CHAPTER 7

The U.S. Economy in the 1980s and Beyond

WHEN THE PRESIDENT TOOK OFFICE in January 1981, the condition of the U.S. economy was bleak. Sixteen years of inappropriate monetary and fiscal policies and two oil price shocks had left the economy in the grips of stagflation. Inflation and unemployment rates had followed rising trends between 1965 and 1981. For example, at the expansion peak in the fourth quarter of 1969, the unemployment rate was 3.5 percent and the inflation rate was 5.1 percent. By the third quarter of 1981, another expansion peak, the unemployment rate had climbed to 9.2 percent and the inflation rate had risen to 9.4 percent. At the same time, the trends in real output and productivity growth had faltered. Between the expansion peaks of the second quarter of 1953 and the fourth quarter of 1969, real gross national product (GNP) and manufacturing productivity growth averaged 3.2 percent and 2.3 percent per year, respectively. Between the fourth quarter of 1969 and the third quarter of 1981, GNP and manufacturing productivity growth averaged 2.6 percent and 2.2 percent per year, respectively, while between the fourth quarter of 1973 and the third quarter of 1981, GNP and manufacturing productivity growth averaged only 2.2 percent and 1.5 percent, respectively.

As the President leaves office in January 1989, the economy is in its seventh year of expansion. This is the longest peacetime expansion in recorded U.S. history and one marked with notable achievements. Real output has grown 4.2 percent per year on average between the fourth quarter of 1982, and the third quarter of 1988. Nonfarm employment has increased by almost 19 million jobs through November 1988. The inflation rate has fallen from double digits and has averaged about 3.3 percent in the past 5 years. Manufacturing productivity has increased at an average annual rate of 4.4 percent, almost three times as fast as its average growth between the fourth quarter of 1973 and the third quarter of 1981.

Economic performance in 1988 surpassed the expectations of many forecasters, who first expected the October 1987 stock market crash and an apparently large inventory overhang to dampen growth, and who later predicted rising inflation. Real output grew an average 2.9

percent during the first three quarters of the year, inflation was only 3.9 percent, and the unemployment rate fell to 5.3 percent, among the lowest in 14 years. Moreover, the composition of real output moved into better balance, with business fixed investment and exports both posting impressive gains.

The prosperity of the past 6 years is in no small measure attributable to the economic policies fostered and implemented by this Administration. Tax reform has improved the incentives to produce, save, and invest. Slower growth of Federal spending has freed resources for the private economy. Prudent monetary policy has lowered and stabilized the rate of inflation. As long as policymakers maintain open and flexible markets, enhance economic stability by avoiding short-run stabilization policies and higher tax and inflation rates, rein in Federal spending, and avoid protectionism, the economy can continue to demonstrate good economic performance in the years ahead. With this proviso, the economic outlook for the United States is bright.

THE LOWERING OF INFLATION IN 1981 AND 1982

A cornerstone of this Administration's economic policy has been a reduction in the rate of inflation. Given the poor economic performance of the 1970s, the Administration believed that strong and durable gains in living standards could not be achieved unless inflation was stable, and ultimately zero. The Administration encouraged and supported Federal Reserve efforts to reduce the growth of money in order to achieve a lower inflation rate. This policy support built public credibility in the Federal Reserve's disinflation policy.

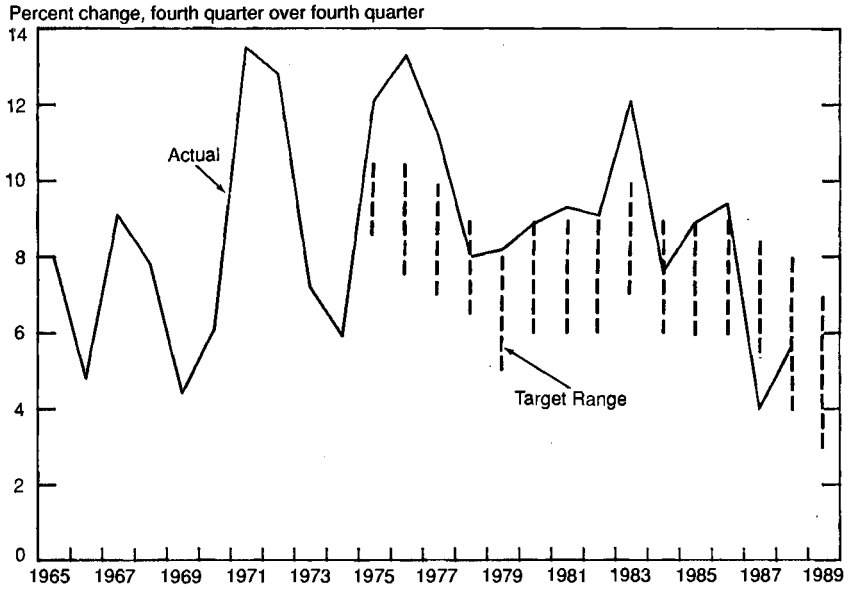
Monetary policy actions between 1965 and 1980 had shattered the Federal Reserve's credibility as an inflation fighter. On average, the money supply grew more rapidly than the rate consistent with low inflation. For example, M2 grew at an annual average rate of nearly 9 percent between 1965 and 1980. Given that the velocity of M2, which is defined as the ratio of nominal GNP to M2, has exhibited no secular trend during the postwar period, inflation would not have surged during the late 1960s and the 1970s if M2 growth had stayed closer to the 3 percent trend growth of real GNP. Compounding the inflationary effects of fast money growth during the second half of the 1970s was an increase in the average growth rate of the velocity of M2 as nominal interest rates rose in response to continued inflation. Thus, a given money growth rate was translated into even faster inflation.

Not only was average money growth excessive between 1965 and 1980, but it was also highly variable (Chart 7–1). Large changes in

money growth whipsawed the economy alternately into boom and bust periods. During 1967, 1971, and 1975, the growth rate of M2 approximately doubled from the previous year, while during 1966, 1969, 1973, and 1976–78, M2 growth reversed course, falling by about one-third to one-half of its previous value.

Chart 7-1

Actual and Target M2 Growth



Note.—Target ranges set for 1975 to 1989 only.
Source: Board of Governors of the Federal Reserve System.

Excessive and highly variable money growth clouded the public's understanding of the intentions of the Federal Reserve. Since 1975 the Federal Reserve has announced annual growth targets for most of the monetary aggregates. The Federal Reserve designs the target ranges to be consistent with its ultimate policy objectives of achieving price stability in an environment of sustainable real output growth. In recent years the Federal Reserve has also announced its expectations of real output growth, inflation, and the unemployment rate for the coming or current year. These growth targets and expectations of economic activity, along with policy announcements of foreign governments, set the pattern of expectations affecting, for example, interest rates, exchange rates, and other prices. During the second half of the 1970s the Federal Reserve's policy objectives were to moder-

ate real output growth and reduce the rate of inflation, as evidenced by a gradual lowering of the target ranges during this period. Yet the Federal Reserve consistently allowed the monetary aggregates to increase faster than their maximum targeted growth rates. As the rate of inflation steadily rose in the late 1970s the credibility of the Federal Reserve's announced disinflation policy was severely eroded.

This loss of credibility was potentially important. Because the public did not believe that the Federal Reserve was serious about controlling inflation, it did not alter its behavior to be consistent with a lower rate of inflation; public expectations of continued rapid inflation were reflected in wage and loan contracts, spending habits, and asset prices. These expectations raised the probability that the output loss and unemployment from a disinflationary policy would be greater than from a credible policy.

The Federal Reserve demonstrated its determination to reduce inflation in 1981. Although the growth rate of M2 changed little from 1980, the growth rate of the narrow aggregate M1 was reduced from 7.5 percent between the fourth quarter of 1979 and the fourth quarter of 1980 to 5.2 percent over the four quarters of 1981. At the same time, the Federal funds rate rose from a then recent low of about 9 percent in July 1980 to more than 19 percent in June 1981.

The effect of this monetary tightening on the rate of inflation was dramatic, coming as it did after the brief 1980–81 recovery and reinforced by the largest decline in velocity of the postwar period. From a peak of 12.1 percent in the fourth quarter of 1980, the rate of inflation fell to 3.6 percent in the fourth quarter of 1982. Although the 1981–82 recession is often called the most severe in 50 years, its effect on the real economy was less than that of the 1973–75 recession. Real GNP fell 3.2 percent between the expansion peak in the third quarter of 1981 and the recession trough in the fourth quarter of 1982, compared with a total decline of 4.3 percent during the 1973–75 recession; the unemployment rate rose 3.2 percentage points over the same period, slightly less than its 3.4 percentage points rise during the 1973–75 recession. The output and employment losses during the 1981–82 recession were the price paid for the failure to correct the inflationary excesses of the previous 15 years, and are properly viewed as the downpayment for the current expansion.

THE EXPANSION IN PERSPECTIVE

An important legacy of this Administration is the refocusing of economic policy. The Administration deemphasized short-run stabilization policies; worked to provide a stable policy environment with

market-based incentives for productive behavior, including low inflation; and attempted to extricate private markets from burdensome regulations. The strength and durability of the current expansion bear testimony to the soundness of these policies. In December 1988 the current economic expansion entered its seventh year, making it the longest peacetime expansion and the third longest on record. Most impressively, the inflation rate has not risen during this expansion, but has remained in the neighborhood of 3 to 4 percent. Indeed, this President is the first President in 36 years to leave office with both a lower inflation rate and a lower unemployment rate than when he assumed office.

The performance of the economy during the current expansion can be evaluated in several ways. One is to compare the performance with that of major U.S. trading partners. Another is to compare U.S. economic activity during this expansion with economic activity in previous expansions. Apart from the obvious advantage of indicating how domestic economic activity compares with activity abroad, the international comparison can hold constant many common factors influencing economic activity worldwide. The disadvantages of international comparisons are the lack of an historical perspective and the failure to hold constant expansion timings and institutional arrangements such as labor market practices across countries. The comparison with previous U.S. expansions offers this time perspective, indicating to what extent economic activity during the current expansion is better or worse than during past expansions. But this comparison does not hold constant the various exogenous forces, such as droughts, changes in foreign oil supplies, and the impact of foreign government policies, on the U.S. economy. Neither comparison is superior to the other; each has its own strengths and weaknesses. For this reason, both comparisons are employed below.

GROWTH IN REAL OUTPUT

The growth of real output during this expansion compares favorably with growth abroad. Between 1982 and 1987 real output growth in the United States was greater than the average output growth of the other six economic summit countries—France, West Germany, Italy, the United Kingdom, Japan, and Canada—and greater than the average growth of every summit country except Japan and Canada. In contrast, U.S. output growth in the 1960s and 1970s was below the average of the other six summit countries and well below that of Japan, France, Italy, and Canada.

The good performance of the U.S. economy during this expansion is not simply a matter of an early start at recovery. The better U.S. performance also appears during the 1981–87 and 1983–87 time pe-

riods. Instead, the above-average performance of the U.S. economy during this expansion reflects the vigor of the free-market system and economic policies aimed at promoting long-run growth and stable prices. Indeed, as it has become clear that this Administration's policies are paying off, other countries have rushed to adopt similar policies. For example, tax reform is underway in Japan, West Germany, the United Kingdom, and several other countries as well. Government has reduced intervention in the marketplace in France, West Germany, and the United Kingdom through privatization of major publicly owned firms and steps toward deregulation of key markets.

The growth of real GNP in the United States between the fourth quarter of 1982 and the third quarter of 1988 totaled almost 27 percent, greater than real GNP growth in all but one postwar U.S. expansion. This solid growth reflects the long duration of the current expansion, which sets the current expansion apart from almost all U.S. expansions. Average real GNP growth during the current expansion is remarkably similar to that of the past five expansions, excluding the brief 1980–81 episode (Table 7–1). Real GNP has grown an average of 4.2 percent per year between the fourth quarter of 1982 and the third quarter of 1988, virtually matching the 4.3 percent average of the previous expansions. The growth of other aggregate measures during this expansion is similar to the expansion average. Real final sales have grown 3.7 percent per year compared with the average of 3.9 percent, and total employment has grown slightly faster than the average. Real personal consumption expenditures have grown close to the expansion average of 4.1 percent, dispelling the notion that the current expansion has been entirely consumer-led.

SAVING AND INVESTMENT

Although similar in aggregate terms, output and spending during the current expansion differ in composition from the average of past expansions. These differences are best described by examining the balance between saving and investment, which is the reverse side, although not the mirror image, of output and spending behavior. The national income and product accounts identity between income and output can be rewritten as an identity between gross saving and investment. Gross saving is the sum of personal, business, and governmental saving, and gross investment is the sum of gross private domestic investment and net foreign investment.

One difference between the current and past expansions is the behavior of the Federal Government budget deficit. Between calendar years 1980 and 1983, the Federal budget deficit rose from 2.2 percent to 5.2 percent of GNP on a national income and product ac-

TABLE 7–1.—*Comparison of Current and Past Expansions*

[Average annual percent change, except as noted]

Item	Total expansion		First 2 years		Second 2 years		Third 2 years	
	Current[1]	Average	Current	Average	Current	Average	Current[1]	Average
REAL GNP	4.2	4.3	5.8	4.8	2.8	3.9	4.1	3.3
Final sales	3.7	3.9	4.2	4.1	3.5	3.6	3.4	3.6
Personal consumption expenditures	4.0	4.1	4.8	4.9	4.4	3.0	2.7	2.7
Nonresidential fixed investment	6.1	6.7	12.3	5.9	−1.9	9.2	8.8	5.2
Structures	−1.6	4.2	3.1	2.3	−8.3	6.3	.9	10.0
Producers' durable equipment	9.9	8.7	17.9	8.8	1.0	11.1	11.8	3.1
Residential fixed investment	9.2	5.8	21.0	13.0	8.5	−2.2	−2.3	−12.0
Exports of goods and services	7.7	9.1	5.9	6.6	1.5	11.5	17.5	13.3
Imports of goods and services	11.5	7.8	20.6	9.5	6.1	4.8	8.1	8.4
Government purchases of goods and services	2.8	1.3	2.5	.7	5.7	1.8	−.1	6.0
Federal	1.8	−.9	1.9	−1.6	6.4	−.5	−3.5	7.8
Defense	4.3	−1.7	5.8	−3.2	6.0	−1.3	.7	10.2
Nondefense	−5.5	2.6	−7.6	6.1	7.8	.7	−16.5	.7
Excluding CCC	2.2	2.6	4.1	6.0	−2.5	.4	5.5	1.2
State and local	3.6	3.8	2.9	3.5	5.1	4.1	2.5	4.2
Final sales to domestic purchasers	4.2	3.8	5.8	4.4	4.1	3.1	2.6	3.0
Change in net exports of goods and services (billions of 1982 dollars)	−105.6	1.7	−106.5	−15.6	−47.6	17.4	48.5	17.9
ADDENDA:								
GNP implicit price deflator	3.3	4.4	3.5	3.8	2.9	5.4	3.5	5.9
Employment including resident Armed Forces	2.6	2.5	3.3	2.4	2.1	2.7	2.4	2.0
Industrial production	5.7	7.2	10.4	8.7	1.4	5.6	5.5	3.7
Manufacturing output per hour	4.4	3.0	5.7	4.3	3.6	2.6	3.7	.2
Real compensation per hour, nonfarm business sector	.6	2.3	.1	3.1	1.9	1.2	−.2	−.7

[1] Through 1988 III.

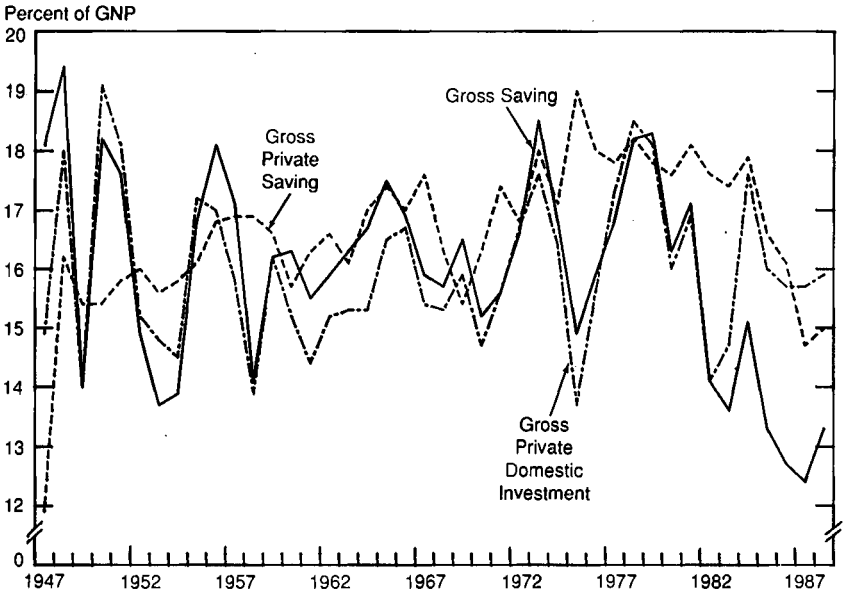
Note.—Average expansion includes expansions beginning in 1954 II, 1958 II, 1961 I, 1970 IV, and 1975 I. (Expansions are as determined by National Bureau of Economic Research.)

Sources: Department of Commerce, Department of Labor, and Board of Governors of the Federal Reserve System.

counts basis. This increase had cyclical and structural components. The cyclical components included greater income-support payments and lower income tax receipts during the 1981–82 recession. The structural components were the buildup in national defense spending and tax changes in the Economic Recovery Tax Act of 1981 (ERTA) and the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). For example, real national defense purchases rose at an annual average rate of 8.2 percent between the fourth quarter of 1980 and the fourth quarter of 1982, the strongest growth since the Vietnam war buildup, and at an annual average rate of 5.9 percent during the first 4 years of the current expansion. On balance, expenditures increased as a percent of GNP and receipts as a percent of GNP remained roughly constant. The increase in the Federal budget deficit accounted for most of the decline in the gross saving rate during this period. This increase is shown in Chart 7–2 by the difference between gross saving and gross private saving.

Chart 7-2

Gross Saving and Investment as Percent of GNP



Note.— Data for 1988 based on average of the first three quarters.
Source: Department of Commerce.

Between calendar years 1984 and 1987, the Federal budget deficit averaged 4.4 percent of GNP, but a combination of strong income growth and spending restraint has reduced the deficit to 2.8 percent of GNP during the first three quarters of 1988. Total expenditures as a percent of GNP have fallen from 23.7 percent in 1984 to 23.0 percent through the first three quarters of 1988, while total receipts as a percent of GNP have increased from 19.2 percent to 20.1 percent of GNP over the same period. The fiscal 1990 budget proposal indicates a continued decline in the Federal budget deficit to reach a balance by fiscal 1993.

A second difference in the composition of real output during this expansion, relative to past expansions, is the decline in the U.S. trade balance. This decline reflected faster real income growth and a greater expected real, after-tax return on capital in the United States relative to the rest of the world. The rise in the real value of the U.S. dollar in foreign exchange markets reinforced these factors. Real net exports fell $154.1 billion between the fourth quarter of 1982 and the fourth quarter of 1986, compared with the average $1.8-billion

increase during the first 4 years of the past five expansions, excluding the brief 1980–81 episode. During the first 4 years of the current expansion, real import growth was almost double and real export growth was less than one-half of the average of past expansions. The deterioration in the trade balance is mirrored by the decline in U.S. net foreign investment during this period, shown in Chart 7–2 by the difference between gross saving and gross private domestic investment. Between 1982 and 1986 net foreign investment fell from about zero to −3.4 percent of GNP. This capital inflow more than offset the decline in the gross saving rate after 1982.

The swing in the trade balance is also reflected in the greater growth in domestic demand relative to that of domestic output during this period. Growth in real gross domestic purchases averaged 5.3 percent per year during the first 4 years, a full percentage point faster than the growth in real GNP.

Since the fourth quarter of 1986 the decline in the real U.S. dollar exchange rate and the convergence of real income growth in the United States and abroad contributed to the $48.5-billion improvement in real net exports, as strong export growth more than offset continued import growth. Additional improvement in the trade balance can be expected in the future.

A final difference in the composition of real output during this expansion involves stronger growth of gross private domestic investment relative to past expansions. Real gross private domestic investment grew at an average annual rate of 10.5 percent during the current expansion, more than a full percentage point faster than the average of past expansions.

Among the components of gross private domestic investment, real residential fixed investment has grown during the current expansion at a 9.2 percent average annual rate, considerably above the expansion average of 5.8 percent. The stronger growth reflects the early effects of ERTA and TEFRA, which lowered the cost of capital for multifamily housing construction as well as for nonresidential structures. Real nonresidential fixed investment has grown about one-half of a percentage point less during this expansion than the 6.7 percent average annual growth during past expansions, but the difference appears in nonresidential structures. The annual average 1.6 percent decline in structures mostly reflects lower spending on petroleum exploration and drilling in response to the oil price decline in 1986, although recent weakness in nonresidential structures spending reflects the removal of incentives for investment in structures in the Tax Reform Act of 1986. Real producers' durable equipment expenditures have grown over a full percentage point faster than the expansion average. A number of studies suggests that this strength is

not attributable to the effect of ERTA tax incentives on the cost of equipment capital; TEFRA removed most of these incentives. Instead, much of the strength in equipment spending can be attributed to a lower rate of inflation, which lowered the effective tax rate and raised the expected after-tax return on equipment. Moreover, falling computer prices, the necessity of modernizing to remain competitive in world markets, and the effects of rising aggregate demand for U.S. manufactured goods in the past 2 years have also contributed to stronger equipment spending.

Considerable public attention has been devoted to the effect of Federal Government budget deficits on private investment. A popular view is that large Federal budget deficits during this expansion have absorbed a substantial share of gross private saving, thereby raising real interest rates and crowding out or displacing private investment. This view fails to account for foreign capital inflows. Gross saving minus net foreign investment equals total saving of the public, private, and foreign sectors in the United States. It also equals, apart from a statistical discrepancy, gross private domestic investment. When these foreign capital inflows are included, nominal gross private domestic investment as a percent of nominal GNP has been average during this expansion, judged by historical experience, while real gross private domestic investment as a percent of real GNP is greater than its postwar average. This evidence suggests that concerns about high real interest rates and large Federal budget deficits crowding out residential and nonresidential investment, thus far in this expansion, appear to have been misplaced. Of course, the relevant comparison would use what would have happened had the Federal budget deficit not been as large, a subject of some dispute, but it is clear that gross private domestic investment did not deviate from historical norms.

This strong growth in gross nonresidential fixed investment ignores the fact that a growing share of investment during the past 22 years has simply replaced worn-out capital, and has not added on net to the national capital stock. The share of gross nonresidential fixed investment in real GNP has risen from 11.3 percent in 1966 to more than 12.2 percent during the first three quarters of 1988. But net nonresidential fixed investment, which represents new additions to the Nation's capital stock after replacing worn-out capital, has fallen from 4.8 percent of real GNP to 2.0 percent in 1987. The reasons for the divergence between gross and net nonresidential fixed investment are not entirely clear. As discussed in Chapter 1, the decline in the growth of net investment is likely to have been overstated.

The United States continues to create employment opportunities at an enviable pace. Total employment has grown at an average rate of 2.6 percent per year between November 1982 and November 1988, slightly faster than the expansion average. Nonfarm payroll employment has grown by nearly 19 million jobs, or a 3.2 percent average annual rate, matching its expansion average. Within nonfarm payrolls, goods-producing employment has grown an average 1.9 percent per year during this expansion, almost a full percentage point slower than the expansion average. Service-producing employment has grown 3.7 percent, slightly stronger than the expansion average. The differential between goods- and services-producing employment reflects the better productivity of the goods-producing sector and the long-term shift toward services consumption.

Strong economic growth during this expansion has improved employment opportunities for all major demographic groups. Between November 1982 and November 1988 civilian employment of adult males has grown at an average annual rate of 2.2 percent, adult females at 3.4 percent, blacks at 4.4 percent, and Hispanics at 6.6 percent. Employment growth has been exceptionally strong for black teenagers—6.8 percent at an average annual rate. This gain is almost three times that in black teenage employment during the 1975–80 expansion.

The impressive employment growth during this expansion is reflected in unemployment rates. Since the expansion began, the unemployment rate has been cut by one-half, from 10.6 percent to 5.3 percent in November 1988. During 1988 the unemployment rate fell to its lowest level in 14 years. Moreover, the employment-to-population ratio reached an all-time high of 62.9 percent in 1988. Unemployment rates have declined substantially for all major industrial and occupational categories and for all major demographic groups. Unemployment rates of women, which averaged more than 25 percent higher than for men during the 1970s and early 1980s, dropped below men's rates in early 1982. Since November 1982 unemployment rates for women have fallen by 4.9 percentage points and have been roughly equal to unemployment rates for men since 1981. Black and Hispanic unemployment rates have both shown large declines, and, although still high, current unemployment rates for these groups are the lowest recorded since 1974.

Strong growth of employment in the United States surpasses that of major U.S. trading partners. Employment has grown considerably faster in the United States than in the other six summit countries. Between 1982 and 1987 civilian employment in the United States has grown at an average 2.5 percent annual rate, faster than in any other

summit country. Canada had the second fastest growth at 2.4 percent, Japan and the United Kingdom were tied at about 1.0 percent growth, and the rest were under one-half of 1 percent. Indeed, more than twice as many jobs have been created in the United States since 1982 as in the other six summit countries combined. Faster employment growth in the United States was also evident in the 1981–87 and the 1983–87 periods.

The reduction in the U.S. unemployment rate has been particularly impressive when compared with that of other industrial countries. Since 1982 the U.S. unemployment rate has declined substantially, while unemployment rates in Western Europe, for example, are among the highest of the postwar period. The U.S. unemployment rate is now lower than that of any of the other summit countries except Japan, a country with different labor market practices. In contrast, the U.S. unemployment rate was generally above unemployment rates in Western Europe between 1960 and 1980.

The distribution of economic growth among regions of the United States can vary with relative price changes and regional cost competitiveness and economic bases. Early in this expansion, the industrial Midwest continued to suffer employment problems related to ongoing structural change. The energy-producing region, primarily the Southwest, suffered when oil prices fell in 1986, while employment growth was strong along both coasts. Currently, most regions of the country, except oil-producing regions, have experienced good job growth. Between September 1982 and September 1988 employment has grown by more than 5 percent in 43 States, and by more than 10 percent in 39 of those States. In 1987, employment was above its average 1982 level in 46 States and above its average 1979 level in 44 States.

Much has been made about the United States turning into a Nation of low-wage, low-skilled workers. Although it is difficult to test this hypothesis directly, evidence suggests that this notion is incorrect. Employment growth in the current expansion has been strongest in the higher paid, higher skilled occupations. Two-thirds of the increase in employment has occurred in the higher paying occupations. More than 85 percent of the increase in full-time employment has occurred in occupations with annual salaries of $20,000 or more in 1987 dollars. Only 12 percent of the increase in employment has occurred in the lowest paid, low-skilled service occupations. Of the new jobs created during this expansion, 92 percent are full-time jobs. Further, 80 percent of part-time workers report that they choose to work part time.

Economic growth has improved employment opportunities for all groups, especially women. Since 1980 the percentage of women em-

ployed in traditionally high-paying, male-dominated occupations has increased dramatically. For example, women now hold 46 percent of all jobs for accountants and auditors, up from 38 percent; 20 percent of all jobs for lawyers, up from 14 percent; 20 percent of all jobs for physicians, up from 13 percent; and 13 percent of all jobs for architects, up from 8 percent. Earnings of women have also grown strongly. Weekly earnings of female workers have grown 27 percent, while male earnings have grown 19 percent. Thus, the gap between female and male earnings has narrowed. Moreover, real earnings of women, which stagnated in the 1970s and early 1980s, have increased 7 percent since 1982.

Blacks and Hispanics have also made gains in job quality, although their employment in the higher paid occupations is still relatively low. While overall employment in the higher paid white-collar occupations has increased by 17 percent during this expansion, employment of blacks in these occupations has increased by 36 percent and of Hispanics by 60 percent.

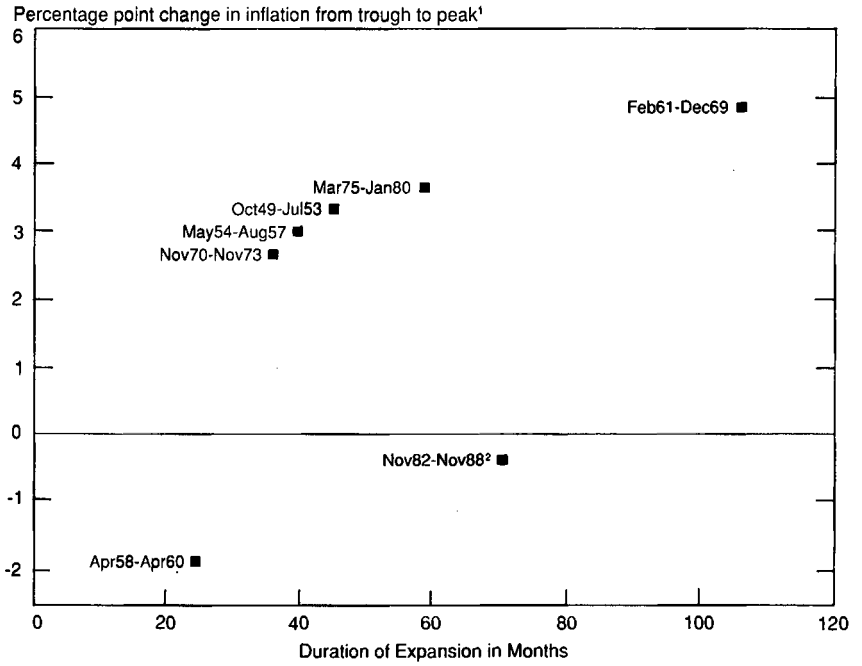
INFLATION AND PRODUCTIVITY GROWTH

Perhaps the greatest achievement of economic policy during the current expansion has been the stability of the inflation rate, albeit at an historically high rate. Chart 7–3 displays the relationship between the duration of an expansion in months and the difference in consumer price inflation rates between expansion peak and recession trough for all postwar expansions except the brief 1980–81 episode. Prior to the current expansion, the longer an expansion lasted, the greater was the increase in the inflation rate. In contrast, the current expansion has witnessed a slight decline in the rate of inflation, instead of an increase comparable to the 3.6 and 4.8 percentage point increases experienced during the third and first longest expansions of the postwar period. The stability of the inflation rate during the current expansion is not attributable to weaker economic performance compared with the other expansions. Real output in the current expansion has grown about the same as the average 4.3 percent growth of the five previous expansions, excluding the brief 1980–81 episode.

The GNP implicit deflator has grown at an annual average rate of only 3.3 percent during this expansion, more than a full percentage point less than the average of past expansions, and more than 4 percentage points less than during the 1975–80 expansion. The GNP fixed-weight price index increased at an average annual rate of 3.6 percent during this expansion, slightly faster than that of the GNP implicit deflator. The difference between the growth rates of the implicit deflator and the fixed-weight price index indicates a shift in the

Chart 7-3

Expansion Duration and Inflation Change



[1] Inflation is measured by the 12-month percent change in the consumer price index for urban consumers.
[2] November 1988 is the latest month in the expansion for which data are available.
Sources: Department of Labor and National Bureau of Economic Research.

composition of output away from that of the 1982 base year. Because spending tends to shift toward lower priced goods and substitutes for existing goods over time, the implicit deflator usually grows less rapidly than the fixed-weight index. In the current expansion, a major shift in output has involved increased purchases of computers, whose price index is falling because of strong technical innovation in that industry.

The inflation record of the United States during this expansion also compares favorably with those of the major U.S. trading partners. The average rate of consumer price inflation in the United States during this expansion is lower than the average among the other six summit countries, and lower than the average rate of inflation in France, Italy, the United Kingdom, and Canada. Consumer price inflation in the United States has averaged 3.3 percent per year between 1982 and 1987, while the average of the other summit countries was 4.5 percent. The relatively better inflation performance of

the United States also appears in the 1981–87 and 1983–87 time periods.

The stability of the inflation rate compared with the experience of previous expansions ultimately is attributable to the prudent economic policies pursued during the current expansion. In the long run, the price level cannot rise continuously unless accommodated by monetary policy. In the short run, however, changes in the velocity of money can complicate control of the price level. A decline in velocity during 1982 aided the disinflation efforts of the Federal Reserve, and additional declines in 1985 and 1986 restrained the rate of inflation. These unusual declines in velocity during the 1980s are not completely understood. Such factors as the introduction of nationwide negotiable order of withdrawal (NOW) accounts, the removal of interest rate ceilings, and lower nominal interest rates, may have played a role, but the best research in this area has not disentangled their effects.

The surge in manufacturing productivity growth demonstrates the benefits of lower inflation, market-based tax incentives, and more rigorous foreign competition. Manufacturing productivity has grown at an average rate of 4.4 percent, almost one and one-half times faster than the expansion average. After growing at an annual average rate of 5.7 percent in the first 2 years, manufacturing productivity has maintained a steady 3.6 percent annual average growth in the past 4 years.

Current estimates of the Nation's manufacturing productivity growth during this expansion have matched those of its major trading partners. After taking into account faster growth in foreign labor compensation, however, unit labor costs have grown considerably slower in the United States than among its major trading partners. Combined with the weaker U.S. dollar in foreign exchange markets, this better unit labor cost performance means that the competitive position of U.S. manufacturers has improved significantly during the past 3 years.

Productivity growth in the nonfarm, nonmanufacturing sector has been considerably weaker than manufacturing productivity growth during this expansion. Productivity in the nonfarm business sector grew at an annual average rate of 1.8 percent during this expansion, about the same as the expansion average. The possible reasons for the relatively slow productivity growth in the nonfarm, nonmanufacturing sectors are discussed in Chapter 1.

MONETARY POLICY

The Federal Reserve has faced two main challenges in formulating monetary policy during the current expansion. One was conducting

monetary policy without a reliable relationship between the monetary aggregates and economic activity. The short-run relationship between various monetary aggregates and income and interest rates, which began to break down in the mid-1970s, became further distorted by a combination of financial deregulation, disinflation, and possibly other unknown factors. Monetary policy actions tended to react more to developments in the real economy than to deviations of the monetary aggregates from their announced targets.

This control problem only exacerbated the overriding challenge facing the Federal Reserve, however, which was demonstrating its resolve to work toward price stability. Thus far in the current expansion, the Federal Reserve has successfully kept inflation from rising. Still, inflation remains above the Administration's goal of a zero average rate.

This partial success should not be taken to imply that developments in the real economy are the most efficient or the most reliable guides for making monetary policy. Using developments in the real economy as a guide to policymaking poses at least three risks. One is overreacting to short-run changes in economic indicators that are either temporary or illusory, to be revised away with more complete data. This overreaction adds needless and inefficient volatility to markets. Another risk is that policy will be based on imprecise or spurious economic models. During the 1960s and 1970s the Federal Reserve appeared to act as if there was a reliable short-run tradeoff between changes in inflation and unemployment, as embodied in the Phillips curve. The Federal Reserve appears to have reverted to this same kind of policy guide during the past few years. A third risk is that monetary policy will be based upon a shifting set of indicators, thereby obscuring the intent of policy. To succeed over the long term, monetary policy needs to take a long-term perspective, avoid reacting to erratic short-run developments, and avoid misleading the public about the direction of current policy.

THE ECONOMY IN 1988

At the beginning of the year many economic forecasters saw two major impediments to growth in 1988. One was the stock market crash in October 1987, which erased an estimated $650 billion of household wealth and which, before any offset from lower interest rates, raised the cost of capital to firms. The diminished value of consumer wealth was expected to lower real personal consumption expenditures, other things being constant, while the higher cost of capital was expected to depress real business fixed investment. The other impediment was the apparently large inventory overhang at

year-end. The large $67.1-billion increase in real business inventories, combined with slower spending resulting from the decline in stock prices, was expected to depress output growth in early 1988. Between early October 1987 and early November 1987, the consensus forecast for 1988 real GNP was revised down from 2.8 to 1.9 percent annual average growth, with only 1.4 percent annual average growth expected in the first half.

In fact, economic performance during 1988 considerably exceeded most expectations. Real GNP grew at an annual average rate of 2.9 percent during the first three quarters of 1988, and 3.2 percent during the first half. The stock market crash had a small impact on real personal consumption expenditures, which, after a weak fourth quarter in 1987, rose at an annual average rate of 3.8 percent during the first three quarters, and the personal saving rate averaged about 1 percentage point higher than in 1987. Little impact was evident on real business fixed investment, which grew at an annual average rate of 8.8 percent during the first three quarters, with producers' durable equipment expenditures up nearly 15 percent. Real net exports increased $32.1 billion during the first three quarters of the year, almost double their improvement during all of 1987. Nonfarm payroll employment increased by 3.4 million persons through November 1988, and real disposable personal income increased 3.5 percent on an average annual basis through the first three quarters of the year. Corporate profits after taxes, with inventory valuation and capital consumption adjustments, rose an average 3.9 percent, after 0.2 percent in 1987. Consumer prices, excluding food and energy, increased 4.6 percent during the first 11 months of 1988, slightly above the average of the past 5 years.

The growth in real GNP would have been stronger had it not been for the prolonged drought, which affected much agricultural production during the summer. Crop and livestock losses amounting to $12.3 billion during the year are expected to lower real GNP growth in 1988 about 0.7 percentage point, on a fourth-quarter-over-fourth-quarter basis, and temporarily to boost consumer food prices 1 percentage point.

THE IMPACT OF THE STOCK MARKET CRASH

It is now evident, more than 1 year later, that the stock market crash had little noticeable impact on U.S. economic activity. At a rudimentary level, little effect might have been expected because the stock market is not a particularly accurate predictor of economic activity. During the postwar period before 1987, about twice as many declines as recessions occurred in the stock market. Although by this measure the odds of recession in 1988 were 50-50, many economic

forecasters were convinced that the magnitude of the decline, the largest since the crash in 1929, raised the probability of recession. On a more fundamental level, little effect should have been expected because economic activity was strong at the time of the crash and because Federal Government policies and institutions prevented the crash from escalating into a recession.

Changes in stock prices can affect real output growth through two main channels. One is personal consumption expenditures. Consumers generally are thought to take a long view, spending not according to their current income but according to their expected lifetime consumable resources, including both human and nonhuman wealth components. Human wealth is the present discounted value of expected future after-tax labor income, and nonhuman wealth is the consumer's expectation of the long-run or permanent value of his or her current net financial and tangible assets. A drop in the value of corporate equity holdings that is expected to be permanent, all else being constant, will lower consumption, while a transitory drop will not affect consumption.

At the end of the third quarter of 1987, nonhuman wealth of consumers amounted to $15.1 trillion, with corporate equities outside of pension funds worth about $2.7 trillion or 18 percent. At the end of the fourth quarter of 1987, holdings of corporate equities by households had fallen by about $650 billion, most of which reflected capital losses. A common estimate of the marginal propensity to consume real permanent nonhuman wealth is about 4 cents for every dollar of nonhuman wealth, which implies that real personal consumption expenditures should have fallen about $25 billion or about 1 percent before other factors are considered. Real personal consumption expenditures during the fourth quarter of 1987 fell by about one-half of this amount, and have grown at an annual average rate of 3.8 percent during the first three quarters of 1988. The personal saving rate rose 2 percentage points in the fourth quarter of 1987, and has averaged almost 1 percentage point higher in 1988 than in 1987. In the aggregate, therefore, apparently consumers initially believed that only part of the stock market decline was permanent. Indeed, improvement in the overall stock price indexes during 1988 indicates that they were correct.

A second channel through which the stock market can affect real output is business investment. The stock market provides an up-to-the-minute estimate of the value of thousands of publicly traded firms. When the profits of a firm are expected to rise faster than in the past, the share price of the firm will also rise to reflect the greater expected value of the firm. At times, the stock market's valuation of a firm will differ from the replacement cost of the firm—what it

would cost to rebuild or replace the firm, hire equally competent personnel, and rebuild the firm's goodwill. Modern theories of investment posit that, in general, a new firm will be started or new investments will be undertaken by an existing firm when the firm's market value is greater than its replacement cost. Declines in stock prices, all other things being constant, depress investment.

Business investment did not fall in the fourth quarter of 1987, and continued to grow rapidly in 1988, suggesting that the impact of the stock market crash was small. During the first three quarters of 1988, real business fixed investment rose an average of 8.8 percent at an annual rate, unchanged from 1987. The reason why business investment did not collapse is that the stock market recovered some of its losses during the year and the decline in interest rates after the crash lowered the replacement cost of capital and offset some of the initial decline in stock prices.

The response of the economy to the 1987 crash, compared with its response after the 1929 crash, highlights the benefits that can be achieved when the Federal Government follows a proper course. Two differences of major importance emerge for the short-term adjustment of the economy, one affecting the exchange rate and one affecting the general conduct of monetary policy. In addition, differences in trade policy and taxation occurred in the periods following the two declines, as did differences in institutional arrangements affecting the financial system, built-in stabilizers, and other devices that reduce the risk of a severe contraction.

Immediately following both stock market crashes, the Federal Reserve acted to increase bank reserves. Major differences in monetary policy came later. A slowing in the decline of economic activity, visible in industrial production and personal income by the spring of 1930, was turned around by restrictive monetary actions. In 1929–33 the Federal Reserve allowed the money stock to fall by almost one-third, adding an extreme deflationary burden to any remaining effect of the crash. Attempts by money holders to shift from bank deposits to currency drained reserves from the banking system. By failing to offset the sequence of reserve drains, the Federal Reserve permitted large numbers of banks to fail, with severe effects on confidence and anticipations. In marked contrast, the Federal Reserve in 1988 first absorbed the additional reserves it had provided in timely response to the October crash, and through 1988 held money growth within its pre-announced growth range.

In 1929 the United States was on a gold standard, with exchange rates fixed against foreign currencies and gold. Under that regime, the deflationary effect of the crash and monetary restriction fell mainly on U.S. markets for goods and labor. Prices and wages had to

fall. Because money wages adjust slowly, a decline in prices raised real wages and lowered employment. Adjustment to the deflationary impulse was achieved by a downward adjustment of U.S. output and spending and by reductions in employment. In 1987, in contrast, the U.S. dollar was allowed to respond flexibly to market forces. Flexible adjustment in the real value of the dollar facilitated the adjustment of costs of production, and of the relative prices of domestic and foreign goods and assets, buffering the effects of the stock market crash and other events on U.S. markets for goods and labor.

Trade policy also differed following the 1929 and 1987 stock market crashes. Unlike today's emphasis on free trade, the United States in 1930 intensified protectionist policies with the passage of the Smoot-Hawley Act. International trade collapsed as foreign countries retaliated with their own protectionist measures, lowering world efficiency and incomes. In contrast, the United States and Canada in 1988 completed negotiation of the Free-Trade Agreement, committing both countries to the elimination of most remaining barriers to trade. This step and the President's rejection of strongly protectionist measures gave assurance that the United States did not intend to repeat the mistaken trade policies of the interwar period.

Another difference in the aftermath of the 1929 and 1987 stock market crashes can be found in tax policy. In 1932 President Hoover requested and received a large tax increase to balance the growing Federal Government budget deficit. This policy was, of course, the wrong one to request during a recession. In late 1987 the Administration and the Congress achieved modest reductions in the budget deficit for fiscal 1988 and 1989 from their projected baselines, but the last phase of the personal income tax reductions embodied in the Tax Reform Act of 1986 was allowed to take effect. Although partially offset by increases in corporate taxes, the personal income tax cut helped to limit any possible damage from the crash to real output.

SOURCES OF DEMAND

The composition of demand in 1988 continued the trends begun in 1987. Real gross nonresidential fixed investment and exports continued to grow rapidly. Spending restraint reduced real Federal Government spending on goods and services, freeing resources for the private sector. Consumer spending on goods and services continued to grow moderately, and the average personal saving rate during the first three quarters of 1988 was 0.8 percentage point higher than the unusually weak rate of 1987.

Gross nonresidential fixed investment rose at an annual average rate of 8.8 percent during the first three quarters of 1988, unchanged from 1987. All of this growth was accounted for by gross producers'

durable equipment spending, which rose at a 14.9 percent annual average rate. Every major component of gross producers' durable equipment grew strongly: information processing and related equipment rose 18.9 percent; after little growth in 1987, industrial equipment increased 13.9 percent; and transportation and related equipment grew 18.7 percent.

Spending on nonresidential structures fell an average 6.3 percent per year during the first three quarters of 1988, with all of the decline (−22.4 percent) in the first quarter. Most of the decline appeared in nonresidential buildings, partly because of the elimination of tax incentives in 1986, although investment in mining exploration, shafts, and wells remained weak in response to the continued decline in the relative price of oil. Adjusted for inflation, the refiners' acquisition cost of imported crude oil fell 47.3 percent between January 1986 and August 1988.

The overall decline in the real value of the U.S. dollar since 1985 and slower unit labor cost growth in U.S. manufacturing have improved the competitiveness of U.S. goods in world markets. Thus, real net exports accounted for a large share of the real output gain in 1988, continuing a trend begun in the fourth quarter of 1986. During the first three quarters of 1988, real net exports increased a total of $32.1 billion, about the same as the dollar increase in nonresidential fixed investment and about one-half of the increase in personal consumption expenditures. Export growth has continued strong at an annual average rate of 16.2 percent, while import growth has slowed by one-half to 5.2 percent. Real exports of agricultural products were up at an annual average rate of 10.4 percent, real exports of nonagricultural products rose 19.5 percent, real imports of nonpetroleum products rose 1.5 percent, and real imports of petroleum products rose 9.4 percent. All major merchandise export components grew strongly in 1988, with consumer goods up 36.3 percent, capital goods except autos up 24.9 percent, foods, feeds, and beverages up 12.0 percent, and industrial supplies and materials up 17.6 percent. The trade balance in industrial supplies has seen the greatest improvement, up $12.6 billion. Following industrial supplies, the capital goods balance improved $9.8 billion, despite a 15.5 percent increase in capital goods imports; autos were up $5.2 billion; consumer goods rose $4.7 billion; and the food, feeds, and beverages balance increased $3.7 billion.

Spending restraint and fewer purchases of agricultural products by the Commodity Credit Corporation (CCC) induced by the drought reduced Federal Government spending on goods and services in 1988. Real Federal spending on goods and services fell at an annual average rate of 10.4 percent over the first three quarters of 1988,

with defense spending down 5.8 percent and nondefense spending down 25.6 percent. All components of defense spending fell in 1988, with durable goods accounting for most of the decline. Virtually all of the decline in nondefense purchases is attributable to the change in inventories held by the CCC. Excluding the CCC inventory change, real nondefense spending grew at an annual average rate of 0.7 percent, while total real Federal purchases were down only 4.6 percent.

Real personal consumption expenditures grew at an annual average rate of 3.8 percent during the first three quarters of 1988, but part of this rise simply reflects the low base of the fourth quarter of 1987. Much of the decline in real personal consumption expenditures during the fourth quarter of 1987 occurred in new automobile purchases, which fell after sales incentives expired in September 1987. If real consumer purchases of new autos during the fourth quarter of 1987 had grown at the same rate as their average during the fourth quarter of 1987 and the first quarter of 1988, real personal consumption expenditures' growth during the first three quarters of 1988 would be 3.2 percent, close to its postwar average annual growth.

After falling 3.5 percent in 1987, real residential fixed investment fell at an annual average rate of 0.8 percent during the first three quarters of 1988. Most of the decline in both years occurred in multifamily structures, reflecting the large supply of these structures created by tax incentives that existed until 1987. Spending on single-family structures fell at an average rate of 2.5 percent per year over the first three quarters of 1988, with most of the decline occurring in the first quarter.

Real State and local government purchases of goods and services grew an average 2.6 percent per year over the first three quarters of 1988, slightly slower than GNP and about the same as their 2.5 percent pace in 1987. Purchases of goods grew at an annual average rate of 6.5 percent, while spending on services grew 2.4 percent. After almost 8 percent average growth in 1985 and 1986, spending on infrastructure slowed in 1987, and the weakness continued into 1988. Spending on structures fell at an annual average rate of 2.0 percent in 1988, after rising 1.7 percent in 1987.

Over the first three quarters of 1988, business inventory investment fell a total of $27.6 billion. All of the decline occurred in nonfarm business inventories, which fell $27.8 billion.

PRICES, WAGES, AND EMPLOYMENT

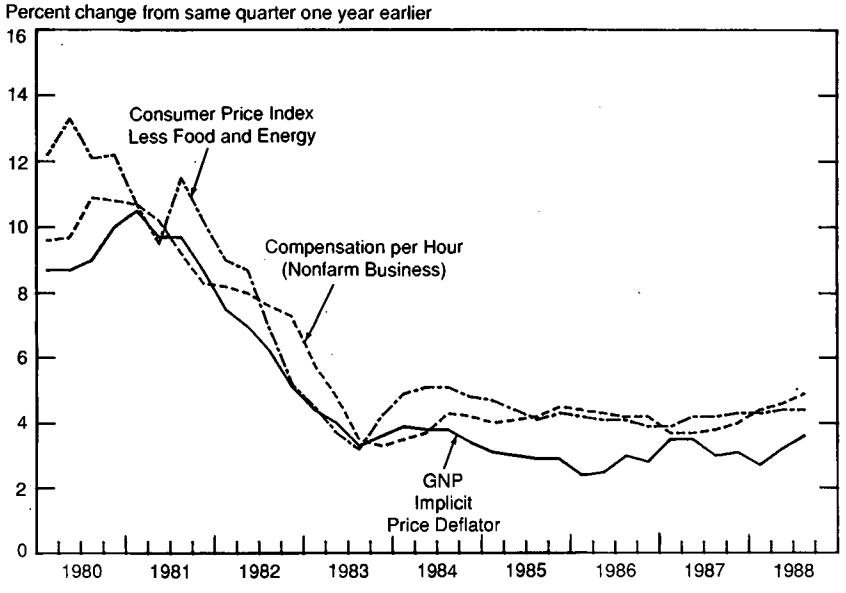
Employment continued to increase strongly in 1988. Civilian employment rose by 2.2 million through November, while the civilian unemployment rate fell 0.4 percentage point to 5.4 percent, among

the lowest rates in 14 years. Nonfarm payroll employment increased by 3.4 million during the first 11 months of 1988, with strong gains in export-related industries.

Continued strong employment gains were barely reflected in stronger compensation growth in 1988. Compensation per hour in the nonfarm sector increased 4.5 percent on average during the first three quarters of 1988, slightly above its 1987 rate of increase, and real compensation growth increased about 0.1 percent, after falling slightly in 1987. The growth in compensation per hour in manufacturing increased to 4.4 percent on average during the first three quarters of 1988, almost three times as fast as in 1987, while unit labor costs were up 0.3 percent, after falling 1.7 percent in 1987. Abstracting from short-term movements, the trends in nominal compensation per hour and in unit labor costs were rising slightly during 1988, but do not point to serious cost pressures in the aggregate (Chart 7–4).

Chart 7-4

Hourly Compensation and Prices



Sources: Department of Commerce and Department of Labor.

Signs of any rise in inflation were mixed in 1988. Producer prices grew somewhat faster in 1988 than in 1987, but the increase was minor. The consumer price index for urban consumers increased 4.4 percent in the first 11 months of 1988, but excluding the volatile

food and energy components, consumer prices increased 4.6 percent during the year, only slightly above the average of the past 5 years.

THE IMPACT OF THE DROUGHT

The drought of 1988 was one of the worst on record for principal agricultural regions of the Midwest and Upper Mountain States. The drought began early in the growing season and rains were delayed long enough to drastically reduce yields of corn and soybeans, as well as less important crops such as spring wheat, barley, oats, and some Midwest vegetables. Hay crops and livestock forage in pastures were also severely reduced.

Impacts of the drought on other regions and industries have been smaller or localized. Stream flows in the Tennessee Valley had already been reduced by several years of smaller amounts of precipitation. Shipping and electrical generation were hampered in several regions. In the Far West, 2 years of drought have reduced water supplies to extremely low levels. Although these low water supplies had little effect on 1988 output, if precipitation in the winter of 1989 is below normal again, crop losses in the irrigated valleys of the Far West will be severe. Forest fires and water shortages have been localized with little distinguishable impact on the economy as a whole. Potentially important losses attributable to higher barge transportation costs were not a major impediment to economic activity. Finally, despite severe losses to some financial institutions in the agricultural areas, the health of the rural financial system continued to improve.

The effects of the drought clearly distinguishable in the national income and product accounts are crop and livestock losses. For the 1988 crop year, corn production was more than 30 percent below pre-drought expectation and soybeans were 20 percent below expected levels. Lost crop and livestock production attributable to the drought totaled about $12.3 billion in 1988 in terms of 1982 farm prices or about 0.7 percent of real GNP for the year. However, the loss in growth is temporary. With normal weather in 1989, increased farm output from the low 1988 base will raise the projected GNP growth for 1989 on a fourth-quarter-over-fourth-quarter basis by approximately the same 0.7 percent over what would have been expected had the drought not occurred.

Large inventory stocks have moderated the drought's effect on prices, but cash market prices for corn and wheat are up about 30 percent relative to pre-drought levels. Because of the importance of nonfarm inputs and farm goods unaffected by the drought, however, higher commodity prices from the drought added about 1 percentage point to the rise in retail food prices for 1988.

Higher crop prices also affect the quantity of U.S. agricultural exports and raise the costs that livestock producers and other producers face in the food industry. However, higher output prices raised gross cash receipts of farmers in 1988. Net cash income was near record high levels in 1988 because, in the aggregate, the higher output prices that farmers received more than offset the yield losses and higher input prices. Direct payments under the drought assistance legislation and feed assistance and crop insurance also supported incomes, as did the sale of farm inventories at sharply higher prices.

MACROECONOMIC POLICIES

Spending restraint and fewer Commodity Credit Corporation purchases of agricultural products because of the drought helped lower the Federal Government budget deficit in fiscal 1988. Nevertheless, the deficit on a unified budget basis rose to $155.1 billion, $4.7 billion more than in fiscal 1987. Total outlays rose $59.5 billion to $1,064.1 billion, while total receipts rose $54.9 billion to $909.0 billion. The increase in the deficit between 1987 and 1988 is attributable to the reversal of special factors that reduced the 1987 deficit. The phase-in of the Tax Reform Act of 1986 added $21.5 billion to receipts in 1987, but reduced tax collections by $4.5 billion in 1988. Timing changes, such as the 1-day shift in military pay, and one-time savings such as the sale of Conrail, held down net outlays by $10.5 billion in 1987. Without these special factors, the deficit would have declined by $31.1 billion between 1987 and 1988.

When discussing monetary policy in 1988, it is important to distinguish policy from actions designed to achieve that policy. Monetary policy is summarized currently by Federal Reserve announcements of target ranges for the annual growth of M2 and M3. The target ranges are usually 3 to 4 percentage points wide, reflecting the uncertainty about the relationship of these monetary aggregates to economic activity. Over the course of a year the Federal Reserve may take various actions to keep the aggregates within their target ranges. Apart from unexpected shocks to money demand and supply, these actions should not be interpreted as changes in policy unless they result in money growth outside the announced target ranges.

In 1988 the Federal Reserve achieved its announced monetary policy for the first time in 3 years. The growth rates of both M2 and M3 were comfortably within their target ranges at year-end. Early in the year the Federal Reserve allowed monetary aggregates to approach the upper limit of their target ranges in order to limit any impacts of the stock market crash on economic activity. By March it was evident that the stock market crash would not seriously affect spend-

ing growth, and the Federal Reserve began taking actions that brought the growth of the monetary aggregates closer to the midpoint of target ranges by the third quarter of the year.

In July the Federal Reserve announced its preliminary policy intentions for 1989. It lowered the target range for M2 from 4 to 8 percent in 1988 to 3 to 7 percent in 1989. For M3, it lowered the target range from 4 to 8 percent to 3.5 to 7.5 percent for 1989. The lowering of the target ranges is consistent with the Federal Reserve's desire, expressed in its targets, to promote a steady reduction in the inflation rate over time. The Federal Reserve's target of slightly faster growth for M3 reflects its expectation that the public will substitute away from M2 assets and toward assets found in the broader monetary aggregates. If both M2 and M3 remain near the midpoints of their target ranges in 1988, the transition to modestly slower growth of the monetary aggregates in 1989 is likely to be a smooth one.

THE ECONOMIC OUTLOOK

The Administration's economic forecast for 1989 reflects three continuing changes in the U.S. economy: improved international competitiveness, more restrictive macroeconomic policies, and the effects of temporary shocks to the economy. The forecast anticipates a continuation of the transition of the U.S. economy from growth led by domestic demand to growth driven by expanding world markets, the result of the United States' improved competitive position. Tempering overall growth, however, are policies of monetary and fiscal restraint. Slower monetary growth for most of 1988 following rapid growth in the first part of the year, reflects two major considerations: the cessation of post-crash fears of recession and the long-run national commitment to achieve stable prices. Adherence to the deficit reduction targets of the Gramm-Rudman-Hollings legislation continues to encourage fiscal restraint. These policies are expected to hold nonfarm economic growth below its 1988 pace.

As the economy approaches full use of its current resources, slower growth relative to the rapid pace of recent years is a desired development. Slower domestic demand growth will allow for the continued expansion of the Nation's international sector. Slower overall growth will enable capacity to expand to meet demands in future years and continue the current record-setting expansion.

The Administration's economic forecast anticipates that real GNP will rise 3.5 percent from the fourth quarter of 1988 to the fourth quarter of 1989, after increasing an estimated 2.6 percent during 1988. These figures are not, however, representative of the underly-

ing pattern of slower growth expected for most sectors of the economy in 1989. Distorting the picture of slower growth are the concluding effects of last year's drought. The impact of the drought on crop and livestock output lowered overall growth last year, and the expected return to more normal weather conditions and farm output levels will temporarily boost real GNP growth in 1989. As noted above, lower drought-induced farm output in 1988 is estimated to have subtracted 0.7 percentage point from real GNP growth in 1988 (fourth quarter to fourth quarter), and the anticipated rebound in farm production this year will contribute approximately 0.7 percentage point to growth in 1989. After adjusting for the impact of the drought on farm production, real GNP is estimated to have grown 3.3 percent in 1988. Drought-adjusted GNP growth is forecast to be 2.8 percent in 1989, indicating continued healthy expansion of the nonfarm economy, but at a somewhat slower pace than during 1988 and significantly slower than the rapid but likely unsustainable 5.0 percent pace of real GNP in 1987.

The growth rates of components of real GNP for 1989, partially detailed in Table 7–2, reflect the slowing trend in the nonfarm economy as well as the continued trend toward expanding international trade and slower domestic demand. All components except residential and inventory investment and government purchases are projected to rise at a somewhat slower pace in 1989 relative to 1988.

TABLE 7–2.—*Economic Outlook for 1989*

Item	1988[1]	1989 forecast
	Percent change, fourth quarter to fourth quarter	
Real gross national product	2.6	3.5
Personal consumption expenditures	3.3	2.0
Nonresidential fixed investment	8.4	4.9
Residential investment	−.4	2.7
Federal purchases of goods and services	−4.4	−.6
State and local purchases of goods and services	2.7	3.0
GNP implicit price deflator	3.9	3.7
Compensation per hour[2]	4.6	4.7
Output per hour[2]	.9	1.5
	Fourth quarter level	
Unemployment rate (percent)[3]	5.3	5.2
Housing starts (millions of units, annual rate)	1.5	1.5

[1] Estimate.
[2] Nonfarm business, all persons.
[3] Unemployed as percent of labor force including resident Armed Forces.

Note.—Based on seasonally adjusted data.

Sources: Department of Commerce (Bureau of the Census and Bureau of Economic Analysis), Department of Labor (Bureau of Labor Statistics), and Council of Economic Advisers.

Consistent with slower domestic demand, real consumer purchases are forecast to increase 2.0 percent this year, down from the estimated 3.3 percent pace of 1988. Slower consumption growth relative to income growth is expected to lift the personal saving rate somewhat in 1989. Reflecting the continued trade-oriented realignment of the U.S. economy, a continued strong increase in real net exports is projected partly to offset slower personal consumption growth. As the result of growing U.S. competitiveness in world markets, exports will continue to be one of the biggest factors contributing to growth in 1989. Real import growth will slow compared with growth in recent years, as the result of slower drought-adjusted GNP growth and continued substitution away from more costly foreign, toward less costly domestically, produced products. Although the improvement in real net exports is not expected to continue at the record-setting pace of 1988, the trade sector of the economy is projected to contribute significantly to growth in 1989 and beyond.

The need for further capacity in the exporting and import-competing sectors of the economy is anticipated to continue to stimulate growth in nonresidential fixed investment. Continued export demand should also help support capital goods production. Owing to these factors, nonresidential fixed investment is forecast to rise a substantial 4.9 percent in 1989, slower than the estimated 8.4 percent growth rate achieved in 1988.

Residential investment is projected to rise modestly in 1989, following the modest estimated gains during the second half of 1988. The recent rise comes after nearly a year and a half of decline, prompted partly by reduced incentives for multi-unit construction arising under the Tax Reform Act of 1986.

After subtracting significantly from growth in 1988, inventory investment is also expected to contribute to GNP growth in 1989, as inventory-building progresses at a slower but more sustainable pace. The decline in the pace of inventory-building in 1988 reflects a return to more normal inventory-building patterns in the nonfarm sectors of the economy following a large unanticipated accumulation of inventories in the fourth quarter of 1987, when domestic final sales growth temporarily halted. In the farm sector, inventories are expected to accumulate in 1989 after substantial drought-induced withdrawals for most of 1988.

Government purchases at the State and local levels in 1989 are projected to increase 3.0 percent, similar to the pace of 1988. At the Federal level, further decline in real purchases is expected in 1989 which will help to moderate domestic growth. Although Table 7–2 indicates that the decline in total Federal purchases appears to be slowing in 1989 relative to 1988, the drought explains much of the

1988 drop. Net CCC farm inventory purchases were reduced as higher drought-related crop prices and lower production induced farmers to redeem crops and the CCC to sell inventories directly to the open market. Crop redemption and government inventory sales are expected to diminish in 1989, as farm production recovers. Projected real Federal purchases, after adjusting for the one-time effect of the drought, reflect continued declines in 1989, following the pattern set in 1988.

Inflation, as measured by the GNP deflator, is forecast to be 3.7 percent in 1989 on a fourth-quarter-to-fourth-quarter basis, compared with an estimated 3.9 percent in 1988. In line with slower growth in the nonfarm economy, little change is expected in capacity utilization rates and the rate of unemployment this year. This will help to contain sectoral capacity problems that can put upward pressure on prices. Also, higher energy prices at the retail level and higher farm prices were temporary factors helping to raise prices in 1988. The end of the drought, coupled with currently lower crude oil prices, is expected to moderate price increases during 1989, and keep reported rates of inflation within the approximately 3 percent to 4 percent range of previous years. Consistent with slower growth and moderating inflation is the expectation of somewhat lower interest rates in 1989.

PROJECTIONS FOR 1990–94

Table 7–3 summarizes the Administration's medium-term economic projections for the period 1990 through 1994. The projections are not year-to-year forecasts; rather, they indicate expected trends based on underlying factors, discussed in the next section, that will allow continued expansion of the economy's capacity to produce. These projections are contingent on the successful implementation of current and proposed government policies and on the assumption of no serious adverse shocks to growth. Implicit in these figures is the assumption that the free-market, incentive-oriented policies of this Administration, which have promoted the growth and more efficient use of national resources, will continue in coming years. In particular, the projections embody the assumption that Federal spending continues to be brought under control and that the benefits of tax reform are retained. Through spending restraint and economic growth, the Federal deficit is assumed to decline in line with the Gramm-Rudman-Hollings targets for deficit reduction. It is also assumed that the Federal Reserve provides sufficient expansion of monetary aggregates to maintain economic growth, while fostering continued progress toward the long-term goal of price stability.

TABLE 7–3.—*Administration Economic Assumptions, 1988–94*

(Calendar years)

Item	1988	1989	1990	1991	1992	1993	1994
	Percent change, year to year						
Real GNP	3.8	3.2	3.2	3.3	3.2	3.2	3.2
Real compensation per hour[1]	.5	.9	1.2	1.8	2.0	1.9	1.9
Output per hour[1]	1.5	1.2	1.8	2.0	2.1	2.1	2.1
Consumer price index[2]	4.0	3.8	3.7	3.2	2.7	2.2	1.7
	Annual level						
Employment (millions)[3]	116.7	118.6	120.4	122.3	124.0	125.7	127.4
Unemployment rate (percent)[4]	5.4	5.2	5.1	5.0	5.0	5.0	5.0

[1] Nonfarm business, all persons.
[2] For urban wage earners and clerical workers.
[3] Includes resident Armed Forces.
[4] Unemployed as percent of labor force including resident Armed Forces.
Source: Council of Economic Advisers.

The Full Employment and Balanced Growth Act of 1978 requires that the *Economic Report of the President*, together with the *Annual Report of the Council of Economic Advisers*, include an investment policy report and a review of progress in achieving goals specified in the act. The strongest incentive for expanding the employment of both physical and human resources is profitable and growing markets. Major policy goals of this Administration have been to promote a stable noninflationary macroeconomic environment and encourage private initiative to adjust to take advantage of changing market conditions. Progress toward achieving these goals has allowed the current expansion to continue into its seventh year. As a result, real nonresidential fixed investment has grown more than 40 percent in 6 years, a peacetime record compared with similar timespans following previous postwar recession troughs.

Table 7–3 presents estimates of important macroeconomic measures that address the goals specified in the act. The table shows continued economic growth, rising compensation, lower rates of unemployment, and further progress toward price stability. The unemployment rate recently has fallen to the lowest level in 14 years, while the share of the adult population employed has increased to its highest level in the Nation's history. Unlike the expansions of the past 40 years, this expansion of employment and output has been accompanied by a stable rate of inflation. The policies of this Administration have done much to achieve the goals specified in the act. Continued adherence to these policies in the future is necessary to ensure progress toward meeting these goals.

The long-run improvement in the Nation's standard of living depends importantly on expansion of its capacity to produce, which in turn is determined by the growth and productiveness of its resources. Growth and productiveness are functions of longer run underlying trends in the economy and incentives created by the economic environment, the latter being influenced by government policies. Favorable longer term trends, combined with policies directed at improving growth and maintaining the healthy economic climate the Nation currently enjoys, are projected to maintain the momentum that the economy has developed during the 1980s, returning it to the trend rate of growth of the postwar era.

Over the projection period, these long-run forces—growth of the labor force and labor productivity—are supplemented by changes in the utilization of capital and labor. The productivity of labor depends on the education, experience, and the skills of the labor force; on the supplies of physical capital and other cooperating factors of production; and on the technological efficiency of resource allocation. Influencing the supply of labor are the size of the general population and its demographic characteristics and incentives to undertake employment in the market economy. The cyclical state of the economy affects the use of capital and labor by encouraging or discouraging the search for jobs, by changing the mix of factors in production, and by changing the demand for inputs.

A detailed breakdown of the components that make up these sources of growth, organized into an accounting framework, is presented in Table 7–4. In order to focus on trends in the economy and to avoid the complications of cyclical fluctuations, the first two columns of the table show growth rates from business cycle peak to business cycle peak for historical periods. The third column shows growth from the peak of the last business cycle through the third quarter of 1988, and the final column presents growth rates over the projection period, which extends through 1994.

Growth of the labor force is expected to slow somewhat further during the projection period, mainly because of changes in the demographic composition of the population. The gradual decline in the growth rate of the adult population, which has occurred since the baby-boom generation reached adulthood in the 1960s and 1970s, is expected to continue into the next decade. As Table 7–4 shows, increases in labor force participation (the fraction of the adult population in the labor force) also determine labor force growth. Strongly rising rates of labor force participation that have existed since the 1970s are expected to continue in coming years. Increases in overall participation will likely reflect continued entry of women into the

TABLE 7-4.—*Accounting for Growth in Real GNP, 1948–94*

[Average annual percent change]

Item	1948 IV to 1981 III	1973 IV to 1981 III	1981 III to 1988 III	1988 III to 1994 IV
GROWTH IN:				
1) Civilian noninstitutional population aged 16 and over	1.5	1.8	1.2	0.9
2) PLUS: Civilian labor force participation rate	.2	.5	.5	.5
3) EQUALS: Civilian labor force	1.8	2.4	1.7	1.4
4) PLUS: Civilian employment rate	−.1	−.4	.3	.1
5) EQUALS: Civilian employment	1.7	2.0	2.0	1.5
6) PLUS: Nonfarm business employment as share of civilian employment	.1	.1	.3	.2
7) EQUALS: Nonfarm business employment	1.7	2.1	2.3	1.7
8) PLUS: Average weekly hours (nonfarm business)	−.4	−.6	−.1	−.1
9) EQUALS: Hours of all persons (nonfarm business)	1.4	1.5	2.2	1.6
10) PLUS: Output per hour (productivity, nonfarm business)	1.9	.6	1.4	1.9
11) EQUALS: Nonfarm business output	3.3	2.0	3.7	3.6
12) LESS: Nonfarm business output as share of real GNP	−.0	−.1	.7	.4
13) EQUALS: Real GNP	3.3	2.2	3.0	3.2

Note.—Based on seasonally adjusted data. Detail may not add to totals due to rounding.

Sources: Department of Commerce (Bureau of the Census and Bureau of Economic Analysis), Department of Labor (Bureau of Labor Statistics), and Council of Economic Advisers.

work force, higher participation of young workers as they make up a smaller proportion of the population, and a slowing of the decline in participation of people over 55. Reductions in marginal tax rates on labor income initiated during this Administration are expected to encourage labor force participation in the years ahead. Furthermore, maintenance of a stable, growing economy with expanding employment opportunities encourages increased labor force participation. Overall, the civilian labor force is projected to rise 1.4 percent per year during the projection period.

Changes in the utilization of labor are indicated by the growth of employment relative to the labor force. Civilian employment is projected to grow at an annual average rate that is slightly faster than labor force growth over the projection period, reflecting further modest declines in the rate of unemployment. The 0.1 percent annual increase in the employment rate appearing in the last column of the table reflects the estimated decline in the unemployment rate from current levels to 5.0 percent in 1991 and later years. It is assumed that, at approximately this level, remaining unemployment is largely frictional.

The estimate of civilian employment growth is adjusted to cover the nonfarm business sector in order to match published statistics for productivity. A further adjustment, to account for a slight projected decline in the length of the workweek, yields the growth rate of total hours available for production indicated in Table 7–4. The sum of the growth rate of total hours and the growth rate of output per hour

(productivity for nonfarm business) determines the growth rate of nonfarm business output over the medium term. After adjustments for the effect of relatively stronger growth in the nonfarm business sector than in other sectors in the economy, the rate of growth of real GNP is shown on the final line of Table 7–4.

The table shows that the average growth rate of real GNP through 1994 is projected to be 3.2 percent a year, the same as the average rate of the 1948–88 postwar period. Continued strong increases in labor force participation and a higher rate of productivity growth are projected to offset slower population growth.

Critical to these projections is the assumption of continued productivity growth at the average rate of increase achieved from 1948 to 1981. This assumption recognizes favorable trends in the economy that are expected to restore productivity growth to its previous trend, as well as policy initiatives that are expected to promote technological change and growth in physical and human capital. Aging of the baby-boom generation implies a trend toward a more experienced, more educated, and more skilled work force that should translate into improved productivity growth in coming years. Slower growth of the labor force will facilitate capital deepening in coming years, that is, an increase in the stock of capital per employed worker. Continued stability and gradual decline of the inflation rate should also contribute to stronger productivity growth by reducing the cost of capital and by focusing managerial energies on improving efficiency in resource allocation. Oil and energy prices are expected to remain lower than in the late 1970s and early 1980s, implying that firms will have more resources to spend on investments that enhance general productivity than on investments that reduce energy costs.

Government policies should also contribute to increased productivity growth. Partly as a result of government initiatives, research and development expenditures as a share of GNP are expected to remain higher than in the 1970s, thus promoting innovation and technological change. Government initiatives to improve education and to promote investment in knowledge and human capital should also lift productivity growth. Tax reform has lessened the distortions to investment decisions by establishing more equal effective tax rates across investment activities. This effect, coupled with policy initiatives to lower market barriers and distortions, will allow capital and labor to realize their productive potential more fully. Finally, avoiding short-run stabilization policies will increase the likelihood of maintaining a noninflationary economic environment. That environment will, in turn, allow private producers to concentrate on achieving higher productivity growth and profitability.

THE LEGACY OF THIS ADMINISTRATION

High and rising inflation, distorted tax incentives, and burdensome regulation sapped the productive energies of the Nation during the 1970s. Productivity and real income growth stagnated, and U.S. competitiveness in world markets was severely eroded. The cure for these economic problems required nothing less than a fundamental refocusing of Federal Government responsibilities and policy initiatives. This refocusing of government policy is the legacy of this Administration.

The underlying tenet of economic policy in this Administration is that, with the proper incentives, private markets generally provide more efficient economic outcomes than are possible with direct government intervention. Thus, the Administration discarded social and economic policies that were wasteful and not incentive-based, and reversed activist aggregate-demand management policies. The Administration undertook efforts to establish and maintain a stable policy environment in which private initiative played the major role in providing desired outcomes. At the same time, the Federal Government continued to support basic public infrastructure investments and provide a social safety net.

Stable and incentive-based economic policies have served the Nation well in the past. Real incomes and standards of living improved rapidly between 1900 and 1913, during the 1920s, and between 1946 and 1965, when the money supply generally grew at a noninflationary rate and Federal Government spending was geared to providing basic services. On the other hand, economic performance deteriorated when such policies were not followed. For example, recession turned into depression during the early 1930s when the Federal Reserve allowed the money supply to fall by one-third between 1929 and 1933, and U.S. beggar-thy-neighbor trade policies incited retaliation and a consequent decline in world trade and income. Inflationary monetary policy, high tax rates and inflation-distorted tax incentives, and a large and growing regulatory burden contributed to the stagflation of the 1970s.

The redefinition of fiscal policy under this Administration has been aptly described as a fiscal revolution. This revolution has not overthrown the Employment Act of 1946, which commits the Federal Government to maintaining high levels of income, employment, and purchasing power. It has overthrown a long entrenched view of the best way to achieve the goals of the act. Gone are attempts to smooth fluctuations in aggregate demand through frequent changes in government expenditure and tax policies and efforts to find a balanced mix of fiscal and monetary actions. As indicated in Chapter 1 of this

Report, this activist policy has generally failed to smooth aggregate fluctuations, and in a few cases has actually increased the variability of aggregate demand. Instead, this Administration has worked to establish and maintain stable incentives for productive behavior by reducing marginal tax rates on capital and personal income, indexing personal income tax rates to the rate of inflation, eliminating wasteful tax preferences that distort incentives, and controlling government outlays. Monetary policy has been used principally to achieve and maintain a modest rate of inflation.

Another important element of the incentive-based policies of this Administration was a commitment to flexible exchange rates and free international trade. The rationale for this commitment is given in Chapter 4, which demonstrates that international trade is not a zero-sum game, where an increase in the exports of one country offsets a reduction in exports by other countries. Free trade expands world trade and raises incomes of all nations.

Flexible exchange rates and free trade send a prompt and accurate signal about the competitive position of a nation in world markets. The decline in competitiveness of U.S. goods in world markets created by the stagflation of the 1970s was laid bare during the first half of the 1980s, when U.S. goods lost a considerable market share of world trade. The efficient solution to this loss of competitiveness was not, and is not, a shield fashioned from tariffs, quotas, and other impediments to trade. Free trade gave U.S. manufacturers an efficient, market-based incentive to compete on the basis of the price and quality of their goods. As documented in Chapter 1 and earlier in this chapter, U.S. manufacturers have lowered production costs and improved their productivity, and, with help from a lower value of the U.S. dollar in foreign exchange markets, they have seen a substantial rise in their world market share.

Flexible exchange rates and free trade impose a discipline on economic policymakers worldwide, providing the incentive to implement sound, market-based economic policies and to coordinate these policies with other countries. A good example of this discipline appeared in the early 1980s, when the U.S. dollar began to appreciate in foreign exchange markets. The initial reason for this appreciation was the confidence on the part of U.S. and foreign investors that the economic policies of this Administration would contribute to strong economic growth and lower inflation in the United States relative to the rest of the world. The U.S. dollar continued to appreciate after the Administration's policies were implemented, and these expectations were fulfilled. Foreign capital inflows into the United States signaled to foreign governments that their own economic policies needed to be redirected in the same manner as in the United States. Other

countries lowered their tax and inflation rates, and deregulated and privatized many of their key industries. As countries implemented these policies, their economic growth has increased and the U.S. dollar has depreciated in response.

The challenge for the future is to sustain political and economic stability by maintaining a strong national defense and the commitment to market-based policies and price stability. Further efforts to deregulate domestic markets and international markets slated for upcoming negotiations under the General Agreement on Tariffs and Trade should be assigned high priority. Moreover, national governments worldwide must work to establish consistent monetary policies to achieve and maintain price stability. With these policies acting as the foundation, national economies can build on the achievements gained during this President's stewardship of the U.S. economy, and can continue to improve standards of living worldwide.