

APPENDIX

MICHAEL J. PRELL
FEBRUARY 9, 1988

FOMC CHART SHOW -- DOMESTIC ASPECTS

The first chart in the package lays out the basic assumptions underlying the staff's forecast. We felt that the FOMC's approach to policy argued against basing our projection strictly on a monetary target. Rather, we worked from what we took to be the fundamental objectives behind the Committee's actions for some time now. First, we assumed that policy would be aimed at accommodating such growth as would be possible without creating pressures that would produce a substantial pickup in inflation. Second, we assumed that weakness in the dollar would not elicit a major policy response unless it appeared likely to jeopardize seriously the attainment of noninflationary growth.

These underlying assumptions led to the listed financial specifications: (1) that interest rates, perhaps after easing a bit further over the next several months, would turn upward--reaching levels roughly 3/4 of a percentage point above those prevailing now; (2) that, with these rate movements inducing changes in velocity, M2 and M3 would grow somewhere around 6 to 6-1/2 percent this year and closer to 5 percent in 1989; and (3) that the dollar would come under downward pressure from time to time and depreciate moderately on average over the period.

For fiscal policy, we have assumed that there are no new deficit-reduction initiatives, but that the necessary steps are taken to implement the December budget agreement.

As you can see on chart 2, neither the staff nor the CBO projects that the deficit-reduction package will result in attainment of the revised Gramm-Rudman targets. Fiscal year 1988 is legislative history, though, and our projected 1989 deficit would just meet the legal requirement, given the \$10 billion leeway allowance. The Administration has yet to publish its projections, but it is expected to produce numbers satisfying the Gramm-Rudman constraints. However, one clearly cannot dismiss the possibility that, later this year, another painful round will be needed on the 1989 budget.

In any event, we perceive fiscal policy already to be on a course of moderate restraint. The picture is somewhat muddled by the way transitory elements entered into last year's big reduction in the deficit. In the bottom panel, though, the change in the structural deficit between fiscal 1986 and fiscal 1989 provides a reasonable representation of the underlying thrust of policy.

Chart 3 summarizes briefly the staff and FOMC projections. As you know, we have forecast that real GNP growth will slow to a 1-1/2 percent annual rate in the first half of this year and then run about 2-3/4 percent over the next six quarters. GNP minus net exports--that is, domestic spending--is expected to fall short of domestic output growth by a significant margin, reflecting the continuing adjustment of our external position. The lower dollar is the key influence in that

adjustment, but it also is a continuing force lifting the U.S. price level. As was the case last year, consumer prices are expected to rise faster than GNP prices, reflecting the more direct influence of imports.

The table at the bottom shows that the central tendency forecasts of the Committee encompass the Administration's outlook for real activity but are a touch more optimistic on inflation.

In putting together our projection for this meeting, we felt we were confronted with two key questions, one short-run, one longer-run. The short-run question is whether we have the makings of a significant weakening of activity arising primarily out of a slump in consumer spending and a run-up in inventories late last year. The longer-run question is just how rapidly the economy can grow without placing significant inflationary pressures on productive resources. Chart 4 addresses the first issue.

We have very little to go on in assessing the pace of expansion in the current quarter. The recent run-up in initial claims for unemployment insurance suggests a slowing in employment growth, and as the upper left panel shows, total nonfarm payrolls did rise much less in January, according to last Friday's report. Total hours of production and nonsupervisory workers in all industries rose only two-tenths percent; the January level also is only two-tenths above the fourth-quarter average, which suggests considerably reduced growth in output this quarter.

Of course, some analysts have asserted that last quarter's big inventory increase will push the economy into recession. Although such

a development can't be ruled out, it is our assessment that the inventory overhang is not serious enough to lead to that outcome. The middle panels highlight the current situation in the auto industry. Sales of domestic cars have been fairly good since incentives were reintroduced in mid-November, but dealer stocks still are uncomfortably high. Consequently, the auto makers' production schedules--shown at the right--point to low assemblies in the first half. The sharp first-quarter drop in auto output appears large enough to knock about a percentage point off GNP growth.

There also was substantial inventory accumulation outside the auto sector last fall. Manufacturing inventories nonetheless appear lean on the whole; the black line in the lower left panel shows the factory stock-to-shipments ratio at a new cyclical low in December. The most notable increases in inventory-sales ratios have occurred at retail outlets selling apparel and home goods, and the anecdotal evidence suggests that some of this rise may have been desired, in light of the threat of import restraints and price increases.

Given the apparent dimensions of the problem, we don't think that overall production is likely to suffer a major blow--and orders placed with manufacturers through December don't provide any indication to the contrary. Thus, we have industrial output slowing noticeably in the first half--to around a 2 percent rate of growth--but not sliding into an actual decline. The inventory adjustment should be largely completed by mid-year, paving the way for an acceleration of activity thereafter.

Of course, this outlook supposes that final demand--especially from consumers--will not remain on the negative course of the fourth quarter. Chart 5 outlines the key factors in our projection of consumer spending. As the top panel shows, we are looking for real spending gains of between 1-1/2 and 2 percent throughout 1988 and 1989. This would hold the saving rate well above the lows reached last year.

Relatively weak growth of real disposable income is the primary factor restraining consumer spending in our projection. The middle panel shows how last year, in the face of stronger gains in nominal income, real income decelerated noticeably. This wider gap between nominal and real income is expected to persist--owing mainly, as I will note again later, to the effects of the dollar's depreciation on real wages.

In the near term, we also are allowing for some negative effect on spending from the stock market decline. The lower left panel indicates that household net worth took a sizable hit last fall. However, we have shaved a bit off of our estimate of the associated consumption effect, guessing that consumer confidence has not been severely damaged; the rebound in the sentiment index at the right is supportive of this view.

We also were concerned that the stock market plunge might take a toll of housing activity, and at this point we can't rule out that possibility. As indicated on chart 6, housing starts fell in December, most sharply in the case of multi-family units, which had spurred in

November, but noticeably as well for singles. Moreover, sales of both new and existing homes--at the right--tailed off.

While the stock market drop may have played a role, we are inclined to think that the December story for single-family houses is partly one of lagged response to the earlier rise in mortgage rates and partly statistical noise. Recent field reports suggest that the decline in mortgage rates since last fall has revived buyer interest and builder optimism. As the middle left panel indicates, the payment burden on new houses--especially when financed with adjustable-rate loans--is now relatively low. To be sure, this measure doesn't take account of the effect of the reduction in marginal tax rates on borrowing costs, and these curves would look much worse for the Northeast. Nonetheless, we expect a near-term bounceback in single-family starts to the 1.1 million vicinity.

On the multi-family side, astronomical vacancy rates for rental properties in many locales--and the much less attractive tax environment for investors--suggest that starts, though rebounding from the December dip, will remain low.

Actual construction probably will drop in the current quarter, given the downtrend in starts last year, but--as indicated in the bottom panel--we expect that the decline in activity will be reversed by year-end. Real residential structures outlays thus are a negligible factor in Q4-Q4 growth this year and a slight positive contributor in 1989.

Business fixed investment, in chart 7, looks to be a small net positive contributor to GNP growth in both 1988 and 1989. As the top

panel shows, all of the projected gain is in the equipment category, with structures outlays about flat in real terms. Neither the pace of overall output growth nor the lagged effects of movements in the cost of capital argue for much increase in spending. However, we believe there will be areas of strength, resulting from the high rates of capacity utilization and improved profitability in a number of industries that are benefiting from enhanced international competitiveness. The middle panel points out some sectors in which capacity utilization has reached impressive levels.

As you know, there have been many stories about how unwilling firms are to undertake major investments, given uncertainties about the future of the dollar and overall demand. We don't dismiss that argument, but our impression is that effective capacity is being increased, often through equipment acquisitions aimed at "debottlenecking"--the current buzz word--or at other efficiency improvements.

There also is some construction of new plants in train and some old facilities are being reopened, so we expect to see a significant rise in outlays for industrial structures. We don't anticipate an increase in overall spending on nonresidential structures, however, despite the upturn last year in new contracts--shown at the lower left. The high vacancy rates for offices, shown at the right, argue against such a development, as does the negative outlook for oil drilling in the near term.

The prospects for construction activity don't appear especially strong in the state and local sector, either; such spending has provided

substantial impetus over the past few years to state and local purchases--shown in the top panel of the next chart. The deterioration in the financial position of many governmental units suggests that spending gains will diminish. The operating and capital account budgets of the state and local sector have moved into deficit, and are likely to remain there until later this year when the many actions already taken to raise revenues and cut spending show through fully.

In the federal sector, real purchases are projected to decline, led by a downswing in defense procurement in lagged response to earlier decreases in appropriations. Nondefense spending, excluding CCC inventory acquisitions, is likely to rise further in the near term, paced by higher outlays for NASA and for IRS and Justice Department enforcement programs.

The bottom panel illustrates that the expected patterns of governmental activity are projected to hold down borrowing by those two sectors. It is the drop-off in their debt issuance that accounts for the rough stability of the ratio for aggregate net funds raised to GNP in 1988 and 1989.

The next two charts shift the focus from the demand side to the supply side, to address the question I raised earlier regarding the growth potential of the economy. The upper left panel of chart 9, labeled "Okun's Law," is a scatter plot of the changes in the unemployment rate and GNP in each year of this decade. As you can see, the points define fairly neatly a line that crosses the no-change line for the jobless rate at a 2.4 percent GNP growth rate. Okun's

formulation says that this pivotal rate should match the growth of potential GNP, and in our assessment it does. We reach the same figure by adding up contributions to long-run growth from productivity and labor force trends.

At the right, you can see that, even with very strong gains in manufacturing efficiency, the measured increases in labor productivity for the nonfarm business sector as a whole have run a little over 1 percent per year since the initial cyclical rebound. We have assumed that the trend remains in that area. Meanwhile, as indicated at the lower left, a gradual slowing in the growth of the working age population, coupled with an extension of the uptrend in the participation rate, leads us to expect slightly smaller increases in the labor force over the next two years. Putting all this together, we conclude that the unemployment rate consistent with our GNP forecast is one that edges up in the short run but that ends 1989 where it was in January: 5-3/4 percent.

We have spent more than a little time puzzling over the implications of this level of unemployment for the inflation outlook. Compensation increases last year were smaller than we expected. The extent of the surprise varies from series to series. The conventional compensation series graphed in the top panel of chart 10 seems especially low, with a 2.8 percent increase in 1987, as compared with a 3.3 percent rise in the most comparable BLS Employment Cost Index. Indeed, an analysis of other data suggests to us that the compensation increase likely will be revised upward to around the ECI figure.

Even so, the rise in compensation over the past year looks a bit smaller than past relations would suggest, given the 6-1/4 percent average unemployment rate in 1987 and the marked acceleration in consumer prices. Our forecast of compensation in effect carries this shortfall in wage inflation on through 1988 and 1989.

Our interpretation of recent events is that wage increases have been damped by the unusual efforts on the part of businesses to contain costs and enhance competitiveness and by the desire of workers to achieve greater job security. These factors should remain important for a while longer, but especially so in the near term when diminished employment growth and lingering uncertainties about the consequences of the stock market decline are likely to translate into wage restraint. Our forecast of acceleration in compensation over the next two years implies only a partial pass-through of consumer price increases into nominal wages; real wages, as indicated at the right, continue to be eroded, mirroring the loss in purchasing power associated with the deterioration in U.S. terms of trade.

Of course, a certain circularity is inevitable in any discussion of wages and prices. They are, indeed, interdependent. A couple of considerations that lead us to the wage-price pattern we have forecast are suggested by the lower panels. First, nominal wage demands are conditioned by price expectations, and, after some decline immediately following the stock market crash, one-year inflation expectations have moved back into the 4-1/2 percent area, according to both the Michigan SRC and Hoey surveys.

The right-hand panel illustrates our projection for capacity utilization. We don't view this overall level as alarming, but it is expected that markets for many goods will be fairly taut and that this will be a factor causing rising import prices to feed through increasingly to domestic output prices.

At bottom, it is the impulse from the depreciation of the dollar that causes the U.S. inflation rate to inch up in our forecast-- which provides a convenient lead into Ted Truman's remarks.

E. M. TRUMAN
February 9, 1988

FOMC Chart Show — International Developments

As Mike has emphasized, the external sector provides a major impetus to both output and prices in the staff's forecast.

The first international chart, after the divider, addresses the output aspect and provides an overview of our projection for U.S. external balances. The red line in the top panel shows that the deficit in real GNP net exports of goods and services began to narrow in the fourth quarter of 1986, and during 1987 contributed about 1/2 percent to real GNP. As the chart suggests, the external sector is expected to make an even larger contribution, absolutely and relatively, over the forecast period as resources are shifted from servicing domestic demand to the external sector. Meanwhile, the current account deficit -- the black line -- is also projected to begin to narrow.

The table below the chart summarizes the outlook for the major components of real net exports of goods and services. The growth of goods exports accelerated last year to a 20 percent rate and is expected to continue at close to that rate over the forecast period. The pick up in services exports last year was in part the consequence of the lower dollar, which boosted direct investment earnings, and of higher dollar interest rates, which boosted earnings on dollar-denominated claims. The projected slowdown this year reflects a decline in dollar interest rates. In 1989, higher interest rates boost receipts.

On the import side, we expect the growth of goods imports to slow further in 1988 under the influence of the lower dollar and slower

growth in aggregate demand in the United States. Both of these factors have reduced influence in 1989. Services imports were boosted last year by higher dollar interest rates on an increased level of foreign claims on the United States, by a sharp acceleration of payments on foreign direct investment in the United States, and by a recovery of travel to Europe following the terrorist scares of 1986. This year the weaker dollar should slow the growth of travel as well as of transportation expenditures, and with the less robust growth of the U.S. economy, direct investment income payments are expected to moderate. In 1989, however, higher dollar interest rates should interact with our growing stock of external liabilities to boost service payments substantially.

One of the key elements in the staff's overall outlook is the effect on prices, as well as on the structure of demand, of the sizable depreciation of the dollar that has occurred over the past three years and, to a lesser extent, the slower depreciation that is projected to occur over the forecast period. The upper panel of Chart 12 shows the weighted-average foreign exchange value of the dollar in terms of other G-10 countries' currencies in nominal terms -- the red line -- as well as in price-adjusted terms -- the black line. Both have essentially returned to their levels in the fourth quarter of 1980. Of course, against the currencies of our major trading partners among the developing countries the dollar in price-adjusted, or real, terms is still above its 1980 level. As Mike Prell stated at the start of our presentation, we are projecting a more moderate decline in the dollar over the forecast horizon than has occurred over the past few years. Specifically, in terms of the G-10 currencies, the dollar is projected to decline at an

annual rate of 8 to 9 percent in nominal terms, and at about 6-1/2 percent in real terms, from its average level in January. Against the currencies of the developing countries, we expect a real depreciation on average at somewhat less than half the rate for the G-10 countries.

As can be seen in the lower panel, U.S real long-term interest rates -- the red line -- are estimated to have moved up on balance over the past year, both absolutely and relative to foreign rates. However, since the October crash, U.S. rates have declined somewhat more in real terms than have foreign rates on average. As a result, the differential, while remaining positive in nominal terms, is again negative in real terms, as can be seen in the chart. This relationship is expected to continue during the forecast period and will be one of the factors, along with the continuing large U.S. current account deficit, weighing on the dollar.

The interaction of interest rates and exchange rates has been a hot topic over the past year. Causal relationships are under some dispute, though most analysts would settle for a verdict of joint determination. The next chart provides a perspective on recent trends in interest rates in the United States, Japan, and Germany.

Comparing U.S. rates in the top panel with Japanese and German rates in the lower two panels, U.S. rates on balance are higher than a year ago, while rates in the other two countries are unchanged or somewhat lower. One also can see a generally similar pattern of easier conditions in all 3 countries since October. However, the call money rate in Japan is an exception to this generalization. In the context of rapid money growth and a robust expansion of the domestic economy, the Bank of Japan limited itself in late 1987 to offering some resistance to

upward pressures on short-term interest rates. So far this year, it has encouraged a modest decline in the call money rate. In Germany, in contrast, the strength of economic activity is more questionable, and in recent months the Bundesbank has brought about lower short-term interest rates and adopted a new target for monetary growth this year that implies monetary expansion at essentially the same rate as last year, which was above the target for that period.

Our outlook for interest rates in these two key countries is that short-term interest rates may ease a bit further in Japan if the expansion slows or exchange market pressures intensify, but in Germany we believe that short-term rates are essentially at their lows. In both countries, we expect a moderate rise in short-term rates later this year and in 1989. With respect to long-term interest rates, there may be some scope for a further decline in both countries over the next several months as U.S. rates remain low, but they are expected to move back toward end-1987 levels later on in the period.

Chart 14 summarizes recent trends and our outlook for economic activity -- real GNP and domestic demand -- in the major industrial countries. The top two panels illustrate the contrast between the higher growth performance on average in Canada, Japan, and the United Kingdom -- the top panel -- and the lower growth in the three continental European countries -- the middle panel. This contrast was particularly marked in 1987. Growth of both real GNP and total domestic demand in the continental European countries was less than in the United States -- shown in the lower panel -- while the reverse was the case for the other group of countries. We are projecting that this pattern of relatively slow growth in continental Europe will continue over the forecast period.

As is shown by the red bars in the top panel of the next chart, the expansion of economic activity in the rest of the world as a whole is expected to slow somewhat in 1988 -- by about 3/4 of a percentage point when weighted by shares in U.S. nonagricultural exports. However, the deceleration is expected to be less than that projected for the United States. Indeed, growth in the rest of the world should be faster than in the United States in 1988 and about the same in 1989. This should assist the overall process of global macroeconomic adjustment. Nevertheless, with growth over the two years averaging little more than 2-1/2 percent and unemployment still high in most other industrial countries, this outlook can hardly be described as rosy, especially for the developing countries.

Meanwhile, as can be seen in the lower panel, inflation, as measured by consumer prices, is projected to edge up slightly in the major foreign industrial countries in 1988 and 1989, as the restraining influence of currency appreciation is reduced. However, inflation in these countries will be considerably less than in the United States because of greater slack in their economies. This inflation differential is another factor likely to exert downward pressure on the dollar in exchange markets.

Turning to Chart 16 and to a more detailed examination of the components of the U.S. trade balance, the upper left-hand panel presents data on the growth in the volume of various categories of nonagricultural exports over the past two years. Most categories recorded faster growth in 1987, with exports of capital goods (line 2) especially strong -- paced by very rapid increases for business machines, which now make up more than one fifth of U.S. nonagricultural exports in volume terms. In

1987, U.S. exports of nonagricultural products increased substantially to all destinations and, in particular, to developing countries in Latin America and Asia.

As indicated in the panel to the right, we expect the rapid expansion in the overall volume of nonagricultural exports to continue at around the recent 20-percent annual rate over the forecast period. In value terms, these exports are expected to be almost 50 percent higher in the fourth quarter of 1989 than they were last quarter.

The lower left-hand panel illustrates the significant recovery in the value and volume of U.S. agricultural exports in 1987. Exports of soybeans surged in the third quarter because of shortfalls in supplies from Brazil and Argentina. Exports in the first half of this year are projected to be buoyed by shipments of wheat and feedgrains to the Soviet Union and China that have already been contracted for. The outlook for agricultural exports over the remainder of the forecast period is more problematic, of course, but we expect a moderate upward trend as these exports benefit to some extent from our improved competitive position.

Oil imports, shown in the right-hand panel, are a continuing source of volatility. The value and volume of such imports dropped off in the fourth quarter of last year as the earlier build-up in inventories began to be worked down, and prices eased under the influence of high rates of OPEC production. This process of adjustment is continuing in the current quarter. In the second quarter and second half of this year, we expect that the average price of our oil imports will recover to about \$17.50 per barrel -- about the average price in the middle of last year. This assumes that Saudi Arabia, Kuwait and the United Arab Emirates continue to restrain their own production. Such a posture for the

balance of 1988 could lay the foundation for an increase in oil prices in 1989, and we have built into our forecast an increase of \$2 per barrel, with most of it coming early in that year.

Turning to non-oil imports, the upper left-hand panel of the next chart presents data on increases in the prices of various categories of such imports over the past two years. On average, the prices of these goods have continued to increase more rapidly than the general price level, though special factors have affected prices in certain categories such as food, in particular, coffee, and automotive products, where prices were held back last year by slowing demand and the timing of incentive programs. The increase in the total fixed-weighted index has been slowed by the downtrend in the estimated prices of imported business machines. In this area, the same quality adjusted prices are used for imports, exports and domestic production.

Meanwhile, as is shown in the upper right-hand panel, growth in the volume of non-oil imports has slowed somewhat. However, the pattern has been uneven. The total has been boosted by the continued rapid expansion of imports of capital goods, especially business machines, which accounted for about 15 percent of the total volume of non-oil imports in the fourth quarter of last year.

The lower left-hand panel illustrates our outlook for the price of non-oil imports as measured by GNP deflators. Because of the rising share in total imports of business machines and their declining prices, the total deflator -- the black line -- is now projected to rise at only a 6 percent annual rate over the forecast period, while the deflator excluding business machines -- the red line -- rises at almost a 10 percent annual rate.

The volume of non-oil imports, shown by the red line in the right-hand panel, is expected to rise at a moderate rate over the four quarters of this year and to pick up a bit next year, as the U.S. economy expands more rapidly and as the effects of the dollar's depreciation are reduced. With the prices of these imports rising as well, the increase in their value -- the black line -- is projected at about 10 percent in both years.

The top panel of Chart 18 provides a summary of our projection of the trade and current account balances for the United States. As you can see from the black line, the trade deficit leveled off in 1987; excluding oil, the deficit actually narrowed by about \$10 billion over the four quarters of the year. However, rising net service payments continued to push the current account balance further into deficit. Over the forecast period, both balances are expected to move in tandem, gradually improving by about \$35 billion over the period. By the end of 1989, the deficit is expected to be still large at about \$130 billion at an annual rate.

As usual, one can wonder -- I would like to say speculate -- about the capital flows that are the necessary counterpart of these current account deficits. As the table in the lower panel shows, capital inflows through foreign private net purchases of stocks and bonds -- line 3 -- are estimated to have declined sharply in 1987. The lower net inflows were primarily in the form of reduced purchases of U.S. corporate bonds and actual sales of U.S. Treasury securities. While the statistical discrepancy -- line 6 -- was essentially unchanged in 1987, the net inflow directly through official transactions -- line 7 -- increased substantially. However, this increase in official inflows was

not commensurate with the increase, shown in line 9, in U.S. and other G-10 countries' intervention purchases of dollars. Moreover, it did not come close to estimated total net official accumulation of dollar assets shown in line 10. This line includes, in addition to G-10 intervention, intervention purchases by non-G-10 European countries, dollar accumulations by Taiwan, and an estimate of interest earnings on outstanding official holdings of dollar claims. Most of this additional official accumulation of dollar-denominated assets ended up in the Euro-currency market and, in turn, reached the United States through various private channels, including net borrowing by U.S. banking offices -- line 2 -- which increased sharply in 1987.

This year we are assuming that the direct official net capital inflow will be about the same as last year, but that the indirect inflows will be smaller. This view is consistent with our projection that the dollar will be under less downward pressure.

Our last chart presents a summary of the staff forecast for the U.S. economy in 1988 and 1989 in the top panel and two alternative scenarios in the lower panels. The staff forecast assumes that the dollar will be under moderate downward pressure over the next two years and that the effects of that decline on the U.S. economy will be tempered by a modest rise in interest rates. The alternative scenarios were developed with the help of the staff's econometric models plus a certain amount of judgment. (The entries in panels B and C are in the form of deviations from the staff forecast.)

The first alternative incorporates the assumption that the dollar will be essentially unchanged over the forecast period, without any change in policies to bring this about. Specifically, as is shown in

line 6 of panel B, it is assumed that growth of M2 would be the same as the rate incorporated into the staff forecast in panel A. Interest rates -- line 7 -- are somewhat lower, but that reflects the lower economic growth -- line 1 -- especially in 1989, and lower inflation -- line 3. In such circumstances, it might be reasonable to assume that the actual path of money growth would be somewhat higher, leading to even lower interest rates and less of a shortfall in output.

Note that in this scenario the effects in 1989 are small. The direction of the effects also can be reversed to provide a rough indication of the implications of a smooth depreciation of the dollar at twice the rate assumed in the staff forecast.

The second alternative, shown in panel C, incorporates the additional assumption that an unchanged foreign exchange value of the dollar would be accomplished through a tighter U.S. monetary policy. Somewhat arbitrarily, we assumed that the federal funds rate would increase by 300 basis points over the next four quarters relative to the rates already embedded in the staff forecast and that this would be associated with an increase in long-term interest rates of 200 basis points over 6 quarters. Again, line 6 of panel C presents the estimated reduction in the growth rate of M2. In this scenario, of course, the effects on the U.S. economy of the stronger dollar are reinforced by higher interest rates. In 1988, the staff's forecast for the growth of real GNP would be cut by more than half -- line 1. In 1989, the effects are strong enough to push the economy into recession. However, the improvement in the current account balance -- line 4 -- is limited because a large part of the improvement in the trade balance is offset by increased net payments on the services account reflecting higher dollar

interest rates. This is a fact of life for a country that is a net debtor and whose liabilities are denominated in its own currency.

Mr. Chairman, that concludes our presentation.

Material for

*Staff Presentation to the
Federal Open Market Committee*

February 9, 1988

PRINCIPAL ASSUMPTIONS

Monetary Policy Objectives

1. Policy aims at maximum sustainable output and employment growth, avoiding a significant acceleration of inflation.
2. Policy does not seek to constrain exchange rate movements, unless they seriously jeopardize attainment of objective 1.

Implies:

- Interest rates unchanged to a bit lower through midyear, but moving up moderately thereafter.
- M2 and M3 in the middle portion of the tentative ranges for 1988 and growing more slowly in 1989.
- The dollar likely will decline at a moderate rate through the end of the forecast period.

Fiscal Policy

No significant changes in fiscal policy beyond those contemplated in the FY88–89 deficit-reduction package agreed to in December.

Chart 2

Federal Budget Deficit

Billions of dollars			
	FY87	FY88	FY89
Original Gramm-Rudman Target	144	108	72
Revised Gramm-Rudman Target	n.a.	144	136
Congressional Budget Office	148	157	176
Board Staff	148	159	146

FEDERAL BUDGET DEFICIT

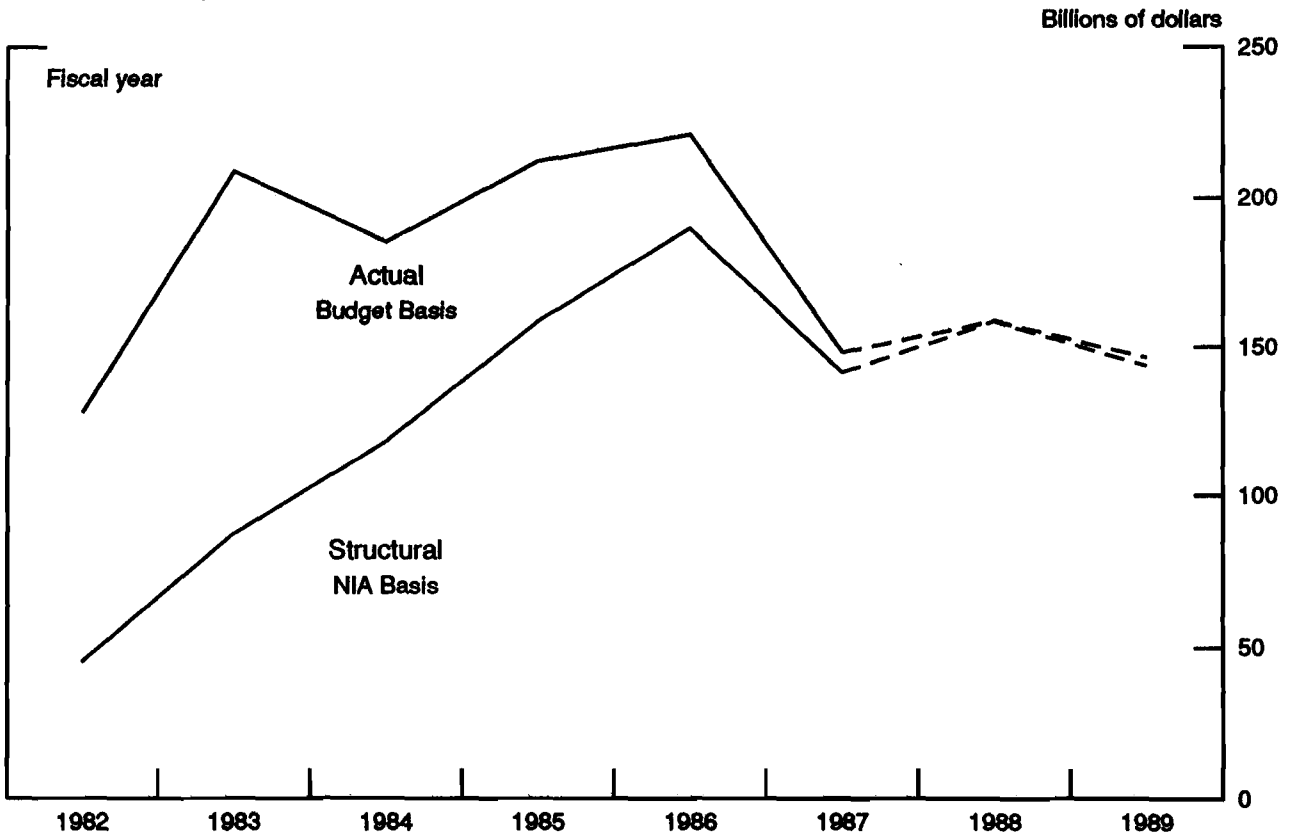
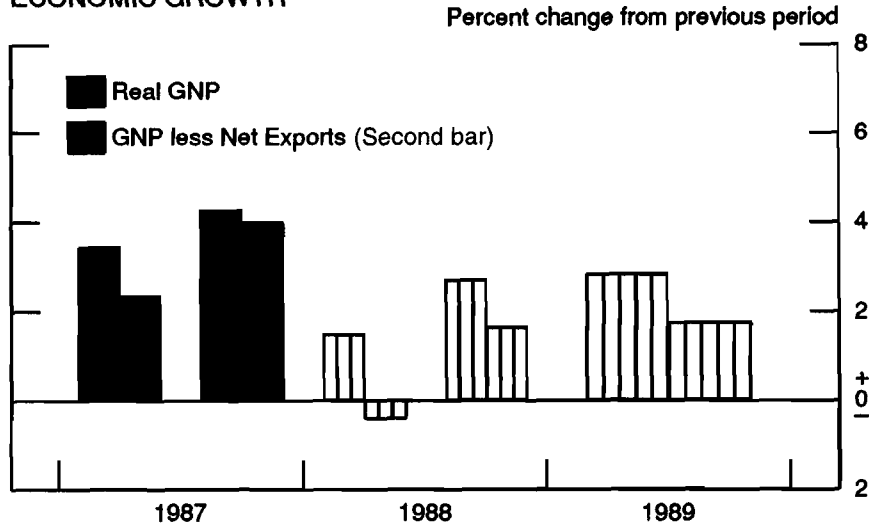


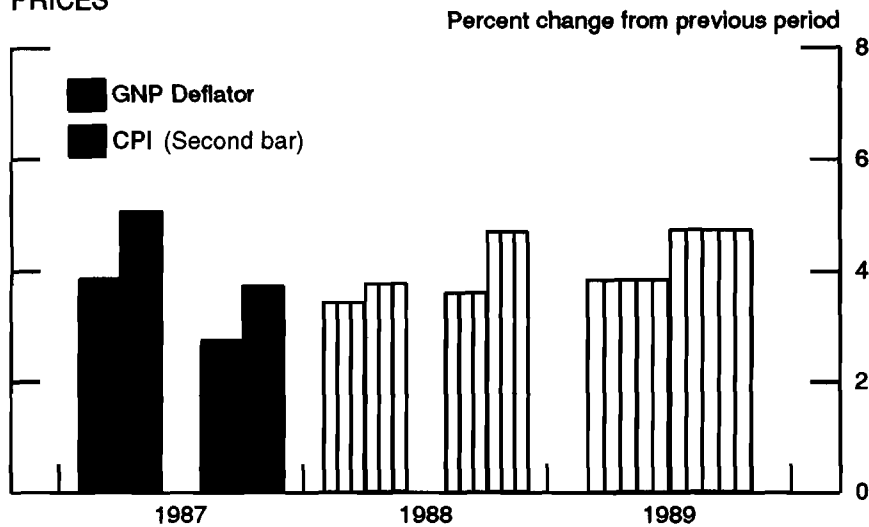
Chart 3

ECONOMIC GROWTH



Percent change Q4 to Q4		
	GNP	GNP less Net Exports
1986	2.2	2.7
1987	3.8	3.2
1988	2.1	.6
1989	2.8	1.7

PRICES



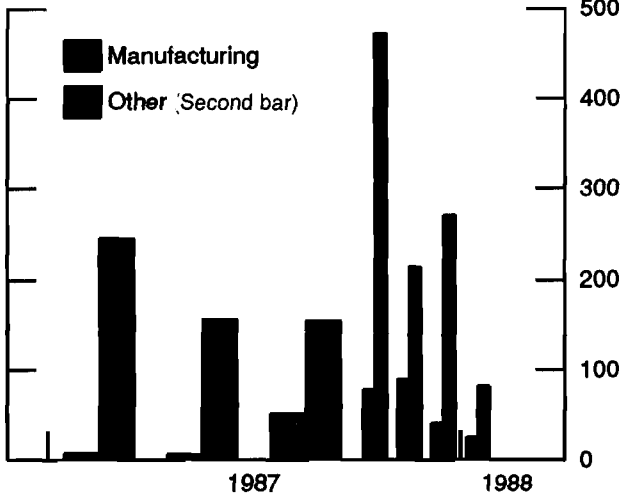
Percent change Q4 to Q4		
	Deflator	CPI
1986	2.2	1.3
1987	3.3	4.4
1988	3.5	4.2
1989	3.8	4.7

Economic Projections for 1988

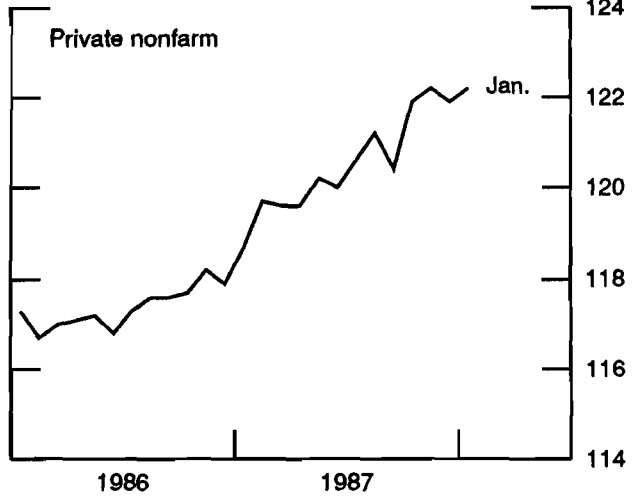
	FOMC Range	Central Tendency	Adminis- tration	Staff
Percent change, Q4 to Q4				
Nominal GNP	4 to 6½	5¼ to 6	6.4	5.7
Real GNP	½ to 3	2 to 2½	2.4	2.1
GNP Deflator	2½ to 4	3¼ to 3¾	3.9	3.5
Average level, Q4, percent				
Unemployment Rate	5½ to 6¾	5¾ to 6	5.8	6.0

Chart 4

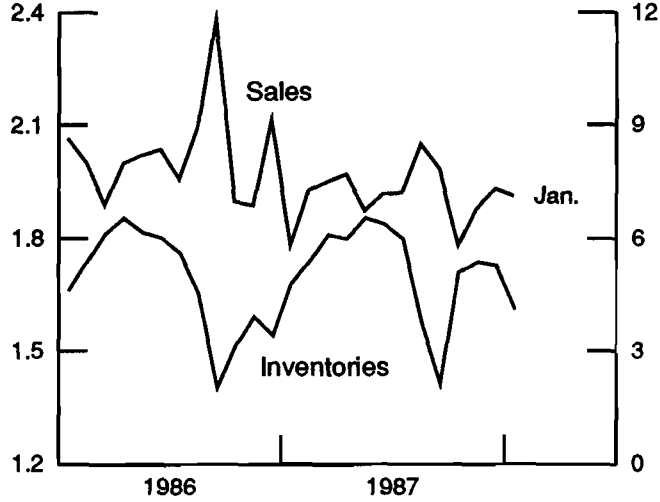
PAYROLL EMPLOYMENT
Thousands, average monthly change



PRODUCTION WORKER HOURS
Index 1977 = 100



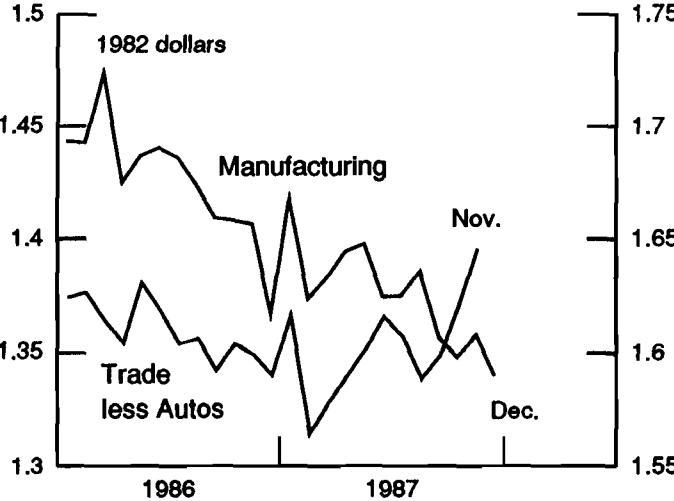
AUTO SALES AND INVENTORIES
Millions of units



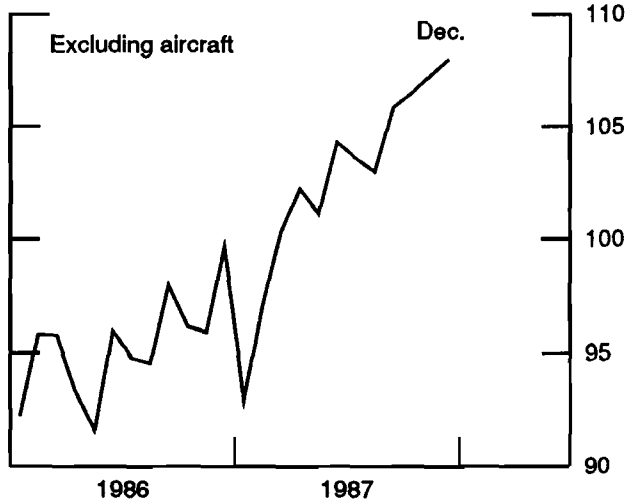
AUTO PRODUCTION
Millions of units, SAAR



BUSINESS INVENTORY-SALES RATIOS
Ratio



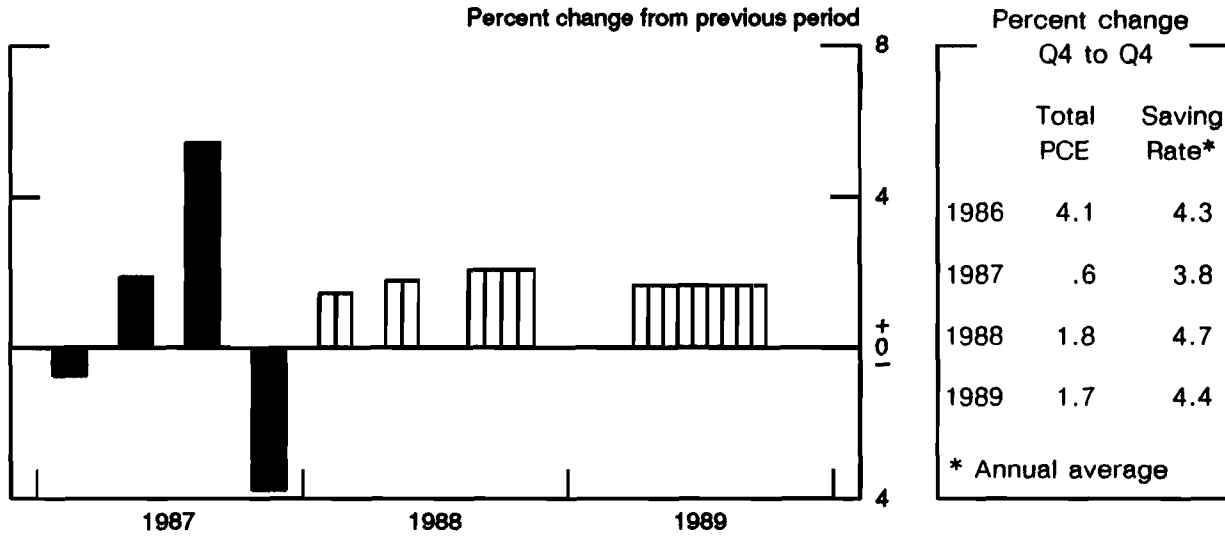
MANUFACTURERS' NEW ORDERS *
Billions of dollars



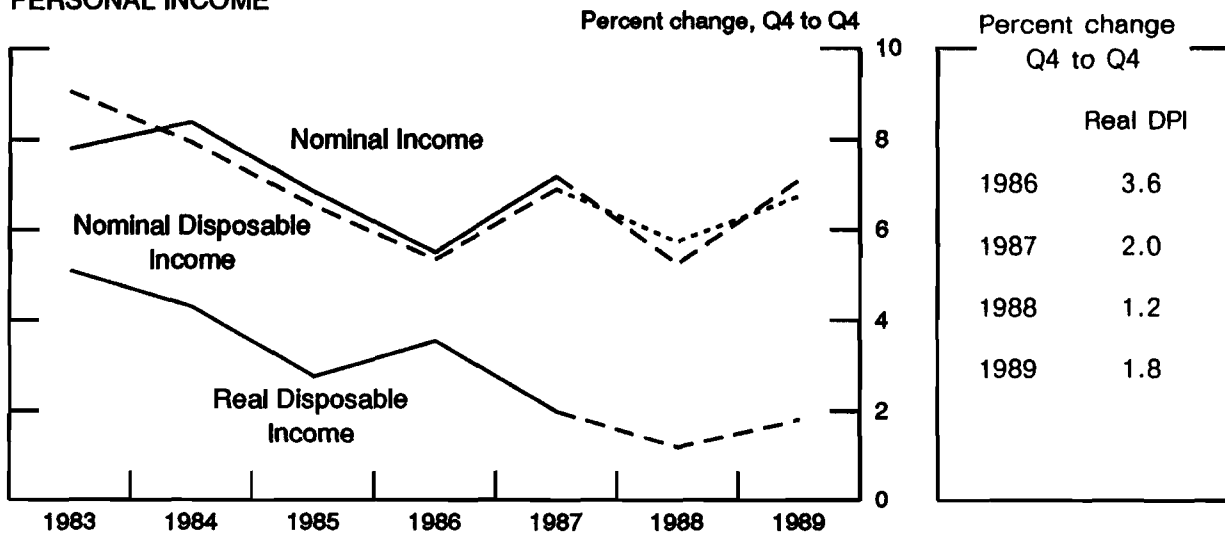
* Industries with unfilled orders data.

Chart 5

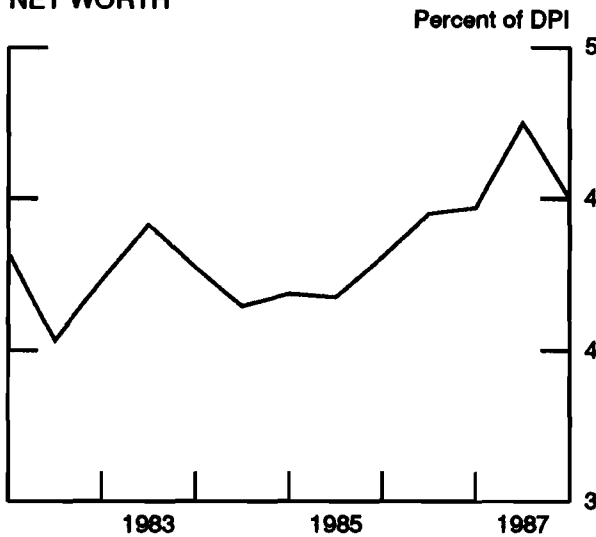
REAL CONSUMER SPENDING



PERSONAL INCOME



NET WORTH



CONSUMER SENTIMENT

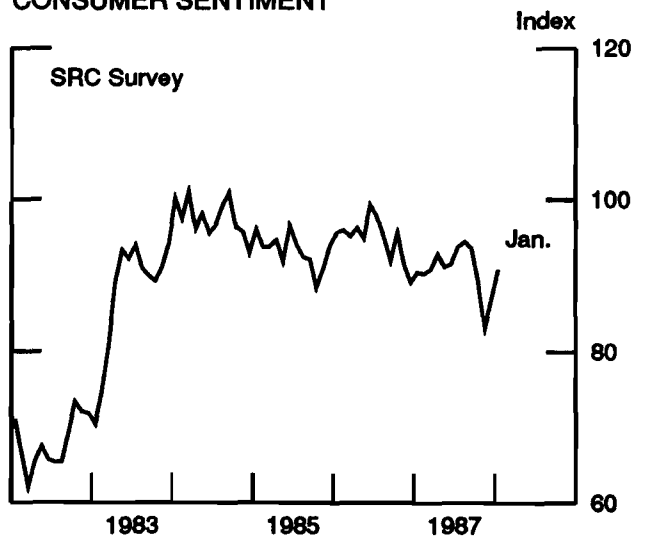
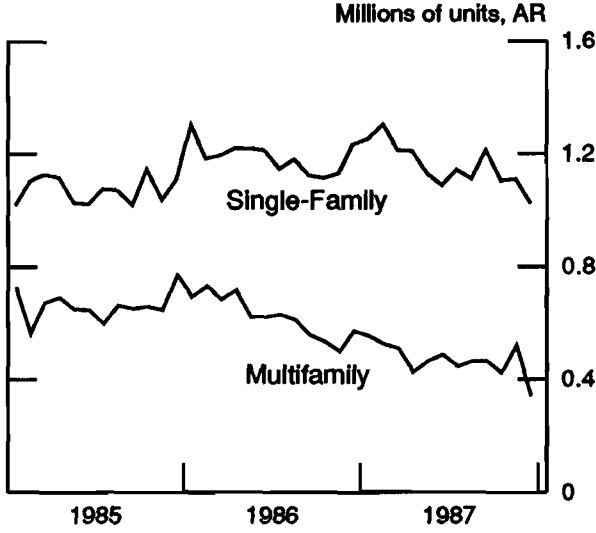
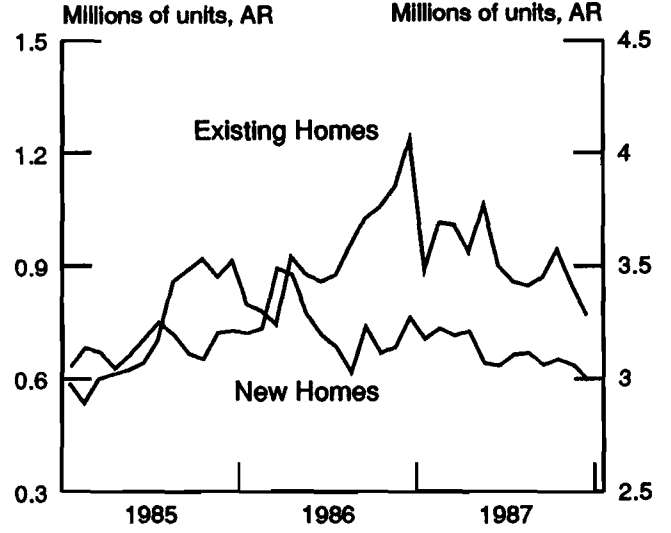


Chart 6

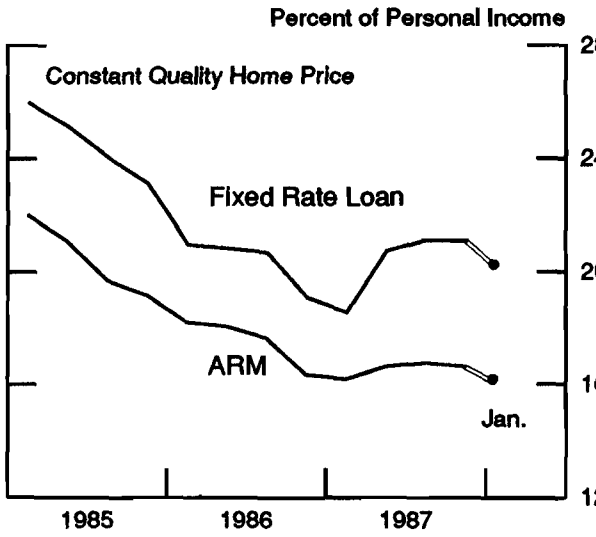
HOUSING STARTS



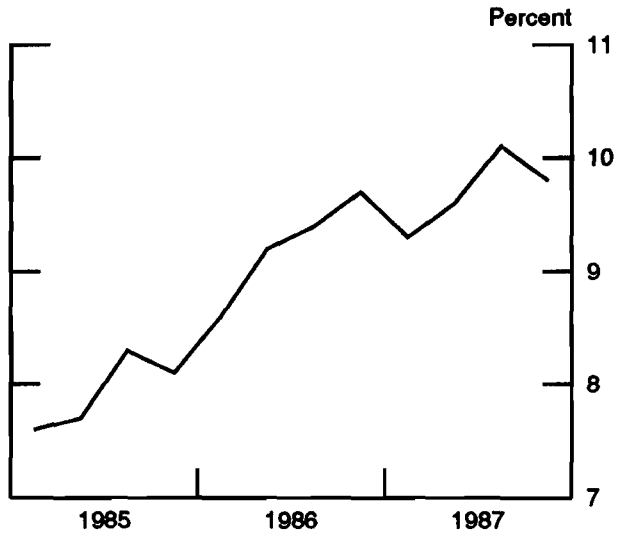
HOME SALES



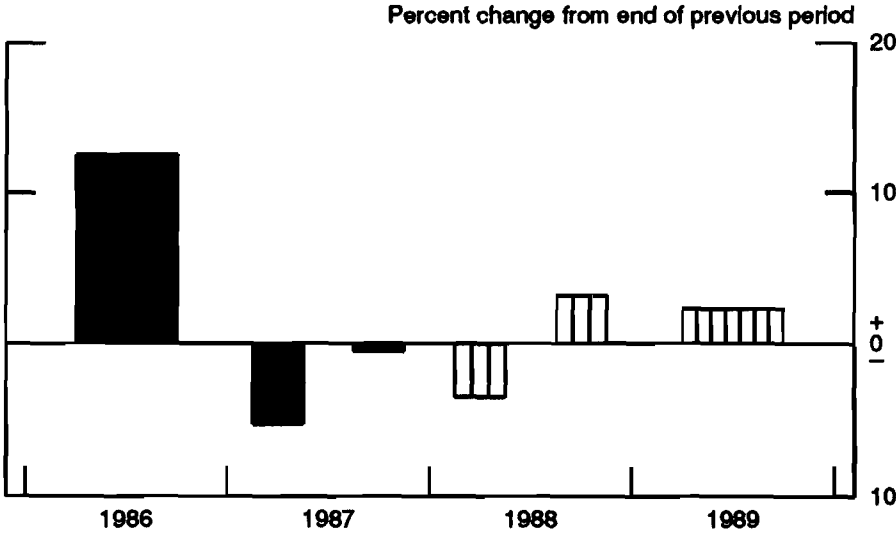
MORTGAGE PAYMENT ON NEW HOME



MULTIFAMILY RENTAL VACANCY RATE



REAL RESIDENTIAL INVESTMENT

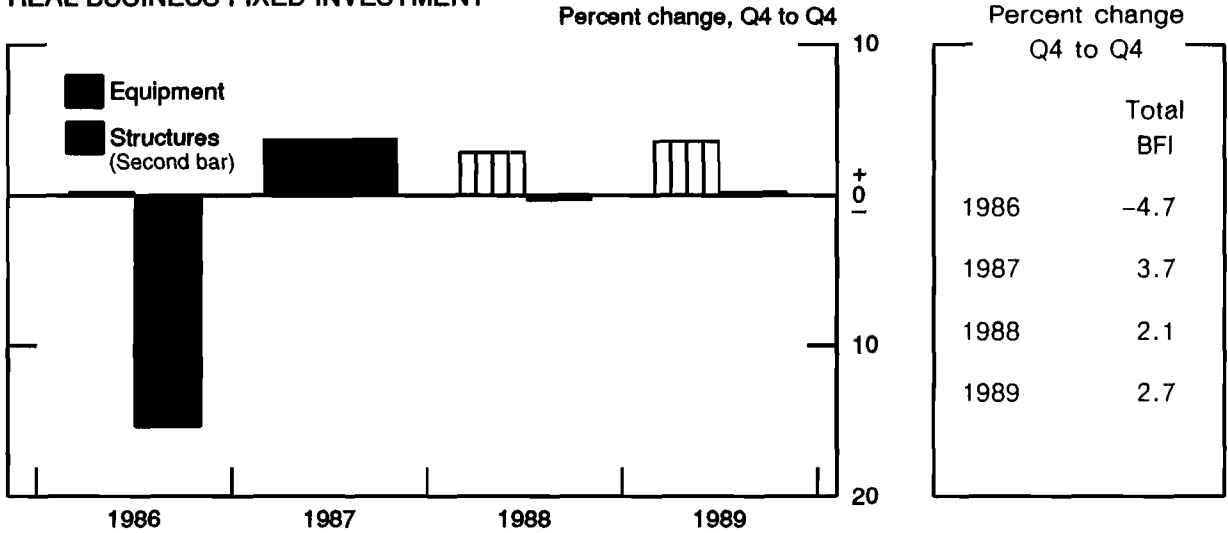


Residential Investment

Net change Q4 to Q4	
	Total
1986	12.5
1987	-2.9
1988	-.2
1989	2.3

Chart 7

REAL BUSINESS FIXED INVESTMENT

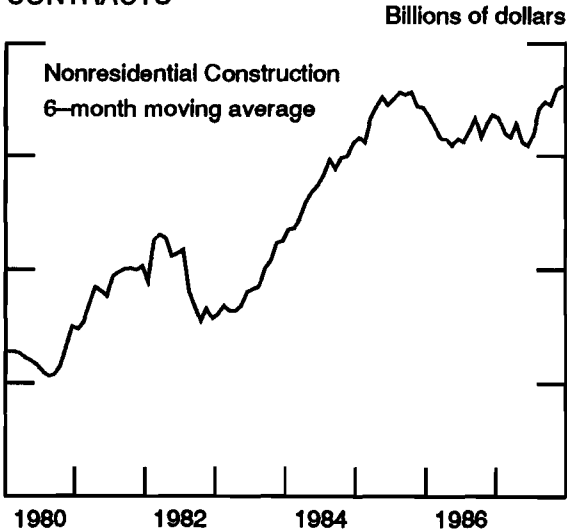


Capacity Utilization Rates

	Percent		
	1978-80 high	Dec. 1986	Dec. 1987
Manufacturing	86.5	80.2	82.2
Durable	86.3	77.3	79.8
Steel	100.3	64.7	89.6*
Nondurable	87.0	84.4	85.8
Paper	92.7	93.9	97.8*
Chemicals	82.9	81.2	84.4*
Textiles	88.3	90.8	94.1*

* Preliminary unpublished data

CONTRACTS



VACANCY RATES

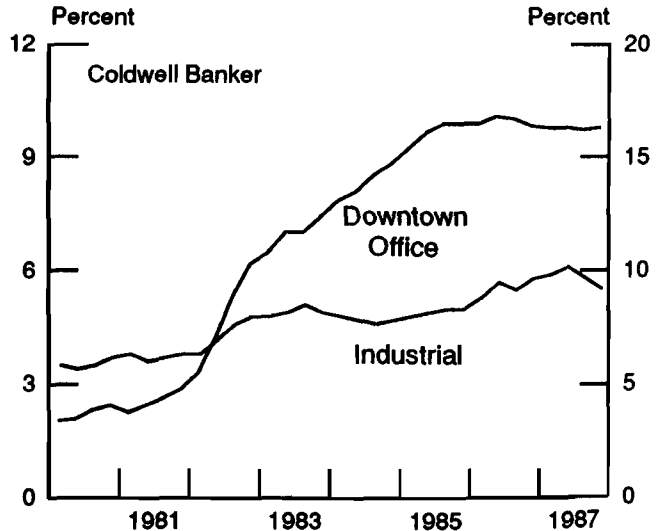
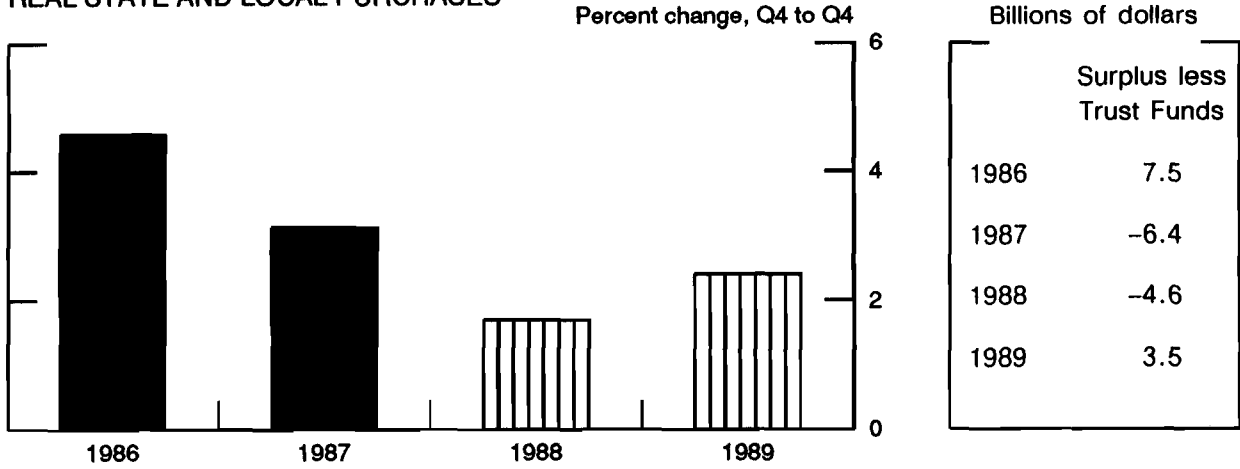
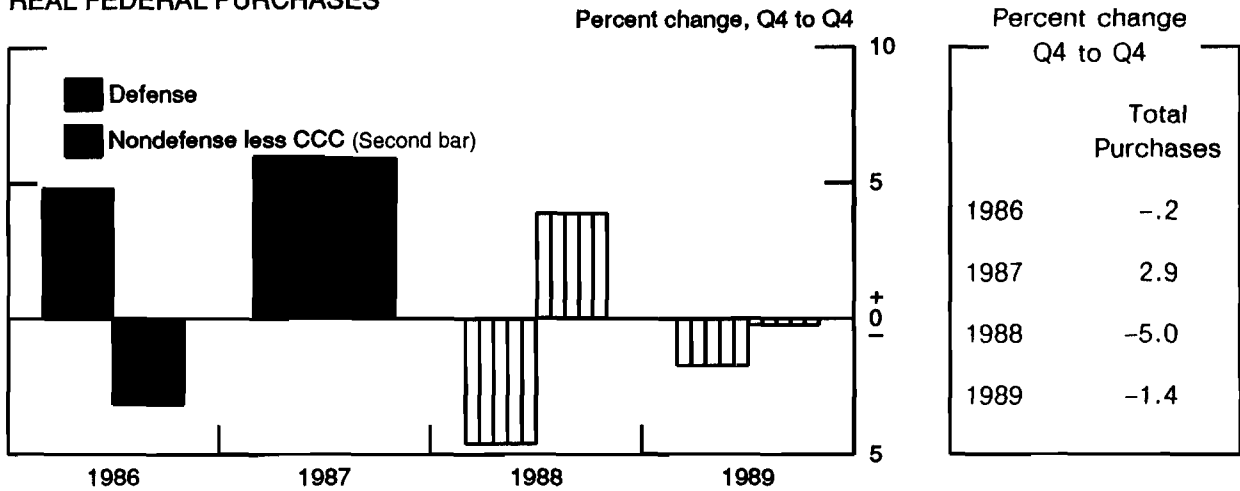


Chart 8

REAL STATE AND LOCAL PURCHASES



REAL FEDERAL PURCHASES



Total Funds Raised

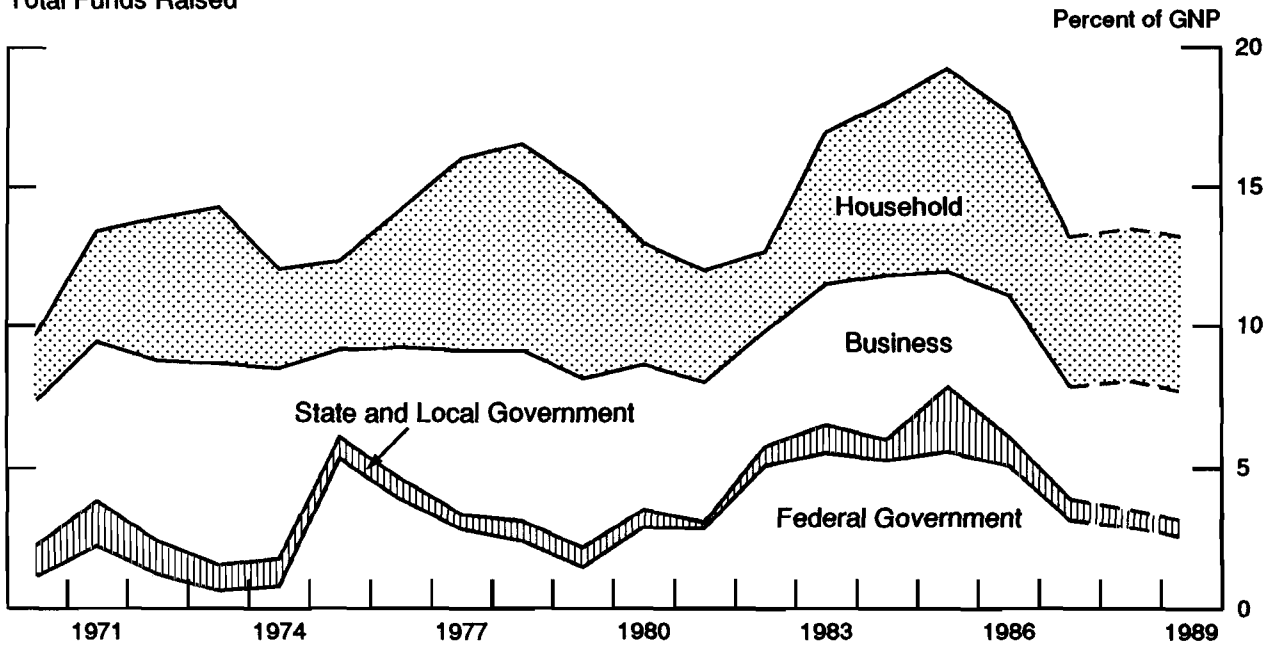


Chart 9

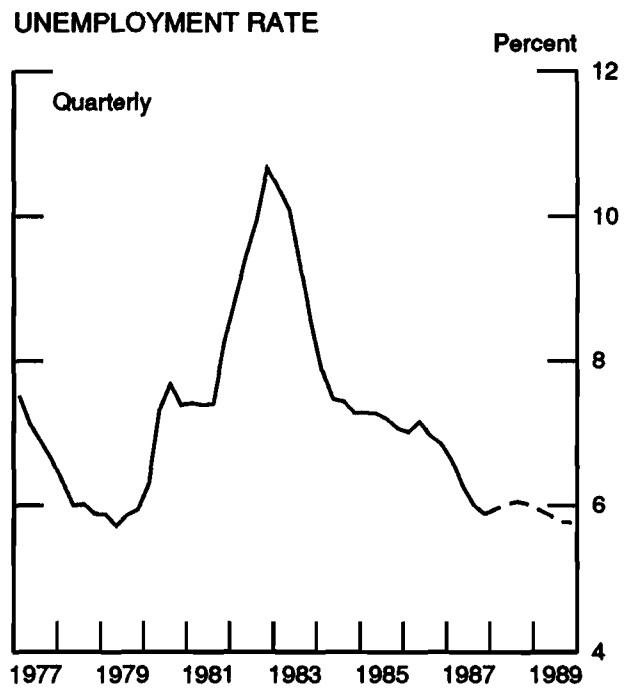
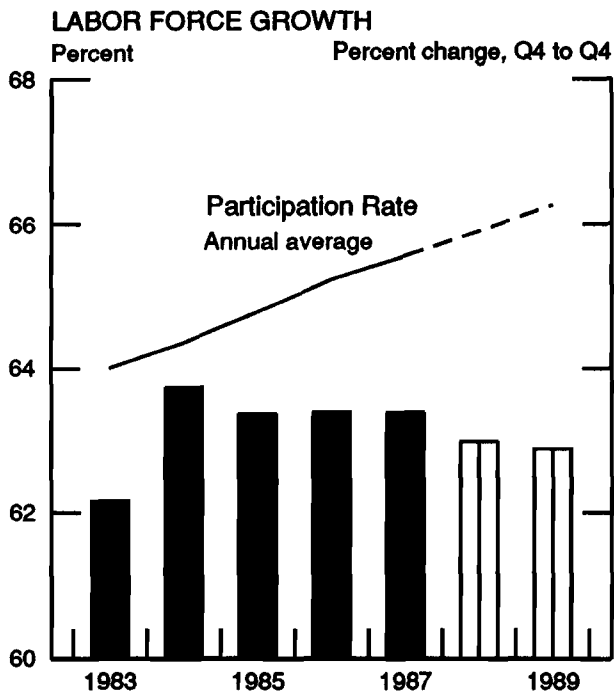
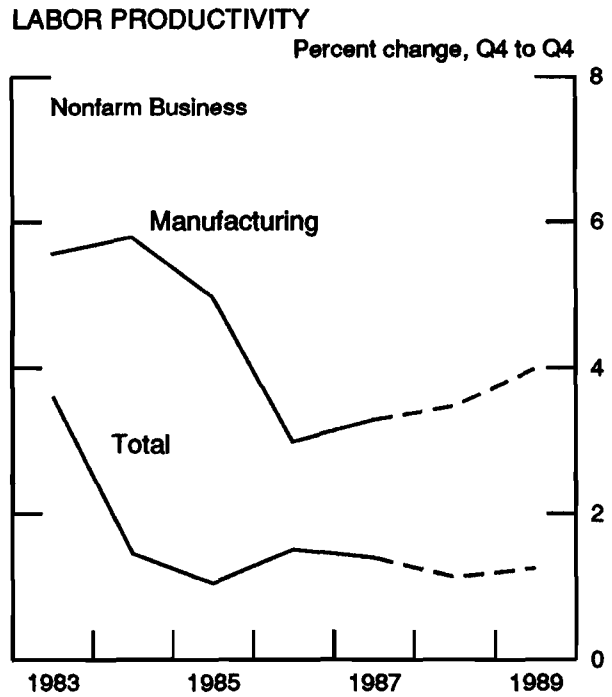
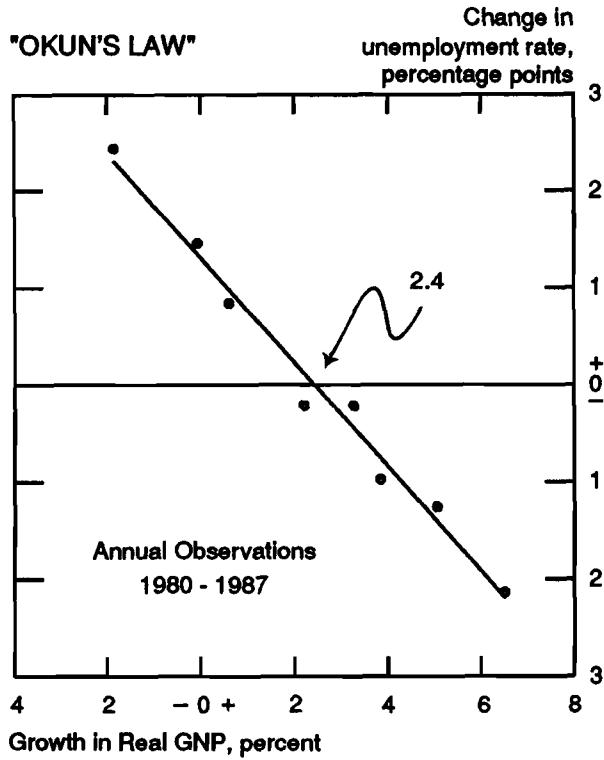
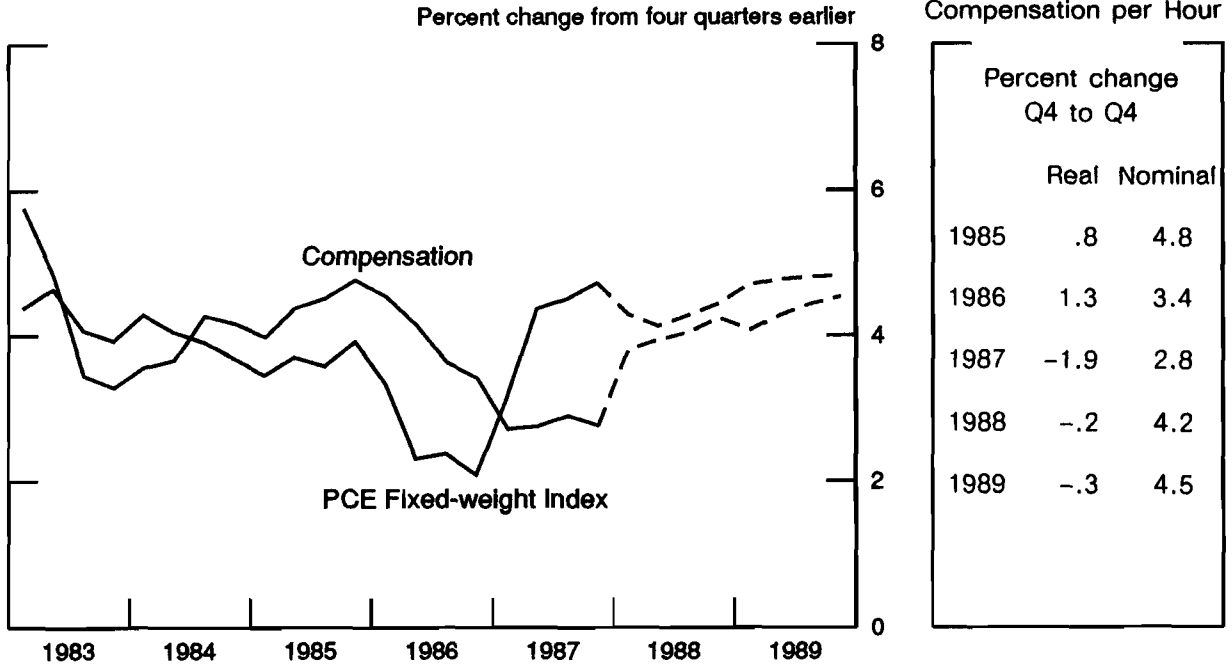
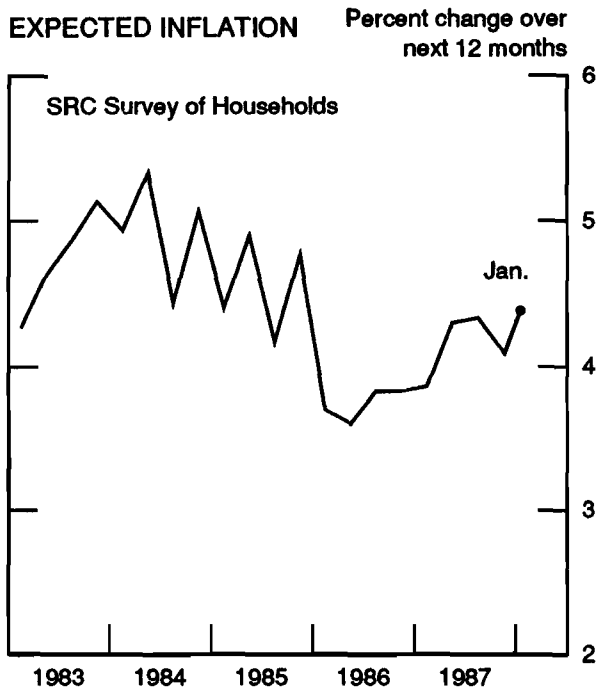


Chart 10

COMPENSATION PER HOUR AND CONSUMER PRICES



EXPECTED INFLATION



CAPACITY UTILIZATION

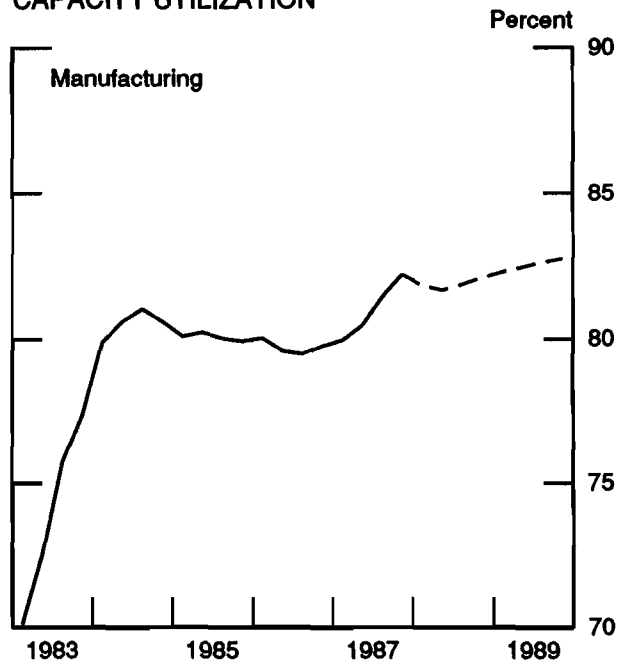
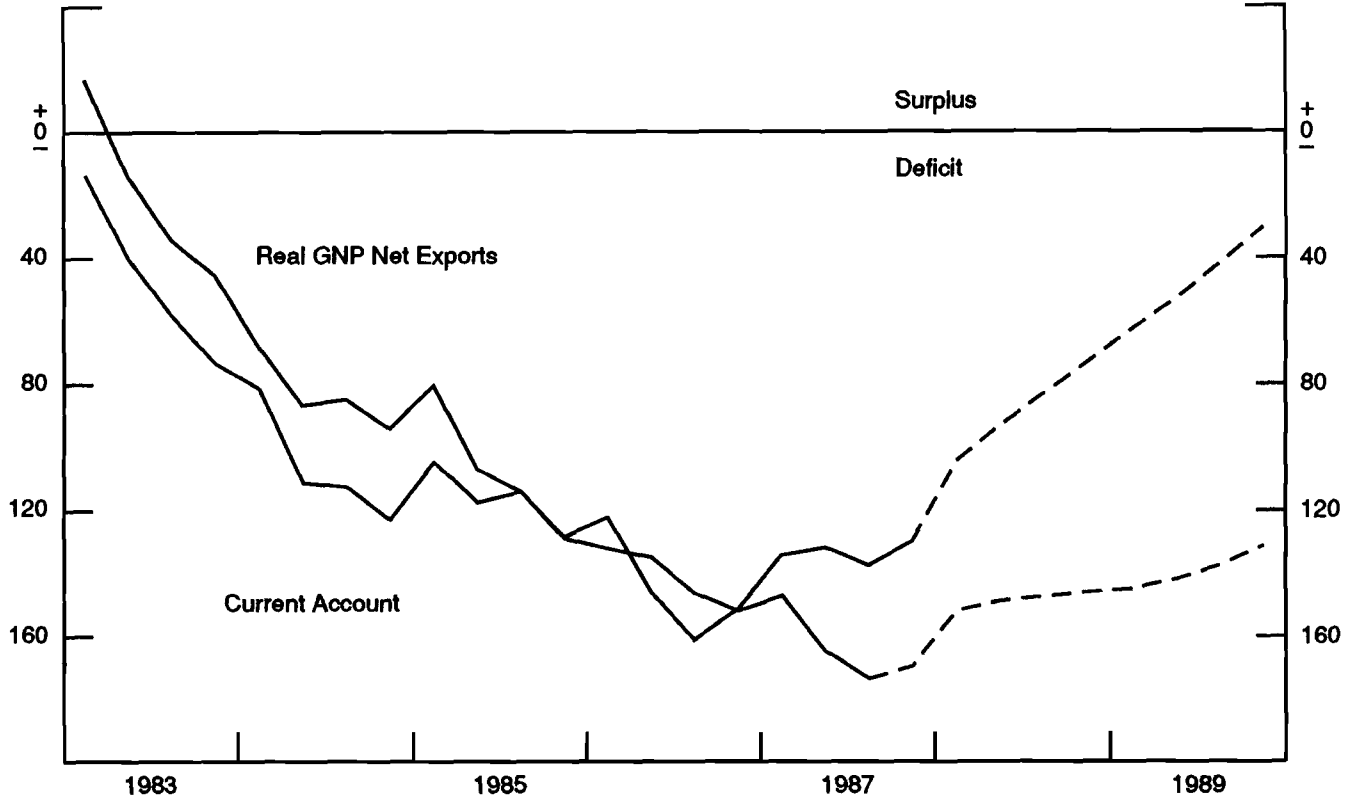


Chart 11

EXTERNAL BALANCES

Billions of 1982 dollars

Billions of dollars



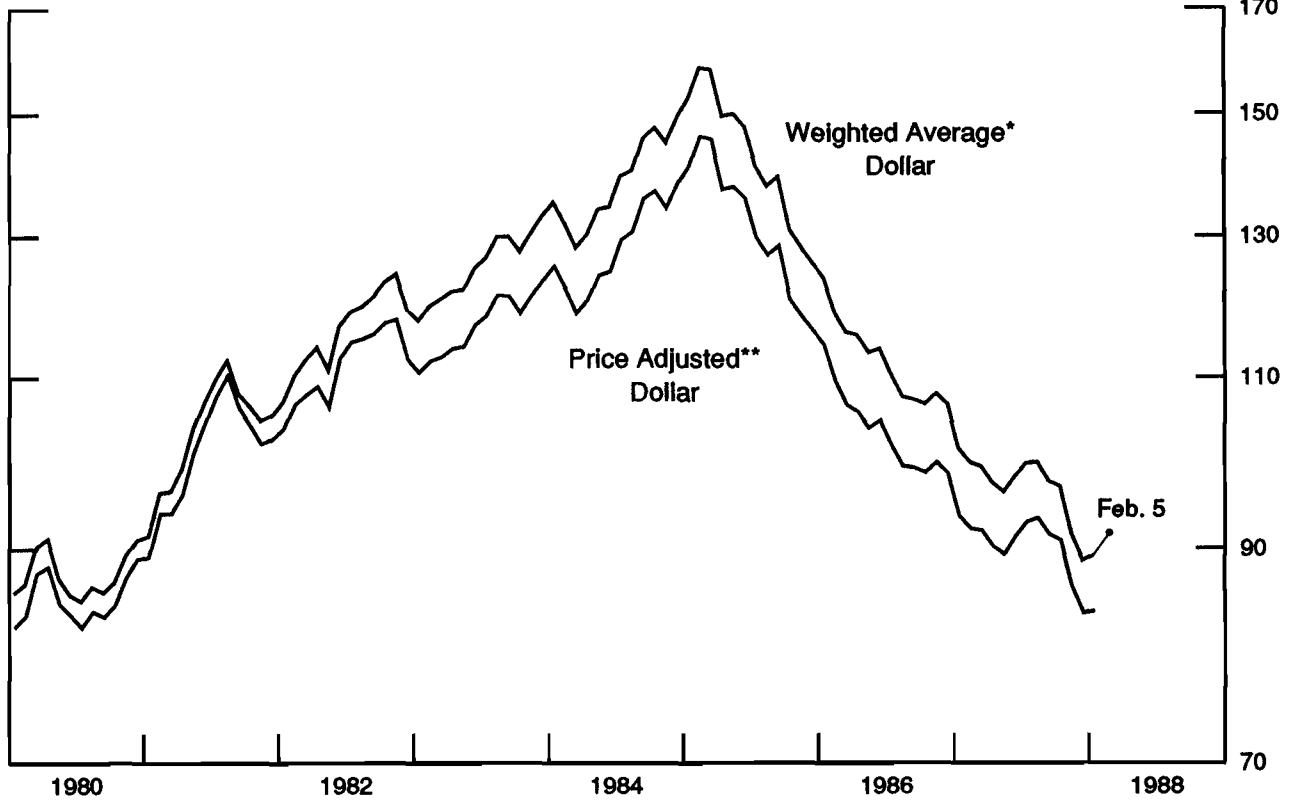
Components of Real Net Exports of Goods and Services

Percent change, Q4/Q4				
	1986	1987	1988	1989
Exports of Goods and Services	6	17	15	15
Goods	10	20	19	17
Services	-2	11	7	11
Imports of Goods and Services	9	8	2	6
Goods	11	6	2	5
Services	1	18	0	12

Chart 12

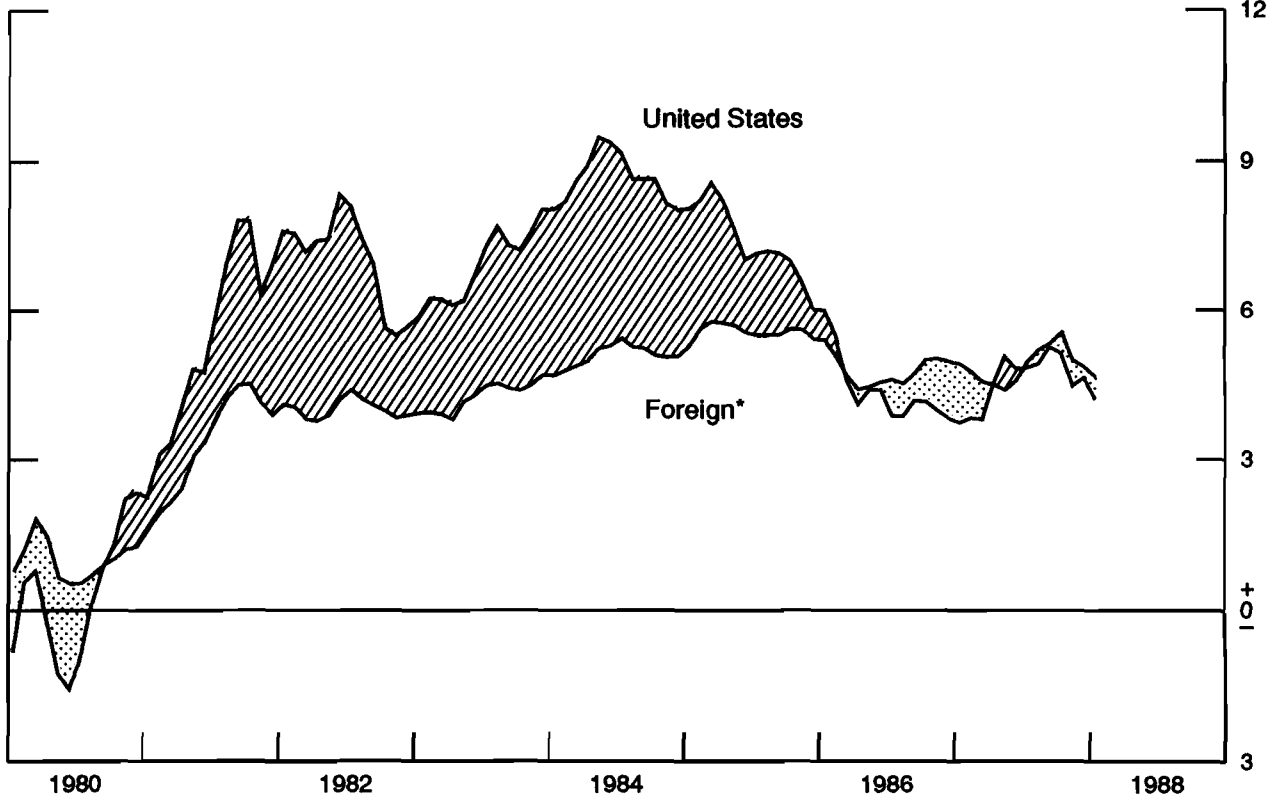
FOREIGN EXCHANGE VALUE OF THE U.S. DOLLAR

Ratio scale, March 1973=100



REAL LONG TERM INTEREST RATES ***

Percent



* Weighted average against or of foreign G-10 countries using total 1972-76 average trade.

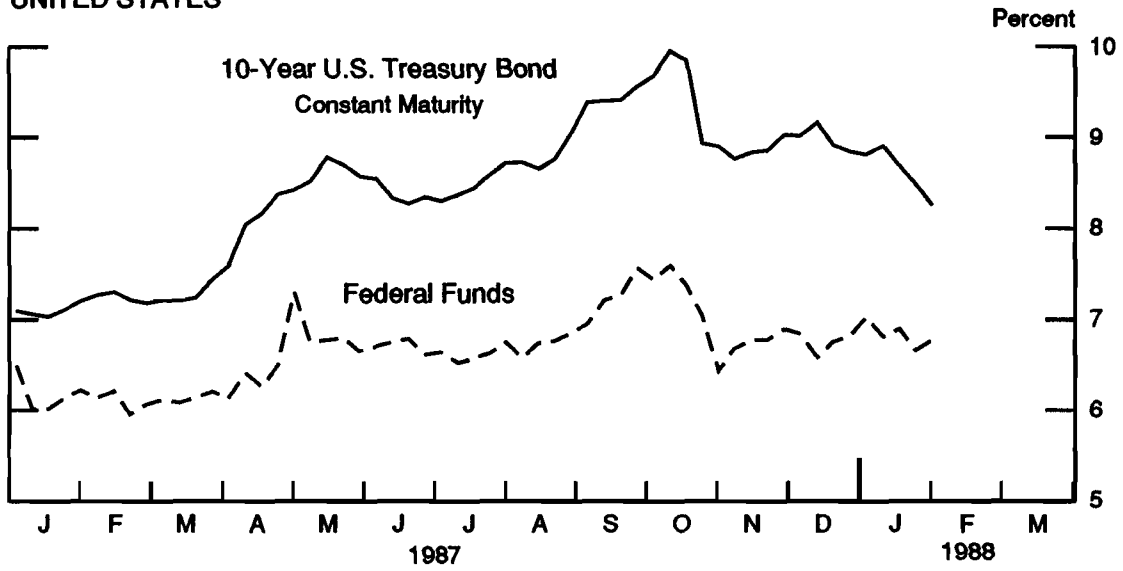
** Adjusted by relative consumer prices.

*** Multilateral trade-weighted average of Long-term government or public authority bond rates adjusted for expected inflation estimated by a 36-month centered moving average of actual inflation (staff forecasts where needed).

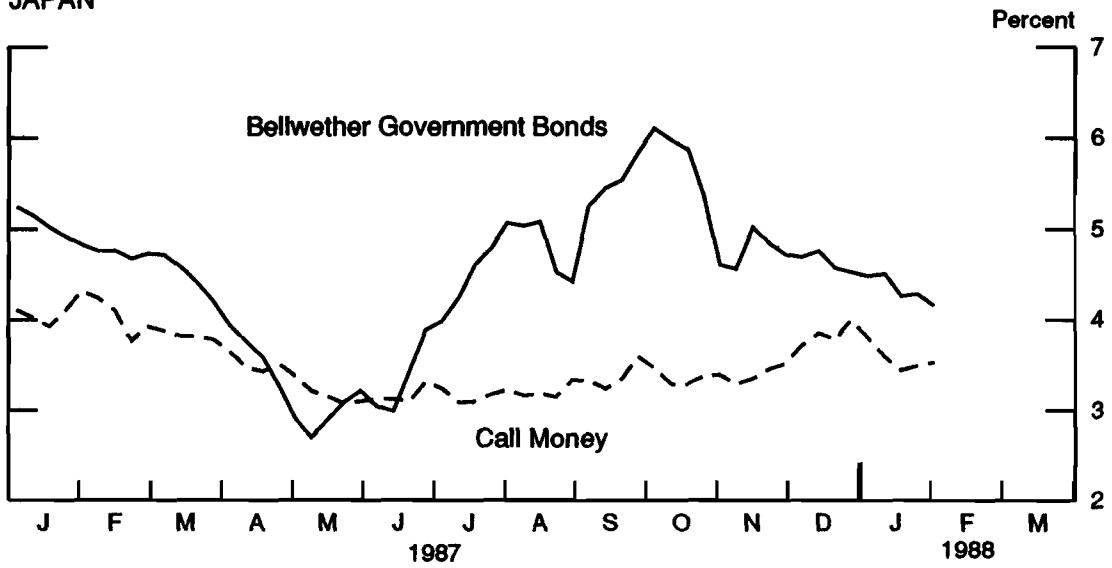
Chart 13

Recent Trends in Interest Rates

UNITED STATES



JAPAN



GERMANY

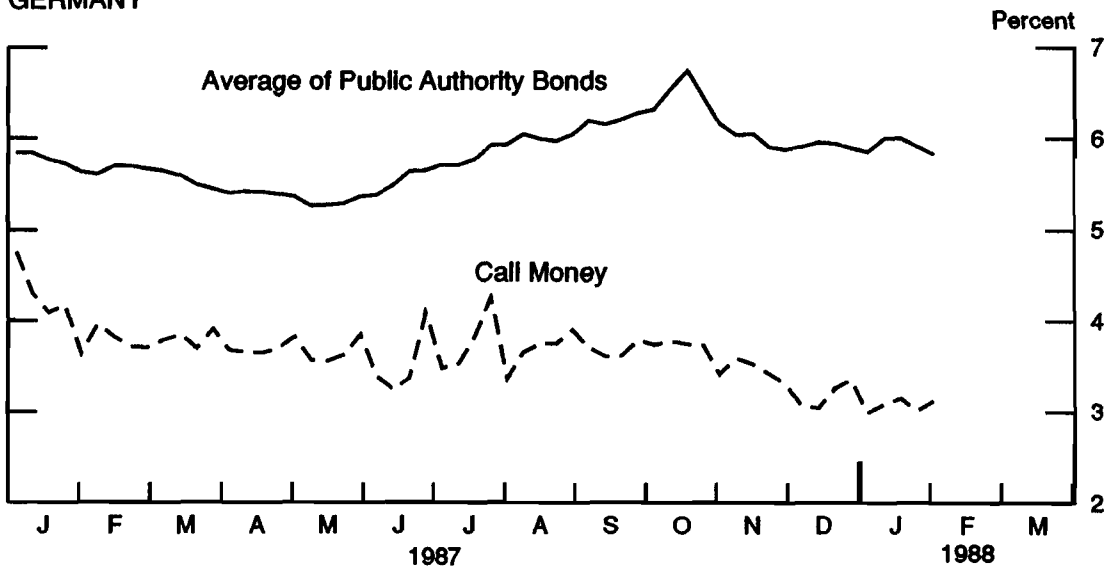
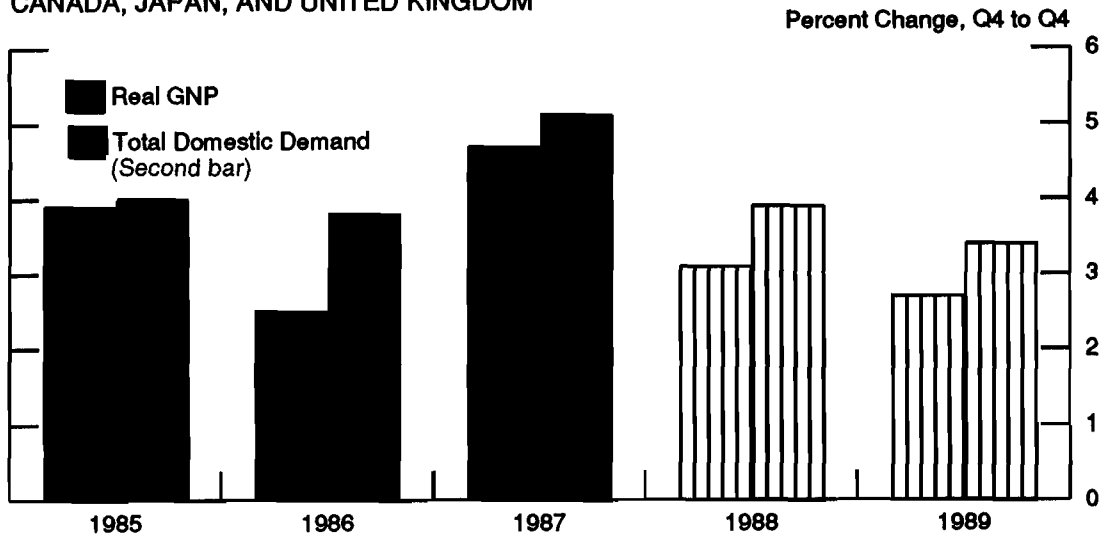


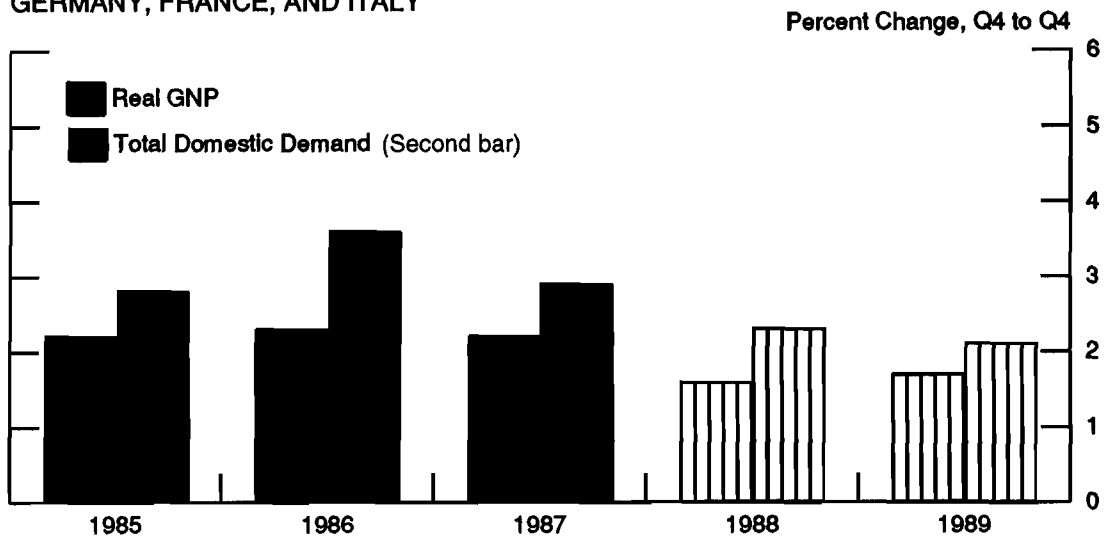
Chart 14

ECONOMIC ACTIVITY

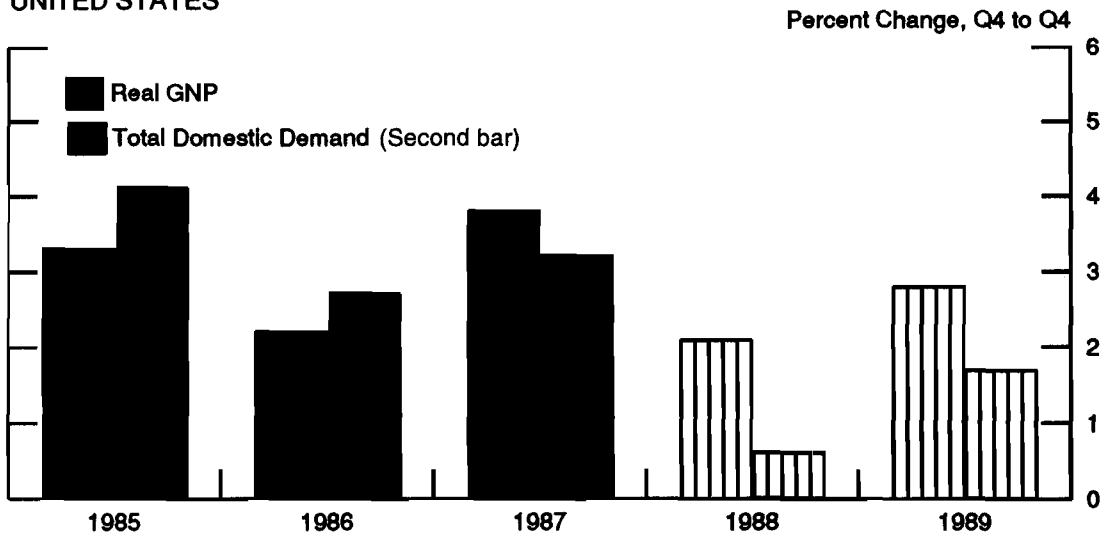
CANADA, JAPAN, AND UNITED KINGDOM *



GERMANY, FRANCE, AND ITALY *

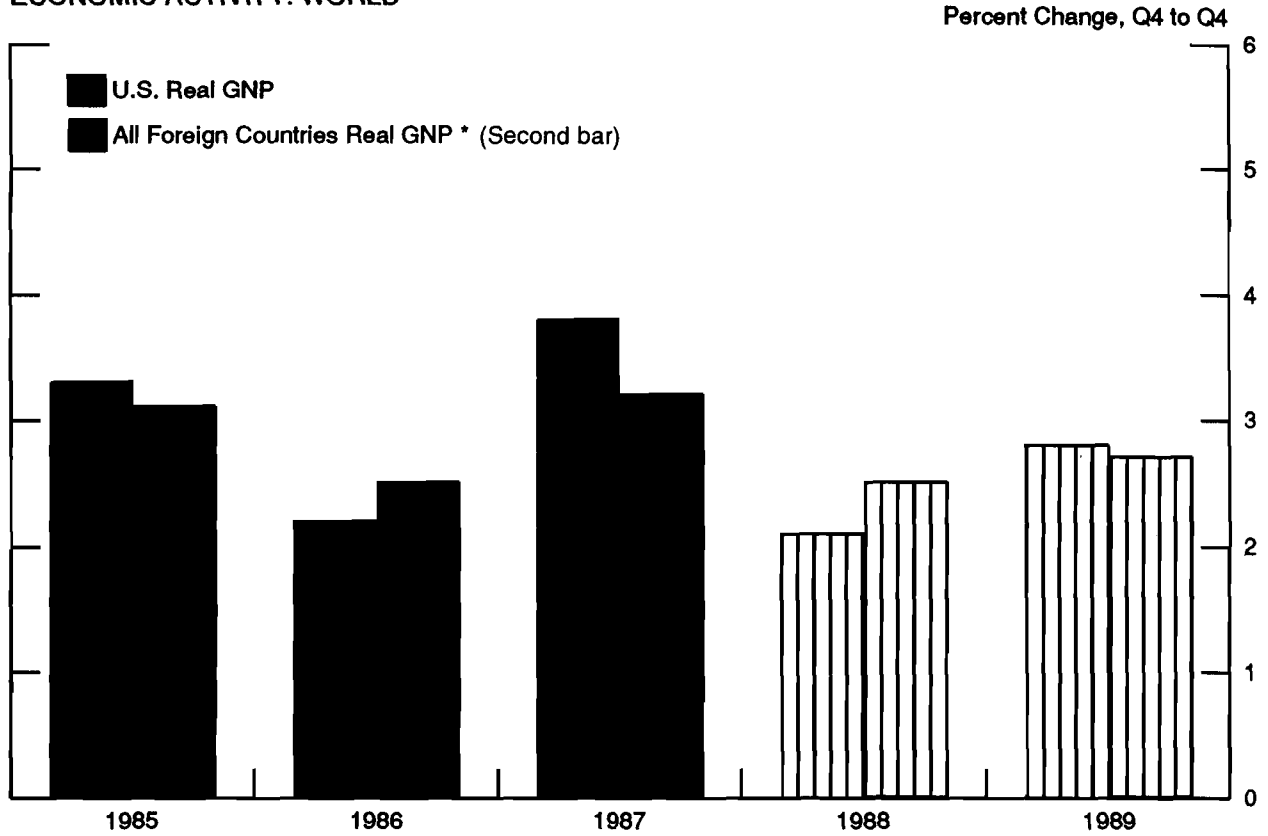


UNITED STATES

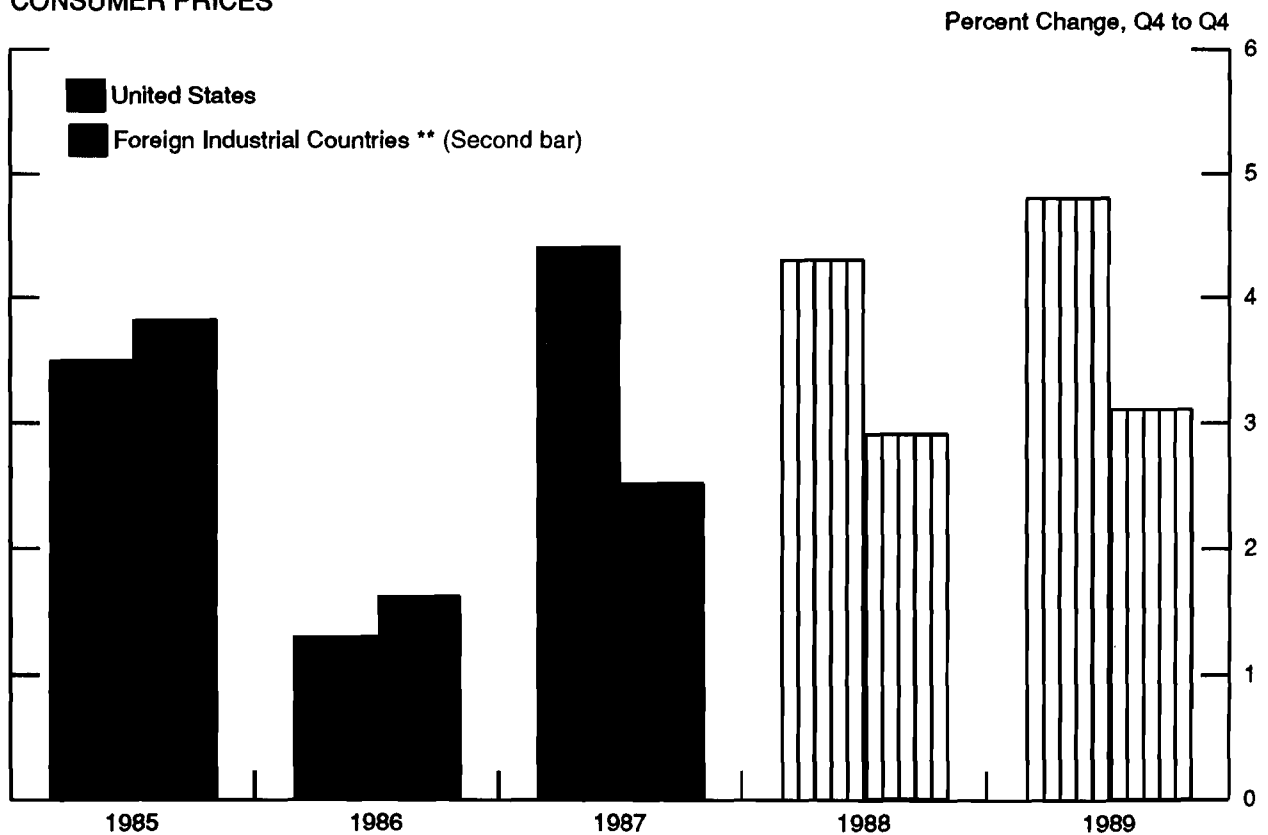


* Weighted average using 1992 GNP.

ECONOMIC ACTIVITY: WORLD



CONSUMER PRICES



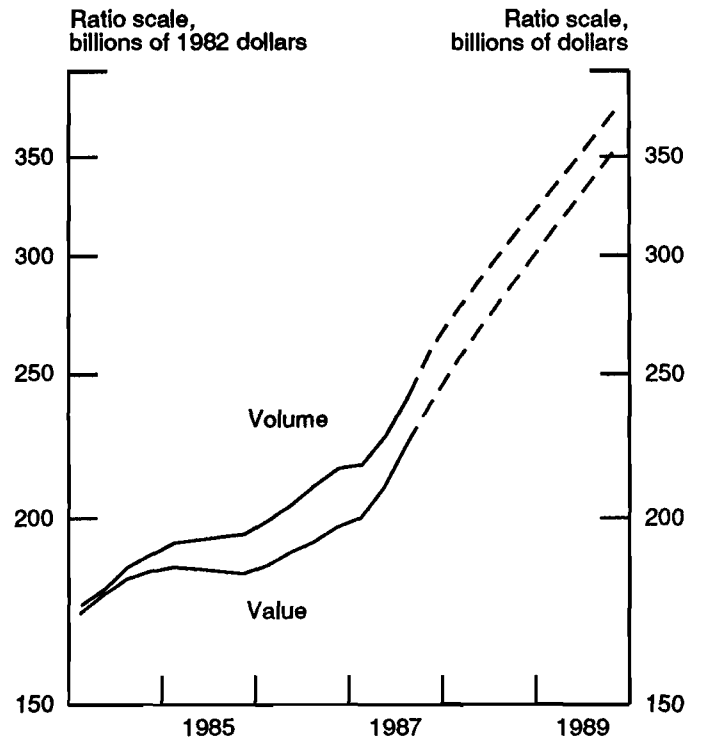
* Weighted average using U.S. non-agricultural exports, 1978-83.

** Weighted average using 1982 GNP for the six major foreign industrial countries.

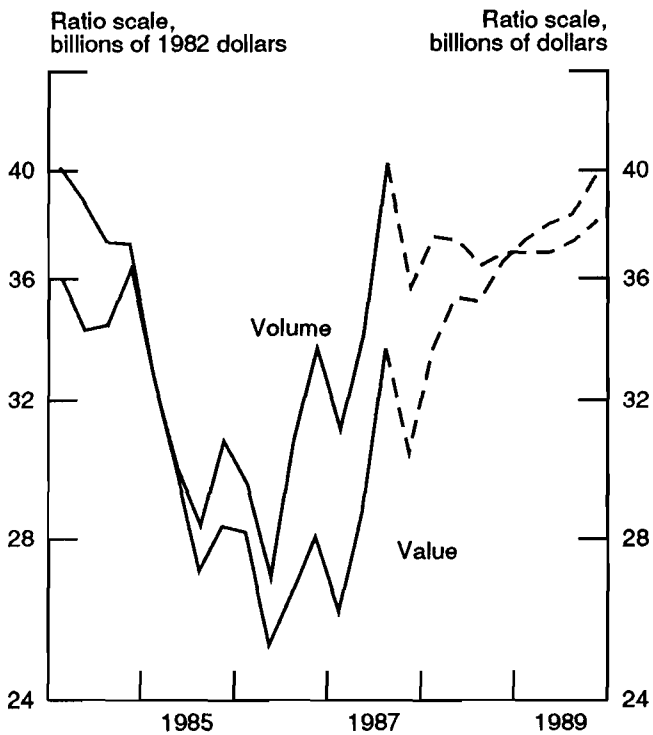
Volumes of Nonagricultural Exports*
Percent change, Q4 to Q4

	1986	1987
1. Industrial Supplies	9	9
2. Capital Goods	13	29
<i>Business machines</i>	31	49
3. Automotive	-1	22
4. Consumer Goods	15	21
5. All Other	14	21
6. Total Nonagricultural	10	22

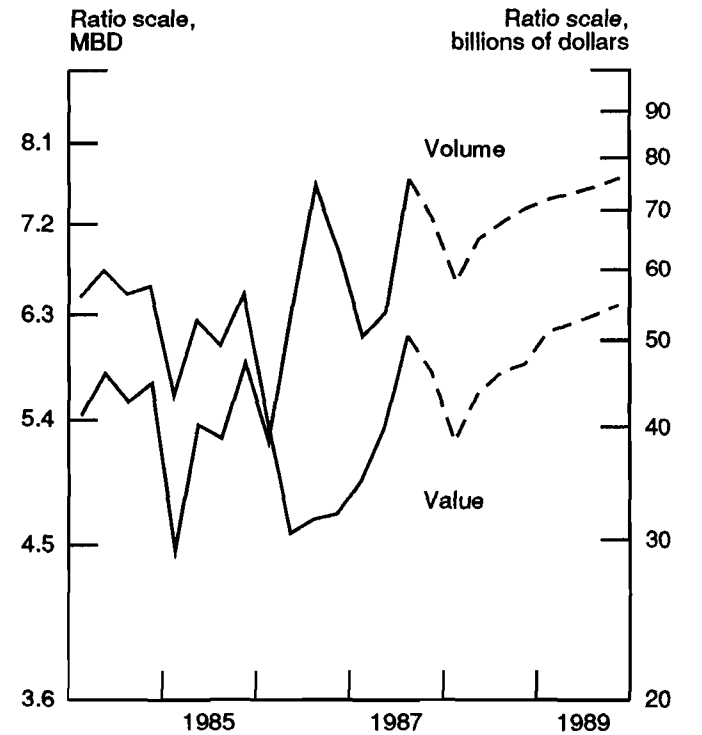
NONAGRICULTURAL EXPORTS*



AGRICULTURAL EXPORTS



OIL IMPORTS



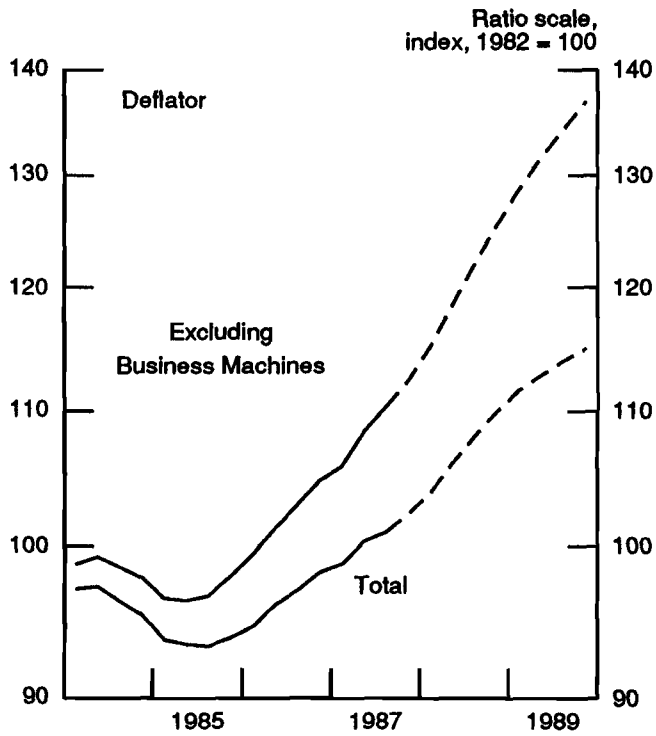
* Excluding gold.

Prices of Non-oil Imports Percent change, Q4 to Q4		
	1986	1987
1. Food	9	-3
2. Industrial Supplies	-1	11
3. Capital Goods	9	6
Business machines	-8	-9
4. Automotive	10	5
5. Consumer Goods	7	9
6. Total Non-oil	6	7

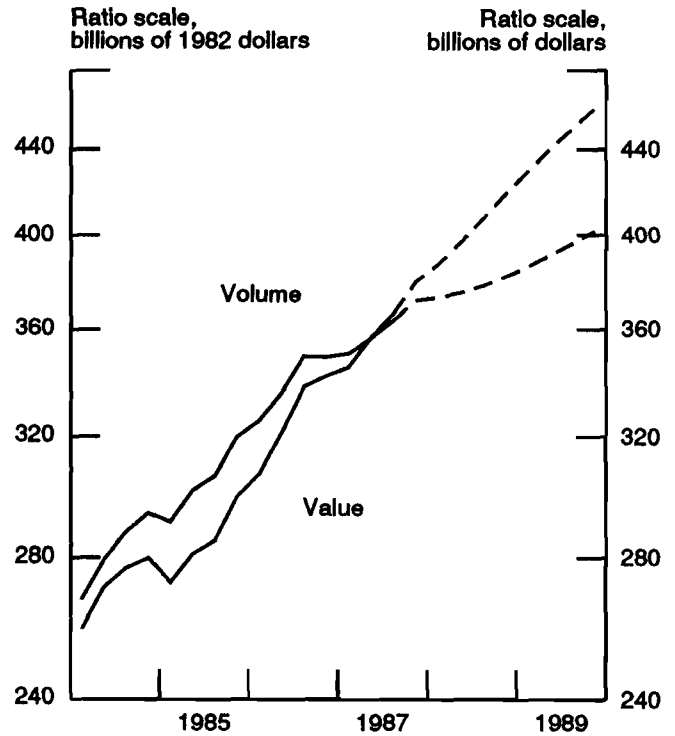
NIPA fixed-weighted indexes

Volumes of Non-oil Imports* Percent change, Q4 to Q4		
	1986	1987
1. Food	2	7
2. Industrial Supplies	9	-1
3. Capital Goods	16	19
Business machines	44	35
4. Automotive	5	4
5. Consumer Goods	12	-2
6. Total Non-oil	10	6

PRICE OF NON-OIL IMPORTS



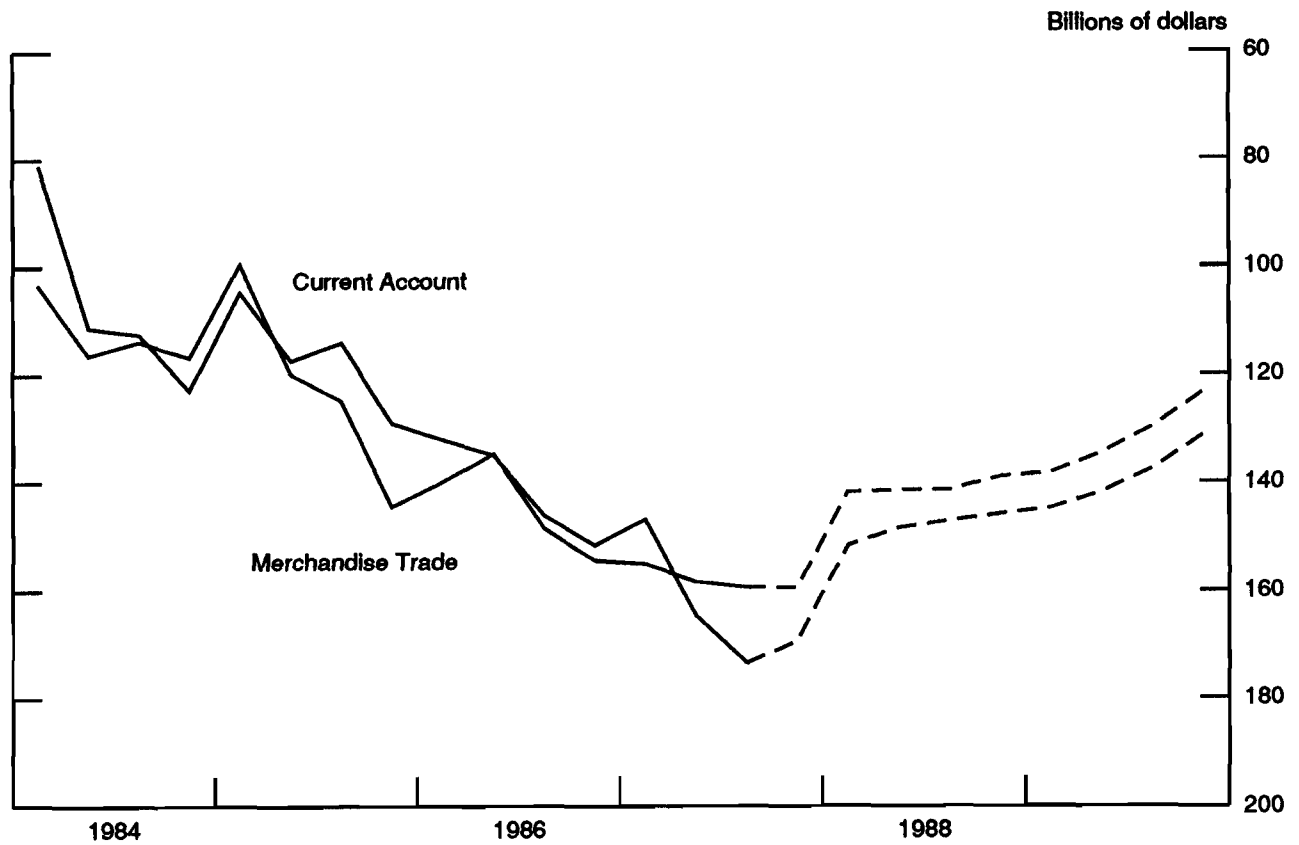
NON-OIL IMPORTS*



* Excluding gold.

Chart 18

EXTERNAL BALANCES



U.S. Capital Transactions

Billions of Dollars, Net Inflows = +				
	1985	1986	1987 ^e	1988 ^f
1. Private Capital, net	106	84	93	75
2. U.S. Banking Offices	40	18	47	30
3. Bonds and Stocks ¹	60	71	35	40
4. Direct Investment ¹	5	2	4	5
5. Other Flows	1	-7	7	0
6. Statistical Discrepancy	18	24	18	20
7. U.S. and Foreign Official Assets, net	-8	33	53	54
Memo:				
8. Current Account	-116	-141	-164	-149
9. U.S. and other G-10 Purchases of Dollars	-17	18	95	na
10. Estimated Total Net Official Accumulation of Dollar Assets	-10	42	152	na

1. Transactions with finance affiliates in the Netherlands Antilles have been excluded from direct investment and added to foreign purchases of U.S. securities.

Alternative Scenarios for the U.S. Economy

Percent change, Q4 to Q4, except as noted

	1988	1989
A. Staff Forecast		
1. Real GNP	2.1	2.8
2. Total Domestic Purchases	0.6	1.7
3. Consumer Prices	4.2	4.7
4. Current Account Balance ¹	-146	-131
5. Real GNP in Other G-10 Countries ²	1.9	1.9
B. Unchanged Dollar with Unchanged Policies		
Deviations from Forecast		
1. Real GNP	-0.1	-0.7
2. Total Domestic Purchases	0.1	0.2
3. Consumer Prices	-0.1	-0.8
4. Current Account Balance ¹	-1	-9
5. Federal Funds Rate ³	-0.1	-0.7
6. M2	0	0
7. Real GNP in Other G-10 Countries ²	0.1	0.5
C. Unchanged Dollar, Tighter U.S. Monetary Policy		
Deviations from Forecast		
1. Real GNP	-1.2	-3.3
2. Total Domestic Purchases	-1.2	-2.9
3. Consumer Prices	-0.1	-1.0
4. Current Account Balance ¹	8	14
5. Federal Funds Rate ³	2.3	3.0
6. M2	-2.0	-4.0
7. Real GNP in Other G-10 Countries ²	-0.1	-0.1

1. Billions of U.S. dollars. Q4 level.

2. Weighted average using total 1972-76 average trade.

3. Percentage points. Q4.

DONALD L. KOHN
FEBRUARY 8, 1988

FOMC BRIEFING

In considering money and credit ranges for 1988, the FOMC faces several questions. The first is what ranges to set for M2, M3 and debt. The second question is whether a range should be established for M1 or another narrow aggregate. The third issue, which is clearly related to the first two, concerns what weight to place on the aggregates in the implementation of policy.

I would like to begin with the last question, since a review of the characteristics of the aggregates, and their place in policy might prove useful background for consideration of the ranges. The current practice of the Committee--to place relatively low weight on strict adherence to money growth ranges--evolved in recent years as these measures seemed to lose their cohesion with the ultimate objectives of policy, such as prices and output. This was especially true of M1; M2 or M3 never seemed to be very closely tied to income except over the longer-run. Certainly various econometric tests suggest fairly large errors in predicting GNP given any of the aggregates. One source of the problem was the process of deregulation and the asset shifts it induced. This process is largely behind us, eliminating one of the sources of uncertainty the FOMC has in the past cited as a reason to downplay the aggregates. And, in fact, while there remains much to be learned about the behavior of money--as illustrated by our experience with demand deposits this year--we have a fairly good understanding of the broad contours of the relationship of various aggregates to income and interest rates. The major problem emerging from our analysis of

the experience of the 1980s is that deregulation has left in its wake monetary aggregates that appear to be fairly interest sensitive over periods as long as a year. Such aggregates must be viewed cautiously as ex ante targets of policy, because the growth needed to foster attainment of the ultimate objective for prices and output can vary widely, depending on the strength of underlying demands in the economy and the behavior of interest rates. Thus, the behavior of broad as well as narrow money has to be interpreted together with other information about the economy and prices, as is the Committee's current practice. Even so, having ranges, aside from being required by law, imposes some degree of discipline on the Federal Reserve; growth outside the ranges at least occasions soul searching, if not action to bring it back. And the ranges can communicate to the public information about the Federal Reserve's view of the economic situation and its longer-run intentions with respect to policy.

Turning to the ranges for the broad aggregates and debt, the bluebook suggested three possible alternatives; alternative II represented the tentative ranges for 1988 set in July, alternatives I and III would call for half-point higher and lower growth ranges, respectively. The staff economic forecast, as Mike has already noted, is consistent with growth around the middle of the tentative ranges given in alternative II. That forecast involves interest rates remaining around their recent lower levels for a good part of the year. The effects of the declines in rates since last fall help to boost money growth and depress velocity through the first half of the year. The FOMC is assumed to allow interest rates to drift upward with the pickup in the economy and price pressures that is forecast

for later in the year, thereby helping to restrain money growth at that time--at least for M2. For the year, and taking account of the lags involved, interest rates and opportunity costs are expected to have little net effect on money growth, so that M2 and M3 expand relative to income roughly in line with the long-run trends in their velocities.

The pickup in projected M2 and M3 growth from 1987 to 1988 and the weakening in their velocity behavior stems from several sources. One is the pattern of movements in interest rates and opportunity costs; the net movements in opportunity costs over 1988 aren't expected to be very different from those in 1987, but in 1987 much of the increase occurred earlier in the year--through the third quarter--which evidently depressed money growth through year-end, while in 1988 the increase is forecast for late in the year and would have its greatest effects on money demand in 1989. The second is an assumed absence of special factors depressing money growth in 1988. While the factors affecting money growth in 1987 can't be identified with confidence, to the extent they involved the unusually low level of household saving, or the restructuring of household balance sheets away from debt-financed spending owing to the new tax law, they are not expected to be much at work in 1988. Nor is M3 expected to be damped to the same degree by Eurodollar borrowing or inflows of Treasury deposits, both of which were unusually high last year.

With regard to debt, the staff forecast is for some deceleration from 1987 to 1988 on a QIV basis, with this aggregate also growing near the middle of its tentative range. Most of the slowdown is in the federal sectors, reflecting a lower deficit on a calendar year basis and a flat or

even declining cash balance. Nonfederal borrowing is expected to slow only modestly, and to remain well in excess of income growth, partly as equity retirements continue to boost debt expansion.

In the context of a staff forecast of money and credit growth in the middle of their tentative ranges, consideration of alternatives to those ranges rests importantly on judgments about the risks to the staff forecast. One set of risks is on the money demand side. If there were a further downward shift in these demands in 1988, it would imply the need for slower money growth to achieve the same economic outcome; a snapback in money demand making up for last year's shortfall would necessitate more rapid money growth consistent with the GNP forecast. The other set of risks involves the performance of the economy and prices. If demands on the economy turned out to be weaker than forecast, a more expansive monetary policy, involving lower interest or exchange rates than in the staff forecast and higher money growth, might be necessary to foster adequate economic growth. Alternatively, if the risks were seen as more on the side of a stronger expansion of demand and greater price pressures, generated perhaps in the context of international adjustment, slower money growth and higher interest and exchange rates might be appropriate. A different monetary policy might also be considered if something like the staff forecast itself was not thought to be a satisfactory outcome for the economy or inflation.

Of course the ranges for money growth allow for various contingencies to some extent. But, given the elasticities of even M2, growth outside the tentative ranges might easily prove needed if conditions deviate

significantly from those expected. For example, our models suggest that a gradual increase or decrease in rates relative to the base line path accumulating to one percentage point by year-end could result in about a 1-1/2 percentage point deviation in M2 from its path, bringing it to around the limits of the tentative ranges. Thus, if the risks were thought strongly to be on one side or another, or even if the Committee thought the risks were balanced, but was more concerned about the consequences of one or another outcome, it might wish to adjust the ranges to reflect those concerns.

In light of the uncertainties to the economy and the interest rate sensitivity of money demand, the Committee may want to consider somewhat wider ranges for the broad aggregates, especially M2. Three point ranges for these aggregates have been the norm, but the interest elasticity of M2 does appear to be a little higher now for periods up to a year. And the experience of the last two years has encompassed M2 growth of both 9-1/2 and 4 percent. A range of 4 to 8 percent for example would be centered on the staff's expectation for M2 growth in 1988. The 8 percent upper limit would permit the relatively rapid monetary growth that might be needed to sustain the economy in the face of weak demands; the 4 percent lower end would mean that the Committee was not necessarily looking for an acceleration in M2 growth from 1987 to 1988, if the lower growth were seen as needed to promote progress toward price stability. A wider M2 range would not be without drawbacks, however. It could be seen as indicating a further retreat from effective monetary targeting, and perhaps less in keeping with the intent of the Humphrey-Hawkins Act.

It also raises questions about the M3 range. This aggregate seems to be less interest elastic than M2, reflecting the steadying influence of credit growth at depository institutions. M3 also tends to grow more rapidly than M2 over time, with its velocity trending downward. In the 1970s M3 targets generally were set above M2 ranges by one percentage point, but this has not been the practice in the 1980s. Even so, should the Committee widen or lower the M2 range, it might consider retaining the tentative M3 range, which also is centered on the staff projections.

The third issue involves targeting M1 or another narrow aggregate. M1 velocity registered only a small increase last year, and is expected to increase about 1 percent again in 1988. Such increases are thought to be roughly in line with its new long-term trend. However, this does not appear to herald the return of a period of damped swings and easily predictable behavior of M1 velocity. Rather, it is an artifact of the patterns of interest rates and offering rate changes experienced over the last year and predicted for this year. Our analysis suggests that M1 remains a very interest sensitive aggregate, and substantial movements in interest rates would have profound effects on its growth and velocity. A narrow M1 range could easily trigger an inappropriate monetary policy response to unexpected developments in the real economy. A range as wide as 6 percentage points would appear to be needed to encompass the same possibilities as implied by a three percentage point range for the broad aggregates. The bluebook table provides three such ranges for the three long-run alternatives if the Committee wishes to consider re-establishing an M1 range. M1A is less interest sensitive, and in certain kinds of

simulation experiments seemed to provide a little better guide to policy than M2. However, the demand deposit component of this aggregate appears to be in a state of transition owing to changes in the way banks are compensated for services and in business cash management practices. The evolving relationship of this aggregate to interest rates and income is reflected in the large misses in our demand deposit equation in recent years. Based on the discussion at the last FOMC meeting, the draft directive language did not contemplate a narrow aggregate objective. Instead, the language currently in the directive was shortened and modified slightly.

Notes for FOMC Meeting
February 2, 1988

Sam Y. Cross

Since you last met in mid-December, the dollar has gone through two distinct phases. First, a period of persistent downward pressure that led to record lows around year-end. Then, when trading reopened in New York after the New Year, a sharp dollar recovery triggered by heavy intervention dollar purchases and supported by improved economic statistics. Over the period as a whole, the dollar has risen by about 4 1/2 percent against the mark and about 1 1/2 percent against the yen.

At the time of your December meeting, there was an atmosphere of pervasive pessimism about the dollar in the foreign exchange markets. The market was disappointed by the record trade deficit announced December 10, was disappointed by the modest results of the protracted deliberations on reducing the budget deficit, and was concerned that fears about fragile financial markets and a weaker economy might limit the scope for using monetary policy to support the dollar.

In this environment, the Group of Seven communique issued December 22 provided further disappointment. It contained no explicit new economic policy initiatives to stabilize exchange rates and redress trade imbalances, and public comments by an Administration official seemed to downplay its significance. These cumulative disappointments began to weigh heavily upon dollar

exchange rates. During the last week of the year, the negative sentiment showed through in heavy dollar sales, especially by U.S. corporations and Japanese banks. There was very little liquidity in the market; the U.S. interbank market was dormant, with many institutions having closed their books for the year and unwilling to adjust positions, and the market became one-sided. Under these conditions, the central banks were about the only dollar buyers, and large concerted intervention operations conducted in the last few days of the year were required to contain the dollar's decline. By the morning of January 4, the dollar had fallen by around 5 percent against the yen and the mark from the close on December 16.

Within a few days however, as market participants returned to active trading at the beginning of the New Year, the mood changed dramatically. The central banks intervened in concert aggressively, visibly and noisily. The market had been looking for a signal, especially from the U.S., and these operations convinced many market participants that the G-7 countries were indeed now committed to halting the dollar's decline. The December G-7 accord was given new weight.

Thus the climate was much more favorable in mid-January, when the next set of trade data were released, and the announcement of a much greater-than-expected narrowing of the deficit pushed the dollar sharply higher. The improvement in trade performance seemed to confirm the view that the dollar may have bottomed out at year-end, at least for the short term. There has been essentially no intervention since the trade figures.

Also during January, events abroad reinforced a sense of policy coordination. Comments by foreign officials strengthened the view that new initiatives to halt the dollar's decline might be undertaken. The Bundesbank's domestic liquidity actions were interpreted as showing a little more flexibility, and the German shift to a broader monetary aggregate target also left the market with the impression that there may be more room to ease monetary policy if they so choose.

Accordingly, in recent weeks the dollar has traded within a relatively narrow range. We have the impression that a lot of players, corporates and others, have been sitting on the sidelines since year-end, and have not yet decided which way to position. Certainly the concerted intervention in early January got the markets' attention, and they believe that the G-7 authorities are much more committed to resisting a significant dollar fall. Indeed there is a much greater appearance of solidarity among the major nations which goes beyond intervention. Also they see evidence that adjustment is taking place, not only from the good trade figures released in January, but also from the latest GNP data which show lower consumption and higher exports. At the same time they have seen the dollar declining for three years and they've all made money by following that trend. Also they know that the dollar's prospects could be changed by one month's disappointing trade figures, and they know that interest differentials favoring the dollar have narrowed. They are looking for convincing evidence that sustained adjustment will take place and that the dollar will be kept stable

enough and attractive enough to bring in the \$150 billion needed to finance this year's current account deficit.

In this environment of relative dollar stability, much of the position-taking has focused on the relative movements of the yen and European currencies. The yen's strength relative to European currencies may reflect the fact that Japan's economy is more robust than, in particular, Germany's, and a belief that a relatively larger share of the global adjustment will have to be absorbed by Japan. Also the mark often seems to show more weakness than other currencies when the dollar strengthens. In any case, the relative weakness of the mark has enabled other Europeans to buy large amounts of DM in the market to restore balances and repay debts.

Total dollar purchases in this period have been substantial. The Desk purchased a total of \$1,364.5 million against marks and \$1057.5 million against yen. The Treasury and the FOMC have operated in roughly equal overall amounts, but the currency composition of the two agencies' intervention has been shifted to take account of the currency composition of their balances. Thus, the Federal Reserve sold \$1,216.5 million worth of marks and no yen. Foreign central banks have also made substantial dollar purchases, a total of about \$9 billion bought (by the rest of the G-10) during the period from December 16 through yesterday.

In other developments during the period, the Desk purchased \$0.7 million equivalent of yen from a customer on behalf of the Federal Reserve System to help reconstitute our balances. The Desk also purchased a total of \$195.1 million equivalent of yen against SDR on behalf of the U.S. Treasury to augment yen reserves.

There were also repayments on two Treasury swaps by Latin American debtors: the Argentine central bank repaid \$100 million, plus interest, and the Central Bank of Ecuador repaid the outstanding balance of \$31 million, plus interest. There are no Treasury swaps now outstanding.

With respect to Federal Reserve swaps, we have renewed all our swap lines for one year without change, in accordance with the Committee's instructions.

Mr. Chairman, I request that the Committee approve the Federal Reserve share of our intervention since December 16, amounting to purchases of \$1,216.5 dollars against marks.

NOTES FOR FOMC MEETING
FEBRUARY 9-10, 1988
PETER D. STERNLIGHT

In the period since the mid-December meeting, the Domestic Trading Desk sought first to maintain about unchanged conditions of reserve availability from those prevailing in the previous intermeeting interval. For about the past two weeks however, against a background suggesting weaker economic growth in early 1988, the Desk has encouraged slightly easier conditions. The path level of borrowing was shaved from \$300 million to \$250 million and the anticipated range of Federal funds trading edged off from about $6\frac{3}{4}$ - $7\frac{7}{8}$ percent to $6\frac{1}{2}$ - $3\frac{3}{4}$. The slight shift was made even though money growth was turning in a more robust performance in January after showing considerable weakness in December.

Gradually over the period, and particularly since the Committee's telephone meeting on January 4, we began placing a bit more emphasis on the borrowing objective while getting away from the closer adherence to a Federal funds rate range that characterized the period after the October stock market crash. We still remained quite sensitive to money market conditions, though, and indeed the implementation of a slightly more accommodative posture in the last couple of weeks called for some renewed emphasis on that aspect--as normally occurs when a change of conditions is being undertaken. I do judge from comments heard or seen over the period, however, that a number of market participants were beginning to conclude that the Desk was

returning to a more normal mode of operation. That market view is likely to be reinforced when they see the soon-to-be released policy record with its reference to the January 4 directive.

Money market rates have held close to the anticipated ranges, with even the feared year-end period turning out to be only modestly elevated. Two-week averages for Federal funds remained roughly in the 6-3/4 - 7/8 percent range until the current maintenance period, when, as intended, an average closer to 6-1/2 - 5/8 percent is emerging in the second week. A few days around year-end saw rates at or above 7 percent, but this was a far cry from the much sharper pressures of a year earlier. A major reason for the milder experience this time was the absence of the extraordinary tax-driven credit growth and funding needs marking the earlier year-end. To some extent, advance preparations by market participants and by the Desk also helped. We also got some slightly elevated funds rates in mid-January--in the 6-7/8 - 7 percent range-- a circumstance that incidentally helped foster the notion that our Desk was becoming a bit more relaxed about funds rate variation. The first week of the current reserve period saw a 6-3/4 percent rate even though we were by then anticipating a slightly softening picture. In this second week, though, a large accumulation of excess reserves is making itself felt and funds have been largely in a 6-1/2 - 6-5/8 area. Rates were even lower yesterday afternoon and this morning.

Borrowing was a close-to-path \$355 million in the December 30 reserve period, perhaps sending a false signal of a return to more expected relationships with funds rates. The next period, which included year-end, saw average borrowing of nearly \$1.5 billion. The heaviest borrowing (over \$3 billion) was on December 31 and carried over the holiday weekend. As noted, the money market did not appear to be particularly tight that day, but there were heavy flows of funds and apparently some gaps in communications that led to unexpected late outflows and shortages, centered on one large New York bank. Just after that weekend, a fire disrupted computer operations at another large New York bank and in the aftermath some other major banks were forced to the window. The Desk treated the bulk of these unusual borrowings, in effect, as nonborrowed reserves since to do otherwise would have meant flooding the market with reserves and providing quite misleading signals about policy.

In the next period, the latter half of January, borrowing came in below path at about \$175 million. We were consciously a bit more generous in reserve provisions in the latter part of that period to avoid the likely tightening that would have emerged in producing borrowing close to path after very light borrowing in the first week. Borrowing has also run below its now reduced path level in the current period, averaging about \$150 million thus far.

The quest for a firm and reliable relationship between borrowing and funds rates remains somewhat frustrating. It did

appear toward year-end and early in the new year that there was some return toward more "normal" willingness to use the window, even apart from the special heavy borrowings noted earlier. More recently, borrowing has run quite light again--maybe in the wake of the temporarily heavier use around year-end, or because seasonal borrowing is at a low ebb, and perhaps because our own approach to reserve needs, tending at times to adjust for already low borrowing as a reserve period winds up. In any event the post year-end experience seems too brief to draw much in the way of firm conclusions. Worth keeping in mind, though, is that our nostalgia for what we may like to think of as more reliable relationships could be a little misplaced--in that over the long-term there have been only rough and "on the average" relationships with a lot of short-run variability.

Reserve needs in the final weeks of December and the first few days of the new year were met with multiple rounds of repurchase agreements, as we sought to avoid building outright holdings further ahead of large anticipated draining needs. After early January, that absorption need became predominant although there was a temporary injection provided again in late January. On the outright side, the absorption phase entailed run-offs of \$2.2 billion of bills (including some to take effect tomorrow), redemption of about \$150 million of agency issues and sales to foreign accounts of about \$1.4 billion of bills and notes. In the last several days, as Treasury balances dropped, we also undertook sizable matched-sale purchase operations to

drain reserves temporarily. The draining operations, both outright and temporary, have been undertaken in a careful, even gingerly, manner, designed to let the intended slightly greater degree of accommodation show through. Partly because of this consideration, and partly because reserve factors did not release as many reserves as had been anticipated earlier, the outright reduction in System holdings--about \$3.8 billion on a commitment basis--did not nearly exhaust the usual leeway, let alone use the enlarged leeway we had requested for this period.

Fixed income yields fell sharply on balance, reflecting a strong rally late in the period. Yields were fairly mixed and trendless over the first several weeks, as the markets groped for direction in the wake of the stock market crash and the sense of frailty of international economic cooperation. Treasury coupon rates drifted off a bit prior to year-end despite the faltering dollar as many participants felt that monetary policy would come to the aid of the dollar only in extremis. Meantime, the domestic market was somewhat encouraged by the recovery of the dollar following heavy central bank intervention just after year-end, although there was skepticism about the durability of the dollar improvement. Yields backed up somewhat in early January following the strong December employment report and rising commodity prices. Mainly, though, there was a marking of time as participants awaited the mid-January report on the November trade deficit. Following publication of a larger-than-expected drop from the outside October deficit, a major rally developed as the

conviction spread that the dollar might be able to stand on its own feet again. Further bond market support followed from reports of weak housing starts, a bulge in inventory growth and flat final sales in the fourth quarter, higher weekly unemployment claims, and then a weaker-than-expected rise in January payroll employment. By the end of the period, yields on Treasury coupon issues were down by about a full percentage point, bringing the long bond yield down to about 8.35 percent. In part, the demand for securities in January reflected sustained foreign central bank purchases.

Markets have been unsure in recent days as to whether the Federal Reserve has adopted an easier policy--with a few more observers gradually concluding that it has--but even among the doubters, many have felt that a somewhat easier posture is just around the corner. Indeed, by some measures of rate relationships, the drop in market yields has already discounted more of a move than has been intended, especially in respect to the short-to-intermediate area. This has led some observers to feel that the market move has been overdone.

In the midst of the rally, the Treasury conducted its big quarterly auctions--\$27 billion of 3-, 10- and close to 30-year issues. In the wake of rate declines, final investors were not too enthusiastic in their takings, although Japanese dealer interest was sizable again, and right after the auctions the new issues were at discounts. However, the relatively weak payroll employment rise reported last Friday moved the quotes back above

the issue price, and they remained somewhat above water after some profit-taking on Monday. We have mixed reports on how well the issues are distributed, particularly the two longer ones.

In the Treasury bill area, rate declines on key issues were less pronounced over the period, ranging from about 15 - 20 basis points in the 3-month area to around 60 basis points for longer bills. The smaller decline for short issues probably reflects the tendency for shorter rates to be tied more closely to Fed funds and repo rates which came down only modestly, as well as the fact that yields in mid-December were already reflecting some year-end demands. The latest 3- and 6-month issues were sold at about 5.63 and 5.85 percent last Monday, down from 6 and 6.45 percent at mid-December. Meantime, yields in private sector short-term instruments such as on CDs, acceptances, and commercial paper, fell much further than bills--more like 150 basis points--as year-end pressures abated. With costs down materially, banks cut their prime rates 1/4 percent to 8 1/2 percent in early February, and a further reduction would not be all that surprising.

Monetary Policy Briefing
February 10, 1988

Donald L. Kohn

A prominent, and not entirely explicable feature of financial developments since the last FOMC meeting has been the behavior of money-- both its continued weakness in December and the sharp turnaround in January.

Taking the two months together, money growth did pick up from the previous several months, at least for M1 and M2. This acceleration probably represents the initial reaction to the decline in interest rates that began after October 19. Looking ahead, the rate declines of last fall along with subsequent decreases since the last FOMC meeting are expected to be boosting money demand over coming months, more than offsetting the effects of relatively slow increases in income. Under alternative B, which assumes rates will remain around the lower levels reached recently, monetary expansion over February and March is predicted to slow from the unusually rapid pace of January, but to remain above the pace of last fall. By March, both M2 and M3 are expected to be 6 to 6-1/2 percent at an annual rate above their fourth quarter levels. If there is a risk to the money forecast, it may even be that it is understated; the drop in interest rates and opportunity costs since last October has been substantial, and the effects might be to boost demands for money and depress velocity by even more than allowed for in the bluebook. Data available since the bluebook was put together, however, suggest little change in the picture presented there.

January seems to be coming in a bit above the growth rates presented there, while data for early February indicate that this month may be getting off to a slightly weaker start than expected.

With respect to the policy choices facing the Committee, as a number of members have already remarked, the decisions made today will probably have their principal impact on the economy in the second half of the year. Thus the question might be whether the financial conditions are now in place to get something like the predicted strengthening of the economy over that period. In the staff forecast, they would be. The recent declines in rates have brought them to about the levels assumed in that forecast for the first half of the year. In markets, this decline reflected in part an expectation that a modest easing of reserve conditions relative to earlier this year had already occurred or was about to happen. Despite the very pronounced movement in long-term rates, however, the yield curve retains a noticeable upward slope, which suggests that markets do not see a prolonged period of economic weakness and declining rates. The evidence on real interest rates is somewhat mixed. Falling nominal rates coincided with some pick up in surveyed inflation expectations, but the behavior of commodity prices and the dollar would seem to argue against interpretation of decreasing real rates.

A further substantial easing of policy as under alternative A might be viewed as providing somewhat more assurance on the second half performance. The risk would be that there is sufficient strength already in the economy to produce very rapid second half growth, and the additional ease at

this time would require a sharper turnaround at a later date if inflation pressures were to be kept under restraint.

With regard to questions of policy implementation, the draft directive has a modified version of the existing statement on the approach to open market operations. That statement would signify approval of the current approach, which has given substantially less weight to daily federal funds rates than the last months of 1987, but which also has involved fairly frequent informal adjustments to the borrowing objective, given the uncertain state of the borrowing function. The sentence recognizes this situation by acknowledging that conditions have not yet returned to normal, and that flexibility in policy implementation may continue to be needed.