

The Economy in Perspective

About that NAIRU jacket ... The Bureau of Labor Statistics' just-released May labor report failed to settle differences of opinion about labor market tightness. The unemployment rate declined to 4.2%, equaling March's 30-year low. For those who regard the non-accelerating inflation rate of unemployment (NAIRU) to be 5% or greater, May's report brought disquieting news about future inflation prospects. At the same time, however, net new job creation for the month slowed to only 11,000, a dramatic reduction from the pace of the last 12 months. For those who expect economic activity to slow in the coming months, May's report could be a long-awaited harbinger.

Thus the labor market continues to be an enigma. When the expansion continued its progress into 1996, many mainstream forecasters expected inflation to accelerate as the unemployment rate fell below the NAIRU, then estimated to be 6%. Despite economic growth strong enough to push the unemployment rate ever lower, many analysts clung to their belief that inflation would accelerate. The NAIRU concept, after all, had served inflation forecasting well for several decades. Surely, the thinking went, if unemployment has dropped below 5%, accelerating inflation must be just around the corner.

The idea of the NAIRU comes from a view of price-setting behavior which supposes that businesses tack a markup onto their unit labor costs. As business cycles lengthen, productivity growth typically slows. Moreover, as labor markets tighten, firms often must bid up wage rates to compete for the available labor supply. The combination of these two trends normally raises unit labor costs and with them product prices. In this view, accelerating inflation results when the process becomes persistent and is generalized throughout the economy.

Most people who don the NAIRU garb think that persistent increases in the price level—inflation—stem from excessive money growth. Gauging money demand can be difficult, so the NAIRU appeals to those who think labor market relationships better reveal the balancing point between money supply and demand. But the NAIRU is more than just a model of how strengthening economic activity translates into accelerating inflation; it also presumes an exact estimate of the

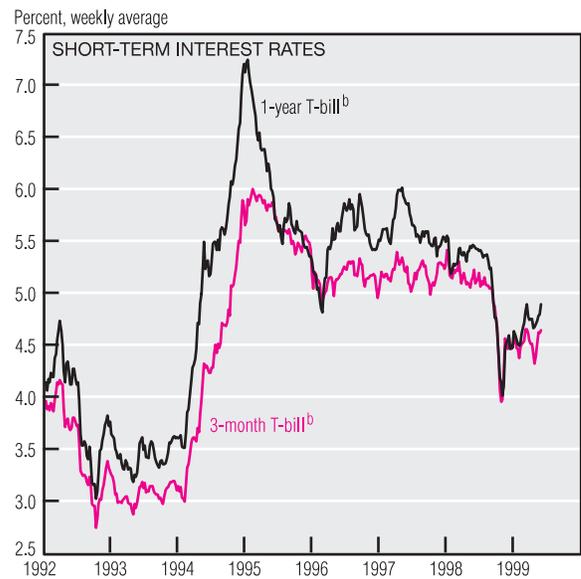
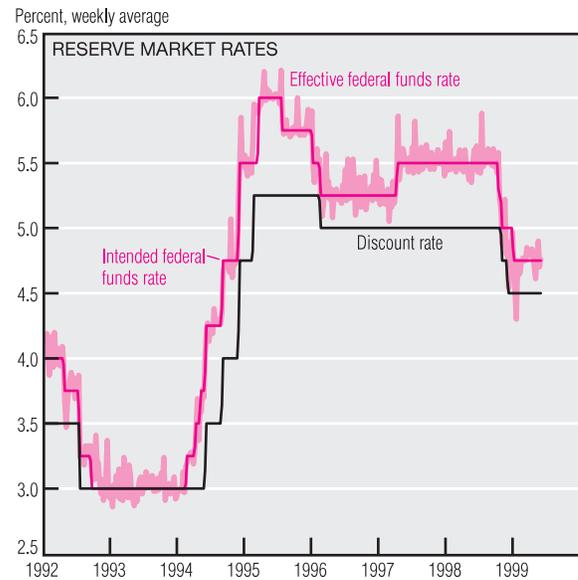
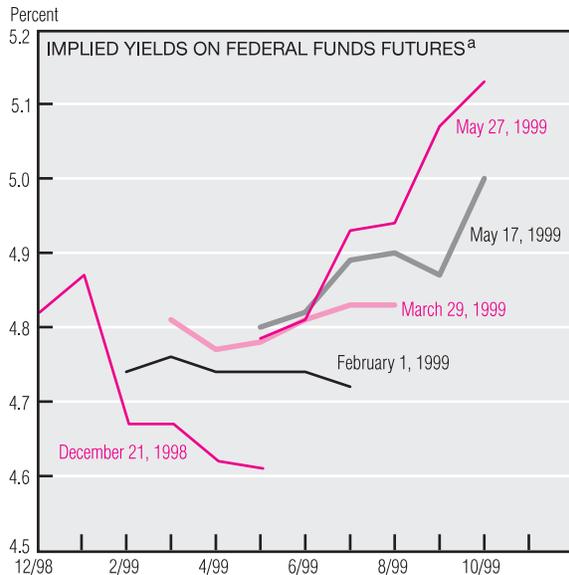
unemployment rate at which labor markets become so tight that they set off inflation. This estimate is not obtained from economic theory so much as it is gleaned from earlier business-cycle experiences. So current NAIRU estimates derive from circumstances that prevailed in the last 40 years, including the ways businesses, employees, and policymakers responded to rising inflation.

NAIRU estimates can fall wide of the mark for several reasons. Referring to the markup-over-cost notion of product pricing, it should be plain that misperceptions about productivity growth can derail pricing projections. Changes in trend productivity growth are notoriously difficult to forecast because productivity's quarterly movements fluctuate widely, masking its evolving trend growth rate. High rates of business fixed investment throughout this expansion seem to be driving productivity's growth rate trend upward, but the size of the adjustment is unclear. Some analysts conjecture that the trend rate has shifted from just under 1% to 2%, while others are hopeful that 3% will prove a better estimate. With productivity growth averaging 2¾% in the past four quarters, the correct number is anyone's guess.

Stronger productivity growth, however, should only depress the NAIRU temporarily. Eventually, employees should expect their pay to capture some of the newfound wealth. At this point in the expansion, wages' inexplicable moderation in the face of tight labor markets contributes to inflation forecasting errors. It is possible that official statistics fail to include some forms of compensation, notably stock options, but the under-recording is probably not meaningful. Besides, there is another mystery to solve: Why have labor force participation rates risen to record levels without registering a strong gravitational pull from sharply rising labor compensation?

One needn't believe in an estimable NAIRU to think that tight labor markets lead to accelerating inflation. Some have given up on the NAIRU but not on the notion that "low" unemployment rates foreshadow inflation. Such a position raises two questions. How does one judge just when labor market conditions signal trouble? More importantly, given that inflation is a monetary phenomenon, why dress inflation in labor market clothing at a time when the pattern no longer fits?

Monetary Policy



a. All dates except May 27, 1999 are one day prior to FOMC meetings.

b. Constant maturity.

SOURCES: Board of Governors of the Federal Reserve System; and the Chicago Board of Trade.

At its May 18 meeting, the Federal Open Market Committee (FOMC) opted to leave the federal funds rate target unchanged at 4.75%. The discount rate (which the Federal Reserve charges on overnight loans to banks) was also left unchanged at 4.5%. At the meeting, however, the FOMC “adopted a directive that is tilted toward the possibility of a firming in the stance of monetary policy,” fueling expectations that it may raise rates in the near future.

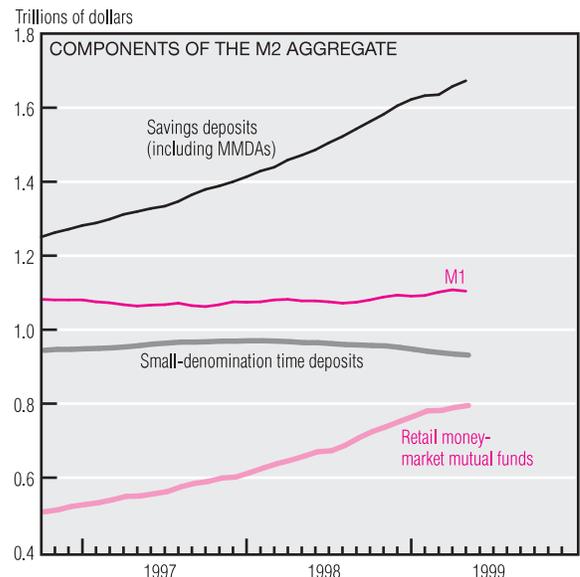
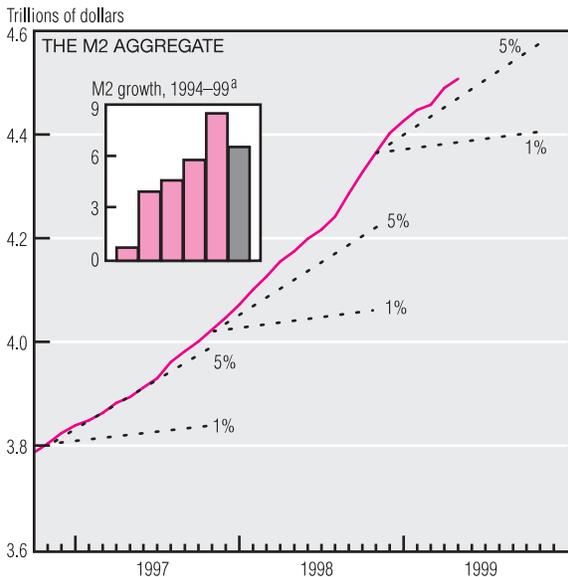
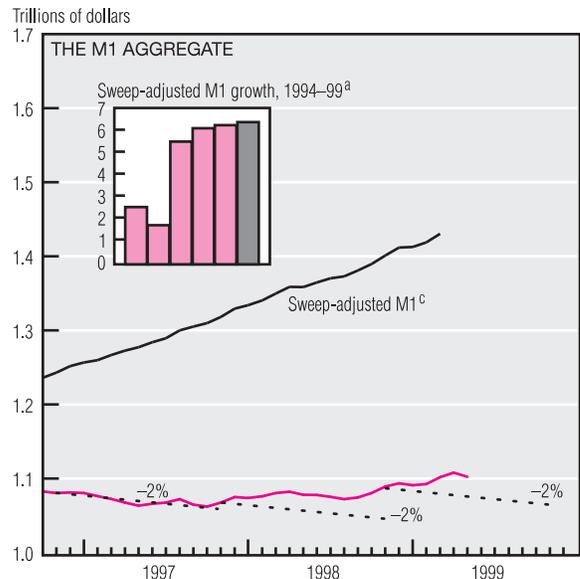
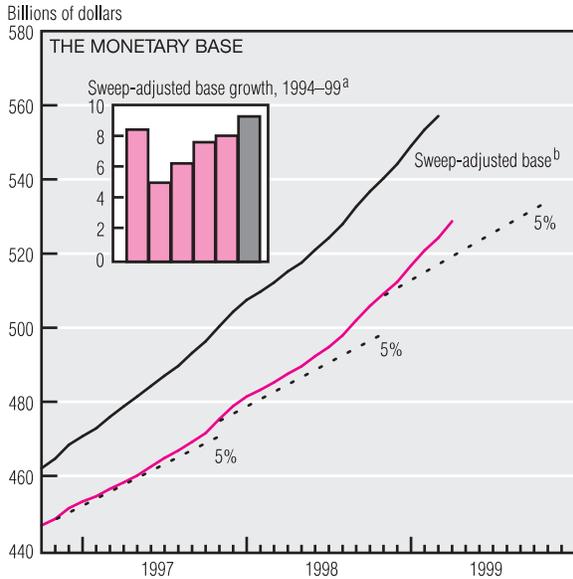
This announcement came on the heels of the largest uptick in CPI inflation to occur in more than eight years. Clearly, the average participant in the market for federal funds futures expects the target rate to increase in the coming months. The implied yields on fed funds futures the day before the May FOMC meeting indicate that it was the only one of the last four meetings when the market foresaw a significant possibility of a rate target increase. Since

the meeting, implied yields have climbed slightly, a sign of market expectations that the target may go to 5.0% or higher by early fall.

Long-term interest rates have drifted upward in recent weeks. From the week ending April 30 to the one ending May 21, the average of conventional mortgage rates increased 30 basis points. In the same period, the weekly averages of the constant maturity measures for

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Monetary Policy (cont.)



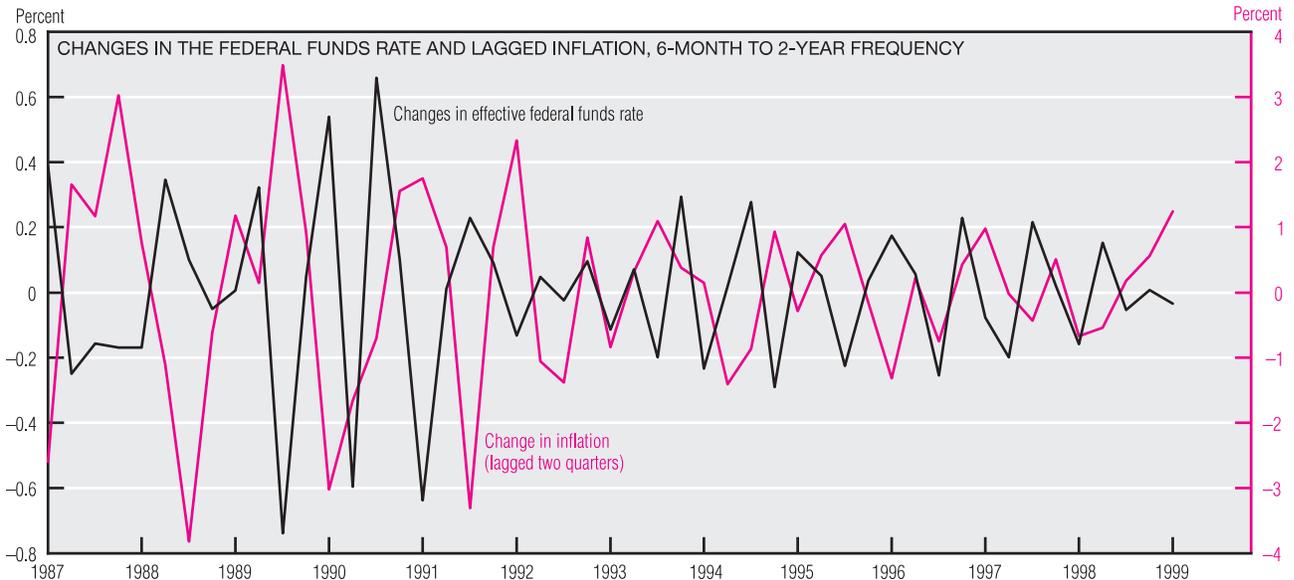
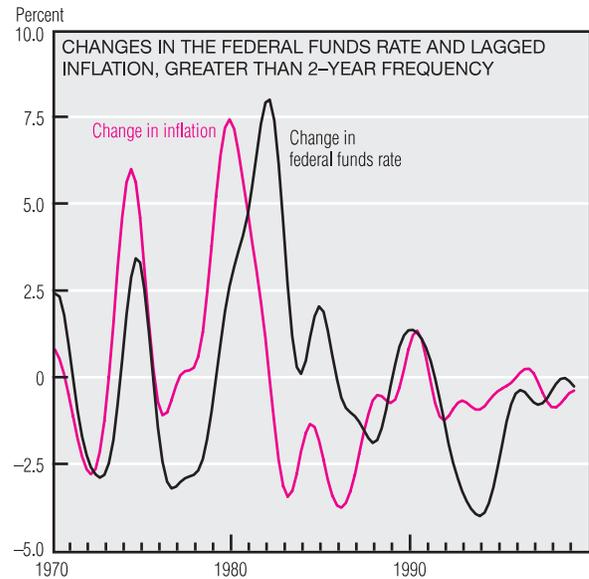
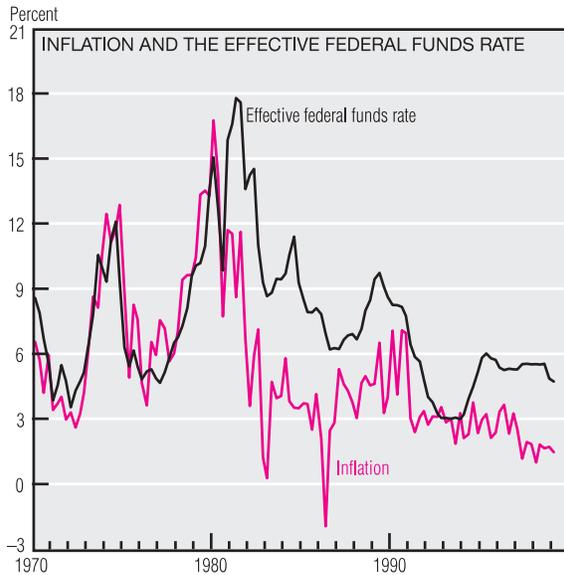
a. Growth rates are percentage rates calculated on a fourth-quarter over fourth-quarter basis. The 1999 growth rates for adjusted M1 and the base are calculated on a March over 1998:IVQ basis. The 1999 growth rate for M2 is calculated on an estimated May over 1998:IVQ basis.
 b. The sweep-adjusted base includes an estimate of required reserves saved when balances are temporarily shifted from reservable to nonreservable accounts.
 c. Sweep-adjusted M1 includes an estimate of balances temporarily shifted from M1 to non-M1 accounts.
 NOTE: Data are seasonally adjusted. Last plots for M1 and M2 are estimated for May 1999. Dotted lines for M2 are FOMC-determined provisional ranges. All other dotted lines represent growth in levels and are for reference only.
 SOURCE: Board of Governors of the Federal Reserve System.

10- and 30-year Treasuries increased 35 and 27 basis points, respectively. Recent short-term rates have followed similar patterns, but these patterns are less distinct for the constant-maturity measures of both the 3-month and 1-year T-bills. The weekly averages for these two short-term interest rates have increased only 13 and 16 basis points from the week ending April 30 to the one ending May 21. Annualized growth of the sweep-

adjusted base through March of this year has outpaced its 1998 growth by more than 1%. Although it is dangerous to rely on nonadjusted base data, it is noteworthy that this year's base growth has remained quite rapid, being well above 5% and indeed near 1998's 7% growth rate. Similarly, sweepadjusted M1 growth thus far in 1999 is on a par with last year's rate. The annualized M2 growth of 6.5% through May has slowed since

1998, when the rate averaged nearly 8.5%, but is still outside the 1% to 5% provisional range set by the FOMC. The components that have contributed to M2's recent, relatively rapid growth are retail money-market mutual funds and savings deposits. The increase in retail money funds is not surprising, given the rise in household holdings of mutual funds of all types. The increase in savings deposits, however, may have *(continued on next page)*

Monetary Policy (cont.)



NOTE: Changes in the effective federal funds rate and inflation are the differences between quarterly average rates. Inflation is the annualized change in quarterly average CPI—all items. Data are filtered using a band-pass filter.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; Board of Governors of the Federal Reserve System; and Lawrence Christiano and Terry Fitzgerald, "The Band-Pass Filter," February 1999 (unpublished).

more to do with sweep accounts than with greater savings by households. Sweep accounts move funds from checkable deposits—which have reserve requirements—to money market deposit accounts offered by banks—which have none. The increase in sweep accounts from March 1998 to March 1999 contributed more than four percentage points to the 13.6% growth in savings deposits in that period.

It is generally accepted that lowering inflation requires raising the federal funds rate. But how can this

be, given that the correlation between the two is clearly positive?

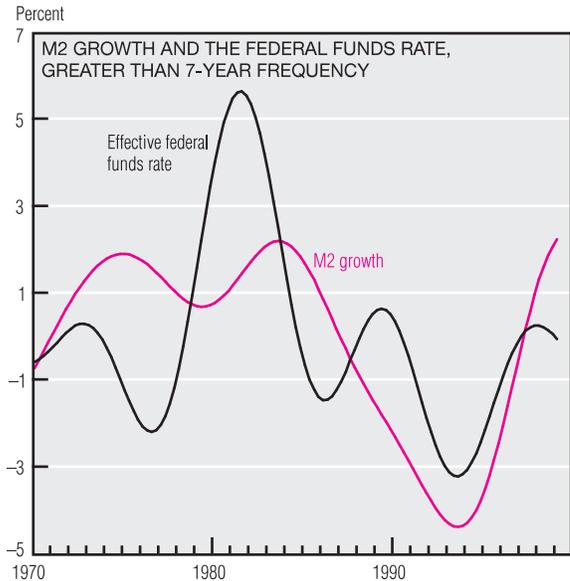
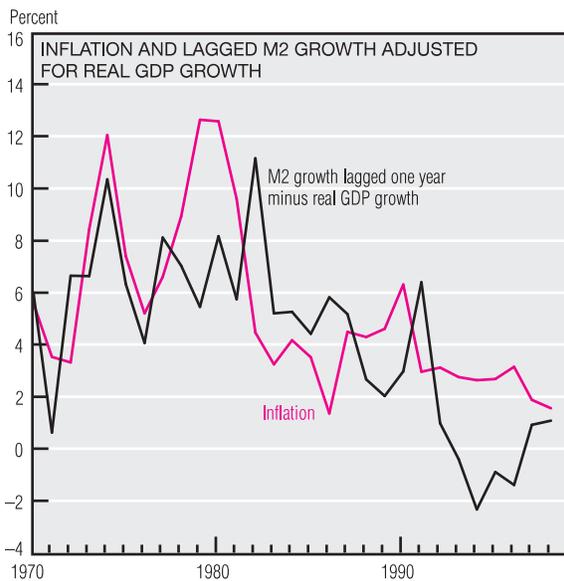
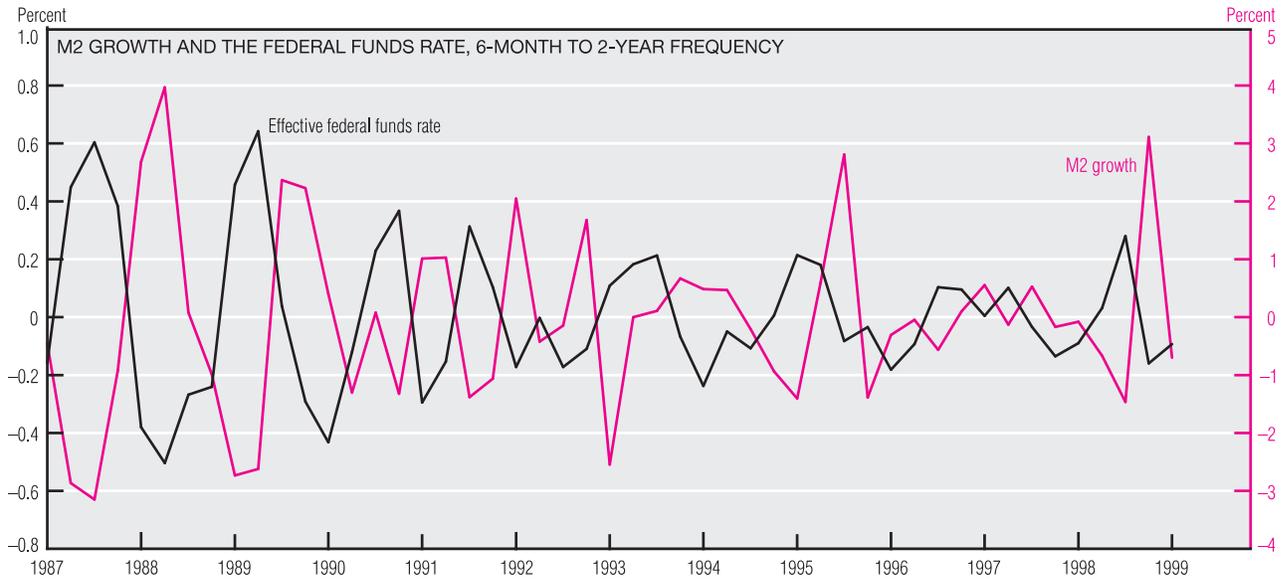
The answer hinges on the difference between their short-run and long-run movements. One strategy for analyzing this difference is to break down both the fed funds rate and the inflation rate into two sets of components: variations in each series at lower (longer-term) frequencies and at higher (shorter-term) frequencies.

If we concentrate on low frequencies like those associated with movements exceeding two years, the posi-

tive relationship noted above becomes even clearer. But if we look only at high-frequency movements (less than two years) we see that a higher funds rate portends lower inflation. This suggests that at least in the short run, increasing the fed funds rate may indeed lower inflation within a couple of quarters. But why should these correlations differ between low and high frequencies?

Like all nominal interest rates, the federal funds rate consists of both a
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Monetary Policy (cont.)



NOTE: Change in the effective federal funds rate is calculated as the difference between quarterly average rates. Inflation and M2 growth are annualized changes in quarterly average CPI—all items and M2, respectively. Data are filtered using a band-pass filter.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; Board of Governors of the Federal Reserve System; and Lawrence Christiano and Terry Fitzgerald, "The Band-Pass Filter," February 1999 (unpublished).

real rate and an expected inflation component. In the short term, expectations are largely fixed, and the monetary authority controls the funds rate by changing the real rate. To lower the real (and hence nominal) interest rate, money growth expands. Given the well-documented positive relationship between money growth and inflation, this expansion tends to increase inflation in the following year.

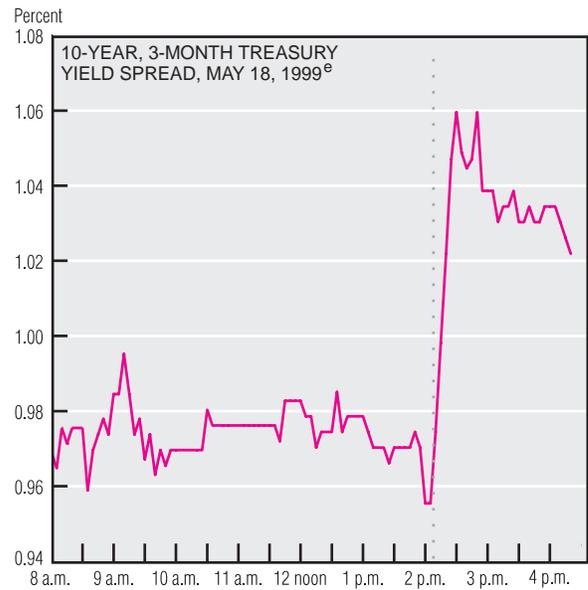
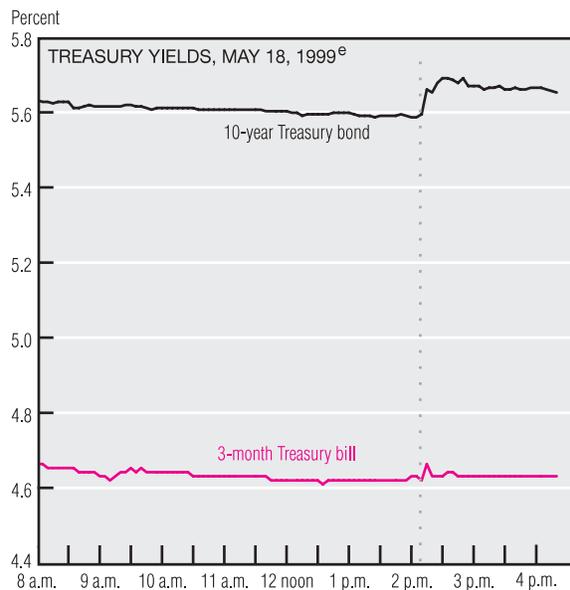
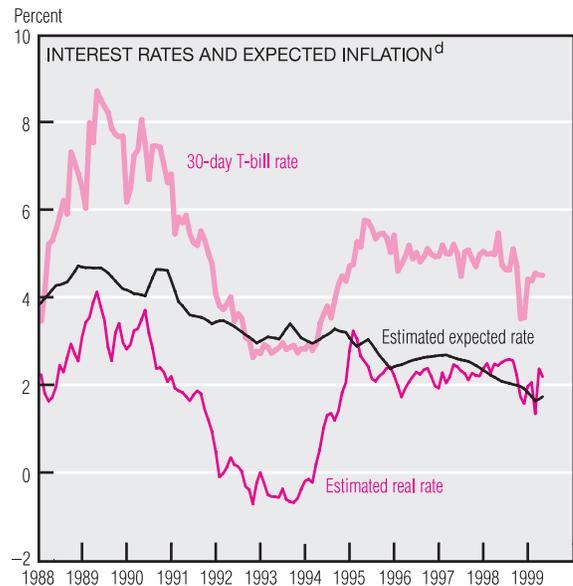
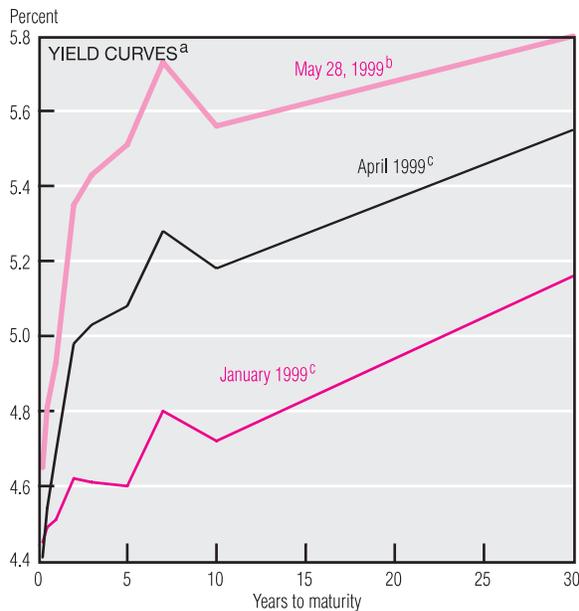
Yet in the long term, everything is reversed. Since the monetary

authority affects only real variables (like the real funds rate) over the short term, ultimately the only way it can control the nominal funds rate is by changing expected inflation. Over the long term, a lower funds rate can be maintained only if money growth is lowered. This is apparent in the relationship between money growth and the fed funds rate at lower frequencies. The correlation that was negative in the short term is now moderately positive.

Where does this leave the policymakers who wish to lower both

short-term and long-term inflation? This analysis suggests a paradox: increasing the federal funds rate today may sow the seeds of future inflation. For the monetary authority, the solution is to follow the initial round of tightening with reductions in the funds rate when inflation starts to fall. The credibility of the monetary authority depends crucially on its following through with these reductions. Otherwise, money growth will increase, undermining policymakers' anti-inflation efforts.

Interest Rates



- a. All yields are from the constant-maturity series.
 b. Weekly averages for the week of May 28, 1999.
 c. Monthly averages.

- d. Real rates and expected inflation are estimated from 30-day market yields and the Survey of Professional Forecasters' inflation projections using a Kalman filter model.
 e. The dotted lines mark the time of the FOMC announcement on May 18 (2:11 p.m., Eastern Daylight Time).

SOURCES: Board of Governors of the Federal Reserve System, "Selected Interest Rates," *Federal Reserve Statistical Releases*, H.15; Federal Reserve Bank of Philadelphia, *Survey of Professional Forecasters*; and Bloomberg information services.

Since April, the yield curve has shifted upward and steepened, but it remains fairly flat by historical standards. The 3-year, 3-month spread increased from 62 to 78 basis points, and the 10-year, 3-month spread from 77 to 91. These remain below the historical averages of about 80 and 120 basis points.

Across the board, rates have moved higher since the turn of the year. A model that uses 30-day rates and professional forecasts attributes much of that change to increases in the real rate of interest. The model's estimate of expected inflation shows a decrease since January and

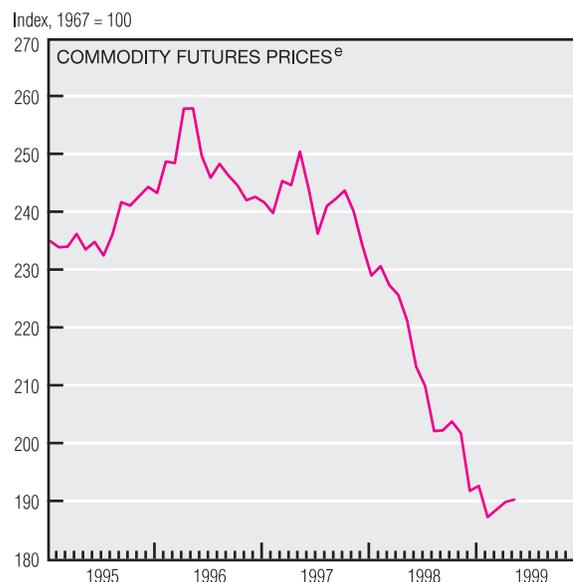
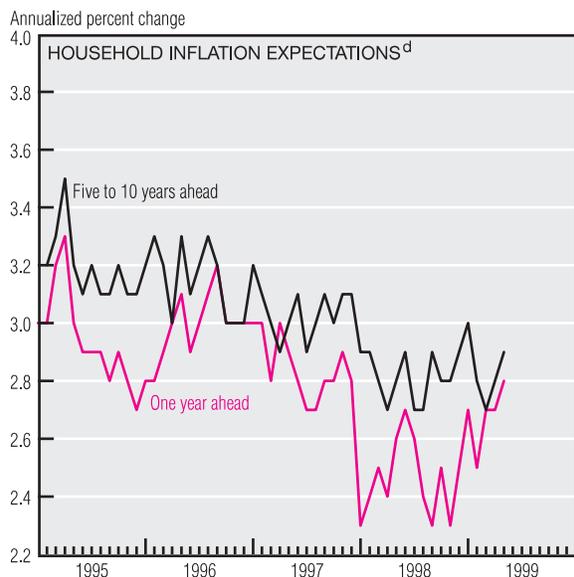
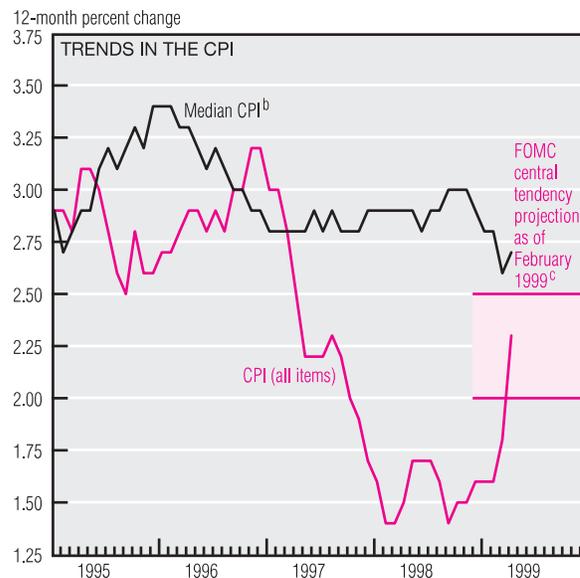
only a small increase (5 basis points) in recent months. A measure of longer-term inflationary expectations—the spread between yields on 10-year nominal Treasury bonds and Treasury inflation-protection securities—has shown larger gains, moving from 86 basis points in January to 191 on June 1.

On May 18, shortly after 2:00 p.m. (Eastern Daylight Time), the Federal Open Market Committee issued a statement that it had "adopted a directive that is tilted toward the possibility of a firming in the stance of monetary policy." Changes in the bond yields at five-minute intervals

show that this announcement had an immediate impact on bond markets. Yields made a noticeable, if not dramatic, increase at the time of the announcement; the 10-year, 3-month yield spread also jumped. It seems a stretch to attribute this effect solely to expectations of Fed tightening, which should have a larger impact on the shorter rates. Perhaps the announcement created longer-run uncertainty about Fed policy or indicated to the market that the Fed has adverse information about longer-term risks, such as inflation.

Inflation and Prices

| April Price Statistics | Percent change, last: | | | | 1998 avg. |
|-------------------------|-----------------------|--------------------|--------|--------------------|--------------|
| | 1 mo. ^a | 3 mo. ^a | 12 mo. | 5 yr. ^a | |
| Consumer prices | | | | | |
| All items | 9.1 | 3.9 | 2.3 | 2.4 | 1.6 |
| Less food and energy | 4.9 | 2.3 | 2.2 | 2.5 | 2.5 |
| Median ^b | 3.6 | 2.4 | 2.7 | 2.9 | 2.9 |
| Producer prices | | | | | |
| Finished goods | 5.6 | 1.2 | 1.2 | 1.1 | -0.1 |
| Less food and energy | 0.8 | 0.3 | 1.7 | 1.3 | 2.5 |



a. Annualized.

b. Calculated by the Federal Reserve Bank of Cleveland.

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. Median expected change in consumer prices as measured by the University of Michigan's Survey of Consumers.

e. 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.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; Federal Reserve Bank of Cleveland; the University of Michigan; and the Commodity Research Bureau.

Retail price growth accelerated in April, as the Consumer Price Index (CPI) surged 9.1% (annualized)—its largest monthly increase since October 1990. Although announced OPEC production cutbacks played a role in pushing up the index, the CPI excluding food and energy increased a sizeable 4.9% (annualized) in April, an indication that the upward price pressures were broad-based. This impression was also supported by the median CPI (an alternative mea-

sure of inflation), which rose an annualized 3.6% in April.

The relatively large jump in retail prices between March and April pushed the 12-month CPI trend back into the middle of the Federal Open Market Committee's (FOMC) central tendency for this year. Results of the latest Michigan Survey indicate that households are expecting retail prices to grow at about 2¾% this year and beyond.

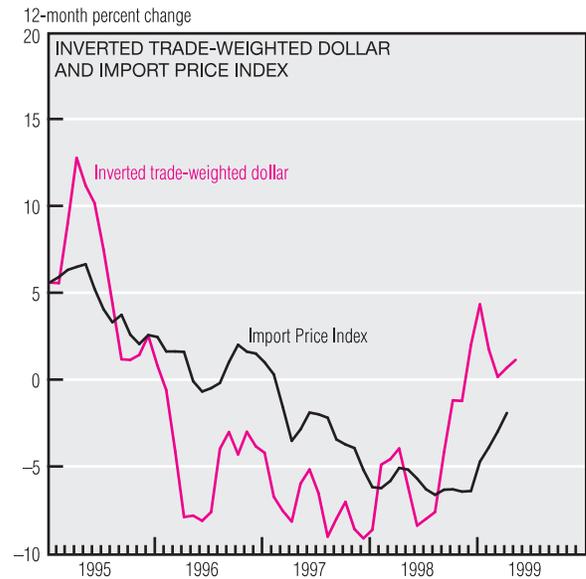
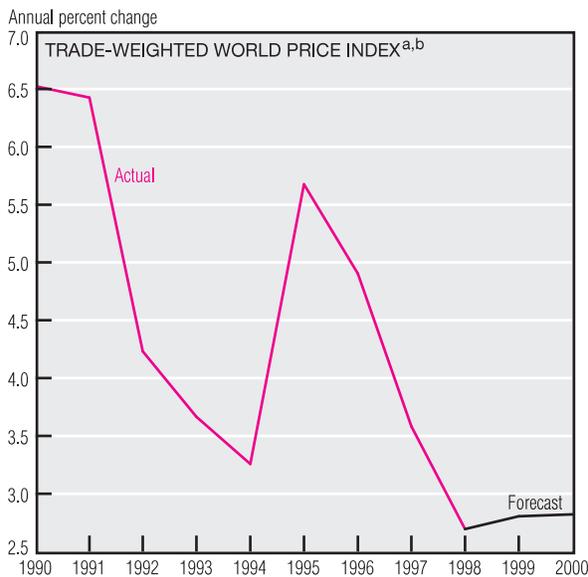
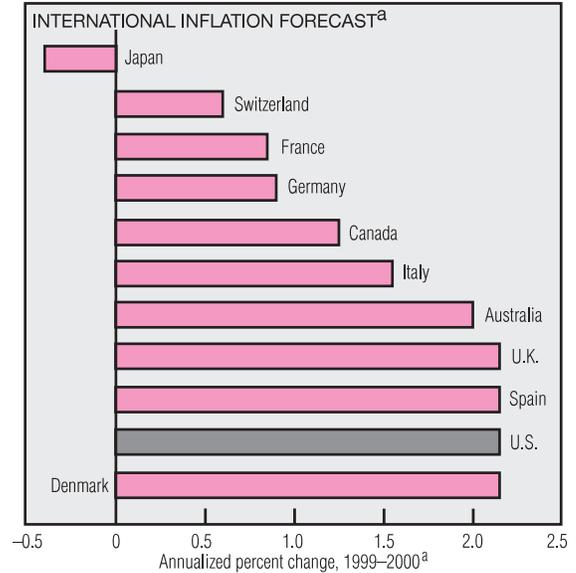
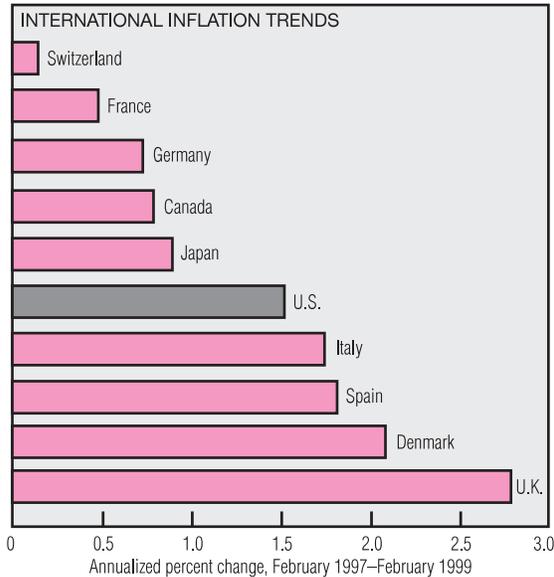
It is too early to judge whether last month's retail price jump is the

beginning of a higher inflation trend (which economists have been anticipating for more than a year) or a one-month aberration. Further down the production chain, the price data remain flat or are falling. The PPI excluding food and energy items increased a mere 0.8% (annualized) in April, slightly under its recent trend.

There are signs, however, that such favorable trends may be coming to an end. Commodity futures

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Inflation and Prices (cont.)



a. Data are from a poll reported in *The Economist*.

b. Calculated by the Federal Reserve Bank of Cleveland.

SOURCES: Federal Reserve Bank of Cleveland; International Monetary Fund, *International Financial Statistics*; and *The Economist*, May 29, 1999.

prices, which include a variety of raw materials used in manufacturing, have halted their two-year downward slide.

Another related issue in the near-term outlook for domestic prices is the direction of import prices. Readily available foreign production, attributable mostly to slack economies abroad, has added substantially to the world's excess productive capacity. This excess capacity has put downward pressure on domestic prices, either through trade with foreigners or through added competitive pressures on domestic producers.

While U.S. inflation performance in the past few years has been remarkable, some of our major trading partners have experienced even less price pressure. Japan, Canada, Germany, France, and Switzerland all experienced average real price increases of less than 1% per year in the past two years—and these trends are expected to continue. Economists seem to agree that U.S. inflation (around 2% per year) will be among the highest of our major trading partners over the next two years.

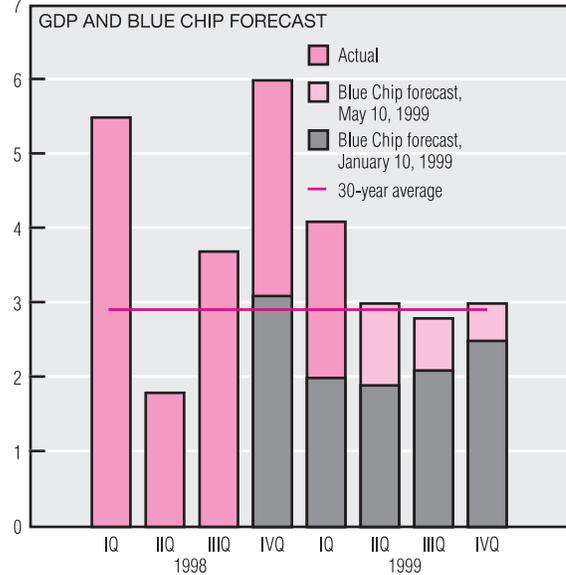
The "cost" of this inflation performance has been a widening U.S. trade gap. And there is a limit to how long and how far this trade deficit

can be sustained. Trade account deficits add to net foreign claims on the U.S. and, at some point, they begin to put downward pressure on the exchange value of the dollar. As the dollar falls in value, U.S. consumers of foreign goods should begin to see their prices rise. In fact, such trends may already be under way. After its peak last summer, the dollar has fallen, thereby slowing the rate at which import prices are falling. Some economists expect these trends to continue this year and beyond, as the foreign sector ceases to moderate U.S. retail prices and begins to aggravate them instead.

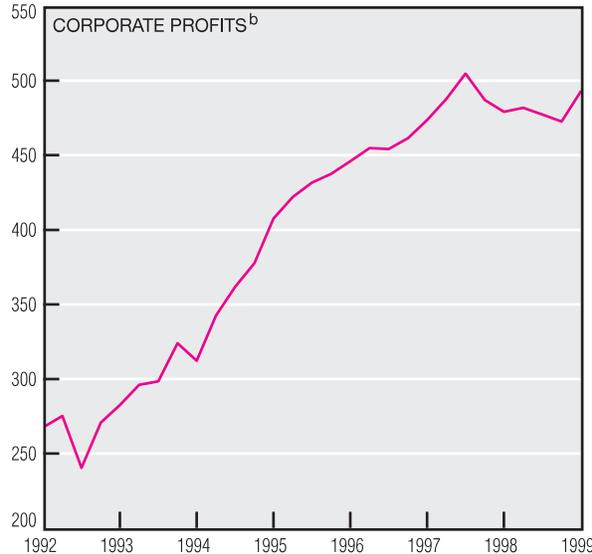
Economic Activity

| Real GDP and Components, 1999:IQ ^a (Preliminary estimate) | Change, billions of 1992 \$ | Percent change, last: | |
|---|-----------------------------------|-----------------------|------------------|
| | | Quarter | Four quarters |
| | | | |
| Real GDP | 77.0 | 4.1 | 3.9 |
| Consumer spending | 87.1 | 6.8 | 5.5 |
| Durables | 23.8 | 12.9 | 12.5 |
| Nondurables | 35.5 | 9.4 | 5.2 |
| Services | 31.0 | 4.3 | 4.2 |
| Business fixed investment | 18.9 | 7.8 | 8.5 |
| Equipment | 18.8 | 9.7 | 11.0 |
| Structures | 1.4 | 2.8 | 1.6 |
| Residential investment | 11.8 | 15.4 | 12.5 |
| Government spending | 13.9 | 4.3 | 3.2 |
| National defense | -5.2 | -6.7 | 2.1 |
| Net exports | -60.1 | — | — |
| Exports | -17.6 | -6.8 | 0 |
| Imports | 42.5 | 14.2 | 9.4 |
| Change in business inventories | -5.2 | — | — |

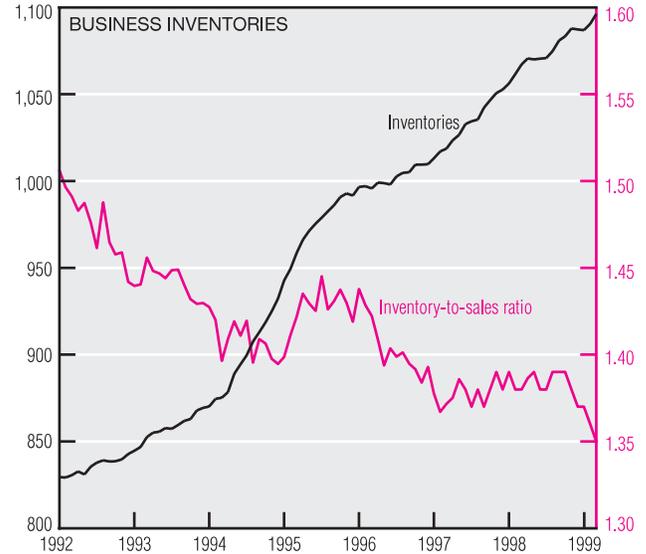
Annualized percent change from previous quarter



Billions of current dollars



Billions of current dollars



a. Chain-weighted data in billions of 1992 dollars. Components of real GDP need not add to totals because current dollar values are deflated at the most detailed level for which all required data are available.

b. Corporate profits data are profits after tax with inventory valuation and capital consumption allowances.

NOTE: All data are seasonally adjusted.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census; and *Blue Chip Economic Indicators*, January 10 and May 10, 1999.

The 4.1% preliminary (second) estimate of real GDP growth in 1999:IQ was only slightly lower than the 4.5% advance (first) estimate released in April. A revision of 0.4 is not unusual. Past experience suggests that 90% of the time the revision is between -0.9 and +1.4 of the advance estimate. Factors contributing to the downward revision included a stronger drag from increased net imports (-0.12), and slightly lower estimates of consumption spending (-0.1) and inventory investment

(-0.16). The Blue Chip consensus forecast of GDP for the rest of 1999 increased once again, and now indicates an expectation of above-average growth for the year.

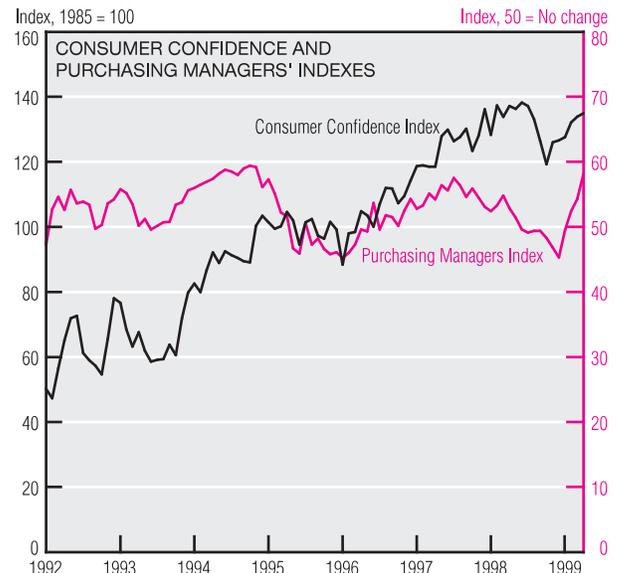
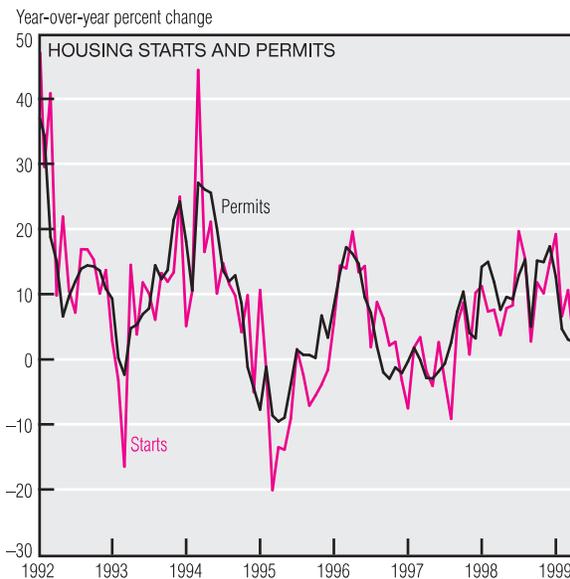
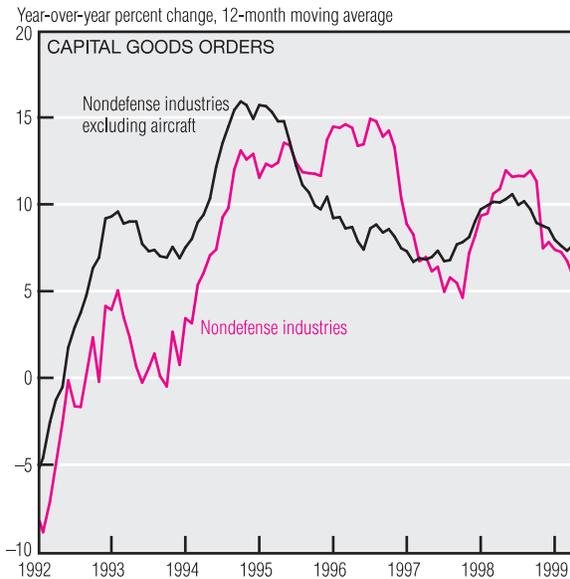
Preliminary GDP data included the first estimates of 1999:IQ corporate profits, which showed a 3.7% annualized increase over 1998:IVQ and a 3.1% gain over the same period last year. These increases, however, were not sufficient to raise the level of profits to the peak reached in 1997.

Data showing a sharp increase in

the March current dollar value of business inventories were released after the advance GDP estimates were prepared. This led some analysts to expect an increase in the preliminary GDP estimate rather than the slight decrease actually observed. Just as the March inventory-to-sales ratio declined because sales grew faster than inventories, so too the actual ratio of inventories to GDP fell short of the level implicit in the advance GDP release.

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Economic Activity (cont.)



NOTE: All data are seasonally adjusted.

SOURCES: U.S. Department of Commerce, Bureau of the Census; Board of Governors of the Federal Reserve System; The Conference Board, Inc.; and the National Association of Purchasing Management.

Nondefense capital goods orders are sometimes cited as an indicator of future business fixed investment in equipment. Total capital goods orders dropped sharply in April, as the volatile defense component declined by more than one-third. Nondefense orders also declined sharply, reflecting a substantial reduction in the aircraft component that was sensitive to a cutback in orders at a single manufacturer of large airplanes. A comparison of nondefense orders with and without the private aircraft component shows that a single firm in a single industry may have a substantial

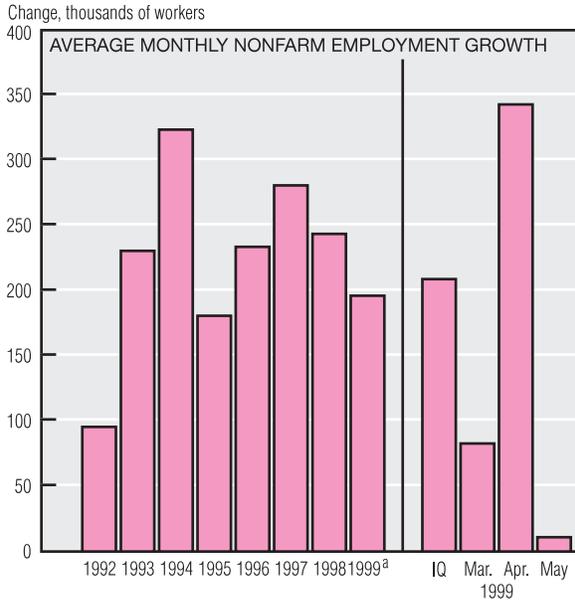
impact on this indicator. Growth rates of the two series typically move in the same direction, but have been close together only for a few months at a time, and then only intermittently.

Continued above-average growth of real GDP and reductions in the unemployment rate without inflation are attributed at least partly to significant productivity increases. Nowhere is this more evident than in the manufacturing sector of the economy. Manufacturing output has been growing almost without interruption since 1992, although the growth rate has slowed over the past two years. Manufacturing employment, how-

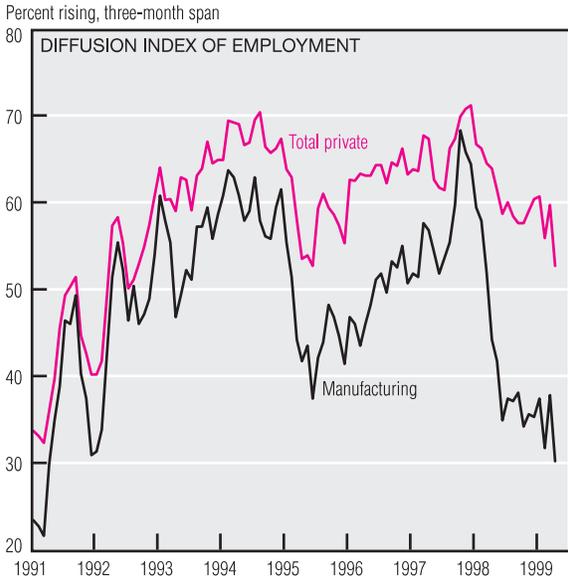
ever, has declined over the same two years. In fact, manufacturing employment in April 1999 was identical to that in October 1994. Thus, the same level of employment now produces 23.6% more output than in 1994.

A hint that economic growth may be cooling comes from the housing market, where annual growth rates of housing starts and housing permits, two volatile data series, have plummeted in recent months. However, more subjective measures of consumer and business sentiment betray no signs of doubt that economic expansion will continue.

Labor Markets



| | Average monthly change (thousands of employees) | | | | |
|-----------------------|---|------|------|------------------|-----|
| | 1996 | 1997 | 1998 | YTD ^a | May |
| Payroll employment | 234 | 281 | 244 | 196 | 11 |
| Goods-producing | 32 | 48 | 8 | -31 | -92 |
| Mining | 1 | 2 | -3 | -7 | -7 |
| Construction | 28 | 21 | 30 | 13 | -40 |
| Manufacturing | 3 | 25 | -19 | -36 | -45 |
| Durable goods | 10 | 27 | -9 | -21 | -26 |
| Nondurable goods | -7 | -2 | -10 | -15 | -19 |
| Service-producing | 202 | 233 | 235 | 228 | 103 |
| TPU ^b | 8 | 16 | 18 | 16 | 13 |
| Retail trade | 43 | 24 | 32 | 46 | 17 |
| FIRE ^c | 14 | 20 | 26 | 17 | 12 |
| Services | 117 | 141 | 119 | 113 | 71 |
| Household employment | 228 | 235 | 157 | 140 | 155 |
| Civilian unemployment | 5.4 | 4.9 | 4.5 | 4.3 | 4.2 |



a. Year to date.
 b. Transportation and public utilities.
 c. Finance, insurance, and real estate.
 d. Vertical line indicates break in data series due to survey redesign.
 NOTE: All data are seasonally adjusted. Payroll data reflect the annual rebenchmarking by the Bureau of Labor Statistics.
 SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

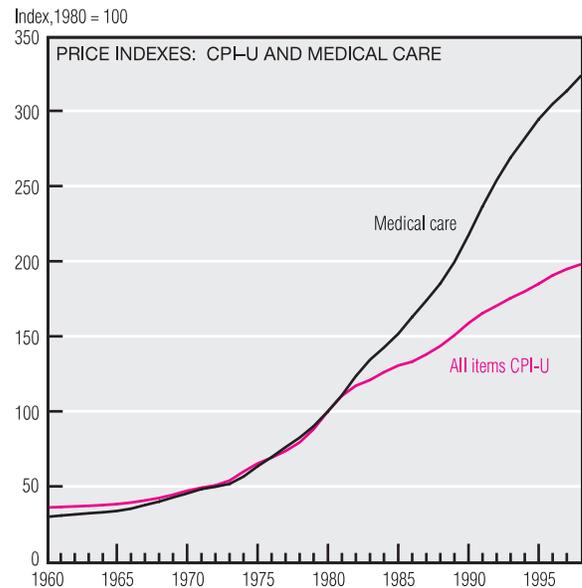
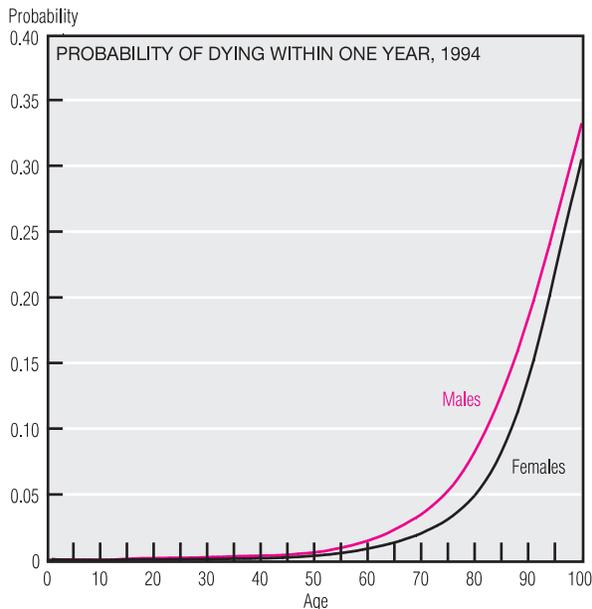
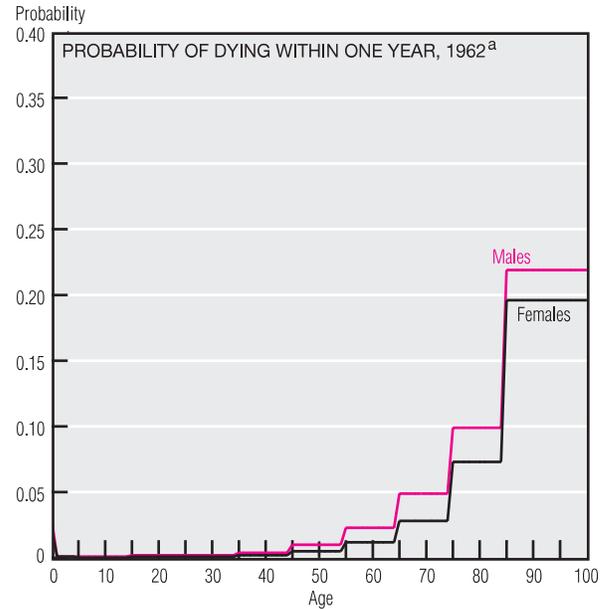
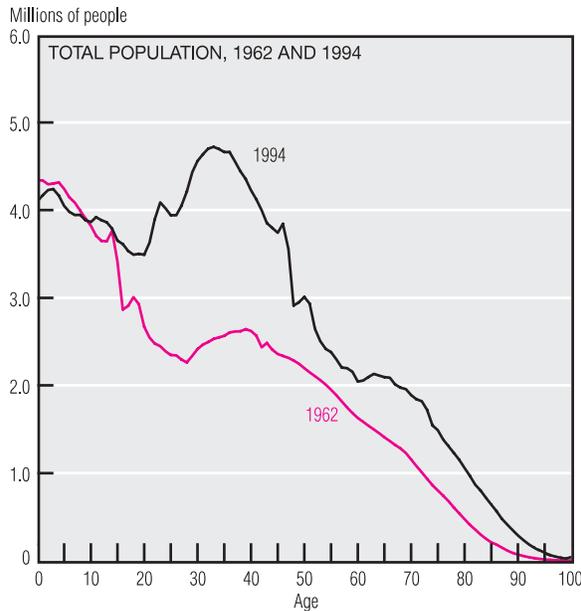
Key measures of labor market activity were mixed in May. The pace of job creation for the month was well below average for the current expansion. The unemployment rate fell back to the record low of 4.2% reached earlier this year.

Nonfarm payrolls, measured by the establishment survey, increased only 11,000 in May following an exceptionally large increase of 343,000 (revised) in April. Job losses occurred consistently in various

goods-producing sectors. Construction and manufacturing jobs decreased 40,000 and 45,000, respectively. Construction losses were partly attributable to unusual winter weather patterns and adjustment for seasonal variations in hiring. Manufacturing has lost a total of 453,000 in the last 14 months. Indeed, for the three months ending April 1999, only about 30% of surveyed manufacturing companies reported payroll increases.

The service-producing sector was not immune to weakness in May. Noticeably, a weak overall gain in retail-sector employment reflected job losses in many specific retail industries, including food stores and materials and garden supplies. Of the 349 private, nonfarm industries surveyed, less than half reported adding jobs in the three months ending April 1999.

Cross-Generation Wealth Transfers



a. Probabilities after age 85 are assumed to be the same as for age 85.

SOURCES: U.S. Department of Commerce, Bureau of the Census; Social Security Administration; and *Economic Report of the President*, 1999, Washington, D.C.: U.S. Government Printing Office, 1999.

Faced with uncertain prospects for Social Security and Medicare, can baby boomers rely on large transfers from their parents and grandparents to finance their retirement? Although economists generally agree that a major fraction of the existing stock of wealth can be traced to gifts and bequests, there is little direct evidence on the size of these cross-generation transfers. There are two main reasons to doubt that the boomers will receive much larger bequests than their counterparts did 30 years ago or will be able to rely on such bequests for financing retirement consumption.

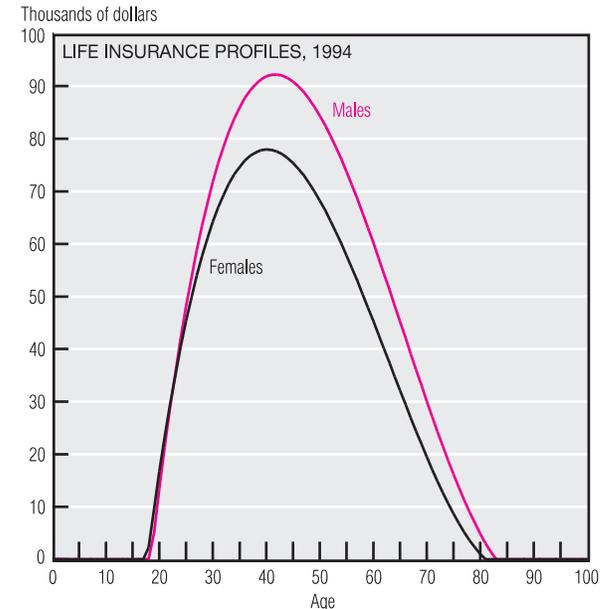
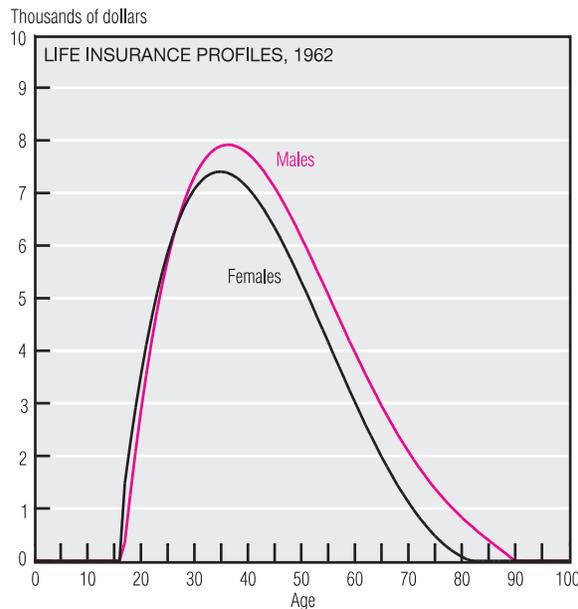
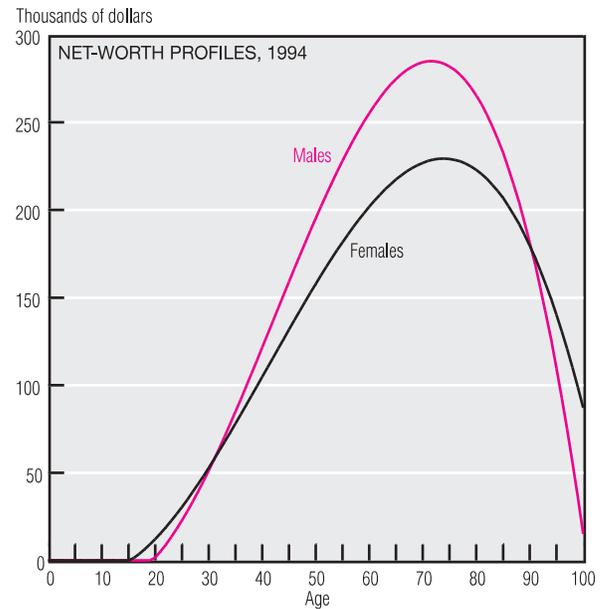
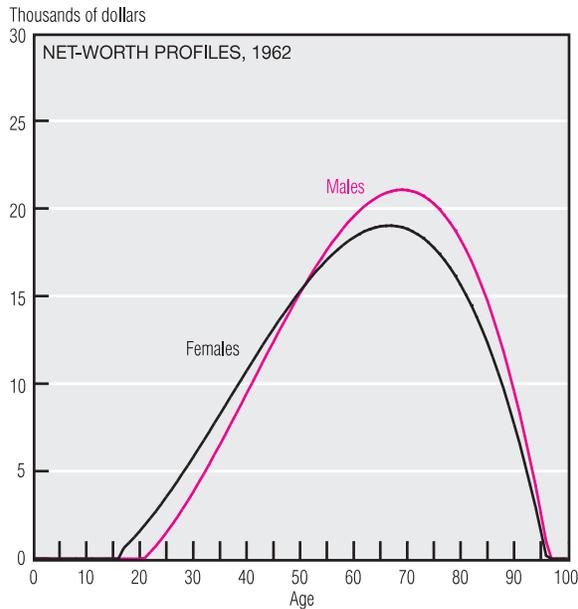
First, although the population's structure has shifted dramatically in the past three decades, so far the shift has been concentrated at younger ages. During the early 1960s, there were fewer working-age individuals relative to the elderly population. The baby boom was still in progress, and the boomers were young dependants. Today, however, there are many more young workers relative to retirees. Hence, even if bequests are larger than they were 35 years ago, boomers must share them with more siblings.

Second, although their numbers have increased, the elderly are living

longer today than they did 50 years ago. A longer lifetime implies more years of retirement consumption and, consequently, smaller bequests upon death. Third, per capita medical costs have accelerated much faster than the general price level, meaning that older individuals' wealth holdings are depleted much more rapidly because of greater spending on medical care.

The charts show smoothed profiles of net worth and term life insurance holdings by age and sex for 1962 and 1994. The net-worth profiles have several interesting *(continued on next page)*

Cross-Generation Wealth Transfers (cont.)



SOURCES: Board of Governors of the Federal Reserve System, *Survey of Financial Characteristics of Consumers, 1962–63* and *Survey of Consumer Finances, 1994*; and Federal Reserve Bank of Cleveland.

characteristics. For both years they are hump-shaped, indicating a significant life-cycle pattern—wealth accumulation until retirement and wealth decumulation thereafter. The peak levels of the profiles are roughly 10 times higher in 1994 than in 1962.

The net-worth profiles are higher initially for young women than young men in both years, perhaps because men on average spend more time acquiring education and training and enter the labor force later than women. But men, because they earn more than women, accumulate more wealth by the time

they retire. The 1994 profiles suggest that while the rate of wealth decumulation after retirement has slowed for men, the slowdown has been more pronounced for women. The explanation may lie in the greater increase in female longevity over the last several decades.

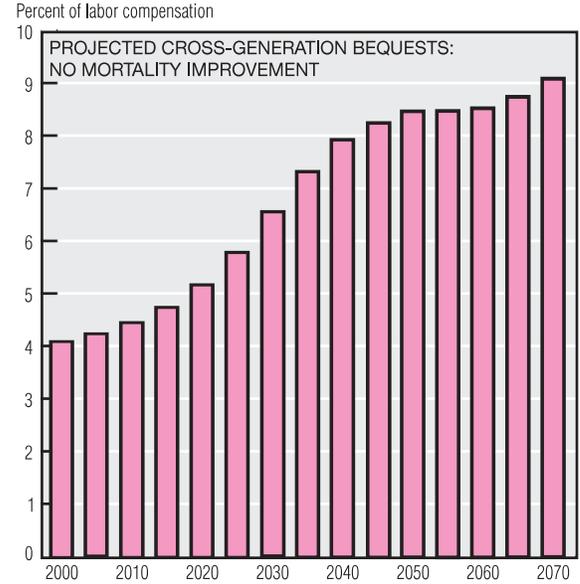
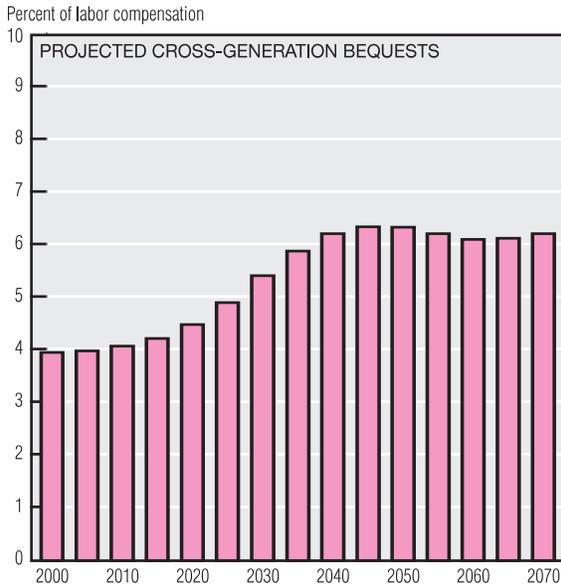
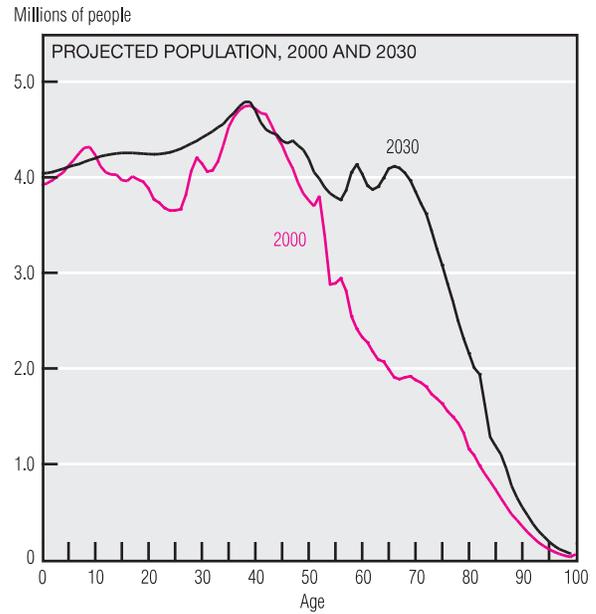
The life insurance profiles have similar characteristics. The value of term life insurance outstanding peaks during the early working years. Like the net-worth peak, the insurance peak is roughly 10 times higher in 1994 than in 1962. Men's life insurance holdings exceed women's during most of the work-

ing lifetime. These features are as expected, since the purpose of life insurance is to protect against loss of future earnings. The male life-insurance profile declines more steeply with age in 1994, perhaps suggesting that the very old now are finding it more difficult to buy life insurance than did their counterparts 35 years ago.

Direct, reliable evidence on inheritances and bequests is not available; indeed, it may be uncollectable. But we can calculate annual bequest flows indirectly as the sum of deaths per year by age and sex
(continued on next page)

Cross-Generation Wealth Transfers (cont.)

| Bequeathable Wealth and Cross-Generation Bequests, 1962 and 1994 | | | |
|--|--------------------|------------------------------------|---------------------------|
| | Labor compensation | Net worth plus term life insurance | Cross-generation bequests |
| 1962 ^a | 1,767.2 | 13,693.8 | 53.1 |
| 1994 ^a | 4,412.6 | 38,854.6 | 145.1 |
| Ratio: | | | |
| 1994/1962 | 2.5 | 2.8 | 2.7 |
| Annual growth rate (percent) | 2.9 | 3.3 | 3.2 |



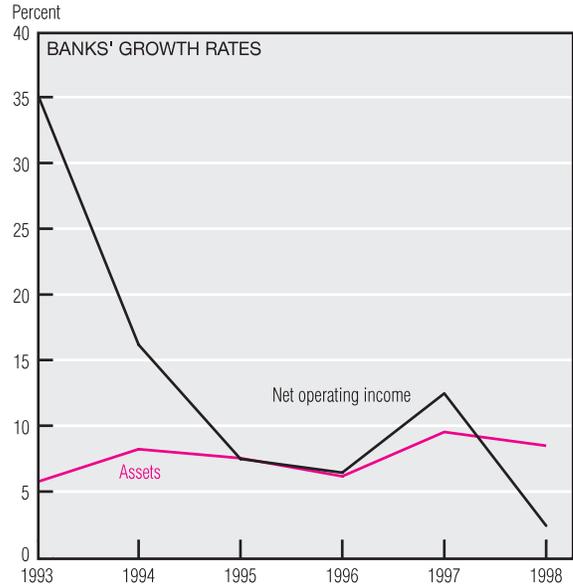
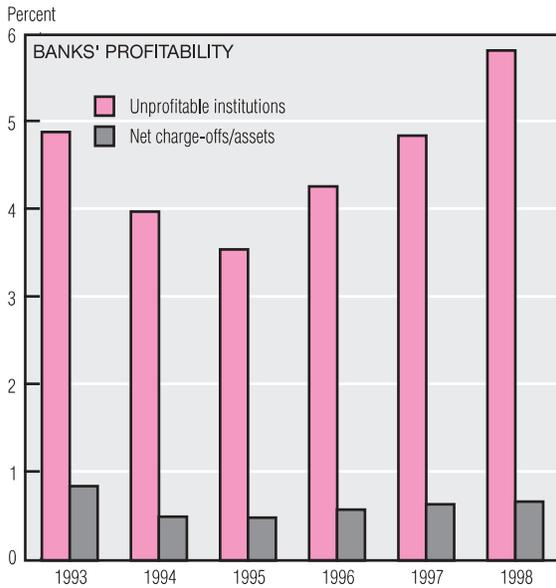
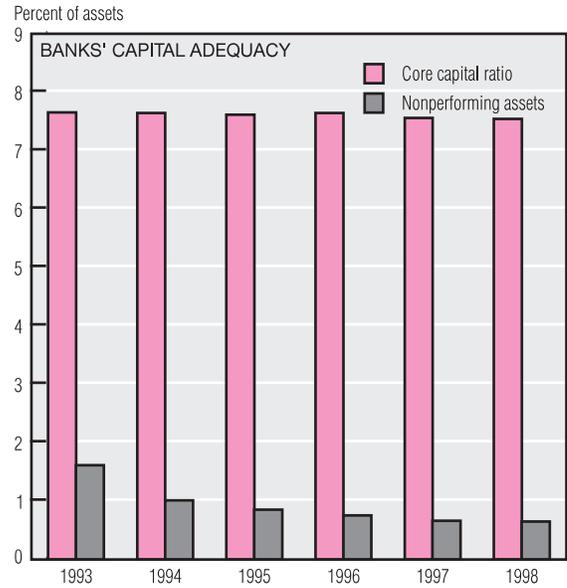
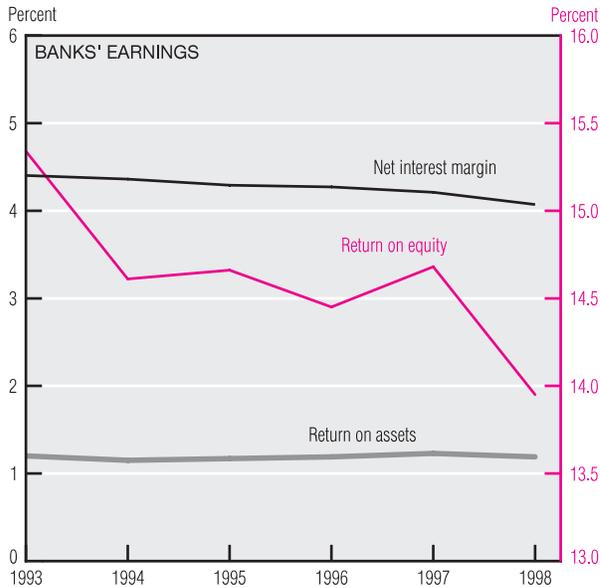
a. Trillions of 1998 dollars.
 SOURCES: Social Security Administration; and Federal Reserve Bank of Cleveland.

times bequeathable wealth by age and sex. Annual deaths for males and females over 50 are estimated using population and mortality data. Bequeathable wealth is the sum of net worth and term life insurance. Under reasonable assumptions about the fraction of wealth transferred to the next generation, bequests are estimated to have grown just a little faster than labor compensation. That is, baby boomers are not receiving substantially larger bequests relative to their labor compensation than did their counterparts in the 1960s.

The population structure will evolve, and mortality is expected to improve in the future—changes that will affect bequest flows between generations. For example, in another three decades, the elderly population is expected to balloon relative to the number of workers, and mortality rates are projected to decline for all age groups. If economic growth is projected at 0.9% per year, cross-generation bequests are expected to rise from just under 4% of labor compensation today to more than 6% by the middle of the

next century. It is the offspring of the baby boomers who can expect to have a bequest bonanza. Their windfall will be even larger if mortality improvements occur at slower-than-projected rates. In that case, boomers would die earlier—before further depleting their bequeathable wealth. In the extreme case—if mortality remains constant through 2070—cross-generation bequests would be even larger relative to labor compensation during the coming decades.

Banking Conditions



SOURCE: Federal Deposit Insurance Corporation, *Quarterly Banking Profile*, December 1998.

Commercial banks' balance sheets showed continued signs of health through the fourth quarter of 1998. Despite a slowdown in profits relative to 1997, earnings were still strong, with the net interest margin remaining above 4%. Return on equity for the 1998 calendar year was 13.95%. Moreover, nearly 95% of all commercial banks posted positive profits for all of 1998.

Strong bank balance sheets are reflected in core bank capital which, at 7.54% of assets, is high

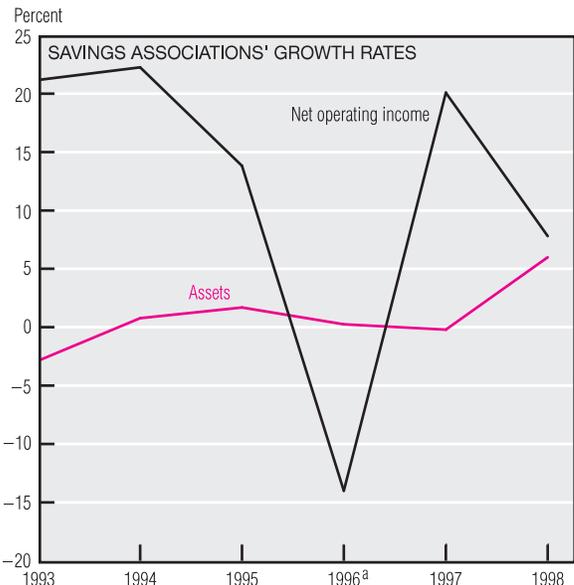
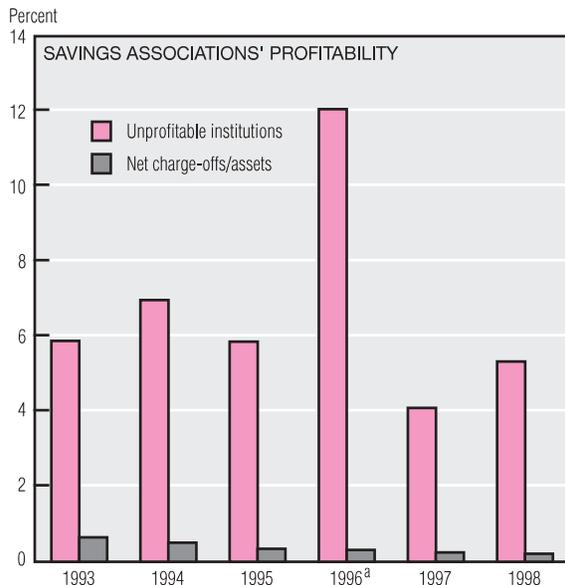
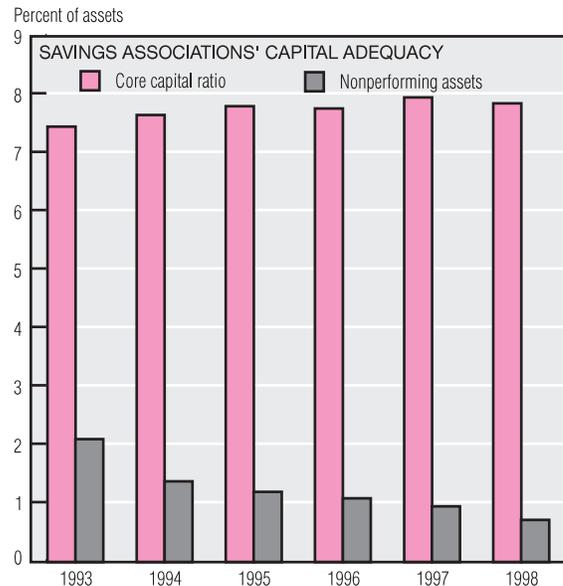
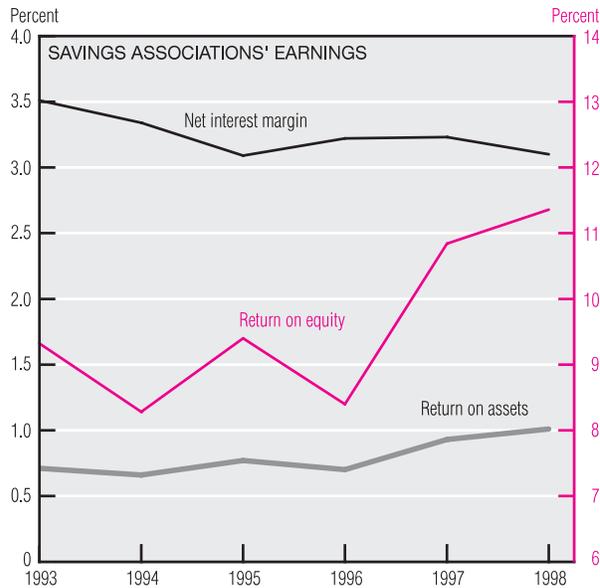
by historical standards. In addition, asset-quality problems are not yet evident, as nonperforming assets fell to 0.65% of total assets.

One sign of potential weakness is the increased level of net charge-offs (0.67% of total loans). However, while net charge-offs have reached their highest level in five years, they remain well below 1% of total loans; hence, from a historical perspective, the current charge-off rate still appears favorable.

The formerly brisk pace of growth in the banking sector slowed substantially in 1998. Net operating income growth fell below 5% to 2.39%, its lowest level in six years. Bank asset growth, however, remained strong at levels above 8%. Taken together, despite recent signs of a slowdown, the banking sector should continue to grow steadily without compromising profitability or, more importantly, the quality of its assets.

(continued on next page)

Banking Conditions (cont.)



a. A sharp decline in operating income growth in 1996 was partly due to a special deposit insurance assessment on the deposits of savings associations.

NOTE: All data are for FDIC-insured savings associations.

SOURCE: Federal Deposit Insurance Corporation, *Quarterly Banking Profile*, December 1998.

The performance of savings associations continued to be strong throughout 1998, with full-year earnings for the industry reaching a record \$10.2 billion. Despite some unexpected weakness in the fourth quarter of 1998, return on assets for the full year stood at its highest level since 1946 (higher than 1%). Furthermore, at 11.36%, return on equity was at its highest level since 1985. Unlike 1985, however, 1998's return on equity was generated by the robust return on assets and by a steady net interest margin of 3.1%.

Finally, savings associations' balance sheets strengthened, with fewer than 5½% reporting losses through 1998:IVQ.

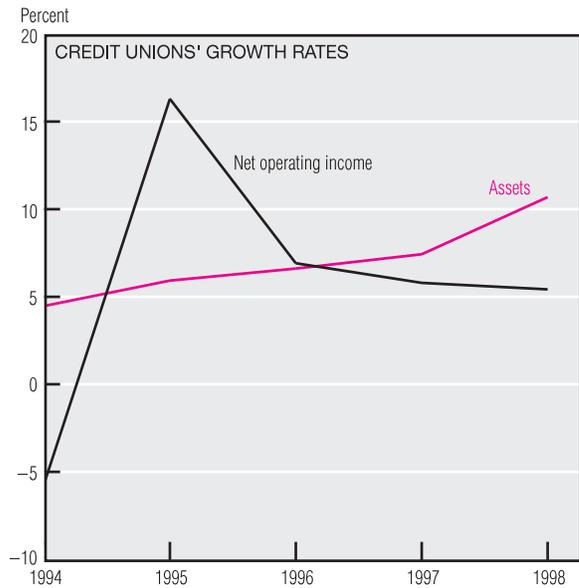
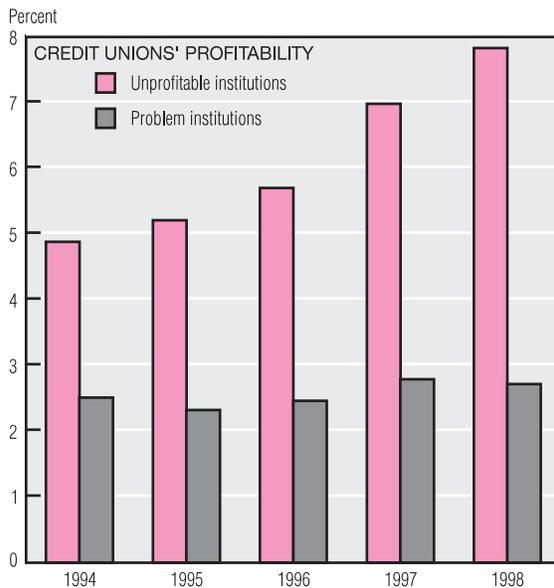
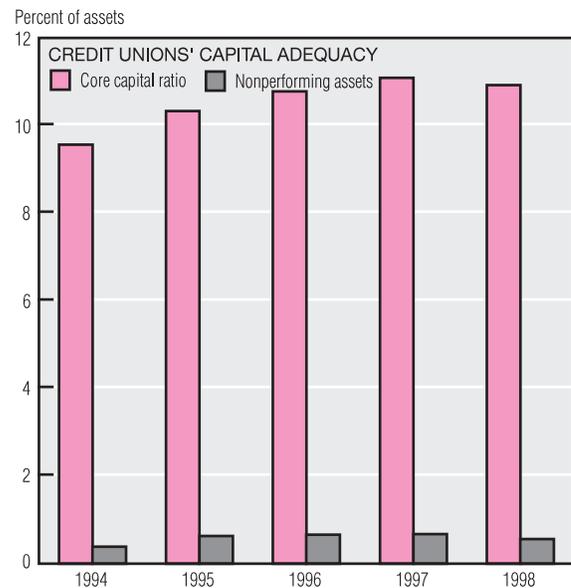
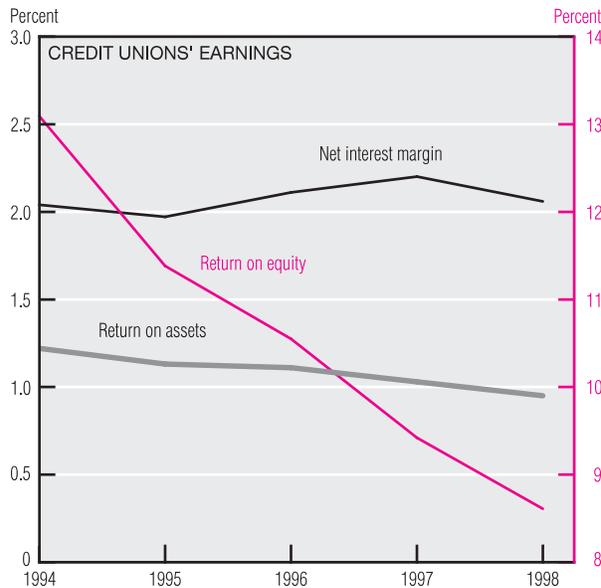
Asset quality also continued to improve, as nonperforming assets fell to 0.72% of total assets and net charge-offs fell to 0.21% of total loans. Core capital in 1998 remained a healthy 7.85% of total assets, a small decrease from the previous year. The decline in this financial ratio was driven by strong asset growth (nearly 6%) in 1998. This contrasts sharply with recent

trends, in which savings associations' assets were either flat or declining. The year's strong asset growth was accompanied by an increase in operating income of just under 8%, suggesting that growth did not come at the expense of profit margins.

Overall, recent industry performance suggests that savings associations will continue to play an important role in the economy, though perhaps a smaller one than in the past.

(continued on next page)

Banking Conditions (cont.)



SOURCE: National Credit Union Administration.

Federally insured credit unions showed some weakness through the end of 1998. Profitability continued its steady decline over the latter half of the decade, as the return on assets (ROA) for the industry dropped to 0.95%. Falling ROA, coupled with an increase in core capital from 9.56% in 1994 to 10.92% in 1998, led to a sharp decline in return on equity (from 13.09% to 8.61%) over the same period.

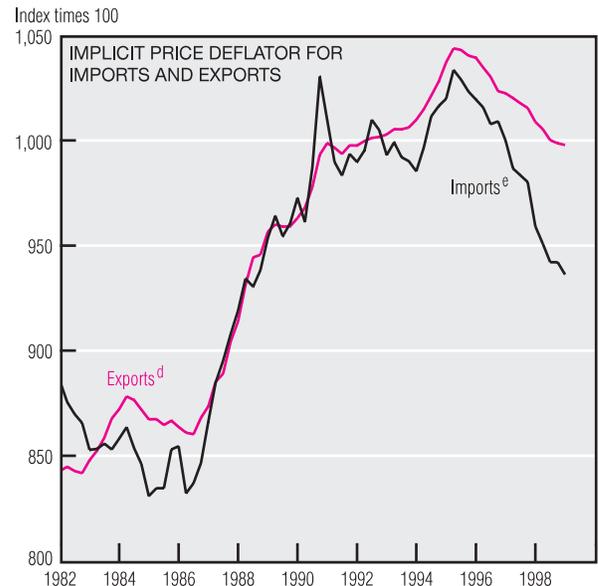
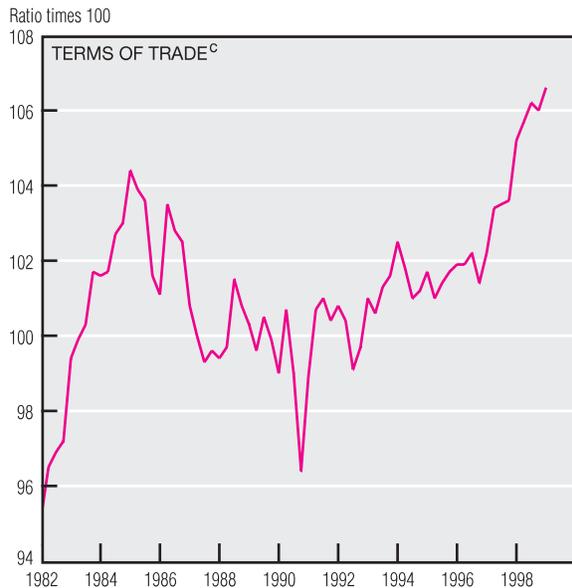
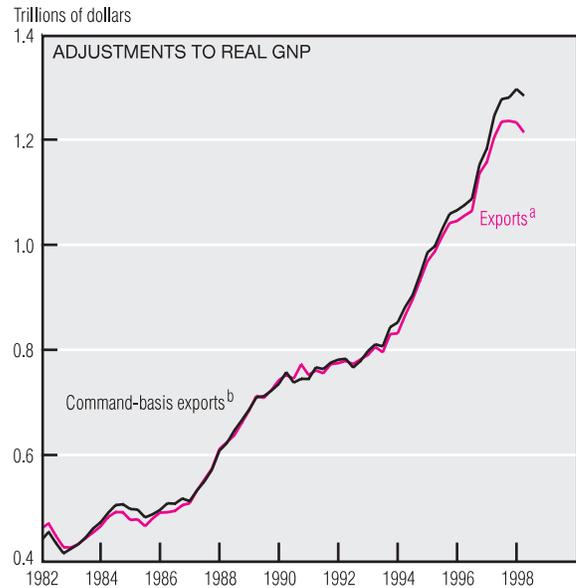
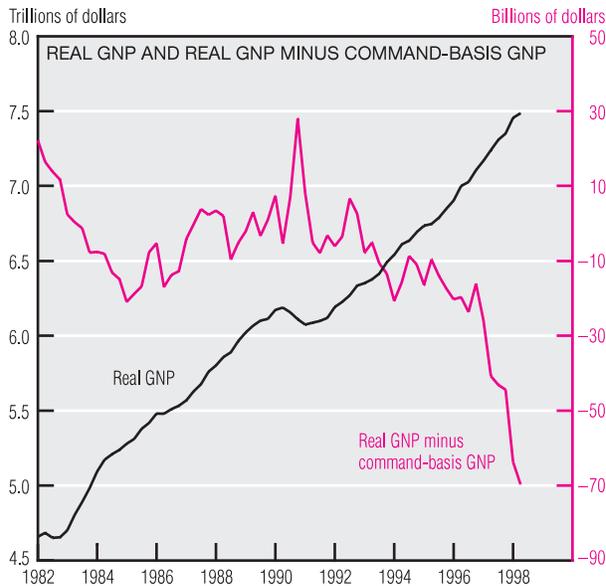
A closer look at the components of earnings suggests that the deterioration of industry profits has

resulted from shifting asset allocation rather than shrinking margins. While the industry's net interest margin has remained relatively flat, hovering around 2%, credit unions have nonetheless increased the proportion of their assets in investments other than higher-yielding loans.

Even as profitability has slipped, however, the overall condition of credit unions' balance sheets appears unchanged. The core capital ratio declined somewhat between 1997 and 1998, but it remains high relative to the previous few years at

a healthy 10.92%. The percentage of the industry's problem assets relative to total assets has remained relatively flat since 1994, though the percent of unprofitable institutions has risen from nearly 5% in 1994 to nearly 8% today. Despite this, however, the number of credit unions assigned unsatisfactory ratings by their regulator fell slightly in 1998 (to 2.72%). While credit unions' present condition is mixed, over the long term there seems to be little cause for concern.

International Developments



- a. Exports of goods and services and receipts of factor income from the rest of the world.
 b. Exports of goods and services and receipts of factor income deflated by the implicit price deflator for imports of goods and services and payments of factor income.
 c. Ratio of the implicit price deflator for exports of goods and services and receipts of factor income to the corresponding implicit price deflator for imports (with the decimal point shifted two places to the right).
 d. Implicit price deflator for exports of goods and services and receipts of factor income.
 e. Implicit price deflator for imports of goods and services and payments of factor income.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census.

Command-basis GNP measures the U.S. economy's real output by valuing its exports of goods and services and its receipts of factor income at the prices they would command as imports to the U.S. This contrasts with GNP itself, which measures real output by valuing exports of goods and services at the prices actually received for them and factor services at the prices of final sales to U.S. purchasers.

Data for 1998:IIQ show a widening gap between command-basis

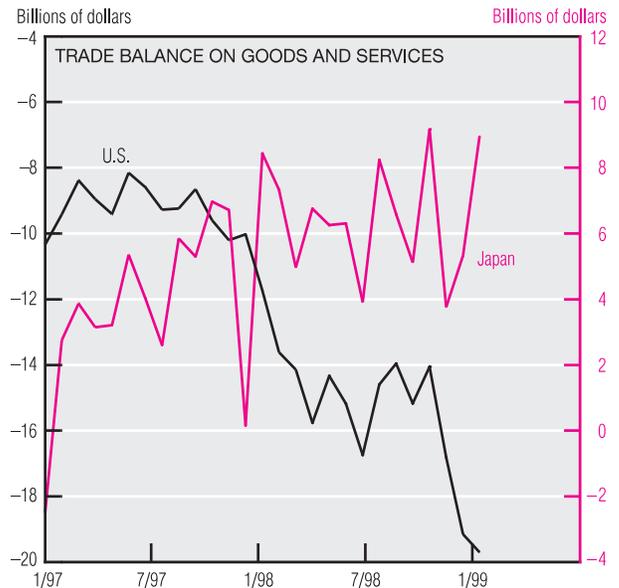
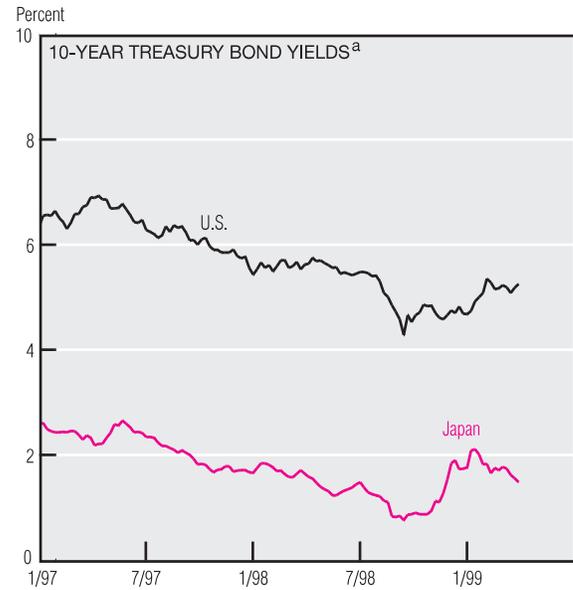
GNP and real GNP, implying that the purchasing power of U.S. production grew even further than the more familiar measure suggests. With nominal U.S. exports flat, the increased difference between the two measures must result from a wider divergence between export and import prices

Terms of trade, a related concept, is the ratio of the price deflator for the sum of exported goods and services plus receipts of factor income to the deflator for the sum

of imported goods and services plus payments of factor income. The terms of trade have been improving since 1996:IVQ because import prices have fallen faster than export prices.

Neither the widening gap between command-basis and real GNP nor the improved terms of trade is likely to last. Economic weakness in developed and developing economies temporarily has dampened both demand for U.S. exports and prices of imports.

The Yen Exchange Rate



a. Ten-year constant-maturity U.S. Treasury bond and 10-year Japanese government bond.

b. Three-month CD rate for U.S. and 3-month interbank loan rate for Japan.

SOURCES: Board of Governors of the Federal Reserve System; Federal Reserve Bank of New York; and DRI/McGraw-Hill.

The dollar strengthened against the yen in the past month, continuing a trend that began early this year. The yield on Japan's 10-year government bonds declined as the country's prospects for recovery remained dim. The Organisation for Economic Co-operation and Development has lowered its forecasts of Japanese growth for 1999 and 2000. In contrast, long-term yields in the U.S. have been increasing since last fall, as the economy's continued strength became apparent. April's

record net capital outflow from Japan is consistent with the increased relative attractiveness of U.S. assets.

Although long-term yields are much lower in Japan than in the U.S., the 10-year, 3-month spread is higher. However, that spread has decreased recently as long-term yields declined relative to short-term rates that already were close to zero. In the U.S., on the other hand, the spread has increased, consistent with anticipated higher U.S. short-

term rates.

In March, the surplus in Japan's trade balance on goods and services continued to grow, while the U.S. balance plummeted. The weakening gives Japan's economy a boost; for a more sustained recovery, however, additional stimulus measures from its government might be needed. In the U.S., a stronger dollar dampens domestic price pressures, but a worsening trade balance with Japan always threatens to bring political pressure to moderate the weakening of the yen.