

The Economy in Perspective

Hanging in the balance... According to Fed-watchers, the Federal Reserve is nearing a crossroads in its thinking about the need for further reductions in the federal funds rate. On one hand, they say, the economy remains weak despite the 2½ percentage point reduction already made this year; on the other hand, there are some signs that inflation and inflation expectations may be stirring. Since the Fed is presumed to be sensitive to both inflation and the pace of economic growth, it is reasonable for Fed-watchers to assess carefully the balance between the risks that pertain to each. Indeed, the FOMC referred explicitly to the balance of risks between economic activity and inflation in its May 15 press release, which announced a reduction of ½ percentage point in the funds rate.

The economy grew slowly in the last two quarters and, judging by the little bit of hard data available plus many anecdotal accounts, it is still doing so. Employment, hours worked, and factory orders all reflect a decline in activity from just six months ago. Interest rates and credit terms reflect the tighter standards lenders are applying to borrowers in a broad array of financial markets. Cash—not equity—is king. Earlier this year, analysts looked for a quick inventory correction and some thinning out of high-tech firms, but expected little extended damage. Now that personal consumption spending has slowed from last year's torrid pace, observers have stretched out their forecasts of stronger overall economic growth. Those who spoke of a V-shaped recovery have grudgingly begun to substitute the letter *U*.

The FOMC was certainly aware of current conditions—and the possibility of continuing sluggishness—when it met on May 15. Although some aspects of the economy appeared to be positive, its published statement indicated that “[t]he Committee continues to believe that...the risks are weighted mainly toward conditions that may generate economic weakness in the foreseeable future.”

In arriving at this balance of risks, the Committee also discussed inflation and the potential for it to accelerate in the period ahead. Its published statement concluded that “[w]ith pressures on labor and product markets easing, inflation is expected to remain contained. Although measured productivity growth stalled in the first quarter, the impressive underlying rate of increase that developed in recent years appears to be largely intact, supporting longer-term prospects.”

Inflation should be thought of not as the monthly or even yearly change in a price index, but as a persistent decline in the purchasing power of money. Price indexes fluctuate at different rates from year to year, and only by considering their movements over several years can we form a clear picture of inflation. In an environment characterized by complete price-level stability, people would expect their money's purchasing power to be constant over long time horizons and would not be terribly concerned about short periods of inflation and deflation.

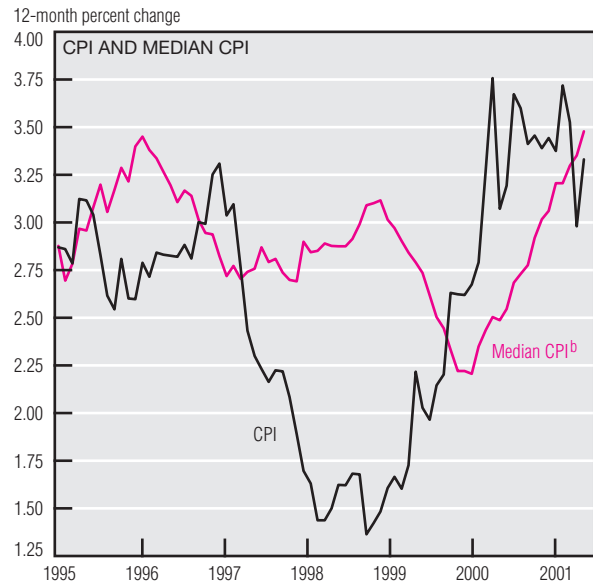
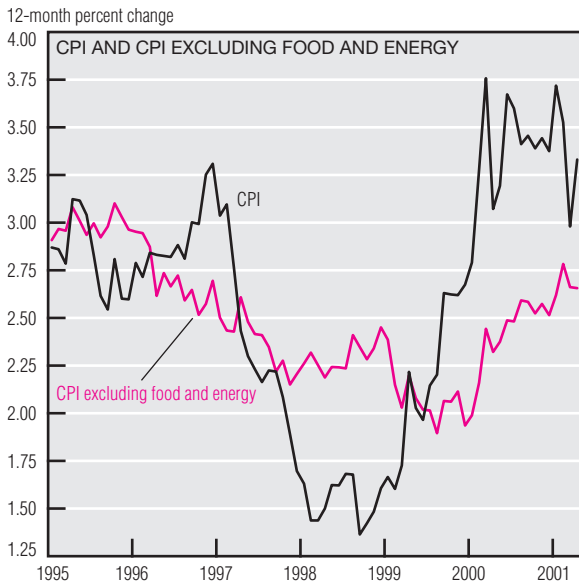
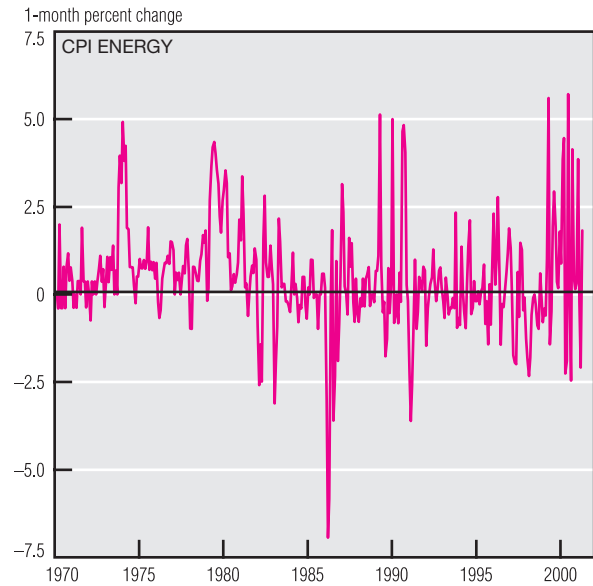
Until recently, price stability in the United States seemed a quaint notion; people's only question about inflation was how much of it there would be. The FOMC has repeatedly stated its intention to achieve price stability over time, although it has not provided a precise numerical definition of that goal. However, noting that the rate of increase in the Consumer Price Index fell below 2% in 1997 and again in 1998—and recognizing possible upward biases in the index—many people believed that price stability finally had arrived. Since that time, price indexes generally have been rising at greater rates, and inflation expectations have picked up as well. Has price stability slipped away?

In reality, price stability may not truly have been reached. A more accurate assessment of inflation in the 1990s may be that not much progress toward price stability was made at all. Between 1990 and the present, the CPI, the CPI excluding food and energy, and the median CPI each increased about 3% annually on average, making a cumulative gain of 40%. The bountiful years of 1997 and 1998 must be balanced against some of the leaner years. The current performance of the CPI and the median CPI, in the range of a 3.5% annual rate, looks less aberrant when compared to the decade-long trend than when measured against the experience of 1997–98 alone.

As the economy regains some of its lost momentum and the effects of oil price shocks dissipate, we will have additional opportunities to evaluate our money's purchasing power. Price stability remains a laudable goal, and the FOMC has the ability to achieve it over time. It appears, however, as though its time has not yet come. Nevertheless, we understand that for now, inflationary pressures are expected to remain contained.

Inflation and Prices

	Annualized percent change, last:				
	1 mo. ^a	3 mo. ^a	12 mo.	5 yr. ^a	2000 avg.
Consumer prices					
All items	3.5	2.5	3.3	2.5	3.4
Less food and energy	2.6	3.1	2.7	2.4	2.5
Median ^b	3.9	4.0	3.5	2.9	3.2
Producer prices					
Finished goods	3.4	1.4	3.6	1.7	3.6
Less food and energy	2.4	0	1.6	1.1	1.3



a. Annualized.

b. Calculated by the Federal Reserve Bank of Cleveland.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; and Federal Reserve Bank of Cleveland.

Following a modest 0.1% increase in March, the Consumer Price Index (CPI) rose 0.3% in April. A 1.8% surge in energy prices contributed to the jump in retail prices. Energy prices, which tend to behave erratically from month to month, have been exceedingly volatile this year, contributing to uncertainty about where the inflation trend is headed. Even within the energy components, price behavior has been volatile and mixed: In April, motor fuel prices registered an extreme increase (4.8%),

while household fuel oils posted one of the month's sharpest retail price declines and natural gas and electricity prices also fell.

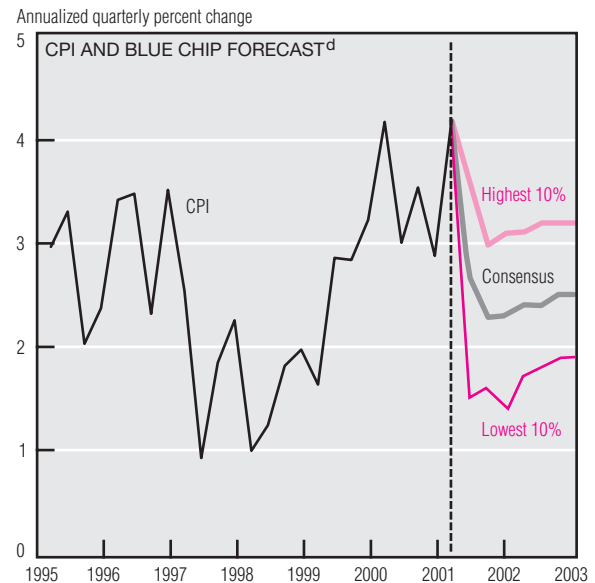
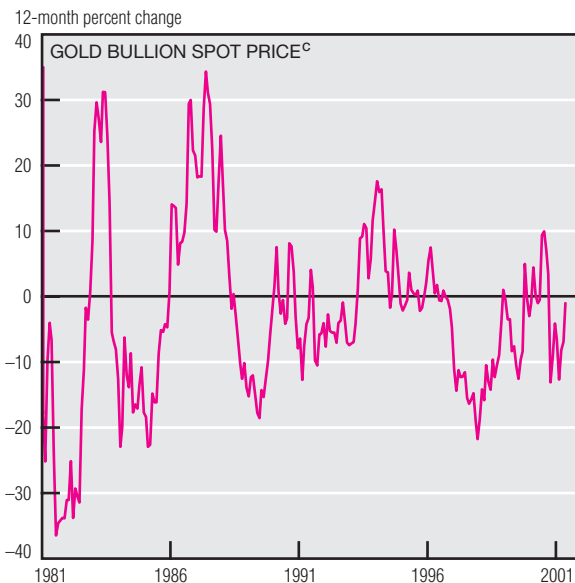
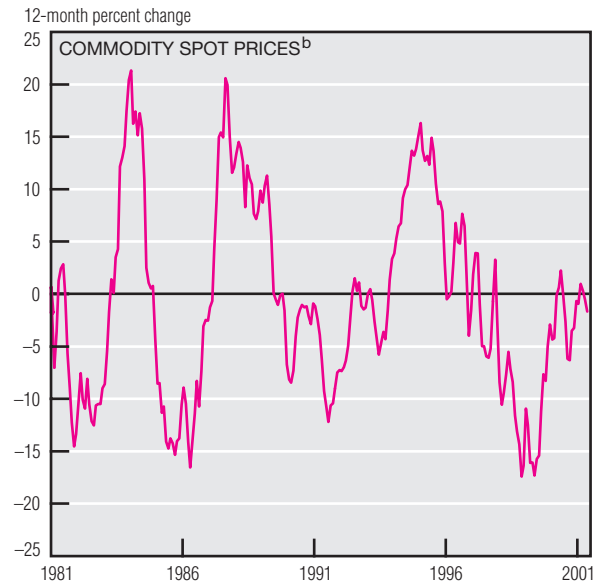
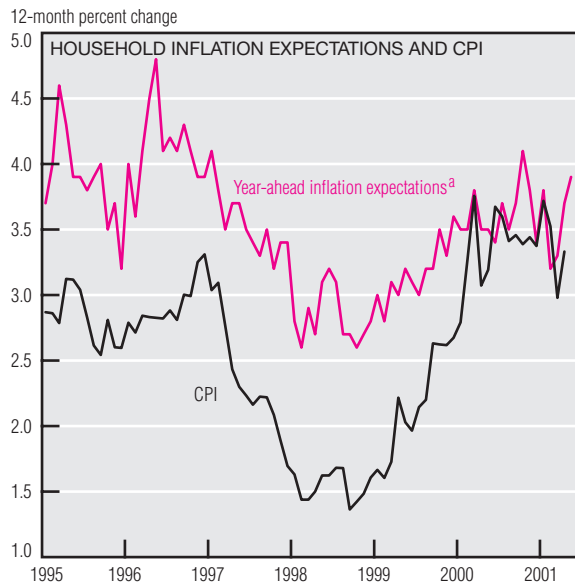
Energy prices aside, consumer inflation has risen steadily since the beginning of 2000. The 12-month percent change in the CPI less energy was 2.0% in January 2000, compared to 2.8% in April 2001. The upward pattern is essentially the same for the CPI less food and energy, while the median CPI, another measure of core prices, has

risen even more sharply over this same period. In January 2000, the 12-month percent change in the median CPI was 2.4%; the reading for the most recent 12 months was 3.5%.

The impact of recent price behavior on consumers' inflation psychology has been muted. When energy prices first spiked upward in early 1999, households appear to have responded by ratcheting up their inflation expectations a full percentage point. Since then, inflation expectations have hovered around 3.5%, perhaps reflecting a

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Inflation and Prices (cont.)



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

b. As measured by the Knight-Ridder Commodity Research Bureau's Composite Spot Index, all commodities.

c. London fix, p.m.

d. Blue Chip panel of economists.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; Commodity Research Bureau; *Wall Street Journal*; and *Blue Chip Economic Indicators*, May 10, 2001.

belief that most energy price changes are unlikely to worsen from their recent—but high—growth trend. Yet the continued persistence of price increases outside the energy area (suggested by the core inflation measures) may be undermining the public's inflation expectations; survey data show a modest increase in households' inflation expectations for the next 12 months.

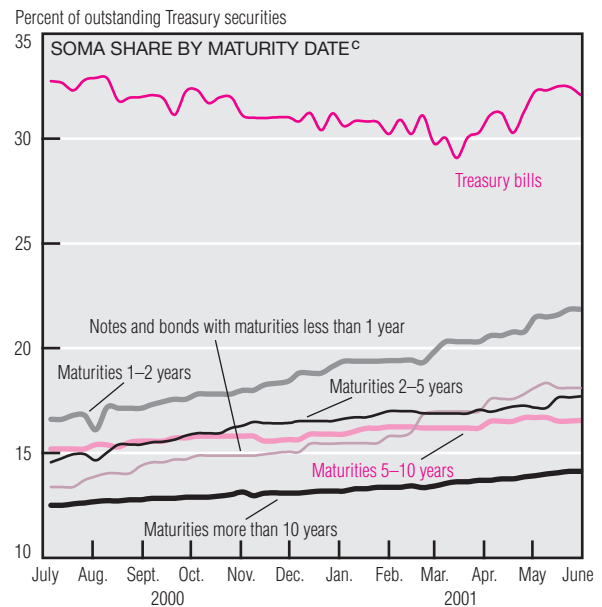
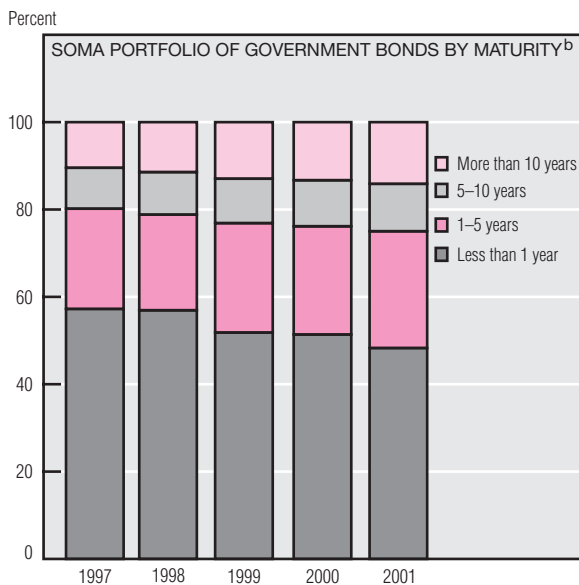
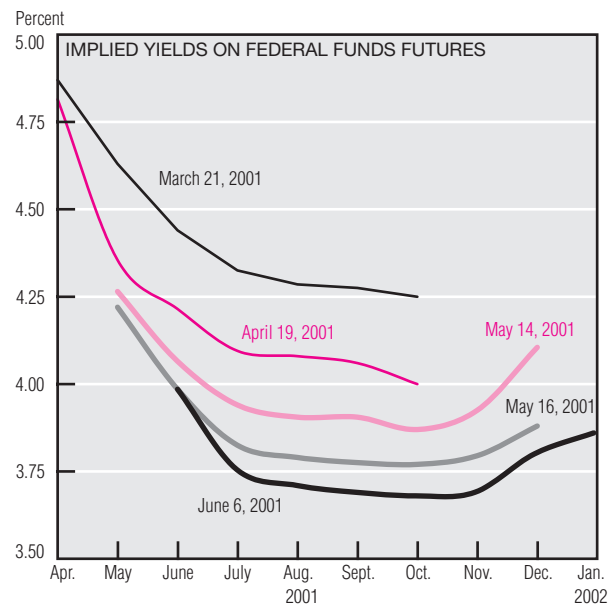
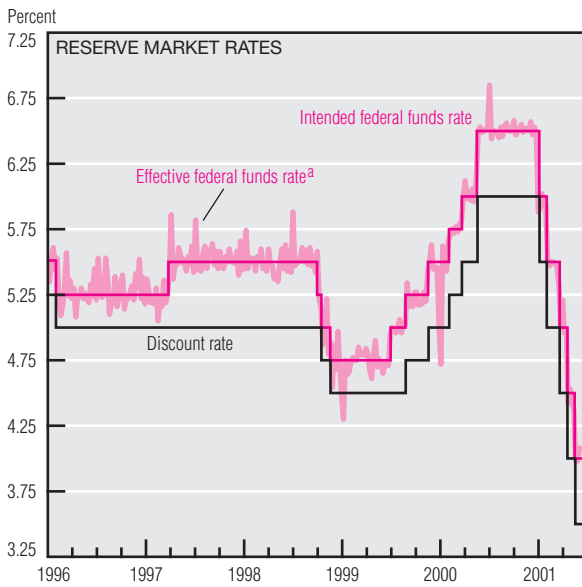
Not all indicators point to a worsening inflation trend. Industrial commodity price movements, which

some economists consider a leading indicator of inflation at the retail level, have failed to show any sustained upward movement for almost five years (although the rate at which commodity prices are declining has clearly diminished). Nor have gold prices, which some claim are the harbinger of an inflationary upturn, shown any convincing upward movement for many years.

Conflicting signals about the inflation data are reflected in widely divergent forecasts of inflation. Economists con-

tinue to disagree regarding the inflation outlook: The consensus view shows the CPI trend moderating at around 2½% over the next year and a half; other economists, however, see the CPI holding above 3%, as it has done for the past year and a half. Inflation optimists see the inflation trend falling below a 2% threshold this year and next, nearly equaling the low inflation readings of the late 1990s.

Monetary Policy



a. Weekly average.

b. Holdings for all years are as of the end of May.

c. Weighted average of the share of security issues held by SOMA.

SOURCES: Board of Governors of the Federal Reserve System, "Selected Interest Rates," *Federal Reserve Statistical Releases*, H.15; Federal Reserve Bank of New York; and Chicago Board of Trade.

The Federal Open Market Committee (FOMC) lowered the intended federal funds rate 50 basis points (bp) to 4% at its May 15 meeting. Its press release cited weakened business profitability as a factor in reduced spending on capital equipment. Separately, the Board of Governors approved Reserve Banks' requests to lower the discount rate 50 bp to 3.5%.

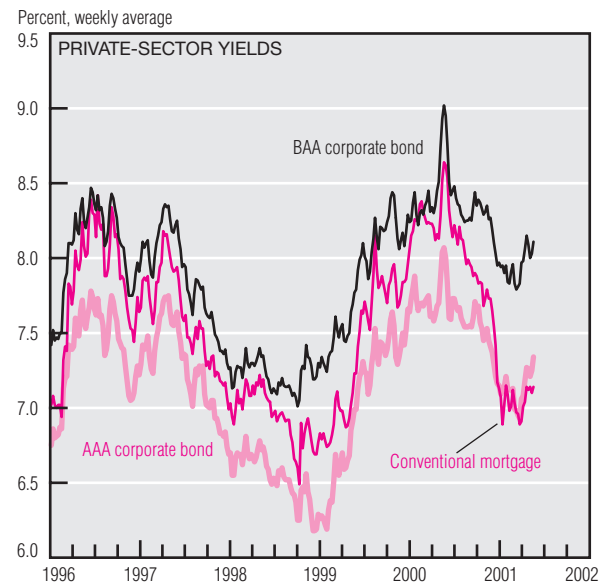
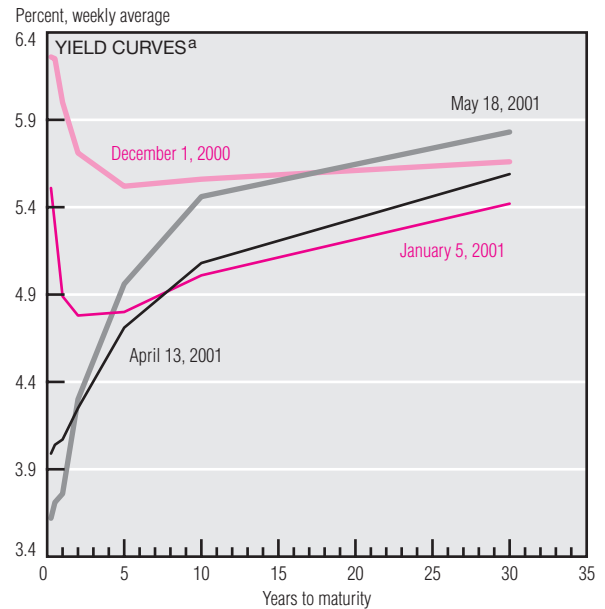
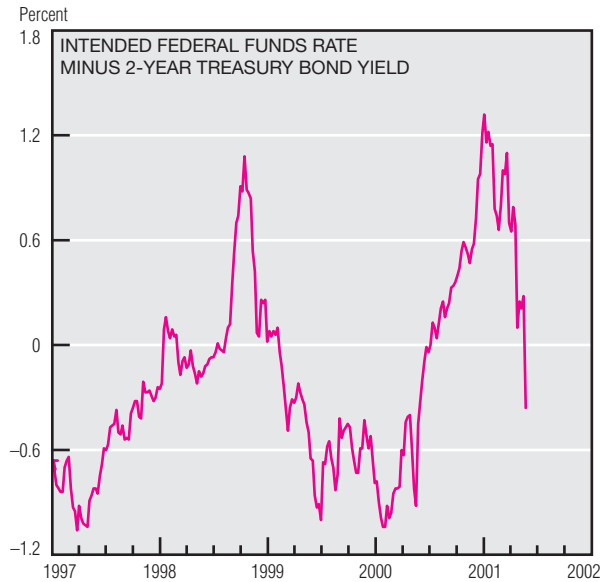
Implied yields on federal funds futures across various maturities have flattened since the year began, indicating reduced expectations of future

rate cuts. As of June 6, the December contract traded at 3.8%.

In managing the System Open Market Account (SOMA), the FOMC attempts to maintain a relatively short, liquid portfolio. To minimize distortions in the yield curve, the Trading Desk has tended to spread its purchases evenly across the maturity spectrum of Treasury securities. However, because issuance of Treasury bills was reduced, the Desk curtailed operations in bills from December 1997 to April 2000, increasing the average maturity of SOMA's portfolio.

In July 2000, the New York Fed announced that instead of balancing purchases across maturities, it would make purchases consistent with shortening the portfolio's average maturity. It would limit holdings of each issue, ranging from 35% of outstanding bills and coupon securities with remaining maturities of less than one year to 15% of securities with maturities of more than 10 years. Since the cap for many Treasury bill issues currently is binding, shortening the portfolio's average maturity has meant buying coupon securities with maturities under two years.

Money and Financial Markets



a. Constant maturity.

SOURCES: Board of Governors of the Federal Reserve System; and Bloomberg Financial Information Services.

Interest rates fell across the entire maturity spectrum last winter, when incoming data revealed an abrupt weakening in economic conditions. Initially, the yield curve remained inverted at the low end because investors anticipated an attenuated response from the FOMC. This was evident in the spread between the intended federal funds rate and the 2-year Treasury rate, which exceeded 1 percentage point in early March. But when the FOMC responded aggressively in early spring, this spread fell precipitously.

Over the past two months, the Treasury yield curve—which depicts yields on various Treasury securities at different maturities—has steepened dramatically, largely because of a fall in short-term interest rates. Mounting signs of economic weakness fostered expectations that the FOMC would engineer a more concentrated series of fed funds rate cuts over the course of the spring, driving down short-term yields.

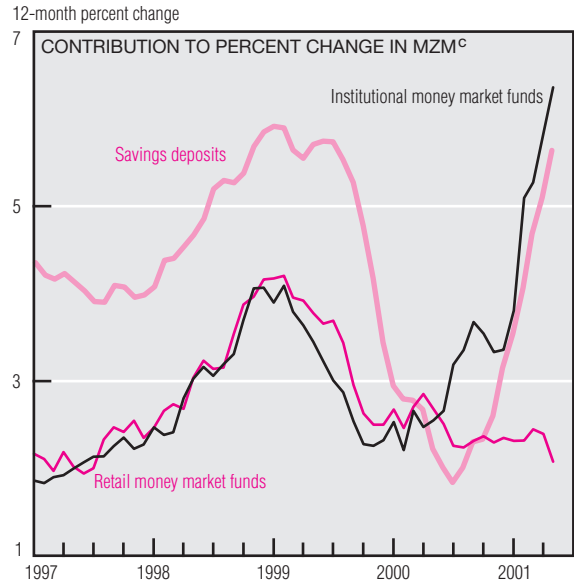
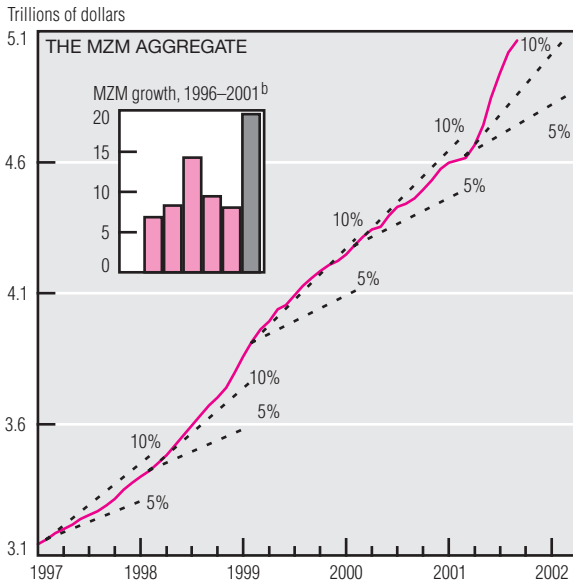
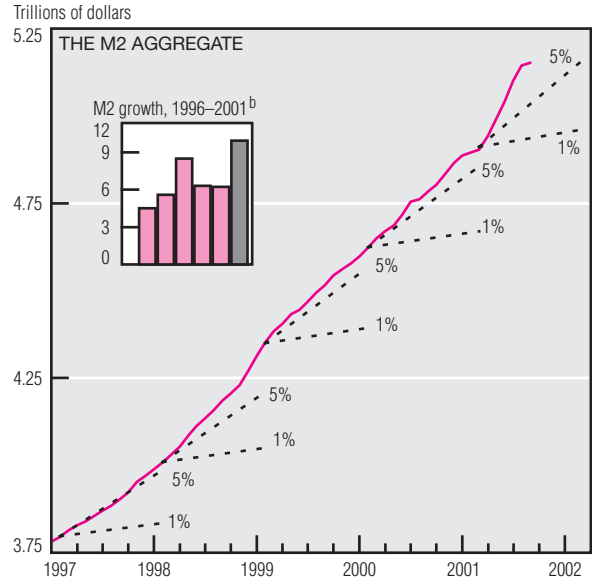
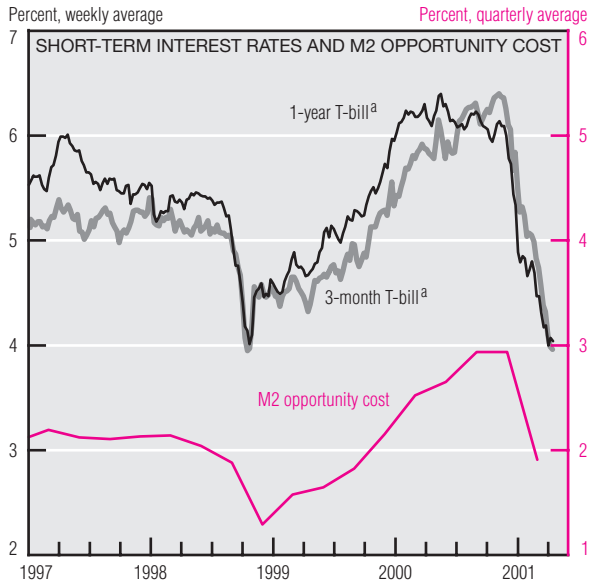
The yield curve is widely viewed as a useful economic indicator. Historically, a steep yield curve has

been associated with a strong economy, while an inverted yield curve often presages a recession.

The recent period, however, is somewhat unusual. Budget surplus projections began to reveal that the federal government could retire its entire debt within the next decade. Because Treasury debt is uniquely desired as a benchmark risk-free asset, the prospect of a diminished supply probably distorted yields on Treasury bonds, keeping them artificially low relative to private debt. More recent projections of the deficit

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Money and Financial Markets (cont.)



a. Constant maturity.
 b. Growth rates are percentage rates calculated on a fourth-quarter over fourth-quarter basis. The 2001 growth rates for M2 and MZM are calculated on an estimated May over 2000:IVQ basis. Data are seasonally adjusted.
 c. Weighted by share of MZM.
 NOTE: Last plots for M2 and MZM are estimated for May 2001. Prior to November 2000, dotted lines for M2 are FOMC-determined provisional ranges. Subsequent and dotted lines for MZM represent growth rates and are for reference only.
 SOURCE: Board of Governors of the Federal Reserve System.

suggest that debt retirement is less imminent. Nonetheless, the rise in long-term Treasury rates since January has created some concern about whether policy actions have become too stimulatory. In particular, the spread between the 10-year Treasury bond and the Treasury inflation-indexed bond suggests that inflationary pressures may be intensifying.

On the other hand, yields on corporate bonds and mortgages have not risen as dramatically, despite robust borrowing in these markets. Mortgage rates have stayed relatively low, inducing a substantial volume

of refinancing. For many households, refinancing has provided liquidity, helping to sustain moderate consumer spending despite the economic slowdown.

The fall in short-term interest rates has lowered the opportunity cost of holding monetary instruments, enhancing their attractiveness relative to other financial assets. Increased demand for monetary aggregates such as M2 and MZM is reflected in their acceleration this year.

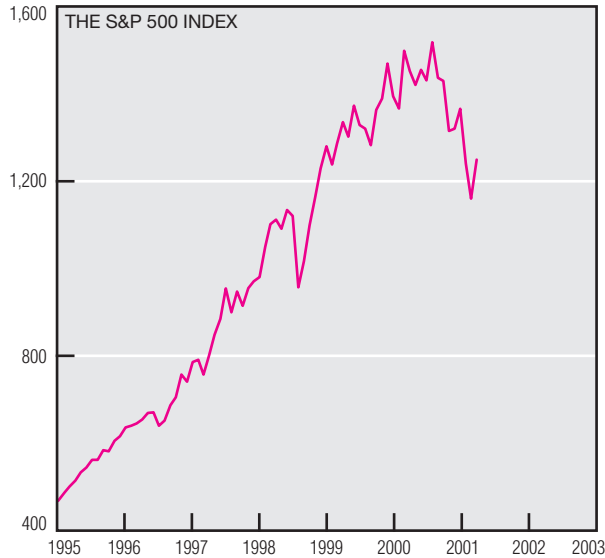
MZM includes all instruments with zero maturity such as checking accounts, savings deposits, and money

market mutual funds, both retail and institutional. The sharp rise in savings deposits over the past year occurred largely at the expense of retail money funds, as several mutual fund providers initiated sweep arrangements. This arrangement—which provides FDIC insurance on such funds—involves regular transfers from money funds into savings deposits at affiliated banks. It thus reduces retail mutual fund balances and increases savings deposits by a like amount, but washes out in MZM and M2.

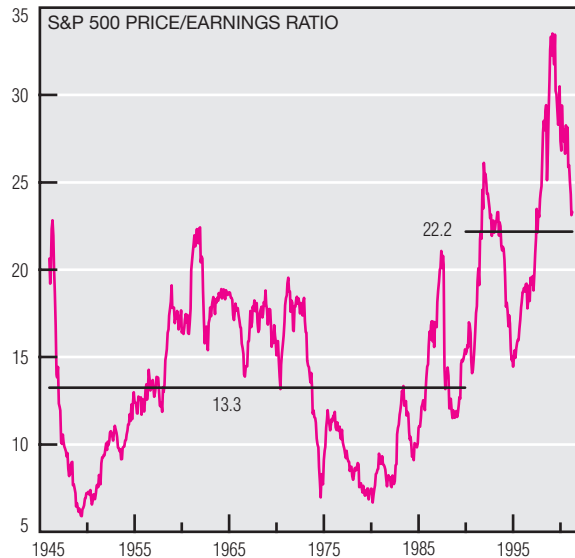
This year's surge in liquid assets also reflects equity market condi-
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Money and Financial Markets (cont.)

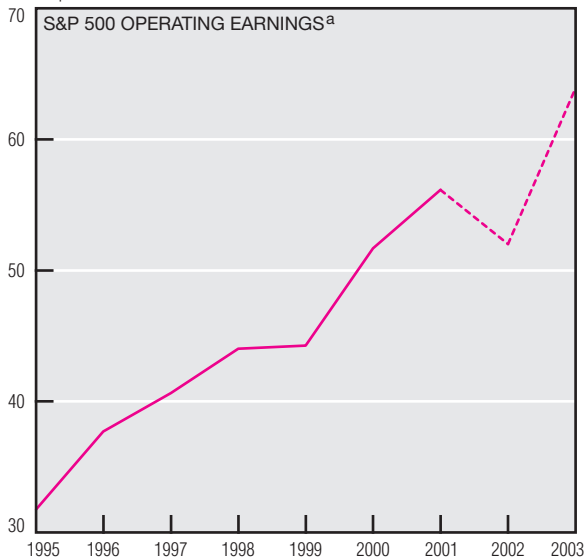
Index, 1941-43 = 100



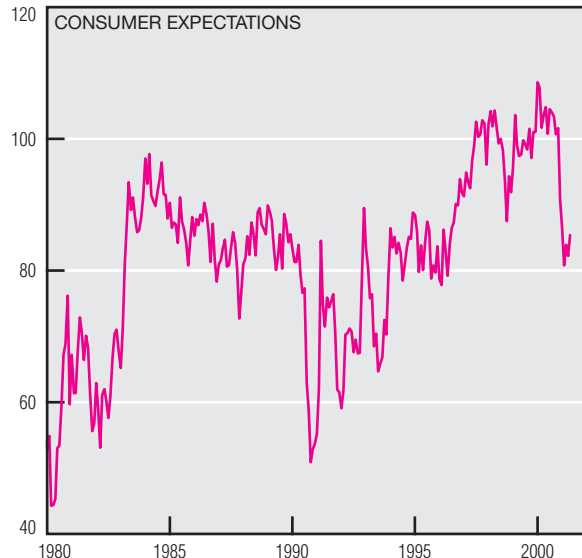
Ratio



Dollars per share



Index, 1966:1Q = 100



a. Dashed line shows earnings estimates provided by Standard and Poors.

SOURCES: Standard and Poors Corporation; University of Michigan, *Survey of Consumers*; and *Wall Street Journal*.

tions. During periods of heightened uncertainty, investors often park their balances in liquid assets, which make up MZM and M2. Many analysts believe this “money on the sidelines” has great potential for financing an equity market recovery should the economic outlook become more favorable.

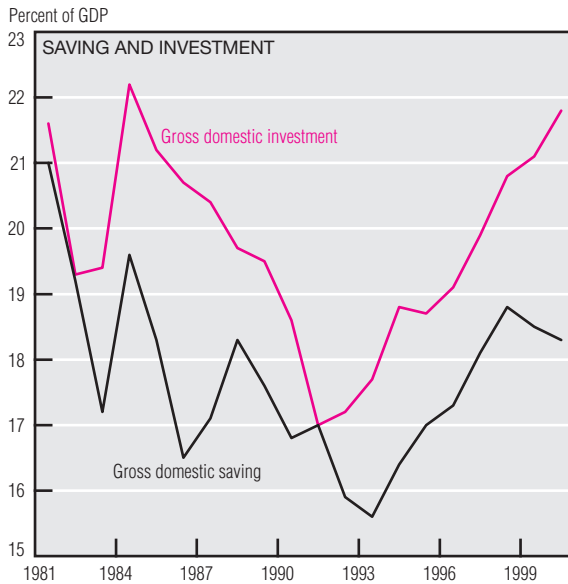
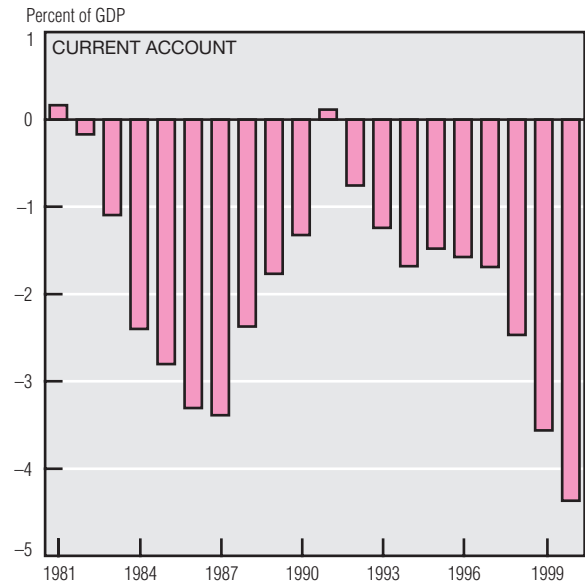
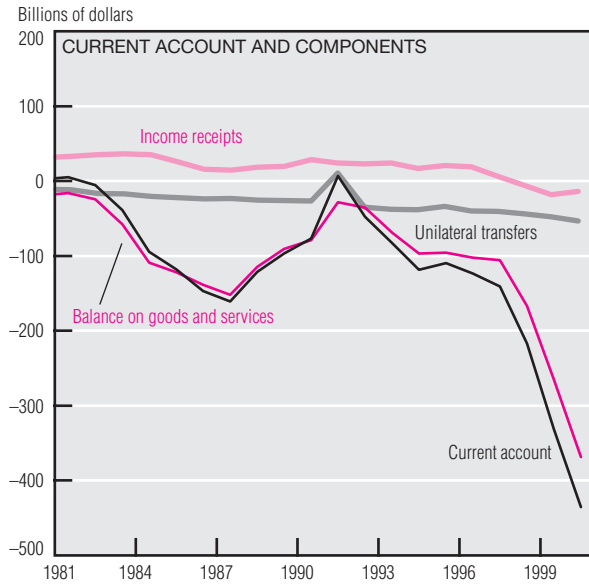
Although S&P 500 firms’ earnings are expected to decline this year relative to 2000, analysts forecast sharply accelerated earnings beginning in late 2001 and continuing through 2002. “By all evidence,” Federal Reserve Chairman Alan Greenspan recently

noted, “we are not yet dealing with maturing technologies that, after having sparkled for a half decade, are now in the process of fizzling out.” Equity prices have strengthened somewhat since March, suggesting that investors are still confident about longer-term profitability in the corporate sector. Also, consumer expectations stabilized in late winter and appear to be drifting up modestly.

Stock prices’ sharp fall since early 2000 was contained largely within the technology sector. The S&P 500 price/earnings ratio now stands near its 1990s average of 22.2.

Asset price bubbles, like those in the tech stocks, can be recognized only after they burst. Nevertheless, policymakers can and often do lean against the economic winds that generally accompany speculative excesses. When stock prices correct abruptly, policymakers may act aggressively to keep asset-price deflation from threatening economic stability. But monetary policy takes effect only after long and variable lags. Given the concentration of policy rate reductions already taken in 2001, one might expect that future cuts, if needed, will be more attenuated.

Saving, Investment, and International Financial Flows



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

The necessary counterpart to our enormous current account deficit is an inflow of foreign savings. Over the past decade, our current account deficit has generally reflected strong U.S. investment opportunities rather than American consumers' profligacy.

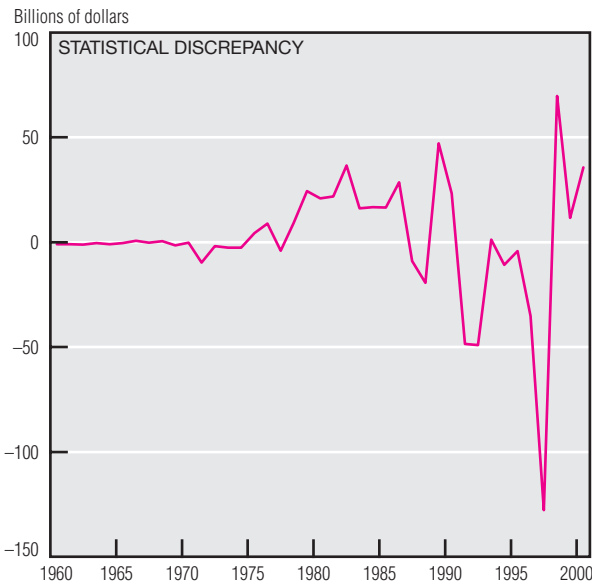
Each year since 1991, more financial funds have flowed into the U.S. than out of it. This net inflow of foreign funds has helped to finance U.S. investments at far higher levels than domestic savings alone could

have supported. Since 1991, gross domestic investment in the U.S. has risen from 17% of GDP to 21.8%. Over the same period, gross domestic saving has increased to 18.3% of GDP.

To invest in this country, foreigners must first acquire dollars—a process that bids up the dollar's foreign-exchange price. Since 1996, the dollar has appreciated 25.6% on a real trade-weighted basis. The dollar's appreciation, however, raises the foreign

currency price of U.S. exports and lowers the dollar price of foreign goods and services. The current account deficit expands until it exactly matches the dollar value of our country's net inflow of foreign funds. An expanding current account deficit, together with an appreciating dollar, indicates that our international accounts are driven by investment inflows, not consumption spending.

International Transactions and Statistical Discrepancy



Correlation with Statistical Discrepancy^a

	<u>Correlation coefficient</u>
Current account items	-0.21
Exports of goods and services	0
Imports of goods and services	0
Income receipts	0
Income payments	0
Unilateral transfers	-0.20

Correlation between Statistical Discrepancy and Financial Transactions^a

<u>U.S.-owned assets abroad</u>	<u>Correlation coefficient</u>	<u>Foreign-owned assets in the U.S.</u>	<u>Correlation coefficient</u>
Official reserve assets	-0.41	Official reserve assets	-0.50
Other U.S. government assets	-0.29	Direct investments	0.36
Direct investments abroad	-0.59	U.S. Treasury securities	-0.41
Foreign securities investments	-0.29	Other U.S. securities	-0.06
Other private investments	0.57	Other private investments	-0.72

a. All correlations are calculated using the first difference of published annual data, 1961–2000.
SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

No current account deficit can exist without an equal inflow of foreign investment funds. Practically speaking, however, the measurement of trade and financial flows is difficult and often incomplete. Consequently, the ledger of U.S. international transactions contains a statistical-discrepancy term to ensure that the current account deficit (or surplus) is balanced against net foreign financial flows.

The statistical discrepancy has grown significantly since the 1960s.

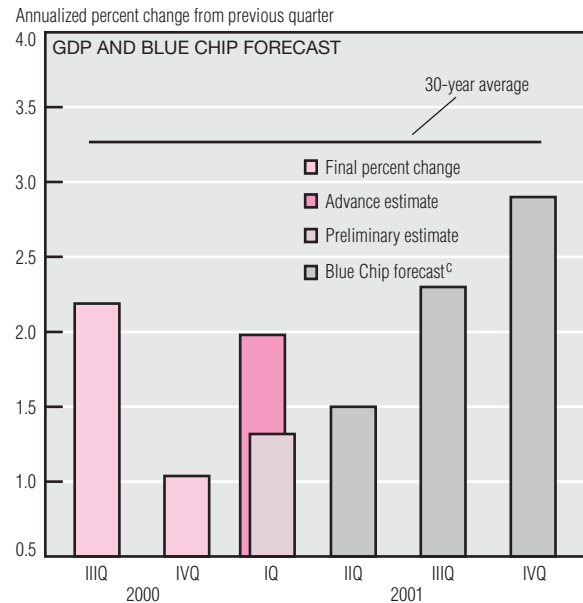
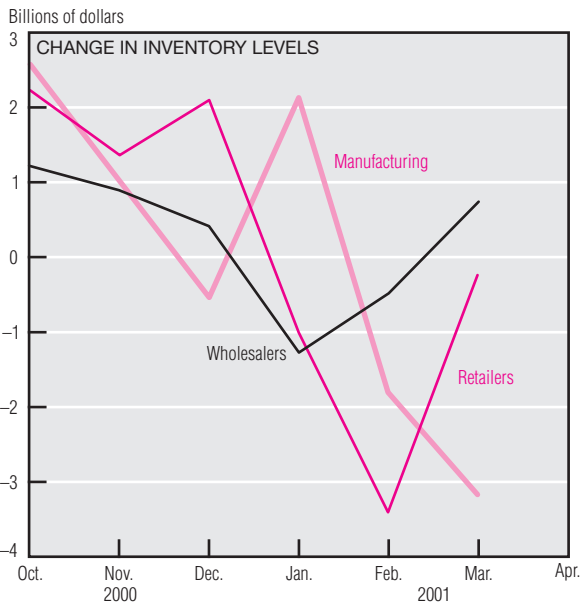
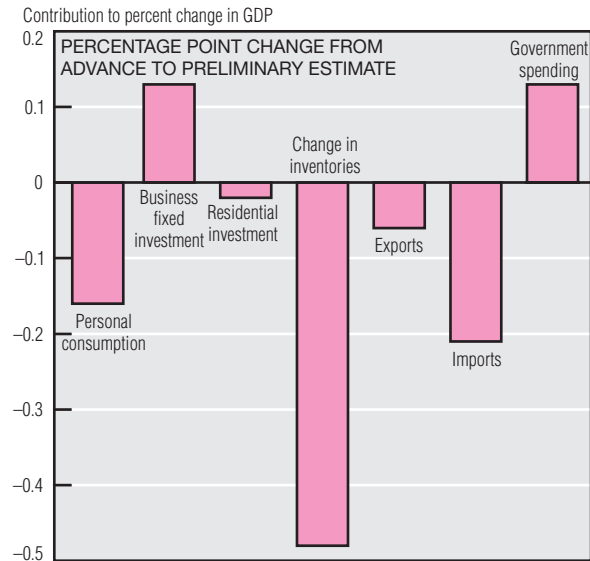
Its average annual size, in absolute-value terms, was \$3.8 billion during 1960–79, but it rose to \$30.7 billion during 1980–99. Over the five years ending in 2000, the average annual statistical discrepancy amounted to \$47.4 billion.

Although the statistical discrepancy aggregates measurement errors from all components of international accounts, economists believe that changes in the statistical discrepancy primarily reflect errors in the measurement of financial

flows (investors can accomplish such transactions electronically, whereas traders must carry goods through ports of entry). The data seem to support this impression: The correlation between year-to-year changes in the statistical discrepancy and components of the financial accounts is typically higher than the correlation between year-to-year changes in the statistical discrepancy and components of the trade accounts.

Economic Activity

Real GDP and Components, 2001:IQ ^{a,b} (Preliminary estimate)	Change, billions of 1996 \$	Percent change, last:	
		Quarter	Four quarters
Real GDP	30.8	1.3	2.5
Personal consumption	45.5	2.9	3.3
Durables	26.3	12.3	2.7
Nondurables	7.0	1.5	2.7
Services	16.0	1.8	3.8
Business fixed investment	7.5	2.1	5.9
Equipment	-7.5	-2.6	4.1
Structures	11.9	17.2	11.6
Residential investment	2.5	2.8	-2.7
Government spending	18.5	4.7	2.7
National defense	4.7	5.4	4.9
Net exports	29.8	—	—
Exports	-7.7	-2.7	4.4
Imports	-37.5	-9.2	5.6
Change in business inventories	-74.6	—	—



a. Chain-weighted data in billions of 1996 dollars.

b. 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.

c. Blue Chip forecasts based on *Blue Chip Economic Indicators*, May 10, 2001.

NOTE: All data are seasonally adjusted and annualized.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census; and *Blue Chip Economic Indicators*, May 10, 2001.

Real gross domestic product (GDP) growth was revised down 0.7 percentage point from the advance estimate to an annualized rate of 1.3% in 2001:IQ. The estimate of personal consumption growth was lowered slightly but remains healthy at nearly 3%. Business fixed investment growth was revised up a full percentage point to 2.1%, primarily because stronger growth in structures more than offset a slight drop in equipment investment. Residential investment and exports were also off modestly, while government spending growth was higher than originally estimated. Private inventories

made the biggest contribution to the difference between the advance and the preliminary estimate. During 2001:IQ, changes in private inventories contributed -2.9 percentage points to real GDP growth, nearly 0.5 point less than the advance estimate of -2.4%.

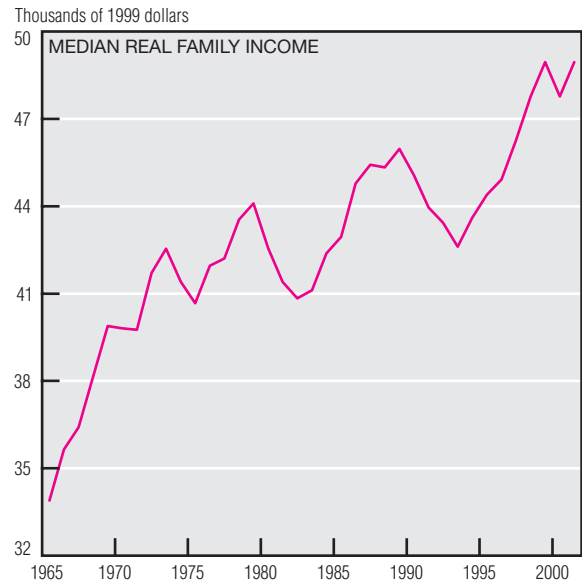
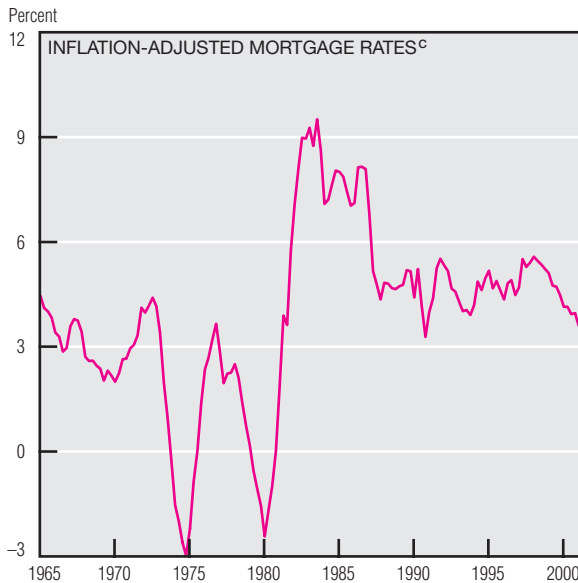
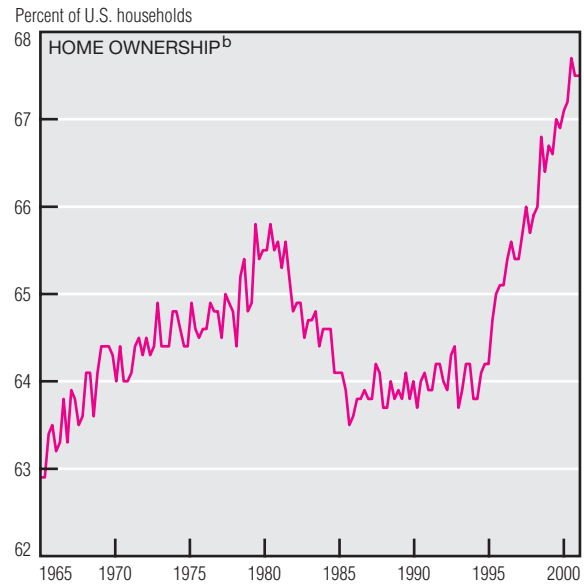
The large, sudden drop in inventory accumulation and levels may offer hope for the still-ailing manufacturing sector. In 2001:IQ, retailers and wholesalers cleared much of the inventory they had accumulated when the economy weakened last year. Manufacturers were slower to start reducing inventories but made aggressive cuts

in the last part of the quarter. Many left their plants idle in February and March. With excess inventory cleared out, plants may start ramping up production again if consumer spending stays healthy.

This was the third consecutive quarter to post real GDP growth below the 30-year average of 3.2%. Blue Chip forecasters expect GDP growth to increase slightly in 2001:IIQ, with more substantial recovery coming in the third and fourth quarters, but they do not expect quarterly growth to surpass the 30-year average before year's end.

(continued on next page)

Economic Activity (cont.)



a. Single-family homes.

b. Not seasonally adjusted.

c. Contract rate for the purchase of new, single-family homes minus the year-over-year percent change in the CPI.

NOTE: All data are seasonally adjusted and annualized.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census; Board of Governors of the Federal Reserve System; and National Association of Realtors.

Since the economy began slowing last year, housing and residential investment have been consistently strong sectors; in fact, they were unusually strong throughout the most recent expansion. New and existing home sales have trended upward since 1991 and now stand at near-record levels, despite last summer's slowdown and higher mortgage rates.

The result has been record rates of home ownership. After falling in the first half of the 1980s and staying flat for nearly a decade, home ownership took off after 1995. The record of nearly 66%, set in 1980, was broken;

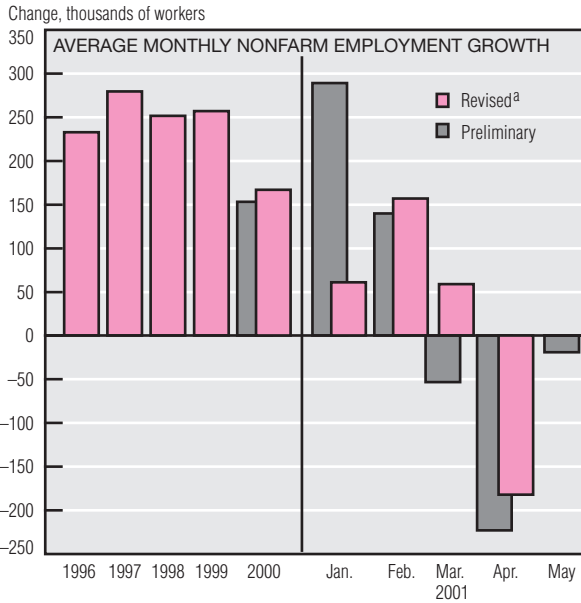
the rate currently stands near 68%. While this sudden jump is unprecedented, ownership rates also rose rapidly in the late 1960s.

Some have credited the rise in ownership rates during the 1990s to years of stable inflation and low mortgage rates. The sudden rise in mortgage rates during the early 1980s clearly slowed home sales and probably contributed to the decrease in home ownership. Mortgage rates have been more stable since 1990, though the rapid rise in ownership did not occur until 1995. Furthermore, in the 1965–70 period of rapidly

rising ownership, mortgage rates, though stable, were not necessarily falling or unusually low.

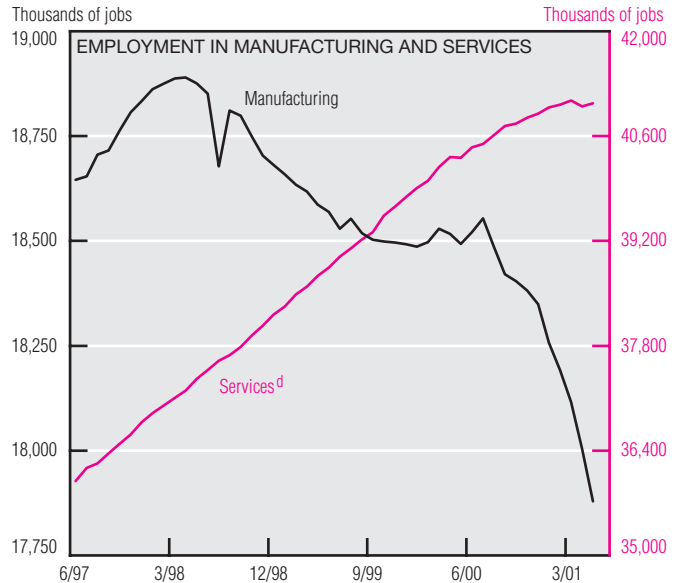
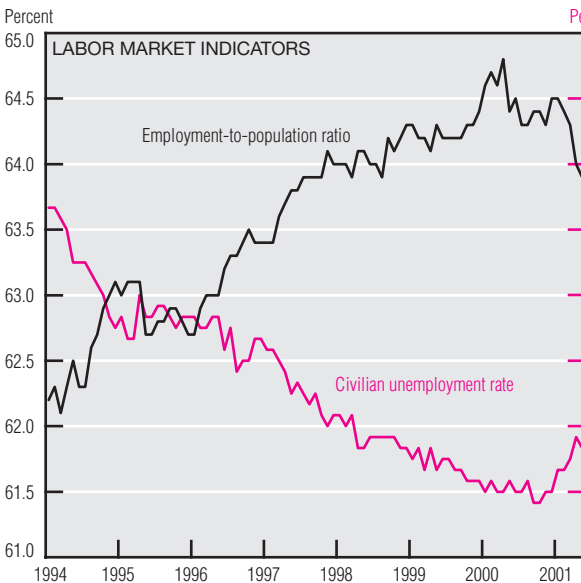
Real family income seems more directly correlated with home ownership. Median real family income grew rapidly between 1965 and 1973, just as ownership rates were rising. As income growth faltered in the late 1970s and became erratic during the 1980s and early 1990s, growth in home ownership slowed. Once family incomes began rising steadily and consistently after 1993, ownership growth took off again.

Labor Markets



	Average monthly change (thousands of employees)				
	1997	1998	1999	2000	May 2001
Payroll employment	280	251	257	167	-19
Goods-producing	47	22	7	8	-89
Mining	2	-3	-3	1	4
Construction	21	37	26	18	31
Manufacturing	25	-13	-16	-12	-124
Durable goods	26	-2	-5	1	-95
Nondurable goods	-2	-11	-11	-13	-29
Service-producing	232	230	250	159	70
TPU ^b	16	20	18	14	12
Retail trade	24	30	49	26	-5
FIRE ^c	21	22	7	0	22
Services ^d	141	120	131	93	42
Government	17	28	35	18	13

	Average for period (percent)				
	1997	1998	1999	2000	May 2001
Civilian unemployment rate	4.9	4.5	4.2	4.0	4.4



a. The Bureau of Labor Statistics revisions to monthly employment data for March 2000 through April 2001 were released this month.
 b. Transportation and public utilities
 c. Finance, insurance, and real estate.
 d. Services include travel, business support, recreation and entertainment, private and/or parochial education, personal services, and health services.
 NOTE: All data are seasonally adjusted.
 SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

The downward trend in payroll employment continued in May, with a net loss of 19,000 jobs, but this was a considerable improvement over April's loss of 182,000 jobs. After Bureau of Labor Statistics revisions to previous monthly figures, May was the second consecutive month of net job losses.

Manufacturing's large job losses continued, bringing that industry's year-to-date net loss to 470,000. The slowdown in services seems to have moderated in May, with a net gain of 70,000 jobs. Losses in business

services (due to areas other than help supply services) persisted, as did weakness in hotel and lodging employment. Growth in social, health, and educational services remained strong. Growth in finance, insurance, and real estate (a net gain of 22,000 jobs) was concentrated in commercial and mortgage banking.

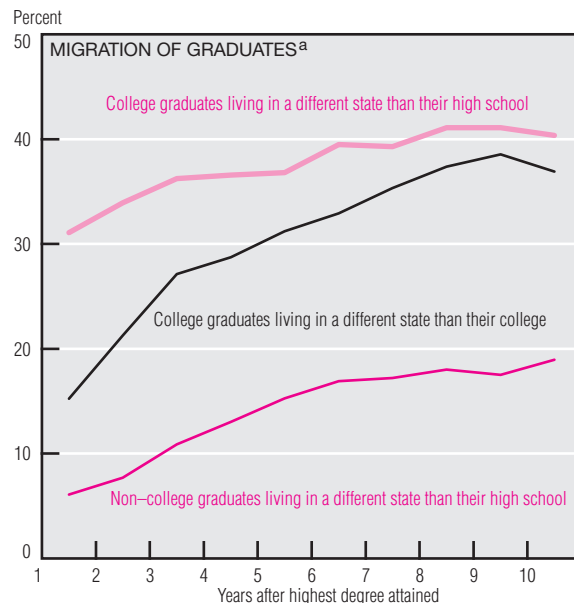
The unemployment rate fell 0.1 percentage point in May, leaving the employment-to-population ratio virtually unchanged. The civilian labor force dropped a modest 485,000 jobs

to 141.3 million, and the labor force participation rate fell to 66.8%.

Manufacturing employment has fallen almost continuously since April 1998, when it reached its peak for the current expansion. Over the same period, services employment has grown at an average annualized rate of 3.4%. Services employment growth has moderated in recent months, presumably reflecting the loss of jobs that formerly supported the manufacturing sector.

Migration of Graduates

Educational attainment	Percent migrating to another state between event and 1996			
	Birth	Age 14	High school graduation	College graduation
Some high school	34.8	23.2	—	—
High school diploma	34.1	23.4	18.8	—
Some college	38.5	26.8	24.1	—
College degree	45.8	36.7	35.1	29.6
More than college	55.5	46.2	43.7	40.0



Migration Rates by High School Location (Percent)			
Census region ^b	In-migration	Out-migration	Net migration
New England	19.5	2.9	-10.4
Middle Atlantic	19.3	20.5	-1.2
East North Central	9.8	25.6	-15.8
West North Central	13.2	27.4	-14.2
South Atlantic	32.9	19.2	13.7
East South Central	23.5	35.3	-11.8
West South Central	23.6	19.4	4.2
Mountain	69.4	36.1	33.3
Pacific	52.6	10.5	42.1

Migration Rates by College Location (Percent)			
Census region ^b	In-migration	Out-migration	Net migration
New England	16.4	20.5	-4.1
Middle Atlantic	15.6	13.8	1.8
East North Central	17.3	23.2	-5.9
West North Central	14.7	25.5	-10.8
South Atlantic	27.5	15.0	12.6
East South Central	21.3	25.5	-4.3
West South Central	10.9	28.3	-17.4
Mountain	42.5	25.0	17.5
Pacific	26.3	11.6	14.7

a. The sample comprises all high school graduates. Non-college graduates are individuals who did not complete a four-year degree program.

b. New England: CT, ME, MA, NH, RI, VT. Middle Atlantic: NJ, NY, PA. East North Central: IL, IN, MI, OH, WI. West North Central: IA, KS, MN, MO, NE, ND, SD. South Atlantic: DE, DC, FL, GA, MD, NC, SC, VA, WV. East South Central: AL, KY, MS, TN. West South Central: AR, LA, OK, TX. Mountain: AZ, CO, ID, MT, NV, NM, UT, WY. Pacific: AK, CA, HI, OR, WA.

NOTE: Based on a study of the National Longitudinal Survey of Youth, a sample of 6,000 people who were 14–22 years old in 1979. Survey participants were reinterviewed every year until 1994 and again in 1996, the last year of survey data available. All migration is within the U.S.

SOURCE: Yolanda K. Kodrzycki, "Migration of Recent College Graduates: Evidence from the National Longitudinal Survey of Youth," Federal Reserve Bank of Boston, *New England Economic Review*, January/February 2001, pp. 13–34.

Developing a highly skilled workforce is often the justification for state spending on high school and higher education programs, but those education dollars do not necessarily translate directly into a better-educated workforce in that state. The migratory pattern of recent college graduates suggests that Ohio and the surrounding states are not retaining the students they educate.

The higher a person's educational attainment, the more likely he or she

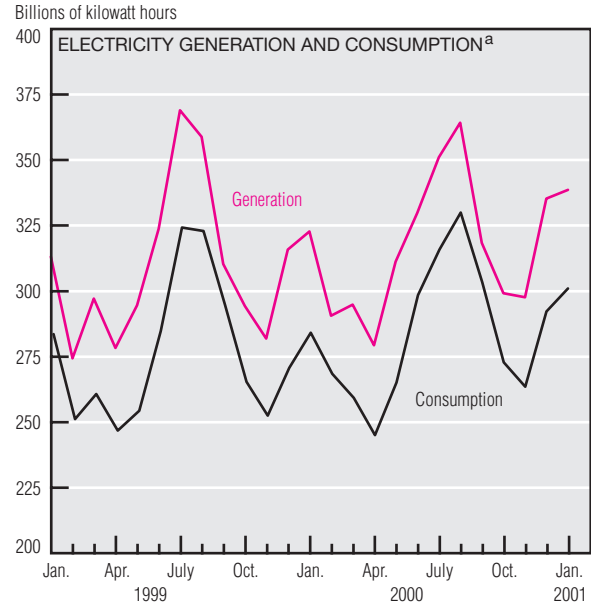
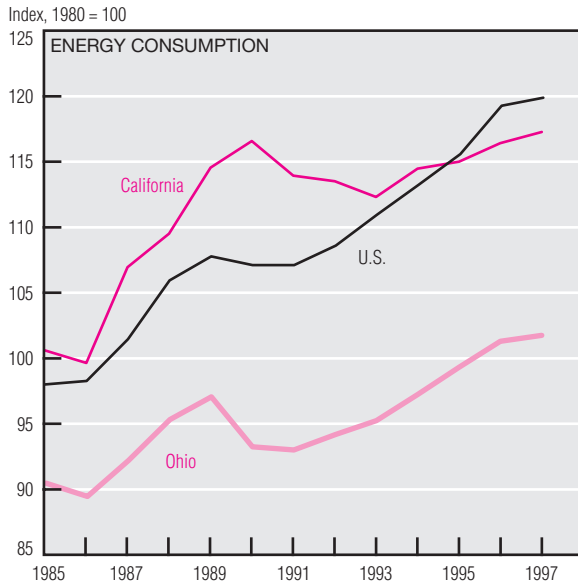
is to migrate. Indeed, those who have attended graduate school have the highest migration rates: More than 55% of them move from their state of birth, and more than 43% move some time after graduating from high school. Most moves occur within 10 years of graduation.

In-migration rates are highest in the South and West. The Mountain and Pacific regions are gaining more than one high school graduate through in-migration for every three

they educate. In sharp contrast, the East North Central region (which includes Ohio) is losing its high school graduates the fastest: Roughly one in six leaves the region.

College graduates more frequently remain in the census region where they attended college. The Mountain, Pacific, and South Atlantic states enjoy positive net migration rates of college graduates, while the West South Central and West North Central states sustain the largest net losses.

Electricity Generation and Consumption



Capacity of Electric Utilities (Megawatts), 1997

Energy source	Summer		Winter	
	California	Ohio	California	Ohio
Coal	—	22,626	—	22,863
Petroleum	526	891	548	1,039
Gas	5,397	1,271	5,472	1,456
Hydroelectric	13,568	164	13,554	170
Nuclear	4,310	2,042	4,310	2,077
Total^a	24,323	27,083	24,406	27,695

Electricity Statistics by State, 1997

	Importer/ exporter	Primary energy source	Average utility price (cents/kWh)	Utility price ranking (1=lowest)
California	Importer	Water	9.03	41
Kentucky	Exporter	Coal	4.16	3
Ohio	Importer	Coal	6.38	29
Pennsylvania	Exporter	Coal	7.86	40
West Virginia	Exporter	Coal	5.07	7

a. Electricity generated does not equal electricity consumed, primarily because of losses during transmission and distribution.

SOURCE: U.S. Department of Energy.

High gasoline prices and California's electricity shortages have focused attention on electricity generation and energy conservation. Throughout the current expansion, U.S. energy consumption has increased, although improved conservation and energy efficiency efforts have slowed its growth rate. Ohio's energy consumption patterns follow U.S. trends, but at a slower rate. During the recessions of 1981–82 and 1990–91, energy consumption in Ohio slowed considerably,

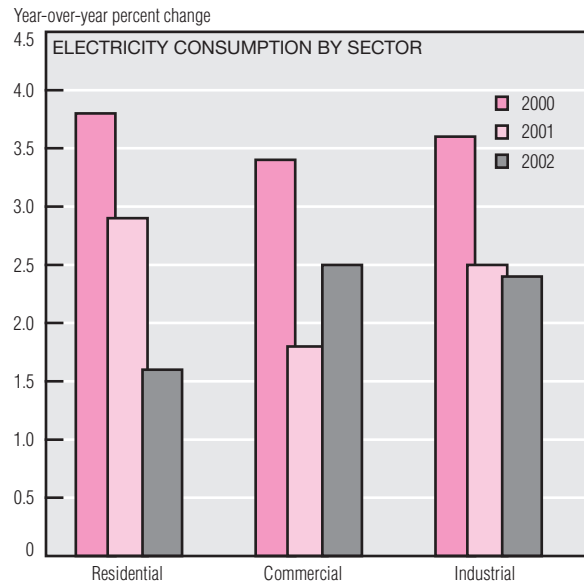
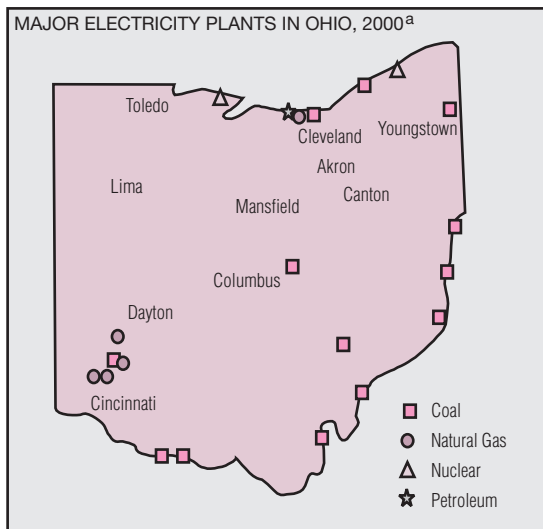
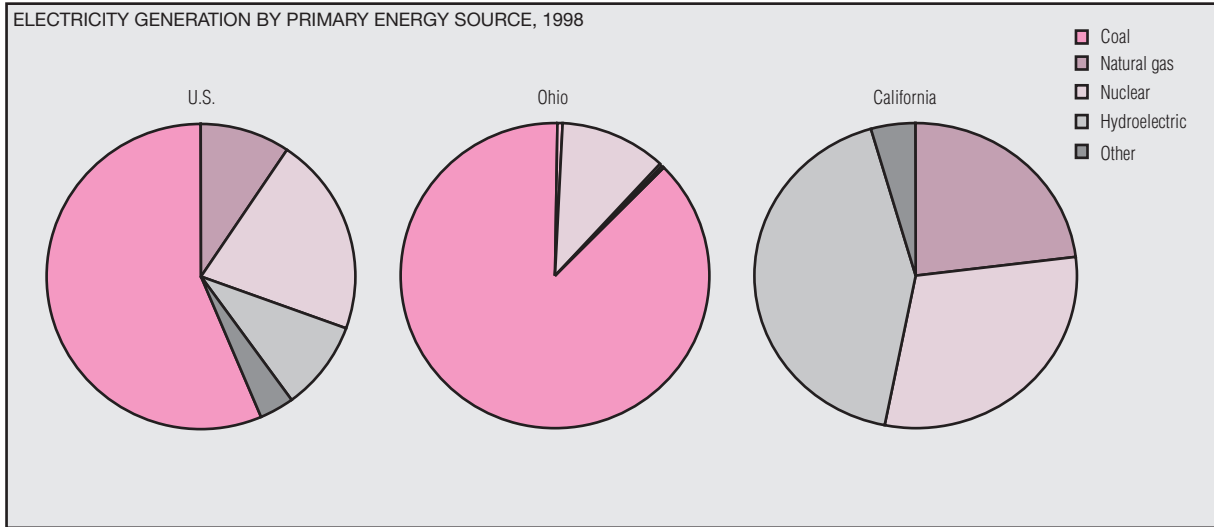
presumably because of the state's heavy manufacturing base.

U.S. electricity generation and consumption are seasonal: Plants adjust their production schedules to follow peaks and troughs in demand. Electricity demand peaks in the summer and drops to its lowest levels in March and April. One might expect excess electricity supply to be greatest when demand is weakest; however, the excess is greatest when demand is strongest.

The seasonal nature of electricity generation and consumption is also reflected in the reporting of states' generation capacities. Although California has three times the population of Ohio, Ohio's utilities are capable of generating more electricity year-round. Like California, Ohio is a net importer of electricity, mainly because its utilities are not allowed to export electricity to other states. Deregulation, which will be complete in 2006, will allow out-of-state sales of electricity.

(continued on next page)

Electricity Generation and Consumption (cont.)



a. A major electricity plant is one whose generation capacity is at least 100 megawatts.
SOURCE: U.S. Department of Energy.

Each Fourth District state depends on coal as its primary energy source for generating electricity. Electricity prices among the District's states varied widely in 1997, with Kentucky posting the third-lowest price of any U.S. state, and Pennsylvania—with prices approaching California's—ranking in the highest quartile.

California's energy situation is unlikely to occur elsewhere. States' deregulation strategies vary, and California's mix of energy sources is unusual: It generates less than 1% of

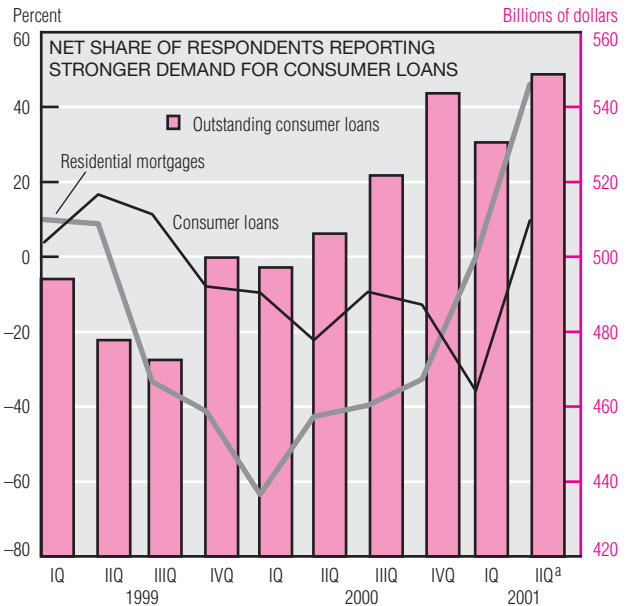
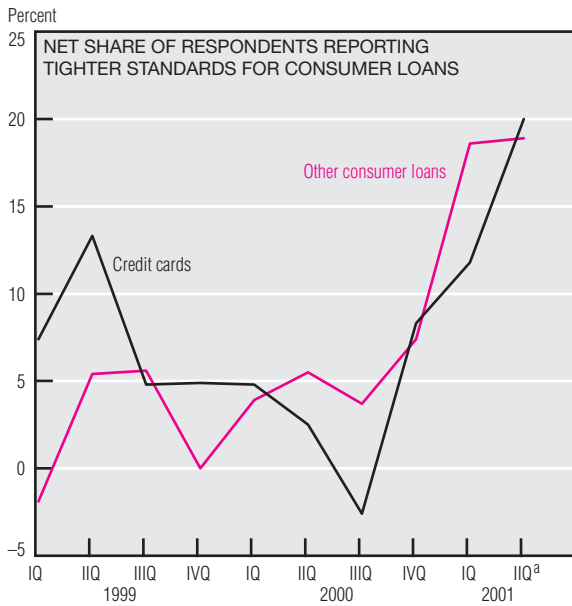
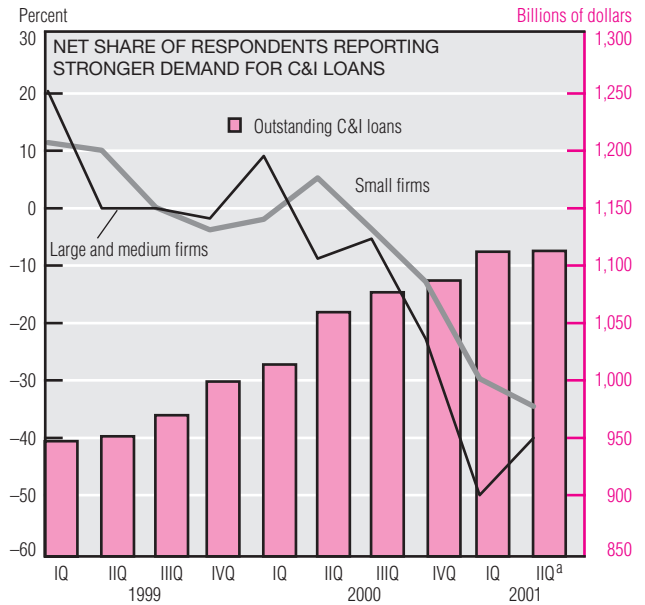
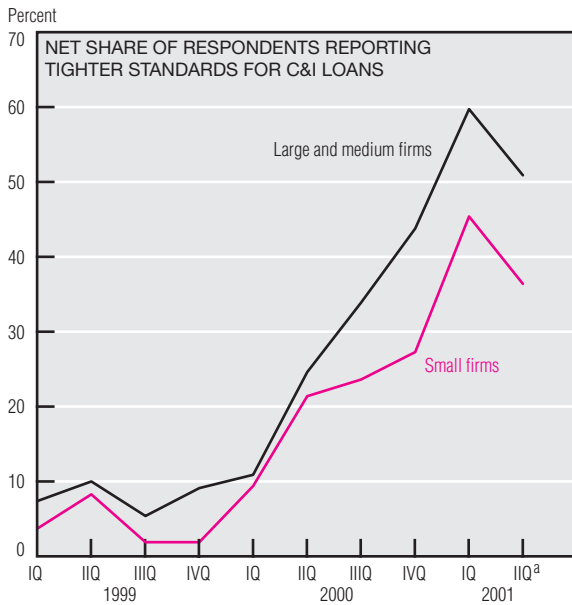
its electricity from coal (the U.S. average is 57%). California is one of only six states where hydroelectric power is the primary source of energy for generating electricity.

Ohio, on the other hand, generates almost 90% of its electricity from coal. Two nuclear plants, Davis Besse and Perry, are located in the northern part of the state. Most of Ohio's electricity plants are located near large metropolitan areas and along the Ohio River valley, where coal mining predominates. The state's natural gas production is

centered in the southwest, between Dayton and Cincinnati.

The pace of energy demand growth in all sectors is expected to slow in 2001, although forecasted growth for 2002 differs among sectors. While industrial energy consumption growth is expected to remain roughly the same in 2002, commercial electricity demand is expected to accelerate. Growth in residential energy consumption is expected to fall roughly 50% from 2001 to 2002.

Commercial Banks



a. As of May 2001.

SOURCE: Board of Governors of the Federal Reserve System, "Senior Loan Officer Opinion Survey on Bank Lending Practices," *Federal Reserve Surveys and Reports*, May 2001.

In May 2001, the net share of domestic and foreign commercial banks' senior loan officers who reported tightening standards for commercial and industrial loans in 2001:IIQ fell to 50.9% for large and mid-size firms and 36.4% for small ones, the first slowdown in the tightening trend since 1999:IIIQ. This year's first-quarter tightening was mostly reflected in higher spreads on riskier loans. Collateralization requirements and credit-line limits were affected least. The three most important reasons respondents gave for tightening their lending standards

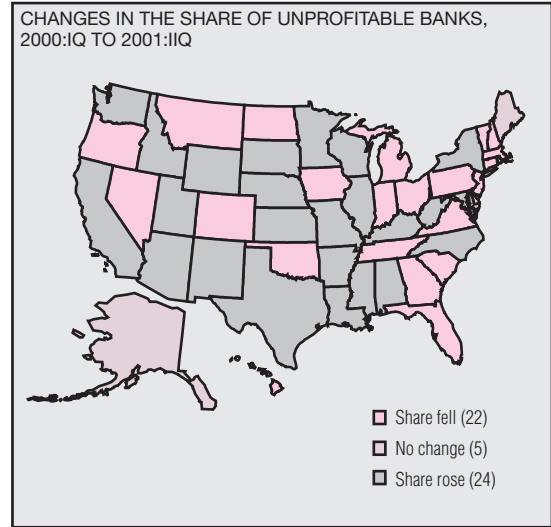
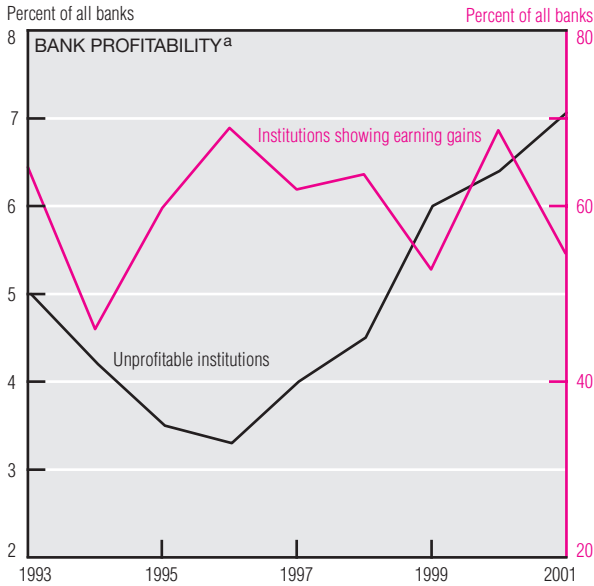
were a less favorable and more uncertain economic outlook, worsening of industry-specific problems, and lower risk tolerance.

Along with tightening in the commercial and industrial loan markets, loan demand has weakened since 1999:IIIQ. Senior loan officers, on balance, again reported moderately weaker demand for commercial and industrial loans this May, but this is good news compared to the substantial decline cited in January. The amount of outstanding seasonally adjusted commercial and industrial loans

(around \$1,116 billion) has been flat for the last five months.

The tightening trend is less significant on the consumer side: Only 20% of respondents tightened, compared to more than double that share for commercial loans, and 80% did not change their standards for consumer lending. The reasons most often given for tightening were a recent or expected increase in delinquency rates and consumers' worrisome debt service burden. Even so, consumer loan demand has strengthened moderately since May, when 46% of the senior
(continued on next page)

Commercial Banks (cont.)



a. Only first quarter of each year is presented.

SOURCES: Federal Financial Institutions Examination Council, *Report of Condition and Income*, various issues; and Federal Deposit Insurance Corporation, *Quarterly Banking Profile*, various issues.

loan officers surveyed reported stronger demand for residential mortgages and 10% reported stronger demand for consumer loans.

In 2001:IQ, the share of unprofitable FDIC-insured commercial banks rose to 7.1%, continuing an upward trend that began in 1996. Compared with 2000:IQ, the share of unprofitable banks increased in 24 states, remained unchanged in five, and decreased in 21 states and the District of Columbia. The most significant deterioration occurred in Arizona, where unprofitable institutions' share jumped from 16% to

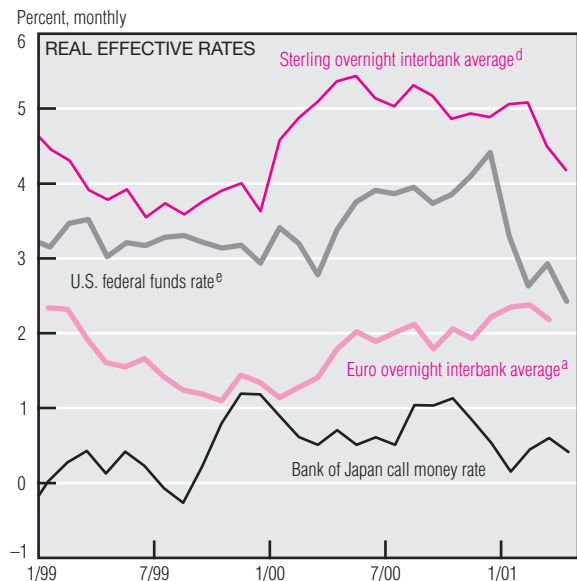
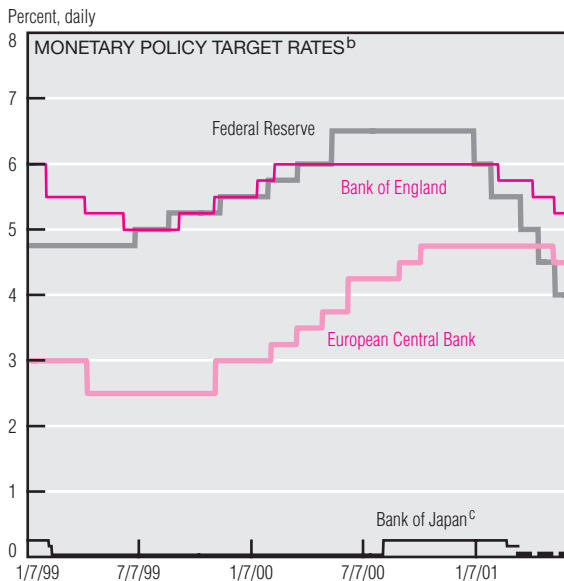
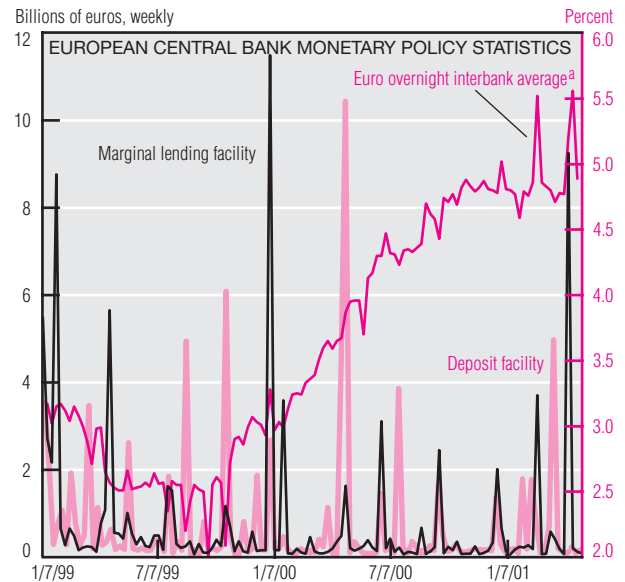
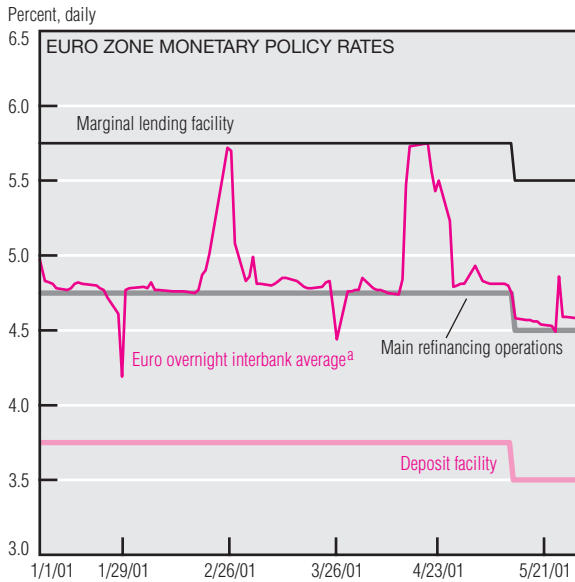
31%. No significant change occurred in Fourth District states.

Parallel to deterioration in the share of profitable institutions over the last five years, commercial banks' annualized 2001:IQ return on assets and return on equity show that their profitability declined relative to 2000. Return on equity dropped from 16.0% in 2000 to 14.7% in 2001:IQ. Return on assets was 1.27%, down from 1.35% in 2000. The return on risk-weighted assets also indicates a decline in bank profitability. Focusing solely on first-quarter results, the

return on risk-weighted assets showed its first decline since 1994 and currently stands at 1.61%.

The ratio of risk-weighted assets to total assets shows that commercial banks' risk exposure lessened. As of 2001:IQ, this ratio stood at 78.1%, down from its all-time high of 80% in September 2000. One factor in this decline may be the tighter lending standards that senior loan officers have reported.

Foreign Central Banks



a. The weighted rate on all overnight unsecured lending transactions in the interbank market, initiated within the euro area by contributing panel banks.

b. Overnight interbank rates except for the European Central Bank, whose main refinancing rate is shown.

c. On March 19, the Bank of Japan shifted to a target for the quantity of current account balances at BOJ that is expected to be consistent with a zero rate.

d. The weighted average rate of all brokered, unsecured sterling overnight deals between money market institutions and their overseas branches, transacted between midnight and 3:30 p.m. GMT.

e. The weighted average rate on trades made through New York City brokers.

SOURCES: Board of Governors of the Federal Reserve System; European Central Bank; Bank of Japan; and Wholesale Markets Brokers Association.

On May 11, the European Central Bank (ECB) cut its main refinancing rate target 25 basis points (bp) to 4.5%. It was the last major central bank to respond to the current global economic slowdown. The move came while the M3 monetary aggregate was slightly above its 4.5% target. The ECB noted, however, that M3 growth “has been on a gradual downward trend since spring 2000,” and M3 growth now is distorted upward by non-euro-area residents’ holdings. Measured inflation also is above target, but the ECB explained that “upward risks to price stability

over the medium term have diminished somewhat,” a view “supported by all forecasts.”

In the ECB’s February 14 and April 11 main refinancing operations, bidding at rates at or above the ECB minimum was weakened by expectations of an imminent cut in that rate. The resulting shortage of reserves caused the overnight market rate to spike, driving banks to borrow unusually large amounts from the marginal lending facility at a 100 bp premium over the minimum rate. In the week following, bidding and allotments in refinancing operations reached the

highest levels in the ECB’s brief history, compensating for the previous week’s shortage.

European and U.S. policy rates now are clustered within a 125 bp range, while Japanese policy is consistent with a zero rate. A rough reading of real policy rates might be derived by assuming that the past year’s actual inflation rate approximates expected inflation. On this basis, policy rates are more evenly spread, between 0.4% in Japan (zero nominal rate plus 0.4% deflation rate) and about 4.2% in the U.K. (5.25% nominal rate minus about 1.1% inflation).