

The Economy in Perspective

Potential problems ... Has the economy been expanding beyond its potential, threatening to boost inflation? Or has the level of economic activity only now reached its potential? Can it grow at rates of 3% or more in real terms before inflation begins to drift up?

The Commerce Department recently announced that real GDP rose 2.25% during the last four quarters, a pace consistent with most analysts' estimates of the growth rate for potential GDP. The Labor Department followed with a report that the nation's unemployment rate held steady at 5.2% in October, a figure at or below conventional estimates for full employment. No wonder speculation about inflation's future course remains intense.

The concept of potential output (or full employment in the labor market) has a long, checkered history in macroeconomics. Early Keynesians advanced the idea, arguing that since inflation would result from resource utilization above potential, and deflation would arise from underutilization, governments should use monetary and fiscal policies to keep the level of actual economic activity equal to its potential.

Keynesian economists in the 1960s thought that potential output changed very slowly, and that its value could be closely pinpointed. Kennedy-Johnson era policymakers also believed that inflation and unemployment, which they regarded as inversely related, could be traded off against one another in a predictable way through the use of demand-management strategies. Against the backdrop of the Great Depression, an event that created public fear of widespread unemployment, the Keynesians' faith in full employment is understandable; however, in view of the accelerating inflation of the late 1960s and the poor economic performance of the 1970s, their confidence seems misplaced.

By the early 1970s, many economists embraced a more sophisticated version of potential output, called the natural rate concept. Milton Friedman, among others, theorized that actual unemployment would always gravitate toward a "natural rate" of unemployment. The actual and natural rates would equalize only when inflation matched the rate that people had already incorporated into their wage- and price-setting plans (that is, expected inflation). Natural-rate advocates emphasized that demand-management policies should not be used to hold unemployment permanently below the natural rate, since this strategy would result in escalating inflation. Policymakers could, however, attempt to keep unemployment at the natural rate and accept the prevailing pace of inflation.

Advocates also reasoned that the natural rate of unemployment could fluctuate both slowly—

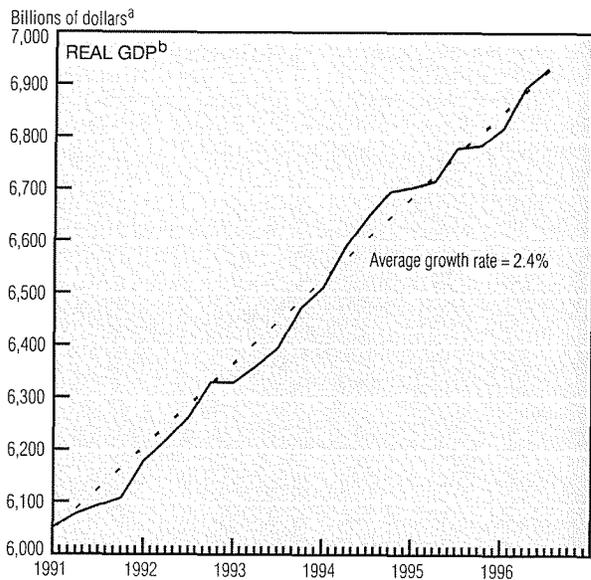
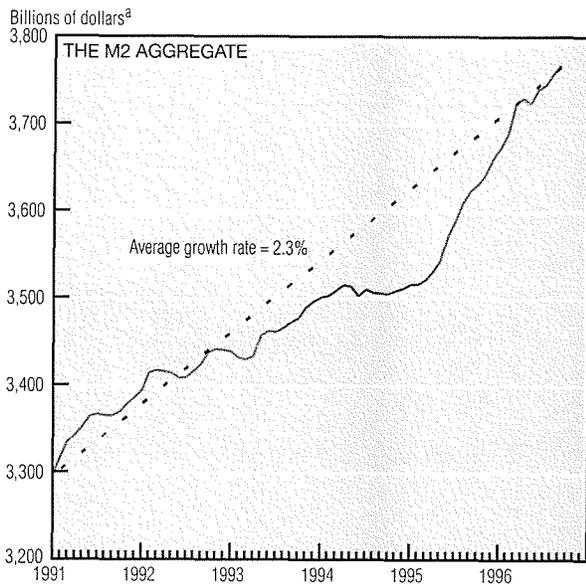
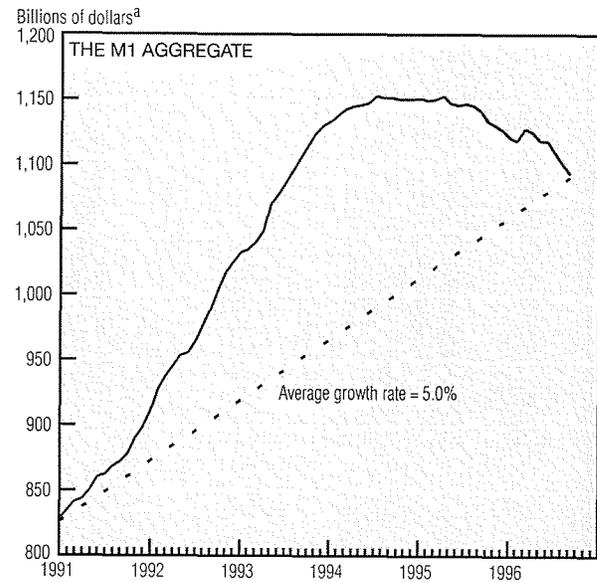
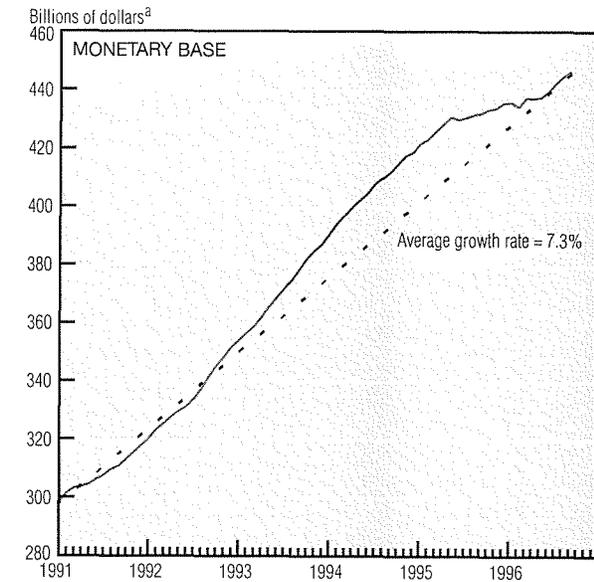
through changes in the composition of the labor force, for example—and quickly—through changes in tax policy, unemployment compensation benefits, minimum wage laws, and other factors affecting labor supply. Proponents of this logic urged policymakers to be more cautious in estimating economic potential and less ambitious in their objectives. Nevertheless, the practice of using demand-management policies to guide the economy along a path of full resource utilization persisted throughout the 1970s. And, although the intellectual basis for taking greater care in policy design and implementation had been established, macroeconomic performance was dismal.

Have we learned from our experiences? Many economists have abandoned potential output as a conceptual guide for policymakers. Some think the idea itself is bankrupt, depending as it does on being able to quantify the supply and productivity of land, labor, and capital in some idealized state of economic activity. Others accept the concept, but worry about not being able to adequately estimate potential output or current and future economic conditions. These factors combine to make an "output gap" framework problematic for policymakers who try to keep real economic activity on any predetermined path, including that of full employment.

Despite these shortcomings, many economists still cherish the ambition of closing the output gap. This is partly because politicians and the public have been conditioned for decades to think that economic policy tools—principally those of monetary policy—should be continually geared toward keeping aggregate demand high. Ironically, although economists realize that monetary policy can be used to stimulate aggregate demand, most of the evidence suggests that these effects are short lived. Contemporary macroeconomic theorists teach that monetary policy does not affect the economy's level of potential output and cannot be relied on to keep output moving along a predetermined path. Monetary policy can be used systematically for only one purpose—to determine the price level. Indeed, a low inflation environment is monetary policy's best contribution to better economic conditions.

Closing the output gap remains a popular aspiration because people want to believe it can be done. Even though history has shown repeatedly that estimates of potential output are unreliable, when the next generation of economists and policymakers arrive on the scene they inevitably push—or get pushed—to create inflation. Unfortunately, our nation's ability to learn that full employment is no guide for macroeconomic policy has fallen far short of its potential.

Monetary Policy



a. Seasonally adjusted.

b. Chain-weighted 1992 dollars.

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

Over the last five years, the narrower monetary aggregates have tended to grow more rapidly than their more broadly defined counterparts. In particular, the monetary base grew faster than M1, which in turn grew faster than M2. One contributor to this phenomenon may have been the rapid increase in the amount of currency held outside the U.S. over this period. Since currency represents a larger fraction of the monetary base than, say, M2, rapid growth in currency will have a more

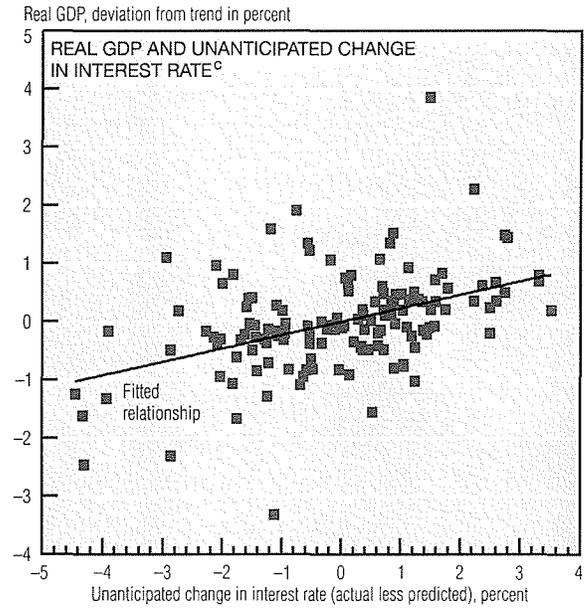
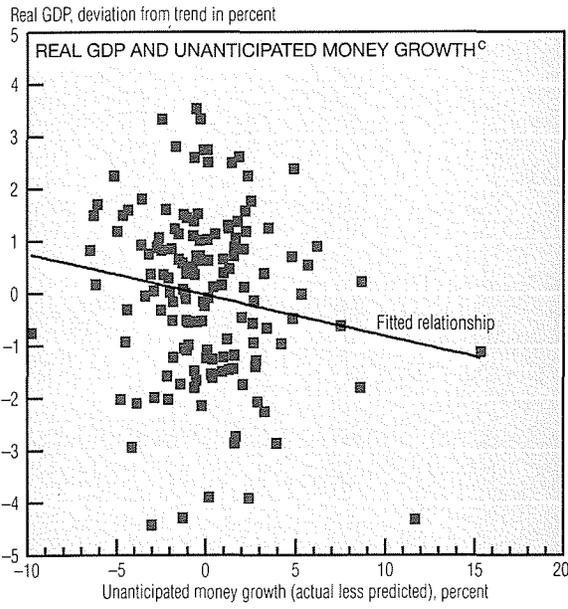
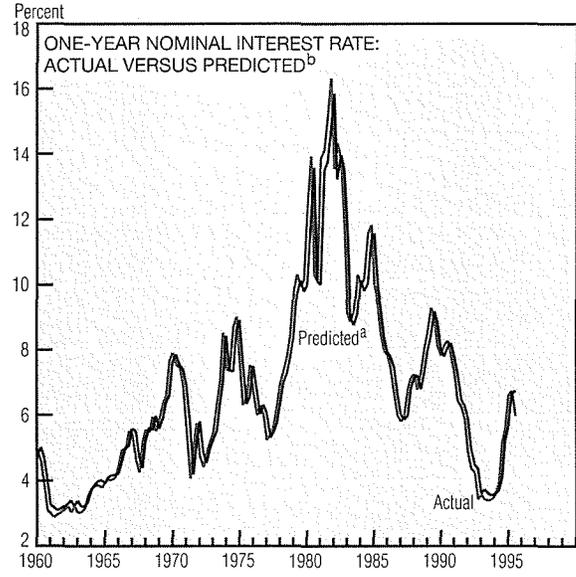
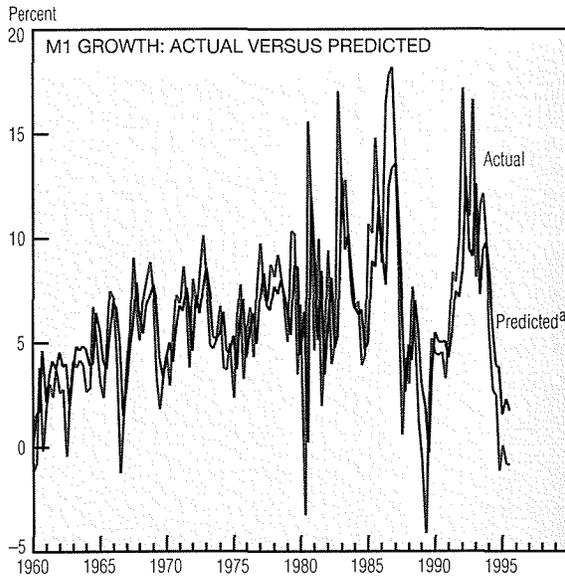
noticeable impact on the narrower aggregates.

In a growing economy, the amount of money in circulation must expand over time to facilitate the increasing number of transactions between buyers and sellers. In any given year, the total value of final goods and services transactions is measured by real GDP. Over long periods, therefore, we would expect the growth rate of the monetary aggregates to be at least as large as the growth rate of real GDP. However, if the monetary aggregates grow faster

than real GDP over sustained periods, then there is a danger of "too much money chasing too few goods." This can lead to an erosion in the purchasing power of money—otherwise known as inflation. Notice that the average annual compound growth rate of M2 over the last five years (2.3%) is very close to the average growth rate of real GDP (2.4%). This may help to explain the low levels of inflation experienced over this period.

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Monetary Policy (cont.)



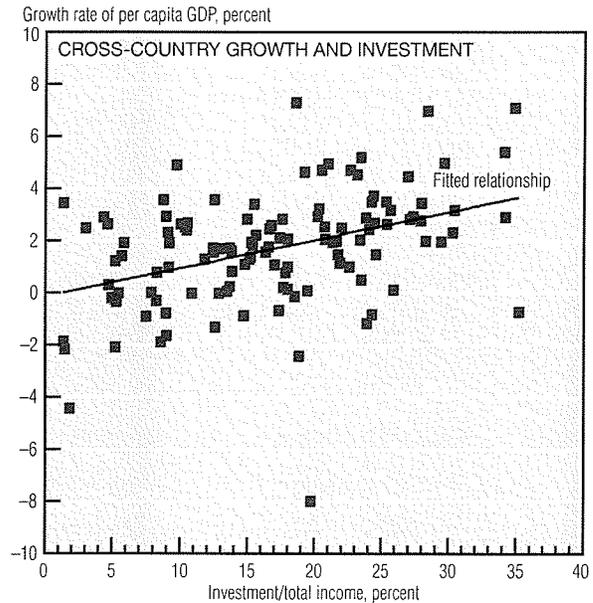
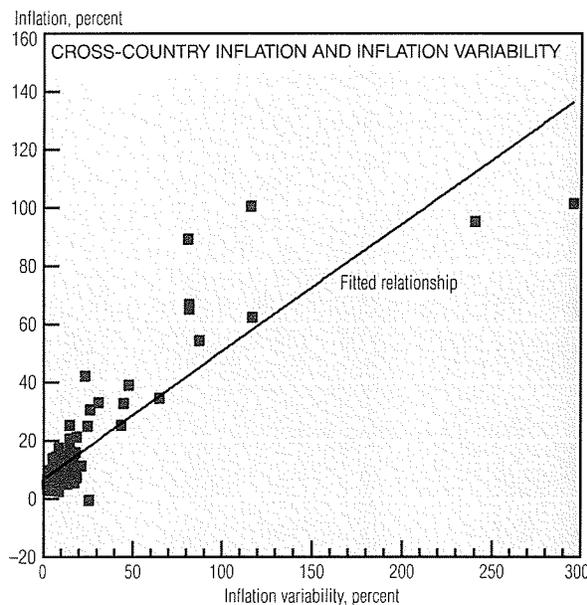
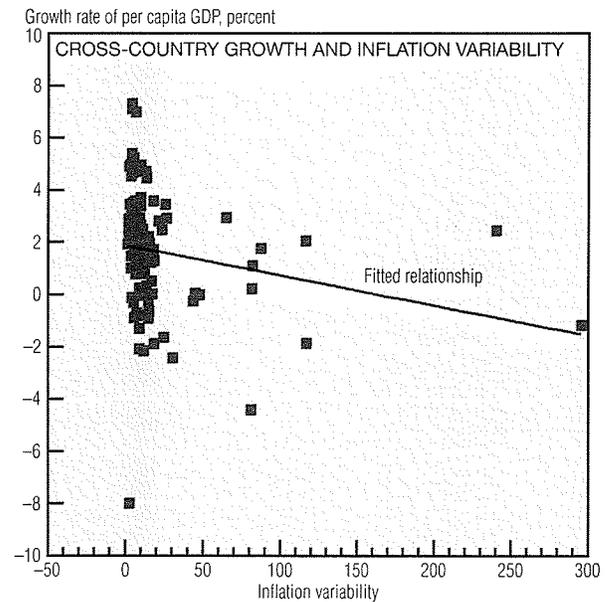
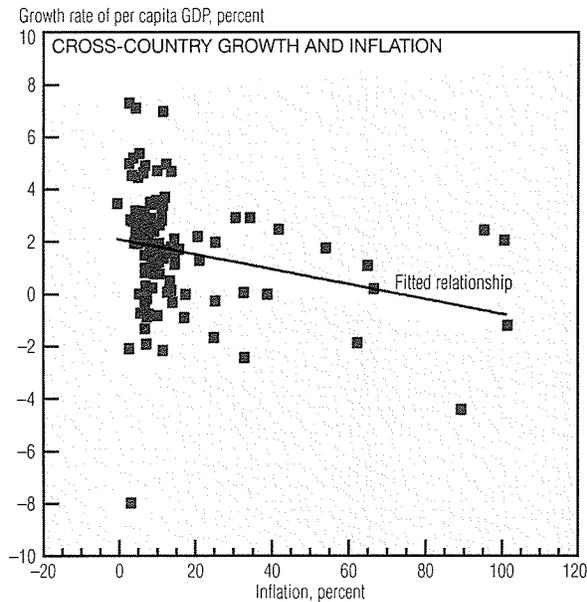
a. Predicted values are constructed by regressing each variable on its own lagged value and a constant term over the entire sample period.
 b. One-year nominal interest rate is the nominal one-year Treasury yield.
 c. Real growth is measured in chain-weighted 1992 dollars, seasonally adjusted.
 SOURCES: Board of Governors of the Federal Reserve System; and the Federal Reserve Bank of Cleveland.

Monetary policy is thought to influence the level of real economic activity over the course of the business cycle. In this regard, two principal tools that the Federal Reserve has at its disposal are the growth rate of the money stock and the level of short-term nominal interest rates. By regressing the growth rate of the M1 money stock on its lagged value and a constant term, we can construct a simple one-quarter-ahead forecast for predicted M1 growth. A plot of predicted versus

actual M1 growth shows that large forecast errors occur whenever the actual series experiences a sudden upward or downward movement. These errors can be interpreted as a measure of "unanticipated" money growth. An analogous procedure can be used to construct a measure of unanticipated changes in the one-year nominal interest rate. The deviation of real GDP from its trend line provides a measure of the business cycle component of real economic activity. A scatterplot

of this measure versus the level of unanticipated money growth reveals a weak negative relationship between the two variables, but one that is extremely imprecise. From this evidence, it does not appear that unanticipated money growth exerts an important influence on real economic activity. In contrast, there seems to be a positive relationship between the business cycle component of real GDP and unanticipated changes in the one-year
(continued on next page)

Monetary Policy (cont.)



NOTE: Data for Brazil were removed from the data set. Inflation variability is defined as the standard deviation of inflation within a given year, averaged over the time period of the sample.

SOURCE: Ruth Judson and Athanasios Orphanides, "Inflation, Volatility, and Growth," Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series No. 96-19, May 1996, pp. 15-17.

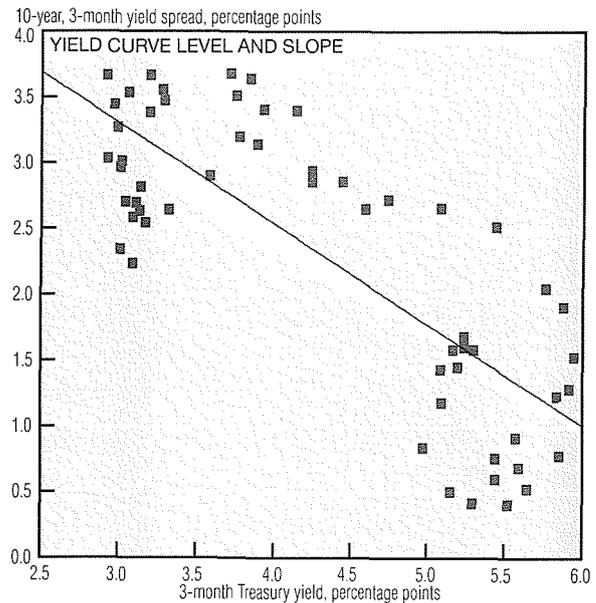
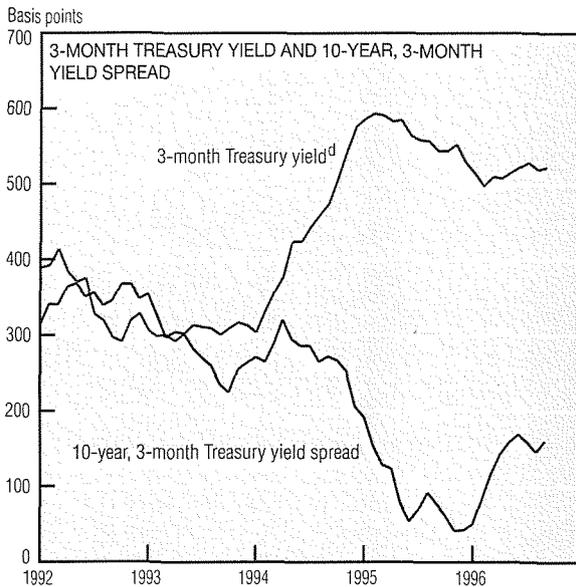
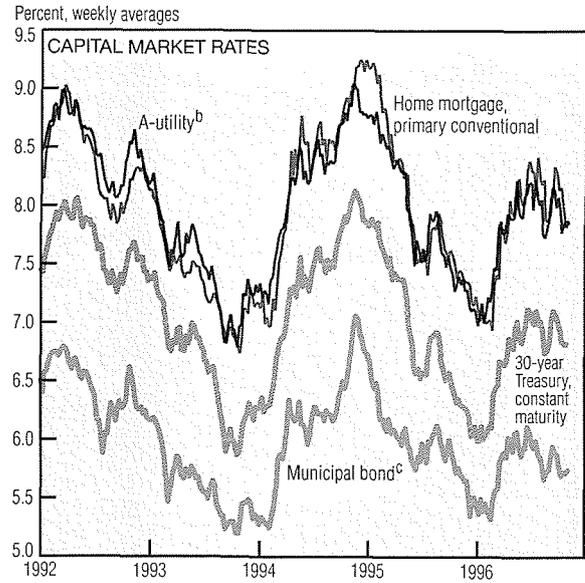
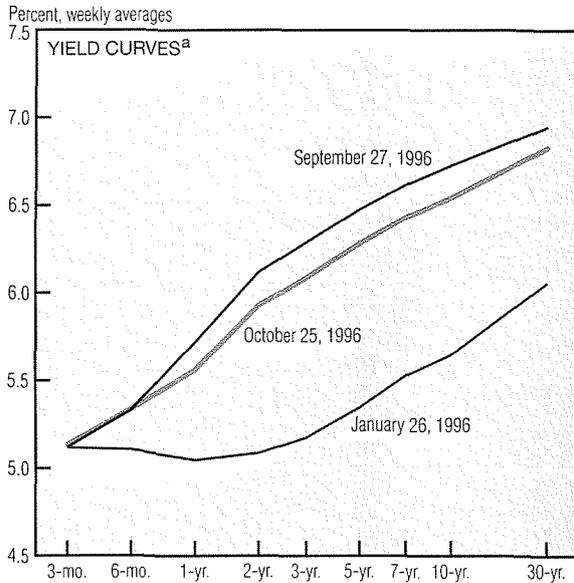
nominal interest rate. However, this picture may simply reflect the Federal Reserve's response to cyclical changes in nominal rates. Thus, causation may run from real GDP to unanticipated changes in interest rates, rather than vice versa.

Some policymakers believe that high and variable rates of inflation are detrimental to economic growth. A cross-country comparison shows that very high levels of inflation tend to be associated with lower growth

rates. However, at lower levels of inflation, there does not seem to be much of a link between the two variables. A similar story applies to the relationship between growth and inflation variability. There appears to be a positive relationship between the level of inflation and its variability. One possible explanation is that governments which undertake ill-advised monetary policies that lead to high and variable rates of inflation are also more likely to enact fiscal and regulatory policies that are

harmful to growth. Fiscal policy can influence growth through channels such as tax rates, which affect people's incentives to work, save, invest, and take entrepreneurial risks. There is a positive relationship between the share of income devoted to capital investment and economic growth. This suggests that policies which encourage investment—such as tax policies that remove disincentives for private saving—will stimulate economic growth.

Interest Rates



a. All instruments are constant-maturity series.
 b. Estimate of the yield on a recently offered, A-rated utility bond with a maturity of 30 years and call protection of five years.
 c. Bond Buyer Index, general obligation, 20 years to maturity, mixed quality.
 d. Three-month instrument is quoted from the secondary market on a yield basis; 10-year instrument is a constant-maturity series.
 SOURCE: Board of Governors of the Federal Reserve System.

The yield curve has flattened since last month, with all rates falling except those on short-term bills of three and six months. The 3-year, 3-month spread dropped to 95 basis points and the 10-year, 3-month spread fell to 141 basis points. Despite this decline, the yield curve remains steeper and straighter than it was at the beginning of the year.

Longer-term capital market rates have been moving down since early September. At one extreme, utilities have fallen by 30 basis points; at the

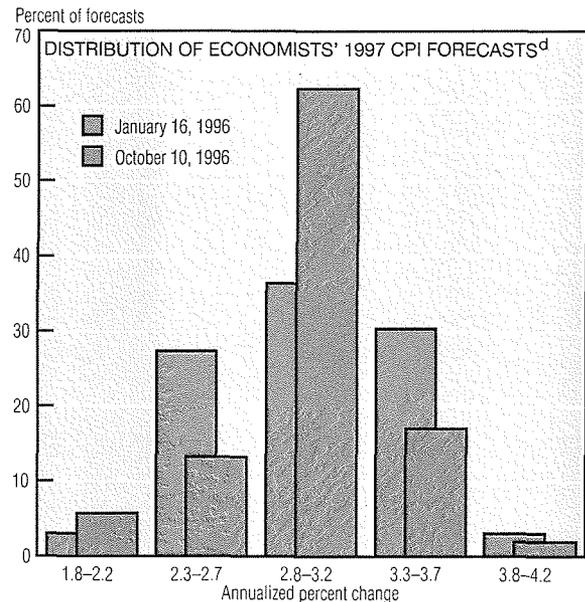
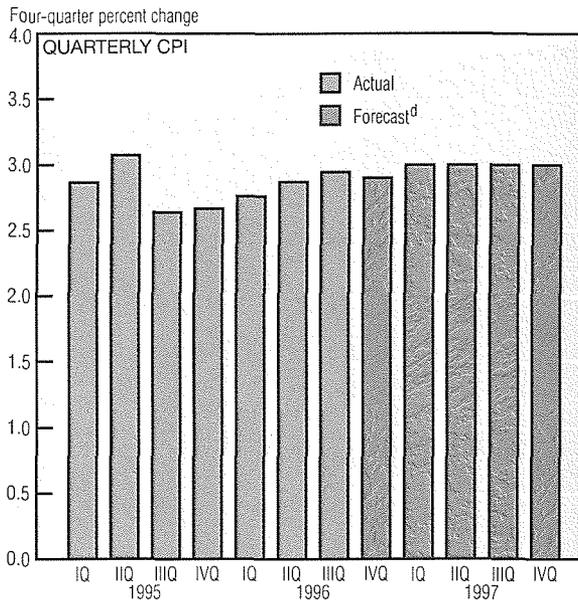
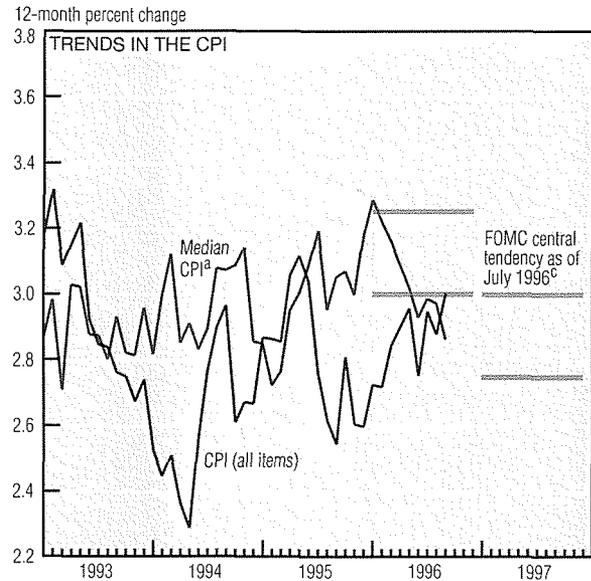
other, state and local bonds have dropped by only 11. This has closed the spreads between utilities and other rates, even pushing utility rates below mortgages. A longer perspective confirms the yield curve picture—long rates in the broad market remain significantly above their January level.

Is there any relation between the level of the yield curve and its slope? When the short rate rose in 1994, the yield spread initially rose with it. Market observers attributed this to

predictions of even larger future increases, heightened inflation fears, or greater uncertainty over rates. Soon the pattern reversed, however, conforming to the generally negative relationship between short rates and the yield spread. A higher short rate usually means a flatter yield curve, since long rates do not increase by quite as much. This represents a tendency, however, not an exact relationship, and 1996 saw the spread widen despite little change in short-term rates.

Inflation and Prices

	Annualized percent change, last:				1995 avg.
	1 mo.	9 mo.	12 mo.	5 yr.	
September Price Statistics					
Consumer Prices					
All items	3.1	3.2	3.0	2.9	2.6
Less food and energy	3.7	2.8	2.6	3.0	3.0
Median ^a	2.1	2.8	2.9	3.0	3.2
Producer Prices					
Finished goods	2.8	2.3	2.7	1.6	2.1
Less food and energy	3.4	0.8	1.4	1.6	2.6
Commodity futures prices^b					
	-9.3	1.1	1.9	2.8	5.4



a. Calculated by the Federal Reserve Bank of Cleveland.

b. As measured by the KR-CRB composite futures index, all commodities. Data reprinted with permission of the Commodity Research Bureau, a Knight-Ridder Business Information Service.

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

d. Consensus forecast of the Blue Chip panel of economists.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; the Federal Reserve Bank of Cleveland; the Commodity Research Bureau; and *Blue Chip Economic Indicators*, January 16 and October 10, 1996.

The September price statistics remain generally in line with their 3% trend of the last few years. The Producer Price Index and the Consumer Price Index (CPI) rose at annualized rates of 2.8% and 3.1% during the month (but a bit higher when food and energy goods are excluded). Year to date, the CPI is up 3.2%, while its core measures (the CPI excluding food and energy and the median CPI) have risen at a slightly more moderate 2.8% pace.

Unless retail prices break sharply from their recent trend, it's likely that the index will end the year at the lower end of the Federal Open Market Committee's July central tendency projection (3%), but near the top of the range set for 1997 (2¾% to 3%).

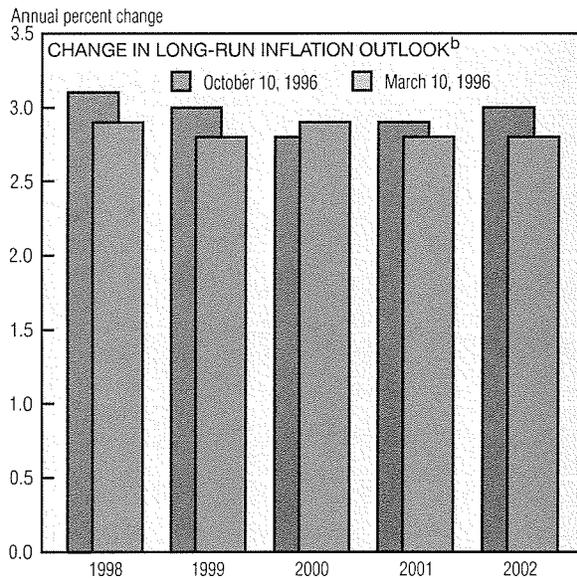
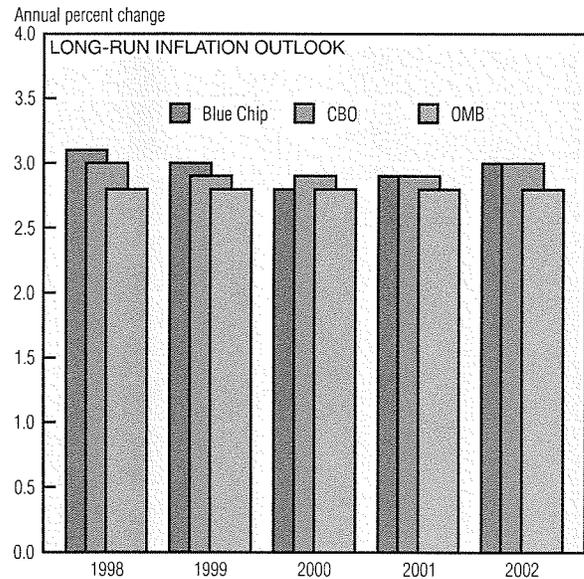
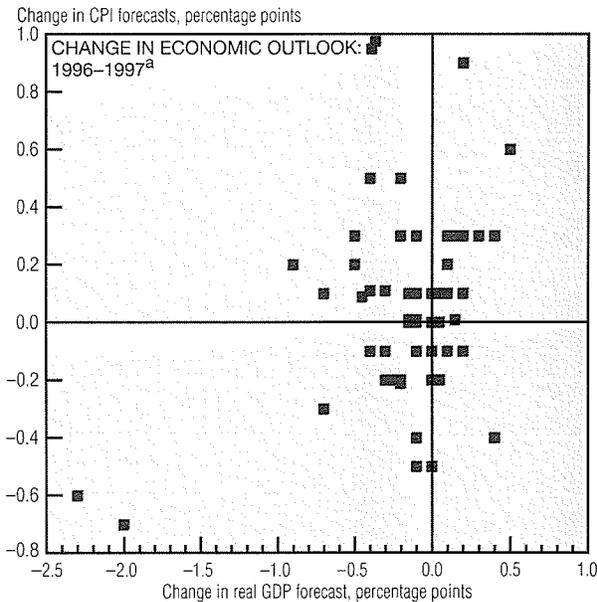
Economists generally agree that the CPI will remain at or very near 3% through the end of next year. Fewer than 40% foresee a CPI gain of less than 2.8% or more than 3.2% in 1997. Last January, about 30%

predicted a drop below the 2.8% level, and 34% expected a rise of more than 3.2%.

Economists look at several factors in ascertaining the economy's near-term inflationary course, but chief among them are the past stance of monetary policy and the degree to which economic resources are capacity constrained. The latest Blue Chip Survey reveals a wide range of opinions regarding the future path

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Inflation and Prices (cont.)



Most Serious Problems Facing the U.S. Economy Today^c (10=highly important)

	November 1995 survey	September 1996 survey
Growth in government spending; entitlements	8.5	8.2
Federal government debt; deficit	7.2	6.5
Trade deficit; value of the dollar; trade barriers	5.7	5.1
Interest rates; Federal Reserve policy	4.3	4.0
Inflation	3.1	3.9
Recession threat	3.7	3.4

a. Individual forecasts of the Blue Chip panel of economists, October 10, 1996.

b. Consensus forecast of the Blue Chip panel of economists.

c. Survey of the Blue Chip panel of economists.

SOURCES: *Blue Chip Economic Indicators*, October 10, 1996; and *Blue Chip Econometric Detail*, September 10, 1996.

of inflation and economic growth. About half of those responding to the October 10 poll see inflation accelerating in 1997, but of those, only about 40% expect the economy to grow at a faster rate. Of the economists who believe that inflation will moderate next year, most also see the economy slowing from its 1996 pace and, presumably, putting less strain on capacity. Only a small number of respondents anticipate both faster growth and lower inflation (6%).

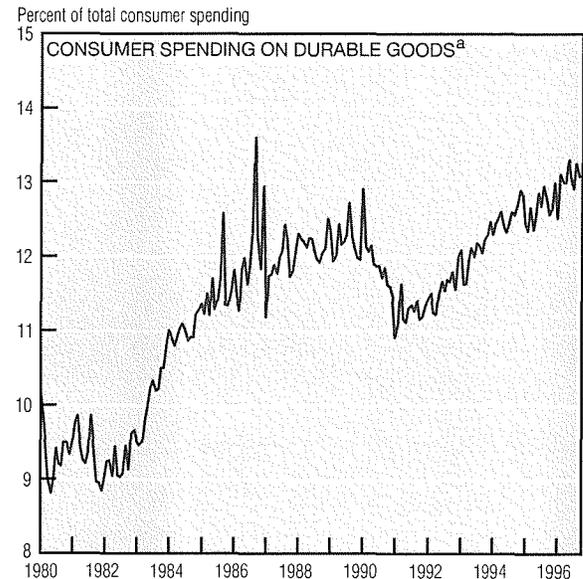
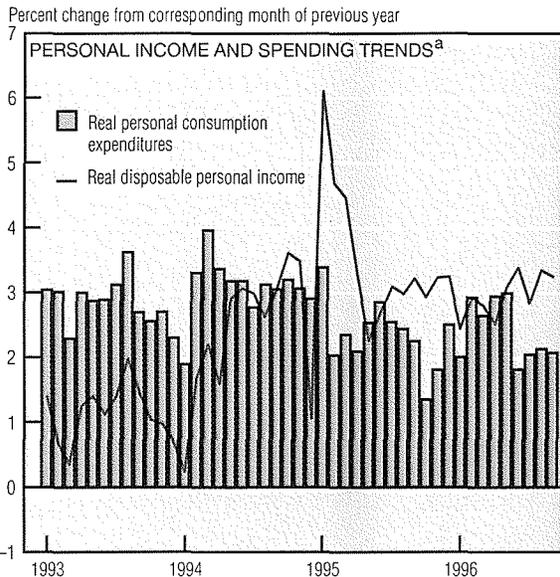
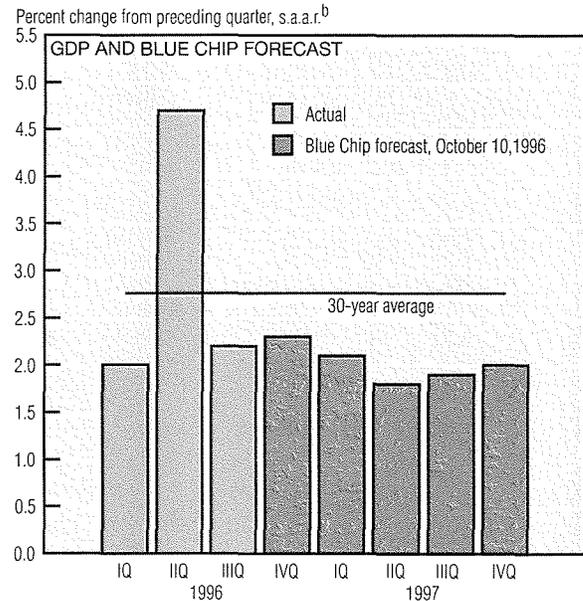
Over the longer term, economists generally believe that inflation is

predominantly the outcome of monetary policy. The most optimistic long-term outlook comes from the Office of Management and Budget (OMB), which projects a 2.7% increase over each of the five years spanning 1998 and 2002. Both the Congressional Budget Office (CBO) and the Blue Chip panel see inflation moderating slightly before showing a small rising trend between 2000 and 2002. Overall, the three groups expect that monetary policy will keep inflation in the 2½% to 3% range through 2002.

This is a slightly less sanguine long-term outlook than economists gave seven months ago. Indeed, in the past year, surveys of economists have listed inflation as an increasingly serious problem facing America, while the threat of economic recession is seen as having receded. Still, neither inflation nor a downturn in the business cycle appears high on the list of important concerns. Topping this year's list—as in 1995—is the growth in government spending and entitlements.

Economic Activity

	Change, billions of 1992 \$	Percent change, last:	
		Quarter	Four quarters
Real GDP	37.1	2.2	2.3
Consumer spending	5.2	0.4	2.1
Durables	-1.2	-0.8	4.3
Nondurables	-1.3	-0.4	1.0
Services	7.4	1.1	2.1
Business fixed investment	26.1	14.7	8.0
Equipment	25.1	18.9	10.3
Structures	1.5	3.3	2.0
Residential investment	-4.1	-5.7	5.8
Government spending	-4.5	-1.4	0.8
National defense	-4.1	-5.0	-1.2
Net exports	-17.5	—	—
Exports	1.2	0.6	4.6
Imports	18.7	8.3	7.6
Change in business inventories	32.5	—	—



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

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; and *Blue Chip Economic Indicators*, October 10, 1996.

According to initial Commerce Department estimates, the economy slowed to a 2.2% rate of growth in the third quarter, down from 4.7% in 1996:IIQ. Except for business fixed investment and the pace of inventory accumulation, most sectors weakened. Consumer spending was flat, while residential investment and federal government spending declined. Net exports continued to fall, a result of the relative strength of the U.S. economy.

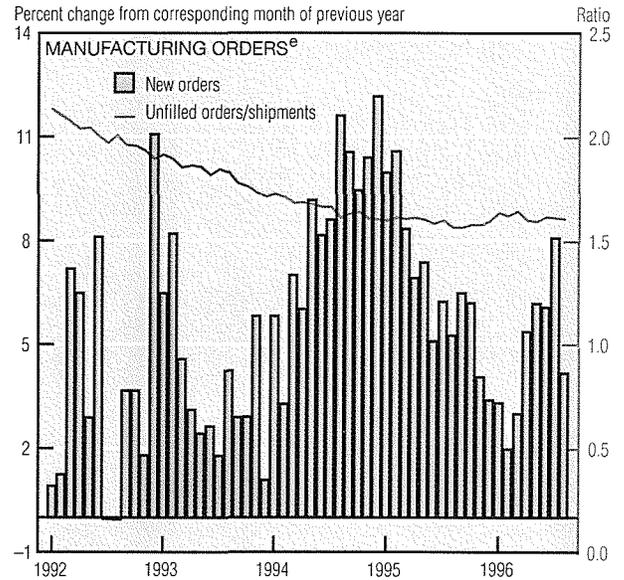
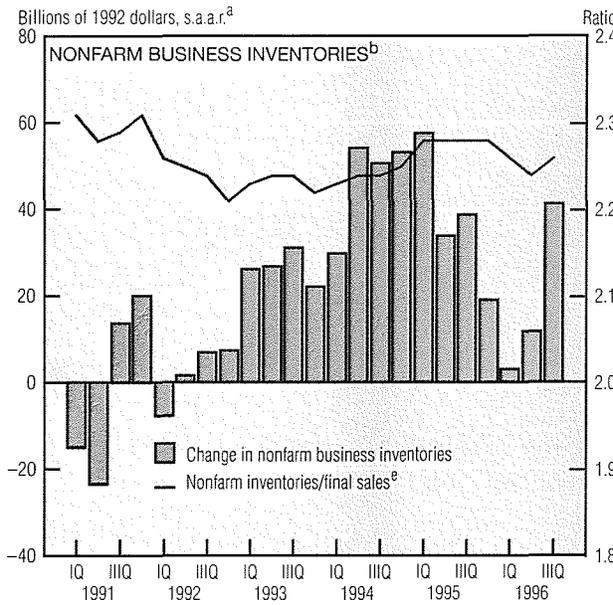
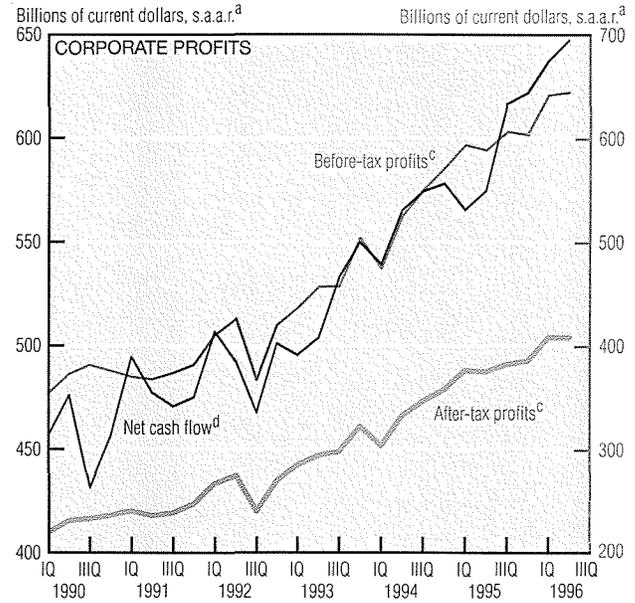
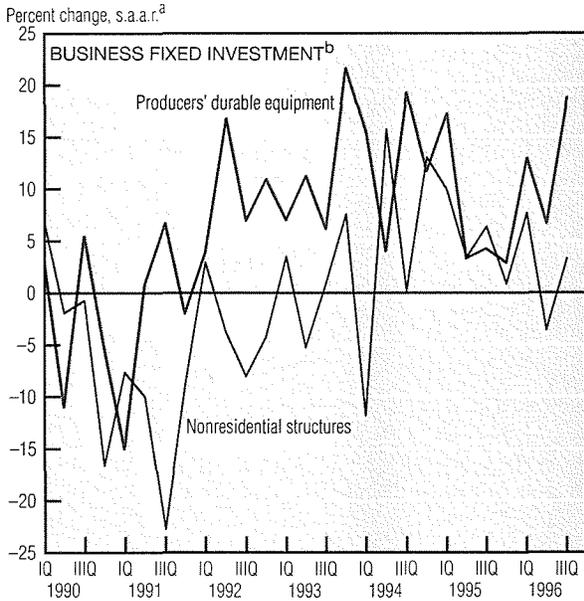
Economists generally expected this slowdown. Although growth of approximately 2.0% to 2.3% is below historical norms, it does not seem unusual given that the economy is operating at high levels of resource utilization and that productivity growth has declined over the past decade or so. Through 1997, forecasters expect output to remain in the 1.8% to 2.3% range.

Judging the economy's performance on a year-over-year rather than

a quarter-to-quarter basis probably gives a clearer picture of how various sectors are faring. From this perspective, the growth of consumer spending has matched the overall pace of the economy during the past four quarters. Consumers have tilted their purchases toward durable goods since 1991, with about 13% of their total expenditures now going for these items. Because durables

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Economic Activity (cont.)



a. Seasonally adjusted annual rate.
 b. Chain-weighted data in 1992 dollars, seasonally adjusted.
 c. Excludes inventory valuation adjustment.
 d. Includes inventory valuation and capital consumption adjustment.
 e. Seasonally adjusted.
 SOURCE: U.S. Department of Commerce, Bureau of the Census and Bureau of Economic Analysis.

typically provide households with a stream of services over many years, their purchase is somewhat analogous to savings. With real disposable personal income growing at a 3% clip and with consumer confidence holding steady, the outlook for this sector is favorable. Consumers may have pared their spending over the summer months to improve their balance sheets.

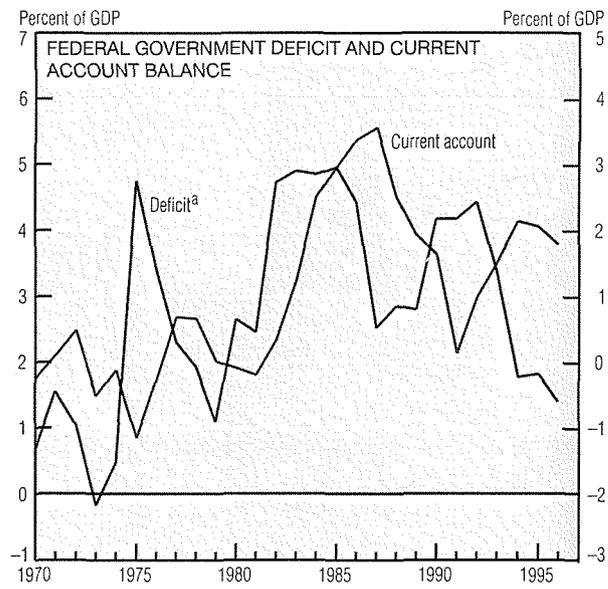
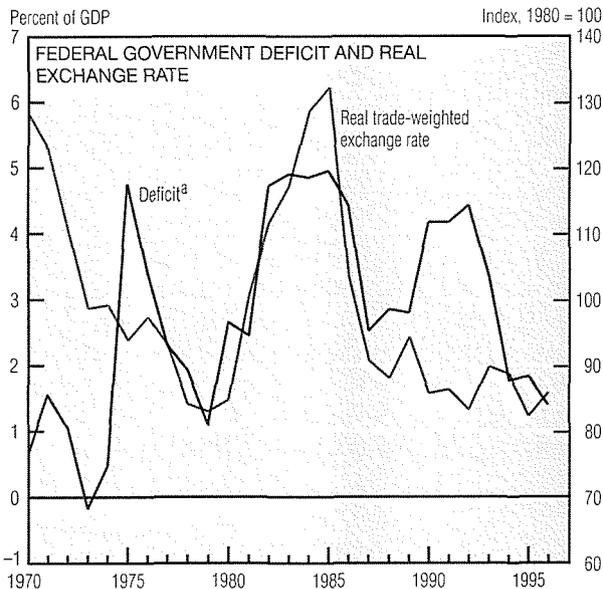
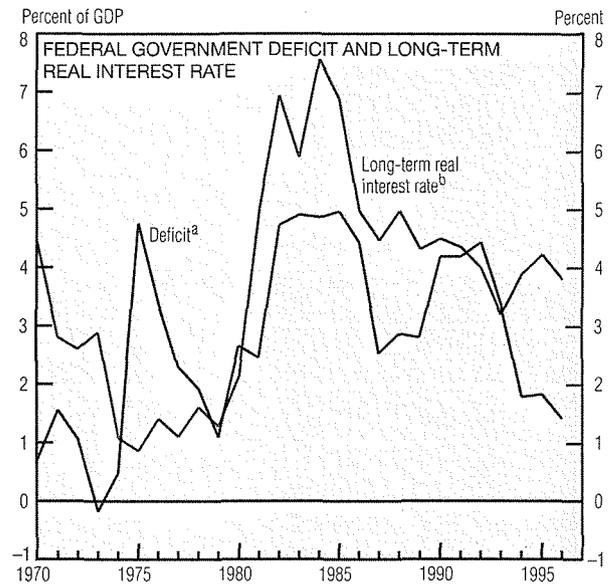
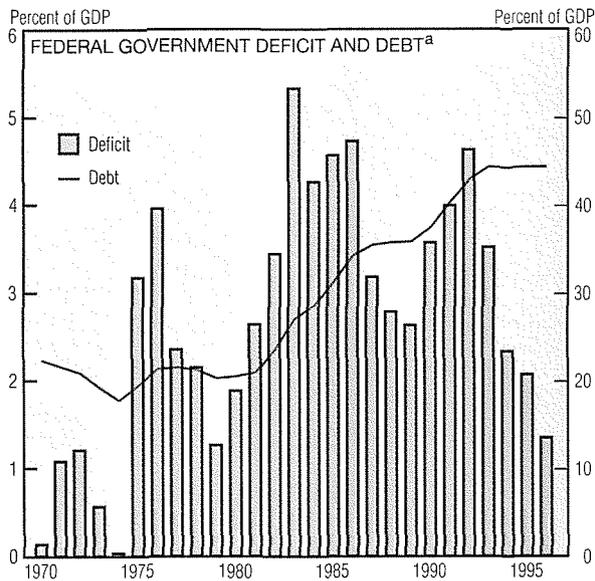
Business fixed investment remains strong, particularly in comput-

ers and transportation equipment, and healthy corporate profits and cash flow should continue to bolster this area. Residential investment also remains solid, notwithstanding the third-quarter downturn.

Despite an accelerated accumulation of nonfarm business inventories in 1996:IIIQ, stockpiling does not seem excessive. The ratio of total inventories to shipments has remained fairly flat over the past two years.

The industrial production index, which tracks output among the nation's manufacturers, utilities, and mines, has risen at a 5.7% annualized rate since January, with especially large gains in business equipment production. Although new orders for manufacturing declined in August, they increased a healthy 4.8% over last year. Advance estimates indicate that durable goods orders grew 5.9% on a year-over-year basis in September.

Federal Deficits and the Economy



a. U.S. federal government debt is debt held by the public less that portion held by the Federal Reserve System. Deficit is the year-to-year change in the federal government debt.

b. Calculated using the 10-year Treasury rate and the expected inflation rate from the Survey of Professional Forecasters.

NOTE: 1996 data are the average of the first two quarters.

SOURCES: Board of Governors of the Federal Reserve System, *Flow of Funds Accounts of the United States*; and the Federal Reserve Bank of Philadelphia, *Survey of Professional Forecasters*.

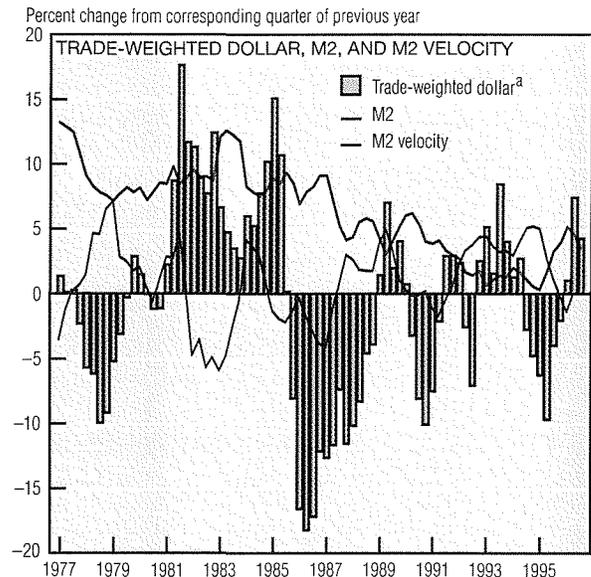
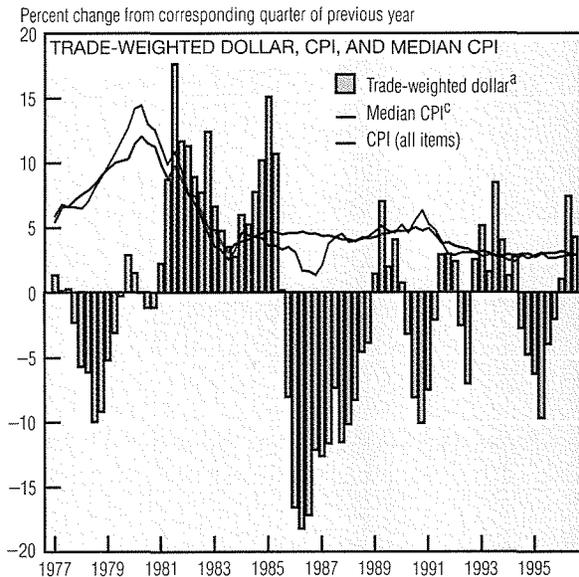
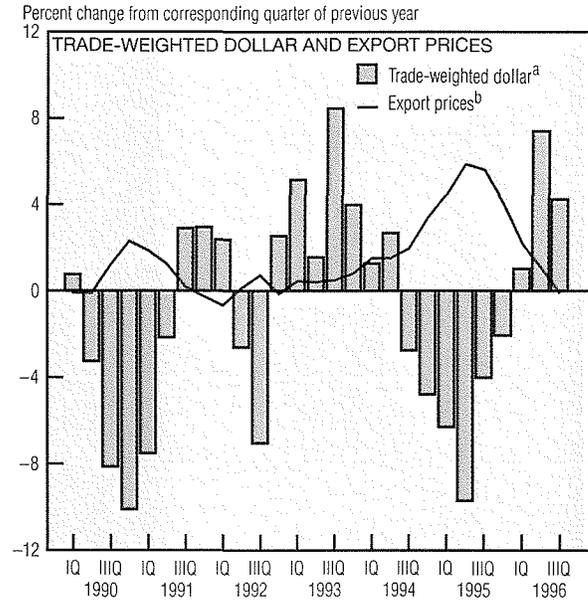
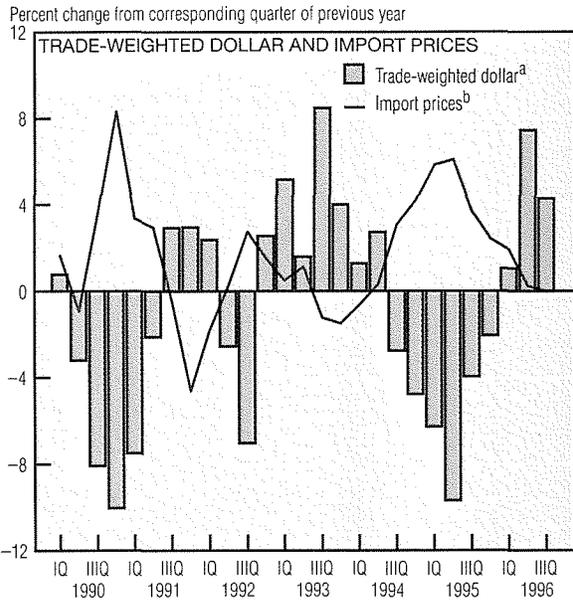
According to conventional wisdom, U.S. government budget deficits compete against private investment for a fixed supply of loanable funds. The resulting increase in real interest rates attracts foreign lenders, who bid up the dollar's exchange value in their zeal to acquire higher-yielding U.S. securities. A dollar appreciation results in a current account deficit, which is a necessary counterpart to an inflow of foreign savings (see page 19).

The problem with this accepted progression is that except for the fiscal expansion of the early 1980s, the relevant data do not seem to march in step. Statistical analyses of these connections also fail to offer unequivocal support.

An alternative way of examining fiscal policies focuses on how particular tax and spending programs influence savings, production, and work effort, rather than on the deficit per se. To illustrate this idea in the extreme, we could conceiv-

ably lower the deficit by raising taxes on capital gains, on the wealthiest individuals, and on payrolls, while simultaneously cutting expenditures for roads and ports. Although such policies might lower the budget deficit, they almost certainly would raise real interest rates by discouraging saving and hampering production. In this view, deficits become like shadows cast by more deep-seated and consequential fiscal distortions.

Exchange Rates and Inflation



a. Index, 1980=100.

b. Index, 1990=1.0.

c. Calculated by the Federal Reserve Bank of Cleveland.

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

When the dollar depreciates in the foreign exchange market, Americans must pay more for foreign goods. Although the price effects of exchange-rate changes can ripple through standard price indexes, under no circumstances can a dollar depreciation cause inflation.

Exchange rates never move on their own; rather, they respond as other economic events change the supply and demand for dollars. If the dollar depreciates because the Federal Reserve increases the money supply excessively, then the

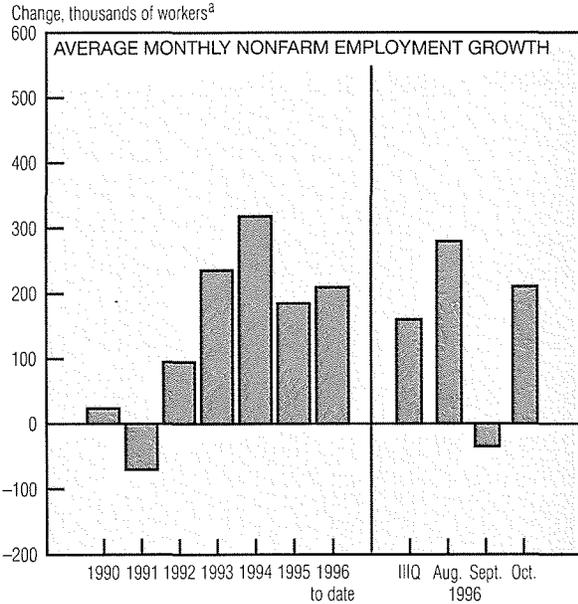
monetary expansion, not the accompanying dollar depreciation, is the cause of inflation.

If the dollar depreciates because foreigners—for whatever reason—buy fewer American exports, the price of U.S. imports will eventually rise. The increase in import prices, however, can be sustained only if some other prices fall, the money supply increases, or the velocity of money rises. The first condition is not inflationary and will only affect those aggregate price indexes that weight import prices more heavily

than the prices that fall. The second condition is also unlikely. If anything, the central bank will react to an unwanted depreciation by tightening—not easing—monetary policy. Finally, if higher domestic interest rates accompany a depreciation, velocity might rise. Evidence of such an effect is lacking, however.

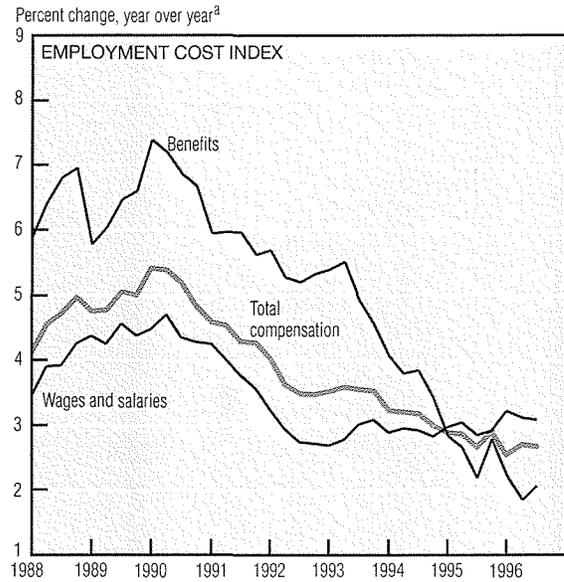
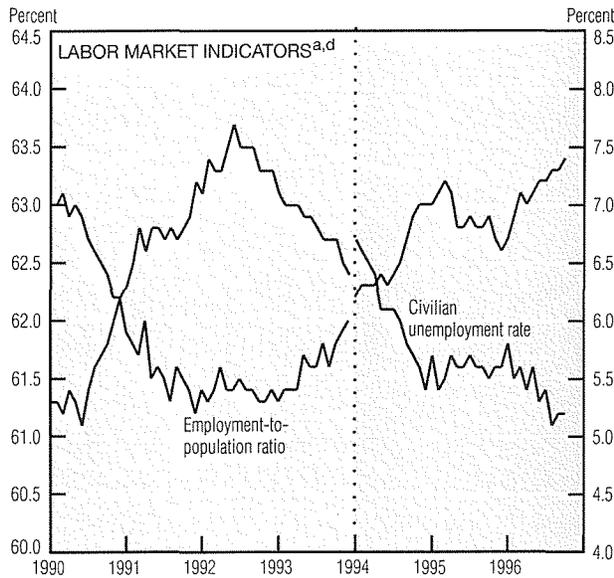
Inflation is a decline in the purchasing power of money that manifests itself in higher prices. Higher prices are not always evidence of inflation.

Labor Markets



Labor Market Conditions^a

	Average monthly change (thousands of employees)				
	1995	1996			
	Year	IIIQ	Aug.	Sept.	Oct.
Payroll employment	185	160	280	-35	210
Goods-producing	-5	-10	34	-53	17
Manufacturing	-12	-22	24	-59	6
Construction	9	15	10	8	10
Service-producing	190	170	246	18	193
Services	110	70	84	56	119
FIRE ^b	4	12	12	4	26
Retail trade	36	44	1	27	62
Government	9	31	122	-67	-40
Household employ.	34	253	171	313	259
Average for period					
Civilian unemployment rate (%)	5.6	5.2	5.1	5.2	5.2
Mfg. workweek (hours) ^c	41.6	41.7	41.7	41.8	41.6



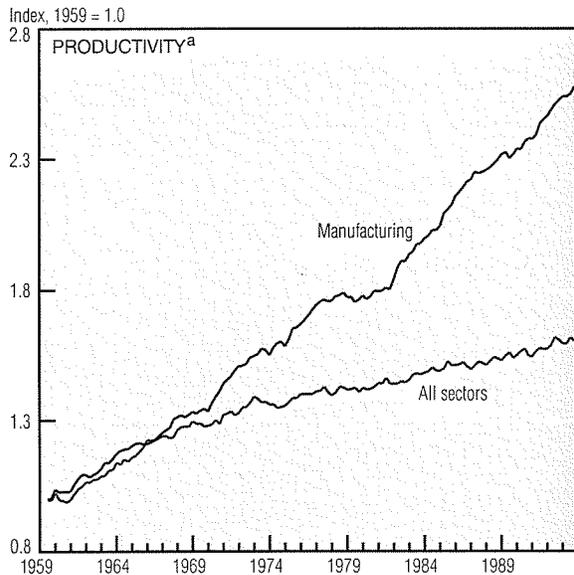
a. Seasonally adjusted.
b. Finance, insurance, and real estate.
c. Production and nonsupervisory workers.
d. Vertical line indicates break in data series due to survey redesign.
SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

After a slight decline in September, nonfarm payrolls rose by 210,000 in October, continuing the trend of moderate gains that began in 1995. The employment-to-population ratio remained essentially unchanged from September; however, it stands half a percentage point higher than a year ago. Unemployment held steady at 5.2%, compared to 5.5% in October 1995 and 5.6% during all of last year. In addition, the median duration of unemployment fell to 8.3

weeks from 8.9 weeks in September. The largest employment gains occurred in services, up 119,000, and retail trade, up 62,000. The government sector experienced the only decline for the month, dropping 40,000 jobs on the heels of September's 67,000 loss. Goods-producing industries added 17,000 jobs, a welcome turnaround after September's sharp 53,000 decline. There is little evidence of increasing wage growth, as base wages and salaries rose at an annual rate of

about 3.1% in the third quarter, compared to 3.2% and 3.1% in the first and second quarters, respectively. Growth in benefits has continued its general downward trend, with the annual rate of increase falling from more than 7% per year in 1990 to about 2% today. Total compensation growth retreated over the first half of the decade, but the slowdown seems to have moderated somewhat in recent months, averaging slightly more than 2.6% (annualized).

U.S. Productivity

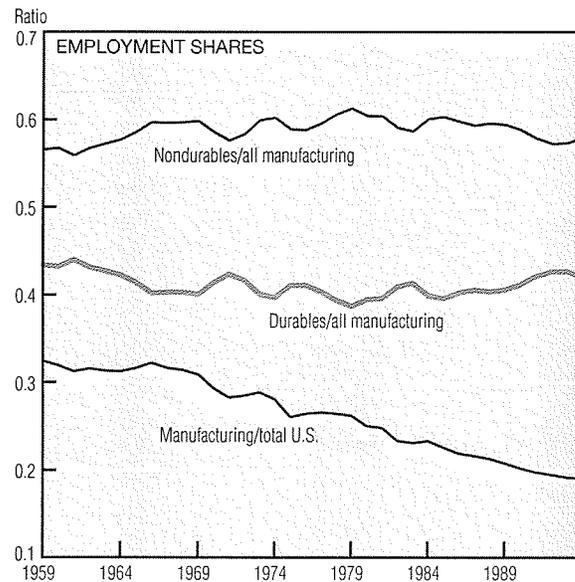


Average Annual Productivity Growth: Nondurables

(Percent)	1949-1994	1949-1973	1974-1994
Total mfg.	2.53	2.59	2.45
Nondurables	2.46	2.83	2.01
Food	2.59	2.75	2.39
Tobacco	2.32	2.98	2.09
Textiles	3.96	4.36	3.96
Apparel	2.42	2.08	2.83
Paper	2.55	2.95	2.08
Printing/publishing	1.30	2.05	0.41
Chemicals	3.01	4.41	1.33
Petroleum	3.30	4.36	2.02
Rubber/misc. plastics	2.21	2.61	1.73
Leather	1.77	1.74	1.80

Average Annual Productivity Growth: Durables

(Percent)	1949-1994	1949-1973	1974-1994
Total mfg.	2.53	2.59	2.45
Durables	2.69	2.66	2.73
Lumber	2.54	3.38	1.54
Furniture/fixtures	1.89	1.97	1.79
Stone/clay/glass	1.96	2.54	1.27
Primary metals	1.92	2.19	1.59
Fabricated metals	1.63	1.93	1.26
Industrial machinery	3.20	2.22	4.37
Electrical equip.	3.77	2.89	4.83
Transportation equip.	2.22	2.80	1.53
Instruments	3.76	3.52	4.05
Misc. mfg.	2.43	3.43	1.22



a. Seasonally adjusted. Productivity is defined as output per labor hour.
 SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; and U.S. Department of Commerce, Bureau of the Census.

Much has been made of the U.S. productivity slowdown, which began in the early 1970s. Productivity, or output per labor hour, grew at an average annual rate of about 2.3% from 1959 to 1973, but only around 0.8% from 1974 to 1993. The causes of this slowdown are unclear. Some economists point to the oil shock of 1973, measurement error, sectoral reallocation, and technological innovation due mainly to computers (since it takes time for workers to learn new techniques).

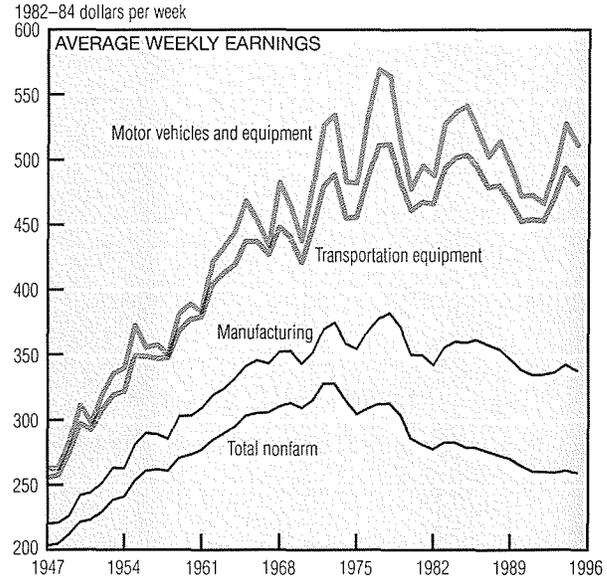
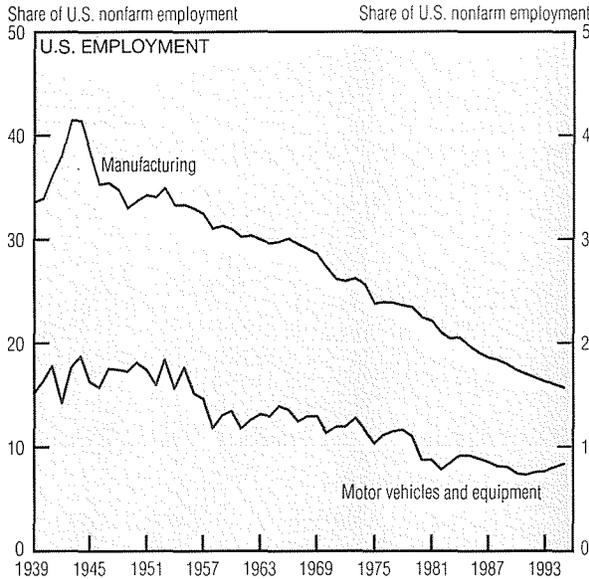
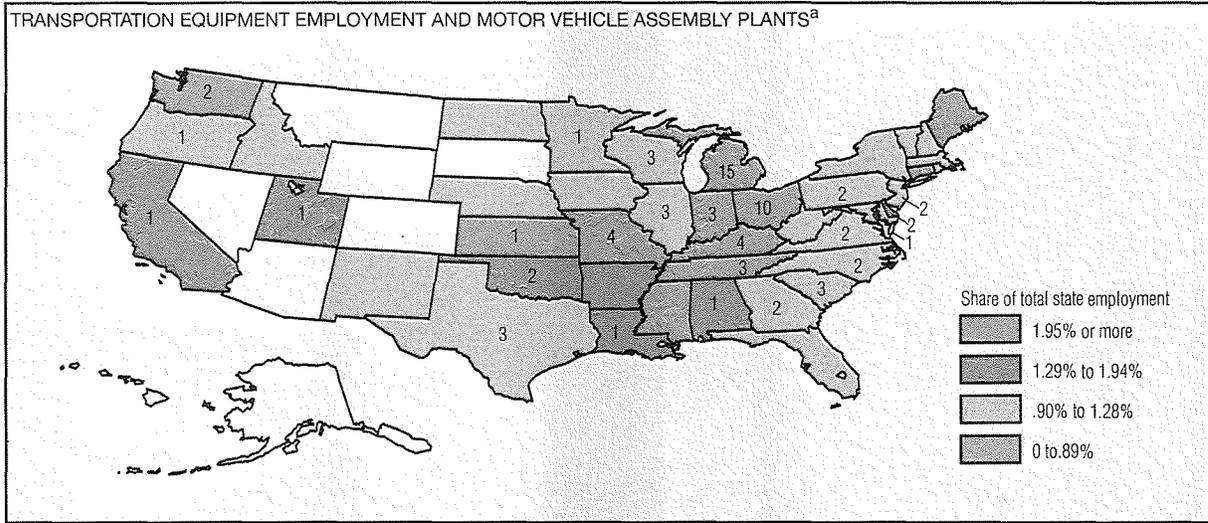
A further complication in pin-

pointing the source of the productivity slowdown is the lack of uniformity across sectors. For example, annual productivity growth in manufacturing remained steady, averaging about 2.6% between 1949 and 1973 and 2.5% between 1974 and 1994. Even within that sector there was substantial variation. Nondurables manufacturing exhibited a slight decline in productivity across the two periods, while durables showed a modest increase. A further breakdown indicates that large productivity gains occurred in industrial machinery, which includes computer

equipment, and electrical equipment. By contrast, growth in printing and publishing, chemicals, petroleum, and lumber increased by less than half in the latter period compared to the former.

Over the entire 44-year span, there was a substantial labor reallocation within the manufacturing sector as well as an overall downward trend in employment. A movement of labor to less productive sectors may partially explain the productivity slowdown.

The Auto Industry



a. Numbers indicate final assembly plants in state. Data are unavailable for Alaska, Arizona, Colorado, Hawaii, Montana, Nevada, South Dakota, and Wyoming.
 SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; and *Ward's Automotive Reports*, September 2, 1996.

With another round of negotiations between the major automakers and the unions winding down, a potentially large shock to Fourth Federal Reserve District employment appears to have been averted. Most auto production in the U.S. follows Interstate 75 south from Detroit through Ohio, Kentucky, Tennessee, and Georgia. Michigan and Ohio have the most final assembly plants, and parts producers are typically located nearby.

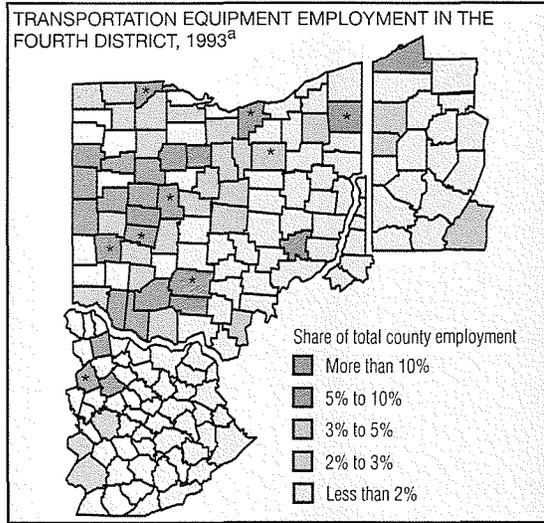
Like manufacturing employment, motor vehicle production represents a decreasing share of the U.S. employment base. Despite this trend, as of 1995 about 968,000 workers still had jobs in the industry, down only slightly from 1978's peak of over 1 million. With foreign automakers expanding their U.S. production and domestic companies recovering some of their market share, employment in the industry has ac-

tually expanded each year since 1991. Over the 1993-94 and 1994-95 periods, motor vehicle manufacturers added to their payrolls at the robust rates of 8.7% and 6.5%, respectively. During the same time, manufacturing employment remained about even.

Despite the flatness in manufacturing employment and the drop in real earnings in both manufacturing and total nonfarm employment over

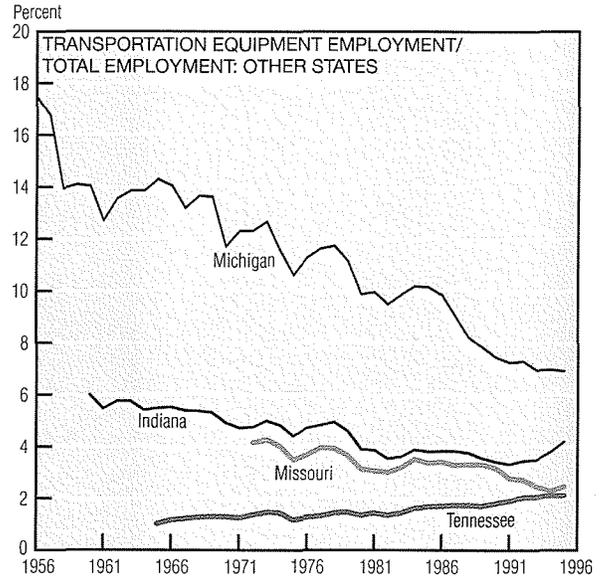
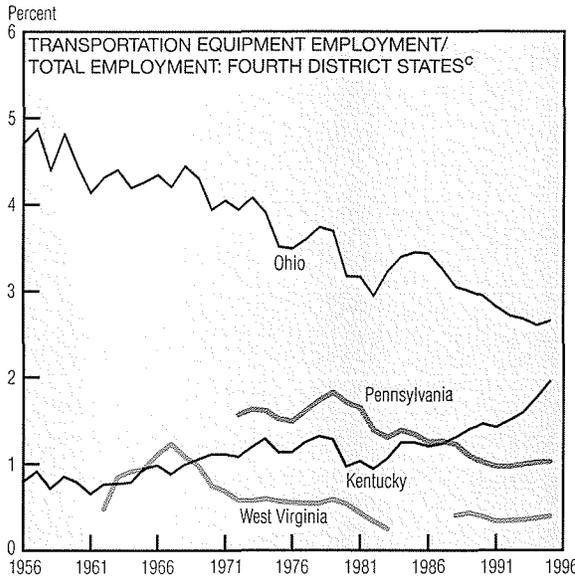
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The Auto Industry (cont.)



Fourth District Final Assembly Plants^b

Company	Location	Product
GM	Lordstown, OH	Cavalier, Sunfire
	Moraine, OH	Blazer, Jimmy, Bravada, postal vehicles
Ford	Avon Lake, OH	Villager, Quest
	Lorain, OH	Thunderbird, Cougar
Chrysler	Toledo, OH	Wrangler, Cherokee
Honda	East Liberty, OH	Civic, Acura CL
	Marysville, OH	Accord
Toyota	Georgetown, KY	Camry, Avalon



a. For some Fourth District counties, transportation equipment employment shares are based on the midpoint of the employment size class. Asterisks indicate final assembly plant(s) located within county.
b. Does not include medium or heavy trucks.
c. 1984-87 data for West Virginia are unavailable.
SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; County Business Patterns; and *Ward's Automotive Reports*, September 2, 1996.

the past 20 years, real earnings of workers in the motor vehicle and transportation equipment industries have remained relatively high. In fact, average weekly earnings in motor vehicles and equipment have exceeded those in transportation equipment as a whole, which includes aircraft production and shipbuilding.

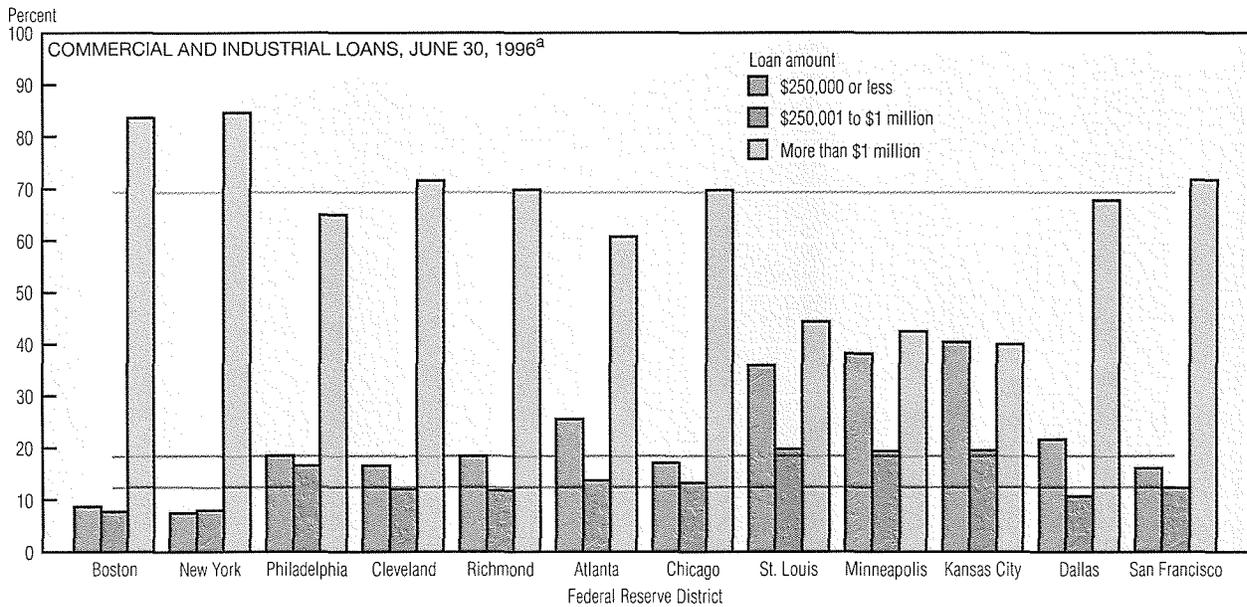
In the Fourth District, employment in the transportation equip-

ment industry is heaviest along the western border. Even though final assembly plants are found in only 10 Ohio counties, automotive parts suppliers are common and account for a large share of the District's auto industry employment.

Ohio leads the District in transportation equipment employment. Like the U.S., the state has seen employment in the industry decline as a share of total nonfarm employment,

but it has been able to keep employment levels stable at around 139,000. Michigan follows a similar pattern: Transportation equipment accounted for nearly 17.5% of total employment in 1956, but by 1995, that figure had plummeted to 7%. States that have been able to buck this trend, like Kentucky and Tennessee, have benefited from the automotive industry's move southward.

Banking Conditions



Commercial and Industrial Loans by Bank Size, 1996^b
(Percent)

Bank size (assets)	Number of banks	Loan amount			
		Less than \$100,000	\$100,000 to \$250,000	\$250,000 to \$1 million	More than \$1 million
\$0 to \$50 million	3,959	10.5	3.4	1.7	0.5
\$50 million to \$100 million	2,446	14.2	8.1	5.1	0.3
\$100 million to \$250 million	1,947	18.7	15.7	11.9	1.1
\$250 million to \$500 million	564	9.2	10.1	8.7	1.6
\$500 million to \$1 billion	249	6.3	7.1	6.8	1.9
\$1 billion to \$5 billion	250	12.9	18.4	20.1	12.0
More than \$5 billion	126	28.4	37.3	45.7	82.7
Total	9,541	100.0	100.0	100.0	100.0

a. Horizontal lines represent the distribution of loans in each category for the U.S. as a whole.

b. Totals may not sum due to rounding.

NOTE: Data are for commercial banks.

SOURCE: Board of Governors of the Federal Reserve System, Call Reports, June 30, 1996.

For many years, a distinct characteristic of U.S. banking regulations was the prohibition on interstate banking. In the mid-1980s, this tradition began to give way, generating a strong consolidation movement in the industry.

At the beginning of the century, most states required banks to operate as unit banks (that is, to have only one office). In time, some states began to allow intrastate branching, but retained the prohibition on interstate operations. These restrictions pushed the number of banks to a

post-Depression high of about 14,500 in 1984. Since then, the regulatory barriers on interstate banking have been falling one after another.

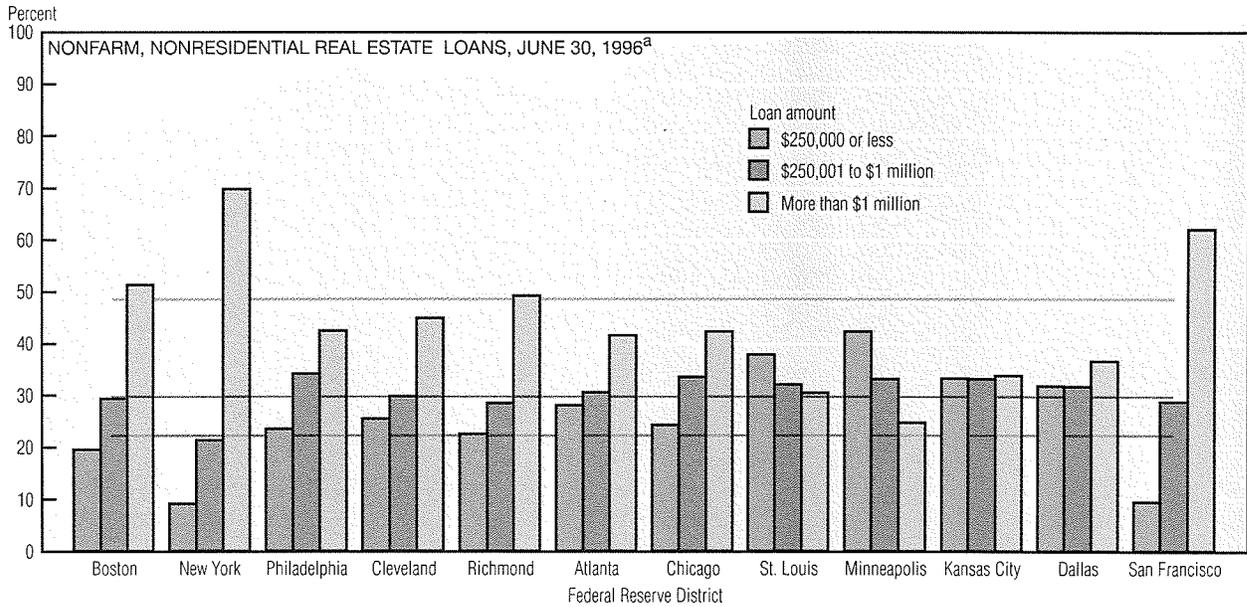
The first step in the interstate banking movement came when a few states began to allow out-of-state bank holding companies (BHCs) to acquire home-state banks. Then, in 1994 Congress passed the Interstate Banking and Branching Efficiency Act, which defined nationwide standards for a BHC to acquire a bank anywhere in the country and created the necessary conditions for BHCs to convert their bank subsidiaries into a

single network of branches.

In parallel with these regulatory changes, the number of banks dropped steadily, mainly because of increased merger activity. Between 1975 and 1984, a total of 2,571 mergers and acquisitions were recorded. Over the next 10 years, that figure jumped to 4,509. As a consequence, by 1995 there were fewer than 10,000 banks in the U.S. This consolidation greatly reduced the number of small banks and boosted the importance of the largest institutions.

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Banking Conditions (cont.)



Bank size (assets)	Number of banks	Loan amount			
		Less than \$100,000	\$100,000 to \$250,000	\$250,000 to \$1 million	More than \$1 million
\$0 to \$50 million	3,959	12.3	3.7	2.0	0.1
\$50 million to \$100 million	2,446	19.8	9.4	7.2	0.9
\$100 million to \$250 million	1,947	25.1	18.9	16.3	4.6
\$250 million to \$500 million	564	9.7	11.1	11.2	5.3
\$500 million to \$1 billion	249	6.3	8.3	8.5	5.4
\$1 billion to \$5 billion	250	10.4	17.6	19.3	19.2
More than \$5 billion	126	16.5	31.0	35.5	64.5
Total	9,541	100.0	100.0	100.0	100.0

a. Horizontal lines represent the distribution of loans in each category for the U.S. as a whole.
 b. Totals may not sum due to rounding.
 NOTE: Data are for commercial banks.
 SOURCE: Board of Governors of the Federal Reserve System, Call Reports, June 30, 1996.

Because large banks are able to make loans to any customer while small banks are limited to small business financing (because of their size and regulations governing individual risk exposure), the drop-off in the number of small institutions has raised concerns about the availability of small firm credit.

Available data confirm that most of the commercial and industrial (C&I) loans made by small banks go to small firms. However, large banks account for a greater share of small business financing. For example, as

of June 1996, about 67% of U.S. banks had assets below \$100 million. These institutions were responsible for about 25% of C&I loans below \$100,000 and for about 12% of loans with original amounts between \$100,000 and \$250,000. At the same time, the comparable figures for banks with assets above \$1 billion (less than 4% of the industry) were about 41% and 56%, respectively.

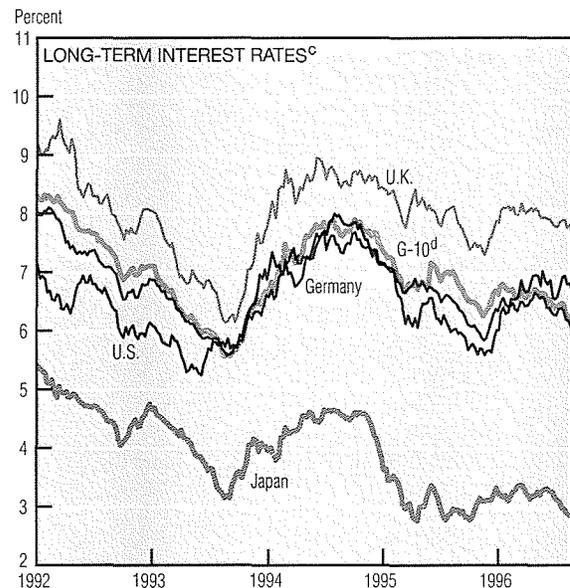
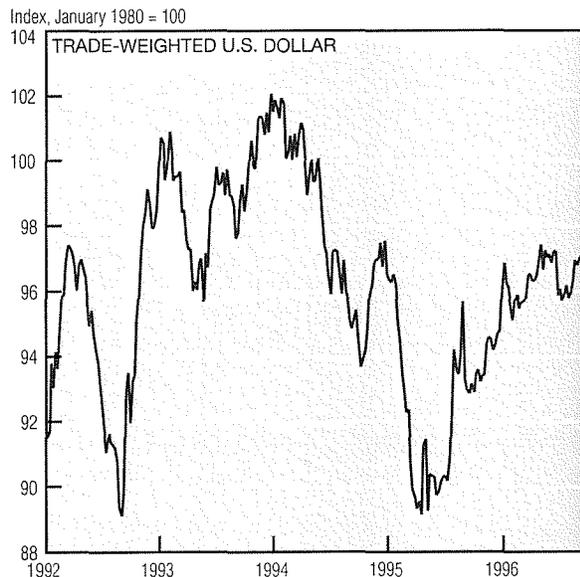
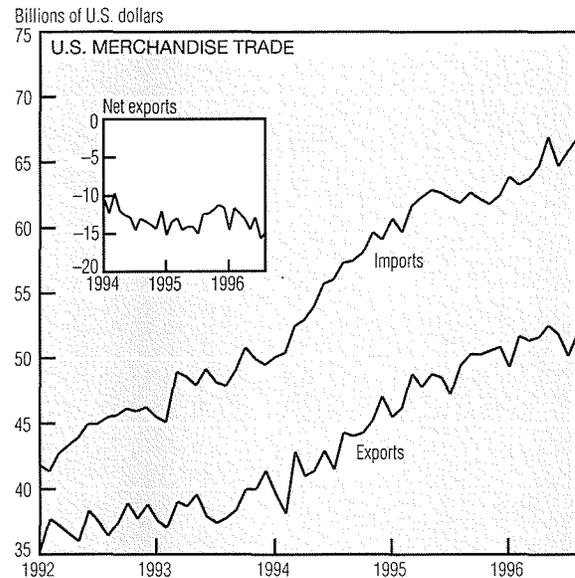
Similar patterns are present in nonfarm, nonresidential real estate lending. Small banks handled about 32% of loans below \$100,000 and

13% of loans between \$100,000 and \$250,000. For large banks, the comparable figures were 27% and 38%. To a certain extent, these figures should allay some of the concern that banking consolidation will reduce the funds available for small business loans.

Finally, note that in the Fourth Federal Reserve District, the proportion of C&I loans categorized as small is slightly below the U.S. average, but small real estate loans exceed the national norm.

International Developments

	Output and Inflation (Percent change, s.a.a.r. ^a)			
	Real GDP: 1996:IIQ		CPI: August 1996	
	Year over year	Change from previous quarter	Year over year	Change from previous month
U.S.	2.7	4.7	2.8	0.2
Germany	1.2	6.1	1.8	-0.1
Japan	2.6	-2.9	-0.1	-0.1
Canada	1.2	1.3	2.2	0.1
U.K.	1.7	1.5	3.4	-0.4 ^b
France	0.4	-1.5	1.7	-0.3



a. Seasonally adjusted annual rate.

b. Change from June to July 1996.

c. Weekly average of daily rates.

d. The foreign G-10 countries comprise Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, and the U.K.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census; U.S. Department of Labor, Bureau of Labor Statistics; Board of Governors of the Federal Reserve System; the Federal Reserve Bank of New York; and Citibank.

The economies of the U.S., Canada, Japan, and their major European trading partners grew at a slow to moderate pace over the past year. The U.S. fared best with an annual growth rate of 2.7%, while France saw the slowest growth at 0.4%.

Consumer prices also appear to be increasing moderately in both the European and North American countries. Inflation over the past year ranged from 1.7% in France to 3.4% in the U.K. The bunching of long-term interest rates from 6% to 7% in these nations suggests that market participants expect long-

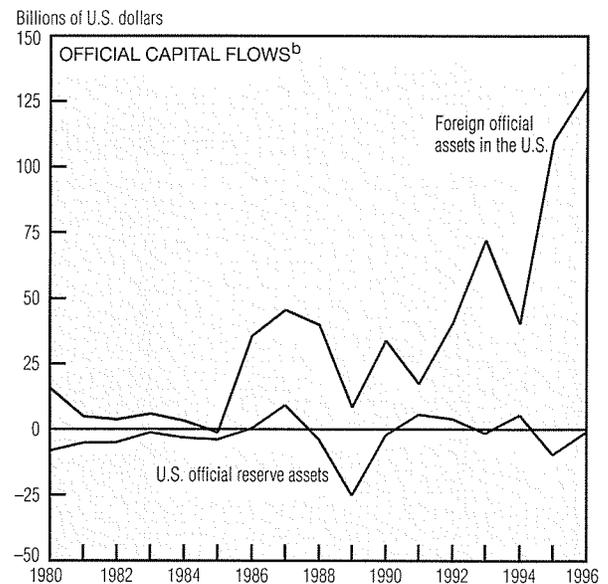
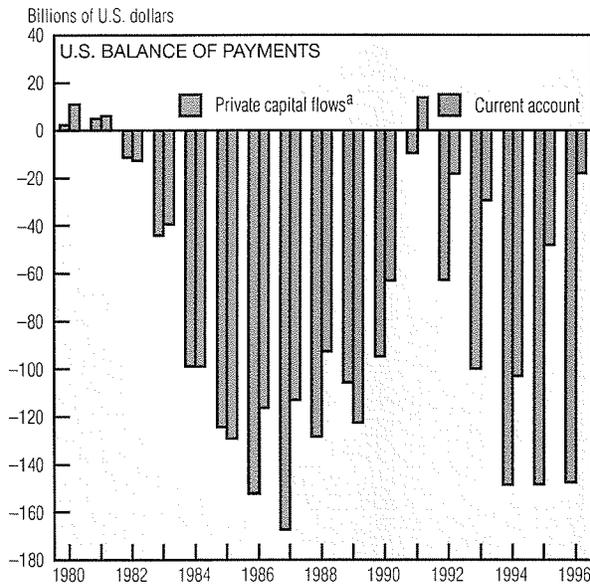
term inflation to remain in the 3% to 4% range. Consumer prices in Japan were nearly unchanged, falling a slight 0.1% since last year. Japan's long-term interest rate is nearly three percentage points below that of its trading partners, suggesting that consumer price increases will remain relatively low there.

In August, the U.S. trade deficit fell by \$0.7 billion, to \$15.6 billion. This slight decline was caused by a surge in exports of nearly \$1.8 billion. Imports continued their steady march upward, increasing nearly \$1 billion. Despite the moderate narrowing in

the trade deficit over the past month, the long-term trend toward ever-larger deficits continues. On a trade-weighted basis, the dollar appreciated slightly in mid-October (up 0.3%), remaining little changed from January.

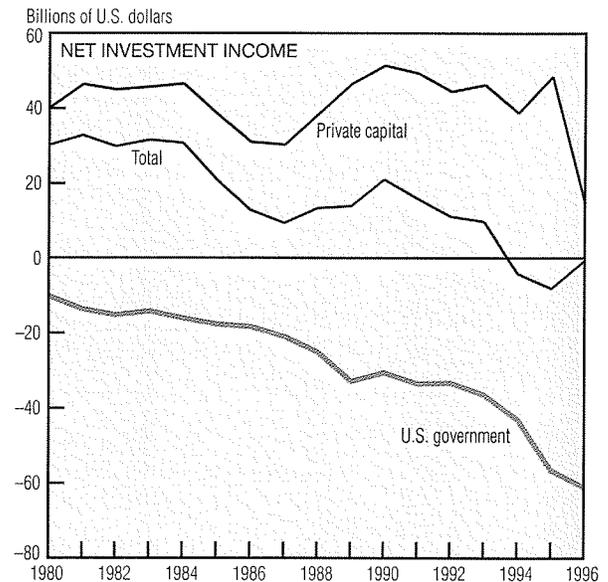
Through the first two quarters of 1996, the U.S. current account deficit was running at a \$147 billion annual rate. A country running a current account deficit essentially borrows output from the rest of the world to finance its own consumption and investment. To finance its
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International Developments (cont.)



U.S. Current Account: Saving and Investment (Percent of GDP)

	1993	1994	1995	1996
Gross saving	14.3	15.2	15.6	16.4
Private	14.7	14.5	14.5	15.1
Government	-0.4	0.7	1.1	1.4
Foreign capital inflow ^c	1.5	2.1	2.0	2.0
Gross domestic investment	16.5	17.7	17.4	17.6
Statistical discrepancy	-0.7	-0.4	0.2	0.8



a. Private capital flows have signs reversed and include the statistical discrepancy as unrecorded capital flows. Positive values represent a capital outflow.

b. Positive values represent a capital inflow.

c. Foreign capital inflows are the current account deficit with the sign reversed.

NOTE: All 1996 data are annualized averages of the first two quarters.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; and the Federal Reserve Bank of New York.

imports, the U.S. must export financial assets—claims on our nation's future productivity—resulting in a net inflow of foreign capital. Indeed, a net private capital inflow of \$17.8 billion has accompanied this year's buildup in the current account deficit. However, the majority of the requisite net capital inflow has occurred as foreign governments have added \$130 billion (annualized) to their official holdings.

A country's ability to service these future claims without suffering a decline in its own standard of

living depends on whether it borrows to finance consumption or investment. The dramatic difference between the current account deficit and private capital inflows suggests that our current account deficit is not supporting higher U.S. private investment. Instead, the rate at which foreign governments have added to their holdings of U.S. government securities indicates that our trade deficit is primarily supporting domestic government spending. Whether this results in a decline in our future living standard hinges on

whether the increased government borrowing is financing government consumption or investment, such as public infrastructure.

Despite years of increased borrowing from abroad, total net investment income was positive prior to 1994; that is, we earned more from our offshore investments than foreigners earned from their investments in the U.S. Recently, however, the long-awaited payback has started, as total net investment income has turned slightly negative.