CHAPTER 1

The U.S. Economy: Performance and Prospects

THE LONGEST PEACETIME EXPANSION in the history of the U.S. economy entered its sixth year in 1987. Growth was vigorous, with the economy's real output rising by nearly 4 percent last year. Three million additional jobs were created in 1987, beyond the 12 million generated earlier in the expansion. The unemployment rate dropped almost a percentage point to its lowest level in 8 years. Significant improvement in the real trade deficit contributed importantly to growth of output and employment, for the first time since 1980. The inflation rate remained in the 4 percent range that has characterized most of the expansion—well down from the double-digit rates at the start of the decade. Dramatic progress was made in reducing the Federal budget deficit. Judged by these accomplishments, leaving aside the extraordinary events in financial markets, the U.S. economy enjoyed a good year in 1987.

OVERVIEW OF THE REPORT

The past 5 years of sustained and vigorous growth in production, income, and employment did not occur by accident. It was shaped by government policies explicitly directed toward fostering the inherent dynamism of the private sector. In reviewing the record of the current expansion and looking to the future, this *Report* highlights the appropriate role for government in the economy—its macroeconomic responsibilities, such as fiscal and monetary policy, as well as its microeconomic responsibilities, which concern particular markets and industries. This chapter begins with a summary of the *Report*.

THE MACROECONOMIC SETTING

Nineteen eighty-seven was a year of robust economic growth, strong increases in employment, and—despite a temporary acceleration early in the year—continued moderate inflation. The composition of demand changed in a welcome direction, as the foreign trade sector contributed to overall growth. But late in the year, the plunge in the stock market and a sharp buildup in inventories raised questions about the outlook. With appropriate economic policies, however, growth should continue through 1988—albeit at a more moderate rate than in 1987. A more balanced and sustainable pattern of growth in 1988 then will set the stage for a resumption of more rapid growth in the future, together with gradual reductions in both the unemployment and inflation rates.

Chapter 1 first reviews the macroeconomic performance of the United States in 1987 and the factors that shaped it. In particular, the chapter discusses the role of fiscal and monetary policy in fostering noninflationary growth and economic adjustment. During 1987 macroeconomic policies turned toward restraint: growth of the monetary aggregates slowed sharply, interest rates climbed, and the Federal budget deficit was cut by one-third. Partly as a result, inflation remained low and progress was made in reducing the trade deficit.

Important adjustments occurred in the U.S. economy last year. Real exports rose by nearly 17 percent, helping to turn business fixed investment around and to produce large gains in output and employment in the manufacturing sector. Consumer expenditure growth slowed significantly from the rapid pace set during the first 4 years of the expansion, restraining the increase in imports. Last year the U.S. economy enjoyed both trade deficit reduction and good growth; with appropriate policies, this combination can be expected to continue into the future.

EMPLOYMENT, PRODUCTIVITY, AND INCOME

The most important measures of economic progress concern people: the number of people with jobs; the productivity of each person; and real income per capita. Chapter 2 reviews the record of the current economic expansion with respect to such measures of well-being, and finds that, in both quantity and quality terms, the past 5 years of growth have been good ones. Genuine economic progress has been made, with benefits widespread across major demographic groups and across regions. Since 1982 the U.S. economy has created 15 million new jobs—the strongest record of employment growth among the major industrial countries. Unemployment rates have dropped substantially for all major demographic groups, with especially large improvements for blacks, Hispanics, and youths. The bulk of new jobs have been full-time and in higher paying occupations. Along with the rapid rise in employment, growth rates of both productivity and real per capita income have picked up, after a period of slow growth in the 1970s. Manufacturing has experienced particularly strong productivity growth, while retaining its traditional share in the value of total output. The Nation's industrial base remains strong.

Moreover, the expansion's accomplishments should continue to build, provided the Administration's growth-oriented economic policies are followed in the future. The unemployment rate has not reached a natural barrier beyond which further reductions necessarily imply serious risk of accelerating inflation.

EXTERNAL IMBALANCES

Since late 1986 the Nation's large trade deficit has been narrowing in real terms, contributing to output and employment growth in the United States. Chapter 3 discusses the significance of external imbalances—the problems they do and do not pose for the United States and the world economy. It then examines the forces behind the evolution of worldwide imbalances, as well as the processes that are under way to reduce them.

In assessing the significance of the country's external deficit, the chapter finds that, because of strong demand growth within the U.S. economy, the widening trade gap did not impair overall employment growth. Nor did it cripple the manufacturing sector. Moreover, U.S. investment was aided by substantial net inflows of foreign capital which offset a relatively low national saving rate. The buildup of net foreign claims on the United States remains modest relative to U.S. income and wealth, and future problems arising from a continued rapid buildup can be forestalled by adequate progress in reducing the external deficit.

To sustain such progress, it is essential that the fundamental macroeconomic causes of worldwide imbalances continue to be addressed. A substantial reduction in the foreign exchange value of the dollar has helped to restore the international competitiveness of U.S. industry, and it is a major factor in the turnaround and expected further improvement in the real trade deficit. To maintain noninflationary growth in the world economy while external imbalances are being corrected, it is vital that Federal deficit reduction continue in the United States, that internal growth in foreign countries remains strong, and that markets function freely and flexibly to bring about necessary structural adjustments here and abroad. It is equally vital that national markets remain open to international trade and that the world avoid a descent into protectionism.

OPENING MARKETS AND AVOIDING PROTECTIONISM

Chapter 4 amplifies the conclusion of the preceding chapter: protectionism is not the answer. Instead, economic progress here and around the world is enhanced by the benefits of further liberalizing international trade.

During 1987 significant progress was made toward a more open trading system. Chapter 4 discusses the steps taken in three important areas: the Free-Trade Agreement (FTA) with Canada; the United States-Mexico Framework Understanding; and the Uruguay Round of negotiations under the General Agreement on Tariffs and Trade (GATT). When approved, the FTA will culminate 140 years of efforts to establish free trade as the guiding principle governing what has become the world's largest commercial trading relationship between any two nations, thereby providing substantial and enduring benefits for businesses and consumers in both the United States and Canada. In the Uruguay Round, the United States is vigorously pursuing the proposals it has made to strengthen the free and fair trade principles of GATT and to broaden their application in services, investment, intellectual property, and agriculture.

At the same time, however, threats to trade liberalization have emerged within the United States. Pending legislation, while including some useful features, also contains numerous protectionist provisions. Enactment of these protectionist provisions would violate U.S. obligations under GATT, increase costs to consumers, damage relations with our trading partners, and invite retaliation. The United States has a choice: it can continue to lead the movement toward freer world trade, building on the progress of the last year, or it can turn inward, embracing protectionist measures that point only toward economic stagnation.

KNOWLEDGE AND PROGRESS

Chapter 5 examines three of the major factors that underlie rising living standards in the longer term and considers the role of government in supporting and sustaining economic progress. The chapter first examines investment in human capital, reviewing trends in schooling, training, and work experience, as well as their effects on earnings and output. It then discusses expenditures on research and development and their relationship to economic growth. Finally, the chapter reviews the importance of economic incentives and flexible markets in supporting economic progress by assuring that resources are directed toward their most highly valued uses.

The government has a constructive, but limited, role to play in ensuring that these building blocks of economic progress are strong. In education, government plays a large direct role, primarily at the State and local level where it can be most responsive to community needs. For investment in human capital and in research and development, government support is most effective when it relies on private incentives that guide such investment toward its most productive uses. To maintain economic incentives, government has an important responsibility to protect the rights of individuals to benefit from their own labor, investment, innovation, and entrepreneurship. Beyond this, the best role for government is often a minimal one—ensuring that it does not interfere with the efficient use of resources or introduce market barriers and distortions that impede productive economic activity.

AIRLINE DEREGULATION

The success of deregulation is well illustrated by the airline industry. The final chapter of this *Report* focuses on the effects of the Airline Deregulation Act of 1978, which led to a surge in air travel as a result of lower fares and greater choice. Recently, however, more complaints about service and on-time performance, as well as safety concerns, have prompted calls for reregulation.

Reregulation would be a mistake. The benefits of having removed regulation of entry and pricing in the airline industry are clear. They are also sizable, on the order of $11 billion per year. Despite airline mergers and fears of monopoly pricing, competition remains vigorous. More air travel—a reflection of the very success of deregulation—unquestionably has meant more crowded skies and busier airports. However, the answer to this congestion is not less reliance on market forces, but more. Deregulation should be expanded to allow a greater role for market forces in the management of the Nation's airspace and airport services.

Concerns that air safety is being undermined by the increased competition of a deregulated environment are not supported by the facts. The rapid increase in airline business in the last 10 years has led to no deterioration in the safety of air travel; instead, the record is good and compares favorably with the period before 1978. More people are flying to more places than ever before, and they are traveling more safely.

THE U.S. ECONOMY IN 1987

U.S. economic growth strengthened in 1987, and the sources of growth shifted markedly. Starting in the fourth quarter of 1986, real gross national product (GNP) growth began to exceed domestic demand growth, as—for the first time in 7 years—the foreign trade sector contributed on a sustained basis to economic growth in the United States. On the inflation front, the increase in consumer prices moved up into the 5 percent range early in 1987, spurred largely by the rebound in world petroleum prices. Non-oil import prices, which had tended to restrain inflation during the first half of the 1980s, also contributed upward pressure on consumer prices. But this acceleration, which largely reflected a one-time shift in relative prices, proved short-lived, and inflation in the second half of the year fell back to the 4 percent rate that has characterized most of the current economic expansion.

SOURCES OF DEMAND

The economic expansion continued through 1987, and in October it claimed the record as the longest period of uninterrupted growth that the United States has experienced in peacetime. Ironically, the record was set just as the stock market's optimism was shaken, and the Dow Jones Industrial Average dropped more than 20 percent in a single day. Clearly, some stresses and imbalances had emerged during the expansion, but data on the real economy indicated that favorable adjustments were occurring, and that they were occurring within a context of continued growth. The trade deficit was narrowing in real terms, the Federal budget deficit had dropped by one-third, and business fixed investment was rebounding from its 1986 decline.

Real GNP grew 3.8 percent from the fourth quarter of 1986 through the fourth quarter of 1987, rising more than half again as fast as in the preceding year. But this acceleration was by no means uniform across components of demand. In fact, the largest component, personal consumption expenditures, slowed almost to a standstill, posting just a 0.6 percent rise after 4 consecutive years of 4-plus percent increases (Table 1-1). Similarly, investment in housing declined for the first time since 1981. While the growth of government purchases picked up slightly last year to 3.0 percent, the primary source of the acceleration in GNP was the rebound in three components that had been a drag on growth in 1986: net exports, business fixed investment, and inventories.

The strengthening of exports, the turnaround in business fixed investment, and the slower growth of consumer spending all were part of a welcome pattern of economic adjustment necessary to redress the major imbalances of the U.S. economy. The figures presented on the composition of output growth in 1987 were influenced importantly by the weakening of consumer expenditures and business fixed investment in the final quarter of last year, but the fundamental pattern was not altered. Combined with continued strong growth of production, the drop in consumer and nonresidential fixed investment demand at the end of 1987 meant a large increase in inventories, which consequently accounted for one-half of the total increase in real GNP last year.

Growth of real consumption expenditures was dampened by slower growth of real personal income in 1987. As a result of the faster rise

TABLE 1-1.—*Growth of Real GNP and Its Components, 1982-87*

Item	1982 IV to 1985 IV	1985 IV to 1986 IV	1986 IV to 1987 IV[1]
	Average annual percent change		
Real GNP	4.9	2.2	3.8
Domestic demand	6.3	2.7	3.2
Personal consumption expenditures	4.7	4.1	.6
Nonresidential fixed investment	9.7	−4.7	3.7
Residential fixed investment	15.8	12.5	−2.9
Government purchases of goods and services	4.5	2.4	3.0
Exports of goods and services	2.9	5.9	16.9
Imports of goods and services	15.2	8.9	8.2
	Contribution to real GNP growth in percentage points[2]		
Total change in real GNP	4.9	2.2	3.8
Final domestic demand	5.7	3.2	1.3
Change in inventories	.6	−.4	1.9
Net exports of goods and services	−1.5	−.6	.6

[1] Preliminary.
[2] Detail may not add to totals because of rounding.
Source: Department of Commerce, Bureau of Economic Analysis.

in consumer prices last year, the growth of real disposable personal income slowed to 2.0 percent. Within consumer expenditures, only spending on services recorded an increase. After rising 2.4 percent in 1986, real services expenditures increased 3.8 percent in 1987. By contrast, spending on durables and nondurables fell. Consumer spending on motor vehicles dropped 5.9 percent in 1987, reversing half of the 12 percent rise in the year before. With so many households having recently bought automobiles, fewer remained interested in and able to make a purchase in 1987. In general, purchases of motor vehicles have been highly volatile in recent years, as manufacturers have instituted on-again off-again incentive plans. These huge fluctuations in car sales—routine 40 percent annual rates of increase or decrease in a quarter—have induced large swings in the pattern of consumption expenditures, despite the fact that motor vehicles account for less than 10 percent of total consumer spending.

The housing sector was affected adversely last year as interest rates climbed. Real residential investment dropped 2.9 percent, a reversal from 1986 when it had soared 12.5 percent as interest rates on new 30-year mortgages had moved into the single digits for the first time in the 1980s. Early in 1987 mortgage rates continued to ease to a 9-year low of 9.0 percent, but then they turned higher and in mid-October peaked at nearly 11.6 percent. The plunge in the stock market then changed the financial landscape, and mortgage rates ended the year about 1 percentage point below their October highs. The impact of higher rates during most of last year was softened somewhat by a shift toward adjustable-rate financing, which accounted for more than half of all mortgage originations by early autumn. In addition, by most indications, inflation expectations picked up at times last year, so that the increase in real (inflation-adjusted) rates was not so large as that in nominal interest rates. In the multifamily sector, however, high vacancy rates and tax code changes that reduced the attractiveness of multifamily homes as tax shelters acted as added deterrents to new construction.

During 1987 business investment appeared influenced primarily by the strength of the economy—especially improved export prospects. Business fixed investment rose 3.7 percent, reversing most of the 4.7 percent decline of the preceding year.

Improved export demand was evident in sales, production, and employment figures. Real exports grew almost 17 percent last year, finally rebounding above their peak levels of 1980–81. The increased international competitiveness of U.S. products, owing to the drop in the dollar's exchange rate, rising manufacturing productivity, and moderate wage increases, lifted export sales. As a result, the external sector contributed significantly to GNP growth last year. Growth of imports, while well below the rates recorded during the early years of this expansion, remained relatively rapid. Imports increased more than 8 percent in real terms last year, as U.S. domestic demand picked up.

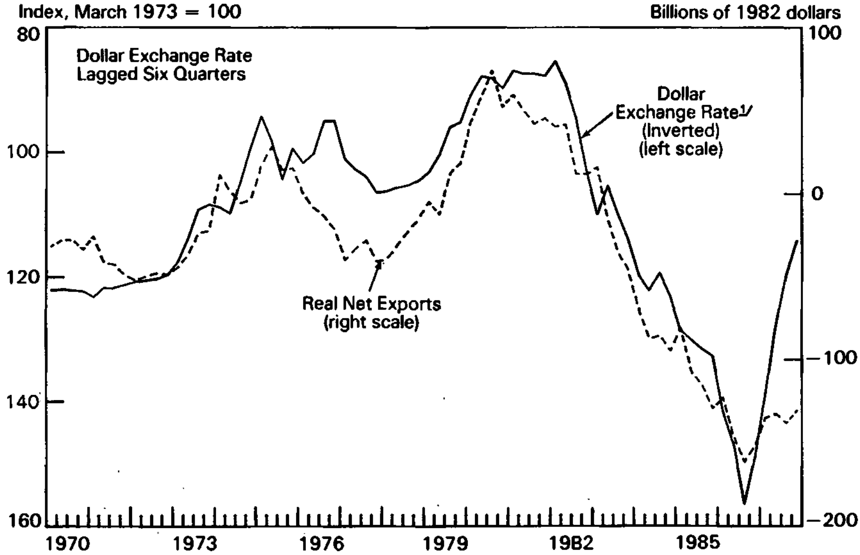
Although real domestic demand grew at a 3.2 percent rate last year, substantial progress was made in reducing the real external deficit. The improved net export performance stemmed primarily from relative price changes that made U.S. goods increasingly attractive both at home and abroad (Chart 1–1). In coming quarters these relative price changes should continue to improve the external balance. But even faster progress will be made if demand abroad strengthens, and if growth of U.S. domestic demand slows—preferably as a result of Federal spending restraint that narrows the budget deficit.

INFLATION AND RELATIVE PRICE CHANGES

The consumer price index (CPI) rose at more than a 5 percent annual rate during each of the first 4 months of 1987, but this initial acceleration did not herald a sustained resurgence of inflation. Last year the economy had to contend with significant increases in the prices of imports and energy—two categories that earlier in the economic expansion had tended to act as restraining influences on inflation. In addition, aided in part by the accommodative monetary policy of 1985–86, the economy was moving through a fifth year of growth, capacity utilization was rising, and the unemployment rate was continuing to fall. In similar circumstances in the 1970s, inflation had accelerated. But in 1987 most broad measures of inflation, al-

Chart 1-1

The Dollar and Real Net Exports



1/Nominal multilateral trade-weighted value of the dollar against the currencies of the other G-10 countries plus Switzerland.

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

though up from 1986 when oil prices had dropped sharply, remained close to their averages for the first 3 years of the current expansion. For example, the GNP fixed-weighted price index rose 4.0 percent, compared with an average of 3.7 percent during 1983–85.

In 1986 crude oil prices had fluctuated wildly, dropping from more than $25 per barrel for West Texas Intermediate at the beginning of the year to a low of less than half that in July, then climbing back up to more than $18 per barrel around the end of the year. During 1987 the price of oil was less volatile, ending the year only a little below its level at the beginning of the year. The deflationary impact of the earlier drop in oil prices was completed at the retail level during 1986, as the energy component of the CPI declined almost 20 percent over the year. The inflationary effect of the subsequent rebound in oil prices, however, was strongest during the first 3 months of 1987, when the energy component of the CPI rose at a 26 percent annual rate. Thereafter, the energy component increased at about the same rate as the aggregate CPI.

In early 1987 the higher relative price of oil gave a one-time boost to the aggregate price level, with no apparent effect on the economy's underlying inflation rate. Similarly, the rising import prices of recent quarters are a relative price adjustment which should produce only transitory upward pressure on inflation. But, in the case of imports, the relative price adjustment is likely to be a more drawn-out process. Prices of non-oil imports have been rising more rapidly than overall inflation since the end of 1985, and they likely will continue to do so for several more quarters as the dollar's drop on foreign exchange markets gradually affects prices. A fixed-weighted index of non-oil import prices has increased at a 9 percent annual rate during the last 2 years.

Although the passthrough effects of the lower dollar can be expected to take some time, rising import prices nevertheless represent a one-time change in relative prices and are a necessary factor in reducing the Nation's trade deficit. Only if macroeconomic policies are unduly expansionary, and wage increases fully reflect the increases in import prices, will the increased relative price of imports turn into a sustained higher rate of inflation.

The increase in measured inflation early in 1987, in combination with the economy's stronger growth, may have contributed to slightly higher wage demands later in the year (Chart 1–2). Data on wage costs and average earnings indicate that wage increases bottomed out during the first half of the year and began to edge up during the second half. The acceleration was modest, however, and the 12-month change in wages remained in the 2.5 to 3.5 percent range. By most measures, the increase in wage costs last year was among the lowest of the postwar period, and the rise in unit labor costs, at 1.3 percent, was also relatively low.

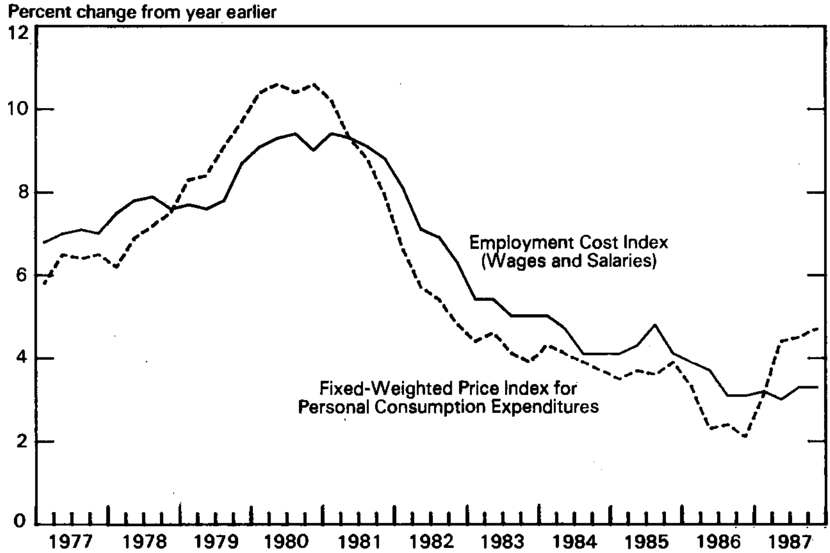
At times during 1987, inflation expectations appeared to flare up. Early in the spring, both the price of gold and interest rates rose sharply, apparently reflecting higher inflation expectations as broad indexes of commodity prices surged. Throughout much of the year the strong growth of industrial production also raised demand for inputs and put upward pressure on the prices of intermediate and crude goods, especially metals. In the 12 months through December, the producer price index for crude materials rose 8.8 percent, but this increase had little effect last year on the price index for finished producer goods, which rose just 2.2 percent.

INDUSTRIAL COMPOSITION

Along with the shifts in sources of demand and in relative prices last year, the sectoral composition of output also changed. After more than 2 years of sluggish increases, industrial output rose a

Chart 1-2

Wages and Prices



Note.—Data for fourth quarter 1987 are preliminary.

Sources: Department of Commerce and Department of Labor.

healthy 5.2 percent in the 12 months through December 1987. Some industries benefited from the surge in exports and the renewed competitiveness vis-a-vis imports, while others were aided by the strength of equipment investment. The rebound in oil prices encouraged activity in energy-related industries. And the agricultural sector appears to have improved, aided by government support as well as by stronger exports.

In 1987 the growth of goods production outpaced that of services by the widest margin since 1984. Similarly, after 2 years of declining employment, an additional 628,000 people were put to work last year in goods-producing industries. However, the predominant increase in employment remained in service-producing industries, where more than 2 million new jobs were created.

Among industries there were some remarkable reversals. Iron and steel production increased by nearly 30 percent in the 12 months through November 1987, having fallen about that much during the preceding 3 years. Similarly, the output of construction, mining, and farm equipment rose 18 percent through November, back to levels last reached in 1982. Oil and gas well drilling was another very strong component of industrial production in 1987; it increased by 37 percent, thereby retracing about half the drilling decline that had followed the collapse in oil prices at the end of 1985.

After a number of years of severe financial stress, agriculture may well have turned the corner. Farmland prices and net worth on farms rose in 1987, after declining in each of the preceding 7 years. Agricultural exports turned higher, crop prices rose, and huge stockpiles declined. In 1986 net farm income was at a high level as a result of record government transfers to farmers, high livestock prices, and low production expenses. In 1987 net income rose further, supported in addition by the strength of exports.

As the economic expansion continued through 1987, certain industries and sectors that had not fully participated in the recovery, or that had suffered setbacks more recently, were caught up in the spreading cycle of growth. Earlier in the expansion the high exchange rate had stymied export growth; but by 1987, after the dollar declined roughly 40 percent on the Federal Reserve Board's trade-weighted index from its peak in the first quarter of 1985, export-dependent industries (and those that compete with imports) regained some ground.

MACROECONOMIC POLICIES

Both fiscal and monetary policy turned toward restraint last year. The Federal deficit narrowed by one-third in fiscal 1987, and even on a cyclically adjusted basis—that is, abstracting from the deficit-reducing effect of faster economic growth—the restraint was clear. Moreover, measured either in real terms or as a share of GNP, Federal outlays fell below the level of the previous fiscal year. At the same time, rising interest rates and sharply lower money growth rates indicated a tightening of monetary policy during much of 1987.

FISCAL RESTRAINT

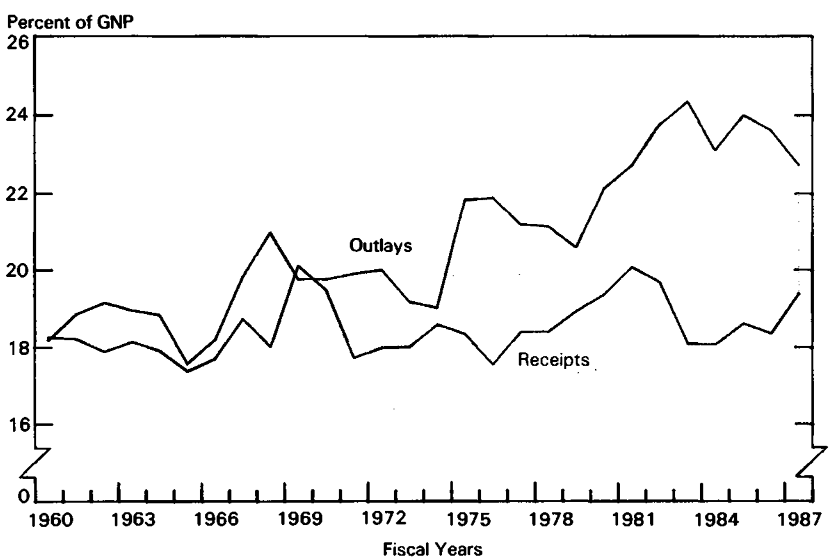
In fiscal 1987 the reduction in the Federal budget deficit was remarkable. The deficit was cut $71 billion, or 1.9 percent of GNP, in a single year. This salutary development reduced the government's demands on credit markets, while restraint on Federal spending released more resources for use by the private sector and, by holding down growth of domestic demand, contributed to the improvement in the Nation's real trade gap. Despite the contractionary impulse from fiscal policy last year—equivalent on a cyclically adjusted basis to roughly 1 percent of GNP—economic growth did not slow. The economy performed well in 1987, supported in part by the monetary stimulus of the preceding years and in part by the strong export growth that stemmed from a lower dollar.

A portion of the deficit decline was made up of one-time occurrences, such as loan asset sales, small changes in the timing of receipts and expenditures, and higher revenues due to the phase-in of the Tax Reform Act, but much was real, substantive deficit reduction. The Federal budget as measured by the national income and product accounts, which exclude some of these special factors, showed a $55 billion narrowing in the deficit in fiscal 1987.

The growth of total Federal outlays (both on- and off-budget) slowed to just 1.4 percent in fiscal 1987, which translated into the first inflation-adjusted decline in 14 years. Similarly, as a share of GNP, Federal outlays dropped to 22.8 percent, down from 23.6 percent in fiscal 1986 (Chart 1-3). Boosted by stronger economic growth and roughly $30 billion in additional revenues brought in by tax reform, total Federal receipts rose 11.1 percent in fiscal 1987. Federal revenues thus rose to 19.4 percent of GNP, 1 percentage point above the 1960-80 average.

Chart 1-3

Federal Receipts and Outlays as Percent of GNP



Note.—Includes on-budget and off-budget items.

Sources: Department of Commerce and Office of Management and Budget.

The fiscal 1987 deficit of $150 billion came close to the $144 billion target specified in the original Gramm-Rudman-Hollings (GRH) legislation passed in 1985. After the method of imposing automatic spending cuts in that law was found to be unconstitutional, amendments to GRH, with new enforcement mechanisms and new deficit targets, were signed into law in September 1987. The amendments extended the deadline for a balanced budget by 2 years to 1993, and they eased the deficit reduction requirements for fiscal 1988 and 1989 by providing "safe harbors" in the form of caps on the amount of cuts mandated. For fiscal 1988 the amendments exchanged a $108 billion target, as specified in the original act, for a new $144 billion target with a maximum automatic cut of $23 billion.

In October, as fiscal 1988 opened, the Federal budget for the year remained far from settled. A short-term continuing resolution kept the government operating, while lawmakers worked on appropriations and reconciliation legislation that would allow them to avoid the across-the-board spending cuts mandated by GRH. But the likelihood of agreement on a satisfactory budget package appeared to diminish as October progressed, making automatic cuts more likely. Automatic cuts are preferable to some alternatives—such as no deficit reduction at all, or higher taxes that undo the benefits of tax reform—but they have a serious drawback: they do not recognize priorities. In other words, programs that may legitimately merit more funds are cut just as much as those programs that may have outlived their usefulness. For fiscal 1988, automatic cuts were avoided eventually, but not until the stock market break had encouraged the parties involved in the budget-making process to reach an agreement.

MONETARY POLICY

During 1987 the Federal Reserve continued the eclectic approach that has characterized decisionmaking within the Nation's central bank in recent years. The creation of new deposit instruments, wide fluctuations in market interest rates, the deregulation of deposit rates, and the accelerated process of general financial innovation had raised questions about how movements in money and credit aggregates should be interpreted. As the 1980s progressed, the Federal Reserve had watched the historical relationships between money and income and interest rates apparently break down in response to these influences, and it came to rely less on the monetary aggregates and more on a wide range of economic and financial variables as indicators of emerging trends. Finally, in 1987 the Federal Reserve refrained from specifying an annual growth range for M1, the measure of money which in the past had been related most closely and reliably to income growth. Thus, for the first time since 1975—when the Federal Reserve began to set money targets publicly—neither a target nor a monitoring range for M1 was announced. And while target ranges for M2 and M3 (broader measures of money) were specified, the Federal Reserve's midyear report to the Congress explicitly recognized that "[in certain circumstances,] some shortfall from the annual ranges might well be appropriate."

In view of heightened uncertainty about the behavior of the monetary aggregates, the sharp slowing in money growth in 1987 did not alarm the Federal Reserve, as it continued to tighten policy through September. Annual rates of growth in the second and third quarters of 1987 averaged between just 2½ and 4½ percent for M1, M2, and M3. When measured from the fourth quarter of 1986, the growth rates were somewhat higher: through September, M1 grew at a 6.1 percent annual rate, M2 at a 4.2 percent rate, and M3 at 5.4 percent. Nevertheless, even these rates represented substantial decelerations from those in the preceding year, and left M2 well below, and M3 just below, their target growth ranges. M1A, which consists of currency and checking accounts that cannot pay interest, increased at less than a 2 percent annual rate through September, after having risen 10 percent in 1986.

Background

The lessened reliance on money as an indicator was an outgrowth of the experience of the 1980s, but especially of 1985–86. The Federal Reserve had begun to ease policy in the second half of 1984, reversing its earlier restraint in order to support the flagging economic expansion, and more than 2 years of falling interest rates and rapid money growth followed. From their peaks in mid-1984, most interest rates declined 5 to 6 percentage points by the end of 1986, and many short-term rates were cut in half. The monetary aggregates, especially the narrower aggregates, soared in 1985 and accelerated further in 1986. Over the four quarters of 1986, even the slowest growing of the commonly cited aggregates, M3, rose 8.9 percent, while the fastest growing measure, M1, ballooned 15.3 percent. By comparison, nominal GNP increased just 4.5 percent during the same period. In other words, by any measure, velocity (the ratio of nominal GNP to the money supply) dropped steeply in 1986.

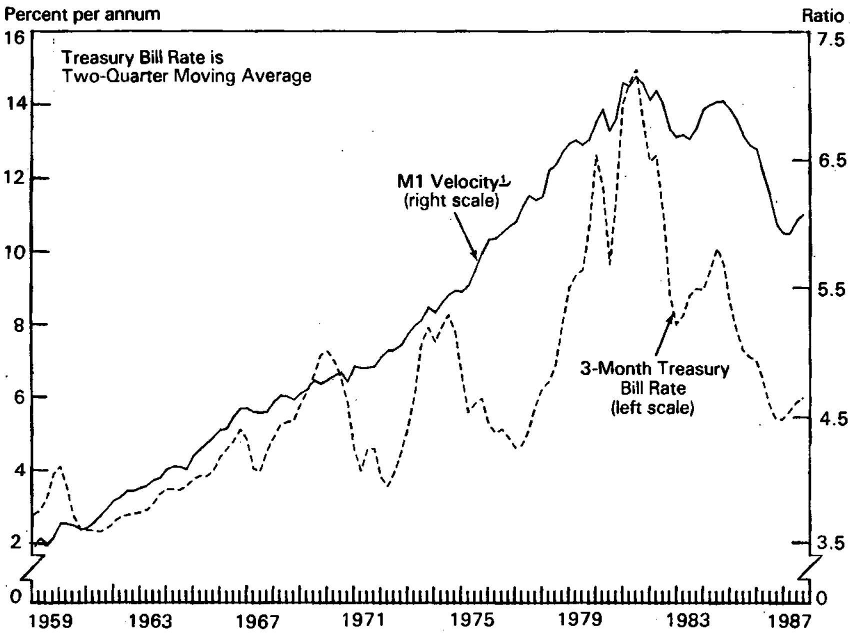
The decline in the velocity of M1, at 9.4 percent, was particularly steep and provided additional evidence that the relationship between that measure of money and income had shifted. The relationship between nominal GNP and M1, as summarized by velocity, apparently veered off track in the early 1980s (Chart 1-4). Rather than trending higher at a rate of roughly 3 percent a year as it had during the preceding 20 years, velocity declined on balance after 1981. There always had been some cyclical variations in velocity, with changes in interest rates altering the "opportunity cost" of holding idle balances. But the experience of the 1980s clearly was different. M1 velocity appeared to be responding far more emphatically than in the past to changes in market interest rates, while M2 velocity—although also affected—remained closer to its historical behavior.

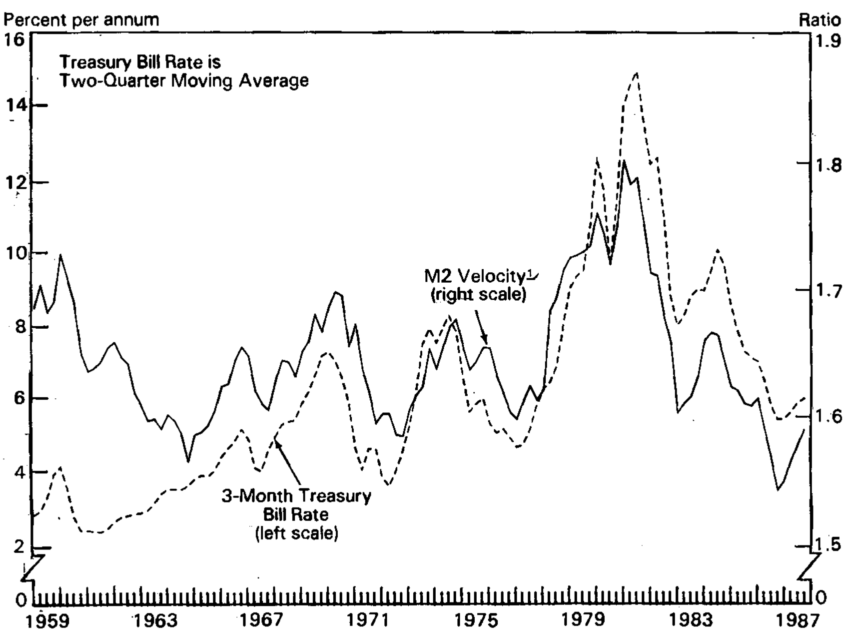
The two most likely explanations for this increased interest rate responsiveness of money balances are deregulation and the sharpest disinflation since the late 1940s. The drop in inflation early in the 1980s fed through to expectations: as the public expects lower inflation, they tend to become more willing to hold money. Thus, to the extent that falling interest rates reflected declining inflation expectations, the disinflation/more-stable-purchasing-power argument provides an additional link between lower interest rates and increased demand for money.

Financial deregulation had its effect by changing the composition of the monetary aggregates. Interest-bearing transaction accounts were permitted, and interest rate caps were eliminated on all types of accounts except demand deposits, on which interest payments remained prohibited. In the case of M1, the shift in composition was profound: by 1986 interest-bearing deposits had grown to nearly one-third of M1 from a negligible share just 8 years earlier. As a result, the 1984-86 decline in market interest rates meant that, by the end of that period, the opportunity cost of a major component of M1 dropped below one-half percent. This opportunity cost, measured as the 3-month Treasury bill rate less the interest rate paid on negotiable order of withdrawal (NOW) accounts, was the lowest for any transaction account in 40 years. Such a narrow spread is clearly atypical; it developed in part because deposit rates on NOW accounts and other variable-rate accounts have adjusted relatively slowly to changes in market interest rates. This rate-setting behavior has accentuated the effect of variations in market rates on the demand for money.

Chart 1-4

Interest Rates and Velocity of Money





1/ Ratio of GNP to M1 or M2.

Sources: Department of the Treasury and Board of Governors of the Federal Reserve System.

Federal Reserve Actions in 1987: Before October 19

In 1987 monetary policymakers continued to face uncertainties concerning the strength of the economy, the extent of the inflationary threat, and the interpretation of movements in the monetary aggregates. Evaluating financial and economic indicators and predicting the precise effects of policy moves remain inexact sciences. On the domestic front, financial markets indicated that inflation expectations may have surged at times, although inflation itself exceeded the 4 percent range only briefly, early in the year. And on the international front, the value of the dollar came under pressure several times. Throughout the year, however, U.S. economic activity remained robust, and the unemployment rate dropped nearly a percentage point.

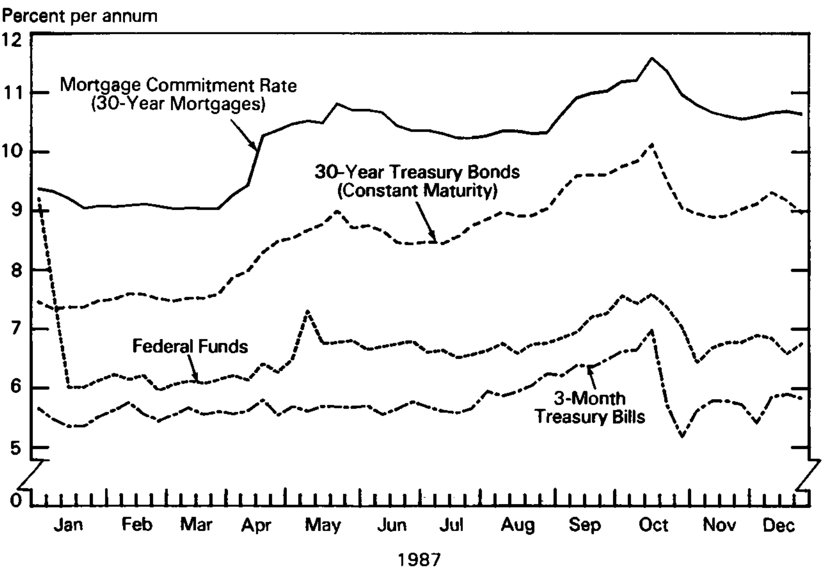
As 1987 began, the deciphering of economic and financial market trends was complicated by a year-end surge of transactions prompted by a change in tax laws. Because many provisions of the Tax Reform Act were to take effect at the turn of the year, individuals and businesses rushed to complete real estate transactions, mergers, sales of equities, car purchases, etc., before the end of 1986. In the process they generated huge demands for money and credit; for example, M1 rose at a 30.5 percent annual rate in December 1986, and business loans increased at a 36 percent rate.

In view of the difficulty in separating tax effects from underlying economic trends during this period, the Federal Open Market Committee (FOMC), the Federal Reserve's principal monetary policymaking body, chose not to make any substantive changes in its instructions to the Open Market Desk, which implements policy on a day-to-day basis. Thus the thrust of the directive that had been in place since the last discount rate cut in August 1986 remained in force. At the same time, however, the FOMC indicated its bias toward future tightening and noted that, at least with regard to M1, money growth would have to slow from the 1986 pace in order to sustain progress toward price stability.

As the year-end bulge in the monetary aggregates dissipated and the economy continued to grow at a moderate pace, the Federal Reserve made no explicit changes in monetary policy until late April. Then, in April and again in May, the market for bank reserves was tightened as policymakers responded to downward pressure on the dollar in exchange markets and a perceived ratcheting upward of inflation expectations. News on the real economy was generally good: growth was maintained, and the unemployment rate was dropping substantially. But the rebound in energy prices, with some help from higher import prices, had boosted the inflation rate above 5 percent, and expectations of inflation were heating up. While oil prices had roughly stabilized, broad indexes of commodity prices rose sharply in April and early May, as did the price of gold. Long-term interest rates also appeared to reflect an increase in inflation expectations: the rate on 30-year Treasury bonds increased 1½ percentage points in 2 months, to a peak of 9.0 percent (Chart 1-5). The dollar also told a similar story about expectations during this period, losing nearly 5 percent of its value on a trade-weighted basis in those 2 months.

Chart 1-5

Weekly Interest Rates, 1987



Sources: Department of the Treasury, Board of Governors of the Federal Reserve System, and Federal Home Loan Mortgage Corporation.

The Federal Reserve actions, complemented by measures taken abroad to ease policy, generally were successful in reassuring the domestic financial and foreign exchange markets. The dollar appreciated through mid-August, and interest rates remained below their highs of the spring. Meanwhile, the economy showed signs of additional strength, inflation dropped back from the elevated levels of early in the year, and wage increases remained subdued.

Under the influence of higher interest rates and tighter Federal Reserve policy, growth of the monetary aggregates continued to weaken. M1 rose at just a 2.7 percent annual rate in the 6 months through July, and M1A fell slightly, while M2 growth remained well below, and M3 just below, their 5½ to 8½ percent target ranges. To some, this sharp slowdown in money growth raised concerns about potential economic weakness.

In early September the Federal Reserve again tightened policy, both by restricting reserve availability further—which it did "in light of the potential for greater inflation, associated in part with weakness in the dollar"—and by raising the discount rate one-half percentage point to 6 percent. In the preceding 3 weeks the dollar had dropped nearly 5 percent on a trade-weighted basis, and interest rates had begun to move up very steeply in the last few days of August. Once again, foreign exchange markets apparently were reassured by the Federal Reserve's actions. The dollar stabilized, but this time interest rates continued to climb.

The spur for the dollar's drop and the bond market's weakness appears to have been the release in mid-August of the June foreign trade figures, which showed a $15.7 billion deficit—substantially worse than the markets had expected. With the trade deficit thus narrowing more slowly than anticipated, the financial markets surmised that further adjustments were required—either a lower dollar, reduced demand in the United States, or increased demand in our major trading partners. Against a background of rising interest rates abroad, and with little additional action expected to be taken to reduce the U.S. budget deficit or to augment demand abroad, attention focused on the foreign exchange market and U.S. interest rates. Specifically, a rise in U.S. interest rates appeared increasingly likely, perhaps reflecting expectations that further dollar depreciation would add to inflationary pressures. Higher rates also would have been expected to result from an effort to dampen business investment and consumer spending—and thereby U.S. imports, which would reduce the extent of the needed dollar decline.

The trade figures for the next 2 months also were worse than generally expected, and financial markets reacted adversely. On October 14, when the August data were released, the Dow Jones Industrial Average posted a 1-day drop of 3.8 percent, and the rate on 30-year Treasury bonds rose 20 basis points (0.20 percentage point). The dollar also declined, but by less than 1 percent. On balance between September 4 (when the discount rate was increased) and October 16, the trade-weighted value of the dollar remained unchanged, the Dow Jones Industrial Average dropped 12 percent, and interest rates rose 50-150 basis points.

The extent of Federal Reserve tightening through mid-October was most dramatic as measured by the sharp deceleration of money and reserve growth. In view of the relative looseness of money-GNP relationships in recent years, however, other indicators provide additional evidence on the stance of Federal Reserve policy. Judging by the level of the Federal funds rate in early October, the progressive tightening of monetary policy had effectively reversed most of the easing that had occurred during 1986. At their peaks, short-term interest rates had increased roughly 150-250 basis points since the beginning of the year, and long-term rates had risen a bit more than that. Although these nominal increases were offset in part by higher inflation expectations, real interest rates, which adjust for inflation expectations, also appear to have risen during 1987—albeit by a more modest amount than during some other periods of real rate increases in the 1980s. Two other variables that sometimes can be used as indicators of monetary policy did not appear to point to a tightening last year. In particular, the dollar's exchange rate declined on balance, and the yield spread between long- and short-term securities widened somewhat, rather than narrowing or even turning negative as it tends to do in periods of severe monetary policy restraint. Nevertheless, the balance of the evidence points to a tightening of monetary policy last year.

There is little question that a turn toward some restraint in 1987 was desirable; continued growth of money at the high rates experienced in 1985 and 1986 would have had inevitable inflationary consequences. With output growth apparently well-maintained and inflation expectations building at times, the Federal Reserve acted to forestall a resurgence of deep-rooted inflation and to retain hard-won gains toward price stability. As always, because monetary policy actions affect the economy with sizable lags, the tightening of policy last year had implications for future growth and price performance.

THE BREAK IN THE STOCK MARKET

As the third quarter ended, preliminary evidence suggested—and data later confirmed—that the U.S. economy was growing strongly. The unemployment rate continued to edge down, reaching its lowest level since late 1979, and the index of leading indicators pointed to sustained economic growth. However, the outlook for further substantial improvement in the Federal deficit was clouded by an apparent deadlock between the Congress and the Administration over the budget for fiscal 1988, which began October 1. In financial markets, the Federal Reserve had tightened monetary policy in September. Interest rates, both short- and long-term, rose further in the first weeks of October.

In mid-October the stock market posted a string of large declines, culminating in a 1-day plunge of unprecedented magnitude. The stock market had soared more than 40 percent in value from the start of the year through its August peak, but, by the close of business on October 16, nearly half of that gain had been erased. And the following Monday, October 19, after stock markets elsewhere in the world had posted sharp declines, the Dow Jones Industrial Average lost 22.6 percent in a single day. Trading volume was enormous, the markets were chaotic, many stocks opened very late, and the word "panic" aptly described the atmosphere. It was a worldwide phenomenon with potentially worldwide consequences.

On that 1 day, the total value of the stock market dropped by roughly half a trillion dollars. The next day, again amid an enormous volume of transactions, market conditions worsened. Trading in many stocks and index futures halted for a time, but the market managed to recover and closed higher. In subsequent days and weeks, investors remained nervous, but they drew reassurance from the Federal Reserve's prompt provision of liquidity and the large number of corporations announcing stock buy-backs. During the remainder of the year, the market settled into a trading range that left the Dow at the end of 1987 quite close to its year-earlier level.

A wide range of explanations for the crash has been offered, and many factors may have contributed. However, no political or economic event occurred between the market's close on Friday and on Monday that appears capable of explaining such a huge revaluation of the net worth of U.S. corporations. To an extent, the stock market appeared to be reacting simply to itself; in increasingly heavy trading on the preceding Wednesday, Thursday, and Friday, the Dow had lost a total of 261 points, and on October 19, as more individuals and institutions became aware of the deepening plunge in stocks that day and tried to sell, the decline cumulated.

A survey regarding the factors that had propelled stock prices downward was included in *The Report of the Presidential Task Force on Market Mechanisms*, which reviewed the stock market break. A majority of the market participants and other interested parties that responded to the survey viewed technical and psychological factors, especially "sheer panic," as the cause of the intense selling pressure on October 19. By contrast, fundamental factors, such as rising interest rates, overvaluation of the market, and the large trade and budget deficits, were described as the primary cause of the preceding week's decline.

Some commonly watched measures of stock values lend support to the proposition that stocks were overvalued before mid-October. Dividend yields on stocks were well below their postwar average, while price/earnings ratios had soared to highs attained only briefly in recent decades. Since the beginning of 1987, stock prices had skyrocketed amid reports of escalating corporate earnings and robust economic growth. But while stock prices were soaring, bond prices were dropping, creating an unusual divergence between the two markets. In a sense, on October 19 the stock market caught up with the bond market.

Rising interest rates certainly were a factor in the stock market's decline. As noted above, rates had risen sharply in the weeks preceding the crash, and one major bank announced another half percentage point hike in its prime rate on the Thursday before the plunge. Moreover, the outlook for even higher interest rates had been bolstered by the lack of improvement in the monthly U.S. trade figures. The slower-than-expected turnaround in the trade deficit implied to some that further adjustments—either to exchange rates or to foreign or domestic fiscal or monetary policies—would be necessary to stimulate U.S. exports and reduce U.S. import growth.

Several additional factors may have played a role in the market's decline. In particular, publication of the large trade deficits appeared to strengthen the position of those supporting protectionist trade legislation, the passage of which would seriously impair the ability of U.S. firms to do business abroad and would signal the abandonment of a longstanding U.S. commitment to an open trading system. There also were other indications that international economic policy cooperation might be endangered. In addition, the House Ways and Means Committee had just approved a tax package containing several items adversely affecting business, including a measure that would increase the cost of corporate takeovers.

THE ECONOMIC IMPLICATIONS

The damage to the financial system as a direct result of the stock market break was remarkably minor. Several brokerage firms closed their doors or merged with larger, better capitalized companies, a number of Wall Street firms announced layoffs, and the demand for portfolio insurance—which was supposed to provide a hedge against declining stocks—dropped off amid evidence that such insurance had failed to perform as expected.

Recent studies have provided much useful information concerning the events surrounding October 19. These studies deserve, and will receive, serious and careful attention. In response to the crash, however, it is important to avoid precipitous actions that might make financial markets less efficient and less flexible. The resilience of the financial system in the face of the unprecedented dive in stock prices can be read as eloquent testimony to the general adequacy of government regulations in this area. Regulatory authorities and market participants worked together effectively to ensure that, despite the large declines in stock prices, the financial system continued to function.

The implications of the market break for the economy, however, are harder to gauge and may ultimately be more serious, requiring a careful balance of macroeconomic policies to avoid the threat of an economic downturn. The stock market is a good, but not infallible, predictor of economic trends. While it is sufficiently reliable to be included in the Department of Commerce's index of leading indicators, it represents only 1 of 11 components in that index. The stock market tends to be overly pessimistic, erroneously predicting several additional recessions in the postwar period. But in those circumstances when a stock drop has not been followed by an economic downturn, it is often because economic policies have shifted direction, effectively preempting a recession. For example, in 1966, after the stock market had declined more than 20 percent, the Federal Reserve did an about-face, reversing much of its earlier tightening. The economy responded to the support, and a recession was avoided.

Stock prices are a leading indicator because they distill expectations about future corporate earnings, and because they affect decisions about spending and investment. Until October, when the break in the stock market affected attitudes, surveys had shown steady increases in consumer confidence during 1987. Thereafter, consumer sentiment dipped sharply, and although it has largely recovered, consumer spending behavior appears to have become more cautious.

The stock market is a barometer of confidence in the outlook, and it is a major component of the Nation's wealth. At the end of September the market value of corporate equities totaled roughly $4.4 trillion, about $2.3 trillion of which was held directly by the household sector. This $2.3 trillion represented nearly one-sixth of that sector's total net worth of $15 trillion, so a large change in the value of stocks could be expected to have an impact on household spending. Some econometric models have estimated that a $1 decline in the value of the stock market reduces consumer spending by about 4 cents over a horizon of roughly 1 year. Thus a $500 billion drop in stocks would mean about a $20 billion (or 0.8 percent) reduction in consumer expenditures by the fall of 1988.

The repercussions for consumption should be mitigated, however, by the fact that the lost wealth this time had been so recently acquired. While many individuals and institutions were badly hurt financially by the plunge in prices, the decline reversed only about 1 year's gain in stock values. Even after October 19, the Dow Jones remained more than double its mid-1982 level. Nonetheless, in the atmosphere of uncertainty that followed the crash, there were convincing reasons to postpone decisions to spend and invest.

The stock market crash was not, as one observer put it, "a necessary, marvelous correction," but it may have had its silver lining. In particular, as discussed below, it helped move macroeconomic policy in the direction of a more balanced posture, by adding impetus to efforts to reduce Federal spending and the deficit. In addition, by drawing an explicit parallel to the Great Depression, the stock market decline highlighted the serious dangers associated with protectionism, thereby undercutting support for protectionist trade legislation and encouraging the reduction of trade barriers. Moreover, the crash may have made enactment less likely for ill-considered Federal legislation that would inappropriately restrict the market for corporate control.

If the plunge in stock prices also causes consumers to become slightly more cautious in their spending patterns, a gentle rise in the personal saving rate and consequent added improvement in the trade balance will ensue. In this case, however, it is not true that if a little consumer retrenchment is good, a lot is better. And it is the responsibility of policymakers to watch closely and to take additional actions if it appears that a downward spiral is threatening. With appropriate policies, 1987—the market break notwithstanding—need not herald the end of the longest peacetime expansion in U.S. history.

THE POLICY RESPONSE

In the days and weeks following October 19, U.S. macroeconomic policies were reassessed. The Federal Reserve reacted promptly, indicating by word and deed that ample liquidity would be provided to help the financial system and the economy weather the stresses associated with the market break. The fiscal policy response required more negotiation and more time, but 1 month after the plunge in stock prices, the Administration and the Congress concluded an agreement to continue efforts in the direction of restraint by cutting the fiscal 1988 and 1989 budget deficits by $30 billion and $46 billion, respectively, from a specified baseline.

Fiscal Policy

Deficit reduction through Federal spending restraint was, and is, a high priority of the Administration. The stock market drop added urgency to Administration and congressional efforts to forge a 1988 budget that consolidated and built upon the deficit reduction progress made in fiscal 1987. At the "budget summit" set up in the wake of the stock market drop, participants agreed to a 2-year $76 billion deficit reduction package; the resulting legislation rendered GRH automatic spending cuts unnecessary for fiscal 1988. The spending cuts and revenue increases enacted preserve the progress on the deficit made in fiscal 1987 and set the stage for further gains.

While deficit reduction is a very important objective, it is not paramount. For example, GRH wisely allows for suspending the targets should the economy weaken markedly. In current circumstances, with the deflationary impact of the stock market decline not yet clear, progress on the fiscal deficit should continue to be made, but cautiously. The Federal Government's budget has the attractive property of providing the economy with automatic stabilizers, moving in the direction of deficit when the economy sinks and in the direction of surplus when it soars. These stabilizers should not be overridden in the pursuit of deficit reduction. Nor should the deficit reduction imperative run roughshod over considerations of economic efficiency by raising taxes that undo the benefits of tax reform and reduce incentives to work, produce, and invest.

Without question, in the long run the potential for growth in this country will be enhanced by moving toward a balanced Federal budget. Over the medium term, a tighter fiscal policy would play a major role in improving the balance between income and spending in the United States. As the government significantly reduces its demands on resources, there is an increased likelihood that the external imbalance can be righted without impairing the growth of private sector investment expenditures. If, instead, investment expenditures were to be stunted by a combination of loose fiscal policy and tight money, America's potential for future growth might be jeopardized by an increasingly outdated capital stock.

Monetary Policy

The stock market crash required—and received—an immediate monetary policy response. By the end of the day on October 19, billions of dollars of financial wealth had been lost, and fears of a possible collapse of the financial system and, ultimately, of the economy were palpable. The Federal Reserve responded promptly and unequivocally to these threats by issuing a brief statement the next day that emphasized its willingness to support the system with adequate liquidity. This statement was buttressed by open market operations that satisfied increased demands for liquidity and eased money market conditions. In the 2 weeks immediately following the crash, borrowing from the Federal Reserve declined to a level not seen since the initial tightening of policy in the spring, excess reserves soared to nearly double their usual amount, and the Federal funds rate dropped back to the 6¾ percent range that prevailed during the summer.

The stock market plunge changed the circumstances faced by monetary policymakers in an important way. The market break caused an abrupt loss of wealth and consumer confidence, removing some of the impetus for higher growth and higher prices. The balance of risks shifted as the possibility of recession increased, and the general level of uncertainty about the outlook was heightened enormously. In these circumstances, it was appropriate for the Federal Reserve to respond by making reserves freely available.

After its initial response, however, monetary policy began to take a more cautious tack. Amid signs that the economy had strong momentum going into the fourth quarter, and with few clear indications of economic retrenchment in reaction to the crash, the Federal Reserve took no further moves to ease policy, keeping the discount rate at 6 percent. Most monetary and reserve aggregates weakened over the balance of the year. M1, M1A, and total reserves each ended the year below their pre-crash levels, and M2 remained well below its target growth range, rising at just a 4 percent rate for the year as a whole.

Immediately following the 508-point drop in the Dow, the Federal Reserve's operations were exemplary. It was in the right place at the right time, supporting the financial system with ample liquidity. While it was appropriate for the conduct of policy to change subsequently (once constant reassurances to the markets were no longer needed), the stance of monetary policy at the end of 1987 may have underestimated the risks to adequate economic growth. At the end of the year, interest rates were down from their October highs, but they remained above the levels of January through August, while monetary aggregate growth remained weak. More recently, declining interest rates and increased money growth suggest that the Federal Reserve has been more supportive of economic growth.

THE ECONOMIC OUTLOOK

The Administration's economic forecast anticipates that the rate of economic expansion will slow this year from the rapid pace set in 1987. Subsequently, growth is projected to resume at a rate that more fully reflects the economy's long-term potential and that promises further reductions in unemployment. Improvement in the U.S. real trade balance is expected to contribute to output and employment growth in coming years, as it did in 1987; this contribution will play an especially important role in 1988. Increases in the working-age population, in labor force participation rates, and in the education, skill, and experience of the work force, together with an expanding capital stock and improving technology, are projected to sustain growth of the economy's output at a rate sufficient to meet rising domestic and international demand. The inflation rate is projected to move gradually downward from the 4 percent range characteristic of the current expansion toward the long-term goal of price stability. Underlying this outlook are economic policies that are assumed to support these developments.

FORECAST FOR 1988

Real GNP is forecast to rise 2.4 percent from the fourth quarter of 1987 to the fourth quarter of 1988, somewhat slower than the 3.8 percent increase in 1987. Nevertheless, output growth in 1988 is expected to generate employment growth sufficient to match increases in the labor force and to keep the unemployment rate at about its current level. As a result, the average unemployment rate during 1988 is likely to be the lowest in 13 years.

The expected slowing of real GNP growth in 1988, also widely anticipated by private forecasters, reflects economic developments during 1987, especially those during the last quarter of the year. The low rate of personal saving and the slow growth of real disposable income through the third quarter of last year already suggested some prospective slowing of growth in consumer spending—even before the stock market crash lowered household wealth and consumer confidence. Interest rates declined significantly after the market break, but they remained above their levels at the beginning of the year. Slow growth of monetary aggregates throughout 1987 points to some possible weakening of economic growth in 1988. The buildup of inventories at the end of 1987 also indicates a likely need to reduce production growth relative to final sales growth in the new year. Weighing on the other side, gains in disposable income at the end of 1987 and tax rate reductions taking effect in January 1988 are likely to support consumer spending. Declines in mortgage interest rates promise a future boost for residential construction. Perhaps most important, prospects for continued strong growth of U.S. exports look excellent. All told, however, real GNP growth in 1988 appears likely to lag behind the rapid pace of 1987.

Probably the most immediate concern is the fast pace of inventory accumulation during the fourth quarter of 1987. In particular, nonfarm inventories appeared to rise at an unsustainable rate. To correct this situation, production will have to decrease relative to final sales. Final sales are expected to show renewed growth in 1988, after being essentially flat in the final quarter of 1987. Consequently, an outright decline in production can be avoided. The inventory adjustment can be achieved through slower production growth relative to final sales growth. This essentially reverses the situation in 1987. As discussed earlier, inventory building accounted for one-half of overall economic growth last year, more than offsetting deceleration in other domestic components of GNP. In 1988 inventories are expected to accumulate at a slower and more sustainable pace. This slowdown will have a negative impact on real GNP growth, possibly with much of the effect felt in the first half of the year. Modest gains for most other domestic components of demand and strong gains for the U.S. trade sector are expected to keep real GNP growing.

Real net exports will be one of the main sources of growth in the economy in 1988, providing nearly half of overall output growth. Rapid productivity gains in manufacturing, moderate wage increases, and the effects of past exchange-rate adjustments will continue to help U.S. businesses expand exports in foreign markets and compete against imports at home. In addition, anticipated slow growth of final demand within the U.S. economy and the possible effect of the inventory correction on imports are expected to restrain growth of imports and to contribute to net export gains.

In 1987 growth of real consumption slowed to a 0.6 percent rate from the rapid pace set earlier in the expansion, and it actually fell at a 3.8 percent annual rate in the fourth quarter. The personal saving rate finished the year 1.3 percentage points above the year-earlier rate, due entirely to the drop in consumer spending and a strong gain in disposable income during the last quarter of the year. Given the high rate of auto purchases in the third quarter of 1987, the low personal saving rate for most of the year, and the likely effects of October's stock market decline, it was widely anticipated late last year that there would be some downward adjustment in consumer spending. It appears that much of that adjustment occurred in the fourth quarter. Accordingly, as indicated in Table 1–2, real consumption spending is forecast to rise at a modest 1.9 percent rate during 1988, slightly below the projected growth rate of real disposable income, and substantially below the 4½ percent annual growth rate of real consumer spending during the first 4 years of the current expansion.

Despite slower growth of aggregate output this year, fixed investment is expected to accelerate somewhat. As reported in Table 1–2, nonresidential fixed investment is forecast to increase 4.4 percent during the current year, up from 3.7 percent last year. The improving trade picture, which is lifting capacity utilization rates in many manufacturing industries, will provide much of the motivation for increased investment. The need for additional capacity to meet demands both for exports and for import substitutes should continue to stimulate investment in equipment and nonresidential structures. Lower interest rates in 1988, partly as the result of slower economic growth and lower expected inflation, should strengthen housing demand. Residential investment, after falling in 1987, is forecast to increase 3.4 percent in 1988.

TABLE 1-2.—*Economic Outlook for 1988*

Item	1987[1]	1988 forecast
	Percent change, fourth quarter to fourth quarter	
Real gross national product	3.8	2.4
Personal consumption expenditures	.6	1.9
Nonresidential fixed investment	3.7	4.4
Residential investment	−2.9	3.4
Federal purchases of goods and services	2.9	−4.6
State and local purchases of goods and services	3.1	2.9
GNP implicit price deflator	3.3	3.9
Compensation per hour[2]	2.8	4.7
Output per hour[2]	1.4	1.5
	Fourth quarter level	
Unemployment rate (percent)[3]	5.8	5.8
Housing starts (millions of units, annual rate)	1.5	1.7

[1] Preliminary.
[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.

The deficit reduction agreement concluded by the Congress and the Administration, together with earlier efforts to control Federal spending, will contribute to a decline in real Federal purchases in the current year. Increases in State and local spending are expected to offset much of this decline, leaving a small negative contribution to GNP growth from the government sector as a whole.

As discussed in Chapter 2, the United States has been notable among industrialized nations in its ability to create jobs both to meet the needs of an expanding labor force and to reduce unemployment. During the current expansion 15 million jobs have been created. Between the fourth quarter of 1986 and the fourth quarter of 1987, when real GNP rose 3.8 percent, 3 million new jobs were created, and the unemployment rate dropped from 6.8 percent to 5.8 percent. Even though slower real growth in the current year is not expected to bring further immediate reductions in the unemployment rate, it is anticipated that some 1½ million new jobs will be created as employment growth keeps pace with an expanding labor force.

Higher oil prices and higher import prices increased the 1987 inflation rate (as measured by the CPI) above the very low rate recorded in 1986. Higher import prices also are expected to contribute to consumer price inflation in 1988. However, after a year of slow growth of monetary aggregates, and in view of the expected slowing of real GNP growth, acceleration of inflation is not seen as a likely danger in 1988. On a fourth-quarter to fourth-quarter basis, the CPI is forecast to rise 4.3 percent in 1988, a small decline from the rise in 1987. The GNP deflator, which is not affected directly by import prices, is forecast to rise 3.9 percent in 1988. The increase from 1987 primarily reflects a shifting of weights attached to different component prices used to calculate the deflator. It does not signify an acceleration of inflation.

The Administration's forecast for 1988 takes account of the favorable effects of tax reform, i.e., full implementation in January 1988 of the reduced marginal tax rates mandated by the Tax Reform Act of 1986 and continued confidence in the preservation of tax reform's incentives for growth and efficiency. Embodied in the forecast is the expectation that the budget compromise agreed to by the Administration and the Congress will be followed, and that rates of demand growth in other industrial countries will be sufficient to sustain world output growth while the U.S. trade deficit is being reduced. Also critical for the forecast is the assumption that monetary authorities will provide sufficient liquidity to support real growth without fueling an acceleration of inflation.

PROJECTIONS FOR 1989-93

The Administration's medium-term projections show real GNP growth strengthening after 1988, with growth averaging 3.3 percent annually for the period 1989 through 1993. This projection is based on the assessment that recent events in financial markets and slower growth in 1988 will not materially alter the longer run growth potential of the U.S. economy. Table 1-3 presents yearly estimates for major components of the medium-term projections. These estimates are not intended to be year-to-year forecasts; rather, they are meant to reflect underlying economic trends and Administration policies.

Implicit in the Administration's medium-term projections are important economic policy assumptions similar to those underlying the forecast for 1988. First, tax increases that would dull incentives to work, invest, and produce and that would impair the efficient allocation of resources are avoided, and the benefits of tax reform are preserved. Second, continued progress is made in reducing the Federal deficit, primarily by restraining the growth of Federal spending while allowing Federal revenues to rise with the growth of the economy. Third, government regulation continues to be directed toward legitimate interests of public policy and does not again become an excessive and unnecessary burden to enterprise and growth. Fourth, monetary authorities supply adequate liquidity to sustain economic expansion while fostering progress toward the long-run goal of price level stability. Fifth, protectionist pressures, which could provoke retaliation and hamper U.S. access to foreign markets, continue to be

TABLE 1-3.—*Administration Economic Assumptions, 1988-93*

[Calendar years]

Item	1988	1989	1990	1991	1992	1993
	Percent change, year to year					
Real GNP	2.9	3.1	3.5	3.4	3.3	3.2
Real compensation per hour[1]	.0	.8	1.5	1.9	2.0	1.9
Output per hour[1]	1.4	1.8	2.0	2.0	2.0	2.0
Consumer price index[2]	4.3	4.1	3.6	3.2	2.7	2.2
	Annual level					
Employment (millions)[3]	116.1	118.1	120.0	121.9	123.8	125.5
Unemployment rate (percent)[4]	5.8	5.6	5.4	5.3	5.2	5.2

[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.

resisted successfully. This last assumption is especially important in view of the contribution that an improving U.S. trade balance is projected to make to overall U.S. economic growth in the medium term. It is crucial that American businesses be permitted to compete in markets that are as free as possible from the distorting effects of trade barriers.

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. Business fixed investment grew 3.7 percent in 1987, and it is expected to continue expanding over the next 6 years in response to a growing economy. Strong growth of manufacturing output and increases in capacity utilization in manufacturing industries provided an important stimulus to investment growth in 1987. This development was related to strong growth of U.S. exports, which is expected to persist in 1988 and later years and thus support future investment growth.

More generally, it is the view of the Administration that the best way to promote investment is to maintain a stable, growing, and flexible economy that can profitably employ an ever-larger stock of physical and human capital. The Administration has sought by means of tax reform, deregulation, privatization, and other policies to provide such an environment. Chapter 5 of this *Report* discusses in greater detail the proper governmental role in promoting economic efficiency and investment, particularly investment in human capital and in research and development.

The Administration's estimates of important measures that address goals specified in the Full Employment and Balanced Growth Act are summarized in Table 1-3. Projected increases in output and employment, higher real income and productivity growth, and lower inflation and unemployment will move the economy along the path to the targets set by the act. As was discussed earlier, 15 million jobs have been created during this expansion in an environment of decelerating inflation, and more can be accomplished in coming years. Chapter 2 documents in more detail the progress made so far in attaining the goals specified in the act and outlines the prospects for future gains.

DETERMINANTS OF GROWTH 1988-93

The long-run improvement in the Nation's standard of living implied by the Administration's economic projections hinges on the continued expansion of the economy's capacity to produce. Important determinants of this capacity are the supply of labor, its level of utilization, and its productive ability. The supply of labor is influenced by the size of the population and its demographic characteristics, by incentives to undertake employment in the market economy, and by the cyclical state of the economy. The level of utilization of the labor force, of course, responds primarily to fluctuations in the level of economic activity. The productivity of labor depends on the education, experience, and skills of the labor force, on the supplies of physical capital and other cooperating factors of production, on the technological efficiency of production processes, and on the economic efficiency of resource allocation. Except for the level of utilization of labor, the behavior of the determinants of the economy's productive capacity is governed mainly by long-term developments in the economy, and is influenced by government policies that affect these longer term developments. Favorable longer term trends and policies directed at improving growth 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.

The sources of growth in the economy's productive potential that underlie the Administration's medium-term projections are organized into an accounting framework in Table 1-4. 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 displays growth from the peak of the last business cycle through 1987, and the final column presents growth rates over the projection period, which extends through 1993.

TABLE 1-4.—*Accounting for Growth in Real GNP, 1948-93*

[Average annual percent change]

Item	1948 IV to 1981 III	1973 IV to 1981 III	1981 III to 1987 IV[1]	1987 IV[1] to 1993 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	.1	.2
7) EQUALS: Nonfarm business employment	1.7	2.1	2.0	1.7
8) PLUS: Average weekly hours (nonfarm business)	−.4	−.6	.0	−.1
9) EQUALS: Hours of all persons (nonfarm business)	1.4	1.5	2.0	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	3.4	3.5
12) LESS: Nonfarm business output as share of real GNP	.0	−.1	.6	.3
13) EQUALS: Real GNP	3.3	2.2	2.8	3.2

[1] Data for 1987 are preliminary.

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.

Growth of the labor force is expected to be somewhat slower during the projection period than earlier in the postwar era. As Table 1-4 shows, labor force growth is determined by growth in the adult population and by increases in labor force participation (the fraction of the adult population in the labor force). The gradual decline in the growth rate of the adult population that has occurred since the baby-boom generation reached adulthood in the 1960s and 1970s is expected to continue into the next decade. Also, strongly rising rates of labor force participation that have existed since the 1970s are expected to continue in coming years. Increases in overall participation likely will reflect continued entry of women into the work force, higher participation by youth as they make up a smaller proportion of the population, and a slowing of the decline in participation by people over 55. Significantly lower marginal tax rates on labor income 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.

Civilian employment is projected to grow slightly faster than the labor force from 1988 to 1993, reflecting further modest declines in the rate of unemployment. The 0.1 percent annual increase in the employment rate documented in the last column of the table reflects the estimated decline in the unemployment rate from current levels to 5.2 percent by 1993. (Chapter 2 discusses the prospects for reductions in unemployment in coming years.)

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 1-4. 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 are made 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 arrived at on the final line of Table 1-4.

The table shows that the average growth rate of the economy through 1993 is projected to be almost the same as the average rate of the postwar era, despite slower growth of the adult population. Growth of nonfarm business output averages 3.5 percent annually for the projection period, slightly higher than the 3.3 percent average for the 1948-87 period. Slower population growth is projected to be offset by continued strong increases in labor force participation and a higher rate of productivity growth.

Critical to these projections is the assumption of a continued pickup in productivity growth from the low rates experienced during the 1970s and early 1980s. This assumption recognizes a number of favorable trends in the economy that are lifting productivity growth, as well as policy initiatives that should 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. Furthermore, labor productivity growth should rise as the result of increasing the ratio of the stock of physical capital to labor. Slower growth of the labor force will facilitate this process of "capital deepening" in coming years. Continued stability and gradual decline of the inflation rate also should contribute to stronger productivity growth by removing a major cause of distortions in the allocation of capital. 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 rather than having to focus so heavily on investments that reduce energy costs.

Government policies also should 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 also should 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 more fully their productive potential.

CONCLUSION

The current economic expansion entered its sixth year in 1987 and became the longest peacetime expansion in U.S. economic history. Real GNP recorded a strong 3.8 percent gain last year, 3 million new jobs were created, and the unemployment rate dropped by nearly a full percentage point. Early in the year, inflation rose temporarily into the 5 percent range, due primarily to rising energy prices. For the year as a whole, however, inflation remained in the 4 percent range characteristic of the current expansion. An important transition was made from an expansion led by growth of domestic demand and with a deteriorating trade position, to one in which improving real net exports made an important positive contribution to growth. The manufacturing sector in particular benefited from the improving trade situation, recording substantial gains in employment and output. Dramatic progress was made in reducing the Federal deficit, with a cut of one-third achieved in fiscal 1987.

However, some of the developments in 1987, particularly in the last quarter, suggest a slower pace of economic advance in 1988. Interest rates rose persistently through the first three quarters of 1987, due primarily to the vigor of the expansion, to increased worries about higher inflation and a lower dollar, and to a tightening of monetary policy after 2 years of relative ease. After the stock market drop on October 19, interest rates declined significantly, but still closed the year above the levels at which they had started it. The decline in stock prices cut the market value of equities back essentially to the level at the end of 1986. This loss of wealth, together with the effect of the stock market break on consumer confidence, was widely anticipated to dampen the growth of consumer spending somewhat. In the fourth quarter of 1987 output continued to grow strongly, but it ran well ahead of final demand, leading to a buildup of inventories. Correction of this situation implies a period in which output grows more slowly than final demand. During 1988 strong growth of exports, some recovery of consumer spending, and anticipated growth of fixed investment should enable this inventory correction to be achieved in the context of continued economic expansion.

In sum, the longevity of the current expansion and the robust growth exhibited in its most recent year testify convincingly to the dynamism and resilience of the U.S. economy. Inevitably, no economic expansion proceeds at an absolutely even pace. The economy had a good year in 1987—better than in 1986, and certainly much better than in past years of recession or high inflation. This year does not promise to be quite as good as 1987. However, the mistakes of the past are not being repeated. Inflationary pressures are not being built up that will once again distort the economy and impair its growth, ultimately bringing on the wrenching readjustments of disinflation before a stable foundation for economic progress can be reestablished. Further progress toward the long-term goal of price level stability is in prospect. The Federal deficit has been reduced substantially, and agreement has been reached on further reductions that do not undermine the benefits of low and stable marginal tax rates. The real trade deficit has begun to decline, and its further narrowing promises to be an important source of strength for the U.S. economy. The present economic expansion, and the substantial benefits it brings, can continue through 1988 and beyond.