

## CHAPTER 2

# Economic Developments and Prospects

AFTER ALMOST 8 YEARS of expansion, the economy entered a recession during the latter part of 1990. In the fourth quarter of the year, real gross national product (GNP) registered its largest decline since 1982, and industrial production fell sharply. The downturn was caused in large part by the economic effects of Iraq's invasion of Kuwait. That caused a jump in oil prices and directly reduced business and consumer confidence. Those factors, coupled with continuing uncertainty about the timing of the resolution of the crisis, dealt a substantial blow to an economy already sluggish from other factors. These included worldwide increases in interest rates, unexpectedly tight credit conditions, and the lingering effects of a tightening of monetary policy from early 1988 through mid-1989 that was undertaken in a successful attempt to prevent an increase in inflation.

Several factors suggest that the economic downturn is not likely to last long and that a recovery will begin by the middle of 1991. Inflation, after adjusting for the temporary impact of the oil price increase, remained under control during 1990 and slowed at the end of the year, giving the Federal Reserve greater latitude to mitigate the recession without causing an increase in inflation expectations. The prospect for export growth continues to be strong. Inventories remain relatively low, suggesting that firms need not cut production as much as in previous recessions to reduce inventory levels. Interest rates declined toward the end of the year following passage of the new budget law, an easing of monetary policy, and the decline in economic activity. Lower interest rates stimulate credit-sensitive sectors of the economy and, after a lag of several quarters, will increase growth.

The Administration forecasts that growth will be 0.9 percent over the four quarters of 1991. It is expected that the downturn will continue through the first part of 1991 and the recovery will begin around the middle of the year. If the Administration's proposed policies are enacted, the long-term economic outlook is good. Growth should strengthen in 1992 and remain well above the rates of the past 18 months through the mid-1990s. Inflation and interest rates are projected to decline gradually.

Even greater uncertainty surrounds this year's outlook than has been the case for the past few years. The future path of oil prices remains uncertain. An early resolution of the Persian Gulf crisis could restore consumer and business confidence and strengthen growth early in 1991. However, the rapid political changes in Eastern Europe and the economic effects of Iraq's invasion of Kuwait once again illustrate how quickly widely held views about economic prospects can become outdated.

## THE U.S. ECONOMY IN 1990

Real GNP grew only 0.3 percent during 1990, well below the very strong 4½-percent annual rate during 1987–88 (Chart 2-1). Growth in the first part of 1990 was an extension of the modest growth in 1989, when real GNP grew 1.8 percent. But in the last part of 1990 the economy turned down. The unemployment rate rose 0.8 percentage point during the last 6 months of 1990. Despite the increase, the unemployment rate was low compared with the average over the previous 15 years. Consumer price increases excluding food and energy—a measure of core, or underlying, inflation—accelerated in the first quarter but were slowing at the end of the year. These developments in 1990 were influenced by, and in turn, affected monetary policy, fiscal policy, and conditions in credit markets.

## MONETARY POLICY AND CREDIT MARKETS

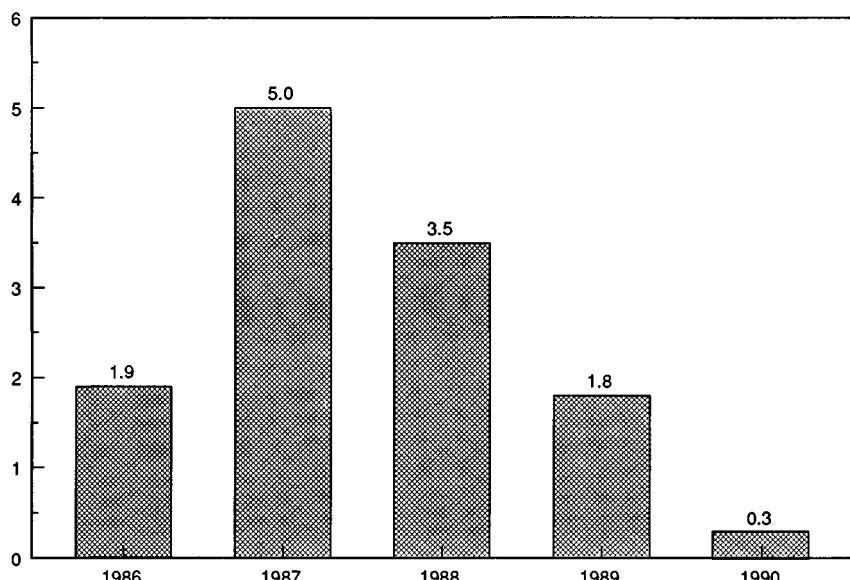
Monetary policy and credit market developments in 1990 were influenced by policy actions and developments that occurred in previous years. For example, the rapid economic growth in 1987 and 1988 pushed capacity utilization to high levels and reduced unemployment rates to the lowest levels since the early 1970s, but it also spurred serious concern about the possibility of rising inflation. In the spring of 1988, the Federal Reserve began to reduce the flow of money and credit gradually and to increase interest rates. The Federal Reserve's goal was to reduce inflationary pressures by engineering a "soft landing"; that is, by reducing overall demand slowly enough to avoid causing a recession. Since then, the difficulties inherent in distinguishing more permanent threats of rising inflation from temporary but sharp price-level changes, coupled with the long and variable lags through which monetary policy affects economic activity, have complicated the task of predicting the economic consequences of any given level of monetary restraint.

After falling about 1½ percentage points in the second half of 1989, the Federal funds rate remained relatively constant in the first half of 1990, but it declined sharply in the fourth quarter and in early 1991. (The Federal funds rate, a short-term interest rate at

Chart 2-1 Real GNP Growth

Real GNP growth slowed in 1990 after rapid growth in 1987 and 1988 and moderate growth in 1989.

Percent change (Q4/Q4)



Source: Department of Commerce.

which banks lend reserves to other banks, is a short-run indicator of the stance of monetary policy.) Long-term interest rates rose early in the year, then declined slightly before rising again in late summer. In the last quarter they fell sharply, responding to a slowing economy, expected declines in short-term interest rates, and the passage of the new budget law. Throughout the year, evidence mounted that credit was becoming less available, causing serious problems in credit-sensitive sectors.

### *Monetary Policy*

The ultimate goal of the Federal Reserve is to promote strong, noninflationary economic growth. The Federal Reserve pursues its goal by influencing interest rates, especially the Federal funds rate, and by regulating the volume of bank reserves relative to demands by depository institutions—reserve availability. Changes in reserves and the Federal funds rate affect the supply of money and credit, inflation, and economic growth. In general, the Federal Reserve acts to raise the Federal funds rate when inflationary pressures increase and economic growth is very rapid, and it acts to

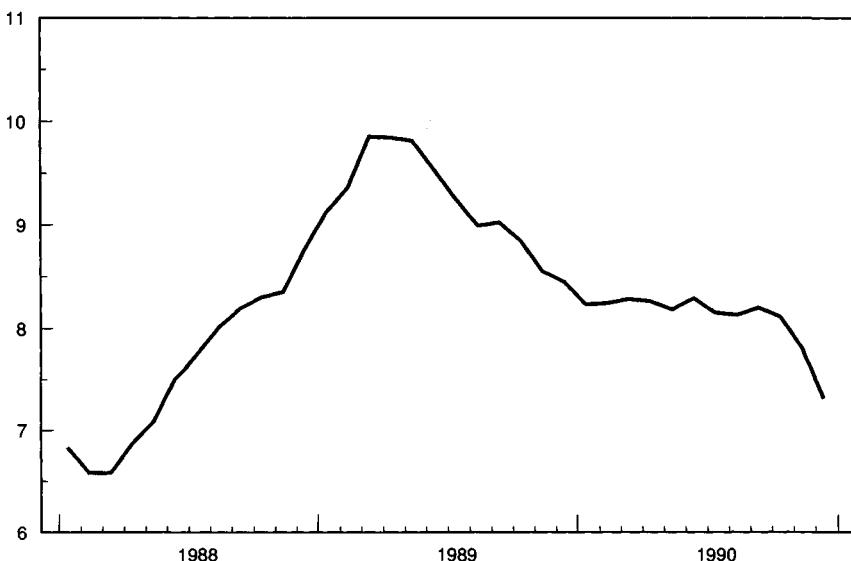
lower the Federal funds rate when inflation expectations appear to be falling and weaker economic growth or recession is more likely.

The Federal Reserve maintained a level of reserve availability that resulted in a relatively constant Federal funds rate in the first half of 1990. From January to July the rate averaged  $8\frac{1}{4}$  percent, below the 1989 average, but nearly  $1\frac{3}{4}$  percentage points above its level in early spring 1988, when the Federal Reserve began to tighten policy to contain inflationary pressures (Chart 2-2). This tightening of policy was a factor in lowering economic growth in 1989 and 1990.

**Chart 2-2 Federal Funds Rate**

The Federal funds rate was relatively flat in the first 7 months of 1990 and fell thereafter. By year-end, it had nearly returned to spring 1988 levels.

Percent per annum



Note: Data are monthly averages of daily figures.

Source: Board of Governors of the Federal Reserve System.

In July 1990 the Federal Reserve noted that lack of credit in some regional and sectoral markets might be creating a tighter monetary policy than suggested by the level of the Federal funds rate alone. Thus, the Federal Reserve increased the availability of reserves, reducing the Federal funds rate 25 basis points (there are 100 basis points in a percentage point) to 8 percent.

In October the Federal Reserve again increased reserve availability, reducing the Federal funds rate by another 25 basis points. This reduction came soon after the budget summit negotiations were completed and a comprehensive budget plan was proposed. During the rest of the year mounting concern about declining em-

ployment and production, lagging money growth, and tight credit conditions led to a series of reductions in the funds rate, resulting in a cumulative decline of 125 basis points from early July. By early February 1991, the Federal funds rate had fallen further to around 6 1/4 percent, its lowest level in 3 years. In addition, as market interest rates fell at the end of the year, the discount rate—the rate at which the Federal Reserve Banks lend reserves to member institutions—was lowered from 7 percent to 6.5 percent. That was the first reduction in the discount rate since August 1986. An additional reduction to 6 percent occurred in early February 1991.

In December the Federal Reserve eliminated the requirement that banks hold reserves against net Eurodollar liabilities and time deposits held by businesses. That was done to enhance bank incentives to lend, in light of accumulating evidence of credit constraints.

Movements in other short-term interest rates were either similar to or anticipated the general pattern of the Federal funds rate. The rate on 3-month Treasury bills rose slightly over the first few months of 1990. It then declined, evidently reflecting anticipations of later declines in the Federal funds rate, and fell to 6.4 percent by the end of the year.

In addition to considering the Federal funds rate carefully, the Federal Reserve monitors the growth of money and credit and attempts to maintain money supply growth within announced ranges. In February 1990 the Federal Reserve announced it would maintain the 3- to 7-percent target range for growth in its M2 money aggregate, provisionally established in the middle of 1989 for the four quarters of 1990 (see Appendix Table B-67 for definitions of the money supply). The target range for M3 was set at 2 1/2 to 6 1/2 percent for 1990. In July, however, that range was lowered to 1 to 5 percent, as the restructuring of the savings and loan industry reduced actual and expected M3 growth relative to GNP growth. That is, the velocity of M3, the ratio of GNP to M3, appeared likely to have undergone a shift.

Growth in monetary aggregates was relatively low in 1989. M2 was below the lower bound of the target range through the first half of 1989, although growth accelerated in the second half. M2 growth was 4.6 percent during 1989, below the 5.2-percent growth during 1988. M3 growth was 3.3 percent during 1989, down from 6.3 percent in 1988.

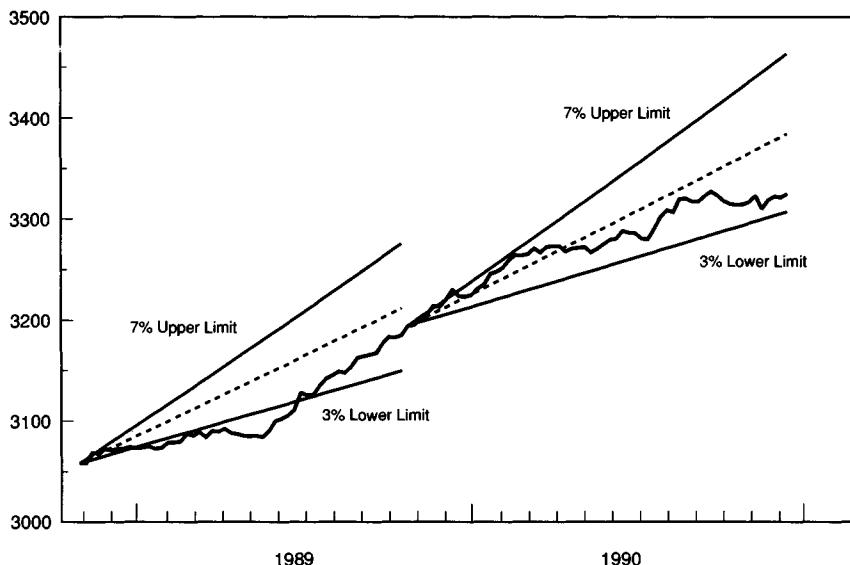
From the fourth quarter of 1989 through the middle of the first quarter of 1990, M2 growth accelerated. However, M2 growth slowed substantially after February, and from early April through the end of the year M2 was consistently in the lower half of the target range. The slower growing economy probably contributed to

lower M2 growth by reducing the public's demand for monetary balances (Chart 2-3). M2 grew 3.7 percent during 1990, while M3 grew 1.5 percent.

#### Chart 2-3 Money Supply

M2 growth was below the middle of the target range in 1989 and stayed in the lower half of the range through most of 1990.

Billions of dollars



Note: Data are weekly.

Source: Board of Governors of the Federal Reserve System.

#### Long-Term Interest Rates

While short-term interest rates were relatively stable in the first half of the year, long-term interest rates were more volatile (Chart 2-4). After declining somewhat in the second half of 1989, long-term rates rose sharply in the first few months of 1990. The yield on 10-year Treasury bonds increased 75 basis points between December 1989 and March 1990.

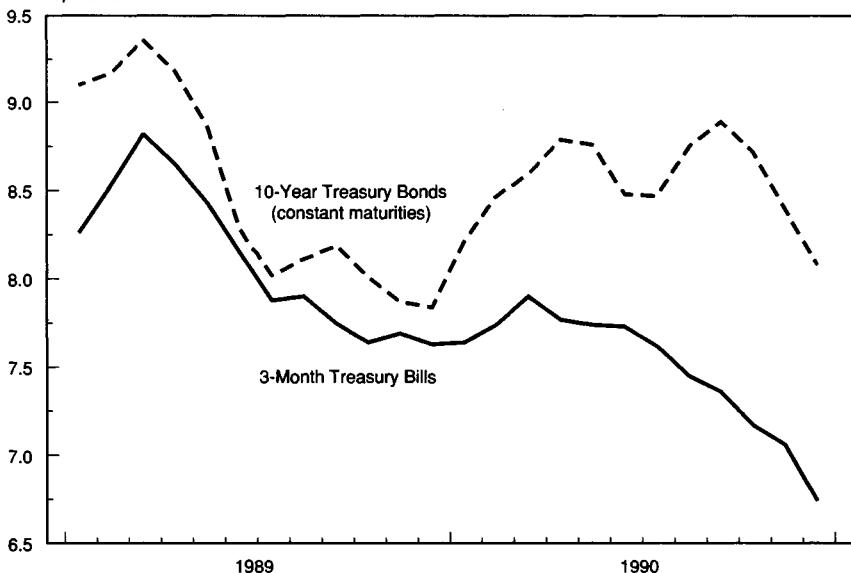
Concern about a possible increase in the underlying inflation rate caused by the temporary jump in inflation in the first quarter may have contributed to the rise in long-term rates. A more important factor, however, was the anticipated increase in the demand for capital associated with developments in Eastern Europe and the unification of Germany. These events caused interest rates to rise around the world, as shown in Chart 2-5.

The expected increase in the demand for financial capital did in fact materialize during 1990. In 1989 West German governments ran a surplus of about 0.2 percent of gross domestic product (GDP).

Chart 2-4 Interest Rates

While short-term rates were relatively flat, long-term rates rose in early 1990. Both fell toward the end of the year.

Percent per annum



Note: Data are monthly averages of daily figures.

Source: Board of Governors of the Federal Reserve System.

With greater capital needs at home to finance the rebuilding of the deteriorated infrastructure of the former German Democratic Republic, the surplus became a deficit of about 3 percent of GDP in 1990. Because long-term interest rates in the United States are influenced by developments in world markets, and because those rates play a large role in determining real economic activity, their rise contributed to the domestic economic slowdown in the United States.

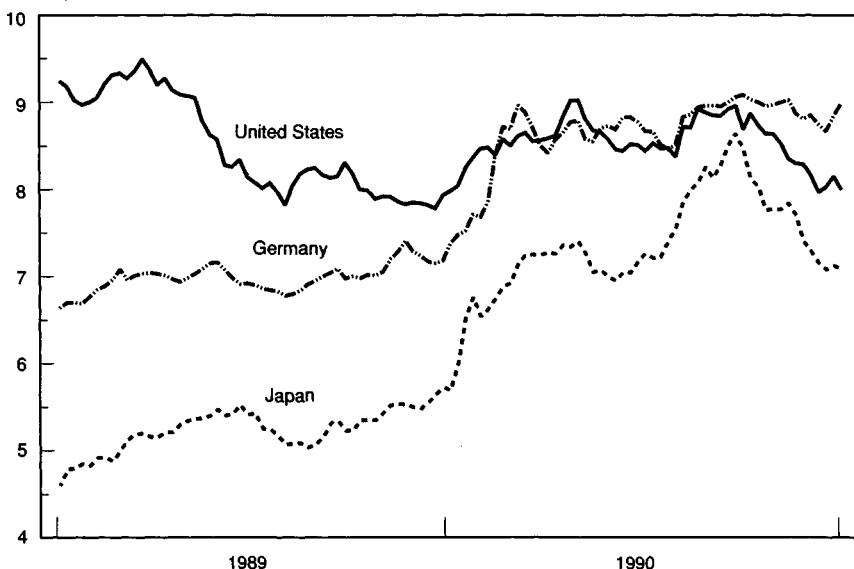
After peaking in May, long-term rates fell 65 basis points through the end of July. This drop was erased after Iraq invaded Kuwait. The jump in oil prices renewed concerns about the risks of higher inflation. The general uncertainty surrounding the Persian Gulf crisis, and, in particular, about the future course of oil prices, increased the riskiness of lending funds for the longer term and put upward pressure on interest rates.

By mid-December, however, long-term rates had fallen back to their early January levels, with the yield on 10-year Treasury bonds reaching 8 percent before rising slightly at the very end of the year. One reason long-term rates began to fall was the expectation that the multiyear budget law would lower the Federal Gov-

Chart 2-5 Long-Term Government Bond Yields

Long-term bond yields rose around the world in early 1990, pushed up by increased demand for capital and concerns about accelerating inflation.

Percent per annum



Note: Data are weekly average of daily figures.

Source: Board of Governors of the Federal Reserve System.

ernment's future credit demands and thus ease demand pressure in long-term credit markets. Other factors including falling oil prices in late November and December, declining economic activity, and easing monetary policy also contributed substantially to the decline.

### *Credit Market Developments*

By midyear, surveys indicated that bank lending standards had tightened and that credit was becoming more difficult to obtain. As the year progressed, the effects of the tightening began to appear in aggregate bank lending figures. From August through October commercial and industrial loans at commercial banks fell at an annual rate of 3.3 percent. In addition, a Federal Reserve survey of senior bank lending officers in October reported that nearly two-thirds of respondents had tightened their lending standards for construction and land development loans in the previous 3 months, and almost half had tightened their standards on commercial and industrial loans. Overall, bank credit increased about 5.1 percent during 1990, compared to a 6.9-percent rise during 1989.

Tightened lending standards and slower growth in bank lending were partly the result of a sluggish economy. Demand for credit usually falls as the overall economy weakens. Moreover, as the economy slows, the probability of bankruptcy increases. To compensate for the increased risk of lending, lending standards may have become stricter. Concerns about overzealous bank examiners may have discouraged some banks from making loans, and declining real estate values reduced the value of collateral on residential and commercial real estate loans.

Tighter lending standards during the year cannot be entirely attributed to caution in the face of a slow economy or an anticipated recession. The restructuring of bank lending portfolios in anticipation of meeting the capital guidelines established in the Basle framework, an international banking agreement setting minimum capital adequacy requirements, also contributed to credit market tightness. The new guidelines require higher capital reserves on loans with greater risk of default. Thus, for example, more capital must be held against a portfolio of commercial and industrial loans than against a portfolio of equal size that contains only government-backed securities. By changing the relative cost of different types of assets, these guidelines changed the incentives for extending different types of credit. Thus, while the growth of commercial and industrial loans by banks slowed during 1990, the growth of bank credit extended to governments or borrowers with government guarantees increased.

Although business borrowing from banks slowed in 1990, business borrowing from other sources offset some of the slowdown. Overall domestic nonfinancial sector debt (excluding Federal debt) was up 5.6 percent at an annual rate for the first 11 months of 1990. By October and November, however, this debt was rising at a slower 4 percent rate. These rates were lower than the 1989 growth rate of 7.6 percent.

## FEDERAL BUDGET DEVELOPMENTS

Federal spending, tax, and borrowing activities have an important influence over economic activity. The slowdown in the economy and the large financial transactions associated with the resolution of the savings and loan (S&L) crisis require that particular care be taken in describing budgetary and deficit changes for 1990 and beyond.

In fiscal 1990 (October 1989 through September 1990) total Federal expenditures were \$1,253 billion. Transfer payments (including grants-in-aid to State and local governments) accounted for roughly half this total. Federal purchases of goods and services accounted for one-third of Federal spending. The other major component was interest payments on the Federal debt. Among these components,

the largest increase from fiscal 1989 occurred in transfer payments, which grew 9.6 percent. Federal purchases of goods and services rose 4.3 percent.

Federal tax receipts grew more slowly in fiscal 1990 than in fiscal 1989. That was mainly a result of two factors: slower growth in household income, which reduced the growth of individual income and payroll tax payments; and falling business profits, which reduced corporate income tax receipts. Corporate profits were \$299 billion in fiscal 1990, down from \$326 billion in fiscal 1989. Corporate income tax receipts fell 9.7 percent in fiscal 1990, after rising 9.6 percent in fiscal 1989. Total receipts rose 4.1 percent in fiscal 1990, compared with 9 percent in fiscal 1989.

### *The Federal Deficit*

From 1979 to 1983 the consolidated Federal budget deficit as a percentage of GNP increased steadily to 6.3 percent, its highest level since World War II. (The difference between Federal outlays and receipts is the deficit.) The deficit-to-GNP ratio was around 5.2 percent between 1984 and 1986, and then fell to its recent low of 3 percent in 1989, primarily as a consequence of reductions in Federal spending. Since 1980 the ratio of tax receipts to GNP has been 19 percent, while the ratio of outlays to GNP has been 23.1 percent.

The ratio of the deficit to GNP rose in 1990, mostly due to spending increases. The ratio was expected to remain high, which led to concerns that interest rates would also remain high, harming prospects for long-run growth. *These concerns led to enactment of the Omnibus Budget Reconciliation Act, signed in November 1990. The budget law is expected to reduce future deficits substantially from what they would have been in the absence of the act.* Nevertheless, by all conventional measures the current deficit is large and will remain large during the next few years.

Federal budget accounting distinguishes between *on-budget* and *off-budget* outlays and receipts. The more comprehensive *consolidated budget* combines both on-budget and off-budget accounts. Some items are classified as off-budget based on economic reasons; others, for legislative or government accounting reasons. Currently, outlays and receipts of the Social Security trust funds are off-budget, yet changes in these trust funds affect total government saving and thereby the net borrowing requirements of the Federal Government. In fiscal 1990 Social Security receipts exceeded outlays, which was the main factor leading to an off-budget surplus of \$57 billion. As a result, the fiscal 1990 on-budget deficit of \$277 billion substantially exceeded the \$220 billion *consolidated budget* deficit.

The financial transactions of the Resolution Trust Corporation (RTC) and other deposit insurance programs have made the inter-

pretation of the effect of the budget on the economy more complex. The RTC reimburses federally insured depositors in failed savings and loan institutions. The funds required to pay the full value of these deposits are large, and the problems created by the incentives associated with deposit insurance have had negative effects on the economy (see Chapter 5 for a discussion of deposit insurance).

Transactions of the RTC and other deposit insurance programs are classified as on-budget. Unlike most other on-budget expenditures and receipts, however, these transactions have little effect on interest rates and the overall economy. Though they are valuable for other reasons, measures of the budget deficit that include deposit insurance financing can be misleading for evaluating the macroeconomic effects of the deficit. As noted above, for this purpose, deposit insurance outlays should be excluded and the Social Security surplus included. *Hence, of the various accounting measures, movements in the consolidated budget deficit excluding deposit insurance probably best measure the impact of Federal borrowing on credit markets and the economy.*

To understand how borrowing to cover deposit insurance differs from borrowing to cover other government outlays, consider the following example. Suppose the RTC acquires a failed S&L with insured deposits of \$100 million and assets, such as mortgages and loans, worth only \$85 million. To do this, the RTC would borrow \$100 million to pay off the depositors and acquire the S&L's assets worth \$85 million. The remaining \$15 million is an accrual of net Federal indebtedness and acknowledges the liabilities incurred earlier when the S&L could no longer support the insured depositors. (This portion of the RTC outlays is sometimes termed "hole-filling.") The entire \$100 million paid out to depositors is likely to be redeposited in the financial sector. The depositors chose to hold \$100 million in the S&L on the assumption their money was safe; the RTC's confirmation of its safety is unlikely to cause them to change the level of deposits they hold or any other aspect of their economic behavior.

There are also unlikely to be any credit-market effects. The RTC has directly or indirectly provided \$100 million to honor the deposit insurance commitment to depositors. Since these funds are likely to be redeposited, the financial sector can be expected to receive an infusion of \$100 million that solvent institutions will want to invest in interest-bearing assets. The increased demand for assets corresponds exactly to the \$100 million increase in assets the government sells to the market. Therefore, in contrast to what happens when the government borrows to purchase goods and services, there will be no direct effects on interest rates in the financial sector.

*The acquisition and subsequent disposition of S&L assets by the RTC are expected to lead to a large swing in the consolidated and on-budget deficit measures.* Net RTC expenditures are currently large because the RTC is acquiring insolvent S&Ls and paying out funds to depositors. By fiscal 1992, these expenditures are projected to be falling; that is, expenditures for acquiring S&L assets minus the receipts from sales of these assets are expected to be smaller than in the preceding year.

An alternative measure of the deficit that is useful for assessing the effects of the deficit on credit markets and the economy comes from the national income and product accounts (NIPA), published by the Department of Commerce. The NIPA deficit does not include transactions, such as loans, that are an exchange of existing assets and liabilities. Accordingly, nonadministrative RTC and deposit insurance funding are excluded from the NIPA deficit, and the Social Security surplus is included. On a NIPA basis, the Federal deficit was \$158 billion in fiscal 1990, an increase of roughly \$28 billion from 1989. In contrast, the consolidated deficit was \$220 billion in fiscal 1990, an increase of \$68 billion from 1989.

It is also important to distinguish between the actual deficit and the structural deficit, especially when the economy is in a downturn or boom. In a downturn, tax revenues decrease and expenditures, especially for entitlement programs such as unemployment insurance, increase. The rising deficit that results helps keep the economy from going deeper into recession. During booms the opposite happens, and the falling deficit helps keep the economy from overheating. The structural deficit removes the effects of these swings in economic activity from the deficit calculation by assuming a steady level of employment and trend GNP growth. This cyclical adjustment can be made in both the consolidated budget deficit and the NIPA budget deficit measures. *In fiscal 1990 the NIPA structural budget deficit was only about \$9 billion higher than in 1989, compared with a \$28 billion increase for the actual NIPA deficit. That difference suggests that the economic slowdown accounted for more than two-thirds of the increase in the actual NIPA deficit in 1990.*

All these deficit measures are typically reported in current dollars. Even if spending and receipts were to increase only at the rate of inflation, the deficit would rise. Moreover, the economic effects of the Federal deficit depend on its size in relation to the size of the economy. To adjust for the economy's size, the ratio of the deficit to GNP is often reported. Even though the structural deficit increased slightly from 1989 to 1990, for instance, it declined slightly as a percent of GNP.

Other issues arise when measuring the deficit and interpreting its economic effects. Some economists have argued that deficit measures should reflect the reduction in the real value of outstanding liabilities caused by inflation. With a Federal debt held by the

public of roughly \$2.5 trillion, an inflation rate of 4 percent would reduce the real value of the debt outstanding by about \$100 billion in one year. This revaluation lowers the real value of government liabilities and therefore could be thought of as lowering the deficit. But even with this adjustment the deficit would still be large.

The economic importance of the deficit depends, in part, on the level of private saving. By definition, a decrease in the budget deficit increases public saving. Private saving plus public saving constitute national saving, which, together with inflows of foreign capital, provides the funds available for investment in the United States. Low public saving caused by a large Federal deficit is particularly detrimental to investment and future economic growth when private saving is low, as it has been for several years.

## ECONOMIC GROWTH AND EMPLOYMENT

The growth slowdown during 1990, as in 1989, was concentrated in interest- and credit-sensitive sectors such as residential investment, commercial real estate, and consumer spending on durable goods. In addition, export growth slowed from its extremely fast pace of the previous 3 years. The manufacturing sector was hard hit as both production and employment fell.

### *Consumption and Saving*

Consumer spending rose 0.2 percent in real terms during 1990, below the 1.2-percent growth in 1989 and substantially below the rates of the mid-1980s (Table 2-1). (Spending in real, or inflation-adjusted, terms is measured in constant 1982 dollars. Box 2-1 describes an important upcoming NIPA data revision.) Real disposable personal income, a key determinant of consumer spending, fell 0.4 percent during 1990. That compares with a 1.7-percent gain in 1989 and a 4.3-percent rise during 1988. Consumer outlays and income rose at roughly the same rate in 1990, leaving the personal saving rate at 4.5 percent, essentially unchanged from its average 1989 value. While the saving rate for 1990 was substantially above the 1987 low of 2.9 percent, it remained well below the 6.5-percent average of the post-World War II period and below that of most other industrialized countries.

Spending on consumer services rose 2.2 percent during 1990, led by a 6.5-percent spending increase in medical care. However, consumer purchases of nondurable goods, of which food and clothing account for nearly 70 percent, fell during the year, after a slight 0.7-percent rise during 1989. Rising gasoline prices reduced real spending on gasoline and also contributed to the decline in spending on nondurables.

Consumer purchases of durable goods declined during 1990. Interest rates on consumer loans, frequently used to finance purchases of durable goods, remained high during the year. Measures

TABLE 2-1.—*Growth of Real GNP and Components, 1982-90*

Item	1982 to 1986 <sup>1</sup>	1987	1988	1989	1990 <sup>2</sup>
Percent change, fourth quarter to fourth quarter					
GNP .....	4.3	5.0	3.5	1.8	0.3
Personal consumption expenditures .....	4.5	2.3	4.1	1.2	.2
Nonresidential fixed investment .....	5.5	6.1	5.3	4.5	.9
Residential investment .....	14.7	-2.2	-1	-7.1	-8.7
Government purchases of goods and services .....	4.1	2.0	1.1	.3	3.8
Annual level, billions of 1982 dollars					
Inventory investment .....	17.7	22.8	23.6	23.8	-1.1
Net exports of goods and services .....	-84.5	-118.5	-75.9	-54.1	-37.5

<sup>1</sup> Average annual rate.<sup>2</sup> Preliminary.

Source: Department of Commerce.

of consumer confidence, which often are directly related to purchases of durables, plunged in the last 5 months of the year. Spending on motor vehicles declined, and the number of autos sold during 1990 was down 4 percent from 1989, the second straight yearly decline.

Several additional factors contributed to declining automobile demand, including the large number of vehicles already owned by consumers and the tendency for owners to keep vehicles longer. Financing arrangements also contributed to weak sales. Interest rates on new car loans remained high, the average length of auto loans fell, and lenders required larger downpayments.

### *Residential Investment*

In 1990 residential investment was 5.1 percent below its 1989 level, the third straight year of decline. Housing starts reached their lowest levels since 1982, averaging more than 13 percent below 1989. For all of 1990, starts in the Northeast were only 44 percent of their recent 1986 peak. For the country as a whole, multiunit starts continued their 5-year slide.

Many factors contributed to the decline in residential investment. Housing starts were held down by oversupply in many regions. Vacancy rates for rental housing units remained relatively high. Builders and developers found credit more difficult to obtain. The low growth of consumer income in 1990 and rising mortgage rates in the first half kept demand low.

House prices rose in the early part of 1990 but declined somewhat during the rest of the year. The median price of a new single-family house reached \$130,000 in April 1990, before declining by 7.7 percent by November. For the year the median new house price rose 2.5 percent, its smallest rise since 1982. In the fourth quarter of 1990, prices of existing homes were down nationally about 1 per-

### Box 2-1.—Revised National Income and Product Accounts

The Bureau of Economic Analysis (BEA) produces the U.S. national income and product accounts, the most comprehensive and consistent set of production and income statistics available for the United States. The NIPA are frequently revised as new data arrive and measuring methods are improved. In the first month after the end of a calendar quarter, the GNP accounts are released for the previous quarter. These data, the *advance* figures, are revised in the following 2 months as data for the previous quarter continue to arrive and be processed. These monthly revisions are called the *preliminary* and the *final*. Every year, BEA releases revisions to the NIPA for the current and the previous 3 years, reflecting new data from various annual surveys and other information not available when the final estimate is released.

About every 5 years BEA produces a comprehensive "benchmark" revision, in which all NIPA components are subject to change. In the upcoming benchmark revision, the base year for the calculation of constant-dollar (inflation-adjusted, or real) GNP will change from 1982 to 1987.

Real GNP measures the value of goods and services the Nation produces at prices in a given "base" year. Valuing the goods and services at one year's prices is necessary so that physical quantities of goods can be added meaningfully and compared across time. Since late 1985 the base year has been 1982.

Maintaining the base year for too many years, however, results in an increasingly inaccurate picture of the economy, since the importance of goods with high relative prices in the base year tends to be overemphasized. This bias is likely to be more important as the economy moves further away from the base year, because producers and consumers are likely to be using fewer goods with high relative prices. Moving to 1987 as a base year should provide a better picture of the current economy, since the current price structure is more like the 1987 structure than the 1982 structure.

The differing relative price structure between 1982 and 1987 will result in different real GNP growth rates when measured in constant 1982 and constant 1987 dollars. Since early 1989, BEA has published a small set of GNP data in 1987 dollars in addition to 1982-dollar data. Between 1983 and 1989 real growth averaged 3.6 percent in 1987 dollars and 3.9 percent in 1982 dollars. The difference is typical of benchmark revisions and reflects the size of the bias that builds up as the base year becomes more distant.

cent from their average in 1989. Prices fell even more in the regions most affected by the economic slowdown, such as New England.

### *Business Fixed Investment*

Business fixed investment—spending by businesses on new plant and equipment—grew 0.9 percent in real terms during 1990. Spending on new structures was down 5 percent, with continued weakness in new office-building construction. An oversupply of offices—vacancy rates nationwide were around 20 percent in the third quarter of the year—reduced new construction activity. However, spending on industrial buildings—new plants—was up 8.4 percent during 1990, after a nearly 20-percent increase in 1989.

Total equipment purchases rose 2.8 percent in real terms during 1990. Information-processing and related equipment continued to increase faster than total equipment purchases, rising 3.3 percent during the year. Auto purchases by businesses jumped 12.4 percent, but industrial equipment purchases fell during 1990.

### *Inventory Change*

The real level of business inventories fell by \$1.1 billion in 1990, and the ratio of real inventories to sales was below the 1989 figure. *This is unusual during the early stages of a downturn, and is one factor pointing to a mild recession rather than a more serious slide.* In most business cycles, an overaccumulation of inventories toward the end of the expansion leads to production shutdowns and layoffs, creating a sharper downturn in production and employment than the underlying demand conditions would have produced. Some economists suggest that computerization and the adoption of new inventory and production management techniques (the just-in-time method, for example) during the last decade have allowed firms to reduce the size of their normal inventory holdings and to respond more flexibly to changing economic circumstances. With inventories relatively low at the start of this downturn, a protracted period of inventory reduction that would deepen the downturn is less likely than in the typical postwar recession.

### *Exports and Imports*

Export growth was strong in the second half of the expansion, averaging 14.6 percent at an annual rate between the fourth quarter of 1986 and the fourth quarter of 1989. Though growth in real exports of goods and services slipped to 5 percent in 1990, real exports reached an all-time high during the year, and the United States remained the world's largest exporter. Some categories of exports were stronger than others. Exports of capital goods rose 8.2 percent and exports of consumer goods rose a strong 17.5 percent. Exports of foods, feeds, and beverages fell during 1990.

Exports of services (other than profits and interest income) have become increasingly important to the economy, accounting for about 17 percent of total exports in 1990. For the year as a whole, exports of services rose 7.7 percent in real terms, compared with merchandise export growth of 8.6 percent.

Two of the major determinants of export demand contributed to slower export growth. First, although it remained at relatively low levels compared with the mid-1980s, the foreign exchange value of the dollar rose about 16 percent from late 1988 to June 1989. By December 1989, it was still 3.3 percent above its level in December 1988. Changes in demand for U.S. exports lag behind price changes, so by increasing the price of U.S. exports in overseas markets, the dollar's rise through most of 1989 may have helped to reduce demand for U.S. export products in 1990. In contrast to 1989, the dollar fell during most of 1990. By December it had fallen almost 7 percent against the yen and almost 14 percent against the deutsche mark compared with December 1989. All else being equal, the declining dollar in 1990 points to rising export growth in 1991.

Slower growth in countries that trade extensively with the United States also contributed to slower export growth in 1990. For example, Canada, which typically accounts for about 22 percent of our merchandise exports, and the United Kingdom both were in a recession in the second half of 1990. Growth also slowed in other European economies in 1990 (Table 2-2). However, growth in Germany and Japan increased in 1990. For the first 11 months of 1990, the merchandise trade deficit with Japan was down about 17 percent compared with the first 11 months of 1989.

TABLE 2-2.—*Economic Performance and Projections for the United States and Other G-7 Nations, 1989-90*<sup>1</sup>

[Percent]

Country	Real GNP growth		Consumer price inflation *		Total unemployment rate	
	1989	1990	1989	1990	1989	1990
Canada.....	3.0	1.1	4.7	4.1	7.5	8.1
France.....	3.6	2.5	3.3	3.4	9.4	8.9
Germany.....	3.9	4.2	3.2	2.6	5.6	5.0
Italy.....	3.2	2.6	6.0	6.3	12.1	11.1
Japan.....	4.9	6.1	1.7	2.4	2.3	2.1
United Kingdom.....	2.2	1.6	5.9	4.6	6.2	5.8
United States.....	2.5	.9	4.8	5.2	5.2	5.4

<sup>1</sup> Data for 1990 are projections, except for the United States, which are preliminary full-year estimates.

\* Consumer prices are measured by the private consumption deflator.

Note.—Data for GNP growth and price inflation are percent changes from previous year.

Data for Germany are only for western Germany.

Source: Organization for Economic Cooperation and Development, *OECD Economic Outlook*, December 1990; Department of Commerce; and Department of Labor.

Imports grew 3.2 percent in 1990, compared with a 6-percent increase in 1989. In contrast to the early part of the expansion, when imports of consumer goods and autos rose rapidly, consumer goods and auto imports posted almost no increase in 1990. Instead, capital goods imports were the fastest growing major category of im-

ports. For the year, real petroleum imports were up 2.5 percent; however, they fell sharply in the fourth quarter.

As a result of continued export growth and slowing import growth, the real net export deficit narrowed for the fourth consecutive year. By the end of the year, the real net export deficit was at its lowest level since mid-1983.

### *Government Purchases of Goods and Services*

Government purchases of goods and services, at the Federal, State, and local levels, grew 3.8 percent in real terms during 1990. Federal purchases rose 5.5 percent. Nondefense purchases rose 8.3 percent; however, excluding changes in Commodity Credit Corporation inventories, nondefense purchases rose 3.8 percent. Defense purchases rose 4.7 percent during 1990, with an increase in the fourth quarter partially reflecting spending in support of Operation Desert Shield. State and local purchases rose 2.5 percent during 1990, with a relatively strong 8.2-percent increase in spending on structures.

### *Industrial Production and Capacity Utilization*

Sluggish consumer spending on goods, falling residential construction, and slowing export growth caused manufacturing output to fall during 1990 after slowing substantially in 1989. Sharp declines in the fourth quarter led to a 1.4-percent fall in overall industrial production during 1990, as production of motor vehicles fell more than 20 percent. Excluding motor vehicles and parts, industrial production fell 0.5 percent during 1990, compared with a 1.8-percent rise during 1989.

Slowing production in the first half and falling production in the second half pushed down capacity utilization in the industrial sector 3.3 percentage points during 1990. In December capacity utilization in manufacturing fell to 79.3 percent, well below the 85-percent rate in April 1989, its recent peak. Utilization rates generally declined across all industries. Utilization in motor vehicle manufacturing fell to 57 percent.

### *Employment*

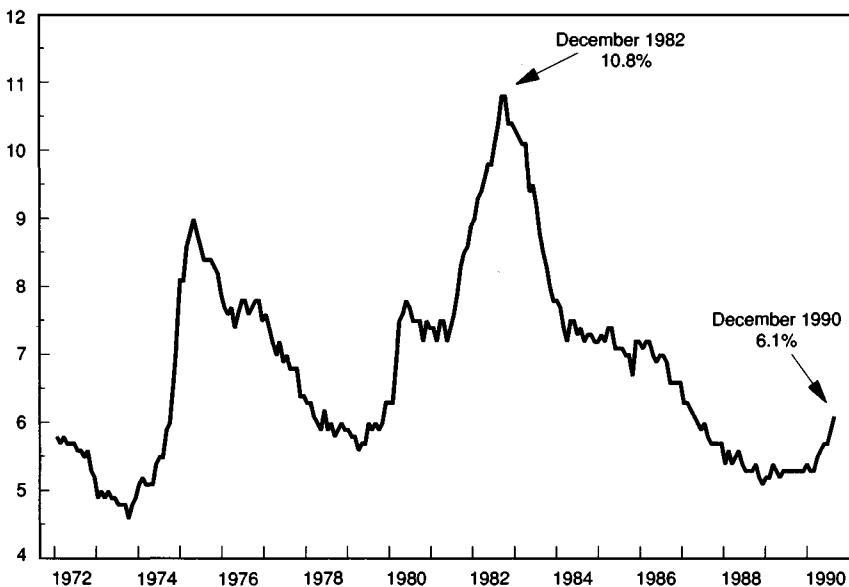
The civilian unemployment rate rose in the second half of 1990, after remaining around a 15-year low for most of 1989 and the first half of 1990. By December the unemployment rate had risen to 6.1 percent, about where it had been in mid-1987 (Chart 2-6). From June to December the jobless rate for men rose 0.9 percentage point, while the rate for women rose 0.7 percentage point. In the second half of the year, the unemployment rate rose 1.5 percentage points for blacks and 1.9 percentage points for teenagers. For the entire year the civilian unemployment rate averaged 5.5 percent.

Labor force growth slowed in 1990, particularly in the first half of the year. The labor force grew by about 250,000 people in the

Chart 2-6 The Unemployment Rate

The unemployment rate rose in late 1990 but was still low compared to much of the period since the early 1970s.

Percent of civilian labor force



Source: Department of Labor.

first half, about a quarter of the average gain experienced in the first halves of 1988 and 1989. Much of the slowdown in the first part of 1990 can be traced to a decline in the teenage labor force, which fell by more than 500,000 people. The slower labor force growth, due at least in part to the softening economy, contributed to the stability of the unemployment rate in the first half of the year and tempered the increases in the second half.

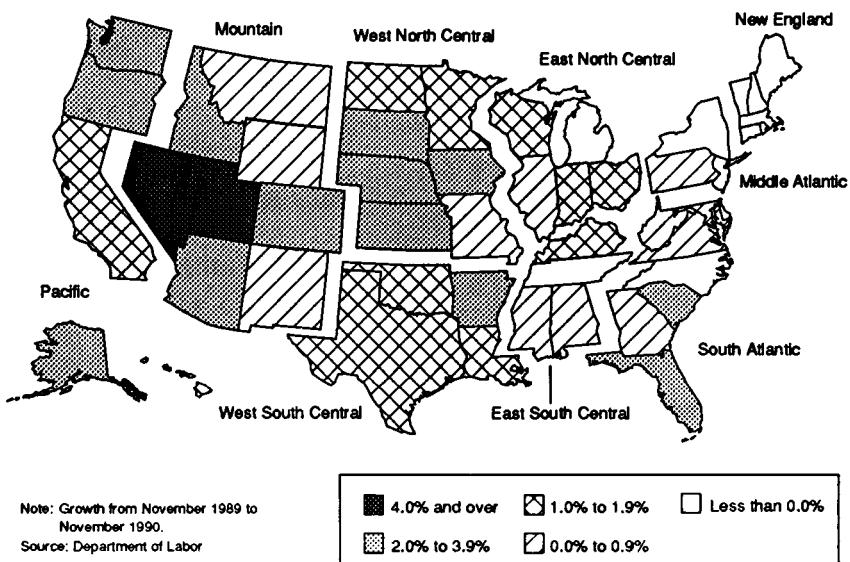
There was a net gain of about 650,000 jobs in 1990, following a gain of over 2 million jobs in 1989. The net gain for the year consisted of an increase of about 1.4 million jobs in the first 6 months of the year, followed by a decrease of 810,000 jobs in the second half. The number of service-producing jobs rose by 1.4 million during the year, but the number of jobs in the goods-producing sector fell by 790,000. Temporary hiring to conduct the 1990 census accounted for some of the first-half gain and second-half decline. Census hiring added about 365,000 jobs to the first-half gain. The reduction in the census work force following completion of the census accounted for about 45 percent of the second-half decline.

Although overall employment growth slowed in 1990, the slowdown was spread unevenly across industries and regions. Every in-

dustry is affected by both general economic conditions and factors unique to its business. As a result, during general upswings in economic activity some industries and regions experience shrinking employment and income. Likewise, in downturns, some continue to grow. Chart 2-7 illustrates differences in regional employment growth during 1990, and Box 2-2 summarizes the year's industrial and regional developments.

Chart 2-7 Regional Employment Growth

Employment declines were concentrated in New England, while employment grew fastest in the Mountain and Pacific regions.



## Productivity

Growth in labor productivity in the nonfarm business sector fell 0.8 percent in 1990. Low or negative labor productivity growth is typical in an economic slowdown, as firms tend to keep workers even when demand slows in order to avoid costly search and training when demand increases again.

Manufacturing productivity continued its recent trend of relatively strong growth compared with other sectors. Manufacturing productivity grew 3 percent in 1990, compared with 3.3 percent in 1989. Rising labor productivity in manufacturing helped to hold the growth of unit labor costs to 0.3 percent, after a 0.6-percent rise in 1989. Very slow growth of unit labor costs in manufacturing is one

### **Box 2-2.—Sectoral and Regional Income and Employment**

During any phase of the business cycle, some industries shrink or grow slowly while others expand rapidly. Differences in employment growth across regions depend on the particular mix of expanding and contracting industries in each region. Much of the decline in employment in 1990 in both New England and the Middle Atlantic States can, for example, be traced to the contraction in the construction, real estate, and finance industries. Regions dependent on durable-goods manufacturing were hurt by declining sales of consumer durables such as automobiles. Total manufacturing employment fell by about 570,000 over the year, with more than 79 percent of the decline coming from durable goods manufacturing industries.

Some regions had relatively strong employment gains in 1990. Employment in the Mountain region was bolstered by employment gains in service industries, particularly recreation and tourism. Although the decline in construction has hurt the timber industry in the Pacific Northwest, the region's diversified industrial base, especially in the production of aircraft and high-technology goods, permitted relatively strong overall employment growth.

However, the changing fortunes of most industries have effects that are spread out across all regions. The contraction in the construction industry was felt nationwide as housing starts reached their lowest levels since 1982. Reflecting the sharp decline in the residential housing market, jobs in construction and real estate declined in the second half of the year.

Sluggish orders and sales contributed to the slowdown in employment growth in wholesale and retail trade across all regions. In contrast, all regions gained from the substantial growth in health services, which accounted for nearly 82 percent of the net job gain in the economy over the year. Softening business activity across the country was reflected in the fourth quarter decline in business services employment, which provides support services such as data-processing and advertising.

indicator that underlying inflationary pressures did not rise in 1990.

### **PRICES AND WAGES**

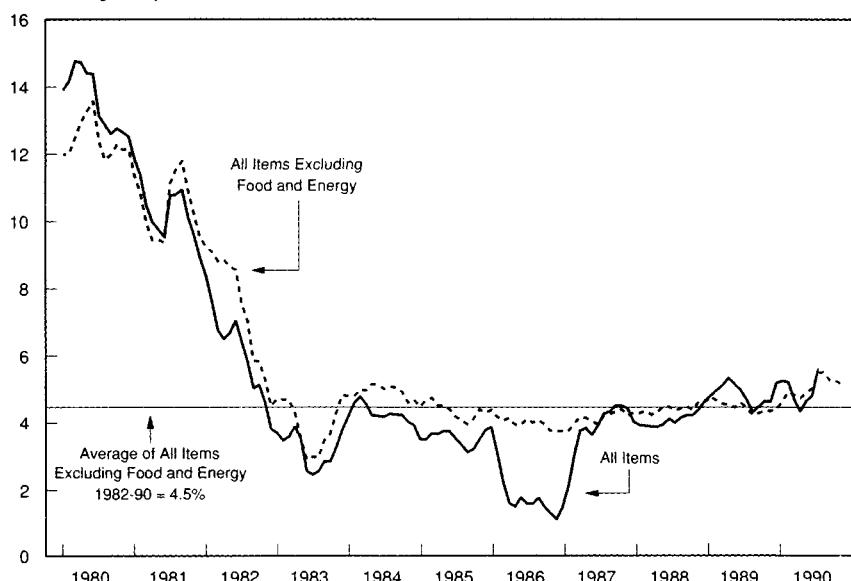
Compared with the expansions of the 1970s, inflation remained relatively low and stable throughout most of the recent expansion, which contributed greatly to its longevity. Consumer price inflation

averaged only 3.1 percent a year from the business cycle trough in November 1982 through December 1986. Core consumer price inflation averaged a higher but steadier 4.3 percent over the same period (Chart 2-8). Much of the reduction in inflation from the late 1970s and early 1980s was due to the successful imposition and maintenance of a stable and credible monetary policy.

Chart 2-8 Consumer Prices

Overall consumer price inflation rose temporarily in 1990. However, "core" inflation, a measure that excludes food and energy prices, remained under control and was declining at the end of the year.

Percent change from year earlier



Source: Department of Labor.

Broad-based measures of inflation indicated that inflation was contained in 1990. The GNP fixed-weighted price index, a measure that includes prices of all goods and services in the economy rather than just consumer goods and services, was up 4.5 percent in 1990, the same as in 1989. After rising substantially in the first quarter of 1990, inflation measured by this index was below the 1989 average in each of the last three quarters of the year.

Price developments in early 1990 resembled those of the first half of 1989 when a temporary rise in crude oil and food prices pushed consumer price inflation to 5.7 percent. Consumer and producer prices were buffeted by the effects of unusually cold weather in December 1989, which substantially reduced available supplies of fresh fruit and vegetables and drove up the cost of petroleum-based fuels. Led by price increases in energy and food, consumer price inflation rose to an annual rate of 8.5 percent from December

1989 to March 1990. A more than 21-percent annual rate increase in apparel prices contributed to core consumer price inflation of 7.5 percent in the first quarter.

By the middle of the year, smaller food price increases and falling oil prices were reducing inflation. From March to June, consumer prices rose at a 3.5-percent annual rate, and producer prices for finished goods rose at a negligible 0.3-percent annual rate. Core inflation also retreated substantially, to 3.9 percent at an annual rate.

The Iraqi invasion of Kuwait in early August and its impact on oil prices dominated price-level movements in the second half of 1990. Crude oil prices jumped from \$22 a barrel on August 1, the day before the invasion, to their 1990 peak of \$40 a barrel in the middle of October (Chart 2-9). Prices retreated below \$26 a barrel before ending the year at around \$28 a barrel. Oil prices fell rapidly to around \$20 a barrel in early 1991, following the beginning of Operation Desert Storm.

Chart 2-9 Oil Prices

Crude oil prices more than doubled from early summer to mid-October but fell thereafter.

Dollars per barrel



Note: West Texas Intermediate crude, nearest month futures contract.

Source: New York Mercantile Exchange.

Consumer and producer energy prices responded quickly to the August oil price shock. In the last quarter of 1990, prices of other goods and services that rely heavily on oil as fuel or as material input rose in response to rising energy costs. For example, public

transportation prices rose more than 32 percent at an annual rate, primarily because of rising airline fares. The surge in energy and energy-related prices contributed to overall consumer prices rising at an annual rate of 6.4 percent in the second half of the year. The oil price decline since October reduced inflation in November and December and should continue to reduce consumer and producer price inflation in the early part of 1991.

Excluding food and energy, the consumer price increase of 4.8 percent in the second half of 1990 was far more moderate than the overall increase in prices. In addition, producer prices for goods before any processing, excluding food and energy, fell for the last 4 months of the year, suggesting that slowing economic activity was reducing upward pressure on prices.

Although price changes were affected primarily by changes in energy and, to a lesser extent, food prices, some longer run inflation trends continued in 1990. Price increases for consumer services continued to rise faster than those for consumer goods. From 1982 to 1989 services prices rose 4.8 percent at an annual rate, while prices for consumer goods less food and energy rose 3.3 percent. During 1990 the services price index rose 5.7 percent, led by a 9.9-percent rise in the price of medical care services.

Wage inflation moderated in 1990, an indication that the underlying inflation rate was under control and even declining. The growth in the employment cost index, a measure that includes the cost of employer-paid benefits as well as wages and salaries, began to fall in the last three quarters of 1990 after rising consistently throughout 1989 and the first quarter of 1990 (Chart 2-10). Continuing a trend from the last few years, benefits increased at a faster pace than wages and salaries: 6.6 percent compared with 4 percent during 1990.

Indicators point to moderating inflation in the future. The Commodity Research Bureau's index of futures prices for raw commodities, which fell 8.2 percent during 1989, reached a peak in May 1990 and fell at an annual rate of 16 percent through the rest of the year. A sustained decline of this size suggests continuing moderation of producer and consumer goods prices.

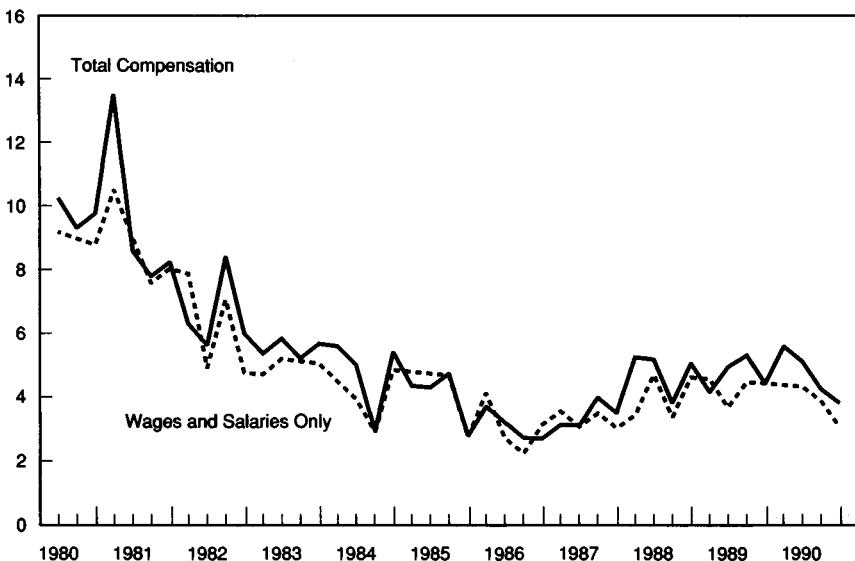
## SUMMARY

- After growing sluggishly for the first part of 1990, the economy entered a recession in the latter part of the year. The jump in crude oil prices reduced spending on other products, and declining business and consumer confidence contributed to reduced spending at the end of the year.
- Interest rates were declining by the end of the year in response to a softer economy, lower underlying inflation, monetary policy easing, and the new budget law.

### Chart 2-10 The Employment Cost Index

After being relatively flat from the second half of 1989, growth in wages and salaries, as well as total compensation, fell in the last three quarters of 1990.

Percent change from 3 months earlier, annual rate



Note: All private industry.

Source: Department of Labor.

- The budget deficit—as measured in the national income and product accounts—increased as a percent of GNP from 2.5 percent in fiscal 1989 to 2.9 percent in fiscal 1990. After adjusting for the cyclical weakness in the economy, the deficit declined slightly as a percent of GNP from fiscal 1989 to fiscal 1990.
- Housing and consumer spending were most affected by the slowdown. Stricter credit conditions also contributed to the slowdown.
- The overall inflation rate, as measured by the fixed-weighted price index for all goods produced in the economy, rose temporarily in the first quarter of 1990 but was below the 1989 average in each of the last three quarters of the year.

## MONETARY AND FISCAL POLICY OUTLOOK

Monetary and fiscal policies exert a powerful influence on the economy and therefore can have profound effects on the prospects for achieving an early recovery from the current downturn and increasing long-term growth. The Administration strongly supports stable, credible policies that provide the flexibility to mitigate the

downturn while maintaining a long-term focus on the goal of strong, noninflationary economic growth.

## MONETARY POLICY

Monetary policy should be credible, systematic, and consistent with the goal of mitigating the downturn and allowing the economy to move toward a higher level of sustainable growth with a low and stable inflation rate. The Federal Reserve faces several challenges in implementing monetary policy in 1991.

In July 1990 the Federal Reserve set a preliminary target range of 2½- to 6½-percent growth for M2 during 1991, down half a percentage point from the 1990 range. This reduction is consistent with the longer term goal of gradually reducing the underlying rate of inflation. But with a weakening economy, it is essential that money growth stay well within this range. Changes in velocity that appear long-term may require the Federal Reserve to reconsider its preliminary target range. The target range for M3 is set at 1- to 5-percent growth, reflecting the expectation that M3 growth will continue to be affected by the ongoing restructuring of thrift institutions.

In formulating monetary policy, consideration must be given to the cyclical regularity that interest rates tend to fall as the demand for private credit falls in a weakening economy. This tendency is particularly important to recognize if the Federal funds rate continues to be the focus for short-run implementation of Federal Reserve policy, because a decline in interest rates during a downturn may not be a sign of monetary easing, particularly if the growth of money and credit has slowed. A restrictive monetary policy would jeopardize a solid recovery from the current slowdown and hamper prospects for long-run growth. By further reducing the discount rate and taking action to lower the Federal funds rate as money and credit growth slowed, inflationary pressures eased, and the downturn continued in early 1991, the Federal Reserve has taken action that will help mitigate the current recession.

Other challenges arise in the area of bank regulation. Through bank regulations and supervision, the Federal Reserve and other bank regulators have an important influence over lending activity. Regulators should continue prudent oversight of bank lending. It is important, however, that lending be available to creditworthy borrowers, and that regulators not be so stringent that sound banks cannot make sound loans to sound borrowers.

The restructuring of bank assets to meet the requirements of the Basle framework may present the Federal Reserve with additional policy challenges. In the longer term, the movement away from short-term, adjustable-rate loans (like commercial and industrial loans) to longer term, fixed-rate loans, such as many mortgages

and mortgage-backed securities, may increase the exposure of banks to sudden swings in short-term interest rates. Since banks must offer competitive rates to attract funds, a quick rise in short-term interest rates would tend to raise their costs relative to their income. These possibilities would adversely affect economic growth. Bank regulators are currently studying ways to incorporate this interest rate risk into capital guidelines.

## FISCAL POLICY

*The new budget law, signed in November 1990, includes deficit-reduction guidelines and budget process reforms that will have substantial beneficial effects on the economy in 1991 and the years beyond. The budget law is expected to reduce the deficit by almost one-half trillion dollars over the next 5 years from what it otherwise would have been.*

### *The Effects of Fiscal Policy*

Fiscal policy comprises the spending, tax, and borrowing activities of the Federal Government. Earlier in this chapter, several different measures of the deficit were discussed. While changes in the deficit have important effects on the economy, the composition of the underlying expenditure and tax changes can have extremely important effects as well.

*Increases in Federal purchases have the potential to boost demand and stimulate the economy temporarily, but eventually they put upward pressure on inflation and interest rates. That upward pressure will harm interest-sensitive activities in the economy such as investment and ultimately lower the economy's productive capacity. When considering the composition of Federal spending, investments should be pursued that promote long-run growth, such as research and development and public infrastructure projects that pass stringent cost-benefit criteria.*

*The size and structure of Federal taxes and transfers also have significant effects on the economy. High marginal tax rates have been shown to discourage work effort, saving, and investment. Thus, a guiding principle behind the landmark tax reforms of 1981 and 1986 was to lower tax rates significantly.*

The effective tax rate, the rate actually paid on earnings or investment income, may differ from the more commonly quoted statutory tax rate. A prime example occurs in the case of capital gains. Consider a growth stock, purchased for \$1,000 in 1970 and sold in 1990, that pays no dividends. Over this period the average annual inflation rate was 6 percent. Suppose that the stock had an average annual real return of 2 percent. In 1990, the stock would sell for \$3,765.63 more than the purchase price. Tax payments would be 28 percent of this capital gain and would be collected when the asset is sold, rather than each year as the asset increases in value. This

deferral of tax payments lowers the effective tax rate. A large portion of the increase in the value of the asset, however, is due to inflation and is not a real gain. In fact, the after-tax real return on the asset is only 0.73 percent, well below the pretax real return of 2 percent. The net effect of inflation and deferral leads to an effective tax rate of 63 percent on the real capital gain, much higher than the 28 percent statutory tax rate.

*The effects of fiscal policy on the economy also depend crucially on expectations for future spending and taxes as well as on their current levels.* The new budget law, for example, reduces the budget deficit from what otherwise would be expected. Economic theory and empirical evidence indicate that expectations of deficit reduction in future years, if the deficit reduction commitment is credible, can lower interest rates as financial market participants observe that the government will be lowering its future demand in the credit market. That can mitigate a potential short-run contractionary effect. In other words, expectations of lower interest rates in the future will lower long-term interest rates today. Lower long-term interest rates will reduce the cost of capital, stimulating investment and economic growth relative to what would be predicted if expectations were ignored.

### *Projected Deficit Reduction: 1991-95*

Calculating how much the new budget law and its enforcement provisions, known as the Budget Enforcement Act, are expected to cut the deficit requires an estimate of the preexisting baseline deficit. The baseline is calculated from a simulation of future expenditure and revenue patterns that assumes no intervening policy changes. The calculation depends, for example, on economic assumptions about GNP growth and inflation, and demographic changes in the population. Any tax or spending changes that are already part of the law, such as cost-of-living increases for entitlement recipients, are incorporated in the baseline calculation. By calculating the deficit reduction against the preexisting baseline, the size of the reduction is measured relative to what the deficit would have been had no changes in the law occurred and the underlying baseline assumptions materialized.

Obviously, different economic assumptions will produce different baselines and also different future levels of the deficit. However, *different economic assumptions will have a relatively small effect on the estimated reduction in the deficit relative to the corresponding baselines.*

The majority of the budget law's deficit reduction comes from slowing the growth of expenditures. Discretionary spending, which is spending whose levels the Congress sets each year, is expected to account for roughly 40 percent of the reduction from the baseline.

Much of this total is expected to come from reductions in defense outlays.

Slowing the growth of entitlement and mandatory spending programs, which are statutory obligations such as medicare and agriculture programs, is expected to account for roughly 20 percent of the 5-year deficit reduction. The smaller deficit resulting from the combination of spending and tax changes, relative to the baseline, will also reduce interest payments on the debt by a significant amount over the next 5 years.

The new budget law raises almost \$150 billion in additional tax revenue over the fiscal 1991-95 period. While marginal tax rates for the upper tail of the income distribution were reduced from 33 to 31 percent, marginal tax rates in the extreme upper tail increased from 28 to 31 percent. The affluent will pay higher taxes as a consequence of a new phaseout of personal exemptions, limitation of itemized deductions, and new excise taxes levied on selected luxury items, such as expensive furs, jewelry, and cars. About one-quarter of the total revenue increase comes from excise tax increases on gasoline, alcohol, and tobacco.

*The new budget law also provides significantly more assistance to the working poor by adding about \$18 billion to the earned income tax credit (EITC) over the next 5 years.* The EITC is a refundable tax credit given to low-wage taxpayers with children.

Chart 2-11 shows the change in the projected NIPA and NIPA structural deficit for the next 5 years. The NIPA structural deficit is expected to decline in each of the next 5 years, as the provisions of the new budget law are fully implemented. In contrast, the NIPA deficit is expected to increase in 1991 as the automatic stabilizers cushion the effect of the downturn. After 1992 the NIPA deficit is also expected to fall steadily.

### *Budget Process Reform*

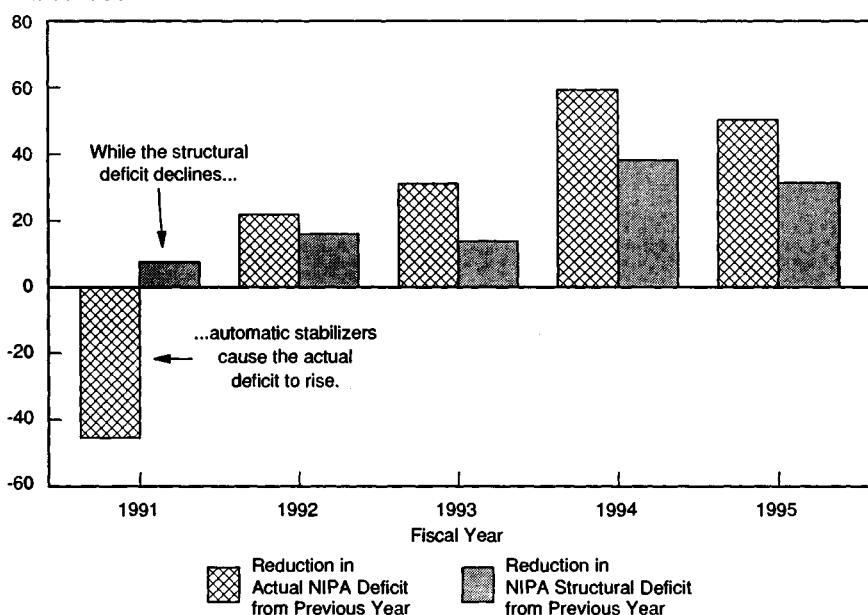
By reforming the budget process the new budget law has improved the credibility and stability of fiscal policy. These reforms significantly increase the strength of the previous budget law and give fiscal policy a longer term focus. The new law defines two main types of spending: mandatory and discretionary. *Under the new law, mandatory spending and tax legislation is limited by a "pay-as-you-go" test.* Under this test any new mandatory spending legislation or proposed tax decreases for the next 5 years must be offset by a corresponding decrease in other mandatory spending or by an increase in tax revenue.

*Legally binding caps have been established on discretionary spending for each of the next 5 years.* For 1991 through 1993, caps are placed on three separate categories of discretionary spending: domestic, defense, and international. In 1994 and 1995, a single cap covers total discretionary spending. In each year the spending on

Chart 2-11 Reductions in the Federal Budget Deficit, NIPA Basis

With the new budget law, the structural deficit is expected to decrease in each of the next 5 years; the actual deficit is expected to rise before falling.

Billions of dollars



Source: Department of Commerce.

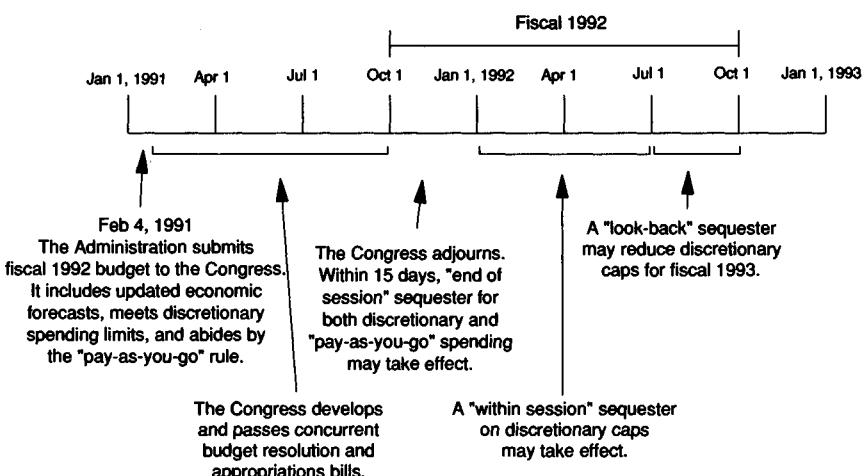
different programs within a category can change, but total spending for each category cannot exceed the cap. Hence, the caps impose a "flexible freeze" on spending. Moreover, saving in one category cannot be credited to another category. The discretionary caps will be adjusted for inflation and a limited set of technical factors. Funding for the military operation in the Persian Gulf will not count against the defense discretionary spending caps.

*Discretionary spending that exceeds the caps, or mandatory spending or receipts legislation that violates the pay-as-you-go rule, will trigger sequesters, which are automatic, across-the-board cuts in discretionary or mandatory spending. "End-of-session" sequesters would take effect 15 days after the Congress adjourns at the end of the fiscal year. They apply to the category that violates the rule. If domestic discretionary spending violates its spending caps, for example, it is cut. If the pay-as-you-go rule is violated, entitlement spending is reduced. An end-of-session sequester has already taken place for the fiscal 1991 budget because new spending legislation, as a result of an unintentional drafting error, violated the spending cap on international discretionary programs.*

A "within session" sequester can be applied to discretionary spending during the fiscal year if supplemental appropriations leg-

isolation—appropriations made for the fiscal year, during the fiscal year—violate the discretionary spending caps before the last quarter of the fiscal year. If supplemental legislation violates these caps during the fourth quarter, a “look-back” sequester lowers the following year’s caps by the amount of the overrun. An example of how the three types of sequesters would work in the fiscal 1992 budget cycle is given in Chart 2-12.

Chart 2-12 The Fiscal 1992 Budget Cycle



Sources: Council of Economic Advisers and Office of Management and Budget.

Under the new budget process, discretionary funding that the President designates as being required to meet an emergency and that the Congress designates as an emergency by statute, would not count against the discretionary caps. If the emergency funding affected mandatory spending, it would not be counted for pay-as-you-go purposes. Because the President now has the authority to require that all items meet the enforcement provisions, other than those the President designates an emergency, the Congress cannot avoid the discretionary caps or pay-as-you-go rule by passing emergency supplemental appropriations bills.

The budget law sets overall deficit targets for each year and allows the deficit targets to be adjusted in response to changes in short-run economic conditions in fiscal 1992 and 1993. If economic growth is lower than expected, the deficit target is raised. If eco-

nomic growth is higher than expected, the deficit target is lowered. Adjusting for changing economic conditions preserves the "automatic stabilizers" built into spending programs and the tax code. When growth is low, entitlement spending increases and tax revenues fall, increasing the budget deficit but cushioning personal incomes and spending. The opposite happens when growth accelerates. In fiscal 1994 and 1995 the President can choose not to adjust the deficit targets.

Several additional reforms have been made in the budget process. Budget resolutions, which are used by the Congress to place spending limits on its committees, will now cover 5 fiscal years. That will make the long-term implications of budget legislation more apparent when members vote on the resolutions. Furthermore, the Social Security trust fund is now protected by "firewalls," procedural rules in both the House and Senate that make it difficult to pass any resolution that would reduce the actuarial balance of the fund.

### *Federal Credit Reform*

Another important feature of the new budget law reforms the budgetary treatment of Federal credit programs. Government spending on credit activities is best measured by the subsidies embodied in Federal direct loans and loan guarantees. For years, the budget did not record these expenses, which reduced the scrutiny given to credit programs. The Federal Credit Reform Act of 1990, part of the 1990 budget law, requires that the subsidy cost of Federal credit be treated in the same manner as other Federal spending in the budget process.

Additional steps were taken to ensure the financial soundness of federally sponsored, privately funded businesses, called government-sponsored enterprises (GSEs). The contingent liabilities incurred by GSEs have risen dramatically. Both the Treasury Department and the Congressional Budget Office are required to submit studies on the financial soundness of these institutions. These studies will provide the background for legislation, to be introduced by September 15, 1991, that will ensure the fiscal health of GSEs (see Chapter 5 for more detail).

### *Budget Outlook for Fiscal 1991 and Fiscal 1992*

The consolidated and NIPA deficits are expected to be higher in fiscal 1991 than they were in fiscal 1990. Automatic stabilizers are likely to add to the budget deficit in fiscal 1991, but they will help mitigate the downturn without altering the course of long-term structural deficit reductions. An increase in expected outlays of deposit insurance funds in fiscal 1991 also contributes to the higher projected consolidated budget deficit, but as described earlier, RTC and other deposit insurance outlays have a negligible net effect on

capital markets. For fiscal 1991 the consolidated deficit is expected to be \$318 billion, compared with \$220 billion in fiscal 1990, with deposit insurance outlays projected to rise by \$53 billion. On a NIPA basis, which excludes spending for deposit insurance, the deficit is expected to be \$204 billion in fiscal 1991, compared with \$158 billion in fiscal 1990.

For fiscal 1992 both the consolidated and NIPA deficits are projected to improve, compared with fiscal 1991. The consolidated deficit is expected to be \$281 billion, and the NIPA deficit is expected to be \$182 billion. Much of this improvement is due to a return to more normal growth projected for fiscal 1992.

The economic downturn followed by the projected upswing will obscure the tendency for the structural deficit to decline. The structural NIPA deficit is projected to fall by \$7.5 billion in fiscal 1991 and then by an additional \$16.2 billion in fiscal 1992.

## SUMMARY

- The Administration supports stable, credible policies that provide the flexibility to mitigate the downturn while maintaining a long-term focus on the goal of strong economic growth and low and stable inflation.
- An important characteristic of a credible and systematic monetary policy is a commitment to sustain the rate of growth of money and credit during a downturn. That commitment would allow interest rates to decline and mitigate the downturn.
- The Omnibus Budget Reconciliation Act of 1990 is a substantial and credible deficit reduction agreement that is expected to reduce the deficit by almost one-half trillion dollars over the next 5 years and add to national saving and long-term growth.
- Because of the downturn, the automatic stabilizers are likely to add to the budget deficit in 1991, but they will help bring the economy to a quick recovery without altering the course of long-term structural deficit reductions.

## THE ECONOMIC OUTLOOK

The Administration projects that the downturn in the economy is likely to continue into the early part of 1991 and that recovery is likely to begin by the middle of the year. After the recovery, the economy is then expected to return to a strong growth path of around 3 percent through the mid-1990s. In the long run, projected reductions in labor force growth may lead to lower real GNP growth, unless they are offset by increased immigration or greater labor force participation.

## THE OUTLOOK FOR THE SHORT TERM

Reductions in real consumer income during the last two quarters of 1990, low levels of consumer and business confidence, and continued tight credit conditions all point to a further decline in real activity in the first quarter of this year.

There have been eight other recessions since World War II. The average recession lasted 11 months, two lasted 16 months, and one was only 6 months. The typical recession has been associated with a 2.6-percent decline in real GNP from peak to trough, although declines have been as high as 4.3 percent and as low as 1 percent.

Compared with the average of these previous recessions, the current downturn is likely to be shallow and relatively short, and the prospects for a recovery of economic growth by mid-1991 are good. The economy continues to have low inventories relative to sales, indicating that a prolonged period of inventory liquidation is not likely in the short term. More importantly, in the early stages of previous downturns both inflation and interest rates were either high or rising. In 1982, for example, the Federal Reserve had to follow a stringent monetary policy to reduce entrenched inflation expectations. In the current situation, the core inflation rate is moderating and is far lower than in the 1974-75 and 1981-82 recessions, partly because the Federal Reserve has followed a credible, systematic policy in recent years. Moderating inflation, coupled with Federal Reserve credibility in fighting inflation, leaves room for the Federal Reserve's policy to soften the downturn without raising expectations of higher inflation.

Additional developments in 1990 point to growth recovering in the second half of 1991. Lower long-term interest rates will begin to have positive effects on investment spending. The loosening of monetary policy that occurred in the fourth quarter of 1990 and early 1991 will also begin to affect consumer and business spending in the middle of 1991. Some analysts estimate that it takes at least five quarters for a change in the value of the dollar to have a substantial effect on exports and imports. Thus, the lagged effects on exports of the decline in the foreign exchange value of the dollar are likely to be felt well into 1991. In addition, real net exports are expected to improve because the Nation's major trading partners are expected, on average, to experience stronger growth than the United States.

A final important ingredient to recovery is a successful resolution to the Persian Gulf crisis. Oil prices have already declined substantially, which will remove a large drag on the economy. In addition, successful resolution of the crisis will strengthen the economy by boosting consumer and business confidence.

*The Administration expects real GNP to increase 0.9 percent from the fourth quarter of 1990 to the fourth quarter of 1991 (Table 2-3).*

*This rate is higher than the 0.3-percent growth during 1990 because of the fourth-quarter decline in 1990. The sectors most likely to contribute to economic growth are those that are particularly sensitive to lower interest rates, easier credit conditions, and the lower dollar in 1990. For example, residential construction, consumer durables, and business spending on new plant and equipment are likely to improve as the year progresses. Exports of manufactured goods and farm commodities are likely to rise. A return to higher export growth for manufacturing would also stimulate further spending on new plant and equipment needed to meet the rising export demand.*

TABLE 2-3.—*Economic Outlook for 1991*

Item	1990 <sup>1</sup>	1991 Forecast
Percent change, fourth quarter to fourth quarter		
Real gross national product.....	0.3	0.9
Personal consumption expenditures .....	.2	.5
Nonresidential fixed investment .....	.9	1.6
Residential investment.....	-8.7	1.5
Federal purchases of goods and services.....	5.5	-3.9
State and local purchases of goods and services.....	2.5	1.8
GNP implicit price deflator .....	4.0	4.3
Consumer price index <sup>2</sup> .....	6.2	4.3
Compensation per hour <sup>3</sup> .....	-1.8	6.0
Output per hour <sup>4</sup> .....	-.1	1.6
Fourth quarter level		
Unemployment rate (percent).....	5.8	6.6
Housing starts (millions of units, annual rate).....	1.0	1.2

<sup>1</sup> Preliminary.

<sup>2</sup> For urban wage earners and clerical workers.

<sup>3</sup> Nonfarm business, all persons.

<sup>4</sup> Unemployed as percent of labor force including resident Armed Forces.

Note.—Based on seasonally adjusted data.

Sources: Council of Economic Advisers, Department of Commerce, Department of Labor, Department of the Treasury, and Office of Management and Budget.

Inflation in 1991 should be lower than in 1990, barring a resurgence of oil price rises or other price shocks. The economic slowdown in 1990 created excess capacity in many industries and eased tightness in labor markets, which will contribute to downward pressure on underlying inflation during the year.

In 1992, growth is expected to be robust as the economy continues to rebound from its sluggish growth in 1989–90 and the downturn that began in late 1990. Business investment and construction activity are expected to be especially strong. The unemployment rate is projected to decline.

### *Forecast Uncertainties*

Economic forecasting is an imprecise science. Natural disasters and other unexpected developments can cause forecasts to go awry. Changes in the policies upon which the forecasts are based can cause actual events to be substantially different from the forecast.

Ultimately, economic forecasts are based largely on predictions about human behavior, usually taking the previous patterns of behavior as a guide. But human behavior is complex, difficult to predict, and subject to change. People do not always respond the same way, or with the same speed, in what appear to be similar circumstances.

Forecasts made around turning points of the business cycle are even less precise than those made during extended expansions. Moreover, the conflict in the Persian Gulf creates uncertainty about future oil price developments.

In the longer term, another important area of uncertainty arises from the possibility of rising protectionism and increasing trade frictions between countries. If the Uruguay Round of the General Agreement on Tariffs and Trade is not completed successfully, countries may begin to close their markets to protect their domestic industries. That would increase the risk of slower long-term growth for all countries. In addition, an increase in the barriers to trade would lead to a decrease in U.S. exports, which have been a key source of growth for the economy over the last few years. The downturn facing the United States and other countries around the world jeopardizes more open trading, because governments and workers typically seek to maintain domestic employment levels by reducing imports during downturns. (Chapter 7 discusses the role open foreign markets play in economic growth.)

Table 2-4 illustrates the uncertainties of economic forecasting by providing a range of short-term outcomes. The higher growth alternative is consistent with a sharper and faster rebound in economic activity than the Administration projection. The lower growth alternative is consistent with the behavior of real growth during an average postwar recession.

Since real growth, inflation, interest rates, and employment affect Federal spending and receipts, the projected budget deficit also varies across the three projections. A slow recovery with relatively high unemployment, low income growth, and higher interest rates will lower tax receipts and increase spending through automatic stabilizers, leading to a higher deficit. On the other hand, a faster, more robust acceleration in income and employment growth could substantially cut the deficit from the Administration projection.

## THE PROSPECTS FOR GROWTH IN THE LONGER TERM

Short-term projections are heavily influenced by recent events. Developments that temporarily raise or lower the overall level of demand can have a substantial effect on the near-term outlook for real growth and inflation. In the longer term the main determi-

TABLE 2-4.—*Alternative Projections and Their Impact on the Deficit, 1991-92*

Item	Calendar year 1991		Calendar year 1992	
	Percent change, fourth quarter to fourth quarter			
Real gross national product:				
Higher growth .....	1.3		3.8	
Administration .....	.9		3.6	
Lower growth .....	-1.3		3.5	
GNP implicit price deflator:				
Higher growth .....	4.5		4.2	
Administration .....	4.3		3.8	
Lower growth .....	4.1		3.6	
Total unemployment rate:	Percent			
Higher growth .....	6.5		6.4	
Administration .....	6.7		6.6	
Lower Growth .....	7.1		6.9	
Interest rate, 91-day Treasury bills:				
Higher growth .....	6.7		6.6	
Administration .....	6.4		6.0	
Lower growth .....	6.2		5.7	
Budget deficit:	Billions of dollars (Fiscal years)			
Higher growth .....	204		186	
Administration .....	207		193	
Lower growth .....	222		225	

Note.—Deficit on a consolidated basis excluding deposit insurance outlays.

Sources: Council of Economic Advisers, Department of the Treasury, and Office of Management and Budget.

nants of average growth are the factors that influence the overall supply of goods and services generated in the economy.

One way to focus on supply factors is to decompose real GNP growth into four components: (1) labor force growth, the growth in the number of people available for work each year; (2) the change in the share of the labor force that is employed, or the employment rate; (3) the growth in the number of hours an employed person works each year, represented as the growth in average weekly hours; and (4) labor productivity growth, the growth in the amount of goods and services that can be produced with an hour of labor.

Table 2-5 shows the contribution of various factors in expected average real GNP growth during the next 6 years, compared with previous periods.

### *Growth During the Next 6 Years*

Economic growth is projected to average about 2.6 percent a year during the next 6 years (see Table 2-6 for year-by-year projections). This projection assumes an average rise of 1.3 percent a year in the labor force, a lower growth rate than in the 1980s. Slower labor force growth results both from slight reductions in projected labor

TABLE 2-5.—Accounting for Growth in Real GNP, 1948-96

[Average annual percent change]

Item	1948 IV to 1981 III	1973 IV to 1981 III	1981 III to 1990 III	1990 III to 1996 IV
<b>GROWTH IN:</b>				
1) Civilian noninstitutional population aged 16 and over .....	1.5	1.8	1.1	0.9
2) PLUS: Civilian labor force participation rate.....	.2	.5	.4	.4
3) EQUALS: Civilian labor force .....	1.8	2.4	1.6	1.3
4) PLUS: Civilian employment rate.....	-.1	-.4	.2	.1
5) EQUALS: Civilian employment .....	1.7	2.0	1.8	1.4
6) PLUS: Nonfarm business employment as a share of civilian employment <sup>1</sup> .....	.1	.1	.3	-.3
7) EQUALS: Nonfarm business employment .....	1.8	2.1	2.1	1.1
8) PLUS: Average weekly hours (nonfarm business) .....	-.4	-.7	.0	-.1
9) EQUALS: Hours of all persons (nonfarm business) .....	1.3	1.3	2.1	1.0
10) PLUS: Output per hour (productivity, nonfarm business) .....	2.0	.7	1.0	1.8
11) EQUALS: Nonfarm business output .....	3.3	2.0	3.1	2.8
12) LESS: Nonfarm business output as a share of real GNP <sup>2</sup> .....	.0	-.1	.4	.2
13) EQUALS: Real GNP .....	3.3	2.2	2.8	2.6

<sup>1</sup> Line six translates the civilian employment growth rate into the nonfarm business employment growth rate.<sup>2</sup> Line 13 translates nonfarm business output back into output for all sectors, or GNP, which includes the output of farms and general government.

Note.—Data may not add due to rounding.

Time periods for the first two columns are from business cycle peak to business cycle peak to avoid cyclical effects.

Sources: Council of Economic Advisers, Department of Commerce, Department of Labor, Department of the Treasury, and Office of Management and Budget.

force participation rates and from slower growth in the working-age population. In the postwar period, growth in the working-age population averaged 1.5 percent, but it is predicted to rise at only a 0.9-percent rate over the next 6 years. Labor force participation and population growth projections also depend on factors such as immigration. The labor force growth projections assume lower levels of immigration than in the 1980s. However, the Immigration Act of 1990, which allows a substantial increase in immigration and emphasizes skill-based entry criteria, may increase the size of the labor force, which would lead to faster labor force growth than reflected in Table 2-6. It could also increase productivity.

Decreases in the unemployment rate are expected to contribute less than 0.1 percentage point on average, each year to real GNP growth from 1991 to 1996. A fall in the unemployment rate in the 1991-92 period, as the economy rebounds from the current slowdown, contributes the most to GNP. As the economy nears full employment, increases in employment make smaller contributions to growth.

Average weekly hours are expected to decline slightly and to have little effect on average real GNP growth during 1991-96. In 1991 and 1992, hours seem likely to recover somewhat from their cyclically low levels in 1990. In the latter part of the period the long-term downward trend in average weekly hours is expected to reassert itself.

TABLE 2-6.—Administration Economic Assumptions, 1991-96

Item	1990 <sup>1</sup>	1991	1992	1993	1994	1995	1996
Percent change, fourth quarter to fourth quarter							
Real GNP .....	0.3	0.9	3.6	3.4	3.2	3.0	3.0
Real compensation per hour <sup>2</sup> .....	-1.8	1.6	2.0	2.1	2.0	2.0	2.0
Output per hour <sup>3</sup> .....	-.1	1.6	1.9	1.9	1.9	1.9	1.9
Consumer price index <sup>4</sup> .....	6.2	4.3	3.9	3.6	3.5	3.4	3.3
Annual level							
Interest rate, 91-day Treasury bills (percent) <sup>5</sup> .....	7.5	6.4	6.0	5.8	5.6	5.4	5.3
Employment (millions) <sup>6</sup> .....	119.6	119.0	120.8	122.9	125.1	127.3	129.2
Unemployment rate (percent) <sup>6</sup> .....	5.4	6.7	6.6	6.2	5.8	5.4	5.1

<sup>1</sup> Preliminary.<sup>2</sup> Nonfarm business, all persons.<sup>3</sup> For urban wage earners and clerical workers.<sup>4</sup> Average rate on new issues within period, on a bank discount basis.<sup>5</sup> Includes resident Armed Forces.<sup>6</sup> Unemployed as percent of labor force including resident Armed Forces.

Sources: Council of Economic Advisers, Department of Commerce, Department of Labor, Department of the Treasury, and Office of Management and Budget.

A key assumption underlying the average 2.6-percent growth rate is that labor productivity will average 1.8 percent over the forecast horizon. After 1991, assuming the Administration's pro-growth initiatives are adopted, underlying economic growth is expected to approach 3 percent and labor productivity is projected to be 1.9 percent. That is very close to the 1.7-percent average rate of productivity growth since 1950. It is below the 2.4-percent rise from 1950 to 1969, but higher than average productivity growth in the 1980s. This rise in labor productivity will be facilitated by the higher level of capital accumulation that results from lower Federal borrowing and lower real interest rates.

Inflation and interest rate projections are consistent with the longer term assumptions concerning monetary and fiscal policy. These projections reflect a monetary policy aimed at gradually reducing the underlying inflation rate over the next 6 years. In response to lower inflation and reduced Federal borrowing requirements, interest rates, both nominal and real, are likely to decline.

### *Growth Beyond the Mid-1990s*

For the years beyond the mid-1990s, demographic factors suggest that the average rate of real GNP growth will slow. Labor force growth, for example, is expected to decline substantially throughout the next 40 years. Since 1948 the labor force has grown by 1.7 percent a year. However, from 1990 to 2010 labor force growth is projected to average about 0.9 percent a year and is projected to decline 0.2 percent a year from 2010 to 2030. That is consistent with a projected slowdown in population growth and a projected decline in the overall labor force participation rate.

Population growth (the Census Bureau middle projection) is projected to average just under 0.5 percent a year from 1990 to 2030, less than half the rate of annual average population growth between 1960 and 1990. The overall labor force participation rate is projected to rise through about 2000, the last year the baby-boom generation is entirely within the range of working ages that have traditionally had the highest participation rates. As the population ages, the overall participation rate would decline even without a fall in the participation rate of any single demographic group. Overall labor force participation is projected to show little net growth between 1990 and 2010 and to decline after 2010.

The projection of slowing real GNP growth over the very long term rests upon demographic projections that are largely extrapolations of current and past population growth and labor force behavior. Several factors would cause the simple extrapolations to underestimate the average rate of economic growth: an unexpected increase in fertility rates; an increase in labor force participation rates for older Americans, perhaps due to increasing longevity; or an increased number of highly skilled immigrants. Nevertheless, the simple extrapolations provide a benchmark against which long-term growth projections can be compared.

It is also important to note that although real GNP growth is likely to decline over the next 40 years, this does not suggest that productivity growth will decline. With real output per hour rising at 1.9 percent a year, the standard of living would more than double by 2030. Sound policies that create incentives for saving and investment and a better educated work force will help to ensure the maximum sustainable rise in the standard of living.

## SUMMARY

- The downturn that began in the second half of 1990 is expected to continue into early 1991, with the economy recovering by mid-1991. While future oil prices remain uncertain, oil prices in the range they reached following the successful beginning of Operation Desert Storm will reduce the drag on the economy caused by the oil shock in the latter half of 1990.
- Economic activity will be further strengthened by lower interest rates and the decline in the value of the dollar that occurred in 1990. Inflation is projected to moderate, barring an unexpected rise in oil prices above their late 1990 levels.
- In the longer term, several factors have paved the way for increased private capital accumulation and faster productivity growth. The economy's underlying medium-term growth potential is likely to be about 3 percent a year. Inflation and nominal interest rates are projected to decline.

- In the very long term, the average rate of real GNP growth is likely to fall, due to a slower growing labor force. If productivity growth holds up, living standards will continue to increase.

## CONCLUSION

The economy, which was already growing sluggishly for various reasons, entered a recession in the latter part of 1990. The downturn was caused in large part by the economic effects of the oil shock following Iraq's invasion of Kuwait.

Recovery is likely to begin by mid-1991, making the downturn relatively mild. In contrast to other slowdowns, the economy entered this recession with low inventories, thereby decreasing the likelihood of substantial further cuts in production. Unlike previous postwar recessions when inflation was rising, in the current situation core inflation is relatively low and money growth has been slow, thus there is room for flexibility in Federal Reserve policy to mitigate the downturn without raising inflation expectations. Declines in the exchange value of the dollar in 1990 and the monetary policy easing that occurred at the end of 1990 and early 1991 will also help to increase growth in 1991.

Over the longer term, the new multiyear, enforceable budget law will lower the structural Federal deficit and, therefore, Federal borrowing requirements. Combined with a monetary policy aimed at maintaining strong economic growth while gradually reducing the underlying inflation rate, both nominal and real interest rates are likely to decline. Credible monetary policy and growth-oriented fiscal policy will facilitate higher levels of capital accumulation, raise labor productivity, and enhance the economy's growth potential.