | -9.92 |
| 5 | October 18, 1937 | 1.08 | -9.12 |
| 6 | October 5, 1931 | 0.88 | -9.07 |
| 7 | July 20, 1933 | 1.03 | -8.88 |
| 8 | July 21, 1933 | 0.92 | -8.70 |
| 9 | October 10, 1932 | 0.60 | -8.55 |
| 10 | October 26, 1987 | 20.55 | -8.28 |
| 17 | October 27, 1997 | 64.62 | -6.86 |



a. Vertical lines show highs and lows for the day. Horizontal lines to the left and right show open and close levels, respectively.

b. Ranked by percent change.

c. For December 1997 at a strike price of 850.

SOURCES: Bloomberg Information Service; DRI/McGraw-Hill; and *The Wall Street Journal*, various issues.

On October 27, the S&P 500 index plummeted 64.62 points, a percentage loss of 6.86%. This was the largest point drop in a single day, and the seventeenth largest percentage drop since the S&P index started in 1926. The chart showing the high, low, open, and close levels of the index reveals that the market dropped for three business days prior to October 27. The date of the correction also stands out because, in contrast to the ups and downs of the usual day, the high point was at the opening bell and the low point

was insignificantly different from the close. The following day showed a large gain, despite early losses.

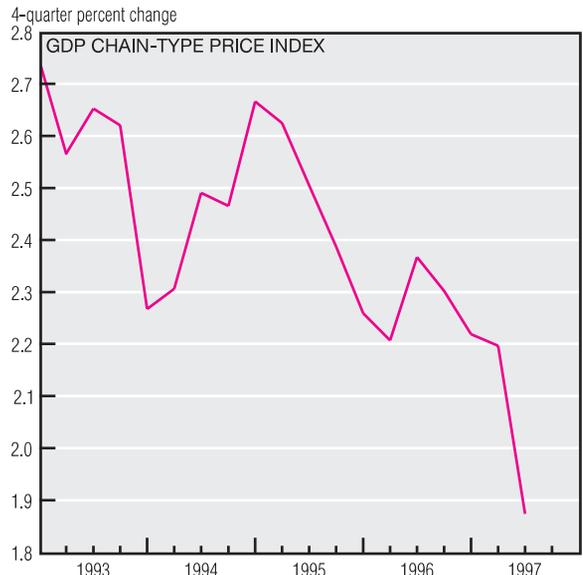
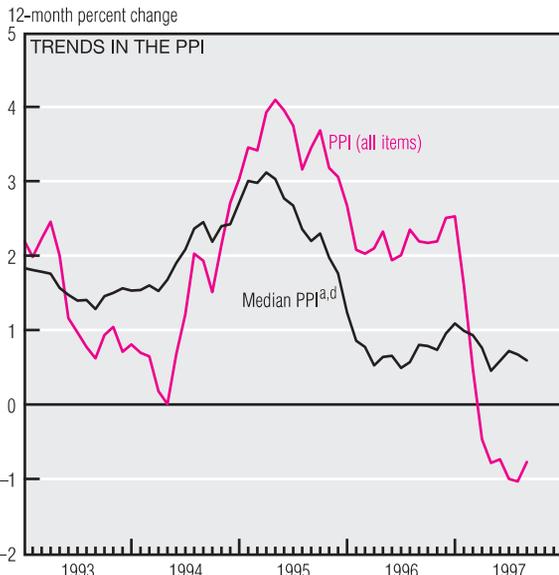
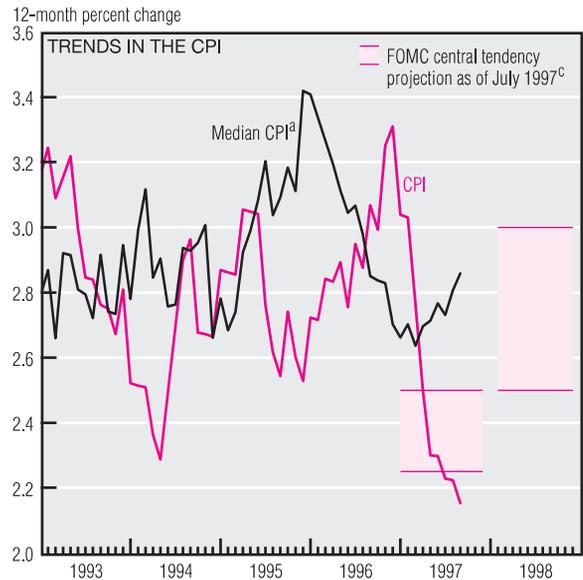
Daily volume on the New York Stock Exchange was high leading up to the correction; thus, October 27 does not stand out in the week, although its volume of 685 million shares exceeded both the 1987 crash and the average for 1996 (412 million). On October 28, trading volume exceeded a billion shares for the first time.

One reaction of investors was an attempt to preserve the gains built up over the past two years by entering

into options. The most popular of these was the December 1997 put, with a strike price of 850. A put option gives its holders the right to sell their stock at the agreed-upon strike (or exercise price). In this case, the option would pay off only if the S&P 500 index dropped below 850. On October 27, demand for these options soared, and their price rose accordingly. More significantly, option prices remained high, partly because of increased uncertainty over stock prices, which makes the protective floor of the put more valuable.

Inflation and Prices

| | Annualized percent change, last: | | | | 1996 avg. |
|---|----------------------------------|-------|-------|-------|-----------|
| | 1 mo. | 3 mo. | 9 mo. | 5 yr. | |
| September Price Statistics | | | | | |
| Consumer Prices | | | | | |
| All items | 3.0 | 2.5 | 1.8 | 2.7 | 3.3 |
| Less food and energy | 2.1 | 1.7 | 2.2 | 2.8 | 2.6 |
| Median ^a | 2.7 | 2.6 | 2.9 | 2.9 | 2.7 |
| Producer Prices | | | | | |
| Finished goods | 5.6 | 2.8 | -1.0 | 1.3 | 2.9 |
| Less food and energy | 5.2 | 0.3 | 0.3 | 1.2 | 0.7 |
| Commodity futures prices^b | | | | | |
| | 6.5 | 13.3 | -0.2 | 3.7 | -0.7 |



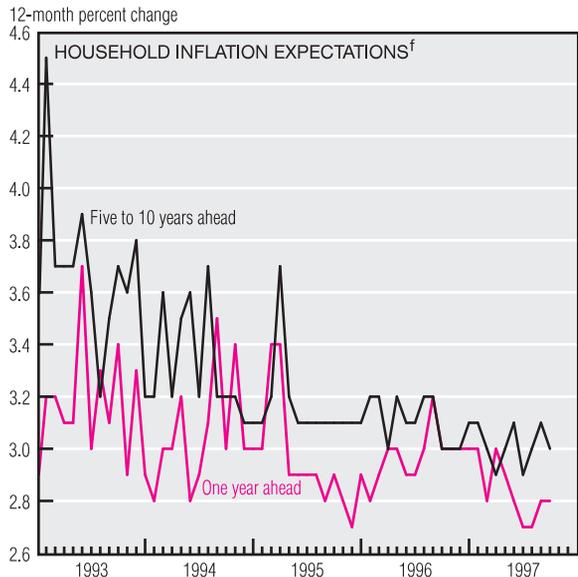
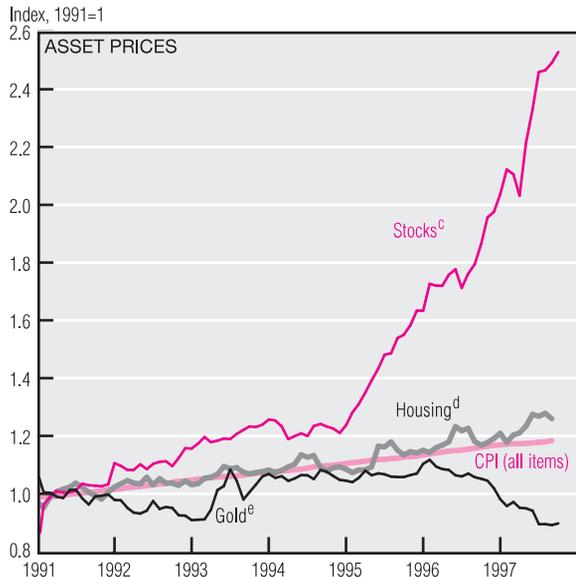
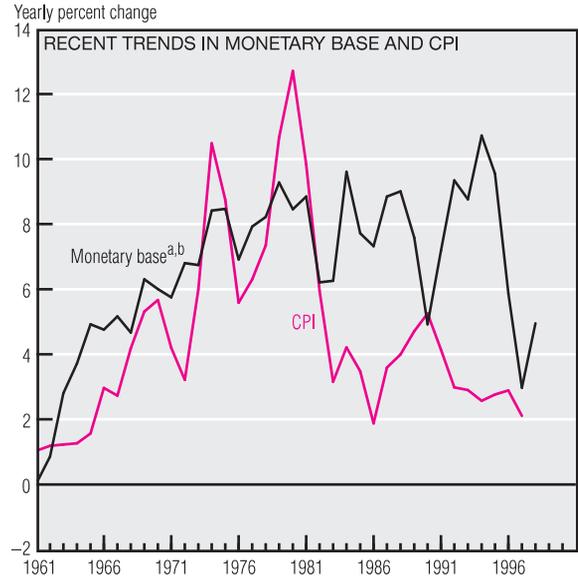
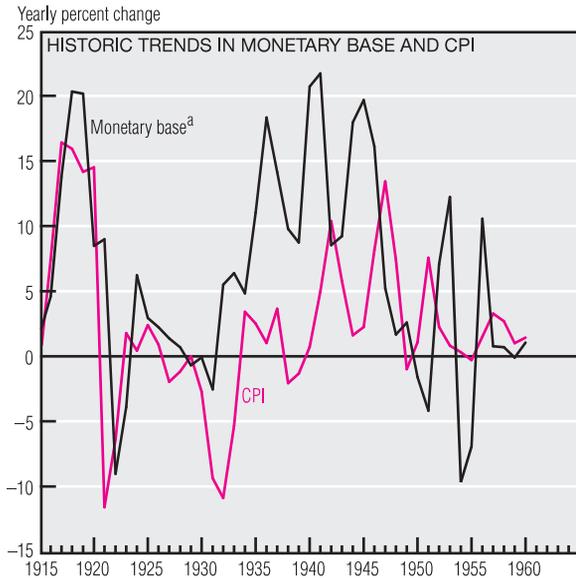
a. Calculated by the Federal Reserve Bank of Cleveland.
 b. As measured by the KR-CRB composite futures index, all commodities. Data reprinted with permission of the Commodity Research Bureau, a Knight-Ridder Business Information Service.
 c. Upper and lower bounds for CPI inflation path as implied by the central tendency growth ranges issued by the FOMC and nonvoting Reserve Bank presidents.
 d. Based on the PPI for all items.
 SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; the Federal Reserve Bank of Cleveland; and the Commodity Research Bureau.

The inflation indicators have accelerated a bit recently, although the year-to-date estimates are still quite low by historical standards. In the past three months, the Consumer Price Index (CPI) has increased at a 2.5% annual rate, an uptick from its nine-month average of 1.8% but a shade under its five-year pace of 2.7%. The median CPI, an alternative measure of the retail price trend, has moved up 2.6% over the past three months, also slightly under its five-year trend (2.9%). Similar patterns at the

wholesale level are apparent in the Producer Price Index (PPI). The recent acceleration in the price indexes does not necessarily augur a renewal of inflation. Rather, it may simply reflect the easing of transitory factors, particularly the drop in energy costs, which had a strong moderating influence earlier in the year. In fact, by some measures, the moderate behavior of prices continued into the third quarter. The GDP chain-type price index, which puts only a small weight on

energy costs, rose at an extremely modest pace (less than a 1.9%) over the four quarters ended in 1997:IIIQ. This year's moderate rate of price increase has been accompanied by speculation about the prospect of a deflationary period, which would not be unprecedented in the U.S. Prolonged periods of price decline were relatively common in the second half of the nineteenth century. Moreover, deflation occurred more often than inflation during most of
(continued on next page)

Inflation and Prices (cont.)



- a. Yearly average, one year earlier.
- b. Year to date.
- c. S&P stock price index, composite (common stocks).
- d. Median sales price, existing single-family homes, not seasonally adjusted.
- e. Handy and Harman base price, New York.
- f. Median expected change in consumer prices as measured by the University of Michigan's Survey of Consumers.

SOURCES: Milton Friedman and Anna Jacobson Schwartz, *A Monetary History of the United States, 1867-1960*, Princeton, N.J.: Princeton University Press, 1963; Board of Governors of the Federal Reserve System; National Association of Realtors; Standard & Poor's Corporation; *Metals Week*, various issues; and the University of Michigan.

the 1920s and 1930s, in contrast to the almost constant inflation of the postwar period.

Could another deflationary episode occur in this country? A number of business analysts have cautioned that the current economic environment shares many characteristics with the early 1920s, including rapid technology change, high business profitability, and wildly surging equity values. Still, the two periods dif-

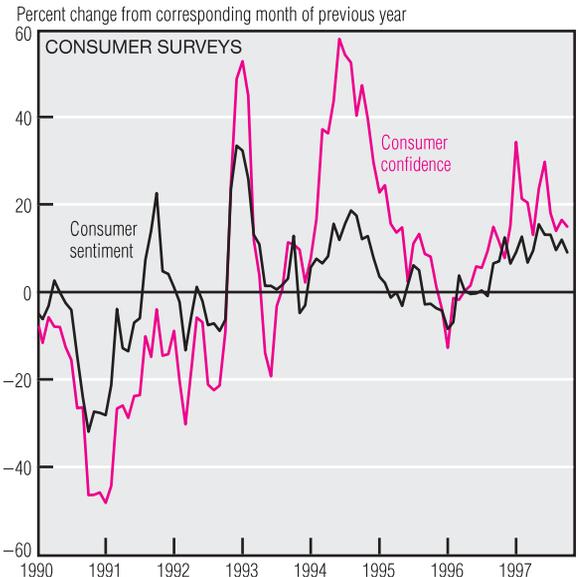
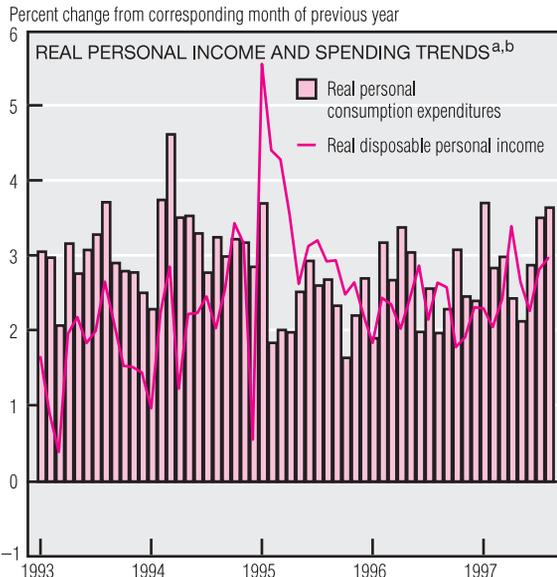
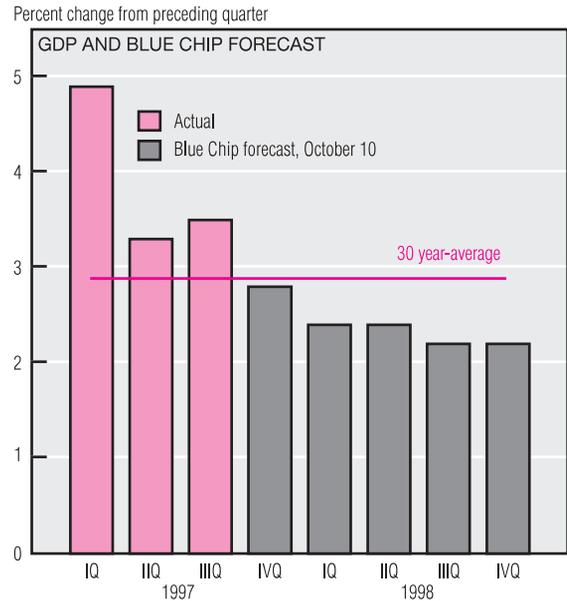
fer in many important ways. For example, in the earlier one, domestic income taxes were on the rise, world trade was becoming increasingly protectionist, and monetary policy was considerably more restrictive. Between 1920 and 1930, the narrow money stock shrank, a condition that, given the period's economic expansion, put downward pressure on aggregate prices. Although growth in the monetary

base has moderated over the past two years, it is still increasing at roughly a 5% annual pace.

It is difficult to cite compelling evidence that markets anticipate a period of deflation. Among a broad set of U.S. assets, only gold prices are falling relative to trend inflation, and household survey data suggest a continued expectation that prices will rise about 3% annually for the next five to 10 years.

Economic Activity

| | Change, billions of 1992 \$ | Percent change, last: | |
|--------------------------------|-----------------------------|-----------------------|---------------|
| | | Quarter | Four quarters |
| Real GDP | 62.2 | 3.5 | 4.0 |
| Consumer spending | 67.7 | 5.7 | 3.8 |
| Durables | 24.8 | 16.7 | 6.8 |
| Nondurables | 16.8 | 4.7 | 2.3 |
| Services | 28.0 | 4.1 | 3.9 |
| Business fixed investment | 36.7 | 18.7 | 10.7 |
| Equipment | 33.3 | 22.1 | 13.2 |
| Structures | 4.7 | 10.1 | 4.3 |
| Residential investment | 2.0 | 2.9 | 2.2 |
| Government spending | 3.2 | 1.0 | 0.9 |
| National defense | 0.8 | 1.0 | -2.9 |
| Net exports | -23.4 | — | — |
| Exports | 13.2 | 5.6 | 14.6 |
| Imports | 36.5 | 14.0 | 14.7 |
| Change in business inventories | -26.1 | — | — |



a. Chain-weighted data in 1992 dollars.
b. Seasonally adjusted annual rate.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; *Blue Chip Economic Indicators*, October 10, 1997; The Conference Board; and the University of Michigan.

The economy continues to show signs of vigor. Advance estimates from the Commerce Department indicate that real GDP grew at an annualized rate of 3.5% in 1997:IIIQ, following an increase of 3.3% in the previous quarter. For the four quarters just ended, GDP was up an average of 4.0%—the best showing since 1984. Strong increases in business fixed investment and consumer spending, especially on durable

goods, outweighed declines in net exports and inventory investment.

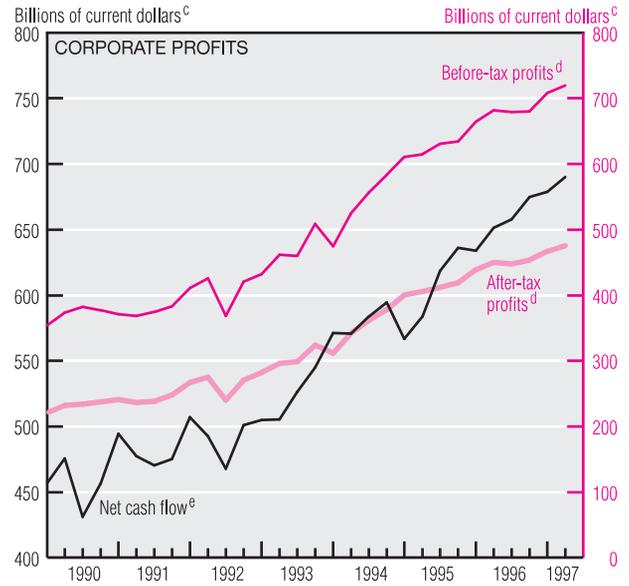
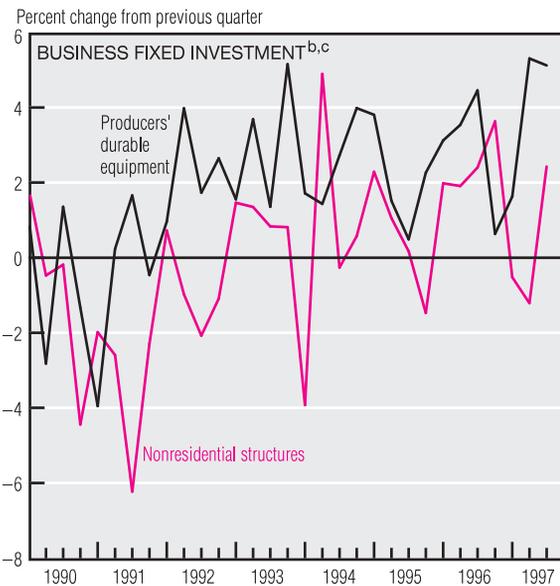
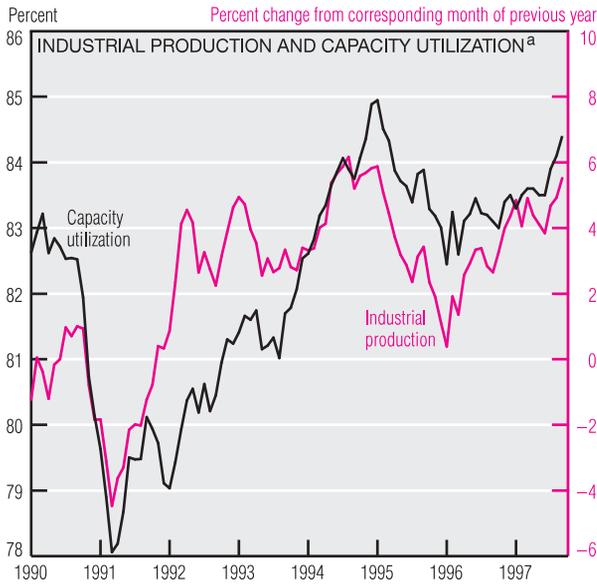
Economists participating in October's Blue Chip survey expect the current pace of expansion to moderate toward its historical trend of 2.8% in 1997:IVQ. This would result in a 3.6% growth rate for the year—much stronger than 1996's 2.8% posting.

Consumer spending, which accounts for approximately three-

fourths of GDP, rose 5.7% in the third quarter after a modest 0.9% uptick in 1997:IIQ. This gain, the largest in more than five years, was led by a 16.7% increase in spending on durable goods, fueled largely by a surge in auto sales that may be due to incentive programs offered by manufacturers.

While retailers hope for continued consumer spending growth, it is *(continued on next page)*

Economic Activity (cont.)



a. Seasonally adjusted.
 b. Chain-weighted data in 1992 dollars.
 c. Seasonally adjusted annual rate.
 d. Excludes inventory valuation adjustment.
 e. Includes inventory valuation and capital consumption adjustments.
 SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; Board of Governors of the Federal Reserve System; and National Association of Purchasing Management.

uncertain that this active pace will be maintained. The Michigan Survey of Consumer Sentiment decreased 0.8 point from September to October, and the Conference Board's consumer confidence index fell about seven points to 123.3. However, both indexes remain substantially higher than last year's levels, and it is too early to tell if the low October numbers are more than temporary blips.

Manufacturers are planning for continued consumer spending, with

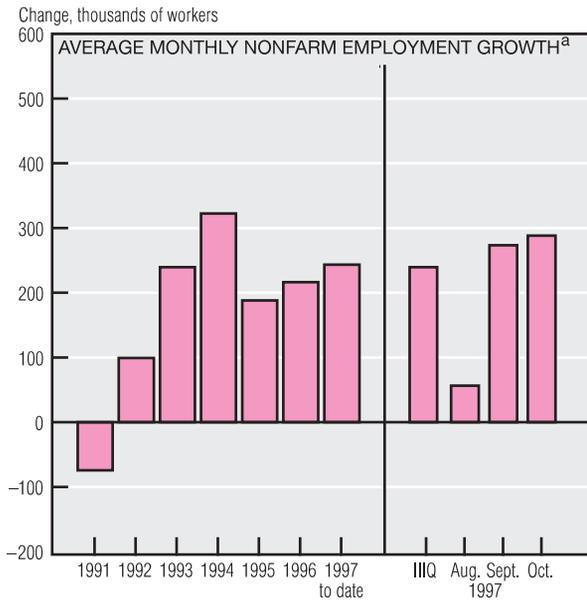
output of consumer goods rising 0.7% in September. Total industrial production advanced 0.7%, well above market expectations of a 0.3% rise. The increase in manufacturing output reflects widespread gains. Light trucks, computers, aircraft, and semiconductors all recorded substantial production increases. The capacity utilization rate, 84.4%, is the highest since February 1995.

The National Association of Purchasing Management also reported expanding activity. Its index went

up to 56.0 in October, the fifteenth straight month indicating growth.

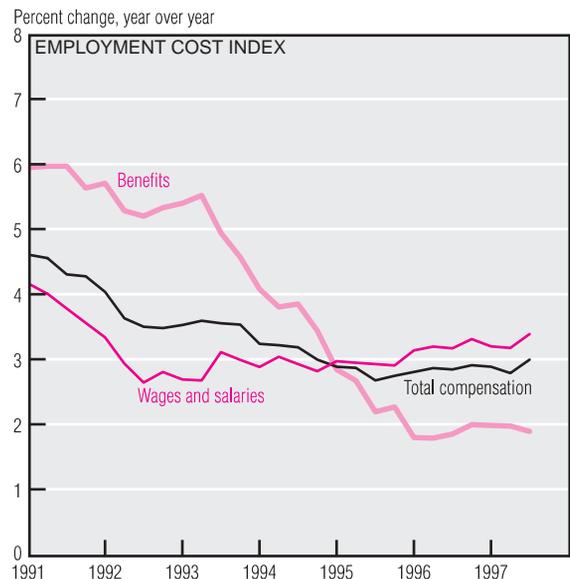
Investment in nonresidential structures increased 2.4% in the third quarter. Investment in producers' durable equipment was up 5.1%, following an even larger gain (5.3%) in the second quarter. The increased investment was led by purchases of computers and transportation equipment. With corporate profits remaining strong, business fixed investment should continue to grow.

Labor Markets



| | Average monthly change (thousands of employees) | | | | |
|---|---|------|------|-------|------|
| | 1996 | 1997 | | | |
| | Year | IIIQ | Aug. | Sept. | Oct. |
| Payroll employment | 212 | 235 | 52 | 269 | 284 |
| Goods-producing | 19 | 14 | 52 | -9 | 71 |
| Construction | 24 | 5 | 12 | 0 | 20 |
| Manufacturing | -5 | 8 | 41 | -12 | 54 |
| Service-producing | 192 | 221 | 0 | 278 | 213 |
| Services | 99 | 102 | 18 | 126 | 100 |
| Health services | 18 | 19 | 15 | 19 | 26 |
| Retail trade | 48 | 43 | 30 | 19 | 37 |
| Government | 14 | 35 | 85 | -61 | 2 |
| Local | 19 | 24 | 91 | -73 | 15 |
| Household employment | 232 | 117 | 96 | -89 | 179 |
| Civilian unemployment rate (%) | 5.4 | 4.9 | 4.9 | 4.9 | 4.7 |
| Manufacturing workweek (hours) ^b | 41.5 | 41.8 | 41.8 | 41.8 | 42.0 |

Average for period



a. Seasonally adjusted.
b. Production and nonsupervisory workers.
c. Vertical line indicates break in data series due to survey redesign.
SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

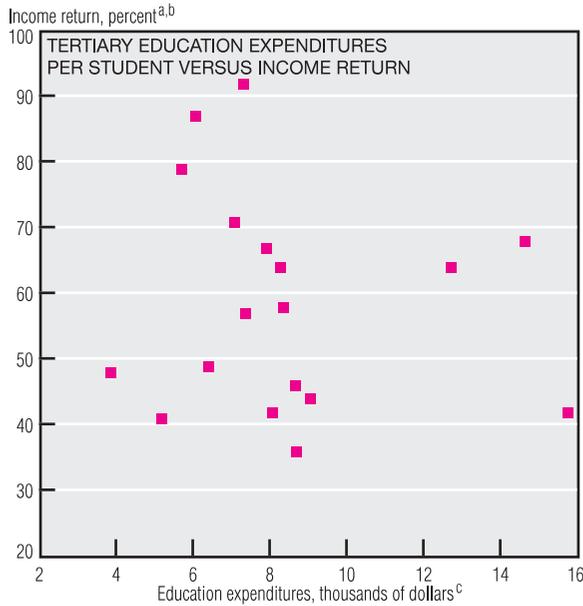
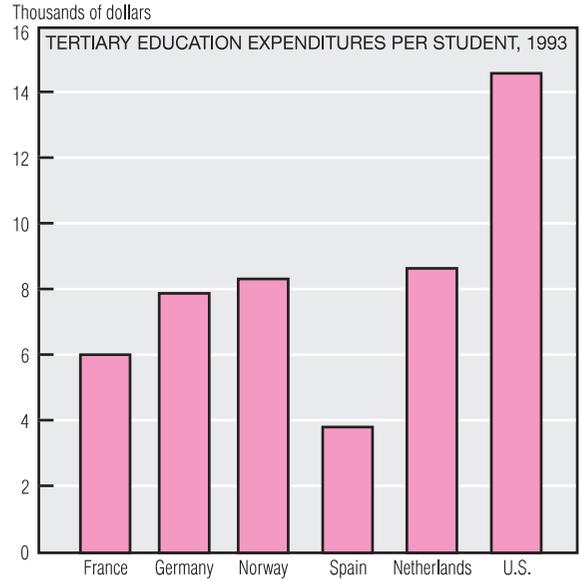
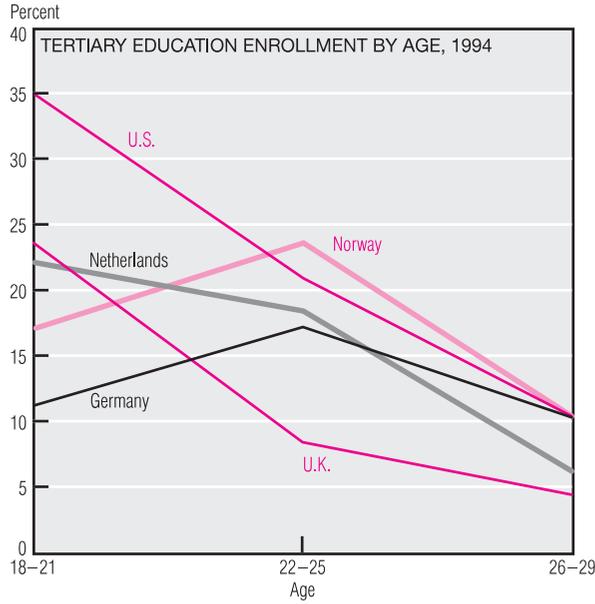
October was characterized by widespread strength in the nation's labor markets, as nonfarm payrolls gained an unexpectedly high 284,000 workers. The unemployment rate hit a 24-year low (4.7%), although part of the decline came from a 106,000-person reduction in the labor force. Meanwhile, the ratio of employment to population stayed at 63.7%.

The manufacturing industry set the pace with an increase of 54,000 jobs, concentrated in durables pro-

duction. This was the largest advance since February 1990 and reversed a string of weak reports. Growth in manufacturing employment was accompanied by upticks in both the length of the workweek (up 0.2 hour) and overtime (up 0.1 hour). In addition to above-average growth in manufacturing, construction posted its largest increase since May (up 20,000 jobs). Notable employment gains were also seen in health services (up 26,000) and retail trade (up 37,000).

Wages and salaries of civilian workers rose 3.4% in the year ended in September, outpacing a 2.2% rise in the CPI over the same period. Hourly earnings in October averaged \$12.41—up 4.2% from a year ago and the biggest increase since July 1989. On the other hand, growth in benefit costs (which account for roughly one-third of total compensation) declined slightly.

Higher Education: An International Perspective



a. Income return to a university degree relative to a high school diploma, for men.
 b. Data pertain primarily to 1993, but include one observation each for 1991 and 1992, and three observations for 1994.
 c. All data are for 1993.
 d. Data refer to 1993 for the Netherlands, Norway, and Spain and to 1994 for France, Germany, and the U.S.
 NOTE: Tertiary education includes any formal instruction beyond the twelfth grade.
 SOURCE: Organisation for Economic Co-operation and Development, *Education at a Glance: Indicators*, 1996 ed.

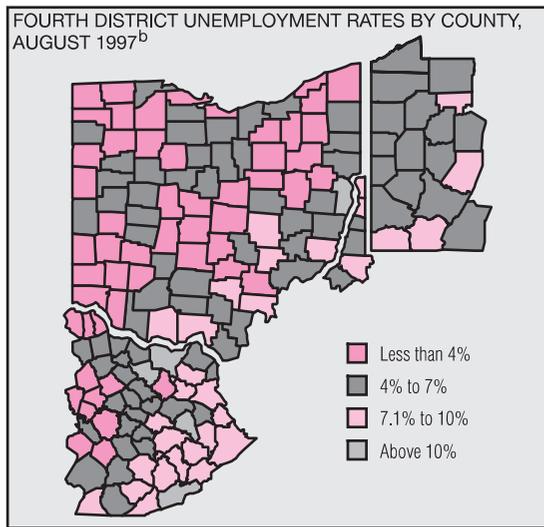
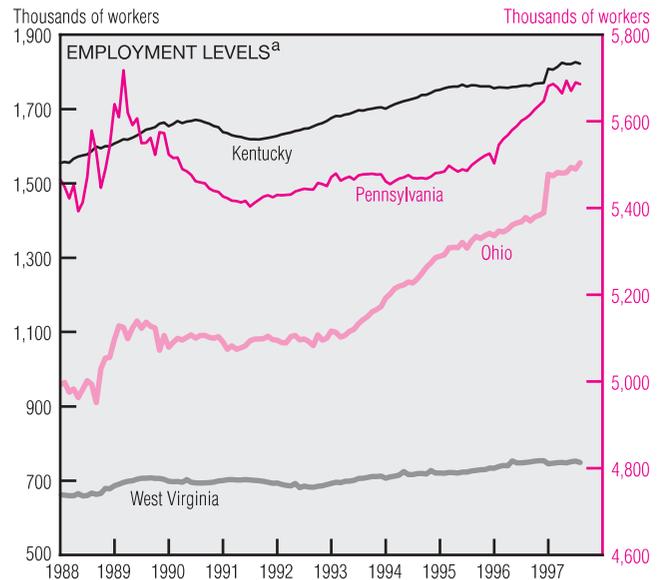
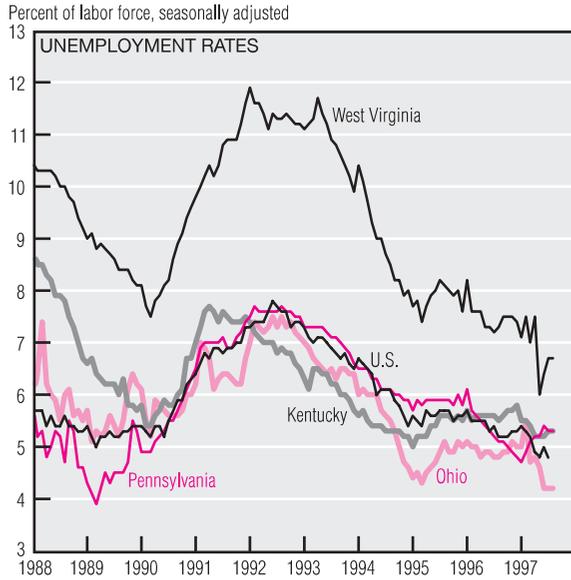
Economic theory predicts that human capital investment will be highest for younger workers, and cross-country comparisons bear this out. The pattern is particularly pronounced in the U.S., where 35% of students enrolling in college are between the ages of 18 and 21, compared to 10% between the ages of 26 and 29. Germany is something of an exception: The share of its college students aged 18 to 21 is nearly identical to the share aged 26 to 29.

Expenditures per student for post-secondary education (public and private) do not seem related to the financial returns to a university degree. For instance, the U.S. and Switzerland spend the most on higher education (\$14,600 and \$15,700, respectively), but the U.S. returns are only in the middle range among the countries; Switzerland's returns are near the bottom. On the other hand, the Finns and French get the biggest bang for their col-

lege buck, with returns that far exceed those in other countries. Their expenditures per pupil, however, are among the lowest.

Earnings differentials of male and female college graduates vary considerably across countries. For example, women graduates in Spain earn 72% as much as their male counterparts, while women graduates in the Netherlands earn only 53% as much as males.

Fourth District Employment



| | August 1997 | August 1996 |
|------------------------------|-------------|-------------|
| Akron | 3.4 | 3.9 |
| Canton–Massillon | 3.8 | 4.5 |
| Cincinnati–Hamilton | 3.3 | 4.0 |
| Cleveland–Lorain–Elyria | 3.8 | 4.7 |
| Columbus | 2.5 | 2.9 |
| Dayton–Springfield | 3.6 | 4.3 |
| Erie | 5.4 | 5.3 |
| Huntington–Ashland | 5.9 | 6.6 |
| Lexington–Fayette | 2.7 | 2.5 |
| Lima, OH | 4.5 | 5.9 |
| Mansfield, OH | 5.1 | 5.7 |
| Pittsburgh | 4.8 | 4.7 |
| Sharon | 4.9 | 3.6 |
| Steubenville, OH–Weirton, WV | 9.4 | 5.6 |
| Toledo | 4.1 | 4.3 |
| Wheeling | 5.1 | 4.5 |
| Youngstown–Warren | 5.0 | 5.6 |

a. Seasonally adjusted.
b. Not seasonally adjusted.
SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; Kentucky Department for Employment Services, Labor Force Estimates Division; Ohio Bureau of Employment Services, Labor Market Information Division; Pennsylvania Department of Labor and Industry, Bureau of Research and Statistics; and West Virginia Bureau of Employment Programs.

Like the nation as a whole, Fourth District states have witnessed sharp declines in unemployment rates since late 1991. Jobless rates in Ohio, Kentucky, and Pennsylvania hover around the U.S. average, but West Virginia's rate historically exceeds it by a substantial margin and fluctuates more over the business cycle. Employment growth since 1991 has approximated the national average of 10.5% in all of these states except

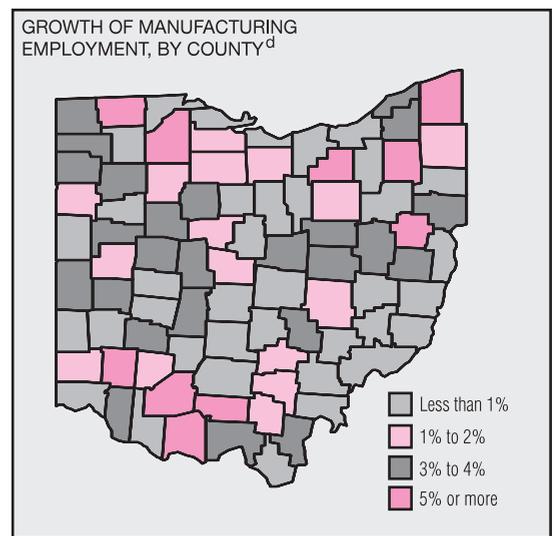
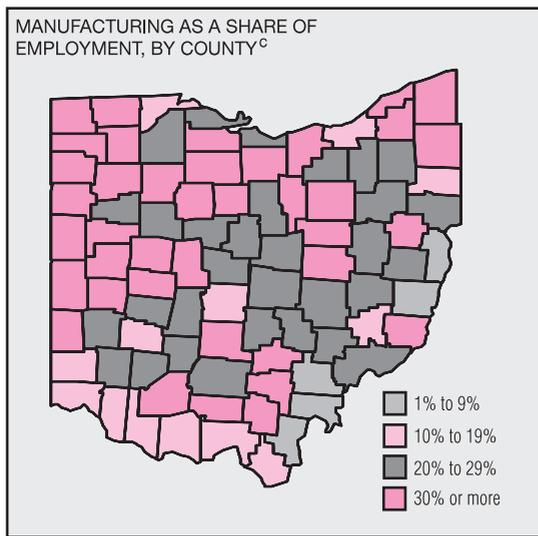
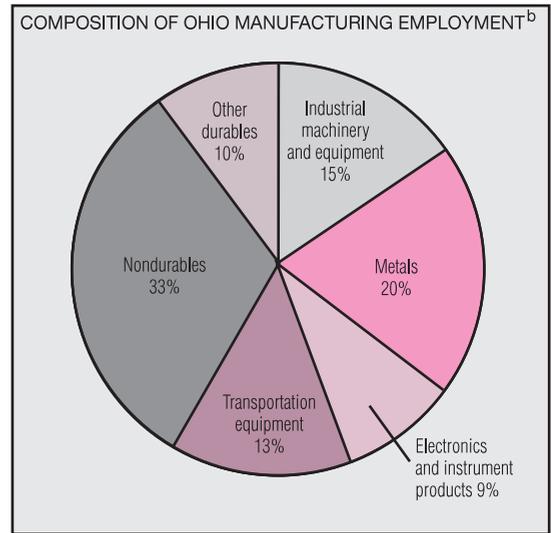
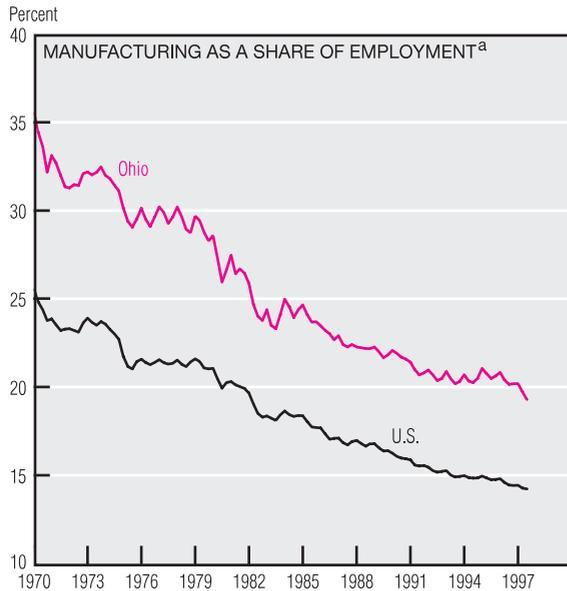
Pennsylvania, which has posted a 4.8% rate.

A low statewide jobless figure can mask regional pockets of high unemployment. Lewis County, Kentucky, for example, now exceeds the national average by 9 percentage points, its situation having worsened when a local apparel manufacturer halved its operations.

Similarly, metropolitan unemployment rates display wide variation. Most have shown solid improvement

over the past year. Lima, Ohio, for example, attributes the drop of 1.4 percentage points in its jobless rate to broad-based gains in services and in wholesale and retail trade. By contrast, improvement in many older, industrial areas of West Virginia and Pennsylvania has stalled or recently been reversed. The lingering effects of a steel strike account for a substantial hike in the Steubenville–Weirton unemployment rate.

Manufacturing in Ohio



a. Not seasonally adjusted.
b. Data are for August 1997.
c. Data are for the first quarter of 1997.
d. Average annual growth rates, 1992-97.
NOTE: Data are for nonfarm employment.
SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; and Ohio Bureau of Employment Services.

Ohio continues to be one of the most manufacturing-intensive states, with a little under 20% of all its nonfarm workers employed in the sector. This focus is even more evident in the heavy manufacturing industries (transportation equipment, industrial machinery, and metals, for example), which account for only 33% of manufacturing employment in the U.S., but almost half in Ohio.

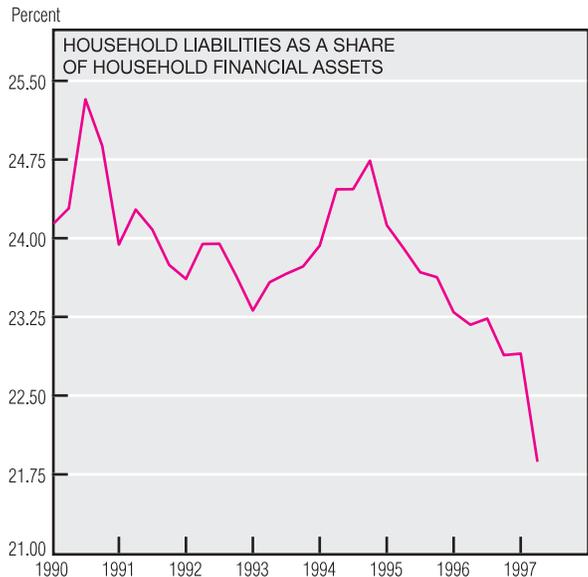
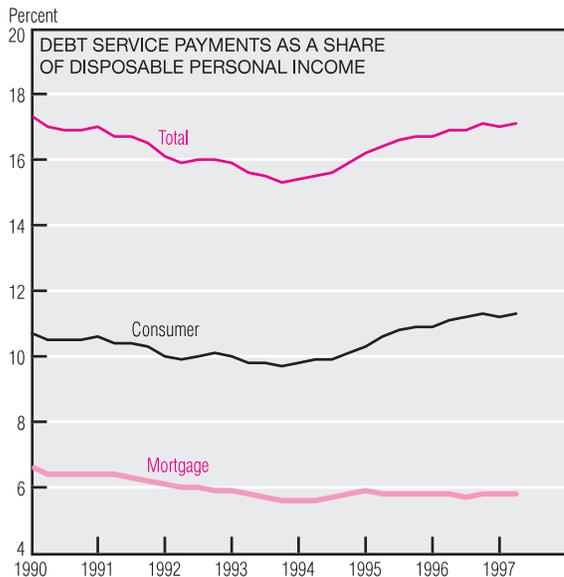
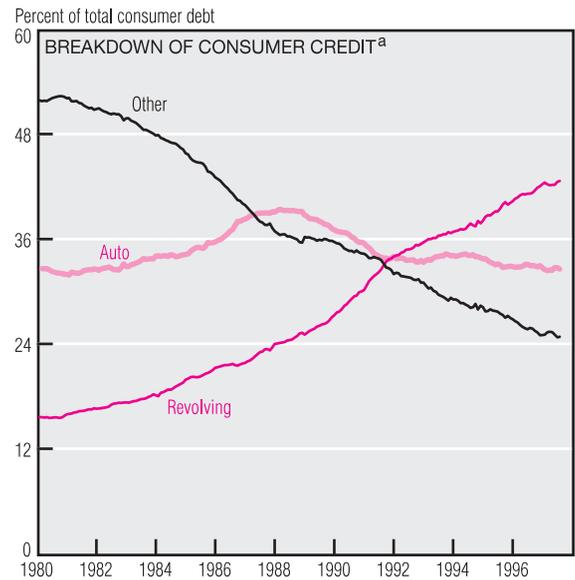
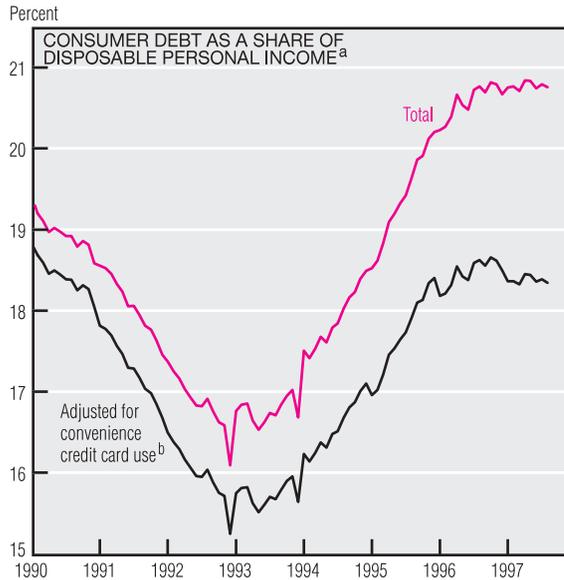
The population of manufacturing workers is still concentrated in the urban counties, notably Cuyahoga (135,991), Hamilton (96,430), Montgomery (66,401), and Franklin

(63,103). Although the employment numbers are lower, manufacturing actually makes up a far larger share of the nonfarm workforce in several suburban and rural counties, including those on Ohio's western edge. One reason is that larger urban centers have a heavier concentration of financial and business service industries, which support the state's manufacturers.

While overall manufacturing employment has been relatively stable over the last five years (0.5% annual growth statewide), certain areas have experienced rapid increases.

Some of the strongest growth has occurred in counties near older manufacturing centers, notably Ashtabula, Portage, and Medina counties in the Cleveland-Akron metropolitan area, Fulton and Wood counties in the Toledo metropolitan area, and Adams, Highland, and Warren counties, which either adjoin or are in the Cincinnati metropolitan area. Growth in suburban and rural areas has offset losses in some of the urban areas to keep Ohio one of the country's major manufacturing states.

Consumer Debt and Delinquency



a. Seasonally adjusted.
b. Adjusted consumer debt as a share of disposable personal income. Includes only the estimated portion of bank card debt accruing finance charges.
SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; Board of Governors of the Federal Reserve System; and *Bankcard Update/Bankcard Barometer*.

In recent months, historically high levels of consumer debt have drawn considerable attention. Although the debt-to-income ratio has leveled off in recent months (reaching 20.76% in August), it is still virtually unchanged from its record high of 20.84% attained last April.

Some of the concern about high consumer debt levels may be misplaced, however. Credit card balances are a large component of consumer debt. Over the course of this decade, an increasing fraction of

credit card balances has been paid in full every month (up from 9.8% in 1990 to 25.0% in 1996), indicating that much of the rise in these balances results from the convenience of this payment method rather than from a true increase in consumer debt levels. Indeed, after adjustment for convenience credit card use, the debt-to-income ratio shows a decline for most of the year (to 18.35% in August), never having exceeded its 1990 high of 18.78%.

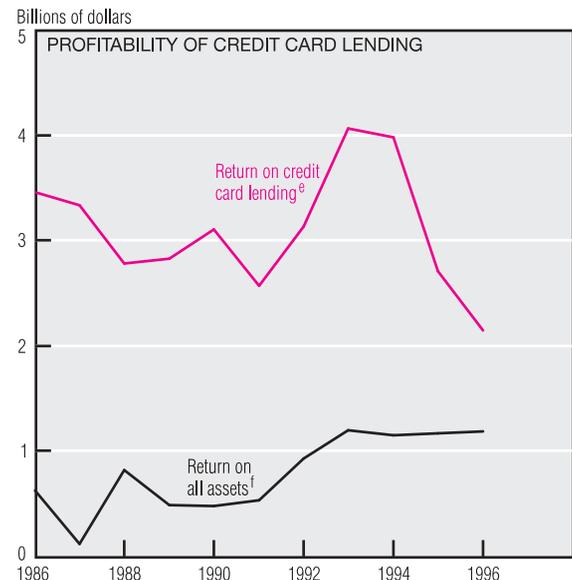
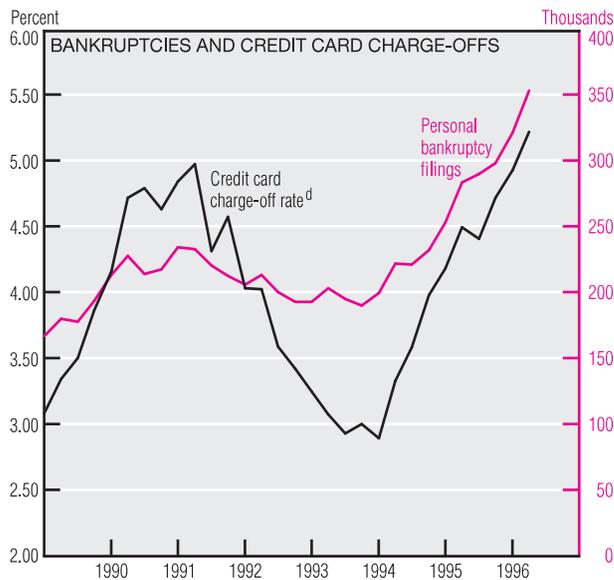
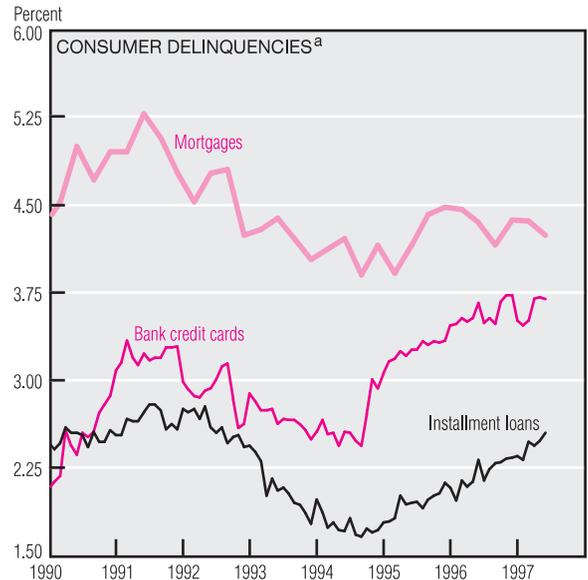
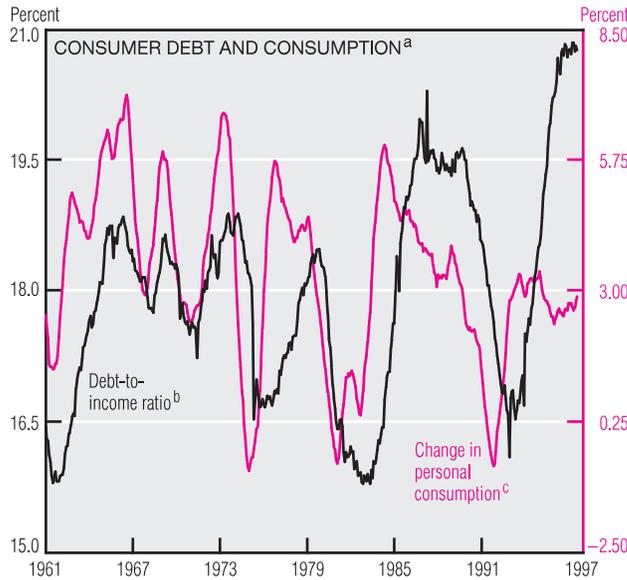
Moreover, comparing households' debt levels to their total fi-

ancial assets, we see that this measure of the consumer debt burden has been dropping since late 1994, and plunged sharply in the early months of 1997. Of course, much of this is likely due to the stock market's strong performance during the first half of this year.

In any event, it is worth asking whether consumer debt levels are a good predictor of upcoming economic activity. Contrary to popular belief, these levels do not seem to

(continued on next page)

Consumer Debt and Delinquency (cont.)



- a. Seasonally adjusted.
- b. Total consumer debt as a share of disposable personal income.
- c. 12-month moving average of year-over-year percent change.
- d. Annualized net charge-off rate.
- e. Net before-tax earnings as a percentage of outstanding balances for major credit card banks, as defined in the Board of Governors' report on the profitability of credit card lending, August 1997.
- f. All FDIC-insured commercial banks.

SOURCES: Board of Governors of the Federal Reserve System; Administrative Office of the U.S. Courts; American Bankers Association, *Consumer Credit Delinquency Bulletin*; Federal Deposit Insurance Corporation, *Quarterly Banking Profile*; and Mortgage Bankers Association of America, *National Delinquency Survey*.

predict future patterns of personal consumption expenditures, which typically rise or fall well in advance of the debt-to-income ratio. As a result, personal consumption figures appear to predict future debt levels, not the other way around.

Another recent concern has been the growing number of personal bankruptcy filings and the rising delinquency rates on various types of personal loans. Over the last sev-

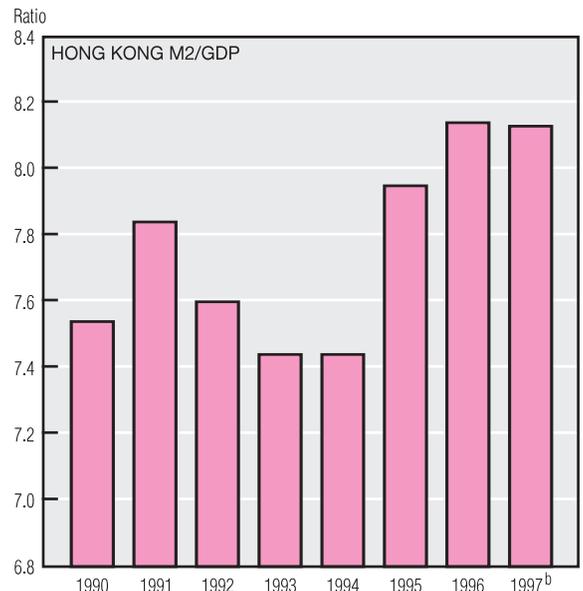
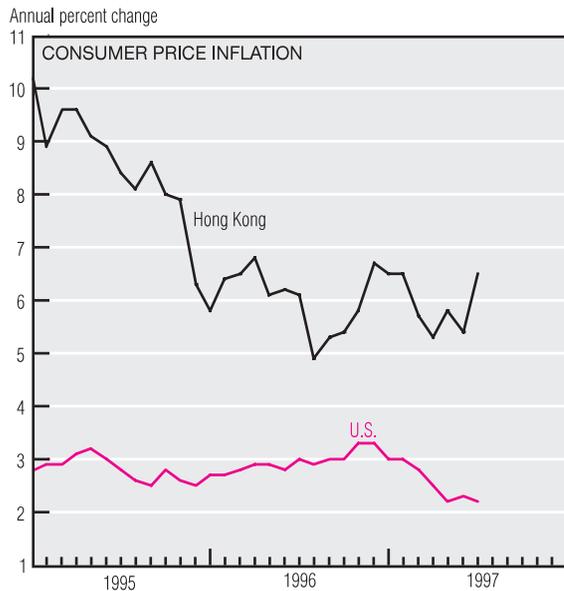
eral years, delinquency rates on bank credit cards and installment loans have been on a steady upward track, with credit card delinquencies showing the most dramatic rise. In contrast, mortgage delinquency rates have been more stable.

Most striking, personal bankruptcies continue to reach ever-higher levels, with more than 353,000 filings in the second quarter of 1997 alone. Not surprisingly, credit card

charge-off rates mirror movements in personal bankruptcy filings, reaching a high of 5.22% of outstanding balances in the second quarter of this year.

Despite these concerns, credit card lending continues to be highly profitable. Although the return on this type of lending has declined dramatically since the early 1990s, it is still well above commercial banks' overall return on assets.

Hong Kong Financial Markets



a. Index base: July 31, 1964 = 100.
b. Average of the first two quarters.
SOURCES: International Monetary Fund, *International Financial Statistics*; and DRI/McGraw-Hill.

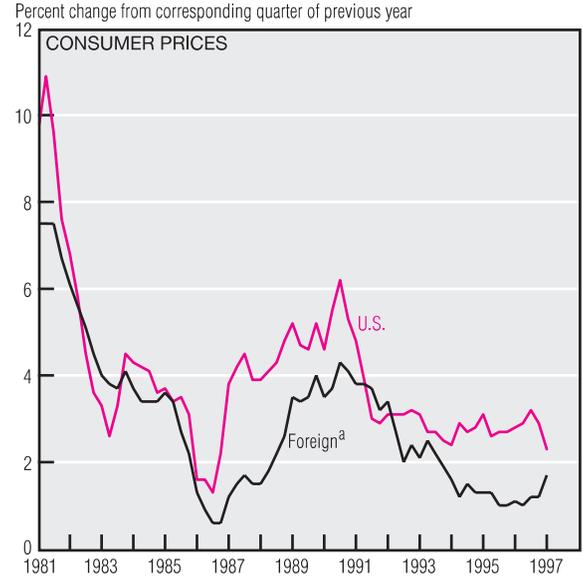
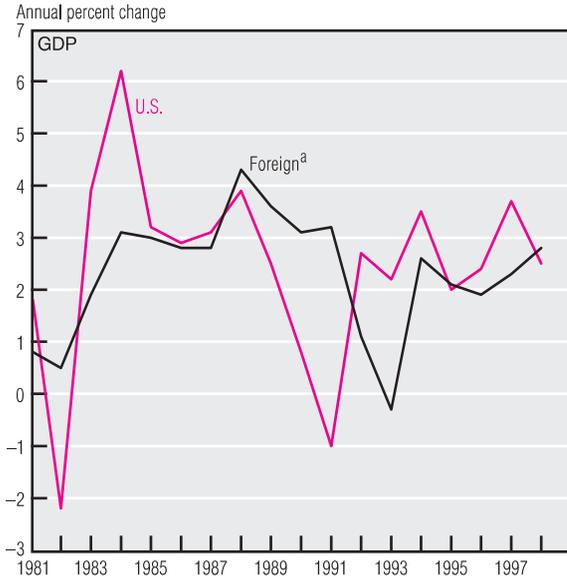
The financial tremors that shook Southeast Asia this summer left the Hong Kong dollar relatively unrattled. One cause of the October aftershock was uncertainty about Hong Kong's ability to sustain its currency peg to the U.S. dollar following the realignments of other Southeast Asian currencies. In addition, the U.S. dollar's nominal appreciation of nearly 50% against the Japanese yen since April 1995 pulled the Hong Kong dollar along with it. Last year, nearly 7% of Hong Kong's exports went to Japan.

Moreover, although the inflation differential has generally narrowed since 1994, Hong Kong's inflation rate remains higher than that of the U.S. This indicates that Hong Kong's currency has appreciated in real terms relative to the dollar. The U.S. bought almost 40% of Hong Kong's exports in 1996.

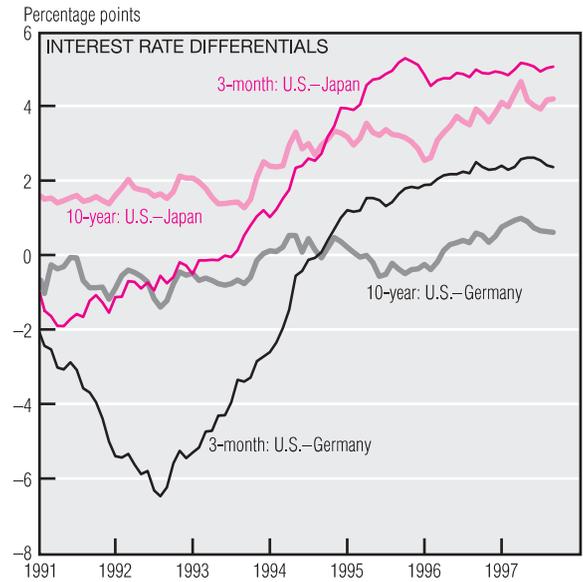
To defend the peg, Hong Kong's monetary authority reduced liquidity, thereby raising money market rates. While this move should relieve pressure on the peg from

capital outflows, if maintained it could aggravate another aspect of Hong Kong's recent financial turmoil: Many analysts consider the country's property to be overvalued and worry that its banks could be exposed to a price adjustment. Sustained high interest rates could deflate property values, weakening banks' balance sheets in the process. Growth in the money stock relative to GDP since 1995, a somewhat ambiguous indicator of asset-price pressures, may have helped to sustain inflated property values.

Economic Activity in Industrialized Countries



| | 1990 | 1993 | September 1997 |
|--------------------------|------------------|------|----------------|
| Belgium | 6.7 | 2.5 | 9.6 |
| Canada | 8.1 | 6.5 | 9.0 |
| France | 8.9 | 10.3 | 12.5 |
| Germany | 7.7 ^b | 10.3 | 11.6 |
| Italy ^c | 11.4 | 8.9 | 11.7 |
| Japan | 2.1 | 11.2 | 3.4 |
| Netherlands | 5.9 | 8.9 | 5.7 |
| Sweden ^c | 1.7 | 8.8 | 8.3 |
| Switzerland ^c | 0.5 | 6.5 | 5.0 |
| U.K. | 5.8 | 6.8 | 5.3 |
| U.S. | 5.6 | 6.9 | 4.9 |



a. Trade-weighted average of foreign countries shown in table. Weights are those used to calculate the Federal Reserve Board's trade-weighted dollar index.
 b. Data are for 1992.
 c. Not seasonally adjusted.
 SOURCES: International Monetary Fund, *International Financial Statistics*; *The Economist*, October 25-31, 1997; and DRI/McGraw-Hill.

Most industrial countries entered the last recession later than the U.S. and recovered more slowly. Except for Japan, however, they are now experiencing fairly solid growth. German economic activity grew at a 4.1% annual rate in 1997:IIQ, led by exports and personal consumption expenditures. Japan's lackluster performance persists, with real GDP declining at an 11.2% annualized rate in 1997:IIQ. Forecasters expect real economic activity among industrial countries

abroad to expand 2.3% this year and 2.8% in 1998. Other things being equal, foreign economies must grow at nearly twice the U.S. pace before our trade deficit will narrow.

This year has seen an uptick in the average inflation rate among large industrial countries, but foreign inflation rates as a whole remain subdued at 1.7%. On a year-over-year basis, recent inflation rates among major European Monetary Union aspirants, whose participation depends on their rates' converging, remain below 2.0%.

Forecasters anticipate little change in the foreign inflation outlook.

Faster economic growth has not translated into a universally improved labor situation. Half the countries in our sample currently have higher unemployment rates than they had in 1993, a trough year, and eight are above rates posted in 1990, before the onset of the recession. Economists attribute high foreign jobless rates to social programs that lower the costs of unemployment and to rigid real wages.