

The Economy in Perspective

What? Me Worry?...You don't need an opinion poll to tell you that people are worried about Kosovo, upset about violence, and concerned about the future of Social Security. Fortunately, poor economic conditions are not among the many problems facing the country.

The list of favorable developments has been recounted so often lately that it sounds like a late-night TV ad for capitalism. But it's true: the Big Picture just doesn't get much better than this. Our economy has been expanding for nearly a decade, and labor market conditions have been so buoyant that the fraction of working-age people employed stands at an all-time high.

Investment defines this expansion. While total real output increased 30% over eight years, business investment grew 80% over the same period, and spending on information processing equipment doubled. To be sure, personal consumption spending has also been vigorous, but more so later in the business cycle than earlier on. Spending on business equipment, which took off early in the expansion, has remained strong.

Investment activity over this decade appears to be geared toward embodying new technologies in the capital stock in order to lower production costs and improve product quality. Investment activity's duration, magnitude, and composition, coupled with an irrepressible stock market, testify to investors' and business managers' confidence in future corporate profits. Alternatively, they signal a sea change in how investors regard the risk of owning stocks. Unless investors really expect corporate profits to grow at an exceptional rate for the foreseeable future, today's price-earnings ratios reveal that investors consider the inherent risk of stock returns to be on a par with that of bond returns. Since bond-holders are paid before equity-holders, a convergence in risk premiums expresses powerful confidence in the upside potential of stocks.

Investors also seem to have great confidence in the Federal Reserve's ability to keep inflation low. Inflation has actually been lower during the past two years than at any other time this decade. Inflationary pressures have been considerably undercut by declining import prices, but chiefly by stable employment costs. These inflation-suppressing factors might prove merely temporary, however, as productivity growth stabilizes and labor compensation becomes more evenly matched to it.

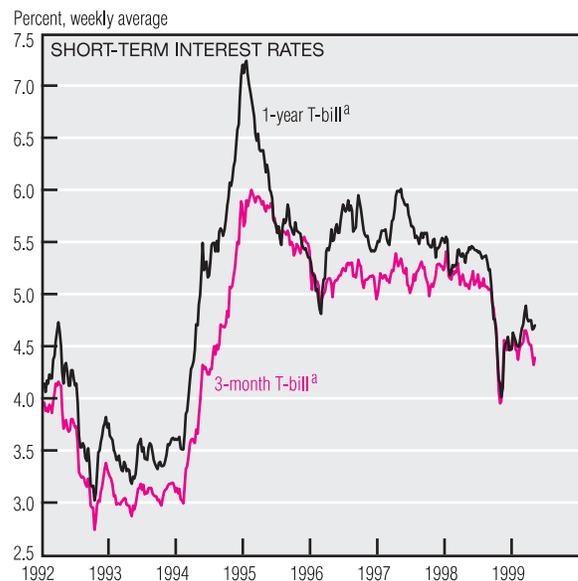
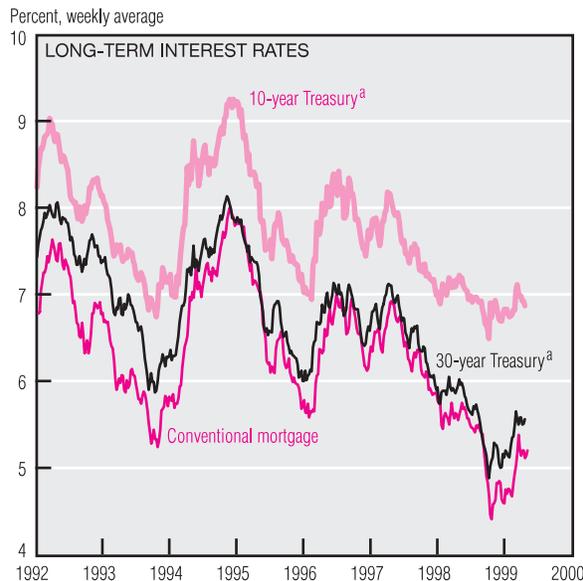
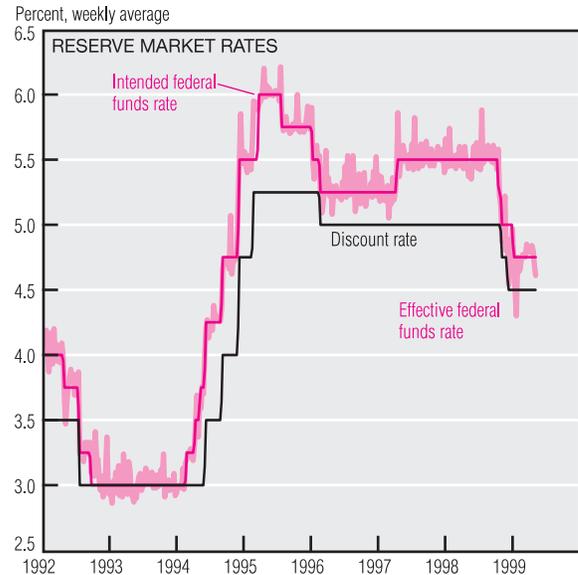
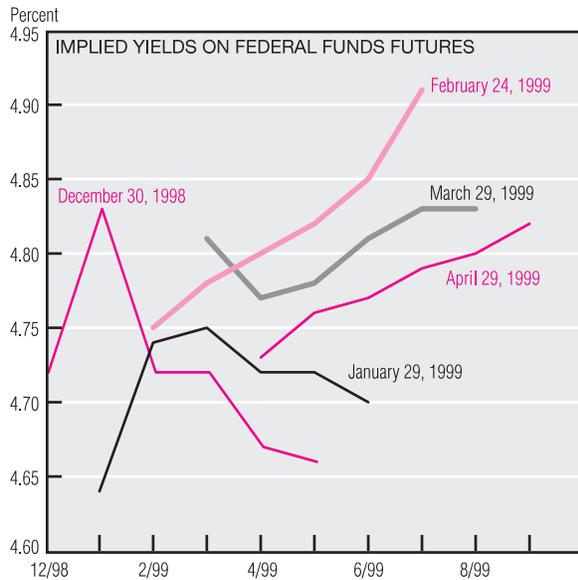
An important anomaly of the economy's behavior thus far has been the utter lack of acceleration in inflation, despite prevailing labor market conditions. By several conventional measures, labor markets are tight, but upward pressure on labor compensation is notably absent from the list. Indeed, according to the Employment Cost Index, year-over-year wage increases moderated last quarter from the previous quarter's pace.

Some policymakers look to labor markets for information about future inflation, and although this relationship has always featured some noise, lately the static has been deafening. Had the Federal Open Market Committee (FOMC) subscribed to the once-popular view that inflation would accelerate after the unemployment rate fell below 6.0%, it might have taken restrictive actions just before the economy's sharp, noninflationary acceleration. And, even though labor markets are substantially tighter today (the unemployment rate has been below 4.5% for about a year), the continuing absence of overt wage acceleration prevents some policymakers from relying too heavily on this signal.

As indexed by the federal funds rate, monetary policy has been remarkably steady for the past several years; the FOMC reduced the funds rate markedly last fall in response to liquidity pressures in financial markets, not as a direct result of weakness in economic activity. Indeed, many financial market observers have been expecting the FOMC to unwind some of these rate reductions as the need for extra liquidity accommodation dissipates. The federal funds futures market expects the Fed to move in that direction this year, albeit very cautiously. Fed-watchers' lack of conviction is well founded: During the past few years, the funds market has anticipated both rate cuts and rate hikes that never materialized, while missing some that did.

Even if the traditional leading indicators do not signal an acceleration of inflation, it would be unwise to assume that monetary policy is set appropriately, or that inflation will remain dormant. Monetary policy aims to support maximum sustainable economic growth. Ordinarily, this means not allowing inflation to distort resource allocation decisions. In today's environment, however, there may be other factors that impinge on sustainable growth. It is in the nature of monetary authorities to worry. After all, if not us, who? If not now, when?

Monetary Policy



a. Constant maturity.

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

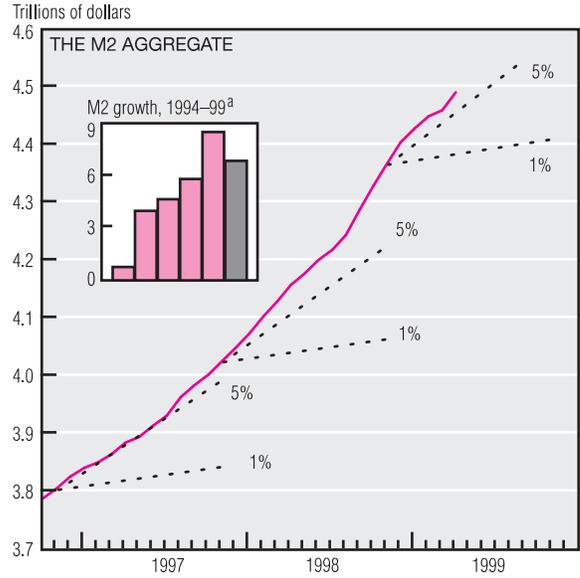
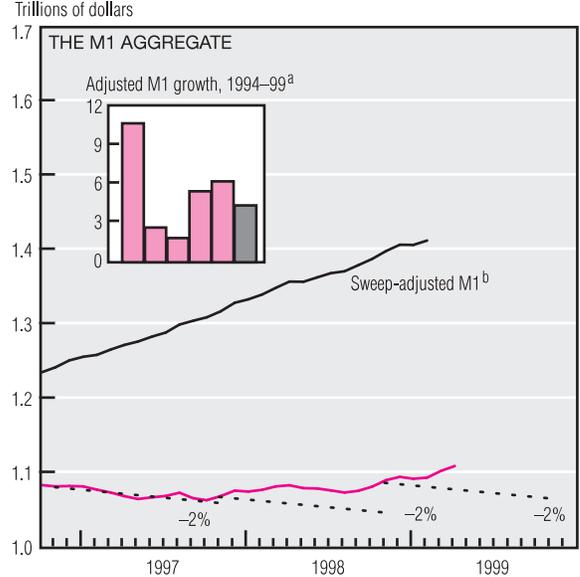
Implied yields on federal funds futures are an indication of the average expected future funds rate. As such, they also measure the average expectation of future monetary policy actions. Starting in late February, the marginal participant in federal funds futures markets seems to have been hedging against future rate increases, but without much conviction; at the end of April, the implied yield for the September future was only seven basis points above the current target rate of 4.75%.

Recall the policy actions of the latter part of 1998, including a decrease of 75 basis points in the target rate for federal funds between September 29 and November 17. In the nine-week span when these actions took place, however, long-term interest rates actually increased. Weekly average yields on 10- and 30-year Treasury bonds and conventional mortgages increased by 18, 12, and 22 basis points, after having fallen 67, 52, and 31 basis points, respectively, in the eight weeks before the policy actions.

Short-term interest rates, indexed by 3-month and 1-year Treasury bills, fell 21 and seven basis points during the period of the policy actions, after having fallen 33 and 61 basis points, respectively, in the previous eight weeks. The initial decline was largely due to a flight to quality that occurred when markets were shaken by Russia's moves to devalue the ruble.

The decline in short-term interest rates has implications for the opportunity cost of (and hence the *(continued on next page)*

Monetary Policy (cont.)



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

demand for) various monetary aggregates. Opportunity cost is commonly measured as the difference between the yield on some market instrument—such as a 3-month government security—and the share-weighted average of yields paid on the components of money. Decreases in the opportunity cost of money are generally associated with increases in money growth.

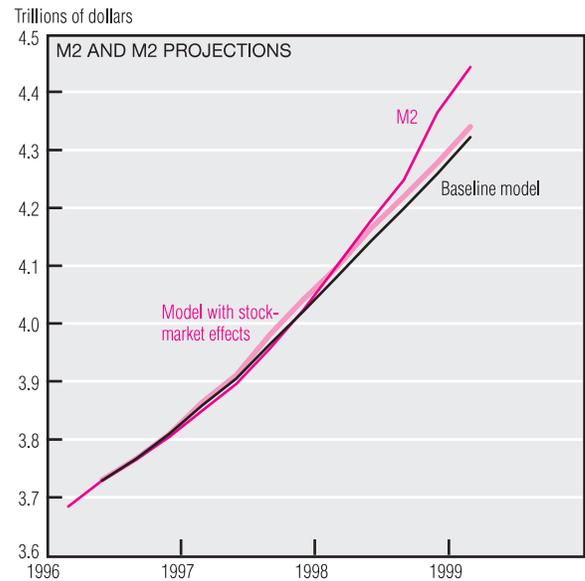
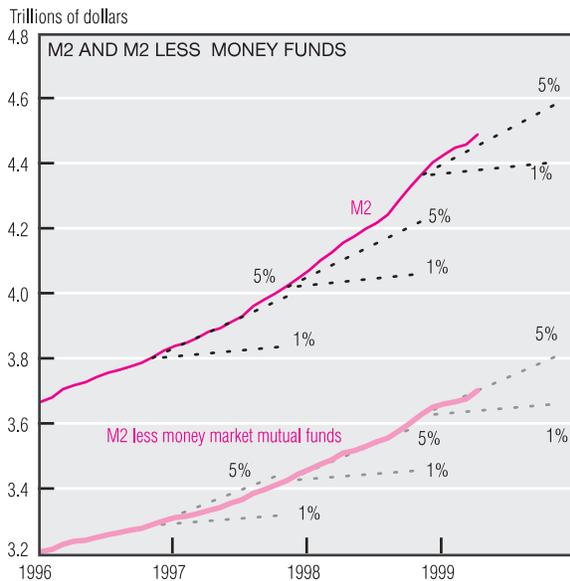
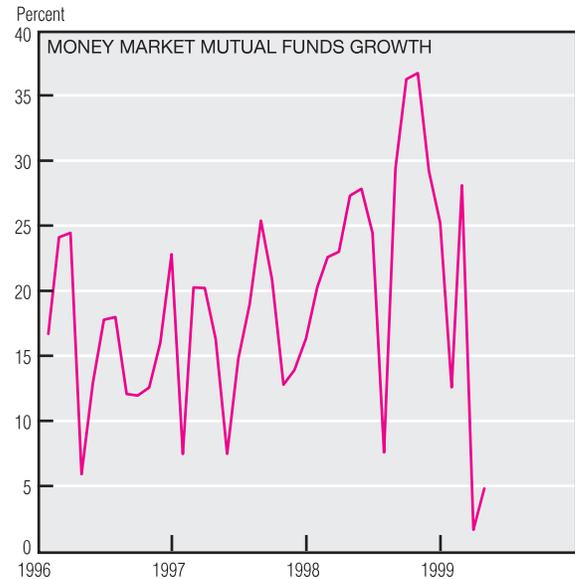
The opportunity costs of both M1 and M2 fell dramatically in the latter half of 1998, reflecting substantial

declines in Treasury-bill yields. Rates paid on most components of M2 typically are sluggish in adjusting to declines in market rates; hence, opportunity cost generally declines immediately with market rate reductions, but eventually tends to rise as yields on M2 components adjust downward. Standard money-demand models tell us that as the opportunity cost of M2 falls, money demand should increase. Indeed, this seems to describe what we saw in late 1998.

Sweep-adjusted M1, which had grown less than 5% (annual rate) from January through August, increased at an annual rate near 7.8% from August to December. The rapid growth of M2 in late 1998, culminating in annual growth near 9%, was widely noted. The recent moderation in M2 growth may be due partly to the reversion of this component's opportunity cost to within 20 basis points of its mid-1998 level.

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Monetary Policy (cont.)



NOTE: Monetary aggregate data are seasonally adjusted. Growth rates are annualized monthly changes. Last plots for M2 and M2 less money market mutual funds are estimated for April 1999. Dotted lines for M2 are FOMC-determined provisional ranges. All other dotted lines represent growth in levels and are for reference only.

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

An additional explanation for M2's recent strength relates to the contemporaneous increase and variability of stock prices. Money funds, a sizable component of M2, often serve as temporary "parking lots" for funds used in financial transactions; hence, it is argued, M2 would be affected by the rapid rise in household holdings of bond and equity funds. Moreover, variability in stock prices often is associated with substantial portfolio rebalancing. Thus, one might expect money-fund balances to swell as transaction needs increase.

Clearly, money-fund growth has been substantial in recent years. Moreover, the behavior of M2 less money funds has been much more consistent with M2's history. Empirical research offers some support for this explanation, but the estimated effects do not account for much of 1998's M2 surge. Nonetheless, money-fund growth has slowed markedly in 1999 as stock market variability lessened relative to last year.

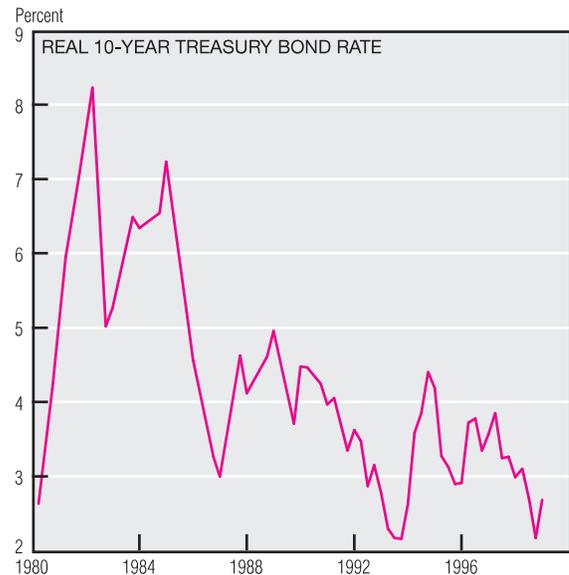
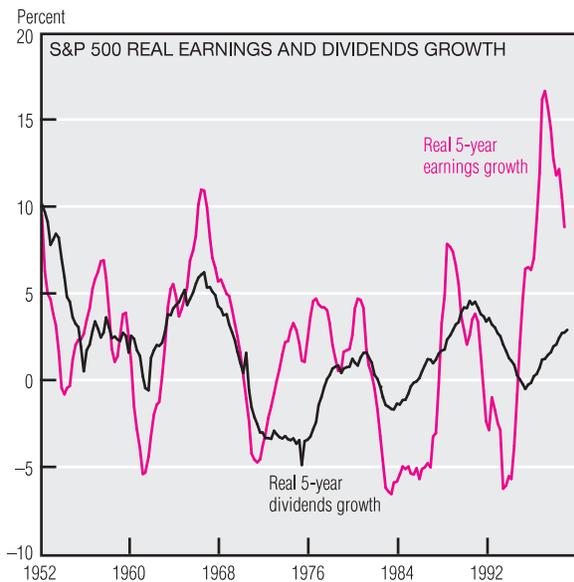
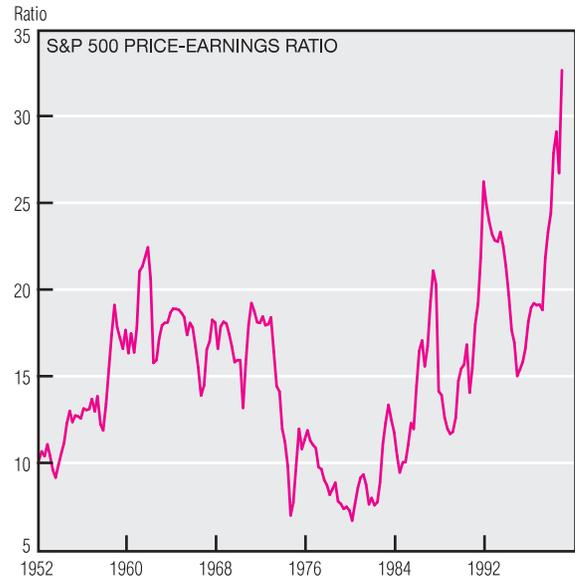
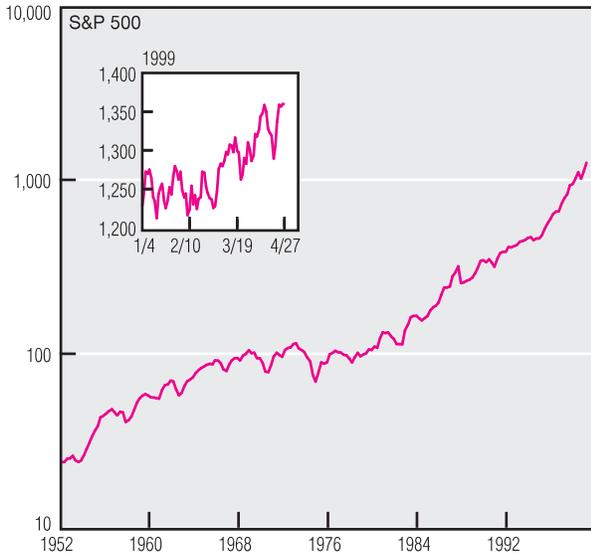
Fundamentally, a stock's price is the discounted value of its expected future dividends, which themselves

derive from future earnings. When prospects for earnings growth are good, stock prices tend to rise. The price-earnings ratio or P/E (simply the stock price divided by earnings per share) tells investors how much they are paying for a company's earning power. The higher the P/E, the more investors are paying, and hence the more earnings growth they are expecting. The P/E of S&P 500 stocks has been rising over the past two years, approaching historical highs.

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Monetary Policy (cont.)

Index, 1941-43 = 10, log scale



NOTE: Real series are adjusted using the CPI, all items.

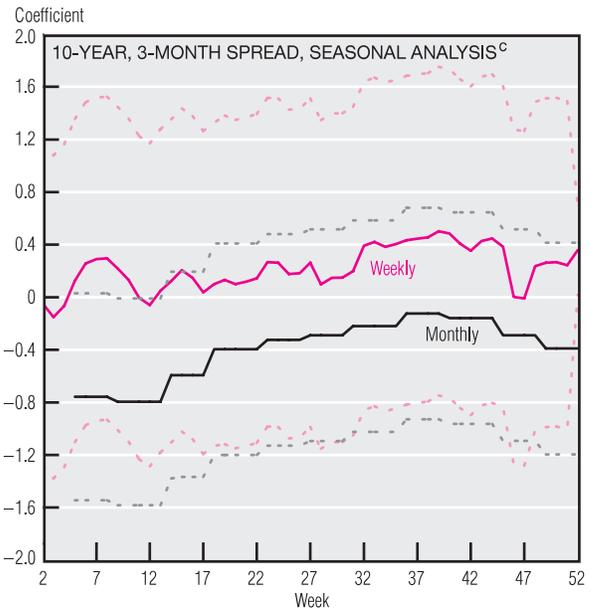
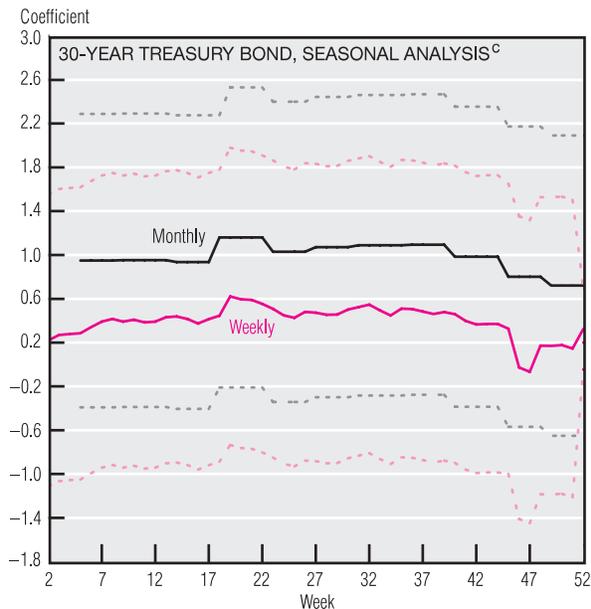
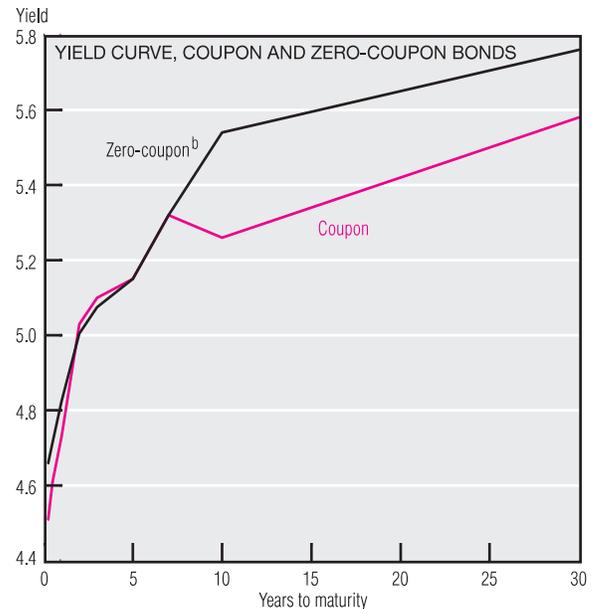
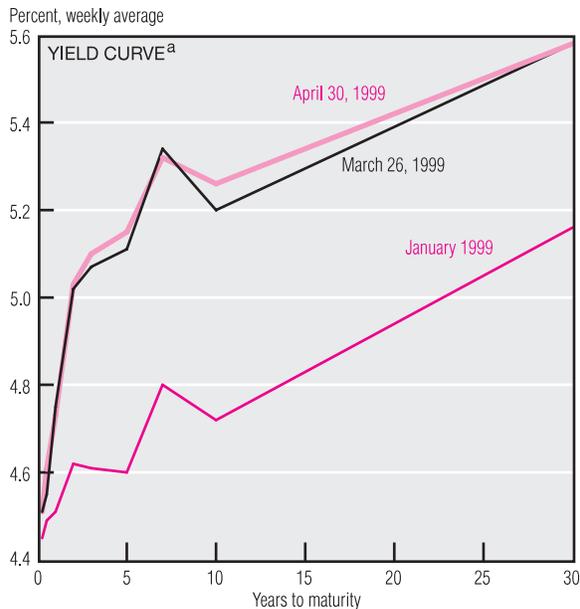
SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; and DRI/McGraw-Hill.

One extraordinary fact associated with stock prices' ascent is the phenomenal earnings growth over the past five years, which is viewed largely as the product of corporations' widespread cost-cutting efforts and their adoption of more innovative management structures. Analysts' earnings projections reveal an expectation of continued benefits from corporate cost cutting and innovation. Moreover, earnings prospects provide a reasonable basis for the expectation of strong dividend growth for several years to come.

Nevertheless, even the most optimistic projections for earnings and dividends cannot adequately explain stock prices' current lofty levels. Analysts who are comfortable with the current price levels also believe that investors are discounting future dividends at rates lower than historical norms. These norms imply that investors have traditionally demanded a large premium for holding equities over bonds to compensate for the additional risk. Bull analysts see little additional risk of

holding equity over bonds, especially over long horizons. Indeed, economists could not reconcile such a large premium with their theories. Thus, some analysts who defend recent stock prices argue that investors are now discounting future stock returns at lower rates, more consistent with inherent risk. If this explanation accounts for the recent run-up in stock prices, then investors should not expect real returns on stocks to be as handsome in the future as they have been in the past.

Interest Rates



a. All instruments are Treasury constant-maturity series.

b. For each maturity, the yield is the average of yields on zero-coupon Treasury bonds with that maturity, as of April 30, 1999.

c. Dotted lines mark two standard deviation error bands for the coefficients of the dummy variables, calculated for the period 1980 to the present.

SOURCES: Board of Governors of the Federal Reserve System, "Selected Interest Rates," *Federal Reserve Statistical Release*, H.15; and *The Wall Street Journal*, April 30, 1999.

The yield curve has not moved much since last month. Both the 3-month and 30-year yields remain unchanged at 4.51% and 5.58%, respectively. Most other rates have only inched up, slightly widening the 3-year, 3-month spread from 56 to 59 basis points, and the 10-year, 3-month spread from 69 to 75 basis points. The steady levels suggest that the market has not materially shifted its perceptions of the FOMC's intentions.

Yields on coupon bonds can give a distorted picture of interest rates because the yield on a 10-year bond is effectively the average of the

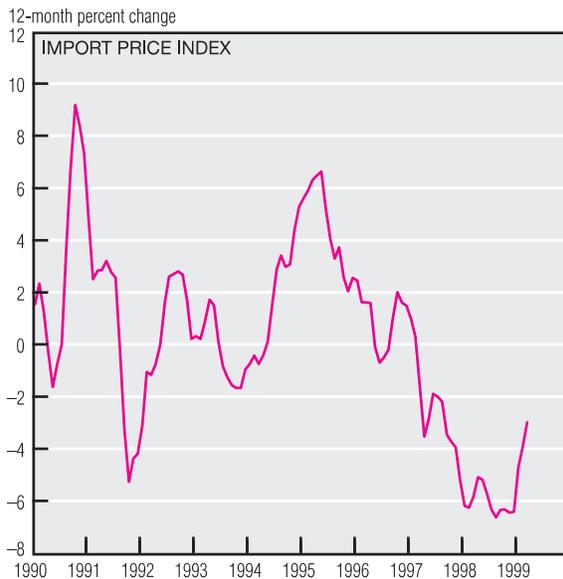
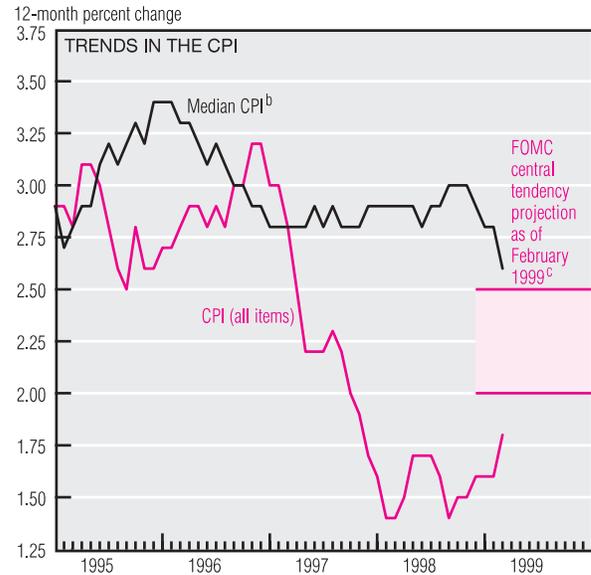
yields on both the principal due in 10 years and on the coupons paid every six months. The yield curve for zero-coupon bonds corrects this effect, though the differences between the curves are not substantial. The somewhat higher rates on longer maturity zeroes are precisely what one would expect with an upward-sloping yield curve: Coupon bonds, averaging in short rates, show a lower yield.

Seasonal cycles show up in many economic data sets, and this makes it tempting to look for them in interest rates as well. One way of exploring seasonality is to regress the rates

against weekly (or monthly) dummy variables and look at their patterns. This shows the difference between the average interest rate for that week (or month) and the average for the first week (or month). Thirty-year rates show no strong pattern. The most striking aspect of the data is the large width of the error bands (which fall on both sides of zero), indicating the large nonseasonal variability of rates. The spread, though, is generally higher in the middle of the year. If the pattern holds, the spread should widen as we move into the summer months.

Inflation and Prices

	Percent change, last:				1998 avg.
	1 mo. ^a	3 mo. ^a	12 mo.	5 yr. ^a	
Consumer prices					
All items	2.2	1.5	1.8	2.3	1.6
Less food and energy	1.4	0.9	2.1	2.5	2.5
Median ^b	1.3	1.6	2.6	2.9	2.9
Producer prices					
Finished goods	2.8	1.5	0.9	1.0	-0.2
Less food and energy	0	-0.3	1.7	1.3	2.4



a. Annualized.

b. Calculated by the Federal Reserve Bank of Cleveland.

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

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

	Percent change, last:	
	3 mo. ^a	12 mo.
Manufacturing industries		
Total manufacturing industries	1.3	0.2
Tobacco products	0.1	41.2
Lumber and wood products, except furniture	11.8	1.2
Paper and allied products	-2.4	-3.1
Petroleum refining and related products	27.6	-9.6
Stone, clay, glass, and concrete products	4.7	3.0
Primary metals	-7.6	-6.4
Service industries		
Motor freight transportation and warehousing	4.7	2.9
Transportation by air	6.5	3.9
Legal services	3.8	1.7

The monthly price statistics continue to show only modest growth, a sign that inflationary pressures in the economy remain light. Retail prices as measured by the Consumer Price Index (CPI) were up 2.2% in March, only slightly above their 12-month trend of 1.8%. Even the median CPI, which has tended to track more than a percentage point higher than the CPI over the past few years, slowed to a 1.3% increase in March and has averaged only 1.6% during the first three months of 1999.

Some of the restraint in retail and

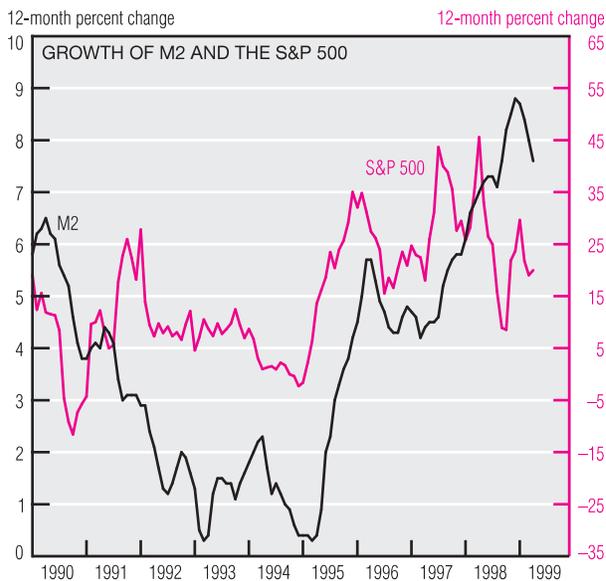
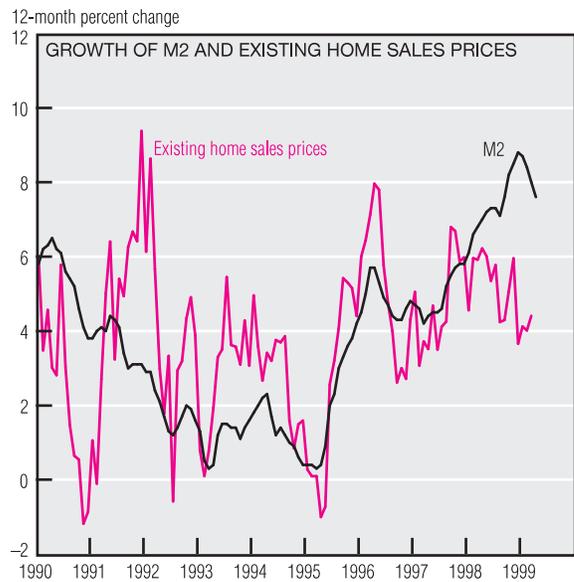
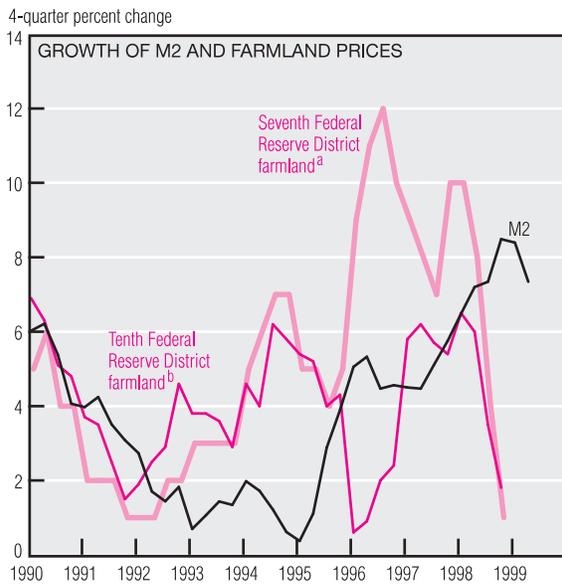
other prices over the past year appears to stem from soft economic conditions outside the U.S. On average, import prices have been falling over much of the past three years and were down more than 6% in 1998. Although import prices have slowed the pace of their decline this year, they continue to move lower as the dollar strengthens further relative to most other currencies.

The weakness exhibited in foreign goods prices appears to have affected prices at the manufacturing level. Many of these industries either use foreign materials in their pro-

duction processes or compete directly with foreign producers. For example, over the 12 months ending in March, refined petroleum prices fell almost 10%, and prices for primary metals (such as steel) dropped more than 6%. Prices in the industrial sector have firmed a bit this year, showing what appears to be a modest upward move in overall producer prices. Even in service industries, price increases for the first three months of 1999 were several percentage points above their 12-month growth trends.

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Inflation and Prices (cont.)



a. The seventh Federal Reserve District includes Iowa, northern Illinois, northern Indiana, southern Wisconsin, and southern Michigan.

b. The tenth Federal Reserve District includes Colorado, northern New Mexico, Wyoming, Nebraska, Kansas, Oklahoma, and western Missouri.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; U.S. Department of Commerce, Bureau of Economic Analysis; Board of Governors of the Federal Reserve System; Federal Reserve Bank of Kansas City; Federal Reserve Bank of Chicago; Deutsche Bank Research; National Association of Realtors; Standard and Poor's Corporation; and DRI/McGraw-Hill.

While prices for consumers and producers remain subdued, prices paid by investors continue to rise at a relatively rapid pace. Farmland prices, for example, moved sharply higher between early 1996 and mid-1998, before slowing markedly during in the second half of last year. Likewise, home prices and equity values began rising at an accelerated pace in 1995 and have remained on a substantially higher growth path than retail and producer prices.

This upturn in asset prices is roughly coincident with the accelerated growth rate of money (as

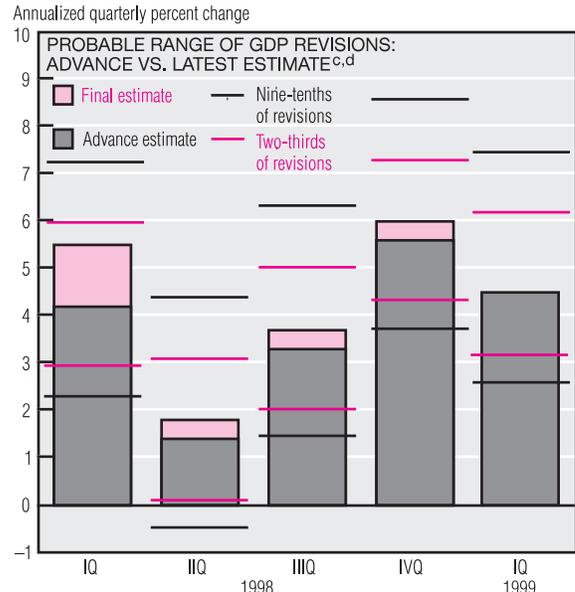
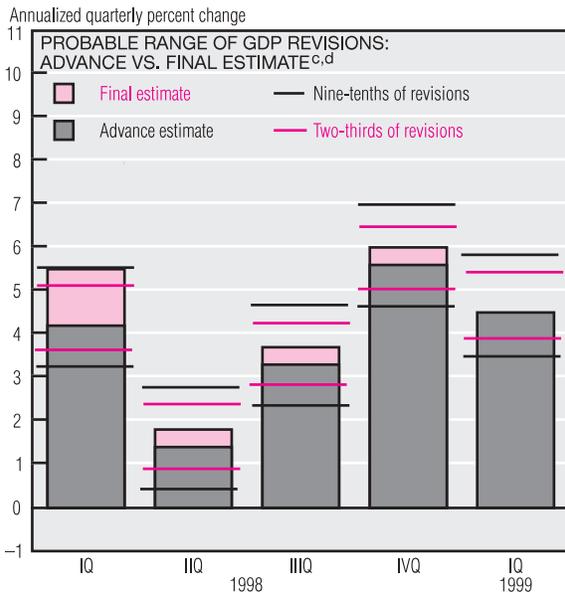
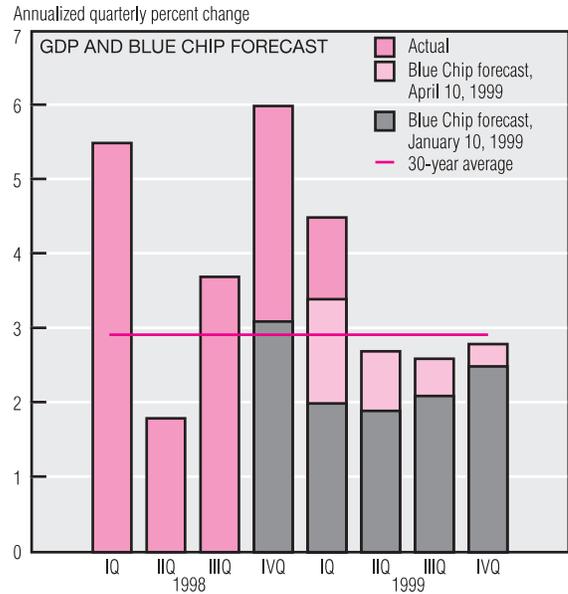
measured by M2) and may indicate latent inflationary pressure in the U.S. economy. But distinguishing between cause and effect here is difficult. Possibly, higher asset prices and higher money growth are both responding to the same thing—a stronger domestic economy. Economic activity's robust growth has likely caused households to increase their money holdings to support a higher level of transactions. This sustained growth pace has probably bolstered investors' confidence about the future, and may also be prompting an

upward appraisal of returns.

Some economists have argued that inflation statistics that do not include asset prices miss an important element in the inflation process—expectations about future price increases. The Broad Price Index of Deutsche Bank Research, which includes home and equity prices in addition to CPI and PPI data, is one attempt to implement this idea. Unlike the CPI and the PPI, the Broad Price Index showed a rise in inflation beginning in early 1995, about the same time M2 growth began to accelerate.

Economic Activity

Real GDP and Components, 1998:IVQ ^{a,b} (Advance estimate)	Change, billions of 1992 \$	Percent change, last:	
		Quarter	Four quarters
Real GDP	84.8	4.5	4.0
Consumer spending	85.9	6.7	5.5
Durables	21.4	11.5	12.1
Nondurables	34.8	9.2	5.2
Services	32.5	4.5	4.3
Business fixed investment	18.4	7.6	8.4
Equipment	20.2	10.5	11.2
Structures	-0.1	-0.2	0.9
Residential investment	12.0	15.7	12.6
Government spending	14.3	4.4	3.2
National defense	-3.3	-4.3	2.7
Net exports	-55.6	—	—
Exports	-20.1	-7.7	-0.2
Imports	35.4	11.7	8.8
Change in business inventories	1.0	—	—



a. Chain-weighted data in billions of 1992 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. "Final" GDP estimates are released about three months after the close of a quarter. The BEA revises final GDP estimates annually and occasionally has benchmark revisions, both of which distinguish "latest" from "final" estimates.
 d. Advance-to-final revision probabilities are based on the years 1978-97. Advance-to-latest probabilities are based on the years 1978-95.
 NOTE: All data are seasonally adjusted.
 SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; and *Blue Chip Economic Indicators*, January 10 and April 10, 1999.

The advance (first) estimate of gross domestic product (GDP) for 1999:IQ shows strong economic growth continuing into the beginning of 1999. The 4.5% annualized GDP growth rate was unexpectedly robust. Blue Chip forecasters had been marking up their forecasts this year, but their expectation for first-quarter growth was only three-quarters of the actual rate in the advance estimate.

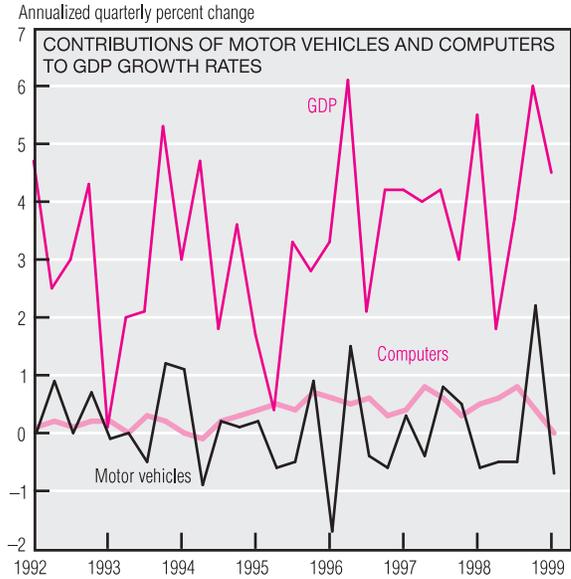
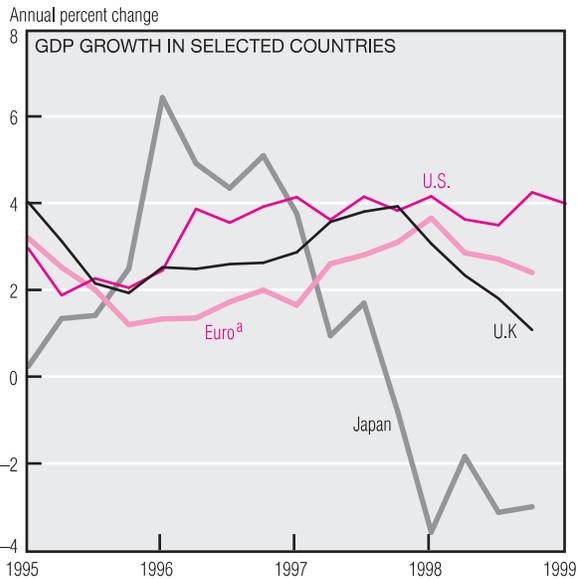
This early indication of the state of the economy may well change as the preliminary and final estimates are

prepared over the next two months, and as further revisions to the estimates are made in later years. Early estimates include the Bureau of Economic Analysis' assumptions where data are unavailable. Factoring in the missing data can make a substantial difference in subsequent estimates. Our experience over the past 20 years indicates that the final estimate of a quarter's GDP growth rate may lie between -0.6 and 0.9 percentage point of the advance estimate two-thirds of the time, and between -1.0

and 1.3 percentage points nine-tenths of the time. The ultimate, or "latest" estimate of the quarterly GDP growth rate may lie between -1.3 and 1.7 percentage points of the advance estimate two-thirds of the time, and between -1.9 and 3.0 percentage points nine-tenths of the time. Even assuming the worst about successive future downward revisions to the data, however, GDP growth in 1999:IQ still appears to have been strong.

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Economic Activity (cont.)



Contribution to Percent Change in Real GDP

	1998: IIQ/ IQ	1998: IIIQ/ IIQ	1998: IVQ/ IIIQ	1999:IQ/ 1998: IVQ	1999:IQ/ 1998: IQ
Motor vehicles and parts	-0.5	-0.5	2.2	-0.7	0.2
Computers	0.6	0.8	0.4	0	0.5
All other	1.7	3.4	3.4	5.2	3.3
Total	1.8	3.7	6.0	4.5	4.0

Contribution to Percent Change in Manufacturing Industrial Production

	1998: IIQ/ IQ	1998: IIIQ/ IIQ	1998: IVQ/ IIIQ	1999:IQ/ 1998: IVQ	1999:IQ/ 1998: IQ
Motor vehicles and parts	-1.1	0.3	1.8	-0.4	-1.1
Computers, semi-conductors, and communications equipment	2.2	2.7	2.5	1.7	2.9
All other	1.4	-2.6	0.6	-0.1	1.7
Total	2.5	0.4	4.9	1.2	3.5

a. The euro common-currency area includes Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain.

NOTE: All data are seasonally adjusted.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; Board of Governors of the Federal Reserve System; DRI International; and DRI Eurostatus1.

GDP growth was rapid in the usual places, consumer and business investment spending. Weakness, at least relative to 1998:IVQ GDP, was most obvious in net exports. Imports sliced 1.5 percentage points from the first quarter's GDP growth rate, the same as in 1998:IVQ. Moreover, declining exports sliced another 0.9 percentage point, so that exports added almost 3 percentage points less to GDP growth than they did in 1998:IVQ. Any hint that export markets had stopped deteriorating seems to have been dispelled by this performance. Economic growth may be strong in the U.S., but it remains sluggish in much of the rest of the

world—albeit the economies of the Asian “tigers” and the Latin American nations may be stabilizing.

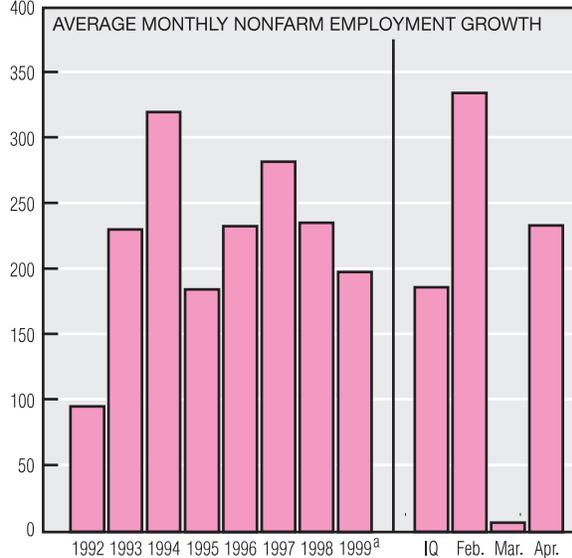
Final sales in the automotive- and computer-related sectors of the economy slowed sharply in 1999:IQ. The weakness in motor vehicles and parts may represent nothing more than the resumption of a more normal pace of activity after a post-strike “make-up” spurt in 1998:IVQ. A roughly similar quarterly pattern can be seen in the motor vehicles and parts sector of the manufacturing industrial production index.

Final sales of computers have contributed an average of 0.5 percentage point to quarterly growth

rates of GDP since 1995:IQ, but their stronger-than-average contribution in late summer fell to zero in 1999:IQ. If this estimate were to prevail in June's final GDP estimates, it would be an extremely rare event. As with motor vehicles, roughly similar patterns can be seen in both GDP and industrial production data for computers, although the 1999:IQ level is more striking in the GDP measure than in the industrial production measure. The imprecision of advance GDP estimates, however, cautions against drawing conclusions about the computer industry without more reliable estimates.

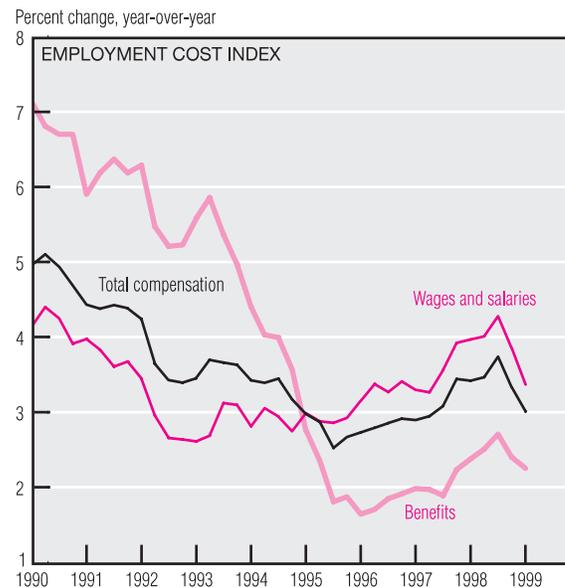
Labor Markets

Change, thousands of workers



Labor Market Conditions

	Average monthly change (thousands of employees)				
	1996	1997	1998	1999 YTD ^a	Apr.
Payroll employment	233	282	234	198	234
Goods-producing	31	42	6	-29	-27
Mining	1	1	-3	-7	-6
Construction	28	20	29	13	8
Manufacturing	3	21	-19	-35	-29
Durable goods	10	22	-10	-20	-18
Nondurable goods	-7	-1	-9	-15	-11
Service-producing	202	240	229	227	261
FIRE ^b	14	17	22	17	23
Services	117	142	113	107	131
Business services	45	61	39	42	51
Health services	20	20	11	15	23
Household employment	228	235	157	136	-36
	Average for period (percent)				
Civilian unemployment	5.4	4.9	4.5	4.3	4.3



a. Year to date.

b. Finance, insurance, and real estate.

c. 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.

Labor markets were strong in April. Payroll employment growth rebounded from minimal gains in March, and the unemployment rate rose slightly from the 29-year low reached a month earlier. Neither the Employment Cost Index nor hourly earnings indicated any substantial upward wage pressure.

Nonfarm payroll growth picked up in April, increasing 234,000, a gain which is on a par with the average monthly growth for 1998. April's gain follows a revised increase of only 7,000 in March, the smallest addition to payrolls in over three years.

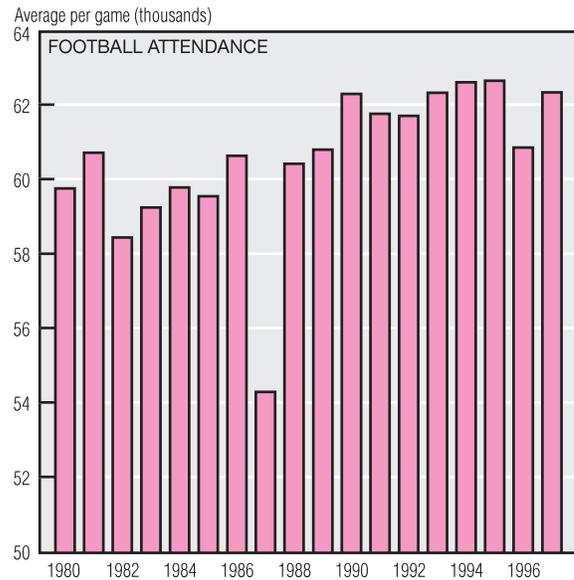
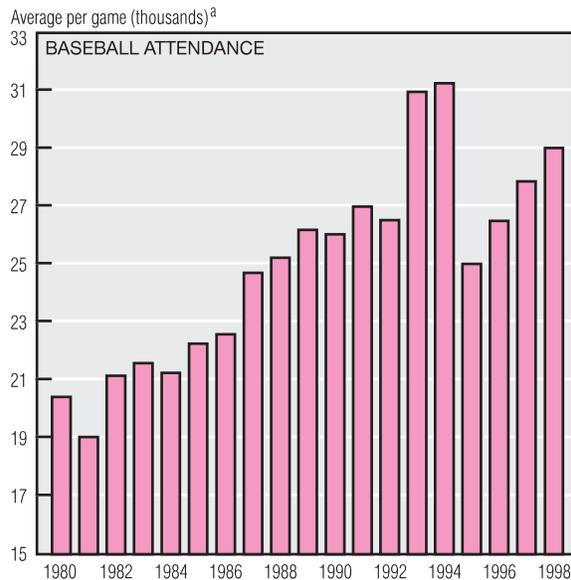
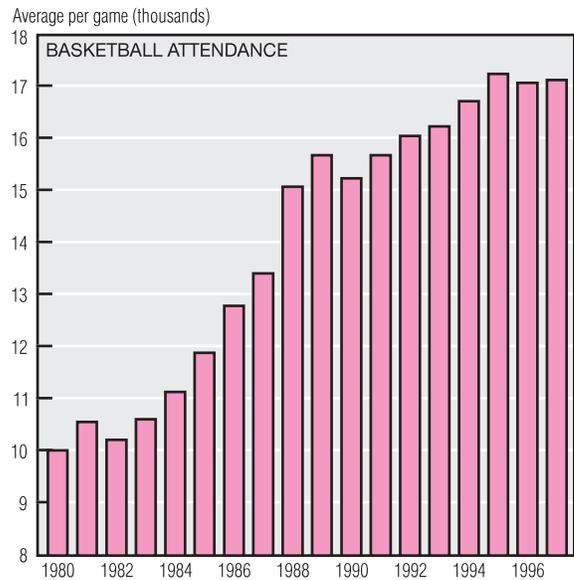
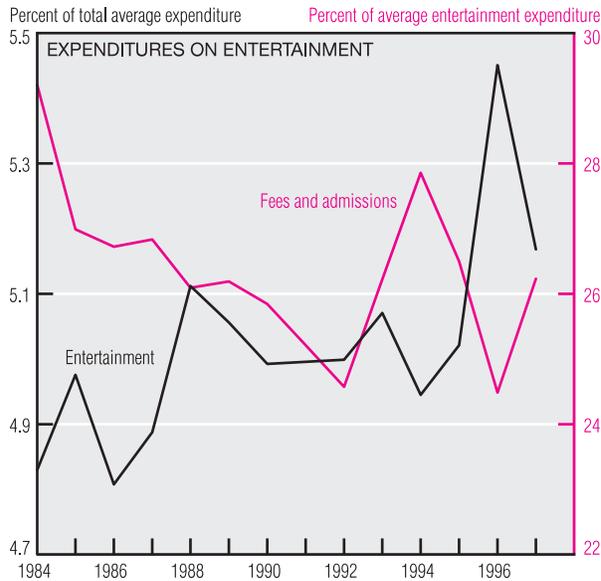
Job gains in service-producing industries far outweighed continued losses in goods-producing industries. Manufacturing jobs decreased 29,000 for the month, with job losses accumulating to 402,000 since March of last year. Construction jobs (seasonally adjusted) increased 8,000 following a loss of 53,000 jobs in the previous month. In the service-producing sector, finance, insurance, and real estate, as well as business services and health services, posted above-average employment growth.

The unemployment rate inched up one-tenth of a percent to 4.3%.

April marks one year of unemployment at or below 4.5%, the longest stretch of such low unemployment in 30 years. The employment-to-population ratio fell slightly to 64.2%.

Wage pressures remained muted in the beginning of 1999. The Employer Cost Index increased 3.0% in the first quarter, the smallest annual increase in more than year. Both benefits and wages increased at relatively slow rates (2.3% and 3.4%, respectively). In April, hourly earnings rose just 3.2% from a year earlier, the smallest increase since March 1996.

Attendance at Sports Events



a. Until 1993, American League attendance was counted as the number of tickets sold, while National League attendance was measured by the number of people in the park. After 1993, both leagues counted attendance as the number of tickets sold.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; John Thorn and Pete Palmer, eds., *Total Baseball*, 6th ed. New York: Total Sports, 1999, pp. 104-9, 2311-85; National Football League; National Basketball Association Properties, Inc.; and Jonathan Fraser Light, *The Cultural Encyclopedia of Baseball*. Jefferson, N.C.: McFarland and Company, Inc., 1997, pp. 38-41.

In the entertainment industry, there is fierce competition for consumers' leisure time and dollars. Entertainment spending, as a share of total expenditures, has increased over the past 10 years. Of the entertainment budget, the fraction spent on fees and admissions declined from the mid-1980s until 1992, but has recently rebounded.

One component of the entertainment industry, professional team sports, has fared remarkably well over the past 20 years. The National Basketball Association has increased its average per-game attendance from about 10,000 fans in

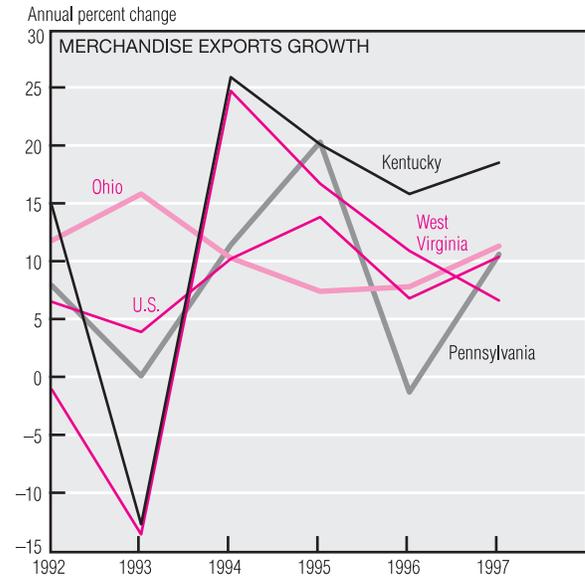
1980 to more than 17,000 in 1997. Over the same period, Major League Baseball also experienced large increases in attendance, from approximately 20,000 fans per game to just under 30,000. The National Football League, however, has posted only modest gains.

The impact of strikes, though initially large, is only temporary. The baseball strikes of 1981 and 1994-95 decreased attendance per game in those years, but the numbers quickly rebounded in later seasons. The same is true of the 1987 football strike, when attendance per game dropped about 10%.

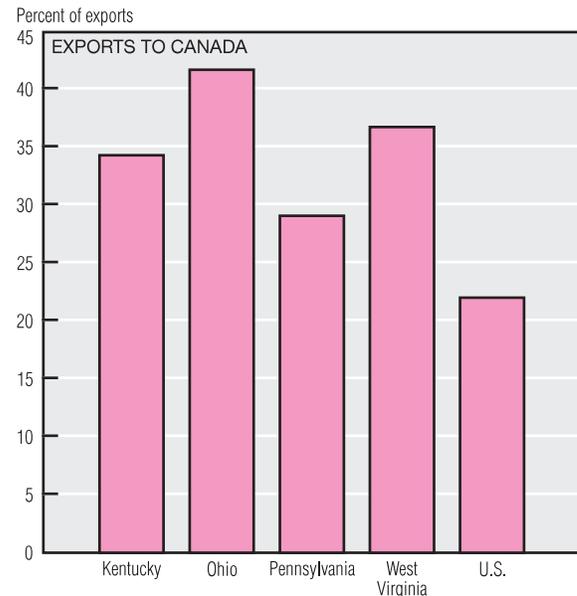
A contributing factor in baseball fans' increased attendance is the boom in new stadium construction. By 2005, fewer than half of baseball teams will be playing in parks built before 1989. Many of the older stadiums have become obsolete. They still have playing fields and seats for the fans, of course, but they lack newer stadiums' luxury boxes, easy access to concessions, better sight lines, and fans' closeness to the field. In general, technology has made the new stadiums far more "fan friendly."

Fourth District Exports

State Merchandise Exports			
National ranking		1997 level (billions of dollars)	Annual percent change, 1993-97
1	California	103.8	11.1
2	Texas	56.3	12.1
3	New York	48.9	4.7
4	Michigan	37.9	10.6
5	Illinois	34.2	13.9
6	Washington	31.7	3.8
7	Ohio	25.1	9.2
8	Florida	22.9	11.7
9	New Jersey	20.8	9.4
10	Pennsylvania	19.3	10.0
24	Kentucky	6.9	20.0
43	West Virginia	1.3	14.6
	U.S. total	687.6	10.3



MSA Merchandise Exports		
	1997 level (millions of dollars)	Annual percent change, 1993-97
Cincinnati, OH-KY-IN	5,674	9.8
Cleveland-Lorain-Elyria, OH	5,511	11.4
Pittsburgh, PA	4,352	9.8
Akron, OH	2,353	13.2
Dayton-Springfield, OH	2,271	-2.2
Lexington, KY	1,887	31.9
Columbus, OH	1,661	9.2
Toledo, OH	1,261	10.8
Erie, PA	598	17.7
Mansfield, OH	444	4.8
Canton-Massillon, OH	422	13.9
Youngstown-Warren, OH	323	14.3
Lima, OH	242	-4.8
Wheeling, WV-OH	77	79.9



SOURCE: U.S. Department of Commerce.

Exports are of particular importance to the Fourth District's economy. In 1997, Ohio ranked seventh in the nation in the value of merchandise exports, while Pennsylvania ranked tenth. From 1993 to 1997, exports from these two states grew at a slightly slower pace than the national average.

Kentucky and West Virginia export less merchandise than Ohio or Pennsylvania. Since 1993, however, exports from Kentucky and West Virginia have grown at a much faster pace than the national average, with average annual growth rates of

20.0% and 14.6%, respectively. This growth has been more volatile than that of Pennsylvania or Ohio over the same time period. Both Kentucky and West Virginia suffered declining exports in 1993, then rebounded dramatically in 1994. Since then, export growth in West Virginia has moderated to a rate close to the national average, while export growth in Kentucky remains high.

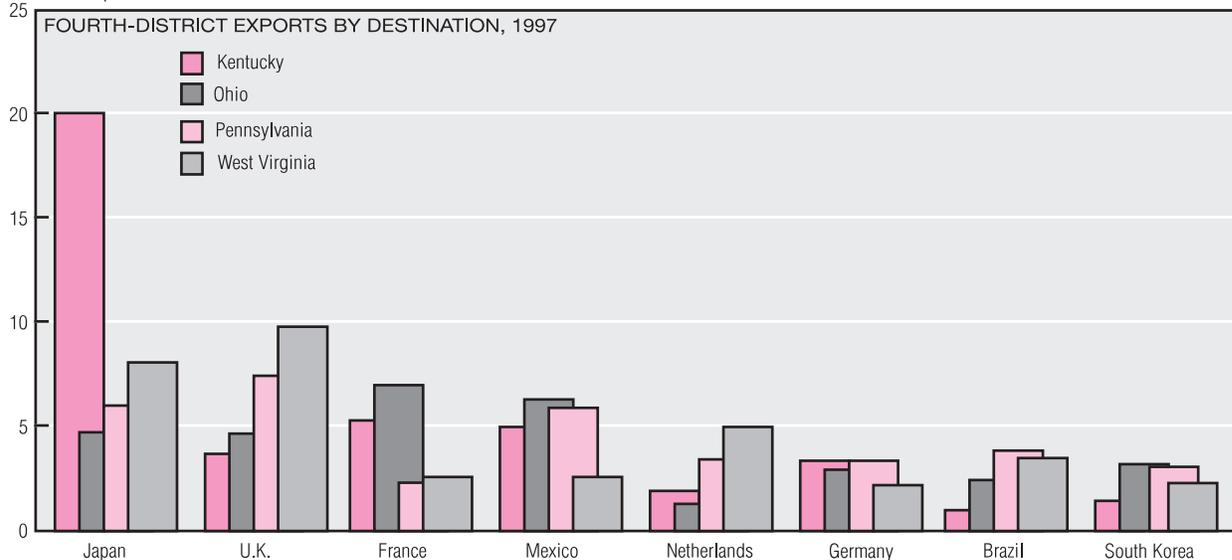
Nearly all Fourth District metropolitan statistical areas (MSAs) posted increasing levels of exports from 1993 to 1997. Cincinnati and Cleveland exported the greatest vol-

ume of merchandise in 1997. Nine of the 16 District MSAs for which data are available experienced annual export growth rates greater than the national average of 10.3% over the same period. Wheeling had the most dramatic growth in exports, averaging almost 80% annually from 1993 to 1997; however, the value of exports from this area remains quite small, and Wheeling still has the lowest value of exports among Fourth District MSAs. The 31.9% annual growth rate seen in Lexington over this time period

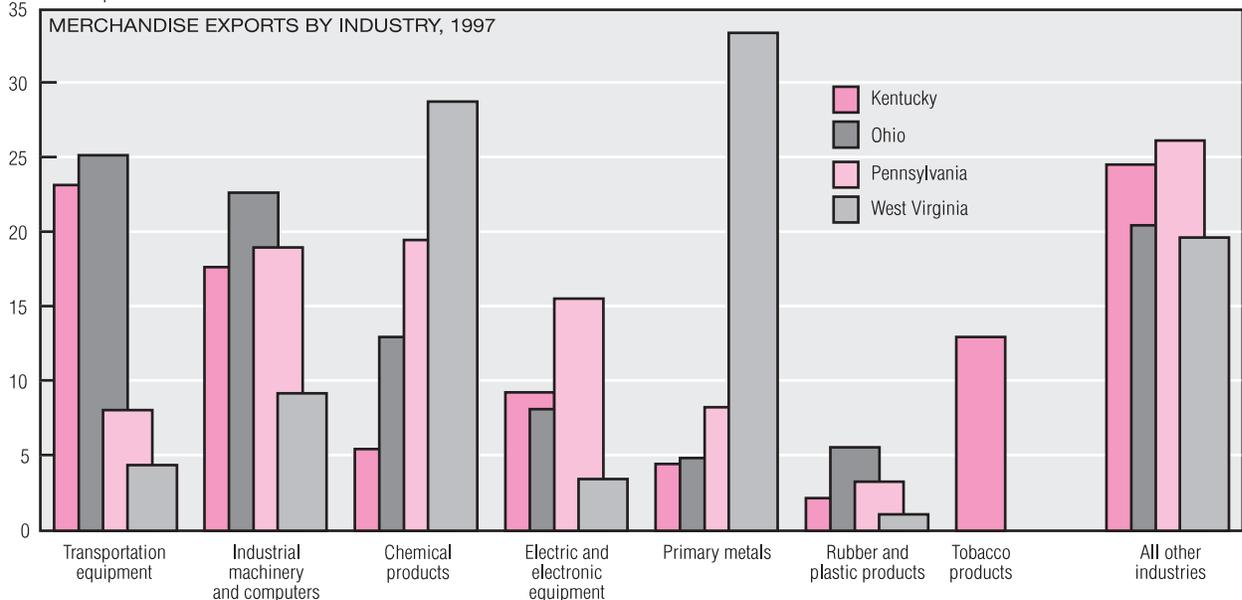
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Fourth District Exports (cont.)

Percent of exports



Percent of exports



SOURCE: U.S. Department of Commerce.

represented a much greater absolute volume of growth.

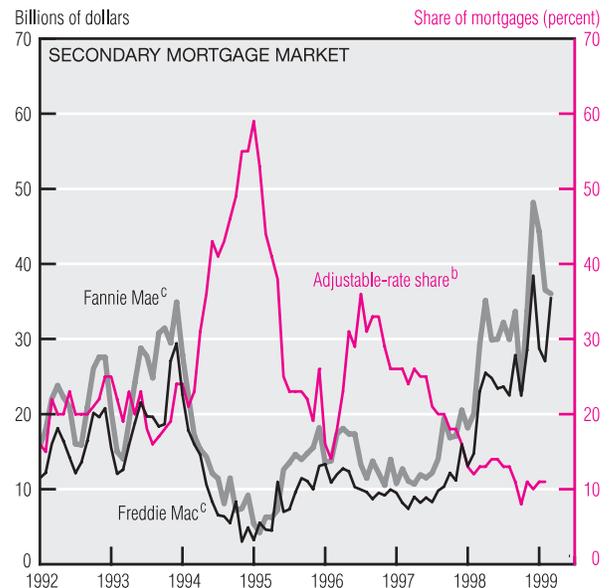
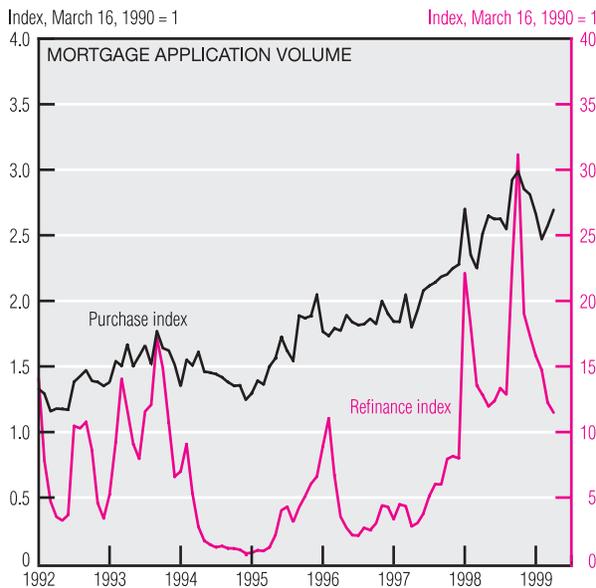
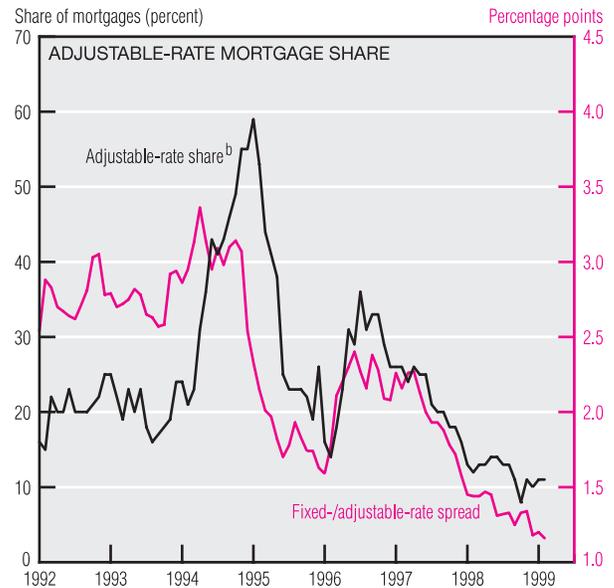
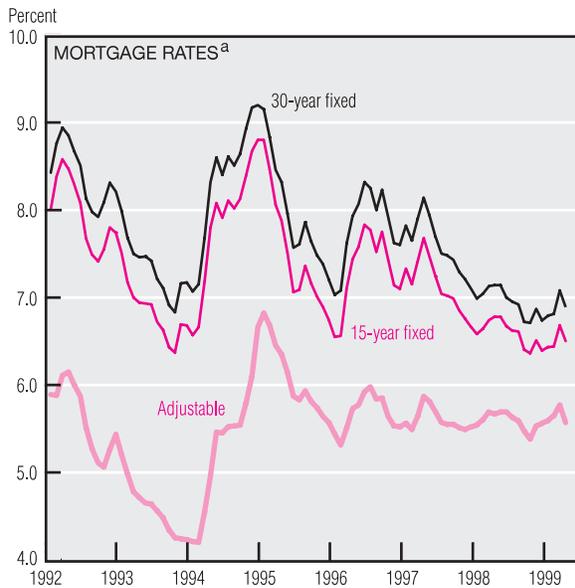
Destinations of exports vary widely among Fourth District states. Like the rest of the U.S., the largest trading partner for each of the Fourth District states was Canada. However, exports to Canada are much more important to Fourth District states than they are to the U.S. as a whole. In 1997, Kentucky, Ohio, Pennsylvania, and West Virginia exported 34.3%, 41.7%, 29.1%, and 36.8% of their exports to Canada, respectively, compared to the U.S.

average of 22.0%. Japan was a significant export destination for all Fourth District states, but especially for Kentucky, which sent 20% of all its exports there in 1997. The U.K. was the second-largest export destination for both Pennsylvania and West Virginia, while Ohio's second-largest export destination was France.

For both Kentucky and Ohio, the transportation equipment industry was the largest exporter, making up 23.2% and 25.2% of all exports, respectively. The largest exporting industry in Pennsylvania was chemi-

cal products, comprising 19.5% of all exports. For all three of these states, industrial machinery and computers had the next-highest level of exports. The largest export industries in West Virginia were primary metals (33.4% of the state's total exports) and chemical products (28.8%). Although tobacco products accounted for a relatively small share of exports for most of the District, they remained significant in Kentucky, where they made up 13.0% of all exports in 1997.

Housing Markets



a. April 1999 rates are averages of the rates for the first three weeks of the month.

b. Percent of new conventional mortgage originations with adjustable rates.

c. Purchase data include conventional and government-insured mortgages.

SOURCES: U.S. Department of the Treasury, Office of Thrift Supervision; Federal National Mortgage Association; Federal Home Loan Mortgage Corporation; and Mortgage Bankers Association of America.

Following a sharp spike in early March, long-term mortgage rates have edged back down in recent weeks, and 30-year rates are now lower than the 7.08% March average. Despite the jump earlier this year, the defining trend since early 1997 has been toward lower long-term mortgage rates.

Over the same period, adjustable-rate mortgages have changed little, making the spread between fixed-

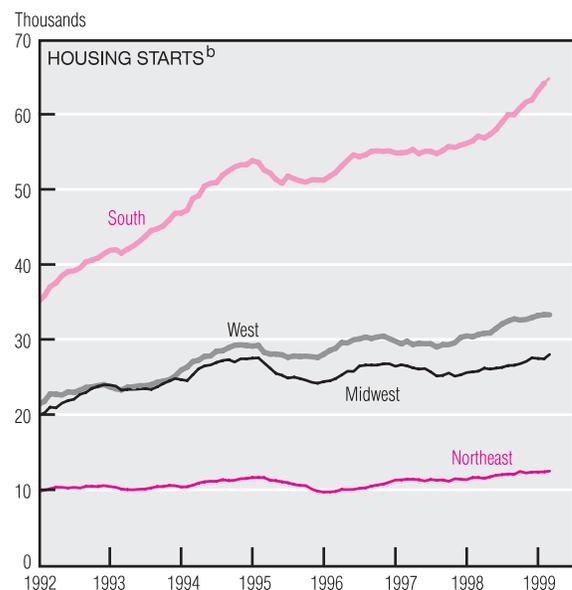
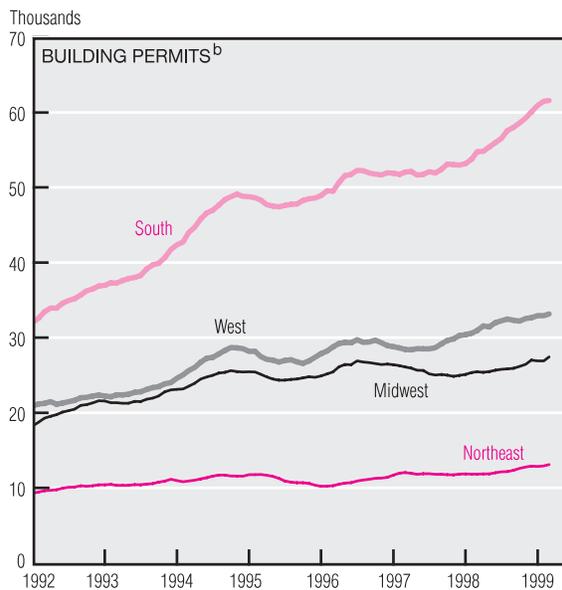
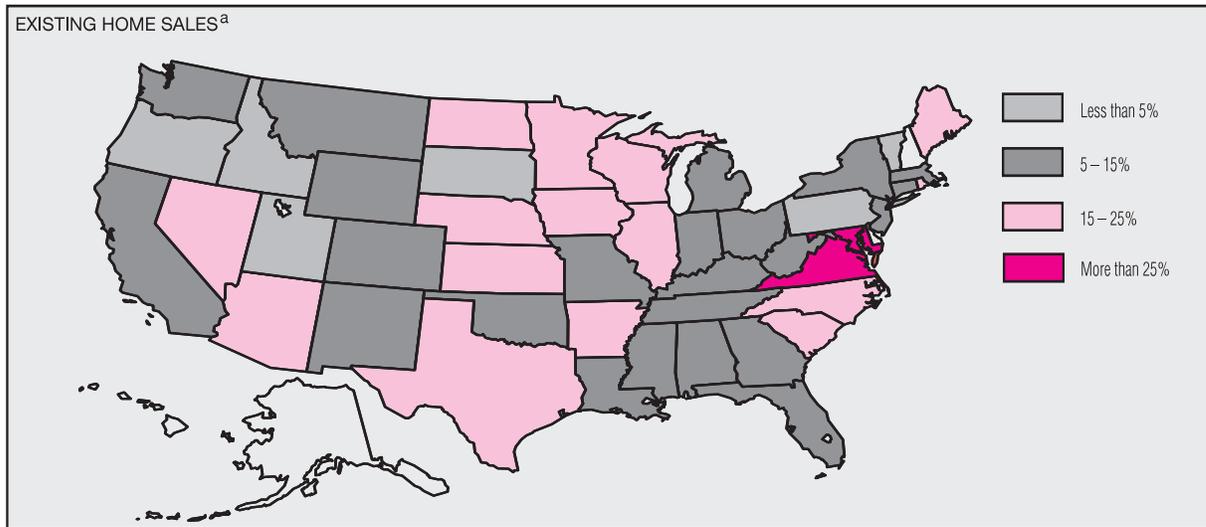
and adjustable-rate mortgages the lowest it has been in the 1990s. Not surprisingly, the share of new mortgage originations with adjustable rates is also at a decade-long low, having hit 8% last October.

This overall trend toward lower mortgage rates has led to steady increases in mortgage application volumes over the last several years. More dramatically, wide swings in refinancing activity have occurred

around temporary drops in long-term mortgage rates. Indeed, the mortgage refinancing index reached an all-time high of 31.15 last October, just as 30-year mortgage rates dropped to 6.71%, their lowest level in the past two decades. If long-term mortgage rates were to continue falling throughout the summer, yet another refinancing boom could be right around the corner.

(continued on next page)

Housing Markets (cont.)



a. Percent increase in the number of existing single-family homes sold between 1997 and 1998. No data are available for Alaska, Hawaii, or New Hampshire.

b. Trailing 12-month moving average.

SOURCES: U.S. Department of Commerce, Bureau of the Census; and National Association of Realtors.

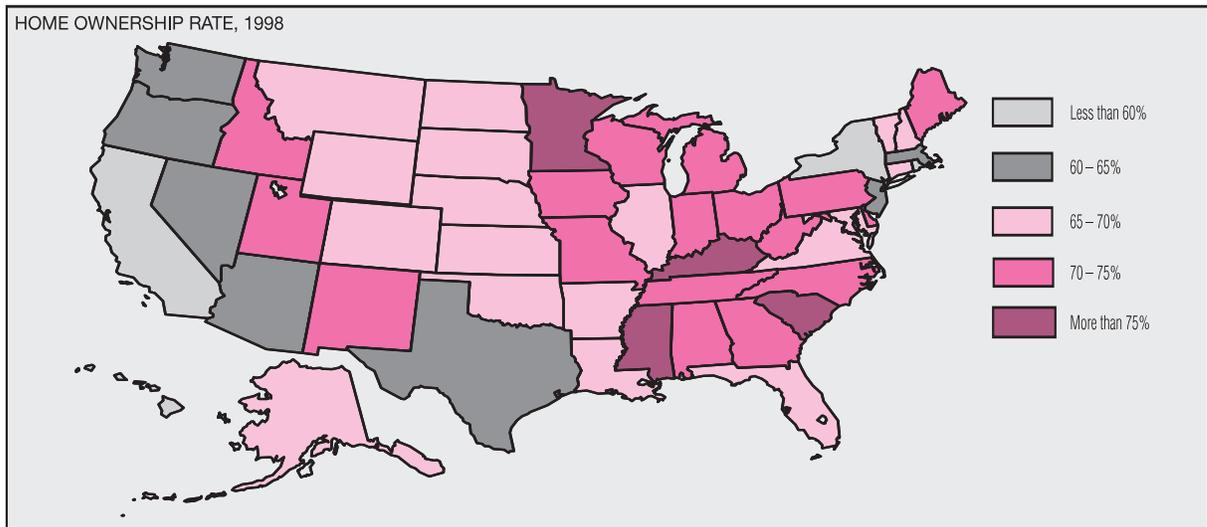
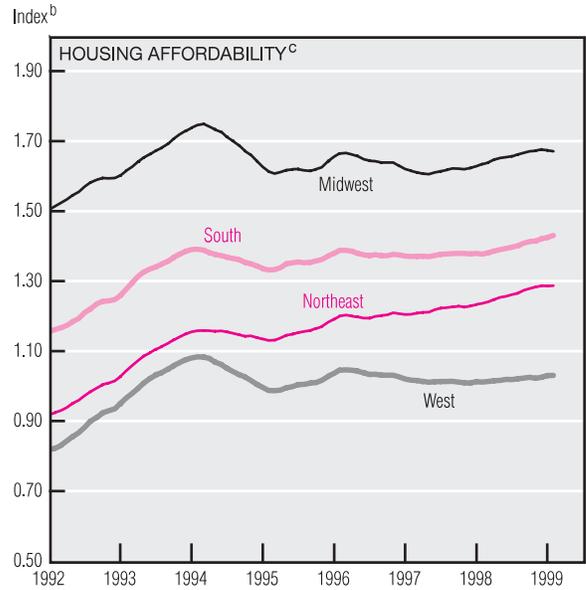
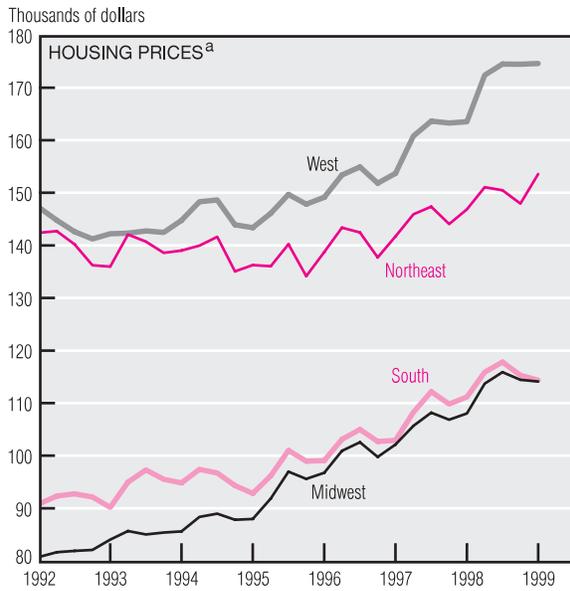
Not coincidentally, secondary-mortgage-market activity has surged with this steady rise in originations. The low fraction of mortgages with adjustable rates—a specialty of savings banks that hold adjustable-rate mortgages on their books instead of selling them in the secondary market—has combined with these record application volumes to push purchases by Fannie Mae and Freddie Mac, the two major secondary-market institutions, to their highest levels this decade.

Record-low mortgage rates are also having an impact on the real side of the housing market. Over the last year, existing home sales have grown by 23%, with every state reporting an increase in the number of sales. Overall, the strongest growth has been in the central U.S. and the areas surrounding the nation's capital. With the summer home-buying season kicking into high gear, this surge should continue unabated, barring an unexpected rise in mortgage rates.

The future looks bright for new home sales as well. Especially in the South, new building permits and new housing starts have skyrocketed in the last year and a half, suggesting that the stock of available housing will continue its expansion to meet burgeoning demand.

Given the strong turnover in the housing market, it should not be surprising to find that prices are continuing to rise. Between 1997 and 1998, the median sale price for *(continued on next page)*

Housing Markets (cont.)



a. Median sale price of existing single-family homes, not seasonally adjusted.
 b. Ratio of median family income to the income required to qualify for a 20%-down-payment mortgage on an existing, median-priced, single-family home.
 c. Trailing 12-month moving average.
 SOURCES: U.S. Department of Commerce, Bureau of the Census; and National Association of Realtors.

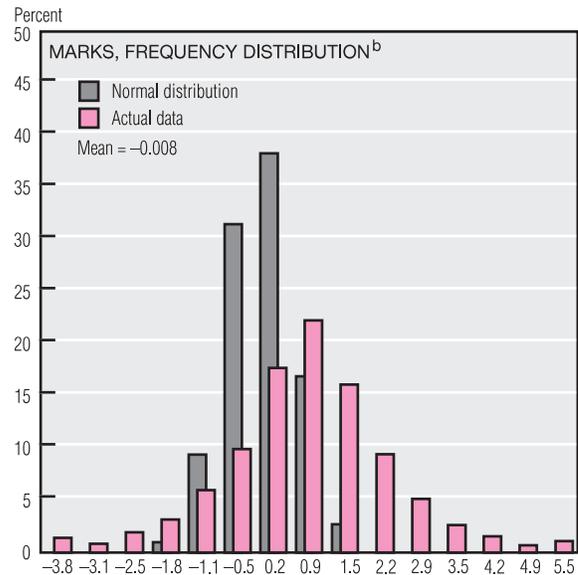
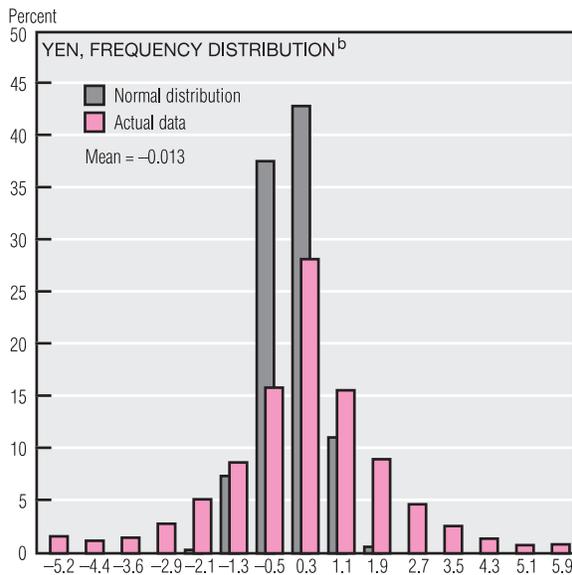
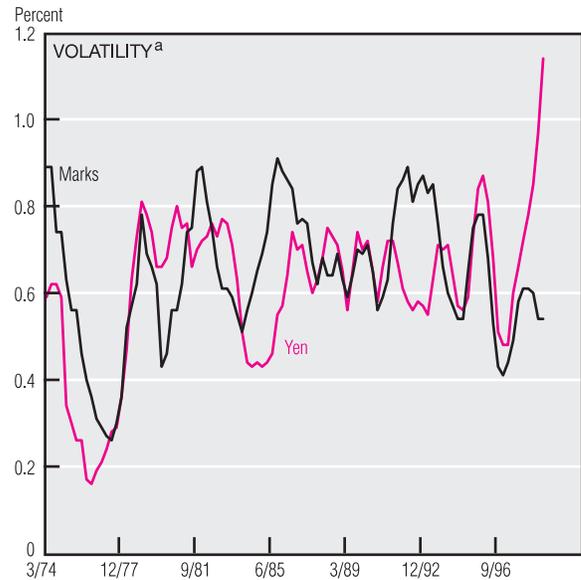
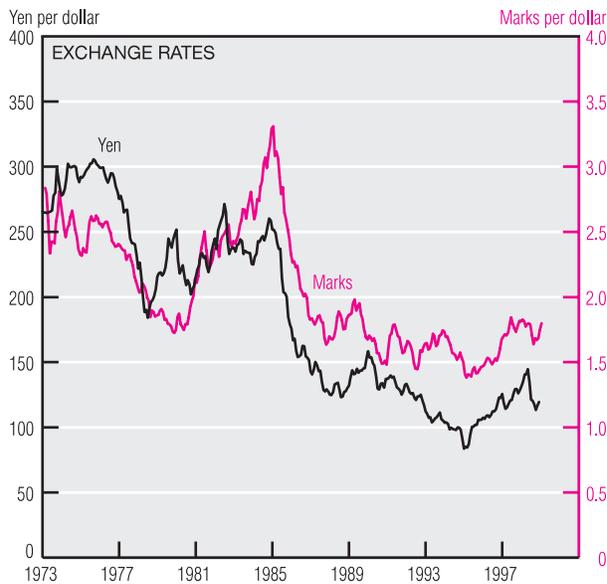
existing single-family homes in the U.S. increased from \$124,100 to \$130,600. The West led all other regions of the country, with median home prices growing 7.2% to \$172,000 in 1998.

Despite this run-up in housing prices, the overall affordability of owning a home has remained surprisingly stable. The National Association of Realtors' Affordability Index compares the median family

income in an area to the income required to qualify for a 20%-down-payment mortgage on an existing, median-priced, single-family home. From this measure, we see that income gains over the last two years have outpaced housing price increases. This is largely attributable to the continuing decline in mortgage rates, which enables households to purchase more expensive homes than they could otherwise.

Taken as a whole, trends in housing markets look very favorable. To sustain these real gains in American living standards, however, it is essential to maintain low interest rates. Should the Fed falter in its duty to restrain inflation, nominal interest rates could rise, once again putting the American dream of home ownership out of reach for many lower-income households.

Exchange-Rate Volatility



a. Volatility is measured as the standard deviation of daily exchange-rate percent changes over the preceding year.

b. Compares the actual frequency distribution of daily percent changes with the frequency distribution that would be expected if the daily percent change conformed to a normal distribution. Values shown are the medians of the range in each bar.

SOURCE: Board of Governors of the Federal Reserve System.

Each day, in spot, forward, and swap transactions throughout the world, more than \$1.3 trillion in foreign currencies changes hands. The volume seems large relative to the world's trade flows, suggesting that exchange-rate movements do more than just allocate goods and services around the globe. Many of these trades involve speculation, in which parties with different expectations about market conditions essentially bet on the reliability of their knowledge. The process promotes a transfer of information. High market

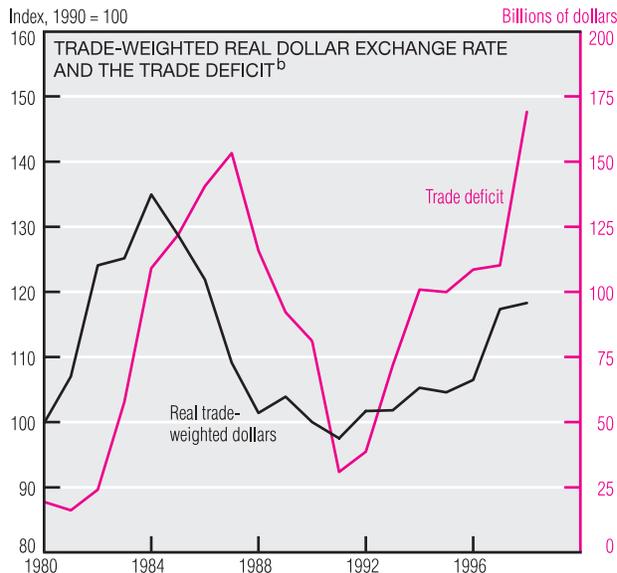
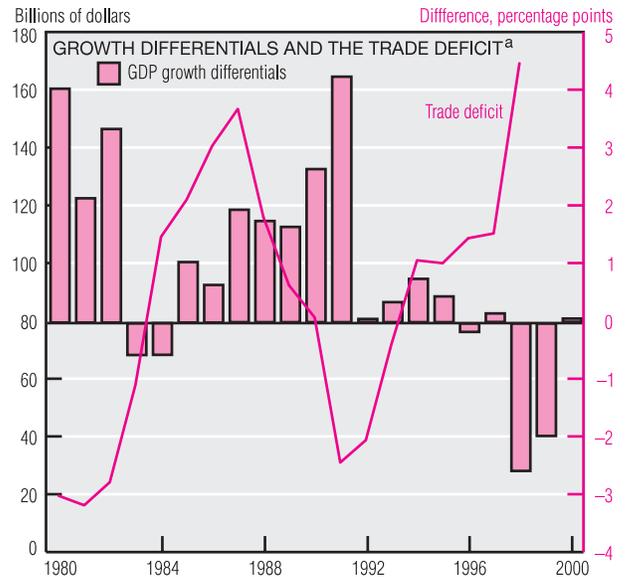
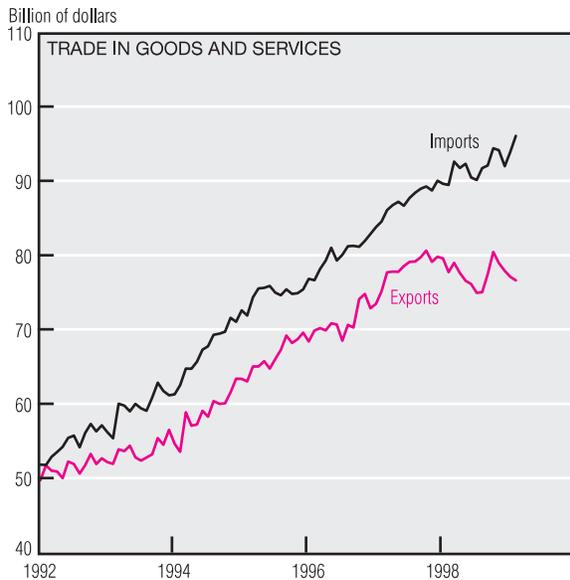
volatility indicates uncertainty and trading on disparate information sets. The past two years, for example, have witnessed a sharp increase in day-to-day yen/dollar volatility, even though overall exchange-rate trends do not seem exaggerated. This volatility is associated with uncertainty about Japan's economic prospects.

Distributions of daily exchange-rate changes typically show higher frequencies of large changes—both positive and negative—than are associated with a normal distribution. Nevertheless, the average exchange-

rate change typically is close to zero. Exchange traders seem to be highly efficient information processors who quickly incorporate all available data into current exchange-rate quotations; changes result solely from the receipt of new information.

Of course, persistent movements are often evident, indicating that the market is not perfectly efficient. When knowledge is costly, market prices cannot continuously reflect all information. If they did, speculators could not profit from expending resources on news. Perfectly efficient markets must break down.

International Trade



The Current Account and its Components

	Billions of dollars		
	1996	1998	Change
Balance on goods and services	-108.6	-169.1	-60.5
Balance on investment income	14.2	-22.5	-36.7
Unilateral transfers	-40.6	-41.9	-1.3
Balance on current account	-134.9	-233.4	-98.5

a. The growth differential equals the trade-weighted average growth rate for the top 15 U.S. trading partners in 1990–95 minus the U.S. growth rate. Projections for 1999–2000 utilize various sources. The top 15 U.S. trading partners in the years shown are Canada, Japan, Mexico, Germany, U.K., Taiwan, China, South Korea, France, Singapore, Italy, Hong Kong, Netherlands, Belgium, and Malaysia.

b. The real effective dollar index includes the top 15 U.S. trading partners, 1990–95.

SOURCES: U.S. Department of Commerce, Bureau of the Census and Bureau of Economic Analysis; Organisation for Economic Co-operation and Development, *Economic Outlook*; International Monetary Fund, *International Financial Statistics*; DRI/McGraw-Hill; and *Blue Chip Economic Indicators*, April 10, 1999.

U.S. trade in goods and services reached a record \$19.4 billion deficit in February as imports advanced 2.2% and exports fell 0.6%. Global sales of U.S. products have remained flat since the onset of the Asian financial crisis in mid-1997. The cascading crises of the past two years have adversely affected our trade balance by slowing the economic growth of our major trading partners and promoting an appreciation of the dollar.

World economic crises crimped growth among our 15 most important trading partners to an average 1.3% in 1998. This is less than half their average pace since 1990 (3.3%), and is substantially below the 3.9% U.S. growth rate last year. Forecasters expect the disparity to persist in 1999, but anticipate that growth rates will converge in 2000. Holding all else constant, foreign economic growth must exceed U.S. economic growth by nearly two percentage

points to narrow the trade deficit.

Inflows of foreign capital in 1997 and 1998 caused an 11% real dollar appreciation. Real exchange rates incorporate both nominal exchange-rate movements and inflation differentials. A real dollar appreciation reduces our competitive position by raising the foreign-currency price of U.S. goods and services and by lowering the dollar price of foreign output. The dollar's appreciation seems to have stalled this year.