

The Economy in Perspective

Strictly for the birds... Chicken Little was walking in the woods, worrying about the state of the economy, when an acorn fell on his head.

"The economy is collapsing," he cried, "I must run and tell the press." He ran along the path until he encountered Henny Penny, who asked why he was running so fast.

"The economy is collapsing," said Chicken Little. "I saw it with my own eyes. I heard it with my own ears. Some of it fell on my head. I'm going to tell the *New York Times*."

"I'll go with you," said Henny Penny. "I've been expecting this to happen, what with the unemployment rate so low. Not that I'm against birds working, mind you, but there comes a point when enough is too much. When the grist mill hired Ducky Lucky, I knew we'd exceeded full employment around here."

The two ran on until they came upon Turkey Lurkey, who asked why they were in such a hurry.

"The economy is collapsing," said Chicken Little. "I saw it with my own eyes. I heard it with my own ears. Some of it fell on my head. I'm going to tell the *New York Times*."

"And I'm going with him," said Henny Penny. "Anyone with half a brain knows the unemployment rate is too low. We'd better tell the *Wall Street Journal* too."

"I'll come along," said Turkey Lurkey. "It's a grave situation, what with the trade deficit as large as it is. Now, I know that birds around here have become prosperous and we haven't been able to keep our production in line with overall demand, but I've told anyone who will listen that letting critters from Global Village sell us so much merchandise would lead to big trouble. There comes a point when enough is too much. We either should have stopped importing so much feed corn, or hired more of our own birds to grow and process the stuff!"

The three ran on until they met Goosey Loosey, who asked them why they were rushing so fast.

"The economy is collapsing," said Chicken Little. "I saw it with my own eyes. I heard it with my own ears. Some of it fell on my head."

"We're going with him," said Henny Penny and Turkey Lurkey in unison. "Anyone with half a brain knows the unemployment rate is too low and we are not hiring enough of our own birds to make what we need. We're going to tell the *New York Times*, the *Wall Street Journal*, and the *Today Show*."

"I'll go too," said Goosey Loosey. "Of course,

I'm not surprised. What with the stock market acting so crazy the past few years, there's no question that we're headed for economic collapse. Not that I don't believe in efficient markets, mind you, or that there haven't been great opportunities to expand business and become more profitable. But there comes a point when enough is too much! We shouldn't let birds invest so much in new technology and productive capacity. Let the critters over in Global Village make all the extra bird seed with their own plants and equipment, and we'll just buy it from them. Let *their* stock market blow up! I've been speaking and writing about this for years, but no one's paid any attention."

"We're going with you," Henny Penny and Turkey Lurkey cried in unison. "Anyone with half a brain knows the unemployment rate is too low, we aren't hiring enough of our own birds to make what we need, and we should encourage the critters in Global Village to invest and produce more goods. We're going to tell the *New York Times*, the *Wall Street Journal*, the *Today Show*, and CNN."

The four companions pressed on until they encountered Foxy Loxy, who asked where they were going in such a hurry.

"The economy is collapsing," said Chicken Little, Henny Penny, Turkey Lurkey, and Goosey Loosey in unison. "Too many birds are working, we aren't producing enough, and we are investing too much and not buying enough from Global Village. We must tell the media."

"I hate to spoil your expedition," grinned Foxy Loxy, "but the press has been repeating those stories for ages. There's no one left to tell."

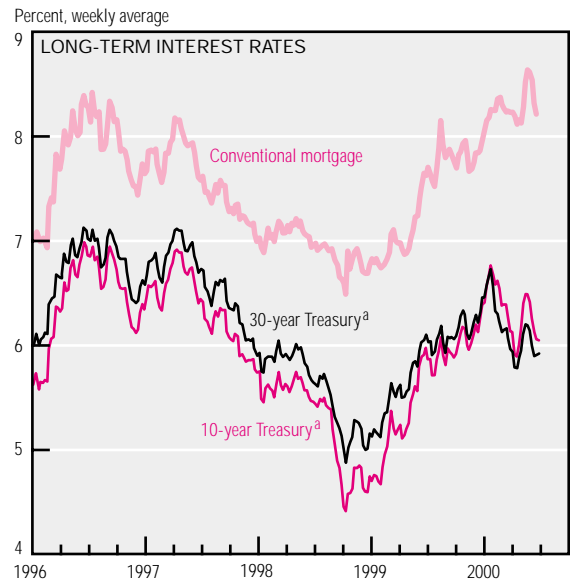
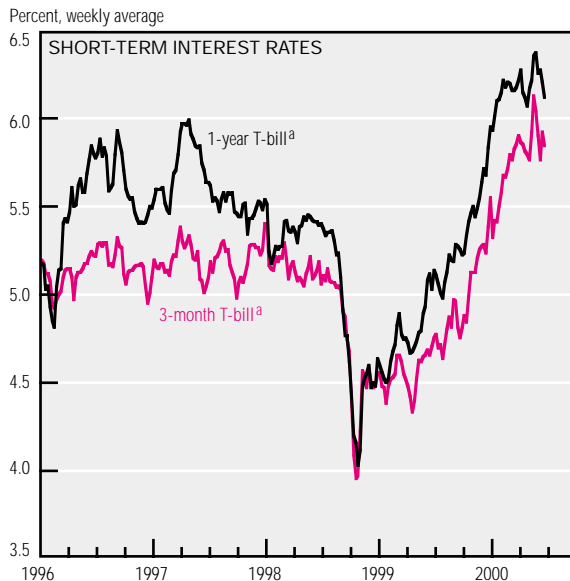
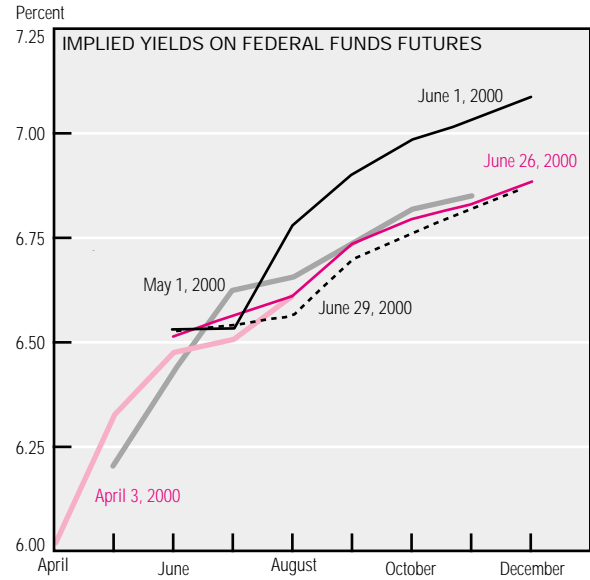
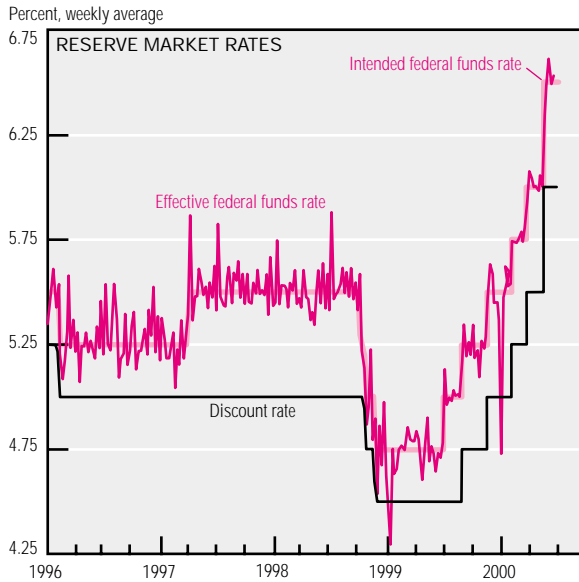
"Well, that's a relief," said Chicken Little. "As long as everyone knows the truth."

Foxy Loxy's grin vanished. "The truth!" he said scornfully. "The talking heads have been peddling the same tales so long that you'd think they'd have lost credibility, but along comes some new 'expert' who claims the sky is falling and stirs the pot again."

"Why Foxy Loxy," said Chicken Little, "I didn't think you were so cynical. The experts just want to warn people about the danger they're in, and so do we."

Foxy Loxy's face brightened. "Of course, Chicken Little," he smiled, "you've made me see how gullible I've been. Why don't you and your charming friends come along to my den, and I'll show you my most recent estimates on the vanishing federal debt."

Monetary Policy



a. Constant maturity.

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

The Federal Open Market Committee (FOMC) left the intended federal funds rate unchanged at 6.5% at its June 27–28 meeting, the first this year at which the target rate was not increased. The FOMC cited “signs that growth in demand is moving toward a sustainable pace” as the basis for maintaining the current stance of monetary policy. However, the Committee also cautioned that such signs “are still tentative and preliminary,” noting that “the risks continue to be weighted mainly toward conditions that may generate height-

ened inflation pressures.”

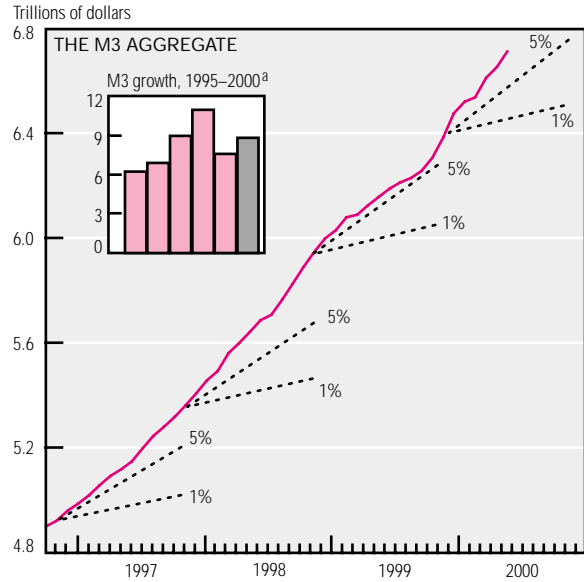
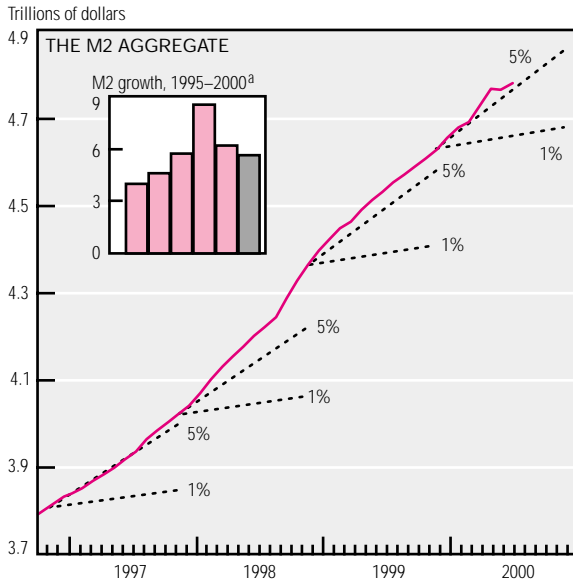
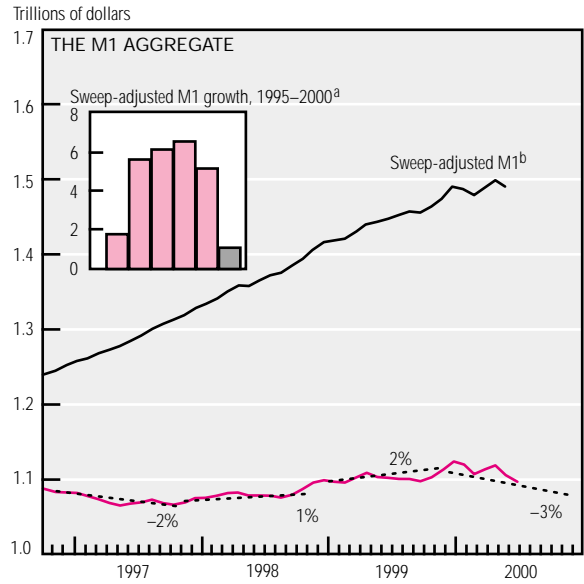
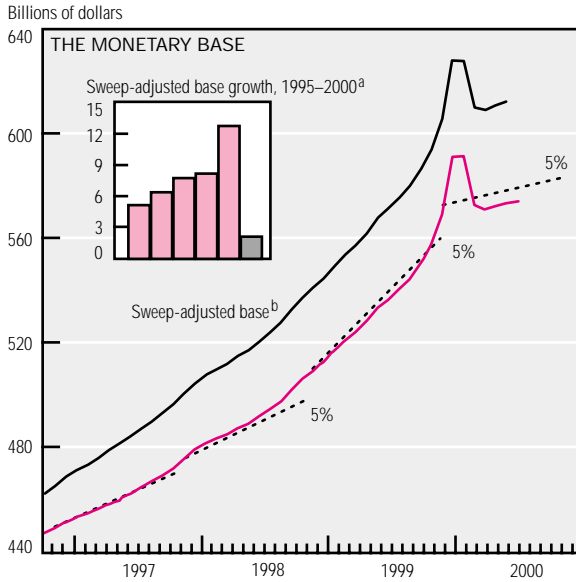
Implied yields on federal funds futures are often used as a proxy for the expected future path of policy. The implied yields of slightly above 6.5% on June and July federal funds futures contracts prior to the meeting indicate that market participants were not surprised by the FOMC’s decision—they had assigned a low probability to a rate increase. Furthermore, there was little change in the implied yields following the meeting. Although traders have lowered their estimates for the year-end

federal funds rates since early June, the June 29 contract for December is still trading nearly 40 basis points (bp) above the current target rate.

Both long- and short-term interest rates have decreased notably since mid-May. This is particularly noteworthy, given the 50 bp increase in the intended federal funds rate on May 16. It is commonly reported that increases in the federal funds rate lead to increases in all other market interest rates. Clearly, such reporting is not always accurate.

(continued on next page)

Monetary Policy (cont.)



a. Growth rates are percentage rates calculated on a fourth-quarter over fourth-quarter basis. The 2000 growth rates for M2 and M3 are calculated on an estimated June over 1999:IVQ basis. The 2000 growth rates for the sweep-adjusted monetary base and sweep-adjusted M1 are calculated on a May over 1999:IVQ basis.

b. Sweep-adjusted M1 contains an estimate of balances temporarily moved from M1 to non-M1 accounts. The sweep-adjusted base contains an estimate of required reserves saved when balances are shifted from reservable to nonreservable accounts.

NOTE: Data are seasonally adjusted. Last plots for base, M1, M2, and M3 are estimated for June 2000. Last plots for the sweep-adjusted monetary base and sweep-adjusted M1 are May 2000. Dotted lines for M2 and M3 are FOMC-determined provisional ranges. All other dotted lines are for reference only.

SOURCE: Board of Governors of the Federal Reserve System.

One explanation for the decline in interest rates is that by acting aggressively, the FOMC credibly signaled to these markets that it will not tolerate rising inflation. This would induce a decline in nominal interest rates by lowering the inflationary expectations that are built into nominal rates. Data that suggest a slowing economy may also have contributed to the rate decline.

Growth rates of the narrow monetary aggregates have fallen off

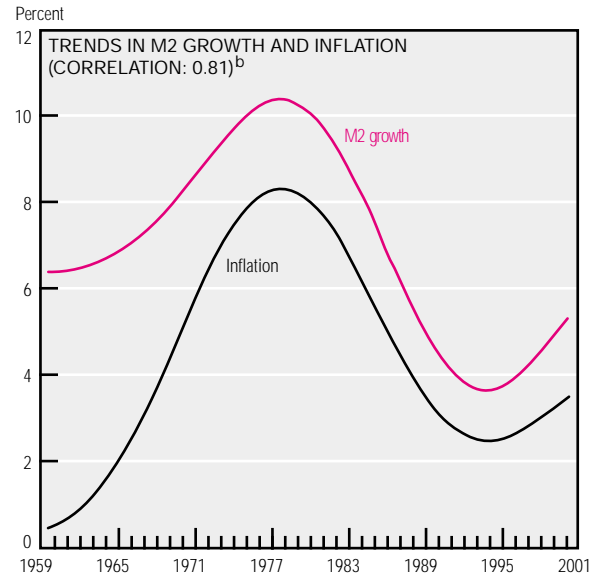
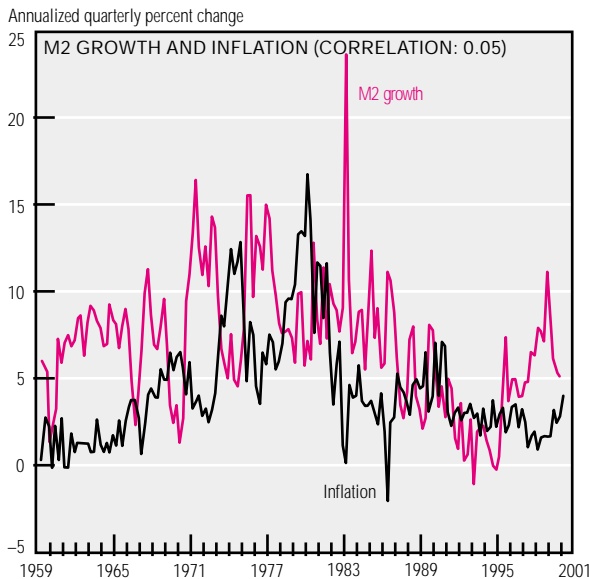
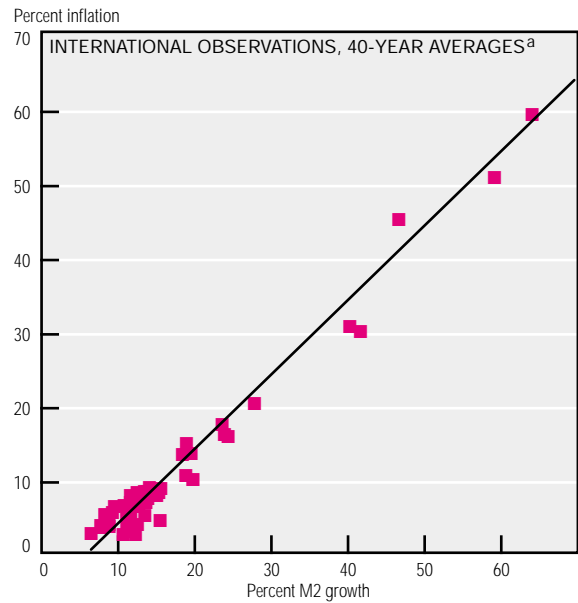
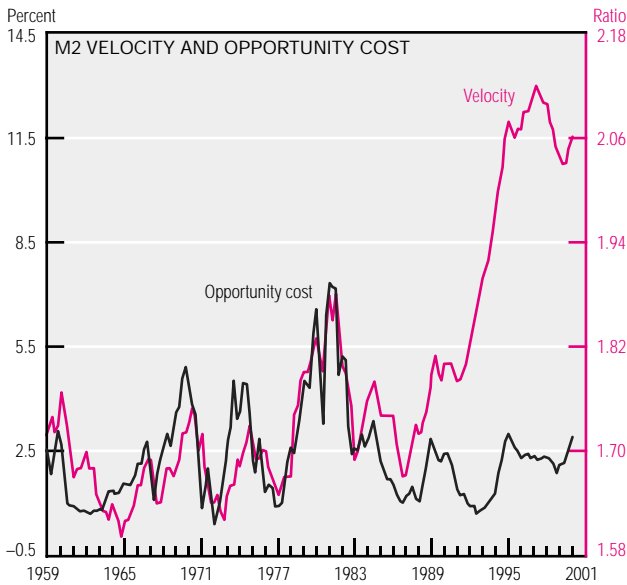
sharply from last year. Annualized year-to-date rates for the sweep-adjusted base and sweep-adjusted M1 were 1.9% and 1.0% through May, compared to 12.7% and 6.5% (fourth-quarter over fourth-quarter basis) in 1999, respectively. In contrast, the broad monetary aggregates are growing at a pace near or above their 1999 rates.

Regular readers of these pages will surely notice the growth rates of various monetary aggregates are always

reported. At the same time, it is often reported that the relationship between money growth and inflation has become substantially less reliable in recent years; the shift in M2 velocity is a frequently cited example. Furthermore (and somewhat ironically), the FOMC appears to place relatively little emphasis on money in conducting monetary policy.

So why are money growth rates continually presented here? In large *(continued on next page)*

Monetary Policy (cont.)



a. Includes 49 nations. Each point shows 40-year averages of M2 growth and inflation for one country.

b. M2 growth and inflation are annualized quarterly percent changes in M2 and CPI (all items). Data are filtered using a band-pass filter to remove frequencies higher than 20 years.

SOURCES: U.S. Department of Commerce, Bureau of Labor Statistics; Board of Governors of the Federal Reserve System; International Monetary Fund, *International Financial Statistics*; and Lawrence J. Christiano and Terry J. Fitzgerald, "The Band-Pass Filter," National Bureau of Economic Research, Working Paper no. 7257, July 1999.

part, it is because the preponderance of evidence suggests that eventually money growth and inflation are very closely associated. Over relatively short time periods, such as a few months or even a year, however, the association between money growth and inflation is quite uncertain.

The lack of a clear short-term relationship to inflation is not unique to money growth. Other statistics that are sometimes used to gauge

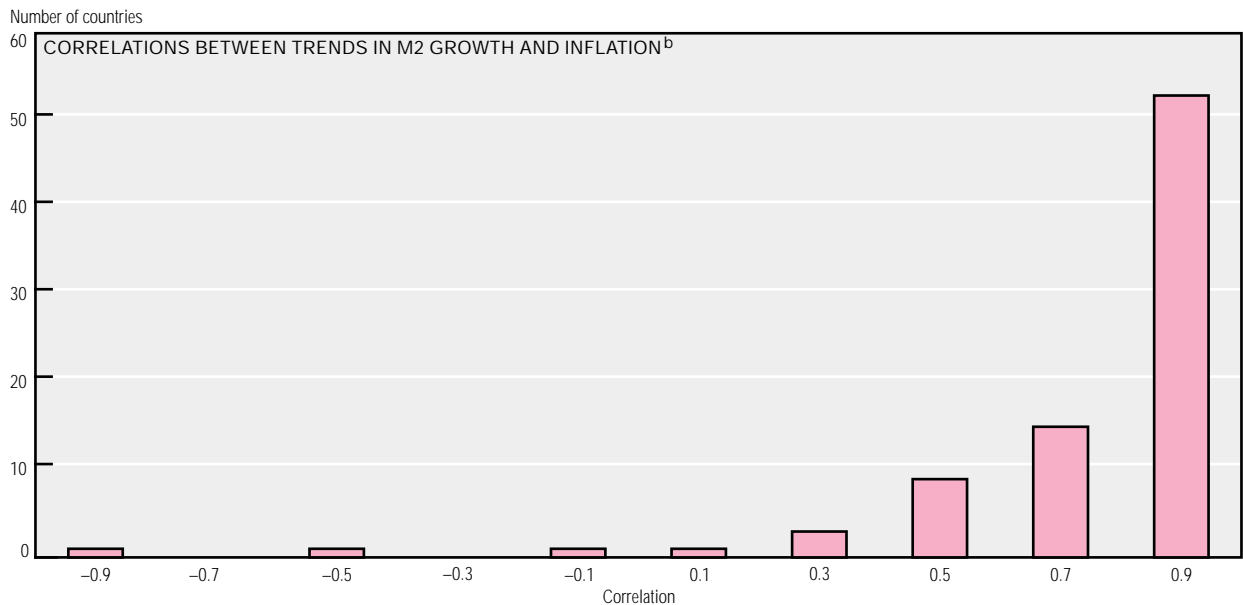
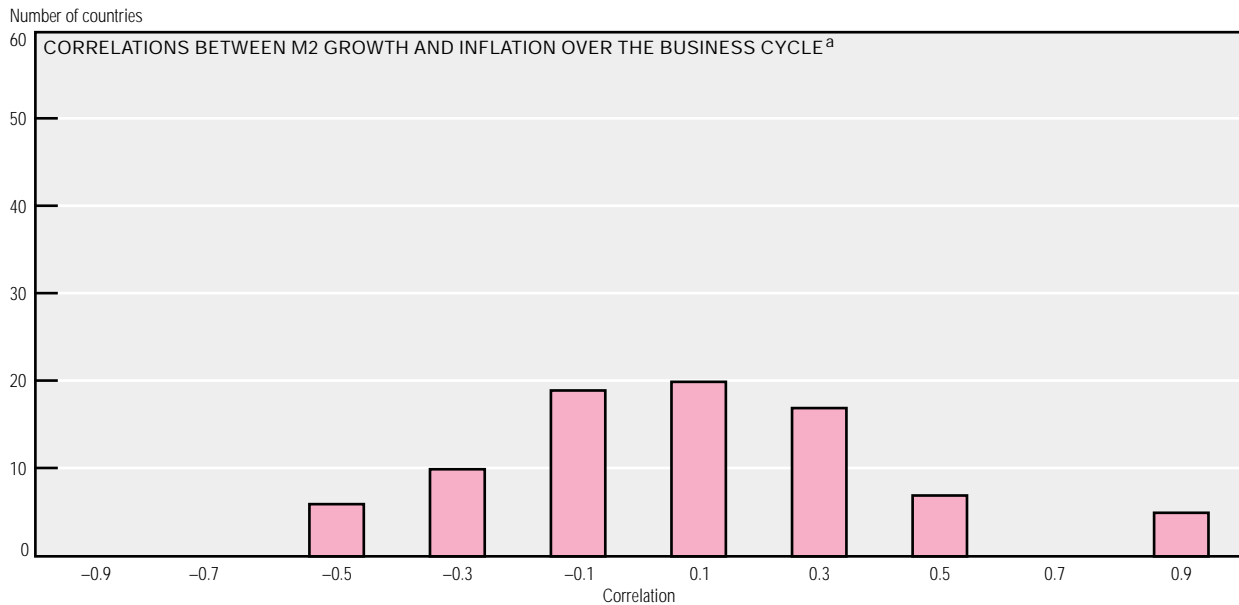
inflationary pressures, such as unemployment or real output growth, have the same shortcoming. That is why Fed policymakers must examine a broad range of indicators in formulating policy.

A striking characteristic of money growth as an indicator of inflationary pressures is its close association with inflation over long-enough time horizons. For example, 40-year averages of money growth and inflation rates in many different countries

exhibit a clear pattern. Countries with high money-growth rates have high inflation rates, and vice versa. However, the relationship becomes much less clear when several high-money-growth, high-inflation countries are excluded.

We gain further evidence on the relationship between money growth and inflation by examining their association within each of many countries. For example, trends in
(continued on next page)

Monetary Policy (cont.)



a. Distribution of correlations between M2 growth and inflation over the business cycle in 84 countries.

b. Distribution of correlations between trend M2 growth and trend inflation in 84 countries.

NOTE: Data are filtered using a band-pass filter. The business cycle contains frequencies between two and eight years; trends contain frequencies of 24 years and longer. The correlations are grouped into 10 equally spaced bins of width 0.20, centered on $-0.9, -0.7, \dots, 0.7, 0.9$.

SOURCES: Lawrence J. Christiano and Terry J. Fitzgerald, "The Band-Pass Filter," National Bureau of Economic Research, Working Paper no. 7257, July 1999; and Terry J. Fitzgerald, "International Facts on Money Prices and Output," March 2000, unpublished.

M2 growth and inflation over the past 40 years display a strong positive association in the U.S.—even though the raw quarterly growth rates display none. In fact, trends in money growth are highly correlated with trends in inflation in almost all countries, regardless of the specific policies. Furthermore, the close relationship holds even in countries with moderate rates of inflation.

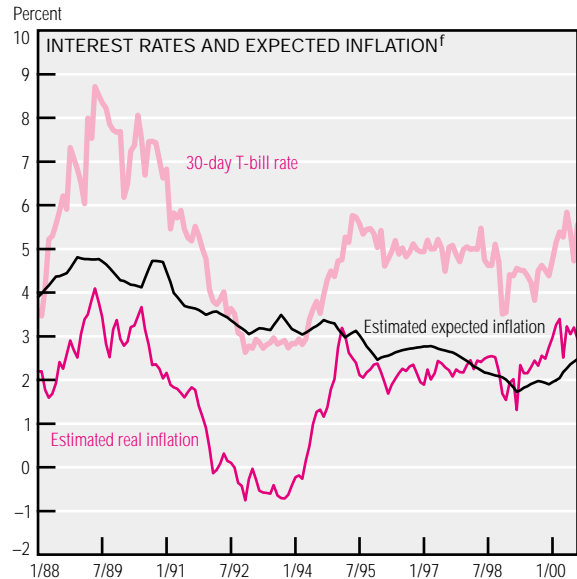
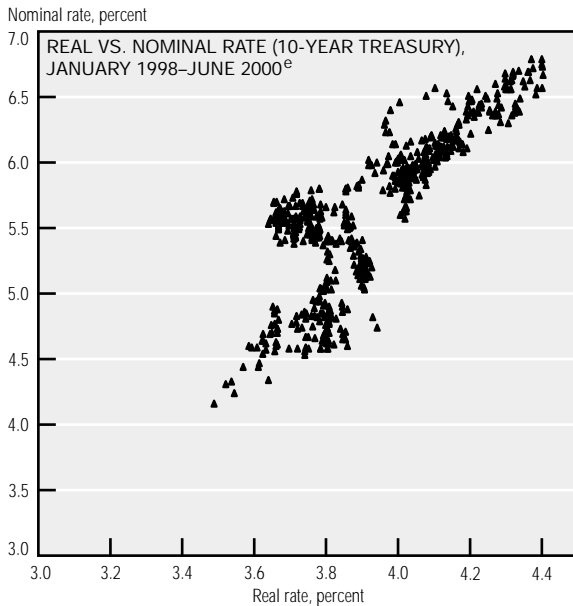
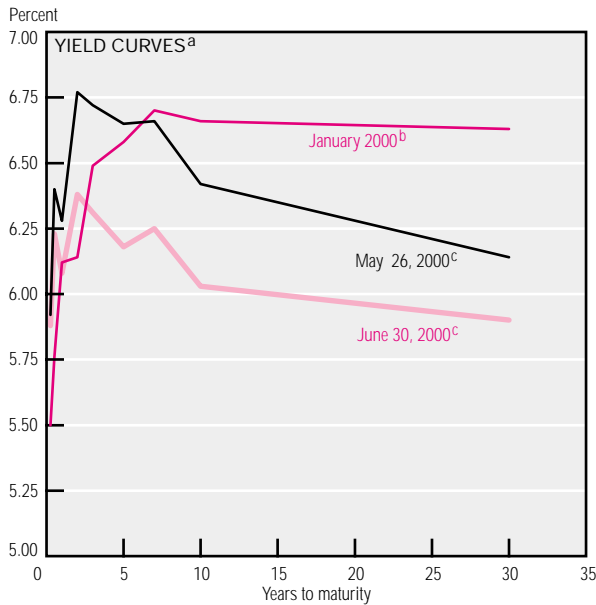
Do short-term fluctuations in money growth and inflation—over

the business cycle, for instance—display a consistent positive relationship in different countries? No. The correlation is not consistently positive or negative. This result suggests that the lack of a clear short-term relationship is not unique to the U.S., but a property shared among many countries.

The combined weight of this evidence strongly suggests that over the long term, money growth is the key factor determining inflation. Over the short term, however, the

relationship is murky. One can debate the precise time horizon over which a clear association appears, but there is some evidence of a notable relationship for periods as short as two years. Reporting on the behavior of annual and year-to-date money growth rates is helpful in identifying changes in underlying trend growth rates. If such changes persist, the evidence suggests that changes in the underlying trend rate of inflation will follow.

Interest Rates



a. All yields are from constant-maturity series.

b. Monthly average.

c. Average for the week ending on this date.

d. Line breaks show dates when 10-year Treasury bonds were not traded.

e. Daily data.

f. The estimated expected inflation rate and the estimated real rate are calculated using the Pennacchi model of inflation estimation and the median forecast for the GDP implicit price deflator from the *Survey of Professional Forecasters*. Monthly data.

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 Financial Information Services.

The yield curve has shifted downward at all maturities since last month. It retains its humped shape, with 2-year yields remaining highest. Two often-watched spreads, the 3-year, 3-month and the 10-year, 3-month, stand at 43 and 15 basis points, respectively. The supply of Treasury securities continues to be a concern, particularly at longer maturities, keeping those rates low.

Yield curves often provide a "market estimate" of expected inflation, because inflation expectations in-

crease interest rates. Interest rates may also rise because real rates change. One may account for this by looking at the yields on Treasury inflation-indexed securities (TIIS). The spread between a nominal 10-year Treasury security and a 10-year TIIS provides an estimate of inflationary expectations (since the bonds differ in liquidity and some tax consequences, it is not an entirely pure measure). Since May this estimate has trended downward, with a small recent uptick.

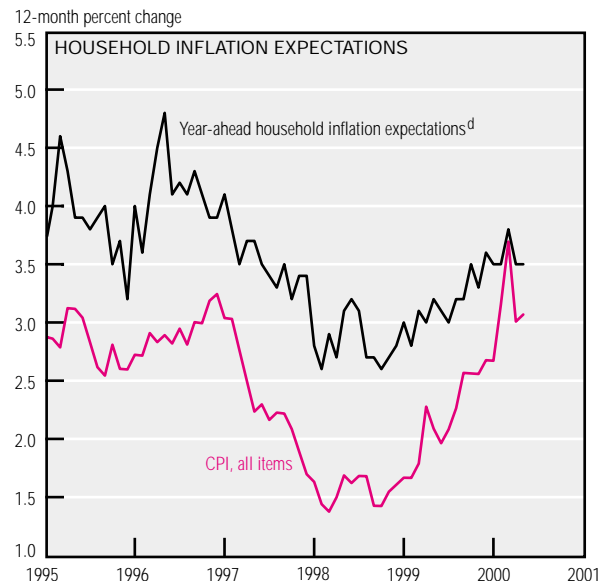
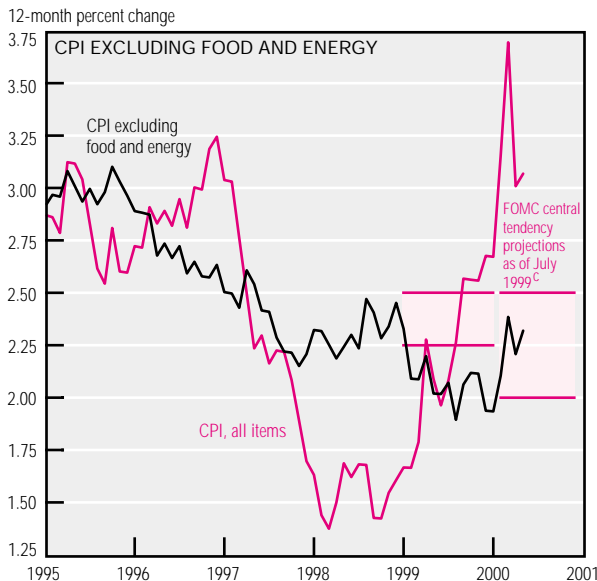
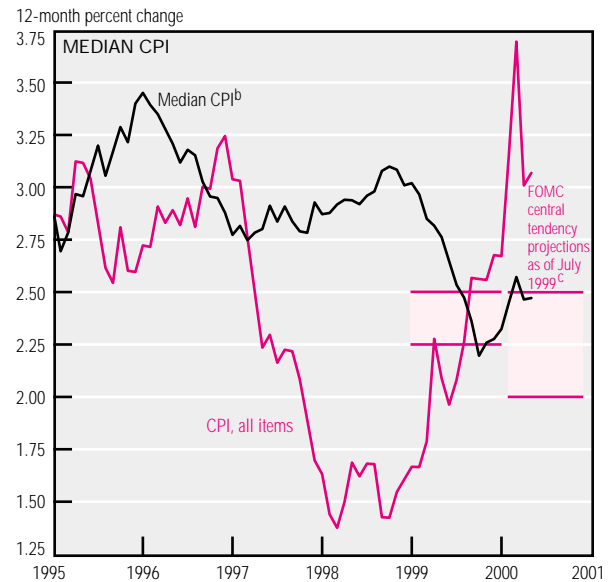
Plotting nominal against real rates

shows that both inflationary expectations and movements in real rates do matter: While high real rates generally mean high nominal rates, the relationship is not precise.

Another approach is to combine survey measures of expected inflation with interest rates to estimate expected inflation (and the real rate). The chart above shows one such approach, concentrating on short-term inflation expectations (over the next 30 days), which have been increasing since early 1999.

Inflation and Prices

	Percent change, last:				1999 avg.
	1 mo. ^a	3 mo. ^a	12 mo.	5 yr. ^a	
Consumer prices					
All items	0.7	3.1	3.1	2.4	2.7
Less food and energy	2.0	3.2	2.3	2.4	1.9
Median ^b	2.5	2.6	2.5	2.8	2.3
Producer prices					
Finished goods	0.0	2.7	3.8	1.4	2.9
Less food and energy	2.5	1.9	1.4	1.1	0.8



a. Annualized.

b. Calculated by the Federal Reserve Bank of Cleveland.

c. Upper and lower bounds for inflation path as implied by the central tendency growth ranges issued by the FOMC and nonvoting Reserve Bank presidents.

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

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

Retail prices remained subdued in May, up a modest 0.1%, as energy prices fell again (down 1.9% in the month). Pulling in the opposite direction, food prices rose—rather sharply—0.5% (5.9% annualized). Removing these two volatile sectors yields the so-called core rate of inflation, which rose 0.2% (2.0% annualized), equaling its April rate of increase. The median CPI, an alternative measure of underlying inflation, also rose 0.2% in May (2.5% annualized).

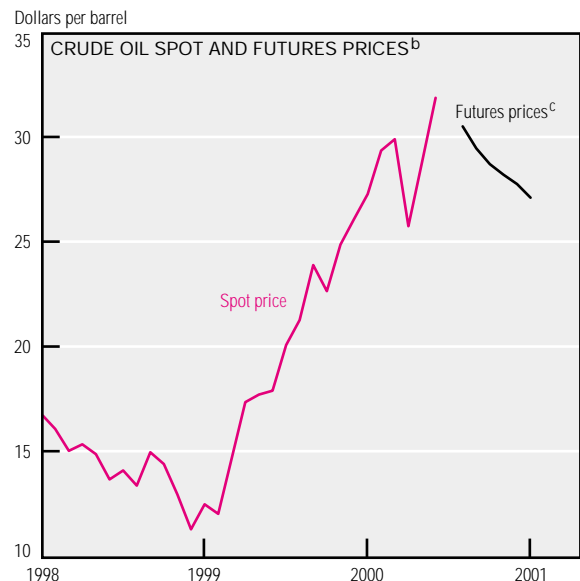
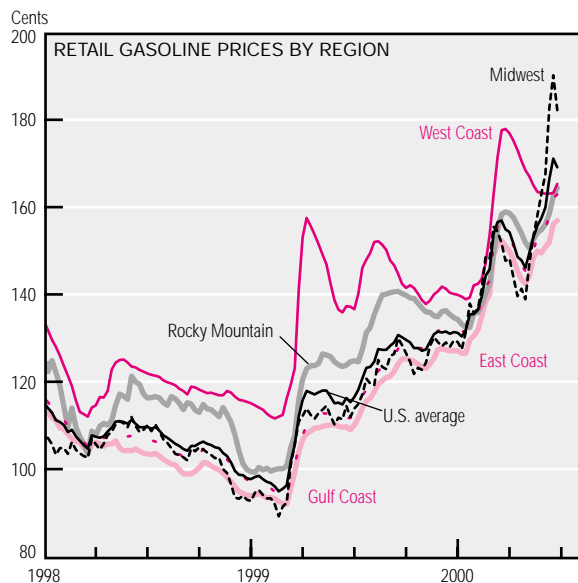
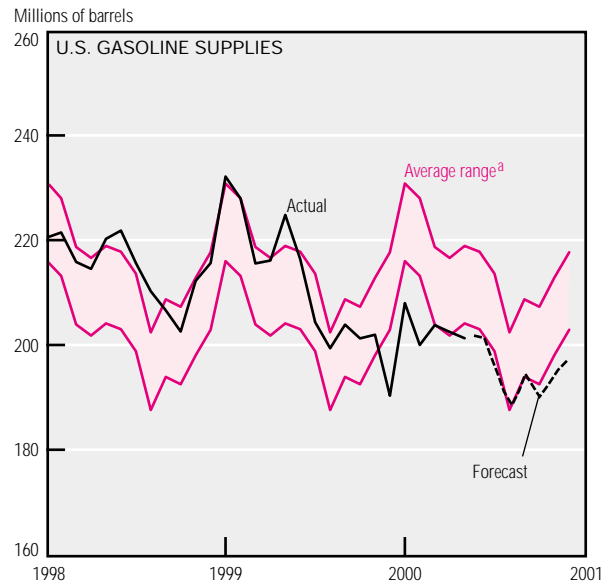
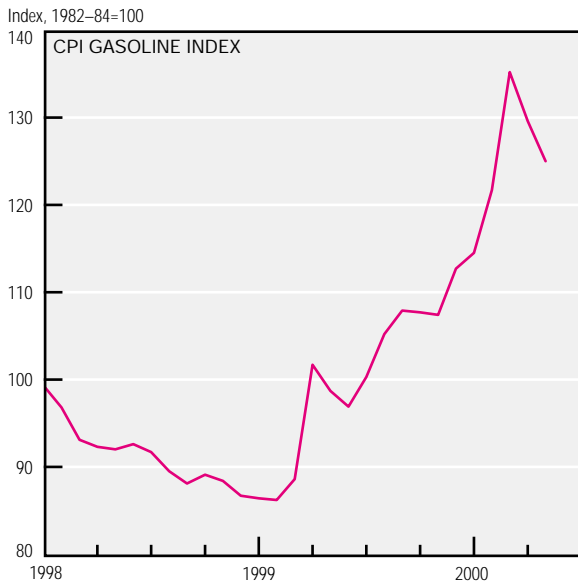
The 12-month percent changes of

these three inflation measures over the past 18 months also reveal widely divergent patterns. While the CPI has accelerated from a 1.5% growth rate to just over 3.0%, the core measures have remained steady (about 2.0% for the CPI excluding food and energy and 2.5% for the median CPI). Core measures of inflation are valuable to policymakers precisely because they screen out transitory factors—such as recent energy price increases—leaving a clearer view of the part of inflation that may result from the central

bank's actions. It is interesting, therefore, that the public's expectations of future inflation have so closely followed the upward move in the all-items series rather than the core measures. In other words, the public seems to ascribe some persistence to factors that the core measures imply are merely transitory.

One change that is not reflected in the May report on consumer prices is the recent swift re-ascent of gasoline prices. Having risen more or less steadily since the beginning
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Inflation and Prices (cont.)



a. Average ranges are constructed by the U.S. Department of Energy's Energy Information Administration from data for the most recent three-year period. The ranges also reflect seasonal variation for the past seven years.

b. West Texas Intermediate crude oil.

c. As of June 30, 2000.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; U.S. Department of Energy, Energy Information Administration; Bloomberg Financial Information Services; and Dow Jones Energy Service.

of 1999, gasoline prices began dropping in mid-March. This reversal was brief, however, and crude oil prices began climbing again in early May, against a background of low U.S. gasoline supplies (which had been below the Energy Department's "normal ranges" since late last year). Indeed, according to Energy Department sources, gasoline supplies dropped partly because producers, hopeful that crude oil prices would soon retreat, were reluctant to build up their gasoline stocks in 1999. As demand surged

with the approach of the summer driving season, suppliers were unable to provide sufficient product, pushing gasoline prices still higher.

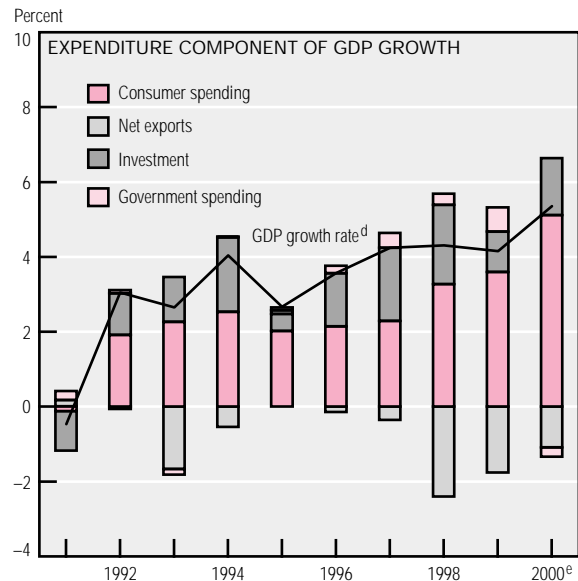
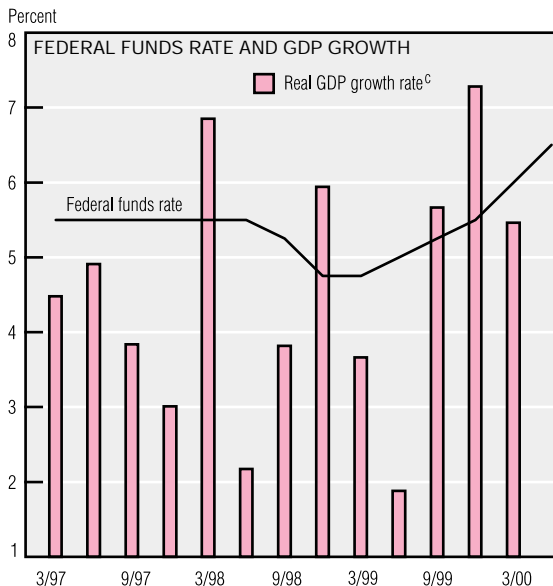
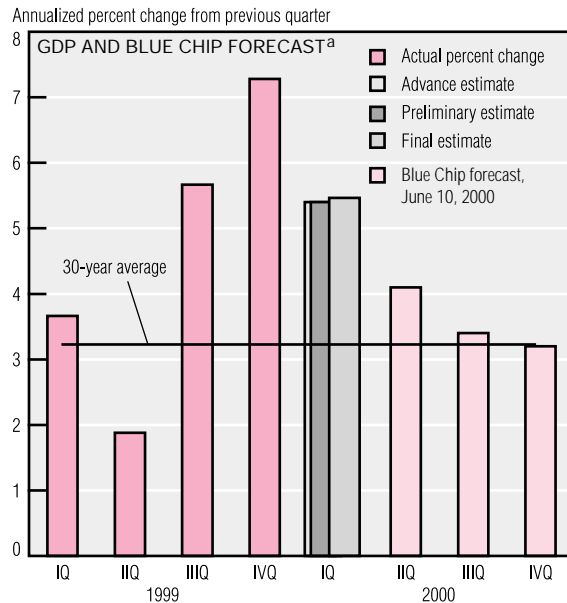
Skyrocketing gasoline prices have been most dramatic in the Midwest, where prices in some cities exceeded \$2 a gallon. These prices result partly from the supply disruption caused by a leak in the Explorer Pipeline, which provides about 20% of the region's gasoline. (The pipeline is now operating again, but at reduced capacity.) In addition, refineries reportedly had difficulty producing sufficient quantities of a

new type of reformulated gasoline (RFG), required by the Environmental Protection Agency in some areas. This explains some of the more extreme price increases in the Chicago and Milwaukee areas, which together consume about two-thirds of the Midwest's RFG.

The outlook for gas prices is improving. Supply disruptions are likely to abate in the near term, and Saudi Arabia's recent announcement that it will increase production has pushed prices of crude oil for December delivery down to about \$27 a barrel from June's average of about \$32.

Economic Activity

Real GDP and Its Components, 2000:1Q ^{a,b} (Final estimate)	Change, billions of 1996 \$	Percent change, last:	
		Quarter	Four quarters
Real GDP	121.0	5.5	5.1
Consumer spending	114.9	7.7	5.9
Durables	47.4	24.3	13.3
Nondurables	25.9	5.8	5.1
Services	46.5	5.5	4.8
Business fixed investment	70.9	18.7	8.5
Equipment	57.2	24.7	13.7
Structures	11.7	20.6	2.2
Residential investment	4.8	5.2	2.1
Government spending	-5.8	-1.5	3.3
National defense	-22.2	-15.2	-0.4
Net exports	-23.4	—	—
Exports	-16.4	5.2	7.9
Imports	39.8	11.7	12.4
Change in private inventories	-38.7	—	—



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. Quarterly growth rates.

d. Year-over-year percent change

e. Annualized percent change for 2000:1Q.

NOTE: All data are seasonally adjusted.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; Board of Governors of the Federal Reserve System; and *Blue Chip Economic Indicators*, June 10, 2000

The final release of statistics on first-quarter real GDP growth confirmed that 2000 started with a bang. The revised figure came in 0.1 percentage point higher than the May estimate, indicating that U.S. output expanded at a healthy annualized rate of 5.5%.

All consumer spending categories grew briskly over the first three months of the year. Consumer durable spending was particularly strong, with the June revision show-

ing that expenditures in this category expanded at a 24.3% clip. Business fixed investment also posted large gains, increasing at an annual rate of 18.7% in the quarter.

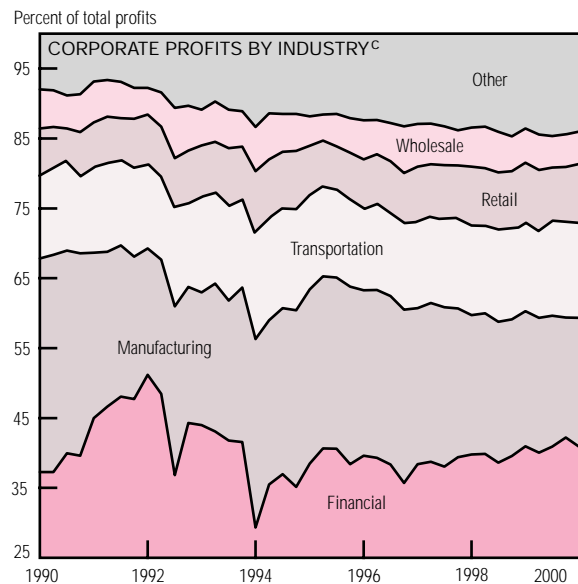
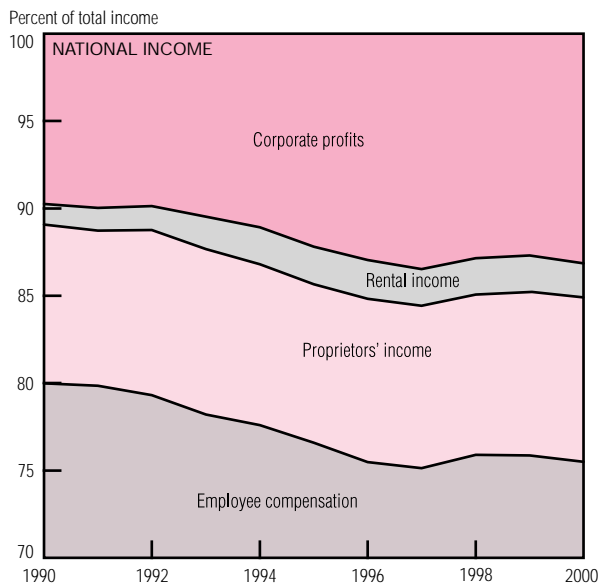
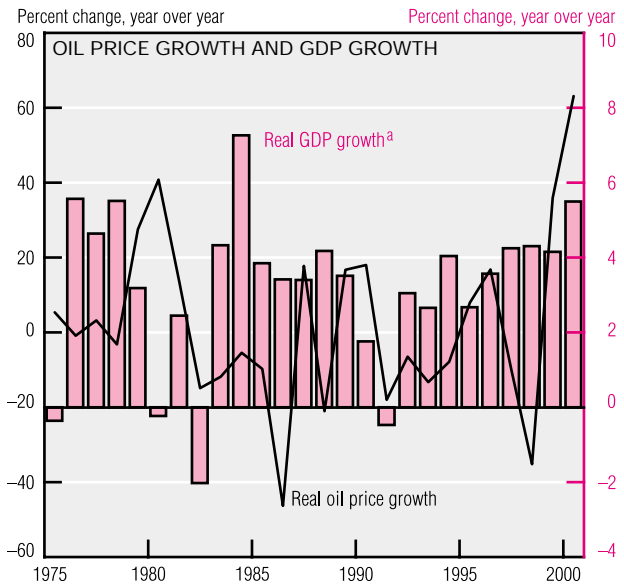
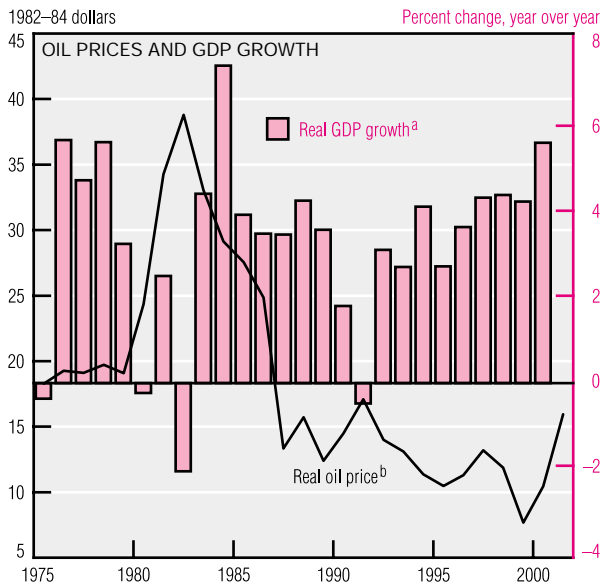
June's revisions revealed a narrower U.S. trade gap over the January–March period than had been thought. The change reflected both higher-than-estimated exports and lower-than-estimated imports.

Blue Chip forecasts continue to predict GDP growth rates above the

30-year average through the next two quarters. The consensus among professional prognosticators, however, has the pace of economic expansion returning to normal long-run levels by year's end.

In fact, the slight upward revision from May's estimate does not alter the assessment that economic growth, though still hot, has cooled substantially from its torrid pace in late 1999. Accumulated evidence
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Economic Activity (cont.)



a. Last observation based on annualized percent change for 2000:1Q.

b. U.S. refiners' acquisition cost of crude oil, deflated by the CPI.

c. Before-tax profits of domestic industries, with inventory valuation and capital-consumption adjustments.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Labor, Bureau of Labor Statistics; and U.S. Department of Energy.

that the fall-off toward more normal growth rates continued into the second quarter has led some observers to surmise that the succession of recent federal funds rate increases are beginning to bite. Although it is far too early for any firm conclusion about this conjecture, there is scant evidence thus far that the setting of the funds rate has been very helpful in projecting GDP growth over the course of this expansion.

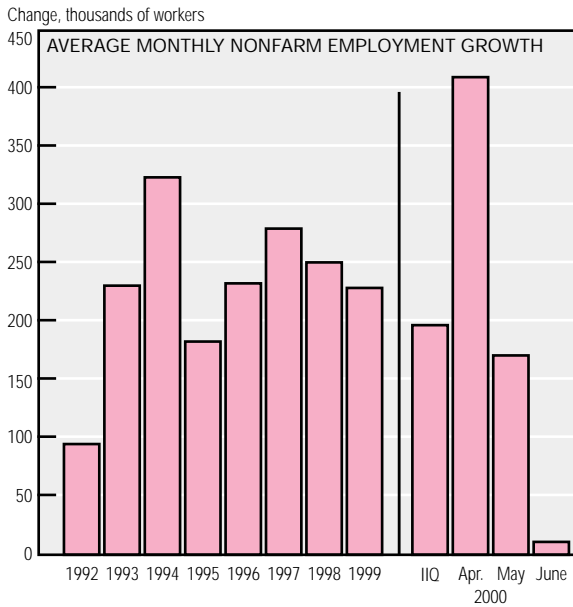
Others have focused on the mod-

erating—if not restrictive—influence of the recent rise in crude oil and gasoline prices. The current real price of oil is far below its historical 1981 peak, but some have argued the economy is more sensitive to large, sudden spikes in real oil prices than to the level of those prices per se. Here the case is stronger, as the recent run-up in prices has been large by historical standards.

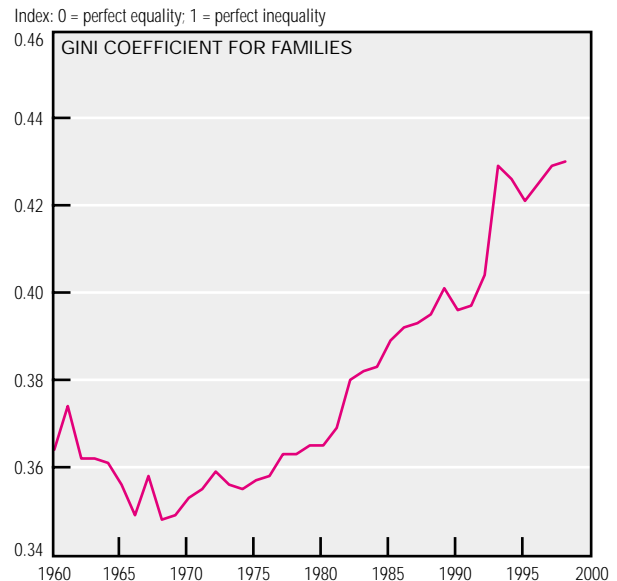
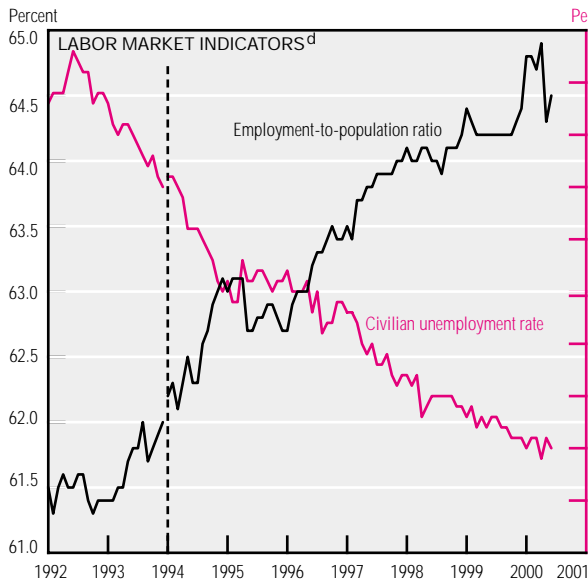
One notable characteristic of this expansion has been the increasing

share of corporate profits in national income. This development corresponds to a shift in the share of profits accounted for by industries classified as “other” in the national income accounts. This category includes general services, which contains many “new economy” enterprises related to information technology. It will be interesting to see whether these trends reverse, if the economy does in fact revert to a historically typical growth trajectory.

Labor Markets



	Average monthly change (thousands of employees)				
	1997	1998	1999	YTD ^a	June 2000
Payroll employment	280	251	229	261	11
Goods-producing	48	22	4	23	13
Mining	1	-3	-3	2	2
Construction	21	37	25	20	3
Manufacturing	25	-12	-18	2	8
Durable goods	27	-2	-6	6	14
Nondurable goods	-2	-11	-12	-4	-6
Service-producing	232	229	225	237	-2
TPU ^b	16	20	16	11	18
Retail trade	24	30	36	32	49
FIRE ^c	21	22	10	-3	-6
Services	141	120	124	109	148
Government	17	28	28	83	-195
Average for period (percent)					
Civilian unemployment	4.9	4.5	4.2	4.0	4.0



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.
 SOURCE: U.S. Department of Labor, Bureau of Labor Statistics; and U.S. Department of Commerce, Bureau of the Census.

The 190,000 temporary census workers who were dropped from government payrolls contributed heavily to June's lower-than-expected total nonfarm employment growth (only 11,000, the smallest increase since January 1996). On the other hand, private-sector employers added 206,000 workers, slightly higher than 2000's year-to-date average monthly increase (177,000) and roughly equal to 1999's average (202,000). Another measure, the employment-to-population ratio, rose 0.2% to 64.5%, though this is

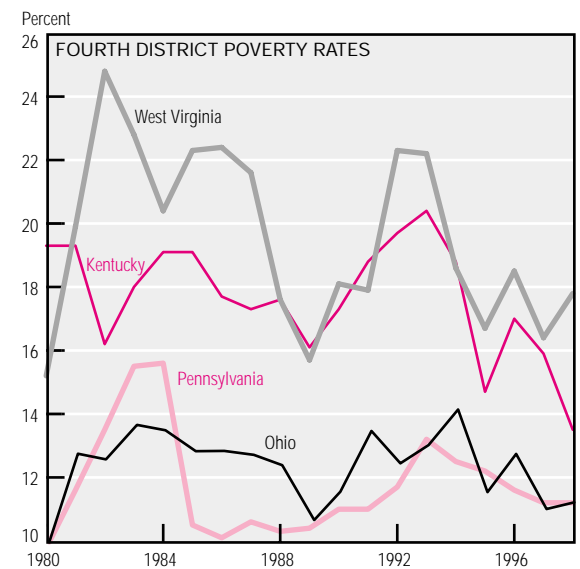
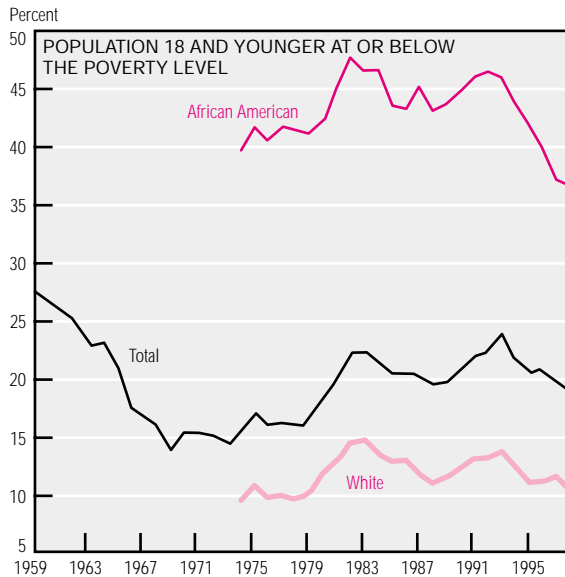
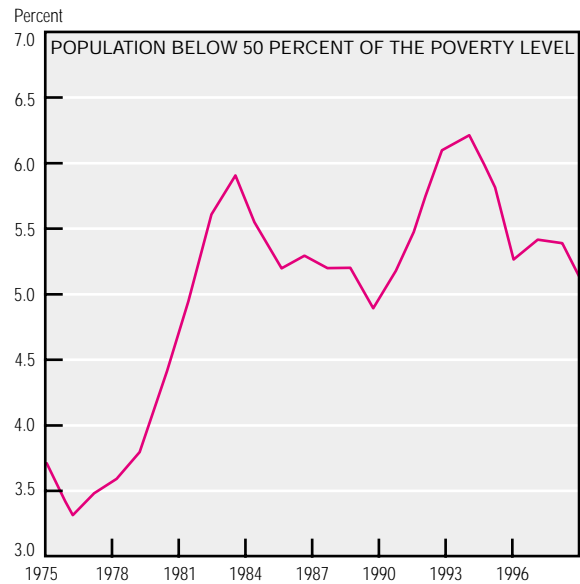
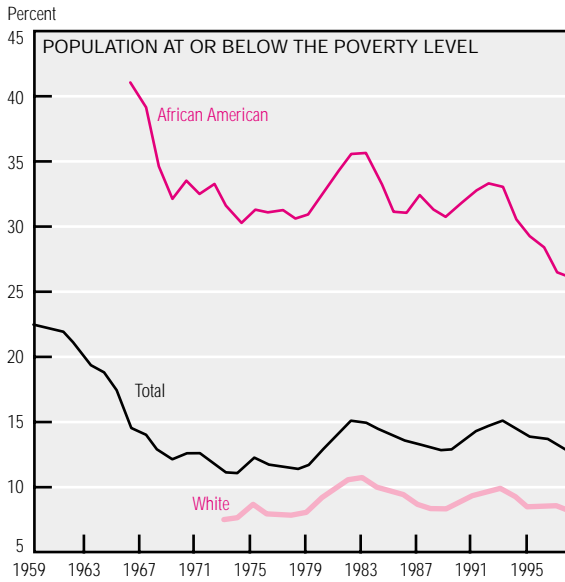
still lower than April's record high of 64.9%. In addition, the unemployment rate fell slightly in June to 4.0%; it has fluctuated between 3.9% and 4.1% since October of last year.

Breaking down payroll growth by industry shows strong employment gains in retail trade and the services industry, including business services. After a weak May in which net employment growth was only 17,000 workers, the services industry added 148,000 jobs last month. In the goods-producing sector, most of the employment gains occurred in durable goods manu-

facturing (14,000), which has made a steady net gain of 38,000 jobs since last October.

Are gains from the current expansion being evenly distributed among America's families? An often-cited measure of inequality in income distribution is the *Gini coefficient*. The larger the Gini, the more unequal the highest and lowest incomes. The U.S. Gini coefficient rose steadily between 1960 and 1994, an indication of greater income inequality. But the coefficient has flattened during the most recent five-year period.

Poverty Rates



SOURCE: U.S. Department of Commerce, Bureau of the Census, March *Current Population Survey*.

The current economic expansion, the longest on record, has had only a slight impact on the share of the population living above the poverty line (the line was set at \$16,660 for a family of four in 1998). Forty years ago, 22% of the population was living in poverty, but that figure dropped to roughly 12% over a 10-year period. Since then, the poverty rate, while fluctuating somewhat, has remained around 12%. The current expansion reduced the share of those living in poverty from 15% to 12% overall.

For African Americans, however,

the reduction has been more substantial. After hovering above 30% for 30 years, the poverty rate for African Americans has fallen closer to 25% since 1993, while that for whites has declined only slightly.

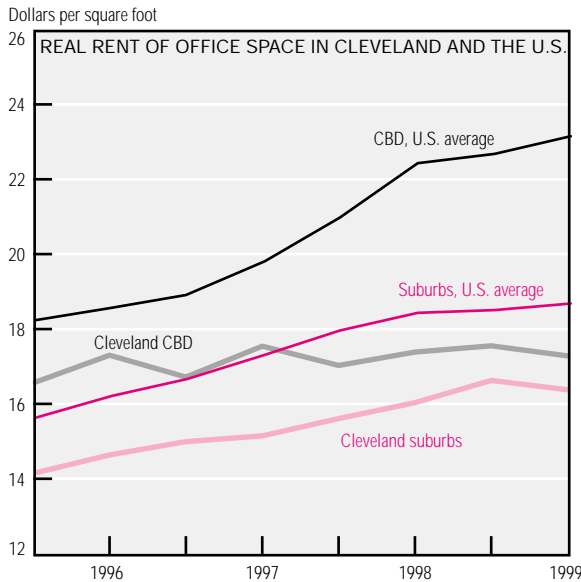
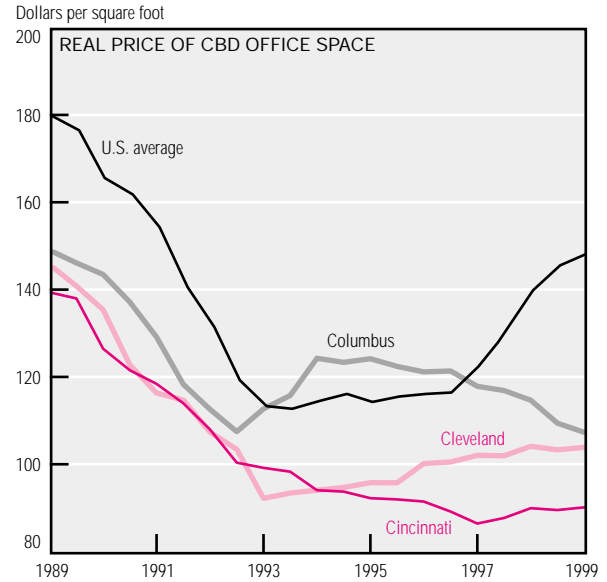
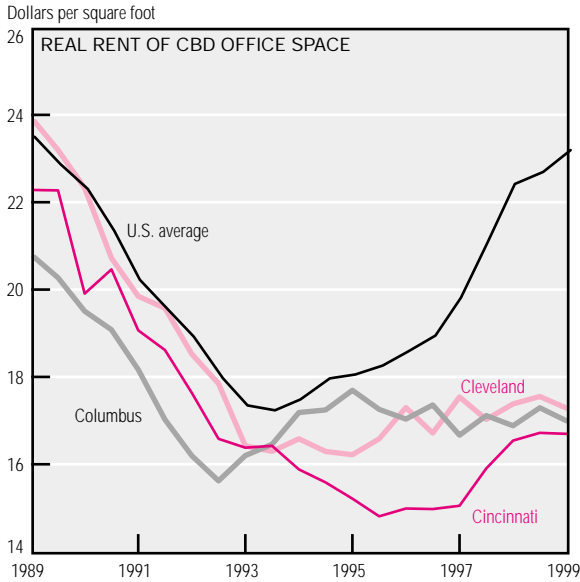
The fraction living in extreme poverty (that is, those with incomes below \$8,300, half of the poverty level) also increased from the mid-1970s to the early 1980s. From 1976 to 1992, however, the fraction roughly doubled, from just above 3% to more than 6%. It has recently declined again and is now closer to 5%.

Among young people (those aged

18 or less), the poverty rate has also increased slightly over the past 30 years, rising from 15% to more than 20% in the early 1990s but dropping below 20% by the end of 1999. However, the share of young African Americans has shown a marked decline of 10 percentage points, from more than 45% to just over 35% over the decade.

Within the Fourth District, Kentucky and West Virginia continue to have higher poverty rates than Pennsylvania, Ohio, and the nation as a whole, although the differences narrowed in the 1990s.

Regional Conditions



	Inventory (millions of sq. ft.)	Vacancy rate (percent)	Absorption (thousands of sq. ft.)	Construction (thousands of sq. ft.)
1988:IQ				
Total	33.8	12.2	—	—
CBD	19.3	15.2	45.0	—
1999:IQ				
Total	33.9	10.7	255.8	903.8
CBD	18.5	11.4	-56.8	36.0
1999:IIIQ				
Total	34.4	10.6	—	892.7
CBD	18.3	10.4	45.1	0

SOURCES: U.S. Department of Housing and Urban Development; and National Real Estate Index (NREI), *Market History Reports* and *Market Monitor*.

Advances in communications and information technology are changing not only how we do business, but also *where* we do business. Instead of rehabbing older downtown skyscrapers, many firms are building shorter, multi-unit offices with state-of-the-art technologies, located outside the central business district (CBD).

Average real rent for CBD office space in the U.S. has been climbing steadily since 1993, the low point of the past decade. In fact, rents fell

more than 25% between 1989 and 1993. By 1999, rents had reverted to their 1989 level.

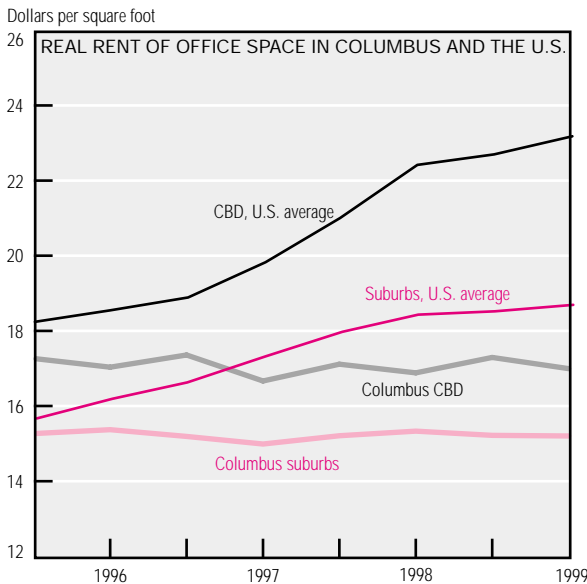
Although rents in Cincinnati, Cleveland, and Columbus mimicked the substantial national decline between 1989 and 1993, they show no sign of returning to their previous levels. Rent for office space in Cleveland's CBD was almost identical to the national average in 1989. By 1999, however, rent in Cleveland was only about 75% of the U.S. average. In Cincinnati, rent declined until

1995, but now has climbed to levels similar to Cleveland and Columbus.

The pattern of real rent for suburban areas is similar to that of the CBD, but several points are worth noting. First, rent is lower in the suburbs, consistent with the fact that rent declines with distance from the CBD. Second, although rental rates in Fourth District cities' CBDs have diverged from the national average, this is not the case for suburban property in Cleveland or Cincinnati.

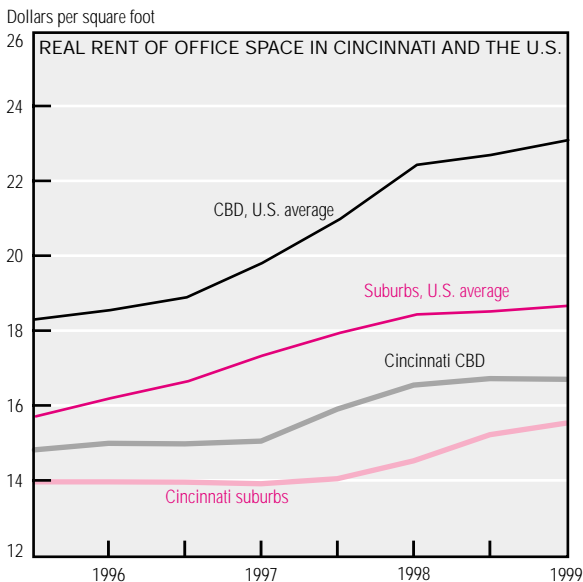
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Regional Conditions (cont.)



Office Space in Columbus

	Inventory (millions of sq. ft.)	Vacancy rate (percent)	Absorption (thousands of sq. ft.)	Construction (thousands of sq. ft.)
1988:IQ				
Total	30.2	7.2	—	—
CBD	11.2	7.0	—	—
1999:IQ				
Total	21.3	9.2	-73.5	1,640.1
CBD	8.6	10.5	-0.1	395.1
1999:IIIQ				
Total	22.6	10.6	—	1,182.8
CBD	8.9	12.4	25.1	184.5



Office Space in Cincinnati

	Inventory (millions of sq. ft.)	Vacancy rate (percent)	Absorption (thousands of sq. ft.)	Construction (thousands of sq. ft.)
1988:IQ				
Total	27.0	9.2	—	—
CBD	13.4	8.7	570.0	—
1999:IQ				
Total	28.0	9.0	772.7	890.1
CBD	13.6	7.1	266.7	180.0
1999:IIIQ				
Total	28.2	9.5	—	582.4
CBD	13.6	8.6	-19.0	0

SOURCES: U.S. Department of Housing and Urban Development; and National Real Estate Index (NREI), *Market History Reports* and *Market Monitor*.

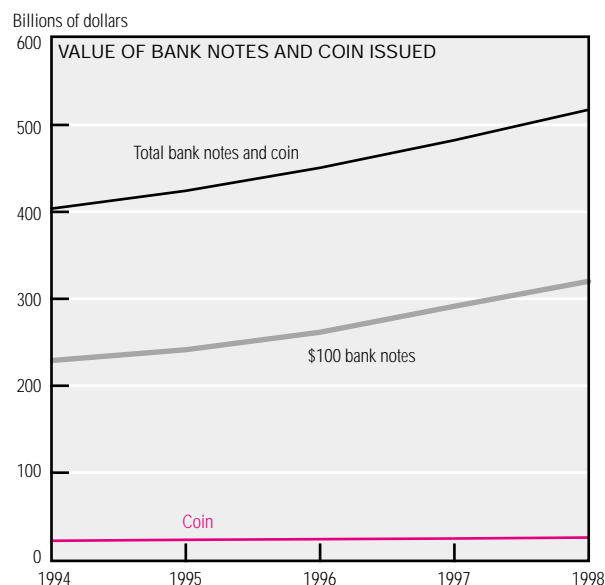
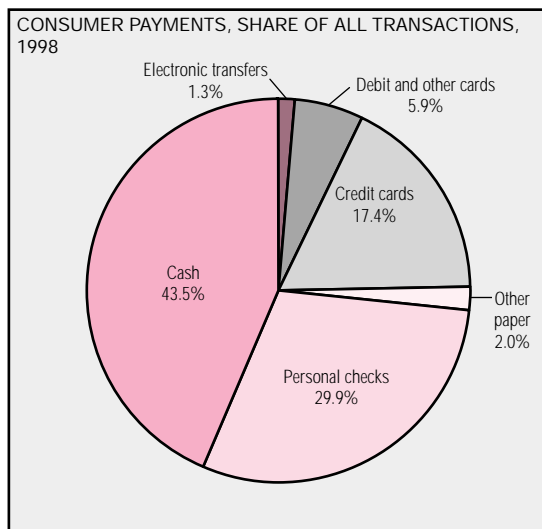
Office rents in Cleveland's suburbs have fared better than those in the CBD, trending upward over the past five years, while those in the CBD have remained flat. Much of this has to do with new construction, most of which is occurring in outlying areas. In the Cleveland area, only 36,000 of 1.8 million square feet constructed over the past year was in the CBD. In Cincinnati, out of approximately 1.5 million

square feet, only 180,000 was built in the CBD. And in Columbus, about 2.8 million square feet was constructed, just under 600,000 of it in the CBD.

Vacancy rates in the CBD show quite different patterns across the three cities. Vacancy rates continue to fall in downtown Cleveland, but have risen markedly over the past half-year in Cincinnati and Columbus.

There was a slight increase in total square footage rented (known as absorption) in Cleveland's CBD over the first half of 1999, for a net gain of 45,000 square feet. From mid-1998 to mid-1999, however, there was a slight decline. The first half of 1999 shows substantial positive absorption in the suburbs of Cleveland and Cincinnati, but a small decline in total square footage rented in the Columbus area.

U.S. Payments Overview



	Denomination						
	\$1	\$2	\$5	\$10	\$20	\$50	\$100
Value (millions of U.S. dollars)	7,000	1,100	8,000	14,300	90,900	50,500	320,100
Number of notes (millions)	7,000	550	1,600	1,430	4,545	1,010	3,201
Notes processed, 1998 (millions)	9,199	13	2,075	2,389	10,740	875	1,071
	Percent of total						
Share of value	1.4	0.2	1.6	2.9	18.5	10.3	65.1
Share of notes	35.5	2.8	8.3	7.2	23.0	5.1	16.2
Share of notes processed	34.9	0.1	7.9	9.1	40.7	3.3	4.1

SOURCES: Bank for International Settlements; and *The Economist*, May 20, 2000.

The payment system, made up of the various methods available to settle debts and obligations, performs an important role in facilitating economic activity. Although the cost of operating the U.S. payment system is estimated at 3% of GDP, it generally receives little attention.

Jointly, paper-based payment instruments, including checks, cash, and other paper, accounted for about three-fourths of U.S. consumer payments in 1998. The demise of paper-based instruments has been predicted ever since the 1950s. However, for various reasons centering on cost and ease of use,

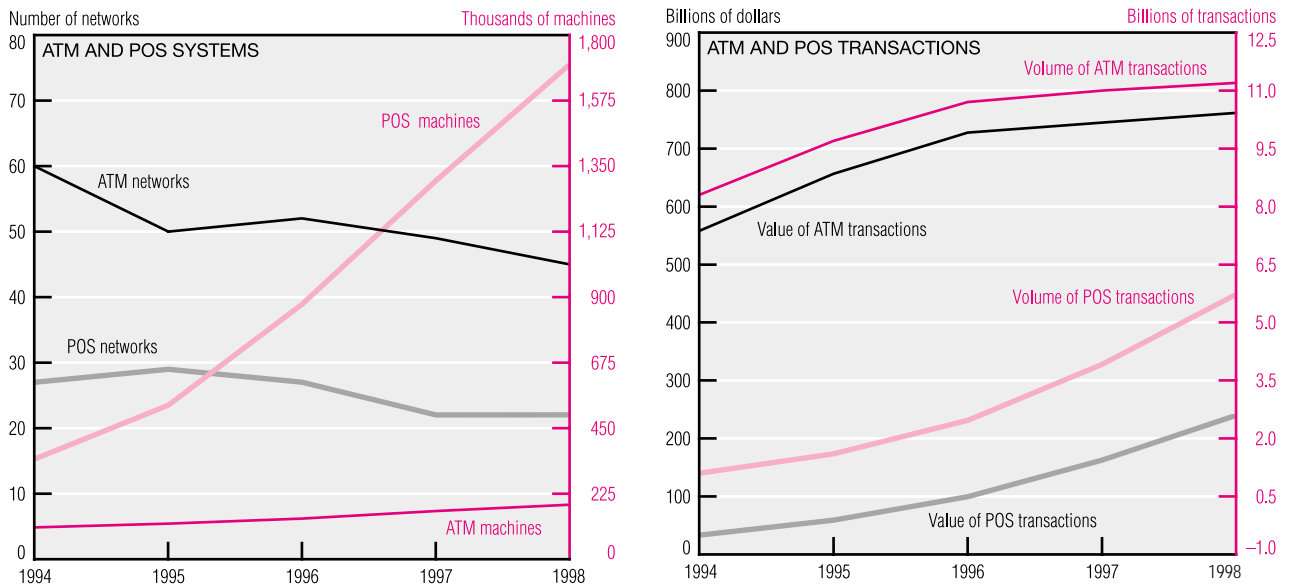
no alternative instrument has seriously threatened the existence of the traditional paper ones. While paper's share has declined as new payment instruments have been introduced, it is difficult to know how much because no method-consistent estimates are available over time.

Cash alone accounts for more than 40% of consumer transactions and remains a very convenient method for consumers to transfer value. Cash outstanding increased at a 6.7% rate from 1994 to 1998. Almost all of this growth came from an increase in the number of \$100 notes, which are in great demand overseas.

Although \$100 bills comprise almost two-thirds of the value of notes outstanding, they account for only about 4% of the value of notes processed by Reserve Banks. This suggests that \$100s are used more as a store of value than as a medium of exchange. In contrast, \$1 bills account for over one-third of notes outstanding and notes processed—far higher than their meager 1.4% value share. The \$20 bill also appears to be heavily employed for making payments. Although \$20s comprise only one-fourth of the

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U.S. Payments Overview (cont.)



Number of Transactions Using Cashless Payment Instruments (millions)

	1994	1995	1996	1997	1998
Checks	61,670	62,963	64,684	66,093	67,000
Payments by card	14,777	16,513	18,599	20,791	23,255
Debit	1,096	1,599	2,469	3,913	5,731
Credit	13,681	14,914	16,130	16,879	17,525
Paperless credit transfers	1,677	1,899	2,139	2,489	2,889
CHIPS	46	51	54	59	59
Fedwire	72	76	83	90	98
Federal Reserve ACH	1,526	1,739	1,945	2,110	2,406
Private ACH	34	34	58	230	325
Direct debits	886	1,024	1,176	1,347	1,545
Federal Reserve ACH	847	978	1,101	1,170	1,313
Private ACH	39	46	76	177	232
Total	79,010	82,399	86,599	90,720	94,689
Memorandum item:					
Commercial "on-us" ACH ^a	480	595	738	861	1,057

a. ACH transactions originated and received by the same bank.
SOURCE: Bank for International Settlements.

notes outstanding, they account for 40% of those processed.

Of course, newer payment instruments are making inroads. The number and value of checks grew at a rate of only about 2.5% from 1994 to 1998. Meanwhile, the number of paperless credit and debit transfers almost doubled, and (unlike checks) their value increased by about one-third, well ahead of inflation. Also, the number of point-of-sale (POS) machines is growing rapidly. These machines for reading debit and credit cards are finding their way into more and more grocery stores, gas stations, and other retail estab-

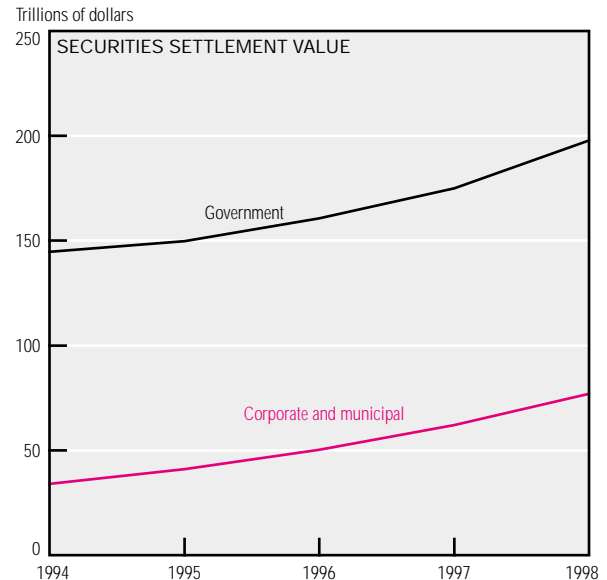
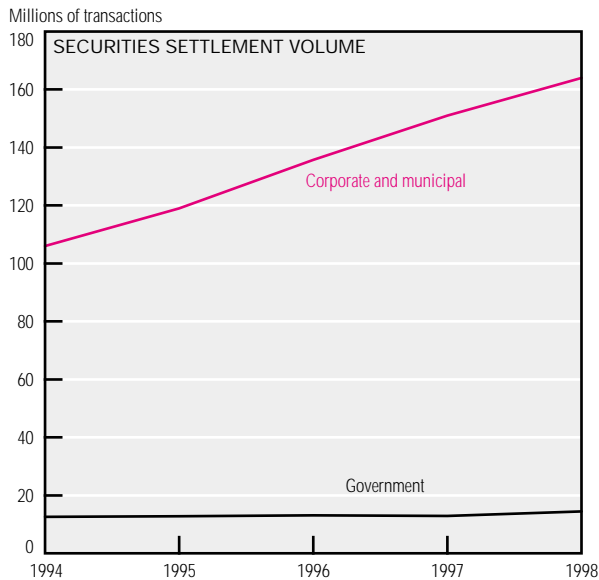
lishments and now outnumber ATMs more than seven to one. Despite this disadvantage, ATMs handle more transactions, in terms of both volume and value, than do POS machines. Since 1996, when ATM surcharging became widespread, ATM volumes have slowed dramatically, whereas POS volumes have continued to accelerate strongly. Some modest consolidation in the number of ATM and POS networks has already occurred; more may follow as regional networks compete to offer nationwide coverage.

Two important market shifts are occurring in cashless payment instru-

ments. First, although the volume and value of credit cards continue to exceed those of debit cards, the latter are quickly closing the gap. Second, despite strong growth in both volume and value, the Federal Reserve's market share of ACH transfers, the electronic analogue of paper checks, fell during the 1994-98 period as private ACH experienced even more explosive growth.

A significant but little-appreciated fact is that although a large number of transactions are still made with paper-based payment instruments, most of the value exchanged in trade
(continued on next page)

U.S. Payments Overview (cont.)



Value of Transactions Using Cashless Payment Instruments (billions of dollars)

	1994	1995	1996	1997	1998
Checks issued	71,500	73,515	74,879	77,811	79,000
Payments by card	764	938	1,083	1,234	1,396
Debit	34	59	100	163	239
Credit	731	879	983	1,071	1,157
Paperless credit transfers	510,702	537,543	586,052	657,044	686,892
CHIPS	295,444	310,021	331,541	362,187	350,372
Fedwire	211,202	222,954	2,491,400	288,420	328,749
Federal Reserve ACH	3,285	3,757	4,235	4,844	5,751
Private ACH	772	811	1,136	1,594	2,020
Direct debits	6,111	6,480	6,814	7,613	8,614
Federal Reserve ACH	5,085	5,438	5,763	5,866	6,576
Private ACH	1,026	1,042	1,051	1,747	2,038
Total	589,077	618,476	668,828	743,702	775,902

SOURCE: Bank for International Settlements.

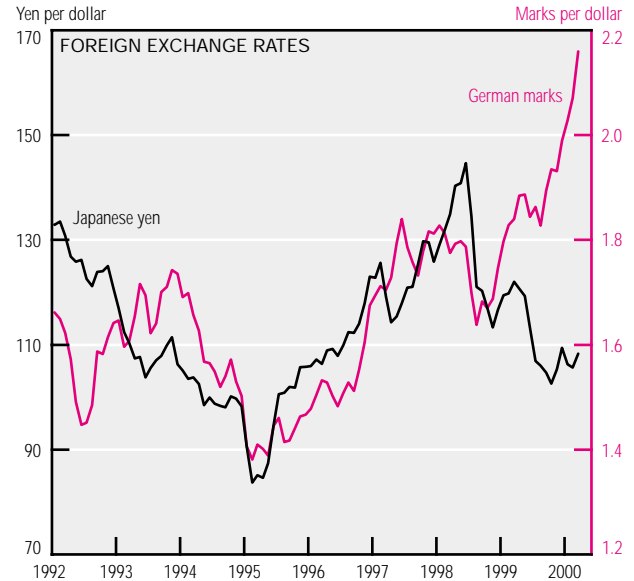
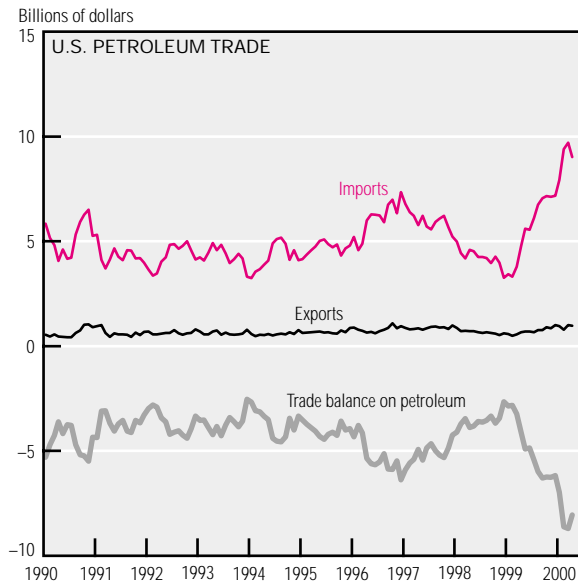
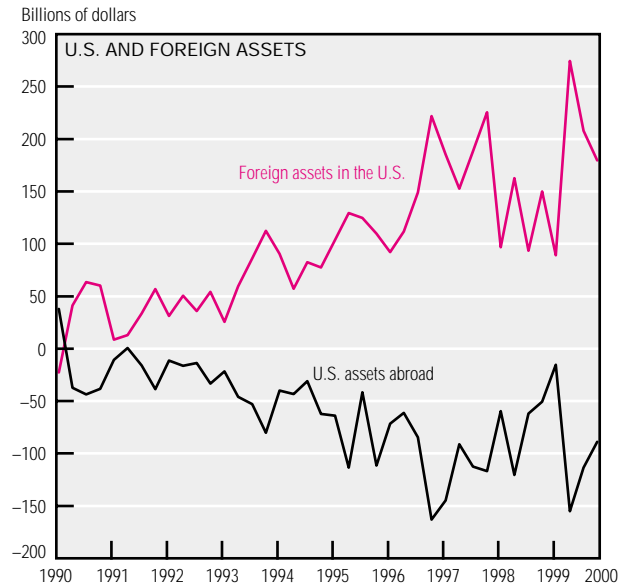
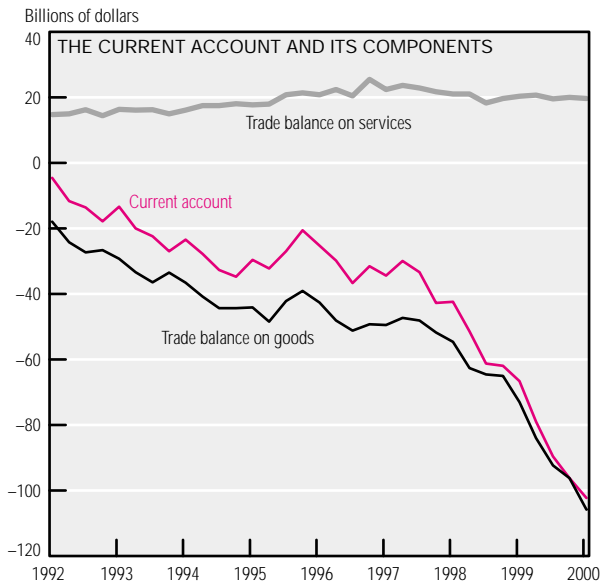
already flows electronically. Consumers continue to rely heavily on paper-based payment instruments, but most economic entities that frequently transfer large sums have switched to electronic instruments. Consequently, many of the benefits of converting to electronic payments have already been achieved. Although checks comprised 70% of noncash transactions in 1998, they accounted for only about 10% of their value. The two large-dollar-value electronic payment systems,

the Clearing House Interbank Payment System (CHIPS) and Fedwire, account for less than 0.2% of the volume of transactions but about 88% of the value.

Similarly, electronic payments also dominate the multi-trillion-dollar securities settlement market. Although the settlement volume of corporate and municipal securities far exceeds that of government securities and is growing much more rapidly, government securities' settlement value is about three times larger.

It is clear that future technologies will permit payments to be made even more efficiently and conveniently. The challenge for payment providers is discovering how to deliver these benefits even for relatively small-value transactions. This is a tricky puzzle because a successful entrant must offer consumers and businesses the ability to transact more cheaply or conveniently, yet it must also yield a profit—at least eventually—to its creators and providers.

International Developments



SOURCES: U.S. Department of Commerce, Bureau of Labor Statistics; Board of Governors of the Federal Reserve System; Deutsche Bundesbank; Japan Securities Dealers Association; and Association of Call and Discount Companies/Nihon Keizai Shinbun (Nikkei).

The U.S. current-account deficit widened from \$96.2 billion in 1999:IVQ to \$102.3 billion in 2000:IQ. This movement reflects a decrease in the surplus on the services balance combined with an increase in the goods deficit. This rapidly increasing goods deficit, resulting primarily from imports to the U.S., almost completely accounts for the sharp increase in the current-account deficit since 1997. Imports have been boosted by rising in-

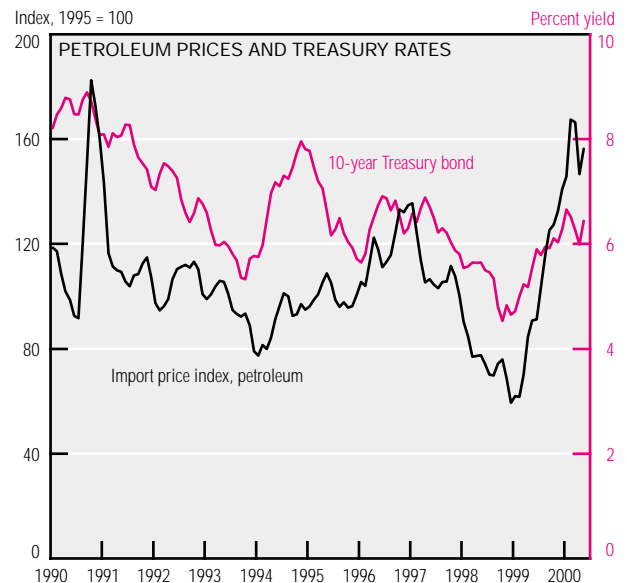
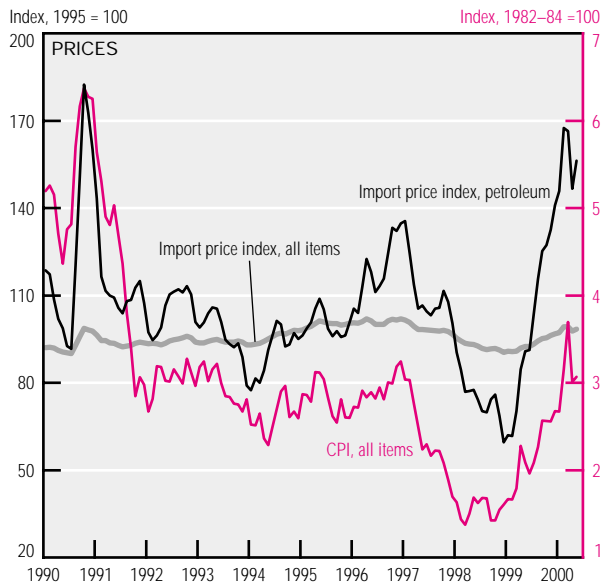
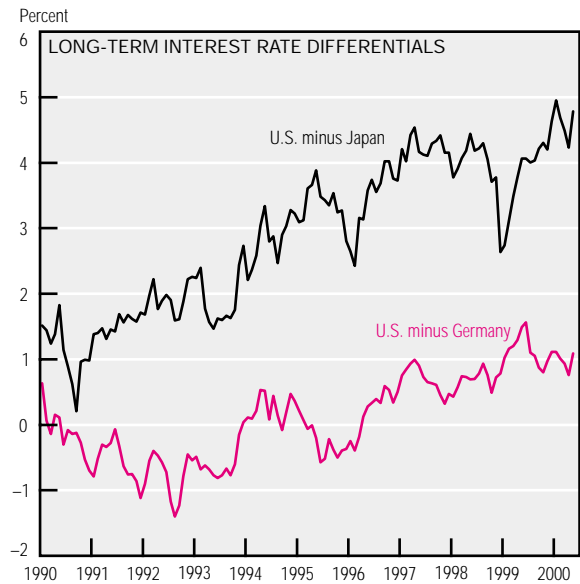
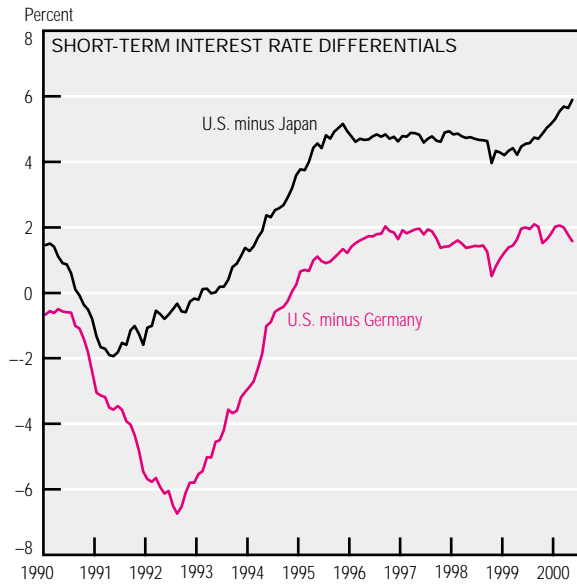
comes and by a strong dollar that makes imports to the U.S. cheaper and exports more expensive.

The sustainability of the U.S. current-account deficit concerns many analysts. The counterpart of this deficit is a strong capital inflow, which can be seen as financing consumption of imports in excess of exports. One can also view capital inflows as a vote of confidence in the U.S. economy that might, in turn, explain the strength of the dollar.

This latter view implies that the trade deficit is less worrisome so long as the dollar remains strong.

The dollar's international value is also related to differences in interest rates between countries. A major concept in international finance is *uncovered interest rate parity*—the notion that interest rate differentials must be balanced by expected changes in currency exchange rates. This concept implies, for example, (continued on next page)

International Developments (cont.)



SOURCES: U.S. Department of Commerce, Bureau of Labor Statistics; Board of Governors of the Federal Reserve System; Deutsche Bundesbank; Japan Securities Dealers Association; and Association of Call and Discount Companies/Nihon Keizai Shinbun (Nikkei).

that if U.S. interest rates are higher than Japanese, market participants must expect the yen/dollar exchange rate to decline. According to this view, recent increased differentials between U.S. interest rates and those of Germany and Japan suggest that the dollar is expected to depreciate more than before.

Researchers have found little evidence of a link between short-term interest rate differentials and exchange rate movements. However, there is stronger evidence of a link

between longer-term interest rates and longer-term movements in currency values. Thus the recent, relatively abrupt increase in the difference between 10-year interest rates in the U.S. and those in Germany and Japan might indicate expectations of a longer-term decline in the dollar.

Petroleum products form a major component of the recent decline in the U.S. goods balance. The volume of petroleum imports has risen sharply since 1999, with prices in-

creasing at a faster rate than other import prices or even overall consumer prices.

The importance of petroleum price increases depends largely on whether they are expected to be temporary. The positive correlation between the Import Price Index for petroleum and the 10-year U.S. Treasury bond yield is consistent with an increase in expected inflation imbedded in the bond yield. On the other hand, interest rates may have risen partly in anticipation of increased inflation.