The U.S. Economy in 1987 and 1988

By J. A. Cacy and Richard Roberts

The sharp drop in stock prices in the fall of 1987 has generated concerns that the U.S. economy is entering a recessionary period in which the nation's output will decline and unemployment will increase sharply. These concerns are not wholly misplaced because the behavior of stock prices has historically been a reliable leading indicator of economic developments. In particular, sharp declines in stock prices have been followed more often than not by economic downturns.

The correspondence between stock prices and the economy, however, is not as close as is commonly believed. In a number of instances in recent years, economic expansion has continued unabated despite declines in stock prices. Moreover, a balanced assessment of the economic prospects for 1988 indicates continued expansion is likely, although the loss of wealth and confidence occasioned by the stock market plunge will hold growth to a sluggish pace for the first part of the year.

This article analyzes the economic outlook for 1988, after reviewing economic and financial developments in 1987.

The economy in 1987

The U.S. economy continued to grow in 1987 as the current business cycle expansion extended through its fifth year, making it the longest peacetime economic upturn in U.S. history. Unemployment eased moderately in 1987, while inflation accelerated somewhat, although the underlying inflation rate remained moderate.

Economic growth

Economic growth picked up somewhat in 1987 compared with 1986. Real Gross National Product (GNP) increased at an annual rate of 3.7 percent during the first three quarters of 1987, noticeably higher than the 2.2 percent gain of 1986 (Table 1). GNP growth picked up despite slower growth in consumer spending, which was held back by high consumer debt burdens and

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TABLE 1
Real gross national product and components
(Percent change at seasonally adjusted annual rates)

	1986[a]	1987[b]
GNP	2.2	3.7
Final sales	2.6	2.3
Gross domestic demand	2.7	3.1
Personal consumption expenditures	4.1	2.2
Nonresidential fixed investment	−4.7	6.2
Residential fixed investment	12.5	−5.7
Government purchases	2.4	0.0
Exports	5.9	17.1
Imports	8.9	8.9
Addenda		
Inventory investment[c]	13.8[d]	37.1[e]
Net exports[c]	−145.8[d]	−135.4[e]
GNP implicit price deflator	2.2	3.5

[a] 1986:Q4 compared with 1985:Q4
[b] 1987:Q3 compared with 1986:Q4
[c] Level, billions of 1982 dollars
[d] Annual average
[e] Average, first three quarters

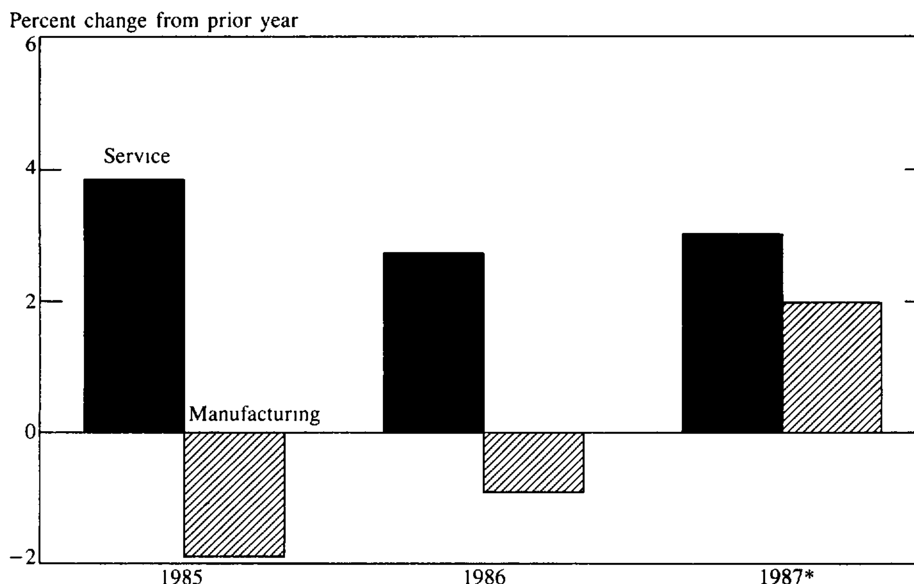
slow personal income growth. Also holding back economic growth in 1987 was a decline in residential construction, caused mainly by higher interest rates, and sluggish growth in government spending, due in part to continuing efforts to reduce the federal budget deficit.

Economic growth was bolstered in 1987 by a sharp increase in exports accompanied by stable import growth. This improvement in real net exports, the first since 1980, resulted from the continuing decline in the foreign exchange value of the U.S. dollar. An increase in business fixed investment, due in part to greater export demand for industrial products, also contributed to stepped up economic growth in 1987. In addition, inventory investment added to the year's real GNP growth.

Resource use and inflation

Reflecting the increased pace of economic activity, both capital and labor resources were used more intensively in 1987. Gains in industrial production, in response to rising export demand, led to more intensive use of the nation's industrial capacity. Consequently, the manufacturing capacity utilization rate rose in 1987 for the first time in several years. Labor resources were also used more intensively, as employment increased strongly and the civilian unemployment rate dropped from 6.7 percent at the end of 1986 to 5.9 percent in November. Manufacturing employment increased for the first time in recent years, due in part to the improvement in the nation's trade position (Chart 1). Also, employment in the

CHART 1
Manufacturing and service employment



*Growth rate from 1986 to November 1987

oil and gas extraction industry stabilized in response to a rebound in oil prices.

Inflation increased somewhat in 1987, although underlying inflationary pressures rose less than the broad price indices indicated. The GNP implicit deflator, the broadest general price index, increased at an annual rate of 3.5 percent over the first three quarters of 1987, up from 2.2 percent for 1986 as a whole. The consumer price index (CPI) increased at an annual rate of 4.7 percent in the first ten months of 1987, nearly four times the rate for 1986 (Table 2). The more rapid rise in consumer prices resulted mainly from rebounding oil prices, which jumped 40 percent before stabilizing late in the year. Prices of consumer goods other than food and energy, which reflect underlying pressures better than the CPI as a whole, showed only a small acceleration, advancing 0.6 percentage points more during the first 11 months of 1987 than in 1986 (Table 2). Rising import prices was an important factor boosting underlying inflation in 1987. A factor

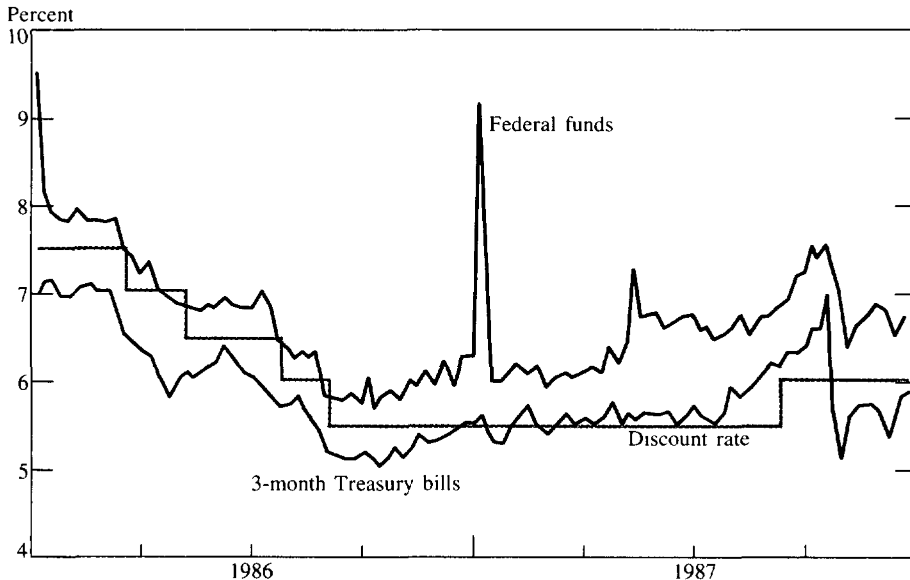
TABLE 2
Consumer price index
(Percent change at seasonally adjusted annual rates)

Period	All Items	All Items Less Food and Energy
1983	3.8	4.8
1984	4.0	4.6
1985	3.8	4.4
1986	1.2	3.8
1987*	4.7	4.4

*First 11 months, annual rate

CHART 2

Selected short-term interest rates



holding down inflation was stable unit labor costs in the nonfarm business sector. This stability restrained the upward pressure of costs on prices.

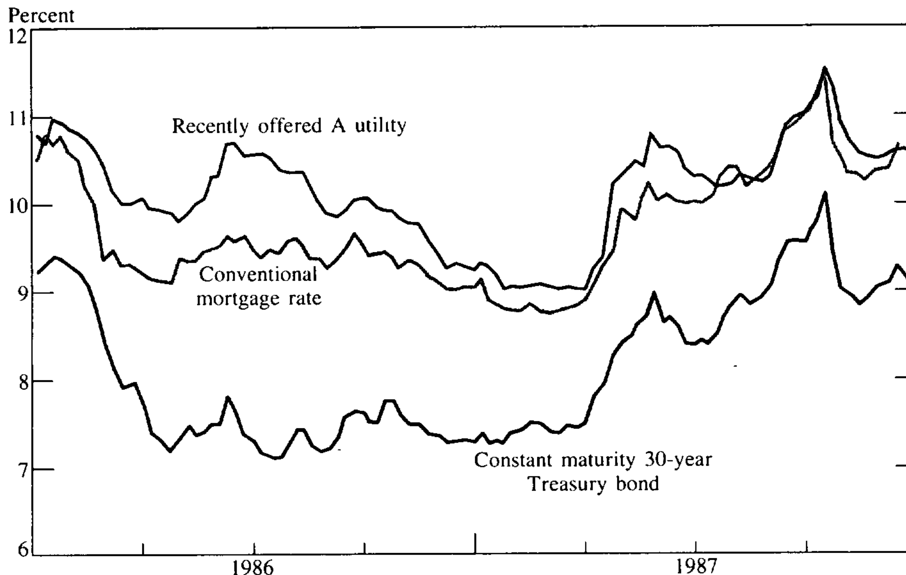
Interest rates and the monetary aggregates in 1987

Interest rates

Both short and long-term interest rates remained fairly stable through April 1987, but then trended upward until the October 19 stock market collapse. For example, the 3-month U.S. Treasury bill rate rose from around 5.5 percent in January to around 7.0 percent by mid-October (Chart 2). In long-term markets, the 30-year U.S. Treasury constant maturity rate increased from around 7.3 percent in January to more than 10.0 percent by mid-October (Chart 3). The stock market collapse was followed by sharp declines in interest rates throughout the maturity spectrum. By late December, both the 3-month Treasury bill rate and the 30-year Treasury bond rate averaged nearly 1.25 percentage points below their mid-October levels.

International influences, along with some rise in inflationary expectations, were the primary factors generating the increase in interest rates in the first three quarters of 1987. Persistent weakness of the dollar and disappointing trade figures created uncertainty among market participants about continuing private demands for dollar assets, about inflationary prospects, and about the response of monetary policy to these developments. Also, the Federal Reserve acted to increase pressure on reserves on two occasions in the spring and again in September. On September 4, the Federal Reserve increased the discount rate

CHART 3
Selected long-term interest rates



from 5.5 percent to 6.0 percent.

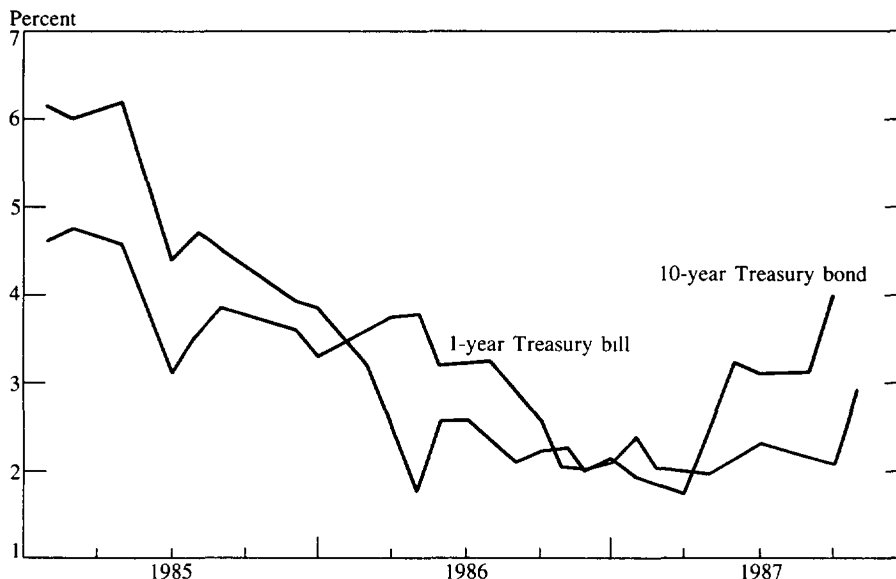
Several factors contributed to the late-October drop in interest rates. Uncertainty generated by the stock market crash led investors seeking liquidity and safety to increase their demands for fixed-income assets, placing downward pressure on interest rates. This pressure was reinforced by the Federal Reserve's announcement on October 20 that it was ready "to serve as a source of liquidity to support the economic and financial system."[1] In a longer term context, the decline in stock prices led to expectations of a weaker economy and reduced inflationary pressures, factors typically associated with lower interest rates. Another factor reinforcing the decline in interest rates was a perception that, following the stock market crash, weakness in the U.S. dollar would be less likely to generate upward pressure on interest rates, given the adjusted outlook for the economy, inflation, and monetary policy.

Like nominal interest rates, real interest rates increased in 1987. Chart 4 plots the expected real rate of interest, calculated by subtracting the expected rate of inflation over the life of a security from the security's nominal yield. By this measure, the real 1-year Treasury bill rate increased slightly from 2.4 percent in December 1986 to 2.9 percent in September 1987. During that same period, the real 10-year bond rate increased from 2.2 percent to 3.7 percent.

An additional measure of real interest rates is shown in Table 3. By this measure, the real 3-month Treasury bill rate averaged 2.4 percent

[1] See press release, Board of Governors of the Federal Reserve System, October 20, 1987.

CHART 4
Expected real interest rates



Source: Richard B. Hoey, Decision-Makers Poll, Drexel Burnham Lambert, Inc.

for the year, somewhat lower than in 1986 but significantly higher than in the 1970s (Table 3). The tendency for real interest rates to persist at historically high levels reflects the large federal budget deficit and continuing investor concerns that the deficit may eventually lead to higher inflation.

The monetary aggregates

Growth in the monetary aggregates in 1987 was below that of 1986 (Table 4). M1, the narrowly defined money supply, grew at an annual rate of 5.8 percent in the first 11 months of 1987, substantially less than in other recent years. The more broadly defined money supply, M2, grew at an annual rate of 4.1 percent, sharply lower than in 1986. M3, the most comprehensive money supply measure, grew at an annual rate of 5.5 percent, somewhat less than in 1986. In addition, domestic nonfinancial debt—the outstanding debt of all domestic government units, households, and nonfinancial businesses—increased at a 9.6 percent annual rate, sharply less than in the previous year.

The substantial slowing in the growth of the monetary aggregates in 1987 was due to several factors. Growth in transactions deposits fell to a pace not seen since 1984—the last time that interest rates rose on a sustained basis—as interest incentives favoring market instruments over monetary assets became more pronounced. Tax reform also may have dampened the public's demand for M2 assets by inducing individuals to pay down consumer debt or to finance purchases out of liquid assets rather than with credit. M3 growth was dampened by moderation in the demand for credit.

TABLE 3

Nominal and measured real 3-month Treasury bill rate

(Percent per year)

Date	Nominal	Real
1970-74	5.9	-0.9
1975-79	6.7	-0.8
1980-84	10.8	4.6
1985	7.5	4.4
1986	6.0	3.8
1987:Q1	5.5	1.3
Q2	5.7	2.2
Q3	6.0	3.2
Q4	5.8	3.0

Note: The measured real rate in this table is defined as the quarterly nominal 3-month Treasury bill rate minus the rate of inflation as measured by the percent change at an annual rate in the GNP deflator. Data for the fourth quarter assumes that the 3-month Treasury bill rate averaged 5.6 percent in December and the inflation rate equaled that of the third quarter.

Monetary policy in 1987

Monetary policy in 1987 continued to be guided by the need to foster growth in the monetary aggregates consistent with sustainable economic growth in an environment conducive to long-run price stability.

In line with this objective, the Federal Reserve System's Federal Open Market Committee (FOMC) established growth rate ranges for the monetary and credit aggregates at its February 1987 meeting. The growth rate ranges for the period from the fourth quarter of 1986 to the fourth quarter of 1987 were established at 5.5 to 8.5 percent for M2 and M3, and the range for total domestic nonfinancial debt was set at 8 to 11 percent.

The FOMC elected not to establish a specific target range for M1 because of uncertainties about its underlying relationship to the economy and its sensitivity to a variety of economic and financial conditions. For example, with the deregulation of deposit rates, M1 has become more

TABLE 4

Growth of the monetary aggregates: 1980-87

(Percent change at seasonally adjusted annual rates)

Period	M1	M2	M3	Domestic nonfinancial debt
1985	12.1	8.8	7.7	13.2
1986	15.3	9.0	8.9	13.2
1987:First 11 months*	5.8	4.1	5.5	9.6
1987:Q1	13.1	6.4	6.5	10.4
Q2	6.4	2.3	4.3	9.1
Q3	0.0	3.0	4.8	8.2

*Fourth-quarter 1986 through November 1987

responsive to changes in interest rates and possibly to other factors. The committee stated that M1's growth in 1987 would be evaluated in light of the expansion of M2 and M3, growth of the domestic economy, and emerging price pressures.[2]

In implementing policy in the first half of 1987, the Federal Reserve moved toward a generally less accommodative monetary policy. As downward pressure on the dollar and inflation concerns intensified in late April and May, the Federal Reserve increased the degree of reserve pressure somewhat. The late April tightening was in response to "downward pressures on the dollar."[3] Similarly, the May tightening was in response to "developments relating to inflation and the dollar in the foreign exchange markets."[4]

Several other factors also influenced the decision to pursue a less accommodative monetary policy in the first half of 1987. These factors included the strength of the business expansion, which was generally greater than expected, and the behavior of the broader aggregates, which grew rapidly in April.

The 1987 target ranges for the aggregates were evaluated at the July FOMC meeting. Monetary growth in the broader aggregates in the first half of 1987 was close to the lower end of the target ranges adopted in February. From the fourth quarter of 1986 to June 1987, M2 grew at an annual rate of 3.8 percent and M3 grew at an annual rate of 5.5 percent. The committee reaffirmed the 5.5 to 8.5 percent growth rate ranges for M2 and M3 and the 8 to 11 percent growth rate range for domestic nonfinancial debt. Based on M1's continued sensitivity to market interest rates, and on the still-limited experience with the behavior of deregulated transactions accounts, the committee again decided not to set a specific target range for M1 for the second half of 1987, and no tentative range was adopted for 1988.[5]

Monetary policy was flexible in the second half of 1987 in response to changing economic and financial conditions. Due to the emergence of a "potential for greater inflation, associated in part with weakness in the dollar," the Federal Reserve decided in early September "to reduce marginally the availability of reserves through open market operations."[6] Also, concerns over potential inflationary pressures prompted the September 4 increase in the System's discount rate from 5.5 to 6.0 percent.[7]

The stock market crash of October 19 sharply altered the monetary policymaking environment. Concern shifted from checkmating rising inflationary expectations to preventing stock market volatility from generating broad financial and economic instability. The Federal Reserve's October 20 announcement of its readiness "to serve as a source of liquidity to support the economic and financial system" recognized this new concern.[8]

For 1987 as a whole, the Federal Reserve was only partly successful in achieving its growth objectives for the monetary aggregates. Through November, M3's growth rate was at the lower

[2] For a discussion of the growth rate ranges established at the February 1987 meeting, see Monetary Policy Objectives for 1987, Summary Report, Board of Governors of the Federal Reserve System, February 19, 1987.

[3] Record of Policy Actions of the Federal Reserve Open Market Committee, meeting held on May 19, 1987.

[4] Record of Policy Actions of the Federal Reserve Open Market Committee, meeting held on July 7, 1987.

[5] For a discussion of the growth rate ranges established at the July 1987 meeting, see Monetary Policy Objectives for 1987, Summary Report, Board of Governors of the Federal Reserve System, July 21, 1987.

[6] Record of Policy Actions of the Federal Reserve Open Market Committee, meeting held on September 22, 1987.

[7] See press release, Board of Governors of the Federal Reserve System, September 4, 1987.

[8] See press release, Board of Governors of the Federal Reserve System, October 20, 1987.

TABLE 5
FOMC growth rate ranges
(Percent change at seasonally adjusted annual rates)

Period	M1	M2	M3	Domestic nonfinancial debt
1987 actual*	5.8	4.1	5.5	9.6
1987 FOMC growth ranges	—	5.5-8.5	5.5-8.5	8-11
1988 tentative ranges	—	5-8	5-8	7.5-10.5

*Fourth quarter 1986 through November 1987

limit of its 1987 growth rate range, but M2's growth rate was below its range. The growth rate of domestic nonfinancial debt was near the midpoint of its 1987 growth rate range (Table 5).

Economic outlook for 1988

The economic expansion is expected to continue in 1988, although the loss of wealth and confidence occasioned by the stock market decline will limit growth in the first half of the year. A recession is not anticipated, but economic growth for the year as a whole will likely be noticeably lower than in 1987. Real GNP will likely increase about 2.0 percent or less, compared with about 3.0 percent in 1987. The slower economic growth may result in a slight rise in unemployment. Inflation may also increase slightly in 1988, but sluggish economic growth will limit any acceleration.

Economic growth

Economic growth in 1988 will be held down by sluggish consumer spending. Modest income growth and the decline in household net worth resulting from the drop in stock prices will likely dampen consumer outlays, particularly in the first half of the year. In addition, with the economy-wide savings rate at a historic low, consumers may seek to add more to their savings and to reduce their heavy debt burden, contributing further to weakness in consumption.

Major domestic sectors other than consumption are expected, on balance, to contribute little to economic growth in 1988. While the rise in capacity utilization may spur a modest rise in business fixed investment, the increase will be limited by sluggish growth in final demand. Similarly, residential investment is not likely to contribute much to total output growth, particularly if interest rates remain at the higher levels of late 1987. Federal budget-cutting efforts will prevent government purchases of goods and services from boosting economic growth in 1988. Finally, inventory investment will likely moderate, contributing little if any to economic growth in the coming year.

Prospects for even modest economic growth in 1988 depend heavily on continued improvement in net exports. Fortunately, considerable improvement is likely, due to the ongoing decline in the foreign exchange value of the U.S. dollar. The degree of further improvement in the nation's

TABLE 6

Real gross national product, United States and selected major trading partners

(Percent change, annual rate)

	1985	1986	1987*
United States	3.3	2.2	3.4
Canada	4.0	1.8	1.5
Japan	4.2	2.0	3.0
Western Europe†	2.1	2.8	2.0

*First half

†Includes the real gross domestic product for Germany, United Kingdom, France, and Italy.

Source: Board of Governors of the Federal Reserve System and Data Resources, Inc.

net export position also depends on the economic growth of U.S. trading partners, which in some cases has been disappointing in the past few years (Table 6). Recent policy actions by Germany and Japan may increase the growth of their economies, contributing to the expected continued improvement in U.S. net exports.

Resource use and inflation

Resource use is likely to record a mixed performance in 1988. As in 1987, the continued increase in industrial output associated with strongly rising exports will boost manufacturing capacity utilization rates in the coming year. In contrast, sluggish overall economic growth will prevent employment from increasing enough to absorb a rising labor force, resulting in a slight increase in the unemployment rate.

Somewhat higher inflation is likely in 1988, although no major outbreak is expected. The ongoing weakening of the dollar will again be a source of accelerating inflation. Moreover, the continued large budget deficit may lead to upward pressure on the rate of inflation by exacerbating inflationary expectations. And, the expected further rise in capacity utilization will contribute to an environment conducive to price increases. Finally, despite the rise in joblessness, the prevailing relatively low level of unemployment may lead to some rise in labor costs. While these factors will likely result in a higher rate of inflation than in 1987, sluggish economic growth will keep inflation moderate in 1988.

Monetary and fiscal policy in 1988

Monetary policy in 1988 will continue to seek monetary and financial conditions that will foster sustainable economic growth in an environment of price stability over time and contribute to an improved pattern of international transactions. To achieve these objectives, the FOMC established tentative 1988 growth rate ranges for the monetary and credit aggregates in mid-1987 (Table 5). The tentative ranges for M2 and M3 were both reduced one-half percentage point to 5 to 8 percent. The tentative domestic nonfinancial debt range was also tentatively reduced one-half percentage point to 7.5 to 10.5 percent. As mentioned earlier, no tentative range for M1 was adopted.

Fiscal policy in 1988 will depend on the outcome of ongoing efforts to reduce the budget deficit. In late September 1987, Congress passed and the President signed an amended version of the Gramm-Rudman-Hollings deficit reduction law. A major feature of the new Gramm-Rudman is its revival of the automatic spending-cut procedure previously declared unconstitutional. In addition, the new legislation relaxes the deficit reduction timetable, calling for budget balance in fiscal year (FY) 1993, rather than FY 1991 as mandated in the old Gramm-Rudman. The legislation contains provisions that override the original deficit target levels and substitutes specified dollar changes from an estimated

baseline. The deficit reduction mandate for FY 1988 would be met by reducing the deficit $23 billion from a baseline estimated by the Congressional Budget Office (CBO) to be around $179 billion.[9]

The administration and congressional leaders recently agreed on a plan for achieving a $30 billion deficit reduction, somewhat more than mandated by Gramm-Rudman. This plan would seem to indicate an FY 1988 deficit near the $148 billion deficit recorded in FY 1987. However, if sluggish economic growth holds down federal revenues below that assumed in the CBO baseline, the FY 1988 deficit will exceed that of the previous year.

Uncertainties in the outlook

Several major uncertainties cloud the outlook for continued economic growth in 1988. Net exports could be weaker than anticipated, for example. On the other hand, a large decline in the U.S. trade deficit, in the absence of a corresponding drop in the internal budget deficit, could lead to sharply higher interest rates. Finally, the stock market's negative impact on the economy could be more pronounced than expected.

Net exports

Given the expected weakness in domestic demand, if net exports do not improve as anticipated, the economy could seriously falter in the coming year. Historical experience suggests that the decline that has occurred in the U.S. dollar will result in the anticipated rise in net exports. Chart 5, which plots the weighted average exchange value of the U.S. dollar against U.S. net exports, shows that net exports tend to improve when the dollar falls and to deteriorate when the dollar rises. In line with this pattern, real net exports improved moderately in 1987. However, the improvement was not as pronounced as would have been expected based on past relationships. For example, as Chart 5 shows, net exports rose sharply during the 1977-81 period even though the dollar declined only moderately compared with the sharp drop of the past two years or so. While a number of factors could be cited to account for the recent failure of net exports to respond to dollar weakness, this failure gives rise to considerable uncertainty about the extent that the international sector can be counted on to support the economy in the coming year.

Interest rates

Somewhat paradoxically, another area of uncertainty lies in the prospect of continued improvement in the U.S. trade deficit without a corresponding improvement in the federal budget deficit. As the U.S. trade deficit improves, the capital inflow from abroad will decline at some point. Unless the budget deficit is lowered in line with the decline in the trade deficit and capital inflows, interest rates in the United States may have to rise. This possible increase in interest rates could further dampen economic growth and lead to recession.

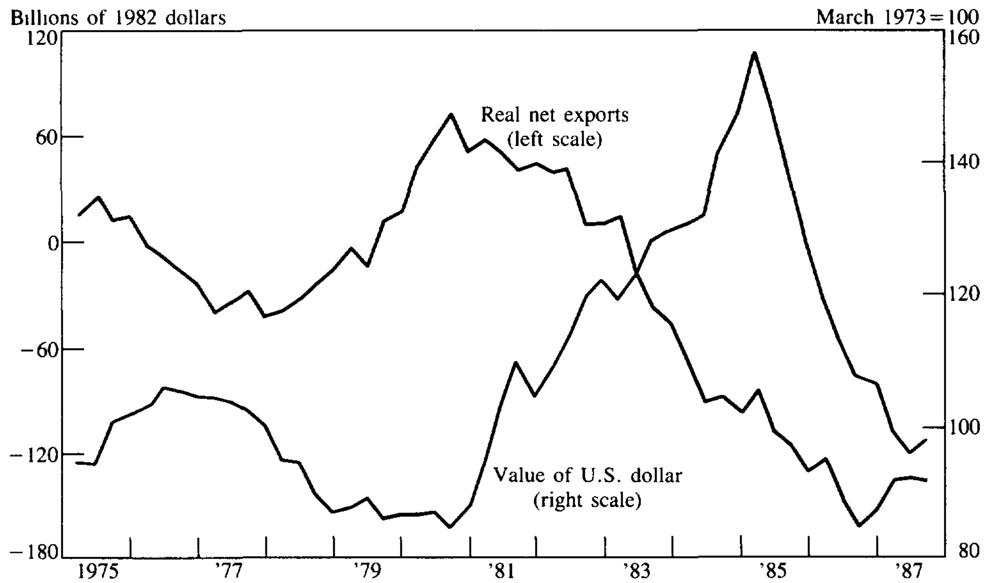
The stock market

Another uncertainty about the economic outlook is the extent to which the sharp decline in stock market prices in the fall of 1987 will depress economic activity in 1988. The outlook for continued economic expansion is based on an assessment that the impact will be limited in magnitude and confined to the first half of 1988.

[9] See release entitled "Initial OMB Sequester Report for Fiscal Year 1988, A Report to the President and Congress," Office of Management and Budget, October 20, 1987.

CHART 5

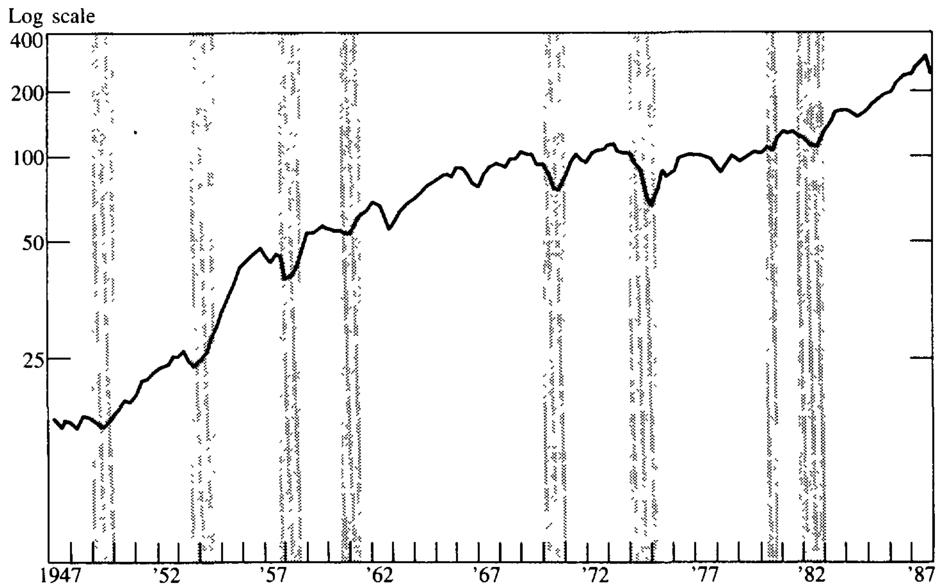
Real net exports and index of weighted-average exchange value of U.S. dollar



Source: Board of Governors of the Federal Reserve System

CHART 6

Standard and Poor's 500 composite stock index



As a result of the decline in the value of stocks, consumers and businesses are expected to temporarily exercise more caution in their spending, but subsequently to adjust their spending to a more optimistic pattern.

The assessment that the stock market's impact will be limited is not inconsistent with historical experience, although a review of experience underscores the uncertainties about the outlook for 1988. As Chart 6 shows, while noticeable declines in stock prices since World War II have typically been followed by recessions, there were important exceptions to this correspondence after market declines in 1961-62, 1966, and 1976-78. Thus, the historical correspondence between stock market declines and economic recessions has not been as close as some contend. Nevertheless, Chart 6 shows that stock prices are generally a reliable leading indicator of economic activity, with a decline in stock prices typically preceding economic recession. Thus, a full-fledged recession in the coming year cannot be ruled out, although a more likely prospect is a short period of noticeably sluggish economic activity followed by a pickup in the economic growth rate.

Conclusion

Despite the sharp drop in stock prices in the fall of 1987, the U.S. economy is expected to continue to expand in 1988. Economic growth will be noticeably slower than in 1987, however, and unemployment may increase slightly. Inflation may also accelerate slightly in 1988, but no major rise is in prospect.

While continued economic growth is likely in the coming year, a number of uncertainties cloud the outlook. How much the stock market decline will affect the economy in 1988 is a major uncertainty. It is most likely that the impact will be moderate and short lived, but a larger and longer lived impact is a reasonable possibility. Another uncertainty involves the impact of continued improvement in the U.S. trade deficit, which could lead to sharp upward pressure on interest rates unless there is a corresponding improvement in the federal budget deficit. Because such upward pressure on interest rates could push the U.S. economy into recession, it is important that this area of uncertainty be resolved by actions that ensure a reduction in the budget deficit.