of women in the labor force. Over the past decade, women have accounted for 62 percent of total labor force growth. Increasing labor force participation of women has not led to large increases in unemployment rates for either men or women, and has made an important contribution to growth of real per capita income. Because many women now plan longer careers and acquire the requisite education, experience and skills, wages of women relative to those of men have been rising in the 1980s. These developments testify to the flexibility of U.S. labor markets and to the capacity of the market-oriented U.S. economy to generate productive and rewarding jobs for an expanding labor force.

THE U.S. ECONOMY IN 1986

Economic growth proceeded at a moderate pace in 1986, while significant declines were recorded in both the inflation rate and interest rates. Between the fourth quarter of 1985 and the fourth quarter of 1986 (preliminary estimate), real GNP rose by 2.2 percent. While the unemployment rate declined by only 0.3 of a percentage point during the year and remained relatively high by postwar standards, the employment-population ratio for persons over 16 years of age reached a new postwar peak of 61.3 percent at the end of 1986. Given the impact of declining oil prices, the inflation rate, measured by the consumer price index (CPI), turned negative in the first quarter. Over the entire year, the CPI rose by only 1.1 percent, the lowest inflation rate in more than 20 years. Nominal interest rates fell sharply early in the year and by yearend were near their lowest levels for the year and since 1977.

COMPONENTS OF DEMAND

On the demand side, real GNP may be decomposed into real consumption spending, real investment spending, real government spending, and real net exports. Strong growth of real consumption spending was the driving force behind demand growth for most of 1986. Real consumption spending rose at a 4.0 percent annual rate in 1986, fourth quarter to fourth quarter.

After rising nearly $14 billion in the fourth quarter of 1985, real nonresidential fixed investment declined by $19 billion in the first quarter of 1986 and then fell an additional $6.8 billion in the next three quarters. Real residential investment grew strongly, recording a 9.8 percent increase during the year. The continuing congressional debate over tax reform and final passage of the Tax Reform Act of 1986, together with the effect of lower oil prices on the domestic energy industry, apparently affected the pace and pattern of invest-
ment spending in 1986. Anticipated repeal of the investment tax credit, with an effective date of January 1, 1986, may have contributed to the sharp rise in real nonresidential fixed investment in the fourth quarter of 1985 and to its decline in the first quarter of 1986. The likelihood of an increase in business taxes and uncertainty about the final shape of tax reform may have helped to depress this category of real investment spending for the remainder of 1986. Lower mortgage interest rates contributed to strong growth of residential investment during 1986.

Real purchases by State and local governments grew 4.6 percent during 1986. Real Federal purchases followed a somewhat erratic path primarily because of fluctuations in defense purchases and purchases by the Commodity Credit Corporation, and ended the year 1.8 percent above their level in the fourth quarter of 1985. Overall, growth of real government purchases contributed 0.7 percent to real GNP growth in 1986.

Real net exports of goods and services improved by $6.1 billion in the first quarter of 1986, and then declined by $28 billion in the second quarter and by a further $9.4 billion in the third quarter, before recovering by $7.7 billion in the fourth quarter. Net exports in nominal terms showed much less deterioration during 1986 than real net exports. Specifically, between the fourth quarter of 1985 and the third quarter of 1986, real net exports declined by $31.3 billion of 1982 dollars, while nominal net exports declined by only $3.6 billion of current dollars. The reason for this difference is the low relative price of imports and the further decline in this relative price during 1986, attributable primarily to the decline in the price of imported oil.

THE OIL PRICE DECLINE

Probably the most important special factor affecting the U.S. economy in 1986 was the sharp drop in world oil prices, which was promptly reflected in domestic oil prices. Between November 1985 and April 1986, the spot price of West Texas Crude fell from $30.90 to $13.75 per barrel. A further $2.45 per barrel decline in domestic oil prices occurred between April and July, before prices recovered to $17.60 per barrel in December. The sharp decline in oil prices had pronounced adverse effects on the domestic oil and gas industry. Real investment in this industry declined by more than $10 billion in the first half of 1986, accounting for more than half of the decline in real business fixed investment. Employment in the domestic oil and gas industry fell by nearly 150,000, mainly in the first half. Further employment losses occurred in regions heavily dependent on the oil and gas industry.
For the rest of the economy, the decline in oil and gas prices had important beneficial effects. The CPI fell at an annual rate of 4.3 percent between January and April, the first significant decline in this index since 1954. The decline in consumer prices was clearly attributable to lower oil and gas prices, because the CPI excluding energy rose at an annual rate of 2.9 percent between January and April. The decline in consumer prices contributed to strong gains in real disposable personal income that, in turn, fueled the strong growth of consumer spending, which was the mainstay of overall economic growth.

The fall in oil prices, inflation, and inflationary expectations also played a critical role in the sharp decline in nominal interest rates. Interest rates on 10-year Treasury securities fell from 9.26 percent in December 1985 to 7.30 percent in April 1986, and declined a further 19 basis points by yearend. Interest rates on 91-day Treasury bills fell somewhat less, moving down from 7.10 percent in December 1985 to 6.06 percent by April 1986 and to 5.53 percent by yearend. The sharp decline of interest rates spread rapidly to mortgage interest rates.

Assuming no further substantial change in domestic oil prices, most of the negative effects of lower oil prices have probably been absorbed, while the beneficial effects are yet to be fully realized. Lower energy costs will contribute to lower production costs in many important domestic industries. Productivity growth may be enhanced in the long run as firms adopt more efficient energy-using technologies, partially reversing the adverse productivity effects of higher energy prices in the 1970s.

SECTORAL PERFORMANCE

The effects of economic advance were widespread across industries and regions. Output expanded at about the same rate in goods-producing and service-producing industries. Industrial production data show increases in output in 18 of the 28 major industries for which results are reported. Because of strong productivity gains in manufacturing industries, however, employment increases were concentrated primarily in service-producing industries.

The relative constancy of the share of manufacturing in total output, combined with a declining share of manufacturing in total employment, is a longstanding phenomenon. It does not reflect a long-term weakness in the growth of output of manufacturing industries relative to the total economy. Rather, it reflects the general tendency (discussed later in this chapter) for labor productivity growth in manufacturing to exceed labor productivity growth for the rest of nonfarm business.
For analytical purposes, this phenomenon is most appropriately as-
 slated by comparing the behavior of the ratio of value added in man-
ufacturing to real nonagricultural gross domestic product (GDP) with
the ratio of manufacturing employment to nonfarm employment, as
illustrated in Chart 1-1. Data for value added by industry, which are
available annually through 1985, were used to construct the chart.
Data on final expenditure by sector, which are available quarterly
through 1986, confirm the general relationship illustrated in Chart 1-
1. Specifically, in 1986, when labor productivity growth in manufac-
turing remained substantially above that in total nonfarm business,
the share of final expenditures on goods output (which are dominat-
ed by manufacturing) remained essentially constant, while the share
of manufacturing in nonfarm employment continued to decline.

Chart 1-1
Manufacturing Shares in Real GDP and Employment

- Manufacturing as percent of nonfarm payroll employment.
- Manufacturing as percent of real gross domestic product less agriculture, forestry, and fisheries.
Sources: Department of Commerce and Department of Labor.

REGIONAL DEVELOPMENTS

While GNP data are not available on a regional basis, data on em-
ployment by State provide a reasonably good impression of the re-
gional economic performance of nonagricultural business. The re-
gional pattern of employment gains for 1986 is illustrated in Chart 1–2. The chart is constructed using data from the establishment survey on employment in nonfarm business by State. The change in employment from the same month a year ago is used to control for seasonal factors, and the results for the 3 most recent months for which data are available (September, October, and November) are averaged in order to limit the effects of sampling error.

In 39 States and the District of Columbia, increases in employment were recorded for the period covered by Chart 1–2. In 36 States, employment increased by at least 1 percent, and in 24 States, employment increased by at least 2 percent. In 11 States, employment fell and in 6 States the decline in employment exceeded 1 percent. Not surprisingly, States where the oil and gas industry is important, Alaska, Louisiana, Oklahoma, Texas, and Wyoming, are among those that recorded significant employment losses. If Chart 1-2 were extended to cover the period since the last cyclical peak (July 1981 to November 1986), employment gains would be shown in all but 5 States. Employment gains of 10 percent or more would be shown in
24 States and gains exceeding 5 percent would be shown in 40 States.

Widespread employment gains across most of the country do not imply an absence of economic problems in some industries and regions. Agriculture, mining, the oil and gas industry, and other trade-sensitive industries have experienced problems for some time, and particularly for the oil and gas industry, these problems have recently deepened. In areas heavily dependent on declining firms and industries, economic problems have spread to the support and service industries. However, assertions that the United States is becoming a "bicoastal economy" with broad areas of economic depression across the Nation's midsection, are greatly exaggerated. Economic progress has been widespread. Remaining economic problems tend to be concentrated in particular industries and in specific areas of the country.

THIS EXPANSION IN THE POSTWAR CONTEXT

The performance of the U.S. economy in 1986 should be assessed in the broader context of the current expansion, in comparison with economic performance in other industrial countries, and with earlier postwar expansions in the United States. Viewed in this context, it is important to note that despite a moderate pace of overall growth since mid-1984 and continuing problems in some sectors, steady progress has been made in reducing inflation and interest rates. The foundation for sustainable real economic growth, with continued moderate inflation, has been strengthened.

In other leading industrial countries, substantial progress has also been made in reducing the rate of inflation during the 1980s. As is discussed in Chapter 3, however, other industrial countries have generally recovered less strongly from the worldwide recession of the early 1980s than has the United States. This is especially the case when recovery is calibrated in terms of growth of real domestic demand, which measures total real spending by the residents and government of a country. Moreover, the deterioration of U.S. real net exports during the current expansion contributed significantly to economic growth in other countries, while limiting real GNP growth in the United States. In contrast, during earlier postwar expansions, growth rates of real GNP in most other industrial and in many developing countries typically exceeded the U.S. growth rate.

Comparison of unemployment rates in the United States and Western Europe dramatically illustrates the relative strength of U.S. economic performance during the current expansion. At 6.6 percent, the total U.S. unemployment rate remains relatively high by postwar standards, but is well down from its cyclical peak of 10.7 percent in December 1982. In Western Europe, unemployment rates typically
ran well below U.S. rates during the 1960s and 1970s. During the
1980s, despite recovery from the recession of 1980-82, the average
unemployment rate in the major countries of the European Commu-
nity has risen persistently, reaching 12 percent in early 1986.

The situation in the U.S. economy today should also be compared
with that prevailing at similar stages of earlier postwar expansions. In
the later stages of the long expansion of the 1960s, real growth re-
mained strong. However, after the slowdown in 1967, the inflation
rate and interest rates (although still low by recent standards) re-
sumed their upward movement. Tightening of monetary and fiscal
policy undertaken to curb rising inflation at the end of the expansion
of the 1960s probably contributed to the recession of 1969-70. The
expansion that began in 1970 was barely a year old when rising infla-
tion and a deteriorating balance of payments led to the imposition of
price and wage controls and to devaluation of the dollar. With the
removal of controls, the inflation rate and interest rates rose in 1973,
exacerbated at the end by the surge in world oil prices. Shortly there-
after, the economy collapsed into one of the deepest recessions of
the postwar period.

In the recovery from the 1974-75 recession, the inflation rate and
interest rates continued on a downward path for the first six quarters
of the expansion, and short-term interest rates kept falling for an ad-
ditional two quarters. However, by the fourth year of the expansion
(comparable to 1986 during the current expansion), the inflation rate
and short-term interest rates were more than 3 percentage points
above their minimum levels for the expansion, and this was before
the second oil price shock (in early 1979) contributed to a further
upsurge of inflation and interest rates.

This expansion ended in a double crescendo of rising inflation and
interest rates and falling economic activity. The tightening of mone-
tary policy in late 1979 and early 1980 and the brief recession in
1980 brought only temporary respite from high inflation and interest
rates at the cost of a sharp rise in unemployment. Following the re-
acceleration of monetary growth in mid-1980, the inflation rate and
interest rates rose to new peaks in 1981, while economic activity col-
lapsed into a deep recession.

Fortunately, the cure applied in 1981 proved more enduring, even
if more painful, than that attempted and aborted in 1980. Average
annual real GNP growth during the first 4 years of the current ex-
ansion has been 0.7 of a percentage point below that for the 4 years
from 1975 to 1979 (4.0 versus 4.7 percent). However, the inflation rate
and interest rates have continued to decline during the current expan-
sion, in contrast with behavior in the late 1970s. Currently, there are
no signs of the developments associated with the unfortunate conclusions of earlier expansions. The destructive sequence of business cycles with progressively rising inflation rates and interest rates, punctuated by severe recessions, has been broken. With appropriate macroeconomic policies, the U.S. economy need not suffer, once again, the painful process of wringing entrenched inflation out of the economic system.

RELATIVE PRICES AND STRUCTURAL CHANGE

The 1970s and 1980s saw not only wide swings in the overall rate of price inflation, but also dramatic movements in relative prices among important sectors of the economy. Such relative price movements are generally associated with important structural changes and with adjustment problems for particular sectors of the economy. Sectors experiencing relative price increases usually enjoy rapidly growing output and employment with rising incomes and asset values, while sectors facing relative price declines often suffer stagnating output and employment with falling incomes and asset values.

Movements in relative prices for several important sectors of the U.S. economy over the past 30 years are illustrated in Chart 1–3. For each sector, the relative price is the ratio of that sector's implicit price deflator to the implicit price deflator for total GNP. The important message conveyed by Chart 1–3 is that relative price movements have been much larger in the 1970s and 1980s than they typically were between 1955 and 1970.

RELATIVE FARM PRODUCT PRICES

After 15 years of modest fluctuations, the relative price of farm products rose sharply in the early 1970s, declined substantially in the mid-1970s, and then rose again until 1979, as shown in Chart 1–3 (top panel). Since 1979, the relative price of farm products has been on a declining path, and in 1986 was below the 1955–70 average. These movements in the relative price of farm products in the United States were correlated with similar relative price movements in world markets.

The rise in the relative price of farm products in the 1970s was associated with substantial gains in real farm incomes and large increases in the real value of farmland. This development encouraged large-scale and sometimes excessive borrowing to finance purchases of farm equipment and farmland. With the decline of the relative price of farm products in the 1980s, however, farm incomes and land values fell. Many farmers who borrowed heavily in the late 1970s...