APPENDIX

Notes for FOMC Meeting
February 6-7, 1990
Sam Y. Cross

Since your last meeting, the dollar has on balance eased, but only moderately. The market's attention has been dominated by developments abroad, and trading has continued to focus to a large extent on currencies other than the dollar. The trends we described at your last meeting remain more or less intact, with the German mark edging still higher against the dollar, although at a slower pace, and the Japanese yen still trading on the weak side.

In these circumstances, the Desk intervened on only three occasions in early and mid-January, selling a total of $600 million against yen. We intervened far more modestly than the Bank of Japan, which during early January sold almost to support its currency. In the past couple of weeks or so, there has been no dollar intervention either by ourselves, the Japanese, or the Germans. The dollar is now trading marginally higher against the yen from its levels of six weeks ago, but is about 4 to 5 percent lower against the mark and is at the lowest point against the mark that we have seen for almost two years.

More important than the movement in dollar rates are the shifts in market sentiment that seem to be taking place below the surface--some providing support for the dollar but others casting a negative shadow on the currency. In recent weeks, the market seems to have focused increasingly on these more negative concerns and, in the process, has expressed some nervousness abut the ability of the United States to continue a smooth financing of its payments deficits, at least at current exchange rates.

Turning first to those developments supporting dollar exchange rates, there were two: First, a less pessimistic view toward growth prospects for the U.S. economy; and second, continuing bouts of uncertainty about political developments in Eastern Europe and Japan.

With respect to the economy, a combination of new economic data, rises in oil prices, and official statements have gradually shifted sentiment, and today we are told that few foreign exchange market participants expect to see further declines in dollar interest rates very soon.

With respect to political developments abroad, the dollar has risen at times when jitters have temporarily spread through the market. These have reflected concerns that upcoming Parliamentary elections in Japan might trigger a period of instability in financial markets and, at other times, fears that events in Eastern Europe might take a turn for the worse. We saw the effect of these jitters last week when the dollar temporarily rose sharply on a news report, subsequently denied, that Gorbachev might resign as Communist Party chief.

The other developments--those that seem to have eroded positive sentiment toward the dollar--may be less fleeting. Let me mention three:

First, uncertainty about the Group of Seven's policy toward dollar exchange rates appears to have increased during the period. Market participants are a bit unsure how earlier Group of Seven commitments might apply to the current environment, with the dollar wedged between a strong mark on the one hand and a weak yen on the

other. They wonder whether the central banks might simultaneously support the dollar against the strong mark while resisting its rise against the weak yen. Another question is what would happen if the yen, which is sometimes prone to sharp and unpredictable moves, were to stage a strong comeback, say after the February elections. The situation was further complicated in early January, when the Bundesbank surprised the market by selling dollars at levels well below where the market would have expected such sales by a Group of Seven central bank, an episode which led some to conclude that the Group of Seven might have changed its views, and this heightened the dollar's downside risk.

A second concern is that some market participants have concluded that the Bank of Japan will, in future, be more willing to tighten monetary policy to resist periods of yen weakness. Following the Bank of Japan's surprise Christmas Day discount rate increase, and the subsequent rise in market interest rates throughout the yield curve, many analysts perceive a subtle policy shift in Japan and now believe that a series of additional tightening moves may be in store in the coming months.

These two factors, along with ongoing events in Europe, have fed into the third--nervousness over a possible lessening in the strength of foreign demand for U.S. securities. With long-term rates in the United States, Germany, and Japan having tended to converge over the past year and with market participants less certain where Group of Seven support for a declining dollar might exist, some are beginning to question whether the flow of funds into U.S. asset markets will remain steady and dependable.

One difficulty in assessing the impact of capital flows on exchange rates these days is that there appear to be so many cross currents. For example, long-term equity investment appears to be attracted very heavily to Germany, in the expectation that Germany's economy, already strong, will benefit from developments in East Europe, and that Germany's stock market will continue to outperform others. At the same time, however, there also appear to be flows of short-term capital moving in the opposite direction as some non-Japanese players, puzzled by the continued weakness of the yen, speculate that there will be a near-term correction in that currency.

In the United States, the picture is equally mixed. On the one hand, the U.S. equities market seems to have lost some of its comparative attractiveness. But, on the other hand, our bond market is perceived as carrying less risk than the others in that U.S. interest rates are either not expected to rise, or if they do at least not to rise by as much as those abroad, and this may be a plus supporting capital flows into the dollar.

In sum, the interrelationships in capital flows seem tenuous and uncertain, and shifts in sentiment toward particular investments and particular currencies could occur very abruptly.

Mr. Chairman, I would like to ask the Committee's approval for the foreign exchange operations that occurred during the inter-meeting period. The Federal Reserve share of the Desk's operations represents $300 million sold against Japanese yen. Our overall limit remains at $21 billion. With our latest operations plus our continued interest earnings, we now have just over $700 million in headroom, and I do not propose any change at this time.

FOMC NOTES
PETER D. STERNLIGHT
WASHINGTON, D.C.
FEBRUARY 6-7, 1990

Following the last meeting of the Committee, on December 19, the Domestic Desk began aiming for slightly reduced pressures on reserve positions, characterized by a 1/4 percent reduction in the Federal funds rate to about 8 1/4 percent. By arranging overnight repurchase agreements the day after that meeting, the market got the message of a slight easing quickly and unambiguously. While funds rates quickly moved to 8 1/4 percent, moderate year-end pressures came into play early in the period, causing some higher rates for a time. Later in the interval, funds often tended to sag a bit below the expected level as seasonal reserve surpluses emerged. Market participants kept the faith, however, that 8 1/4 was the intended level throughout. For the period, funds averaged 8.26 percent, compared with 8.51 percent in the previous intermeeting interval.

The path level for borrowing was $125 million throughout the interval, but actual borrowing varied considerably above this amount. In the reserve periods ending December 27 and January 10, borrowing averaged a little over $300 million, reflecting elevated use of the window in the weeks that included Christmas and New Year's. Once past the holidays, another distorting factor emerged

later in January as the Bank of New England turned to the window for sizable accommodation, leaving borrowing in the January 24 period at just a little under $300 million of borrowing and boosting the current period thus far to around $700 million. This bank's borrowing, while still classified formally as adjustment credit, was regarded more like extended credit and hence like nonborrowed reserves for reserve management purposes. Abstracting from this bank's borrowing, seasonal and adjustment credit has averaged about $135 million since January 10, fairly close to path.

The Desk added reserves for the first half of the period, running about a week past year-end, to meet seasonal needs for currency and higher required reserves. Then from about January 10 on into early February the Desk absorbed reserves, offsetting seasonal return reflows of currency and lower reserve requirements. Higher Treasury balances after the mid-January tax date temporarily moderated the need to drain reserves. Early in the interval, the System bought nearly $1.1 billion of bills from foreign accounts, and on most days arranged System or customer related repurchase agreements in the market. We exercised particular caution in promulgating repos on a couple of occasions in order to avoid stimulating false signals of further policy moves beyond the modest step undertaken right after the last meeting.

Subsequently, the System reduced outright bill holdings through a series of run-offs in weekly auctions, totaling

$1.4 billion, sales to foreign accounts of $1.9 billion, and a market sale of $3.0 billion. Netting out the earlier purchases of $1.1 billion, the net decline in outright holdings for the full period was $5.2 billion. Further reserve absorption was accomplished on a temporary basis through several rounds of matched-sale purchase transactions in the market--as well as the daily execution of MSPs with the foreign official account pool.

A particular concern when draining reserves in recent days has been to make sure that System outright holdings of Treasury and agency securities do not fall below minimum requirements needed to collateralize outstanding Federal Reserve note currency. We expect to hit a low point in the margin of excess collateral within the next few days, and at this point do not anticipate a serious problem on this score--but it keeps us on our toes! The proximate reason for a low point just now is the seasonal dip in required reserves, and a temporary increase in vault cash available to meet requirements, but a longer term reason that puts us closer to a minimum now is the large rise in foreign currency holdings over the past year. This supplied reserves that otherwise would have been provided through pledgeable U.S. government securities. I should add that we're getting some help in seeing us through the current low spot by having the Treasury run a little higher working balance at the Fed.

Despite the System's small easing move just after the last meeting, which brought Fed funds down by the intended 1/4 percentage

point, most market interest rates rose over the intermeeting interval. The exceptions were day-to-day financing costs, some short-term private instrument rates such as commercial paper and CDs, and bank prime rates which came down 1/2 percentage point to 10 percent in a move that some analysts thought was overdue. The decline in rates for private money market instruments partly reflected the passage of year-end, as well as sizable demands for such paper from money funds. In contrast, bill rates were up by 20 to 45 basis points and Treasury coupon yields climbed a startling 65-75 basis points.

A combination of factors produced the rise in rates. Views on the economy and inflation prospects did not really change much, but even subtle changes were enough to re-mold market opinion. The economy was generally seen as growing sluggishly, though perhaps not decelerating to the degree that some had anticipated. It was expected that near-term news on inflation would be bad because of higher fuel costs and crop damage related to December's bitter cold, and while these were recognized as likely to be temporary factors, it was still anticipated that there would at least be longer delays before monetary policy was eased further. Meantime, there was less patience with high costs of carrying inventory, relative to the yields on that inventory. Weak bidding for the $5 billion of 40-year Refcorp bonds further unsettled the markets. A much-cited factor throughout the period was the abatement of foreign demand for U.S. securities and occasional selling from abroad as rates rose in

key foreign markets. Particular concern arose about the prospects for foreign participation in the Treasury's current quarterly financing, especially as the Japanese have been significant participants in these auctions in the recent past. Some of these concerns have abated now and more considered opinions are that, at current higher yield levels, there will be appreciable foreign participation--though perhaps to a lesser degree than earlier. We just had the 3-year auction and it looks like there was quite decent Japanese interest in that issue. To be sure, more question attaches to the 10- and 30- year issues. Right now, market talk for Thursday's 30-year Treasury bond auction is a little over 8 1/2 percent--which would be the highest auction yield for this maturity since last May (when it averaged over 9 percent) and well above the 7.87 percent yield on 30-year bonds three months ago.

In the bill area, rate increases were more modest--but perhaps just as surprising given the lower Fed funds rate. Bills were auctioned yesterday at average rates of 7.83 and 7.72 percent for the 3- and 6-month issues, compared with 7.62 and 7.43 percent, respectively, just before the December Committee meeting. Adding to pressure on bill rates was a lessened willingness to hold bills at negative cost of carry--so that even though day-to-day costs did move a little lower with the funds rate those costs seemed more burdensome given what had already been built into the bill yield structure. In addition, the private sector had to absorb more bills as the Fed and foreign official accounts let up on purchases or actually lightened holdings.

The higher bill rates occurred despite some sporadic moves to bills out of flight-to-quality concerns--coming both from the stock market and the high yield bond market. In the "junk" bond market there was particular concern about several developments: the unexpected large loss reported by the Bank of New England; the bankruptcy filing by Campeau's Federated and Allied department store units--which while expected nevertheless called added attention to weak cash flow situations among some other lower rated firms; and the unexpected downgrading by one rating service of RJR-Nabisco paper which had been regarded as relatively "high class junk", almost ready for elevation to investment grade.

As I read the current state of market sentiment, the underlying background is still one of a sluggish economic expansion. Most participants do not see recession but it remains an appreciable possibility. Inflation pressures are seen as fairly well contained once we get past some temporary weather-related effects in the next month or two, but there is only limited optimism about seeing significantly lower price trends for the next year or so. Some see the Fed as quite content with a sluggish growth outlook in the effort to work inflation lower; others, perhaps a majority, believe there could be a further modest easing move or two, but with timing and extent quite uncertain.

Comments on Permanent Leeway Authority

As indicated in my note to the Committee, I recommend an increase from standard $6 billion intermeeting leeway authorization to a standard $8 billion allowance. The $6 billion standard of the past five years has not been unduly burdensome. The Committee has responded promptly to the two or three requests per year for temporary increases. My sense is that these needs for temporary enlargement may begin to come up more frequently as we have seen more instances in the past year when we came fairly close to making a request. One way to view the appropriate threshold is to consider how often the Committee would want unusually large changes in the portfolio brought to its attention. By setting an even higher standard leeway, say $10 billion, the present prospect would be that requests for enlargement might be quite a rarity. In suggesting $8 billion, I expect that might be consistent with a need for temporary enlargement perhaps once or twice a year.

MICHAEL J. PRELL
FEBRUARY 6, 1990

FOMC CHART SHOW PRESENTATION -- DOMESTIC ECONOMIC OUTLOOK

As usual, the opening exhibit is a list of the assumptions that conditioned our forecast. The first of these is that monetary policy will be aimed at reducing inflation over time, preferably without bringing a halt to the ongoing economic expansion. The second assumption is that fiscal policy will remain moderately restrictive.

We have built into our forecast a $30 billion deficit-reduction package for fiscal 1991; although this is smaller than the Administration's $39 billion proposal, it probably is in the same ball park in macroeconomic terms. For example, half the difference results from our not including the capital gains initiative; enactment of that measure would have ambiguous effects on aggregate demand in the near term, for it is designed to hike tax revenues in 1991 at the same time that it raises expected after-tax wealth and lowers the cost of capital. In addition, our package contains none of the timing shifts or asset sales present in the official proposal. We also have assumed that the budget won't be framed in the context of a dramatic multi-year agreement, which likely means it will produce no sea-change in bond market expectations.

Indeed, our forecast does not anticipate any substantial movements in interest rates. We've indicated, however, that we think rates are likely to average somewhat higher, rather than lower, in 1991 than in 1990. With that interest rate scenario, M2 velocity falls a bit this year, in lagged response to the rate declines of the past several

months, and rises a touch in 1991. M2 is projected to grow about 6-1/2 percent this year and 6 percent next year.

In the projected economic environment, the federal deficit falls from $152 billion in FY89 to $137 billion this year and $118 billion in 1991. Obviously, we have implicitly assumed that either the $64 billion Gramm-Rudman target for 1991 will be amended or that a combination of "rosy scenarios" and economically meaningless "smoke and mirrors" devices will be employed to satisfy the constraint.

And, finally, we have projected that the dollar will depreciate moderately further. Built into the forecast is a 5 percent annual rate of decline in the trade-weighted exchange value of the dollar against other G-10 currencies, taking off from last month's level.

The staff economic forecast is summarized in chart 2. By design, we have a projection in which growth in real GNP remains slower than potential through 1991, producing a rise in the unemployment rate to a bit over 6 percent. I might note, parenthetically, that the stability of the unemployment rate over the past year, in the face of 2 percent growth of drought-adjusted GNP, does raise some questions about whether we've been too optimistic about potential GNP increases. If so, it might take considerably slower growth over the next two years to produce the rise in joblessness we've projected. Be that as it may, because the additional slack emerges only gradually in the forecast, and owing to the effects of federally mandated cost increases as well as the pressures on the price level coming from the dollar's depreciation, the rate of inflation does not change materially from that observed in the past few years.

The next chart summarizes your projections. As with the staff forecast, your numbers have not changed radically from those of last July. The most notable change is a slight lowering of the central tendency of inflation forecasts, from the 4-1/2 to 5 percent range to 4 to 4-1/2 percent. I perhaps should also say that the majority of the Committee is in the upper part of the 1-1/2 to 2 percent range that we've written down for real GNP, placing you a shade higher than the staff forecast.

Friday's labor market data, addressed in chart 4, may provide some support for a stronger forecast. The upper left panel portrays recent trends in employment growth. I've used 3-month averages to filter some of the noise, but even on this basis the surprising spurt last month in private job growth outside manufacturing shows through clearly. Because we, like others, are inclined to discount the January jumps in construction and retail jobs, our reading of the data is that nonmanufacturing employment is still on a trend of moderate deceleration. In manufacturing, the temporary layoffs at auto plants last month exaggerate the picture, but employment has been falling gradually since mid-1989, as factory productivity growth evidently has been generally maintained in the face of slowing output.

The graph of production worker hours at the right conveys a similar impression of the disparity between manufacturing and other sectors. Even discounting somewhat the rise in total hours last month, until we get additional information, we'd have to say that the data do suggest some upside risk to the first-quarter GNP forecast. On the other hand, the manufacturing component of the hours figures provided no

surprise. Between the effects of the auto cutbacks and lower electricity generation associated with warmer weather, we were, and still are, looking for a decline of more than a percentage point in industrial production in January. Given the scheduled rebound in auto assemblies and the orders trends indicated in the middle panel, we think it likely that the January decline in IP will be recouped over the next couple of months.

All told, then, we don't see much sign that the negative elements in the economy are gathering recessionary force, and, at the turn of the year, the now-famous recession probability measures were quite low.

One reason that more pronounced weakness in activity hasn't emerged is that household income growth has been well maintained, and consumer spending has held up. As you can see in the upper right table in chart 5, real spending did not grow as much last year as disposable income, but this was in good part a reflection of the quarter-to-quarter gyrations in auto sales, which pushed total outlays for goods sharply lower in the last months of 1989. Because we think employment growth will be constrained in the period ahead, we foresee a distinct slowing in income gains, which should hold down growth in consumer expenditures, especially for goods.

We do not anticipate any major shift in consumers' willingness to spend what they've got. Surveys for January provided mixed signs on the direction of change in consumer sentiment; there does seem to have been some erosion in confidence about the future strength of the economy. But it is interesting to note that, notwithstanding talk about

declining home prices and consumer debt problems, consumers' assessments of the changes in their financial situation--charted in the middle left panel--maintained the favorable balance observed throughout this expansion.

The middle right panel highlights the fact that one part of our forecast of sluggish consumer spending growth is an expectation that demand for motor vehicles is likely to be relatively subdued, partly because households have stocked up considerably in recent years. This is especially bad news for the Big Three automakers; as the chart indicates, given the competition from transplants and imports, the Big Three have borne the brunt of the overall decline in sales since 1986 and they are saddled with a good deal of excess capacity that will have to be shed over the next few years.

The gearing down in the auto industry is one of the constraints we see on employment and income growth in the months and quarters ahead. Another expected drag on job and income creation is likely to be the construction business. The lower panels of this chart indicate our forecast for housing starts. Basically, we don't expect to see any major changes in the pace of activity, in an environment of high after-tax real mortgage rates, at least temporarily constrained availability of construction credit, some overhang of vacant units, and--at the cost of some circularity in the story--weak income growth.

We have also forecast a rather flat picture for business fixed investment, shown in the next chart. The normal accelerator effects of slower final demand growth on investment are reinforced by the adverse

movements in profits and cash flow, and thus we have only modest increases in total BFI in 1990 and 1991.

Such gains as there are seem likely to occur in the equipment category. Recent orders data, displayed in the middle left panel, have been more favorable, and we also should see some pickup in business purchases of motor vehicles in the first part of this year. Many companies will feel the competitive necessity to update their facilities, and especially after the trade picture begins to improve again, industrial firms may move more aggressively to acquire new equipment.

Industrial construction projects started in the past couple of years may provide some support to overall nonresidential building activity in the period ahead, but the overhang of commercial space and the less hospitable financial environment suggest that the downtrend in new contracts shown at the right is likely to be extended. We're expecting a very weak office and other commercial sector to drag down total spending on nonresidential structures through 1991.

In the short run, however, the category of business spending that leaves the greatest mark on the GNP forecast is inventory investment. The downtrend in the manufacturing stock-to-shipments ratio stalled out last year, and, in an environment where supplies are more readily available there probably is a desire to trim that ratio further. The rise in the retail stock-to-sales ratio, even after autos are excluded, suggests perhaps a clearer need for some adjustment. As you can see at the right, we have forecast a marked swing in inventory investment in the first part of 1990. If we've got that right, then the

inventory correction we believe is underway may be over by midyear, removing a significant impediment to more rapid GNP growth.

One impediment that will remain, however, is the contraction of defense spending. As may be seen at the top of chart 7, we are projecting small but significant declines in real defense purchases this year and next. These are great enough to pull down total federal purchases, listed at the right.

The middle panel puts our defense forecast in perspective by comparing the path of nominal military expenditures that we have projected with that proposed by the President and the Administration baseline. We are expecting the budget that ultimately is passed to entail lower spending authorizations than are contemplated by the President's budget, continuing the pattern of recent years. The proposed spending cuts have been widely characterized as being on the small side, especially in the strategic weapons category, where some expensive programs are likely to attract Congressional pruning shears.

In the state and local sector, budgetary problems also suggest some constraint on spending. Given pressing needs, real purchases have maintained a moderate growth path over the past two years in the face of mounting operating deficits. We have forecast a combination of some deceleration in spending growth and tax increases that would diminish that budget gap over the next two years.

Shifting gears, now, the top panel of chart 8 lays out in the baldest terms the basic logic of our forecast for inflation. As I noted earlier, we do not expect that there will be much change in the pace of price increase over the next two years. This is because we believe that

the level of resource utilization in the economy is an important determinant of wage and price behavior, and the experience of the past couple of years suggests that some greater slack will be necessary if a disinflationary trend is to be restored. Now, you may note in the chart that we have not seen any significant acceleration in the past year or so in the CPI ex food and energy, even though, by our reckoning, the unemployment rate has edged below the natural rate; we believe that at least a partial explanation for that fact is to be found in the strength of the dollar through the first half of 1989. We have since experienced a reversal of the dollar's appreciation, import prices have begun to firm, and we are anticipating some extension of that trend. Thus it is that we don't foresee an immediate deceleration of prices as some slack emerges later this year and in 1991.

The bottom panels focus on a couple of other factors that will be shaping overall price trends in the period ahead. With respect to food, we think there will be a major spike in the first quarter, much of which will be reversed in the second quarter or so. Beyond that period, assuming normal harvests and better dairy output, we are projecting that food price increases will run between 3-1/2 and 4 percent per annum, considerably below the pace of the past two years.

Energy is a somewhat similar story: a first-quarter bulge, followed by a second-quarter reversal. However, in light of recent oil market developments, which Ted will discuss later, the underlying trend of energy prices in this forecast is a little less favorable than in the last.

Trends in prices and price expectations clearly are an important factor shaping wage behavior, which in turn is important in shaping price trends. The latest data on household price expectations, shown in the top panel of chart 9, do not bode well in this regard. The Michigan survey indicated a jump in 12-month inflation expectations from 4.6 percent to 5.4 percent. The Conference Board survey showed a similar movement last month, and it is quite likely that the sudden jump was the result of the surge in food and fuel prices. Even if fully reversed next month, however, it is clear, I think, that there is no expectation out there that inflation will be cut below the 4 to 5 percent range anytime soon.

Under these circumstances, reducing the growth of wages and total compensation is not likely to be an easy matter. We would interpret the solid parts of the lines in the middle panel to suggest that, at best, the trends in wage inflation have not been deteriorating in the past year or so. The bottom panels provide a little more detail on the recent behavior. In the goods-producing sector, I think that, especially in the unionized industries, there has been a tendency to reverse some of the so-called concessions of earlier years, but despite hefty increases in benefits costs, overall compensation increases have remained comparatively moderate. In services, cost increases have continued to be relatively sizable, but have shown signs of peaking.

Looking ahead, in the middle panel again, the increases in payroll taxes and the minimum wage are, of course, a significant problem. Thus, with the unemployment rate drifting up rather gradually in the forecast, it is not until the second half of 1991 that any

diminution in wage inflation becomes clearly visible. The 12-month changes mask that deceleration somewhat: essentially, we are projecting that, by the end of next year, ECI compensation will be rising at around a 4-1/4 percent pace, as compared with the 4-3/4 percent rate of 1989.

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PRESENTATION TO THE FEDERAL OPEN MARKET COMMITTEE
Thomas D. Simpson
February 6, 1990

The forecast of slow output growth and little change in interest rates has implications for the financial condition of the business and household sectors. As shown in the top panel of chart 10, profit margins shrank over 1989, reflecting a slowdown in final sales and pressures on unit labor costs. We are anticipating that they will be squeezed further in the quarters ahead by sluggish growth in output and continued cost pressures, before bottoming out at historically low levels around mid-year 1991.

Restrained economic growth implies weak household earnings, too. As shown in the second panel, real disposable personal income is expected to grow at only a 1-1/4 percent average rate over 1990 and 1991, a pace that is historically very low for an expansion.

Adding to financial difficulties of many businesses and households over the forecast period are the heavy debt loads they have amassed. As the bottom panel illustrates, both business and household debt levels rose much more rapidly than output and earnings over much of the 1980s and are expected to drift higher in our forecast.

In the business sector, surging debt levels have resulted in interest payments claiming a rising share of cash flow, as shown in the upper panel of your next chart. Around year-end 1988, this measure of the debt burden had equaled the previous high reached in 1982 when the economy was in recession and interest rates were at very high levels. This rise has not been pervasive in the corporate sector but

concentrated in a minority of firms that have become highly leveraged by retiring equity. Micro firm data available through 1988 show that, for most firms, interest payments out of cash flow and leveraging ratios did not rise much if at all between 1982 and 1988.

Other evidence points to some strains in the corporate sector largely associated with the bonds of firms that have been engaged in restructuring. The center left panel illustrates that downgrades of corporate bonds climbed steadily last year, with most of them for firms that have leveraged heavily in recent years, and default rates on junk bonds rose to a recent high last year, as shown in the right panel.

Evidence of an erosion of credit quality is less apparent in some other important areas of business credit. Delinquency rates on commercial and industrial loans at commercial banks, the bottom left panel, were stable through much of last year after declining over 1987 and 1988, although press accounts suggest that the picture may have changed more recently. Delinquencies on commercial mortgages at life insurance companies, the lower right panel, have been fairly stable over recent years--albeit at a historically high level; however, the more serious delinquencies--those in the process of foreclosure--continued to rise last year.

A number of observers have expressed concern about the consequences for corporate defaults and financial disruptions that would occur in the event the economy turned down, given the greater extent of leveraging today. The top panel of the next chart sheds some light on this issue. It presents the results of a staff simulation that produces

the number of firms that could not meet interest payments out of cash flow, given the structure of firm balance sheets in 1988, if the economy were to experience an economic contraction of the type experienced in 1973-74 or 1981-82.

The left panel presents the percent of firms that would be unable to make interest payments out of current earnings in a 1973-74-type recession. The black bars show the percent of the sample that was unable to do so in 1972 and then two years later. The red bars show the simulated percent based on 1988 financial structure. The right panel is comparable but for a sharper 1981-82-type contraction in output and profits.

In the case of a 1973-74-type contraction, the left panel, the number of firms unable to cover interest outlays would be 11 percent in the 1988 base year and rise to 15 percent two years later, double the actual number in 1974. Under a 1981-82-type contraction, more than a quarter of all firms would be unable to meet interest payments out of cash flow in the second year of the recession, up considerably from the base year and from the actual number in 1982. I should note that these figures on the number of firms facing difficulty overstate the amount of corporate assets that would be involved because a disproportionate share of firms facing trouble would be small.

These simulation results confirm that the potential for widespread strains in the corporate sector, should there be a protracted downturn in activity, is much greater today than in the past. Whether defaults would rise to the extent implied by these results would depend

on, among other things, the assets held by these firms and the strength of relevant asset markets.

Recent events have tended to focus creditors' attention on the risks of default. Over the past several months, the junk bond market has been jolted by some well-publicized difficulties of highly leveraged firms, most recently the Moody's downgrade of RJR bonds. As shown in the left center panel, the average spread on junk bonds over 30-year Treasury bonds rose sharply over the latter part of 1989. Moreover, tiering in this market has become more pronounced as investors in junk bonds have become highly selective.

At commercial banks, there does not appear to have been in 1989 a significant generalized tightening of credit to businesses. Spreads of rates on fixed and floating rate business loans over base rates, the right panel, showed little evidence of widening.

However, a more recent survey of business loan officers at large commercial banks, summarized in the lower panel, indicates that bankers have become noticeably more cautious in some areas of business lending. A large share of the respondents indicated that they had tightened terms over the past six months on loans for corporate restructuring purposes and on loans to below investment-grade customers while leaving essentially unchanged the terms on loans to investment-grade borrowers. Tighter terms included shortening of credit lines, some more restrictive loan covenants, and some widening of rate spreads. In the area of ADC lending, a large proportion of the bank respondents mentioned less willingness to lend, although a number also mentioned

that they had taken on some former thrift customers--at least the better-quality ones. Thus, at this point it would appear that, while a generalized business credit squeeze has not emerged at banks, banks appear to have become more selective and cautious lenders.

In the household sector, debt service payments are estimated to have risen to about 20 percent of disposable income last year, as shown at the top of the next page, and are projected to hold around this level over the forecast period. Delinquency rates, shown in the center panels, indicate some difficulties in meeting credit obligations. Delinquencies on consumer loans at banks and auto loans at finance companies, on the left, were both up appreciably last year. For technical reasons, the bank series may overstate the degree of deterioration in the third quarter of last year, but these series are quite high by historical standards. Mortgage delinquencies of 60 days or longer, the right panel, edged up in the third quarter of last year but remained noticeably below recent highs of the mid-1980s.

In reflection of recent and prospective difficulties, lenders have been tightening terms on consumer and residential mortgage loans, as suggested by rate spreads and loan-to-value ratios on automobile loans and ARMs in the lower panel. Similarly, surveys of bank lenders suggest that their enthusiasm to make consumer loans diminished last year. It should be noted that ARM customers frequently are less qualified borrowers, and the recent tightening of terms may have displaced some borrowers from the housing market. More generally, the extent of tightening of credit to the household sector appears to have

been fairly limited to date but could become more of a factor if debt servicing strains were to result in delinquencies moving higher.

In our forecast, we anticipate some further erosion of credit quality in the near term and are assuming that lenders and other investors will maintain a cautious and selective posture. Tighter credit conditions will continue to be most evident in the more vulnerable areas--highly leveraged corporate borrowers and overbuilt real estate markets--and less of a factor in other areas. However, there is a risk in the forecast that credit quality problems will be greater than are now foreseen or that lenders will otherwise become more restrictive. As the economy strengthens next year and the outlook for earnings improves, strains could begin to ease.

Reflecting both a pronounced slowing in corporate borrowing to finance restructuring and soft household demands for consumer durables and housing, growth in private debt, shown in the upper panel of your next chart, is projected to continue to moderate this year and next to a historically slow pace. Declining federal deficits similarly will hold in federal debt growth to the slowest pace since the mid-1970s, absent the financing of RTC's working capital needs indirectly through the Treasury.

Together, these paths for private and federal debt growth lead to further deceleration in total debt of nonfinancial sectors, shown in the bottom panel, moving into close alignment with growth in nominal GNP next year. Debt growth of 7 percent projected for this year and 6-1/2 percent next year would be the slowest since 1970.

E.M. Truman
February 6, 1990

Chart Show Presentation -- International Developments

The first international chart, in the upper left panel, illustrates the 10 percent depreciation of the dollar on average against the other G-10 currencies since the middle of 1989. The data in the box at the right show that the dollar has fallen 15 percent against the DM over the past seven months; part of that decline has been related to the rapid changes in Eastern Europe and the widespread perception that Germany will receive a disproportionate economic benefit from those changes. The dollar declined less against sterling in recent months and has been essentially unchanged, on balance, against the yen, Canadian dollar, and the currencies of South Korea and Taiwan.

As Mike noted in his introduction, we are projecting a moderate depreciation of the dollar over the forecast period. The main factors underlying this projection are the lack of progress in external adjustment through much of the period and the associated growing stock of net claims on the United States. However, the rate of depreciation built into our forecast -- 5 percent at an annual rate from the January level -- is a crawl compared with the pace since the dollar's peak last June.

The dollar's recent decline has been associated with a growing gap between U.S. real long-term interest rates and rates in the other G-10 countries -- the bottom-left panel. That gap was positive for most of 1988 and the first half of 1989, while

the dollar was rising, but it turned negative thereafter and now is as wide as it was in late 1986 and early 1987 when the dollar was under considerable downward pressure. As is shown in the box at the right, while U.S. nominal long-term interest rates have been essentially unchanged on balance since June, long rates in Germany and Japan have risen by 100 to 150 basis points under the influence of continued rapid growth, mounting inflation worries, and increased monetary restraint.

The top panels in the next chart summarize recent developments in the six major foreign industrial countries, divided into two groups.

In one group -- Japan, Germany and France -- industrial production (left panel) rose at a somewhat slower pace in 1989 than in 1988 as monetary policies were tightened; at the same time inflation (right panel) picked up somewhat under the influence of strong growth and increased pressures on capacity, higher oil prices, increases in consumption taxes in Japan and Germany, and weaker currencies. In the other group of countries -- the United Kingdom, Canada and Italy, shown by the red lines in the charts -- the broad contours are similar; growth of production has slowed and inflation has leveled off after rising earlier. In the United Kingdom and Canada, relatively early monetary restraint contributed to sharper deceleration of growth in 1989 and the recent leveling of inflation.

The middle panel provides a longer-term perspective on commodity prices -- excluding crude oil. In dollar terms, prices have declined from their highs in early 1989 but have backed up

somewhat in recent weeks. In foreign-currency terms, the overall decline in commodity prices since early 1989 has been somewhat steeper, reflecting the depreciation of the dollar on balance over the period.

Against this background, the bottom panel presents our assessment of the stance of economic policies abroad. First, although inflation has been flat recently, in most countries policy makers remain concerned about capacity pressures. Moreover, in several countries, upcoming wage negotiations may have a crucial influence on the inflation outlook and on the stance of policies. Second, we are assuming that monetary policies will remain tight over the first half of the year with little change in interest rates except, possibly, a slight further increase in short-term rates in Germany; we expect a gradual decline in interest rates over the second half of the year and into 1991, as inflation eases abroad and the dollar declines. Third, fiscal policy is expected generally to be neutral; however, in Germany, tax reduction along with increased spending related to the influx of immigrants from Eastern Europe should provide some fiscal stimulus, adding somewhat to pressures on interest rates.

Chart 17 summarizes our outlook for economic activity and inflation abroad. The top panels show that we are projecting a slowing this year in the expansion of real GNP in the major foreign industrial countries; the slowing in the average stems from very low growth projected for the United Kingdom and Canada. However, on average, growth should remain faster than in the

United States and is projected to pick up next year. The data in the box at the right indicate that domestic demand in these countries is expected to outpace growth of real GNP.

As for economic activity in all foreign countries as a group, shown in the middle panel, the slowdown in growth last year was, in part, the consequence of slower growth among the developing countries, especially in Asia. We are expecting a modest pickup this year in growth in the developing countries, which should temper the projected slowdown in the foreign industrial countries.

The bottom panel presents our outlook for consumer prices in the major foreign industrial countries. After rising on average almost as much as in the United States in 1989, consumer prices abroad are projected to increase less this year, especially in Canada and the United Kingdom. The data in the box at the right show that, over the next two years, inflation in the major industrial countries is projected to average about a percentage point less than in the United States, partly because of the projected appreciation of these countries' currencies against the dollar.

Turning to the U.S. trade outlook, the top panel of the next chart summarizes recent and prospective developments in agricultural exports. Last year saw falling prices and a sharp recovery of agricultural shipments, following the effects of the drought in 1988. We are looking for only a modest increase in the value, price and volume of agricultural exports this year and next.

Exports of computers -- the middle panels -- slowed considerably in 1989. We are projecting a modest pickup in such exports over the forecast period, but do not now expect anything like the rapid pace of expansion seen earlier in the 1980s. Meanwhile, quality-adjusted prices are expected to continue to decline, holding down the increase in the value of such exports.

Other nonagricultural exports, shown in the lower panel, were affected in the fourth quarter of last year by the Boeing strike. However, the quantity of these nonagricultural exports continued to rise at a double-digit pace for the year as a whole.

The quantity of exports this year will be boosted by Boeing shipments in the first quarter and, later in the year, by the dollar's depreciation. Prices of these exports are projected to rise somewhat less than the overall domestic price level.

Chart 19 considers non-oil imports. As is shown in the box at the left of the top panel, prices of all categories of imports fell last year, or rose more slowly, than in 1988, primarily due to the influence of the strong dollar. As can be seen from the data in the box at the right, while the increase in the total quantity of non-oil imports was greater in 1989 than in 1988, generally reflecting the influence of lower prices, the year-to-year changes in individual categories were mixed.

As shown in the middle panels, we are projecting continued increases in imports of computers, though at slightly smaller rates than for exports of computers.

With respect to other non-oil imports -- the bottom panels -- partial data suggest imports of consumer goods and

industrial supplies rose in the fourth quarter of last year and that some of the increase went into inventories; we expect that excess will be worked off in the first quarter. Fundamentally, rising prices for non-oil, non-computer imports, as a consequence of the recent and projected depreciation of the dollar, should produce a slowing in the growth of these imports in real terms. This year, slower growth of domestic economic activity helps, along with improved U.S. price competitiveness, to hold down the expansion in imports, while next year the cumulative improvement in price competitiveness tends to offset the effect of faster U.S. growth.

A familiar wildcard in our outlook involves imports of petroleum and products. The top panel in the next chart provides a longer-term perspective on U.S. import prices in relation to the spot price for West Texas Intermediate. We expect that the recent run-up in spot prices will produce a spike in the import price in the first quarter at about $19.70 per barrel. Once these temporary factors are out of the way, the price should drop back to $18 per barrel by the end of the year.

As usual, a number of factors could produce dramatically different oil prices over the forecast period; however, our basic assumption is that oil prices are likely to be rising slowly in real terms over the 1990s. As is illustrated in the middle panel, the share of OPEC in free world oil production dropped between 1979 and 1985 from more than 60 percent to about 40 percent. However, since the low point in 1985, OPEC's share has risen back close to 50 percent, with a notable increase in the

share of the Persian Gulf producers. We believe that this trend is likely to continue and to provide Persian Gulf producers with greater scope to coordinate and restrict output.

As far as U.S. imports of oil are concerned, the bottom panel, further declines in U.S. production are projected to combine with rising prices to produce a rise in our import bill to about $60 billion dollars at an annual rate by the end of 1991.

The last chart summarizes the staff's outlook for the U.S. external accounts. As can be seen from the red line in the top-left panel, we are projecting little net improvement in the current account balance this year from the deficit of about $110 billion now estimated for 1989. However, we are projecting an improvement in 1991 to a deficit of about $90 billion by the fourth quarter. The deficit for the entire year would be at the lower end of the range of $95 to $125 billion that has been projected by the Administration.

Cutting through the influence of special factors that affected the fourth quarter of last year and will affect the first quarter of this year, we are projecting a small contribution to real GNP this year from net exports of goods and services and a larger contribution next year, as the effects of the dollar's recent and projected depreciation cumulate.

The bottom panel summarizes U.S. capital account transactions over the past three years and presents a projection for 1990. Net private capital inflows (line 1) remained strong in 1989, especially net inflows in the form of net purchases of

bonds and stocks (line 3). Inflows through banks (line 2) were somewhat smaller than in 1988. This may have been related to the liquidation by the G-10 countries of dollar holdings in the Euromarkets to finance intervention sales of dollars (negative purchases, line 12), which, at $72 billion, were large relative to the $31 billion in official capital outflows shown in lines 7 and 8.

This year, with an essentially unchanged current account deficit, we are projecting a net inflow of official capital (line 6) and somewhat less in the way of net private capital inflows.

Mr. Chairman, that concludes our presentation.

STRICTLY CONFIDENTIAL (FR) CLASS I-FOMC

Material for

Staff Presentation to the Federal Open Market Committee

February 6, 1990

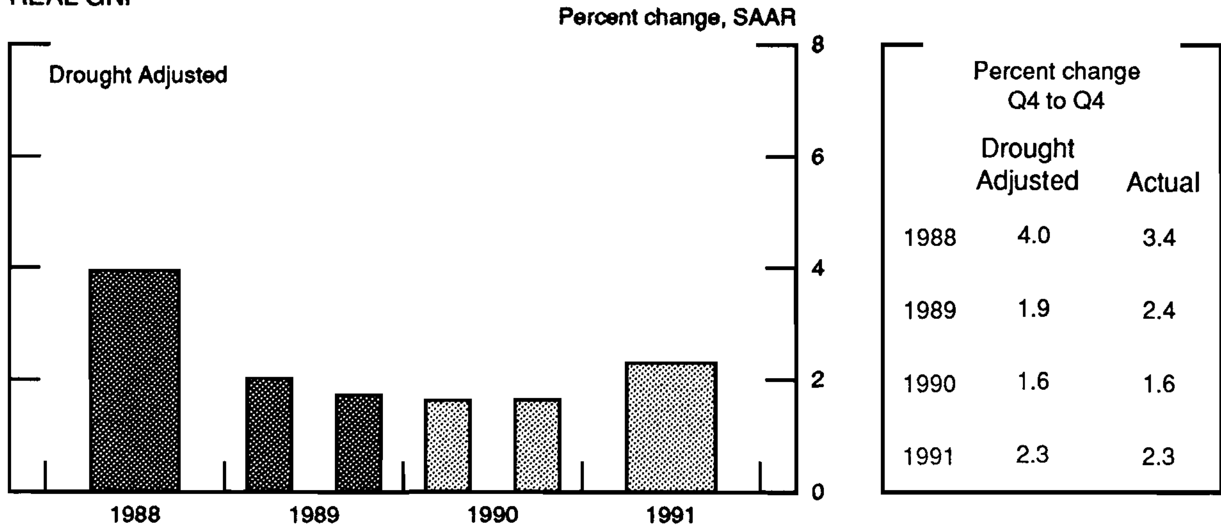
Basic Policy Assumptions

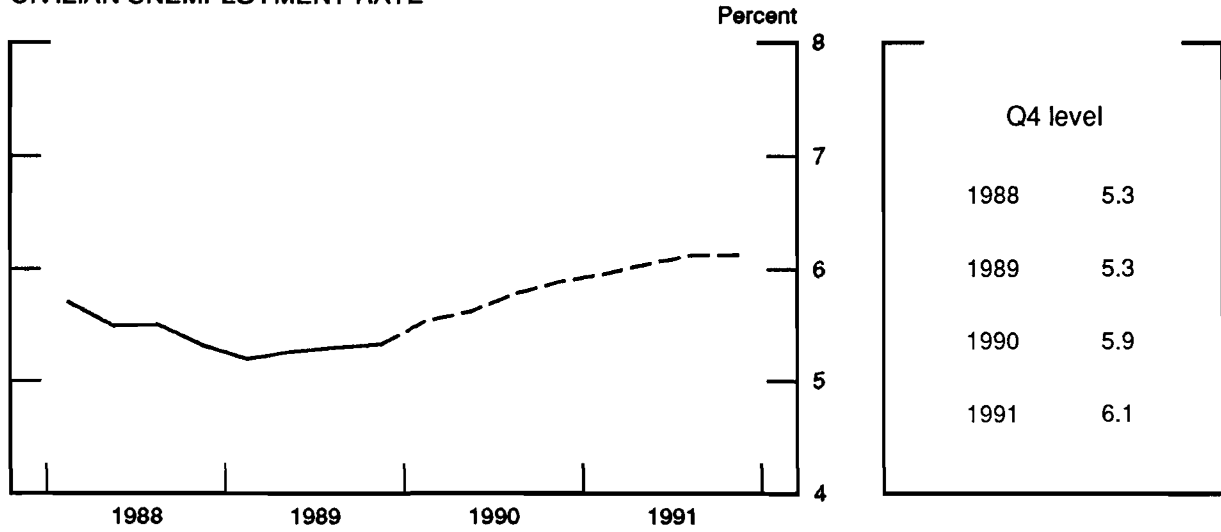
- Monetary policy will be aimed at achieving a reduction in inflation over time, in the context of continued economic expansion.
- Fiscal policy will remain moderately restrictive.
    - -- For FY91, a deficit-reduction package of about $30 billion
    - -- No dramatic multi-year budget accord

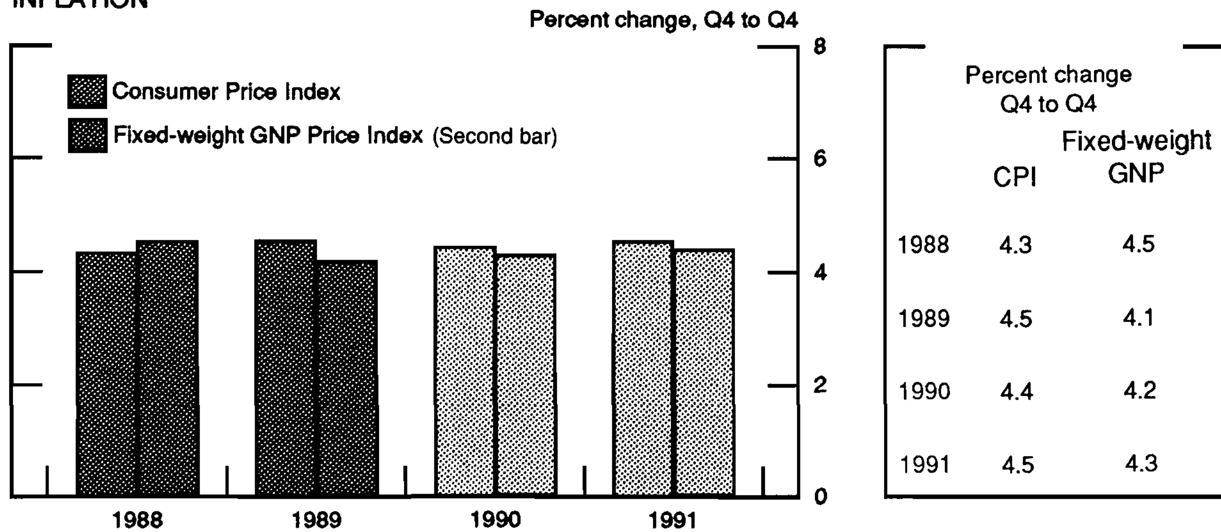
Financial Projections

- Interest rates do not move far from recent levels; they may average a little higher in 1991 than in 1990.
- M2 will grow around 6-1/2 percent in 1990 and 6 percent in 1991.
- Federal budget deficit will decline from $152 in FY89 to $137 in FY90 and to $118 in FY91.
- The dollar will depreciate moderately over the next two years.

Chart 2



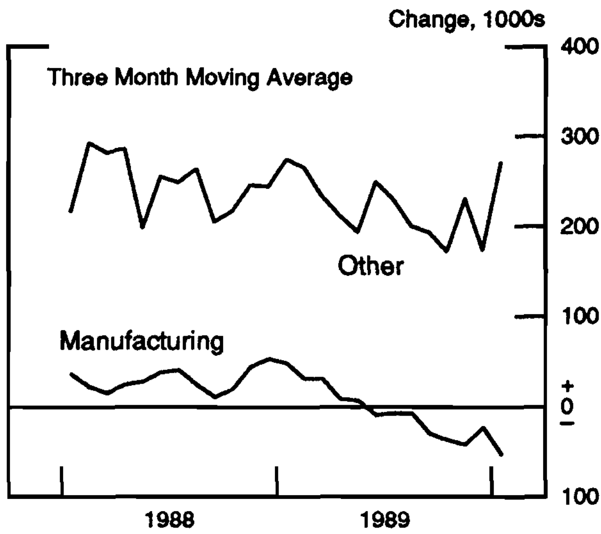


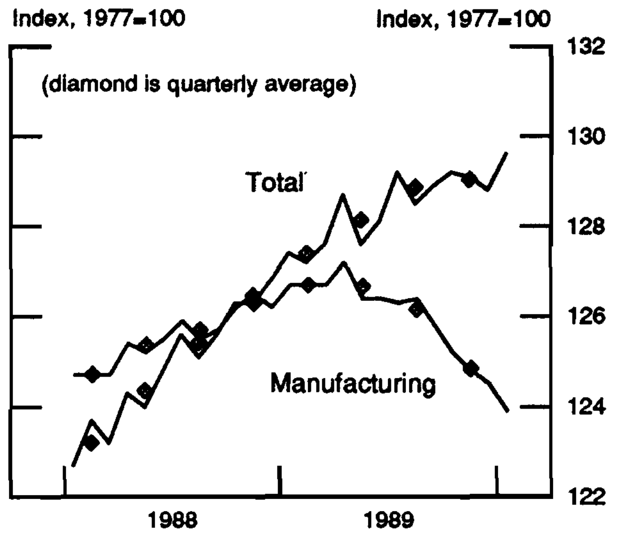


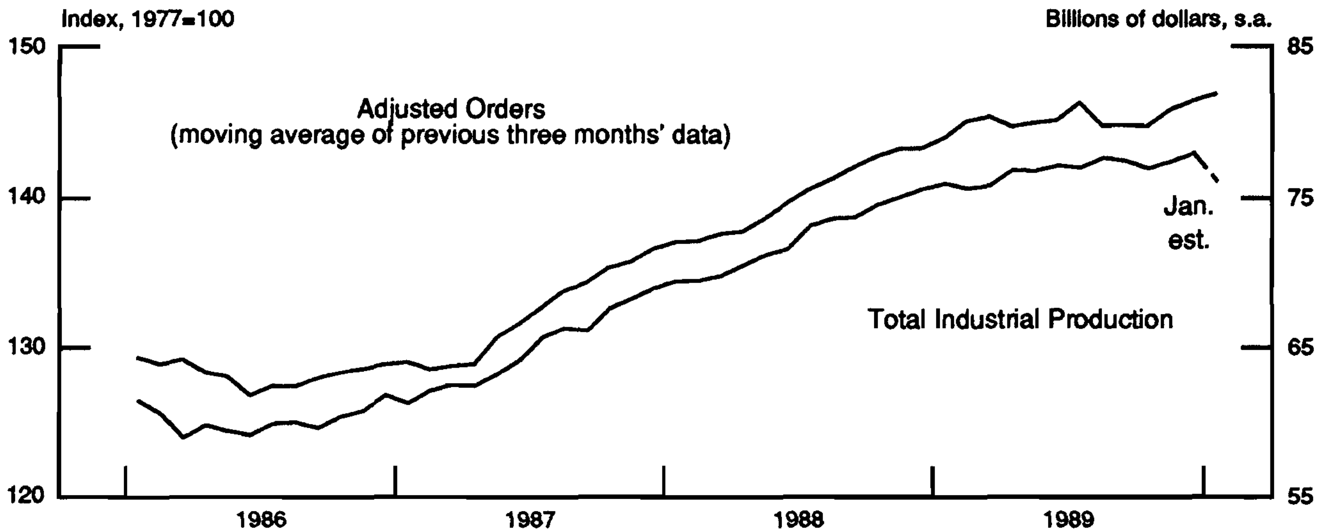
ECONOMIC PROJECTIONS FOR 1990

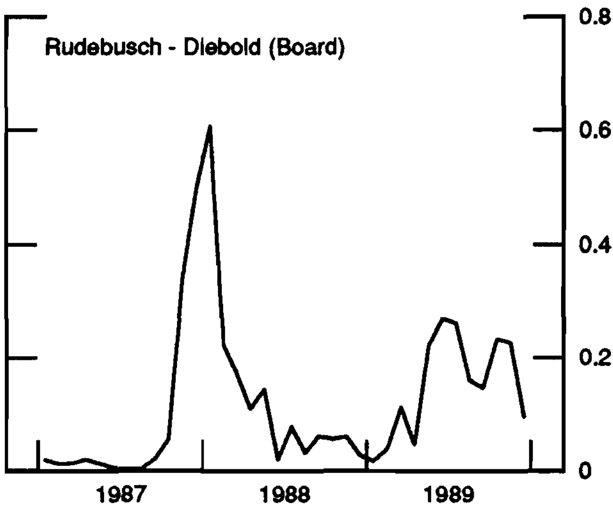
	FOMC			
	Range	Central Tendency	Administration	Staff
	Percent change, Q4 to Q4			
Nominal GNP	4 to 7	5-1/2 to 6-1/2	7.0	5.7
July 1989 forecast	*4-1/4 to 7-1/2*	*5-1/2 to 6-3/4*	*6.8*	*6.0*
Real GNP	1 to 2-1/4	1-1/2 to 2	2.6	1.6
July 1989 forecast	*1 to 2-1/2*	*1-1/2 to 2*	*2.6*	*1.6*
CPI	3-1/2 to 5	4 to 4-1/2	4.1	4.4
July 1989 forecast	*3 to 5-3/4*	*4-1/2 to 5*	*4.1*	*4.6*
	Average level, Q4, percent			
Unemployment Rate	5-1/2 to 6-1/2	5-1/2 to 5-3/4	5.4	5.9
July 1989 forecast	*5 to 6-1/2*	*5-1/2 to 6*	*5.4*	*6.1*

Chart 4









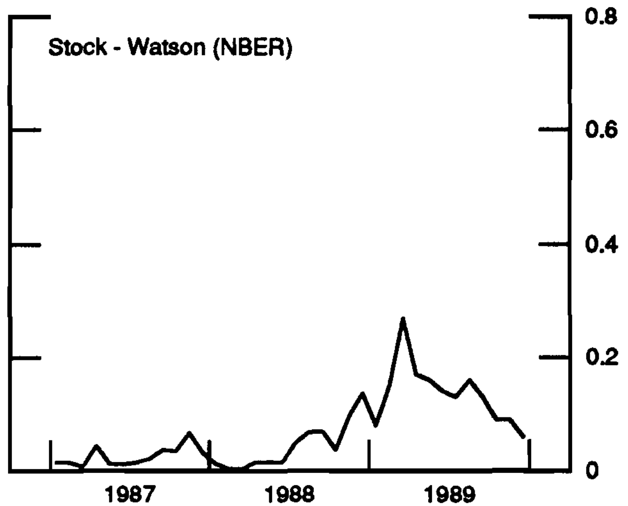
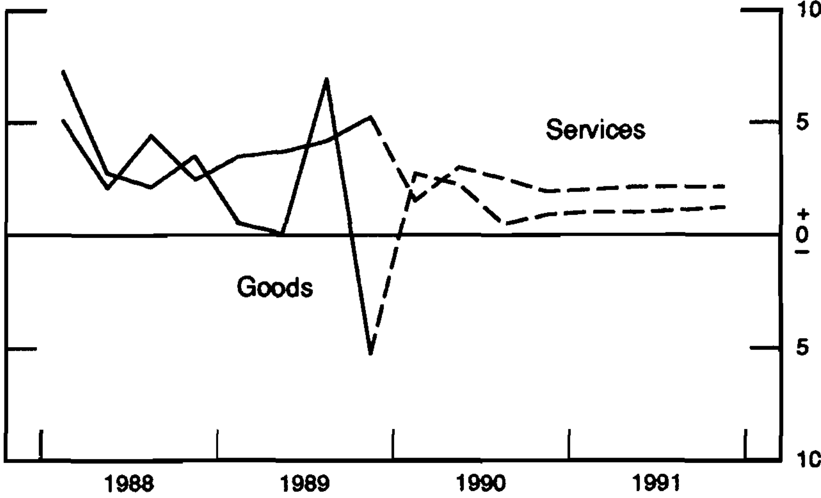


Chart 5

PERSONAL CONSUMPTION EXPENDITURES

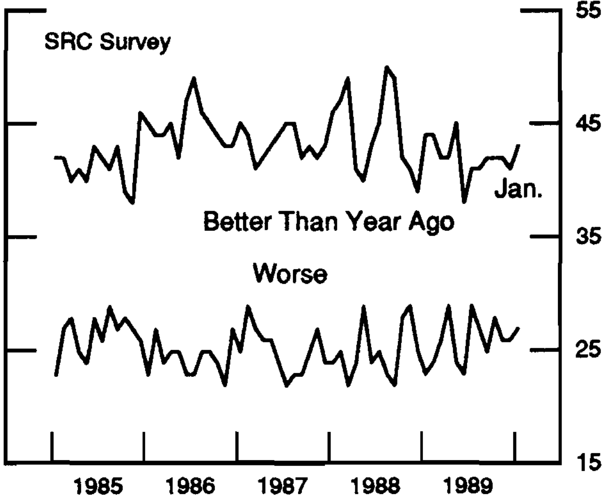
Percent change from previous quarter, annual rate



	Percent change Q4 to Q4	
	Total PCE	DPI
1988	3.8	4.0
1989	2.3	3.6
1990	2.0	1.2
1991	1.6	1.4

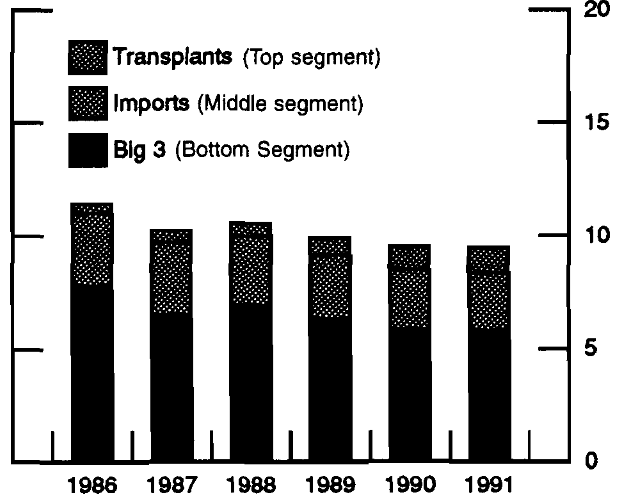
PERSONAL FINANCIAL SITUATION

Percent



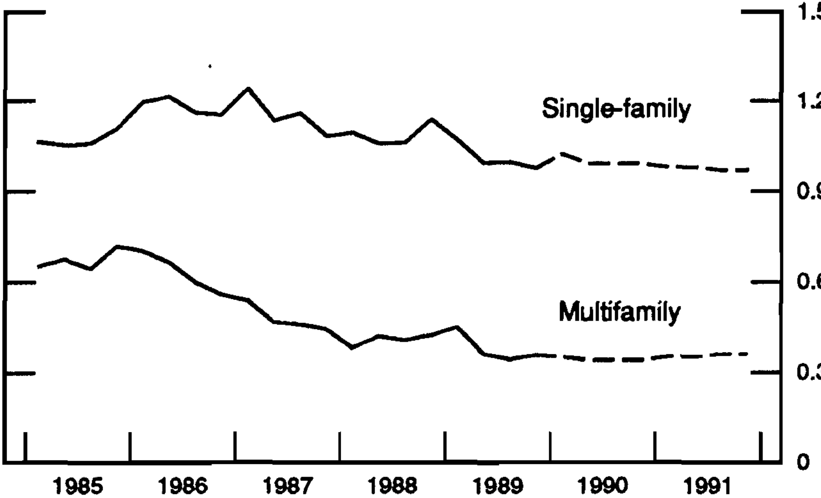
COMPOSITION OF CAR SALES

Millions



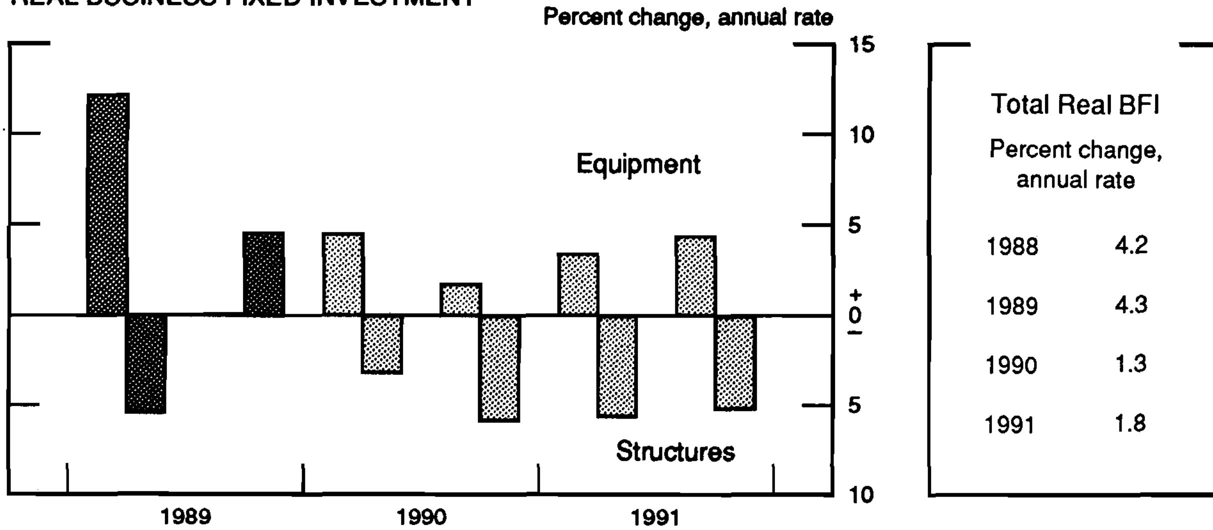
HOUSING STARTS

Million units, SAAR



Total Starts	
Millions of units, SAAR	
1985	1.74
1986	1.81
1987	1.62
1988	1.49
1989	1.37
1990	1.34
1991	1.33

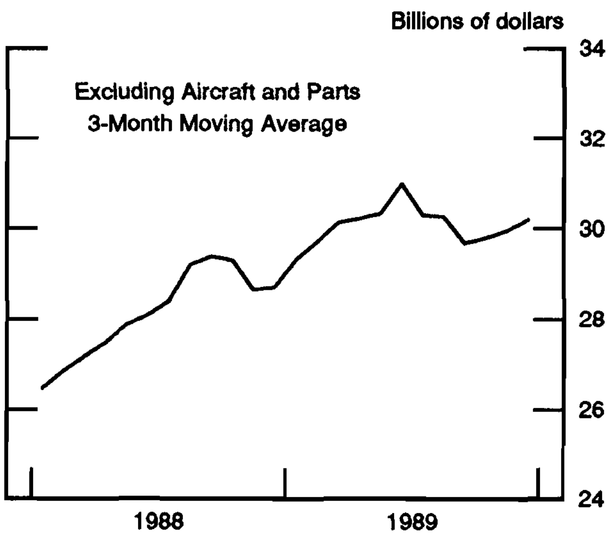
Chart 6

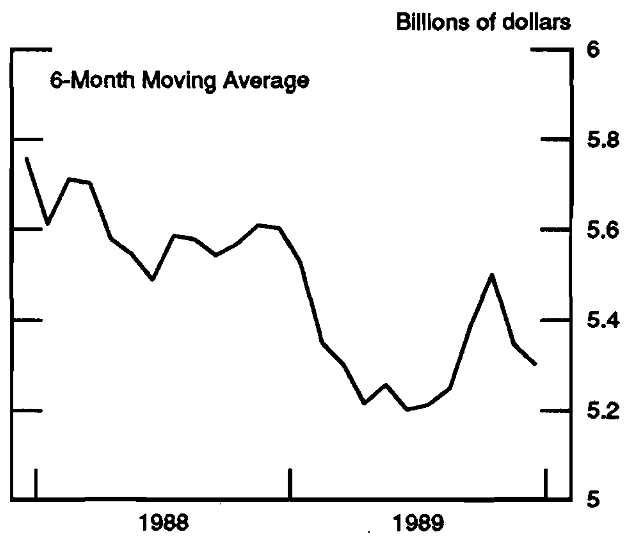


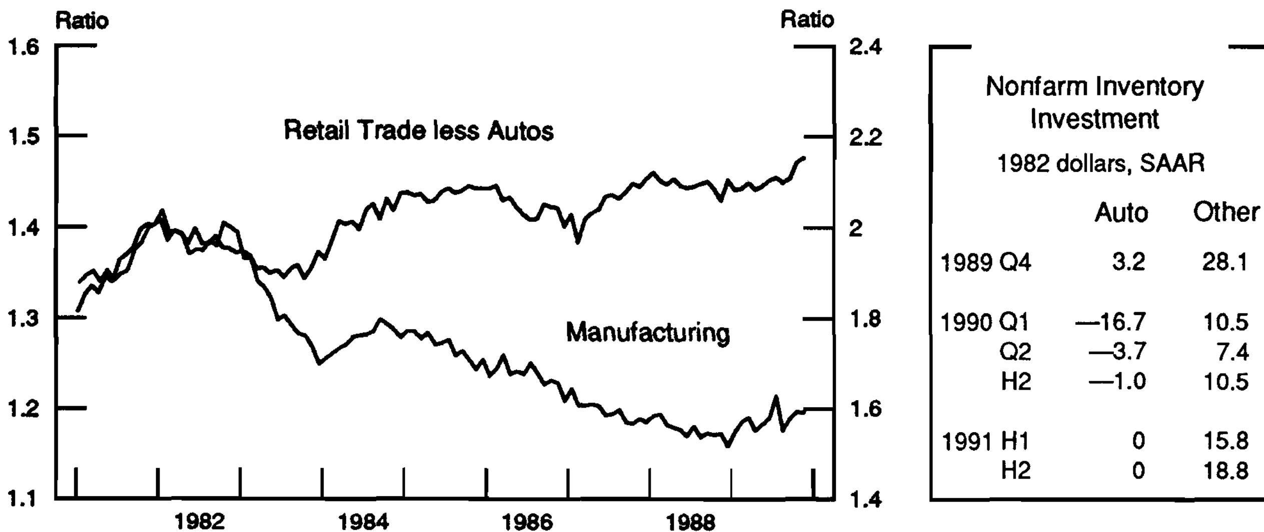
Total Real BFI

Percent change, annual rate

Year	Percent change
1988	4.2
1989	4.3
1990	1.3
1991	1.8





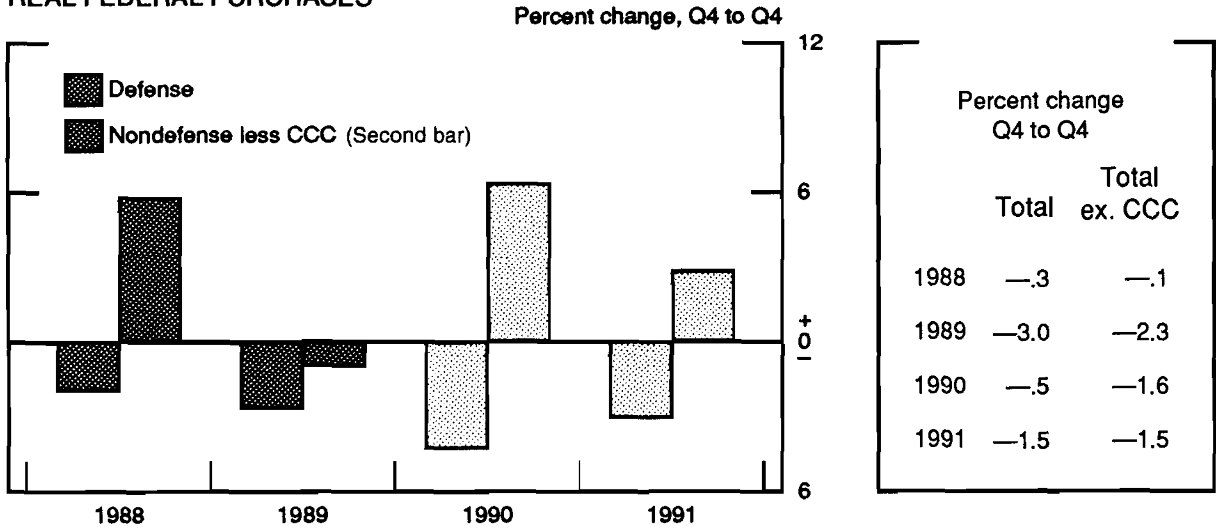


Nonfarm Inventory Investment

1982 dollars, SAAR

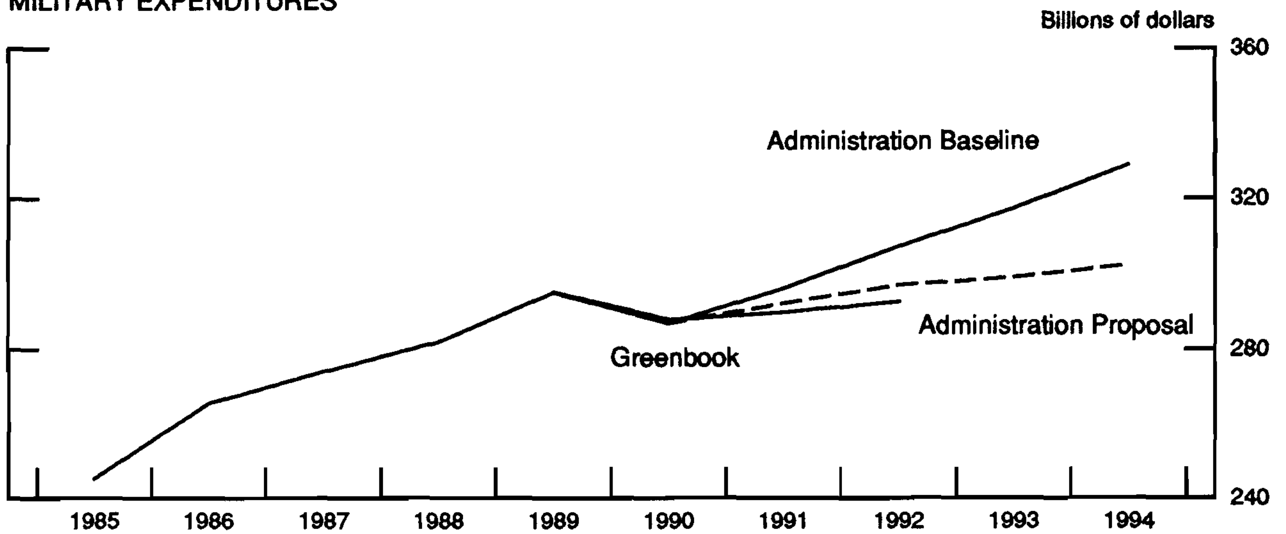
	Auto	Other
1989 Q4	3.2	28.1
1990 Q1	—16.7	10.5
Q2	—3.7	7.4
H2	—1.0	10.5
1991 H1	0	15.8
H2	0	18.8

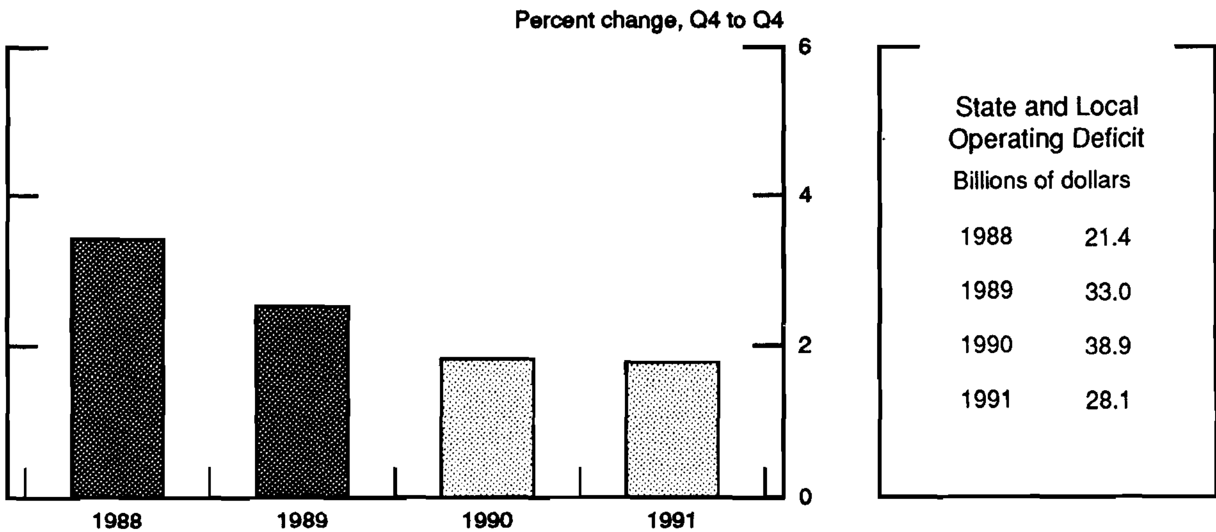
Chart 7



Percent change Q4 to Q4

	Total	Total ex. CCC
1988	—.3	—.1
1989	—3.0	—2.3
1990	—.5	—1.6
1991	—1.5	—1.5



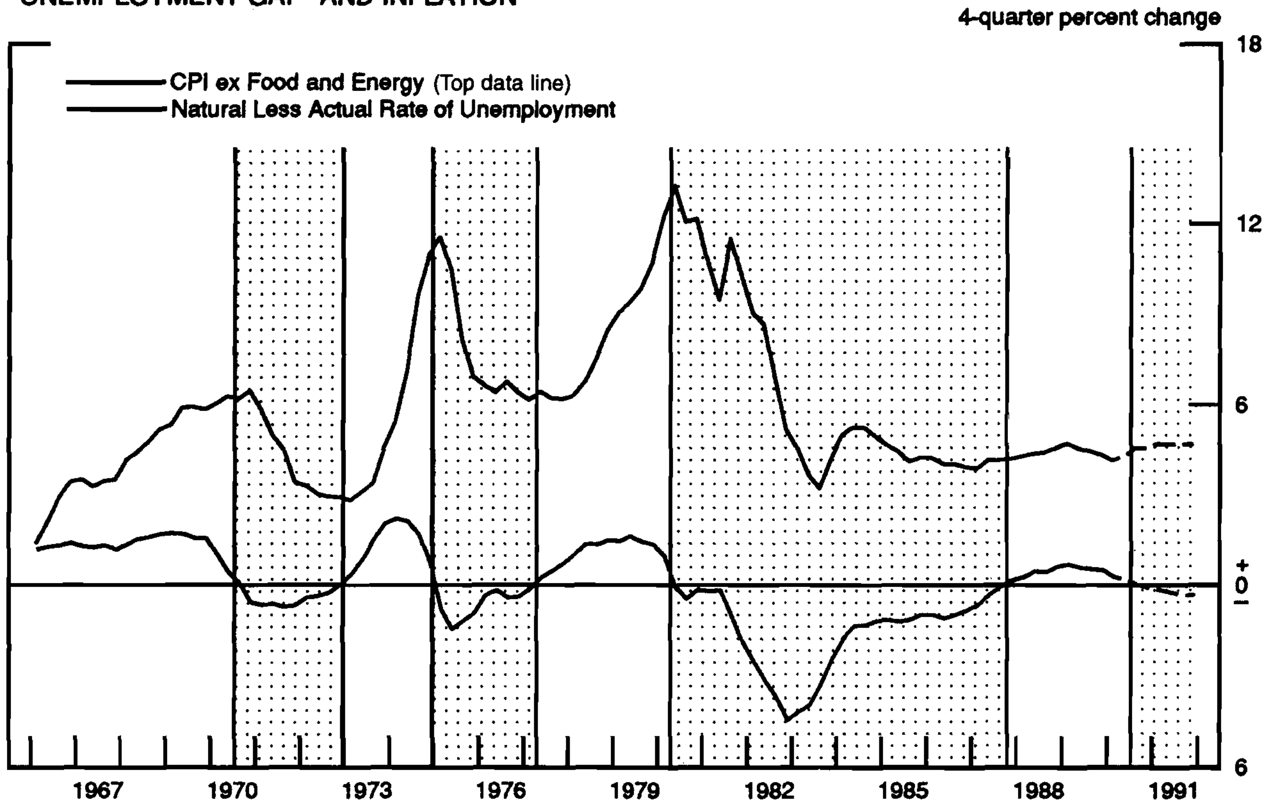


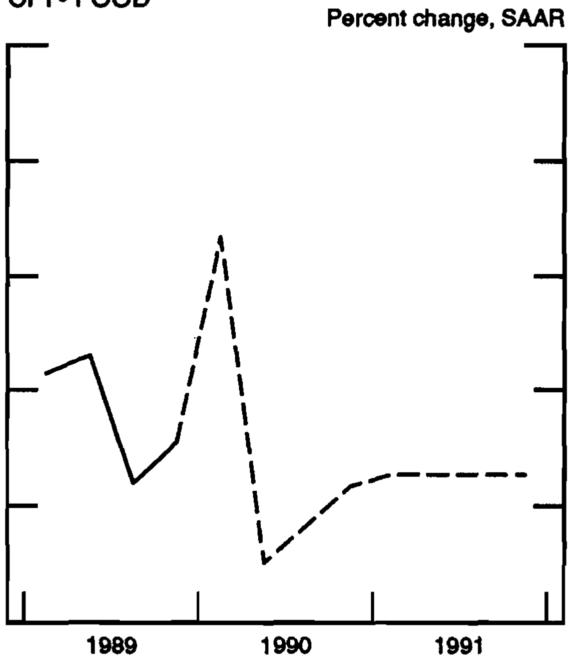
State and Local Operating Deficit

Billions of dollars

1988	21.4
1989	33.0
1990	38.9
1991	28.1

Chart 8





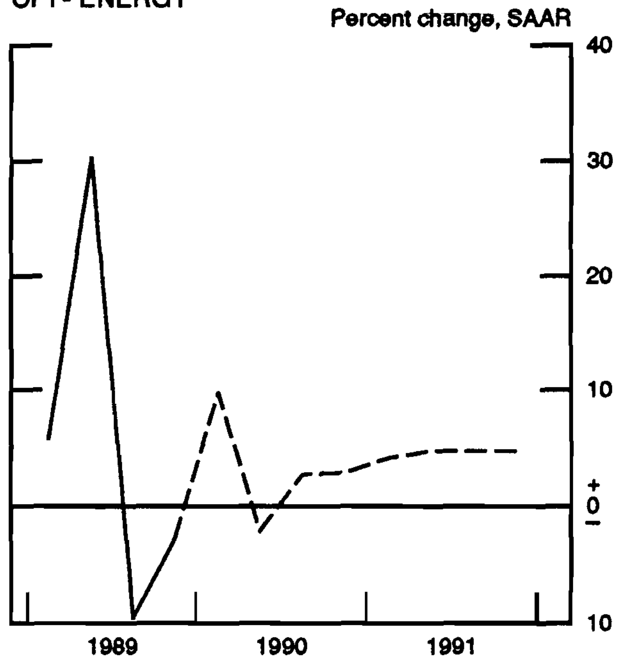
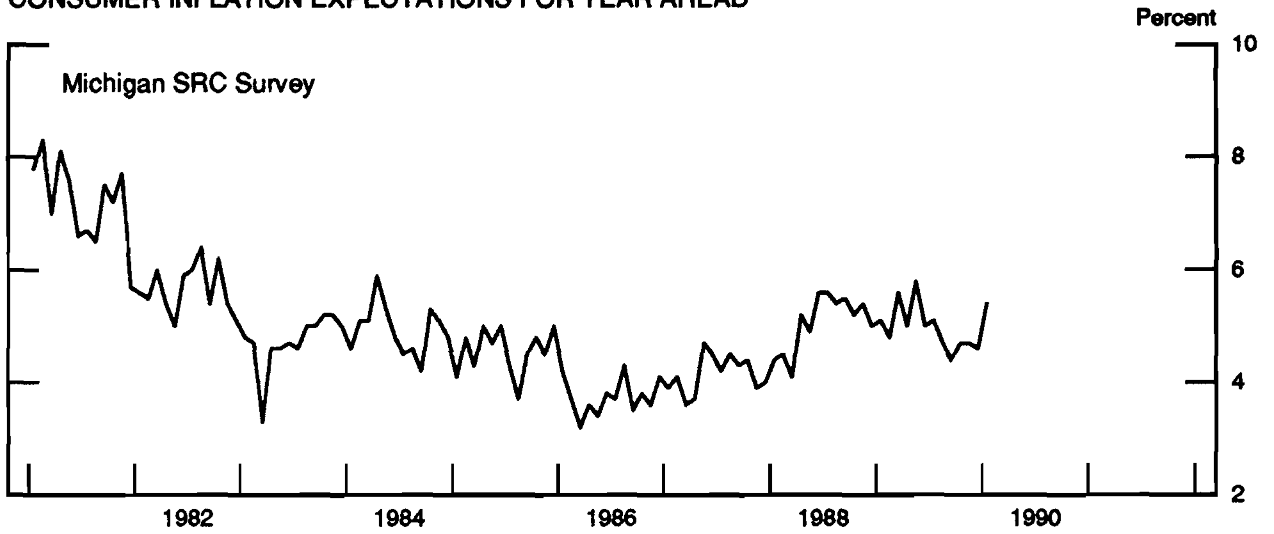
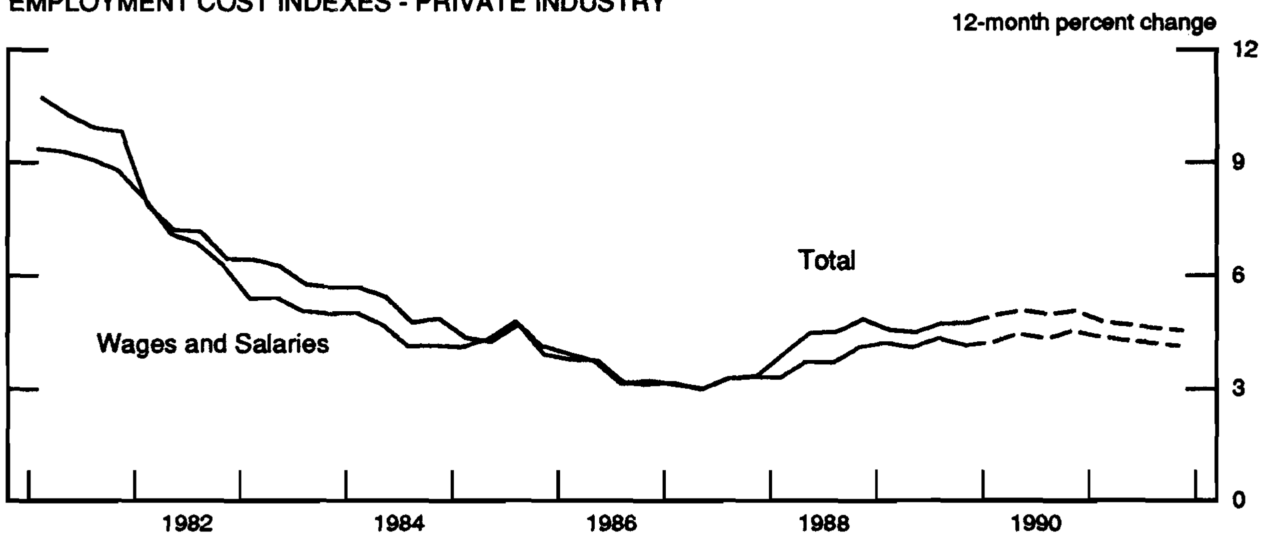


Chart 9

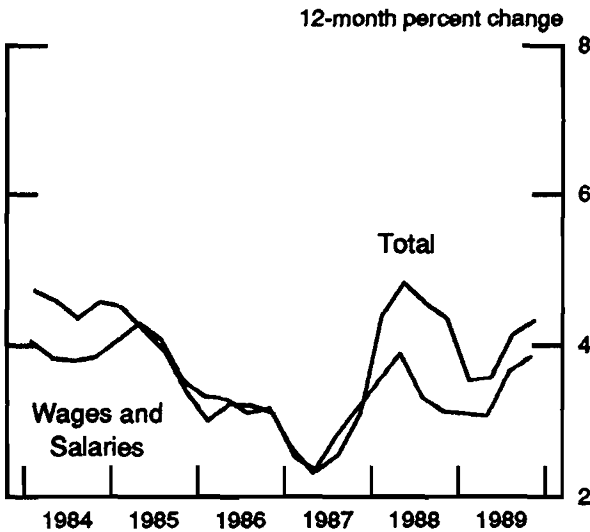
CONSUMER INFLATION EXPECTATIONS FOR YEAR AHEAD



EMPLOYMENT COST INDEXES - PRIVATE INDUSTRY



ECI - GOODS PRODUCING



ECI - SERVICE PRODUCING

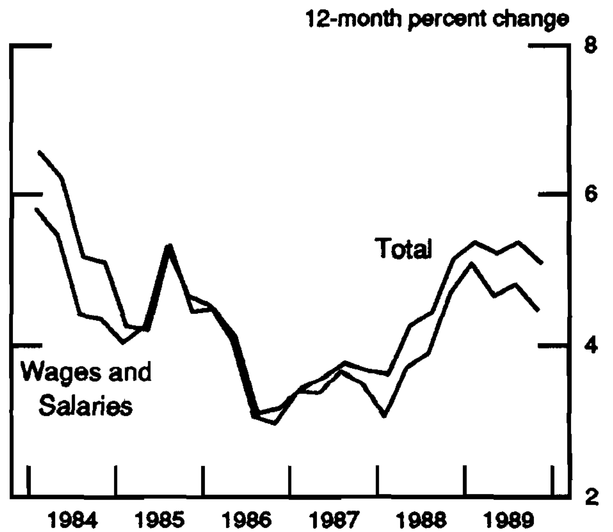
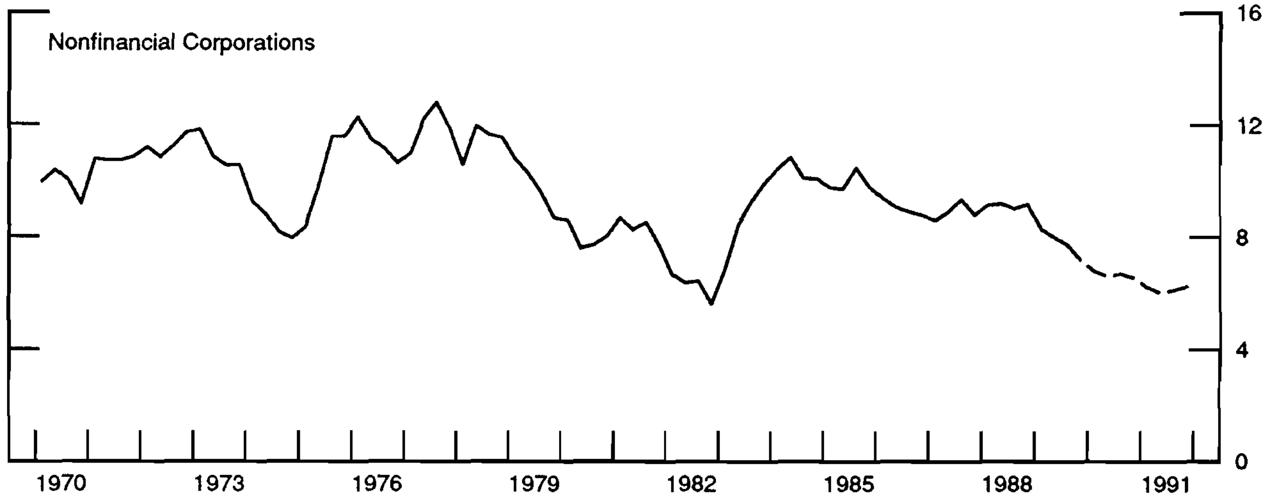
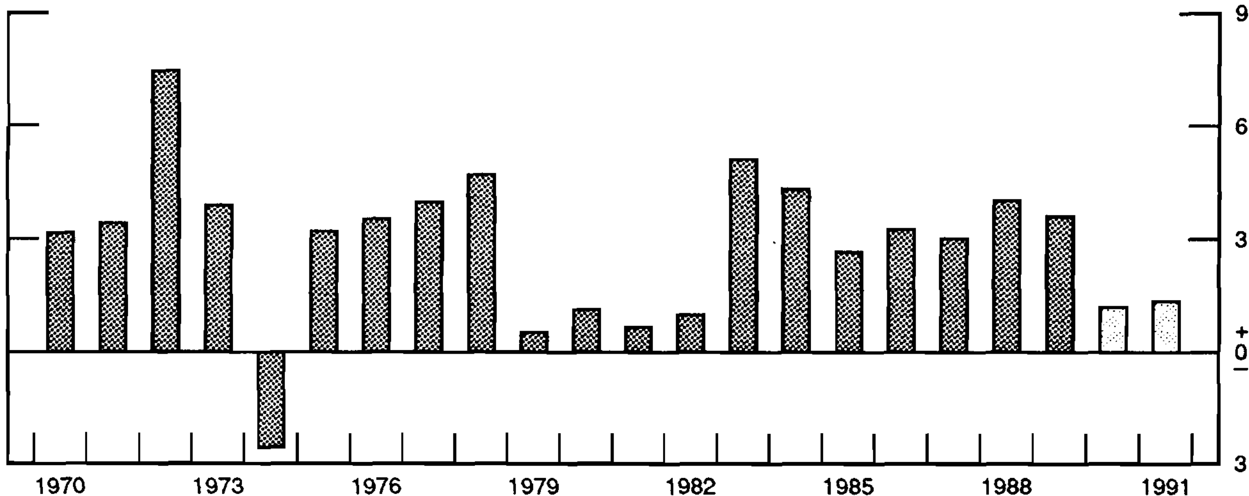


Chart 10





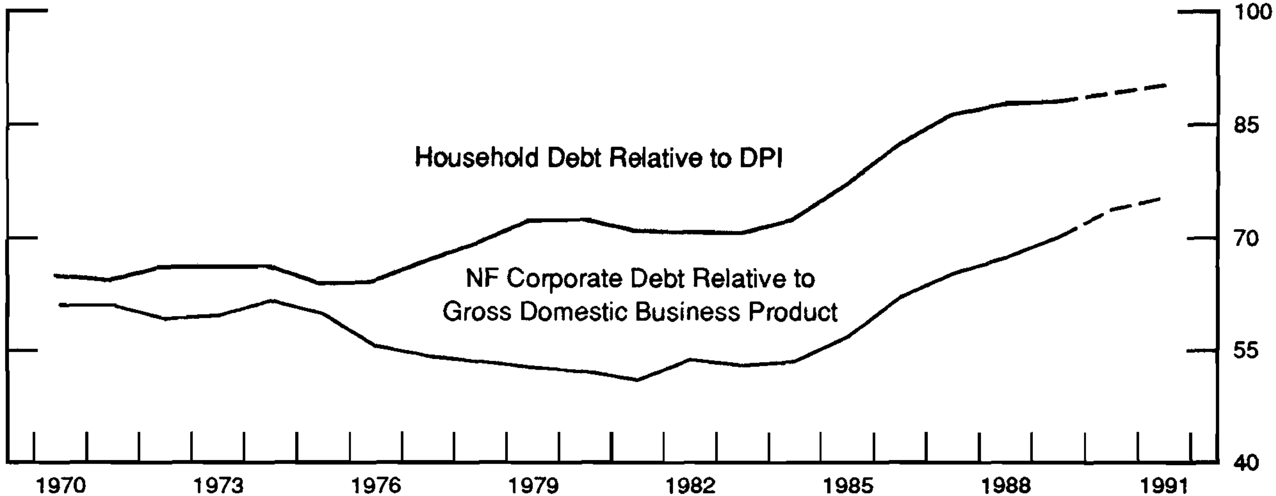
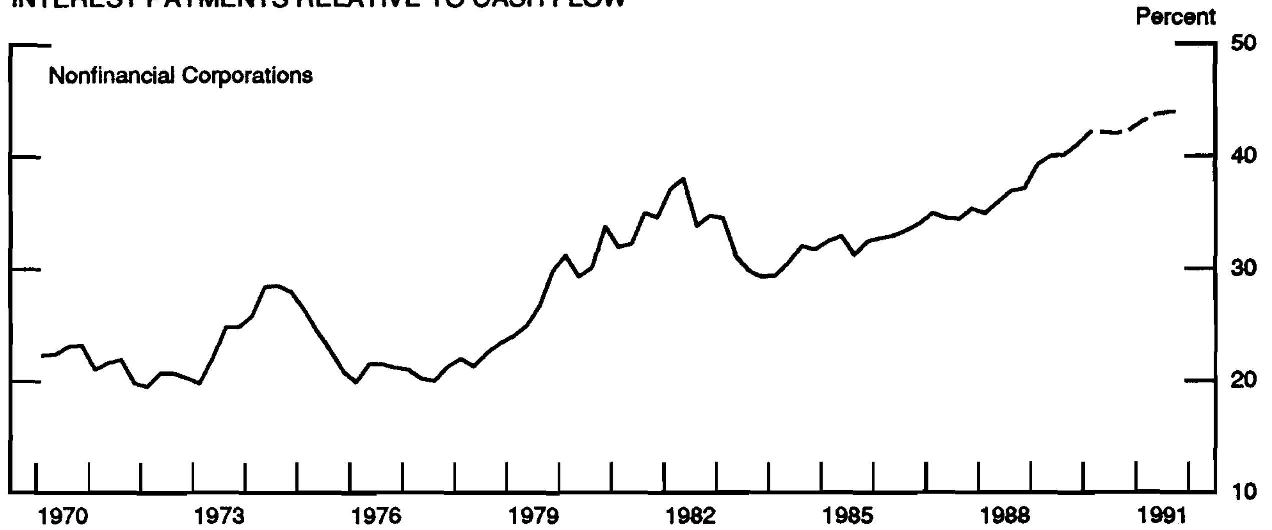


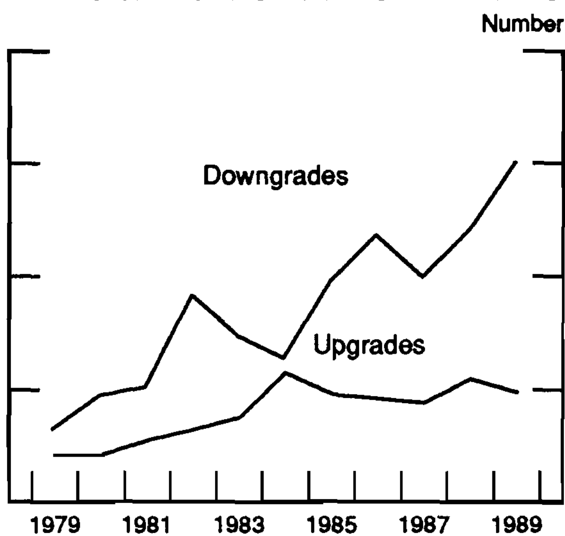
Chart 11

INTEREST PAYMENTS RELATIVE TO CASH FLOW*



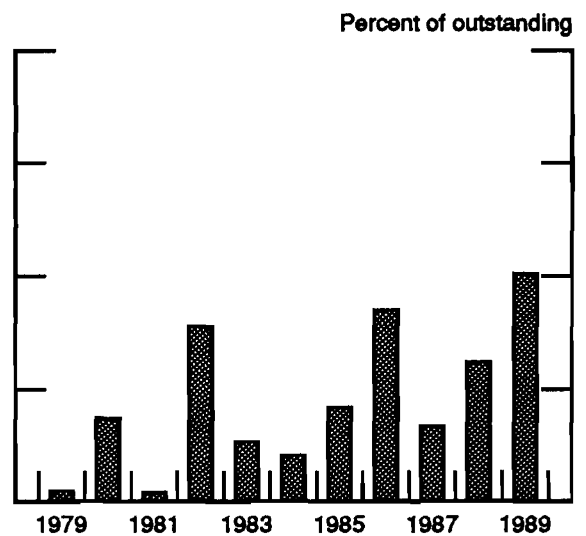
* Gross interest payments relative to cash flow including interest payments.

RATING CHANGES ON CORPORATE BONDS



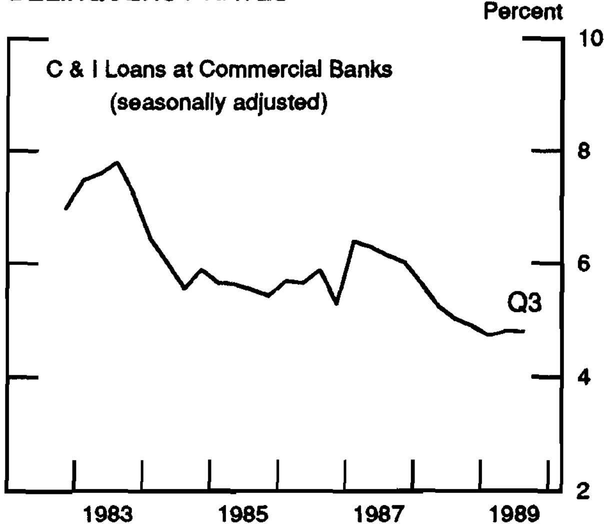
Moody's series

DEFAULTS ON LOW-RATED BONDS

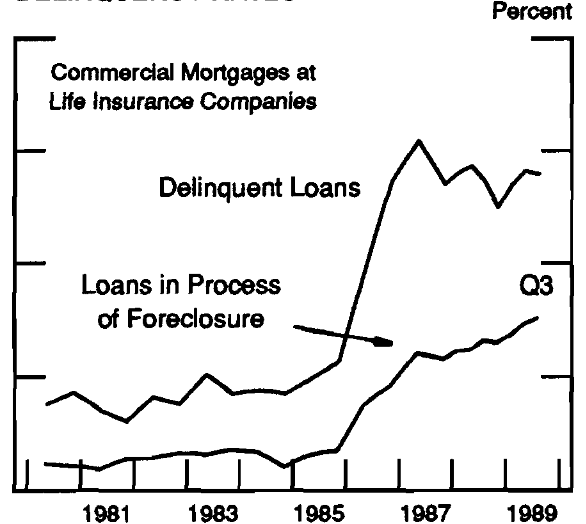


1987 excludes Texaco.

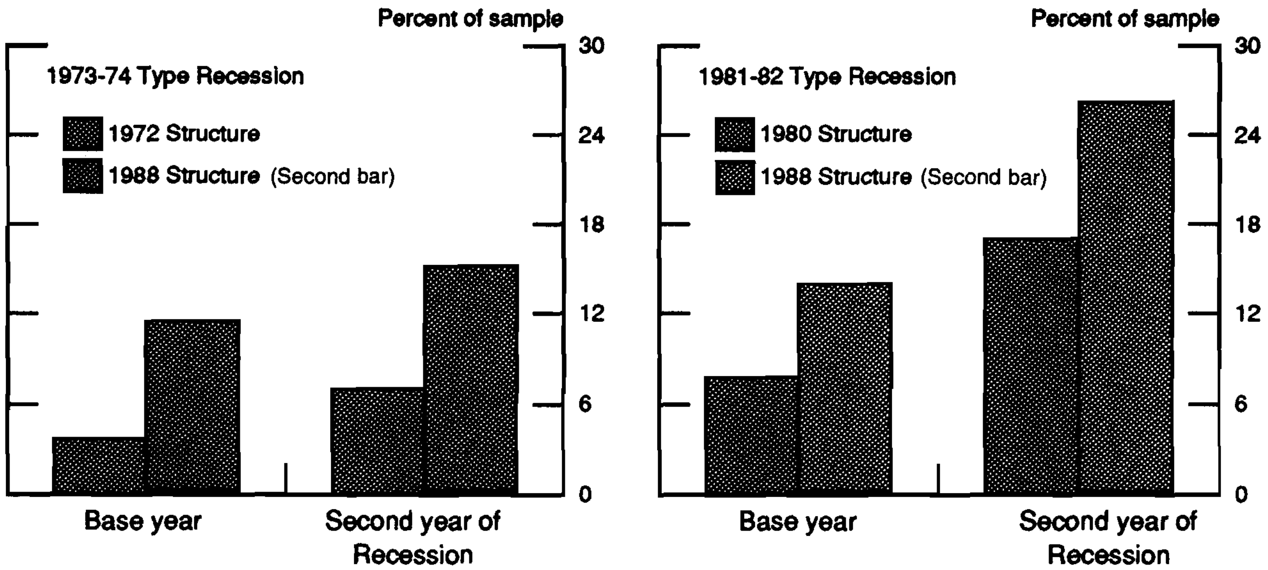
DELINQUENCY RATES

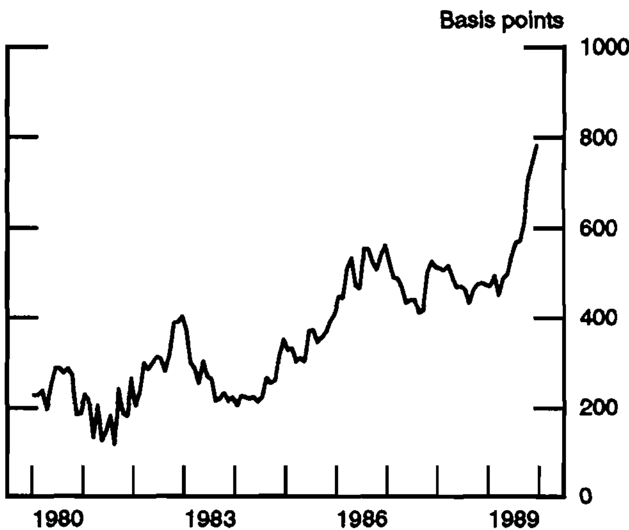


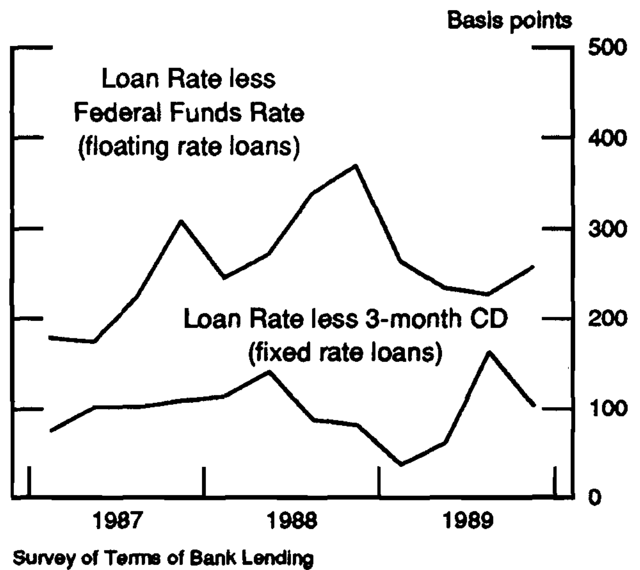
DELINQUENCY RATES



Delinquent loans include loans in the process of foreclosure.





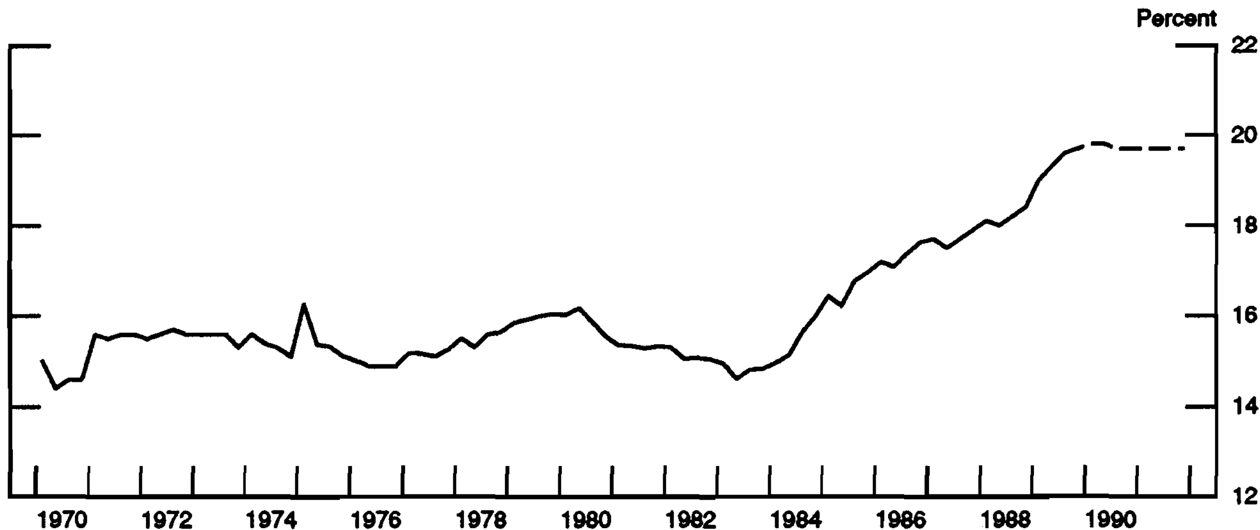


Summary of January 1990 Senior Bank Loan Officer Survey

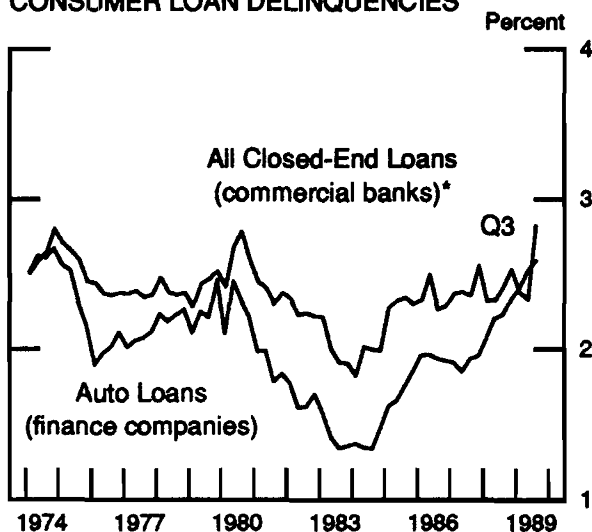
- 72 percent had tightened standards for merger and LBO loans.
- 57 percent had tightened standards for below-investment-grade customers for other than merger and LBO loans.
- 7 percent had tightened standards for investment-grade borrowers for other than merger and LBO loans.
- 81 percent had become less willing to make construction loans.

Chart 13

HOUSEHOLD DEBT SERVICE AS A PERCENT OF DISPOSABLE PERSONAL INCOME

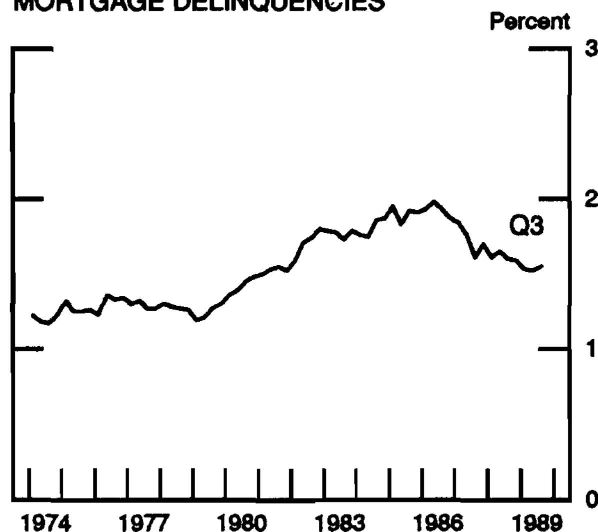


CONSUMER LOAN DELINQUENCIES



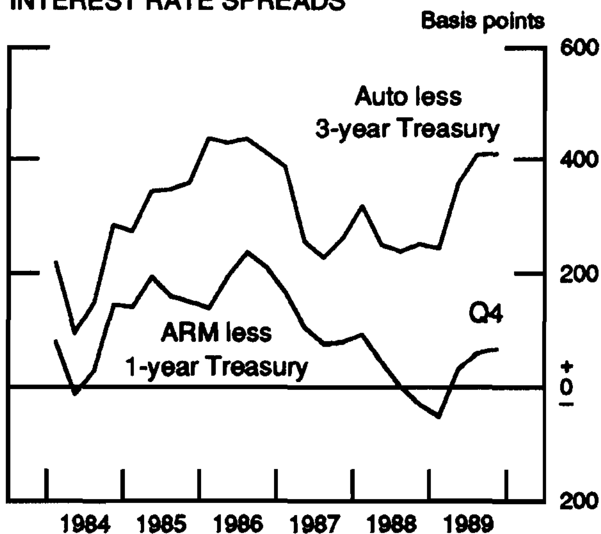
* ABA series, 30 day past due.

MORTGAGE DELINQUENCIES



MBA series, 60 days past due.

INTEREST RATE SPREADS



LOAN TO VALUE RATIOS

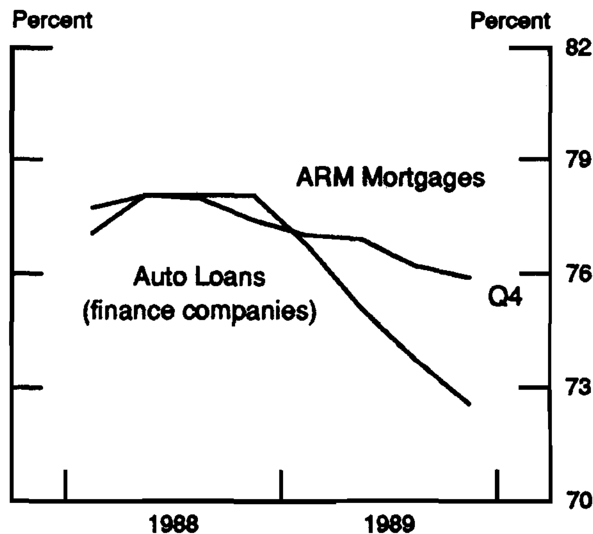
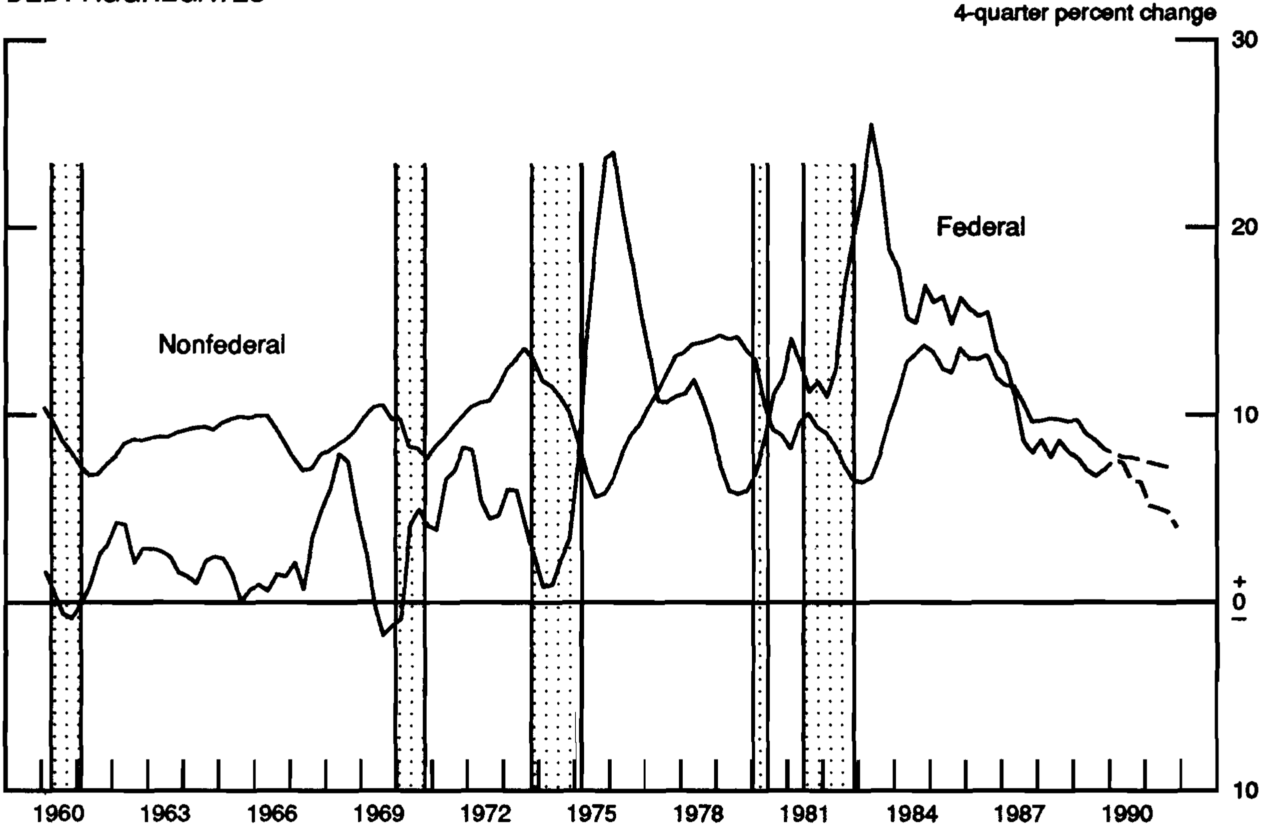
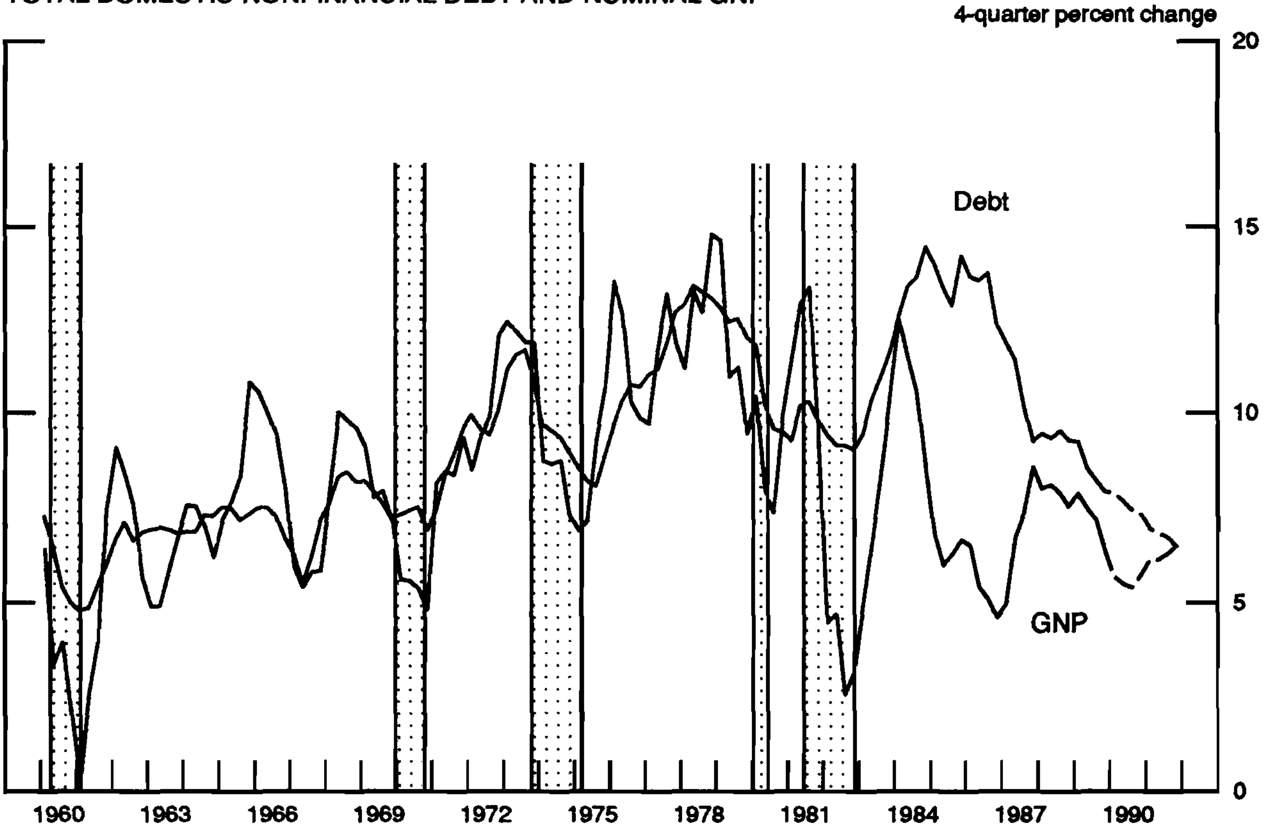
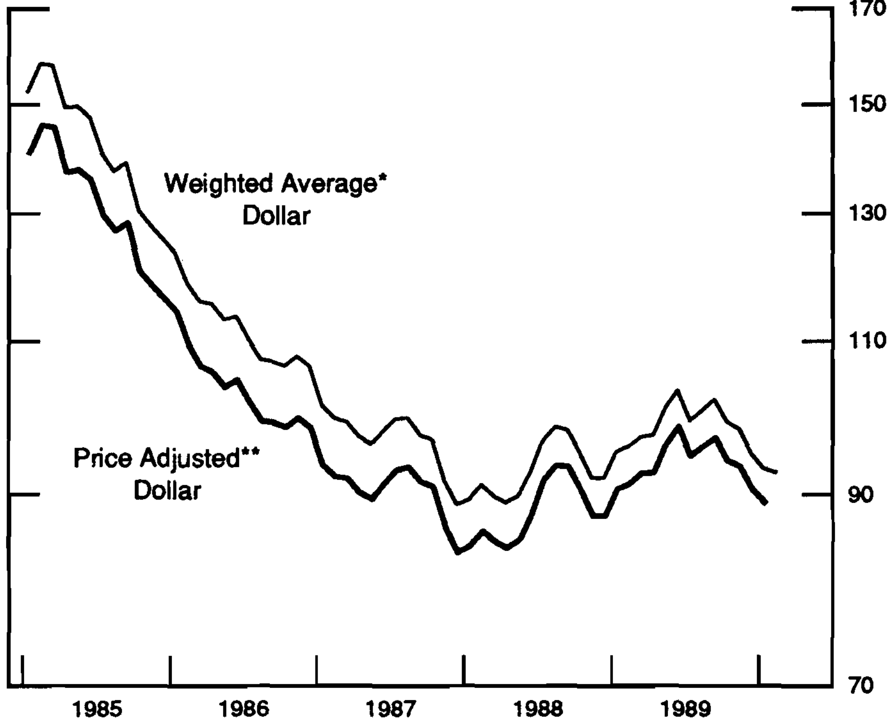


Chart 14





FOREIGN EXCHANGE VALUE OF THE U.S. DOLLAR

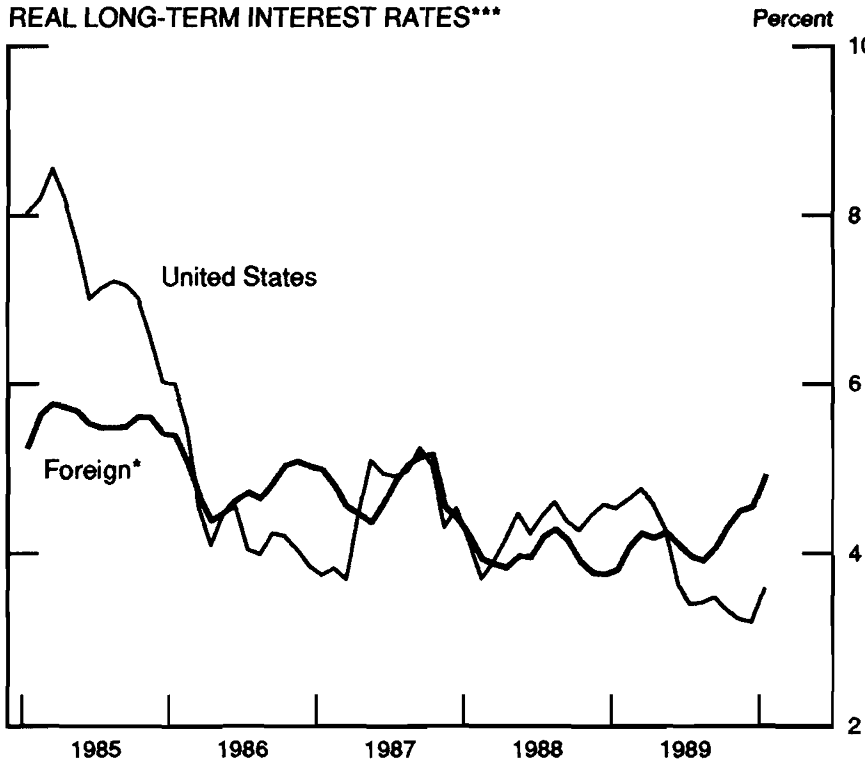


Selected Dollar Exchange Rates

Percent change 6/89 to 2/2/90

Deutschemark	–15
Yen	1
Pound sterling	–8
Canadian dollar	–1
S. Korean won	3
Taiwan dollar	0

REAL LONG-TERM INTEREST RATES***



Selected Interest Rates

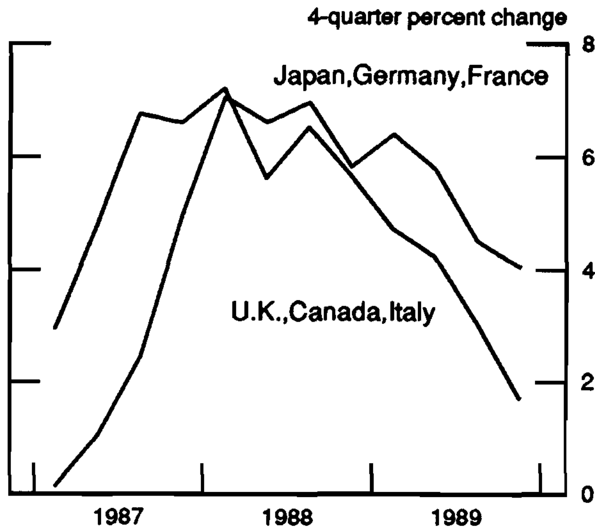
Percent

	June 1989	Feb. 2 1990
Three-month		
Germany	6.92	8.05
Japan	5.35	7.06
U.S.	9.20	8.20
Long-term		
Germany	6.92	8.05
Japan	5.08	6.58
U.S.	8.28	8.42

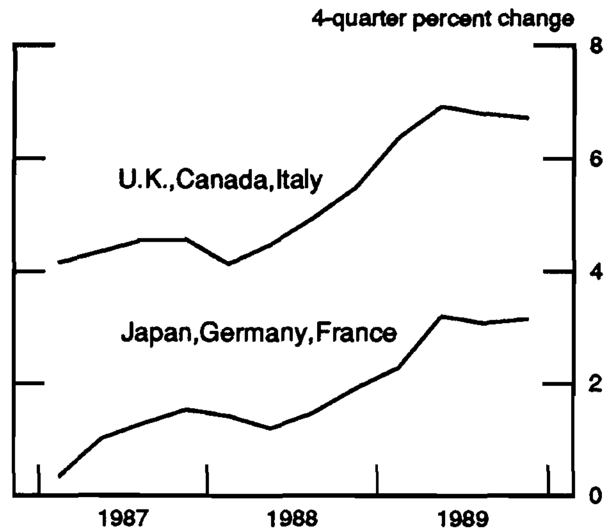
* Weighted average against or of foreign G-10 countries using total 1972-76 average trade.
** Adjusted by relative consumer prices.
*** Multilateral trade-weighted average of long-term government or public authority bond rates adjusted for expected inflation estimated by a 36-month centered moving average of actual inflation (staff forecasts where needed).

Chart 16

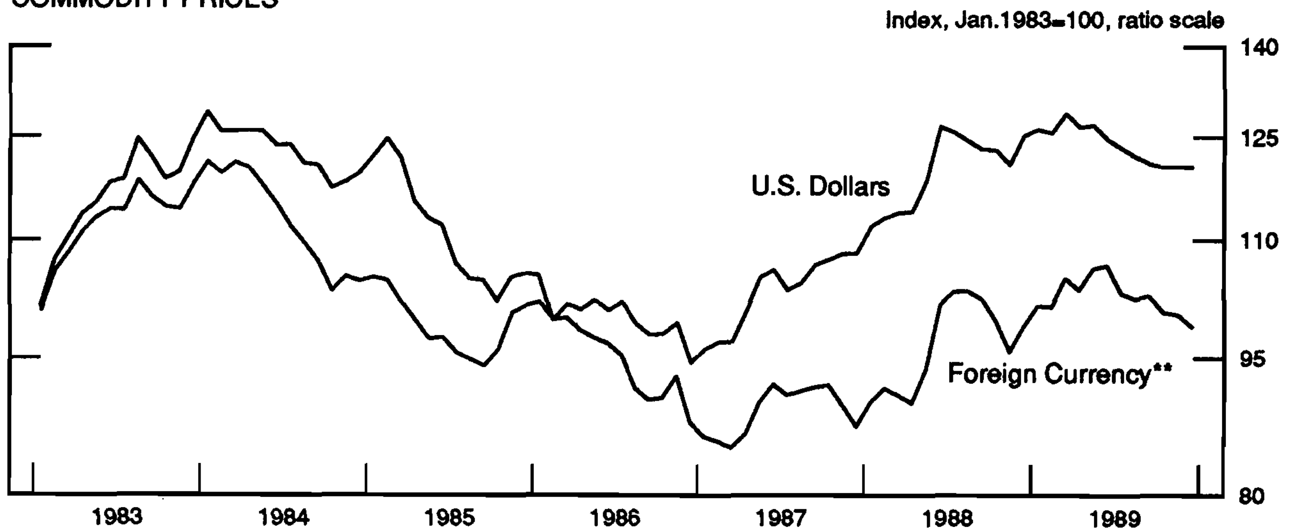
INDUSTRIAL PRODUCTION ABROAD



CONSUMER PRICES ABROAD



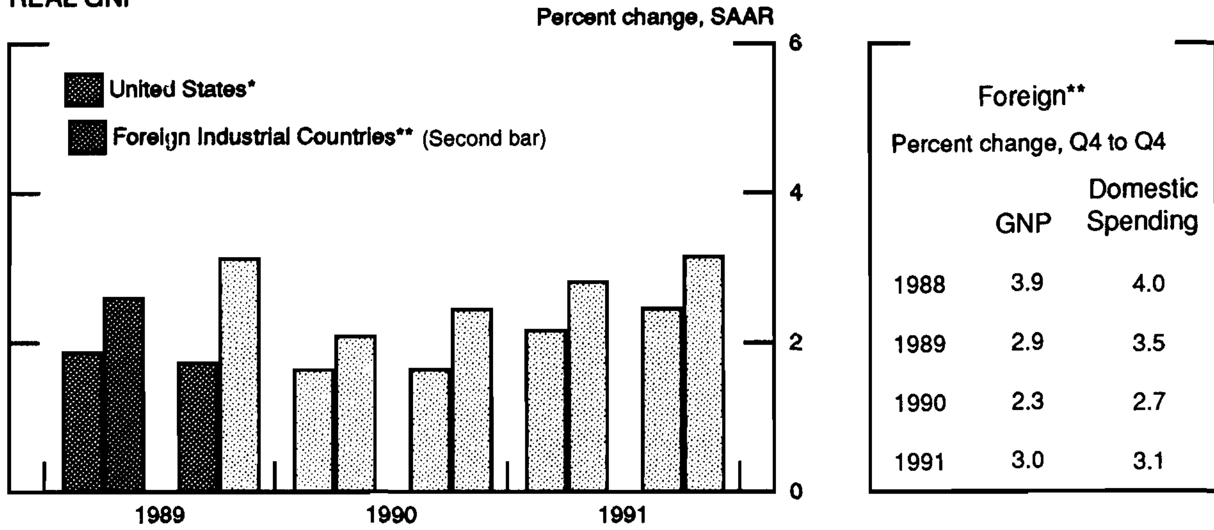
COMMODITY PRICES*

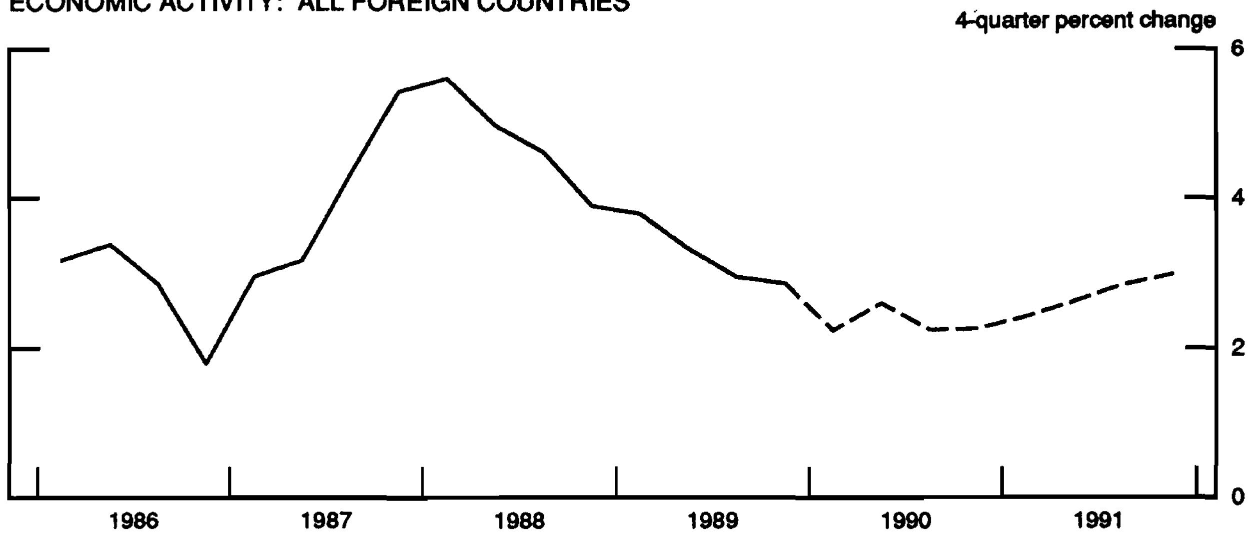


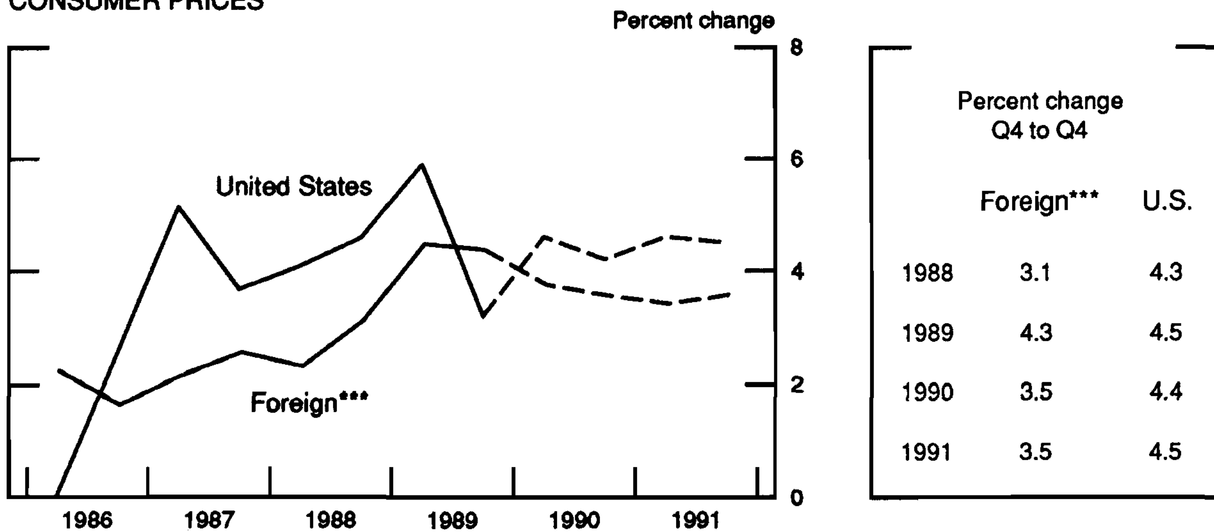
ECONOMIC POLICY ABROAD

- Inflation flat recently; continued concern about capacity pressures and upcoming wage negotiations.
- Tight monetary stance, with gradual decline in interest rates in 1990-H2 and 1991 as growth slows.
- Fiscal policy generally neutral; tax reduction in 1990 and additional spending in Germany related in part to East European immigrants.

* Federal Reserve Board experimental index excluding crude oil.
** Weighted average for the six major foreign industrial countries using 1982 GNP.







* Excludes drought effects.

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

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

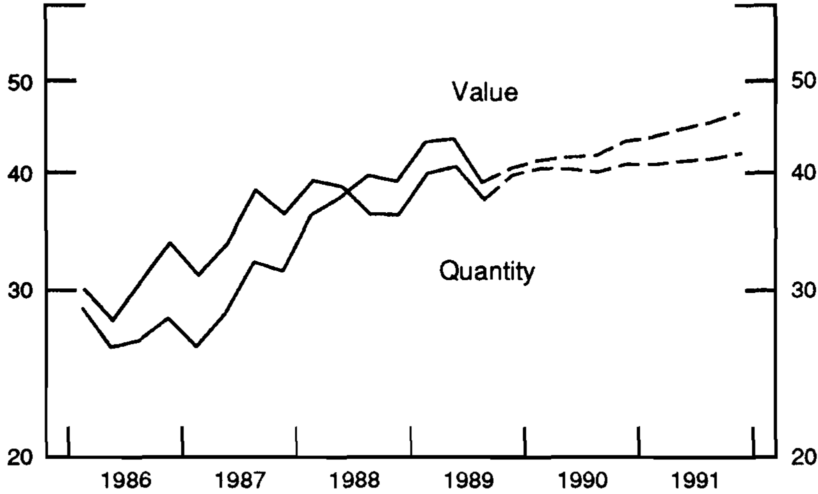
Chart 18

Exports

AGRICULTURAL EXPORTS

Ratio scale, billions of 1982 dollars, SAAR

Ratio scale, billions of dollars, SAAR

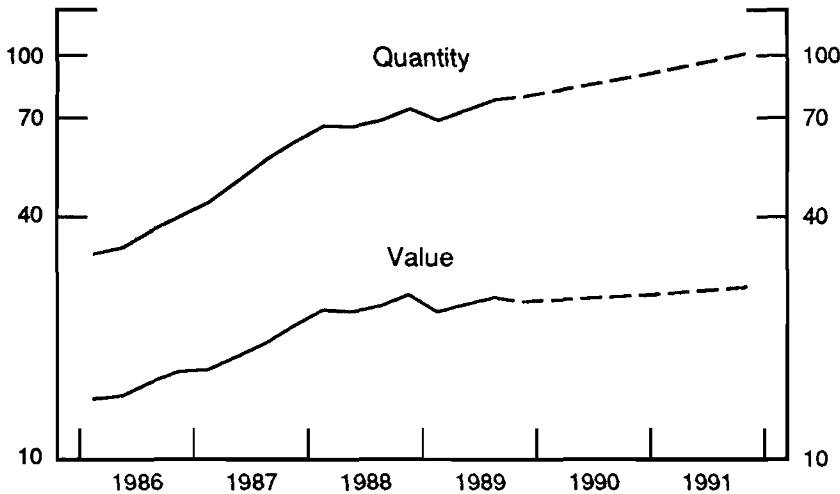


Percent change Q4 to Q4	1989	1990	1991
Value	3	7	7
Price	–7	4	4
1982$	10	3	3

COMPUTERS

Ratio scale, billions of 1982 dollars, SAAR

Ratio scale, billions of dollars, SAAR

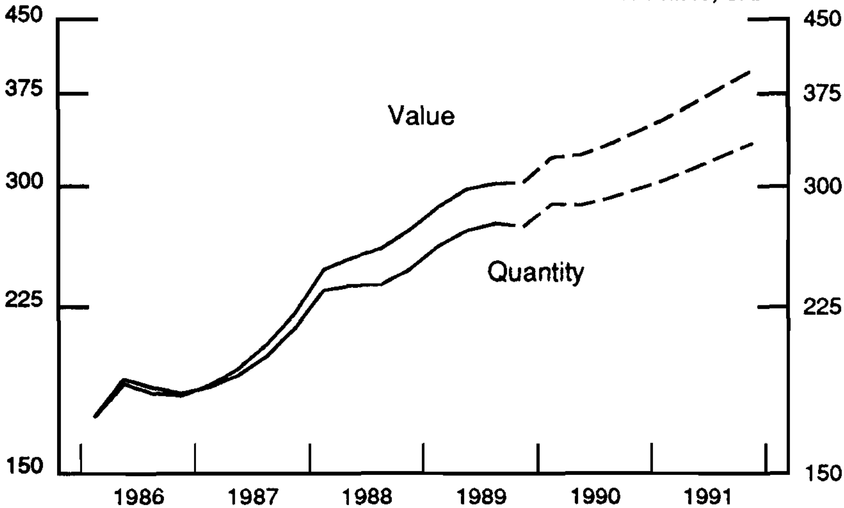


Percent change Q4 to Q4	1989	1990	1991
Value	–4	4	5
Price	–11	–8	–8
1982$	8	13	14

OTHER NON-AGRICULTURAL EXPORTS

Ratio scale, billions of 1982 dollars, SAAR

Ratio scale, billions of dollars, SAAR



Percent change Q4 to Q4	1989	1990	1991
Value	12	13	16
Price	1	3	4
1982$	11	9	12

Chart 19

Non-oil Imports

PRICES

Percent change, Q4 to Q4	1988	1989
1. Food	4	–10
2. Industrial Supplies	14	–1
3. Computers	–1	–11
4. Other Capital Goods	6	–1
5. Automotive	6	2
6. Consumer Goods	5	2
7. Other	7	0
8. Total Non–oil	**7**	**0**

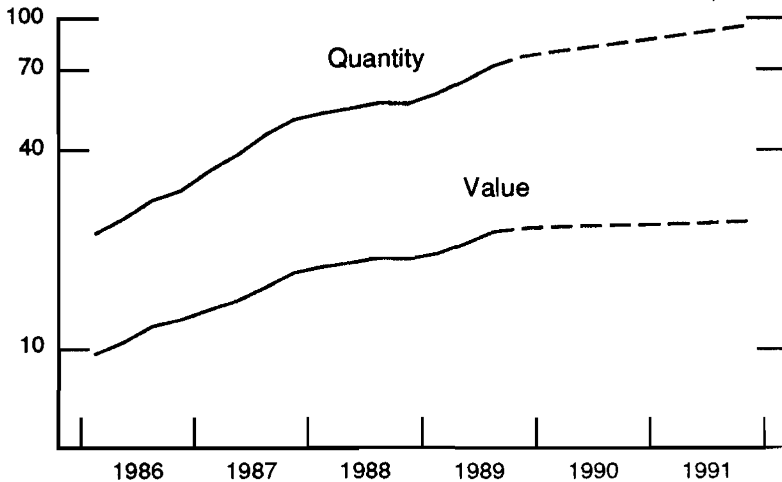
NIPA fixed–weight indexes

QUANTITIES

Percent change, Q4 to Q4	1988	1989
1. Food	–5	11
2. Industrial Supplies	–2	–1
3. Computers	11	39
4. Other Capital Goods	9	8
5. Automotive	0	–10
6. Consumer Goods	5	6
7. Other	11	4
8. Total Non–oil	**4**	**7**

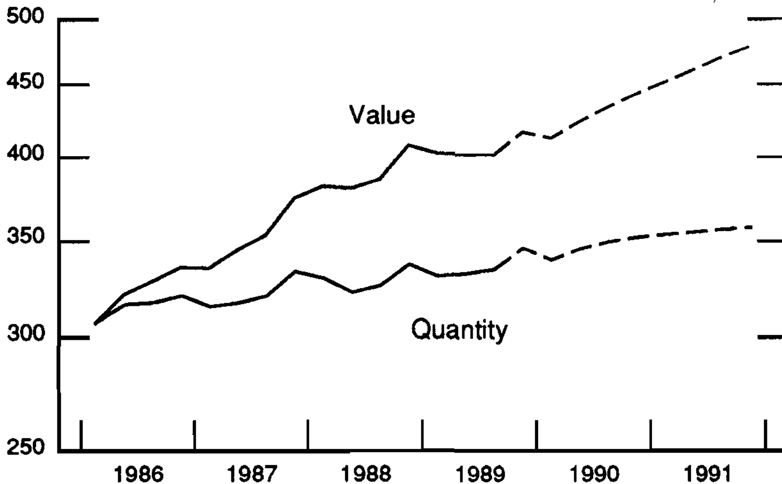
NIPA accounts

COMPUTERS



Percent change Q4 to Q4	1989	1990	1991
Value	24	2	3
Price	–11	–8	–8
1982$	39	11	11

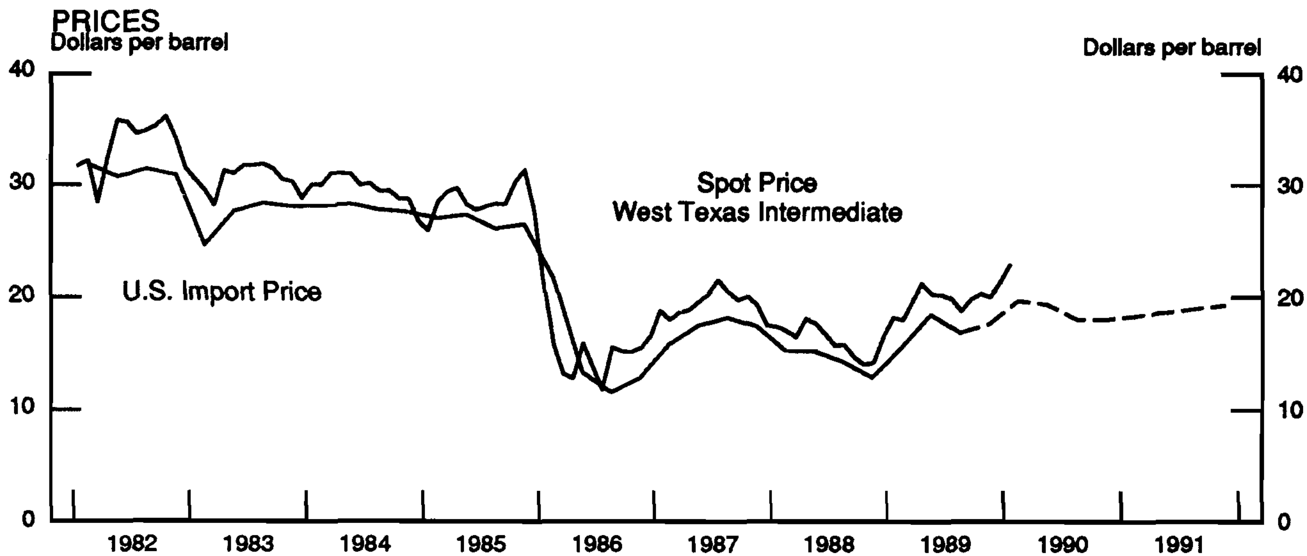
OTHER NON-OIL IMPORTS

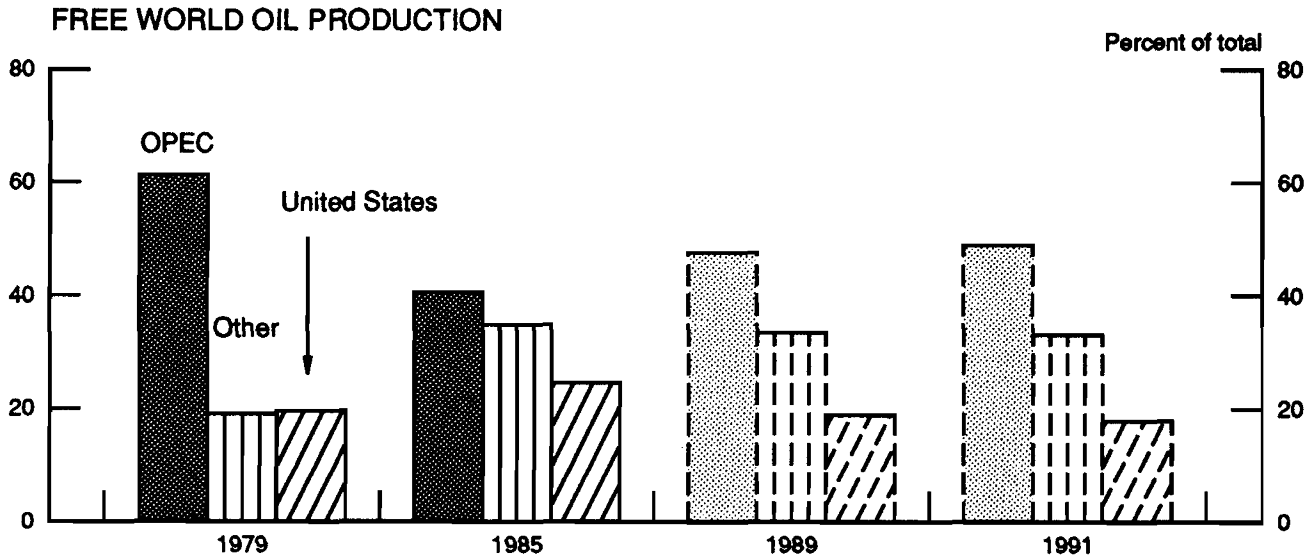


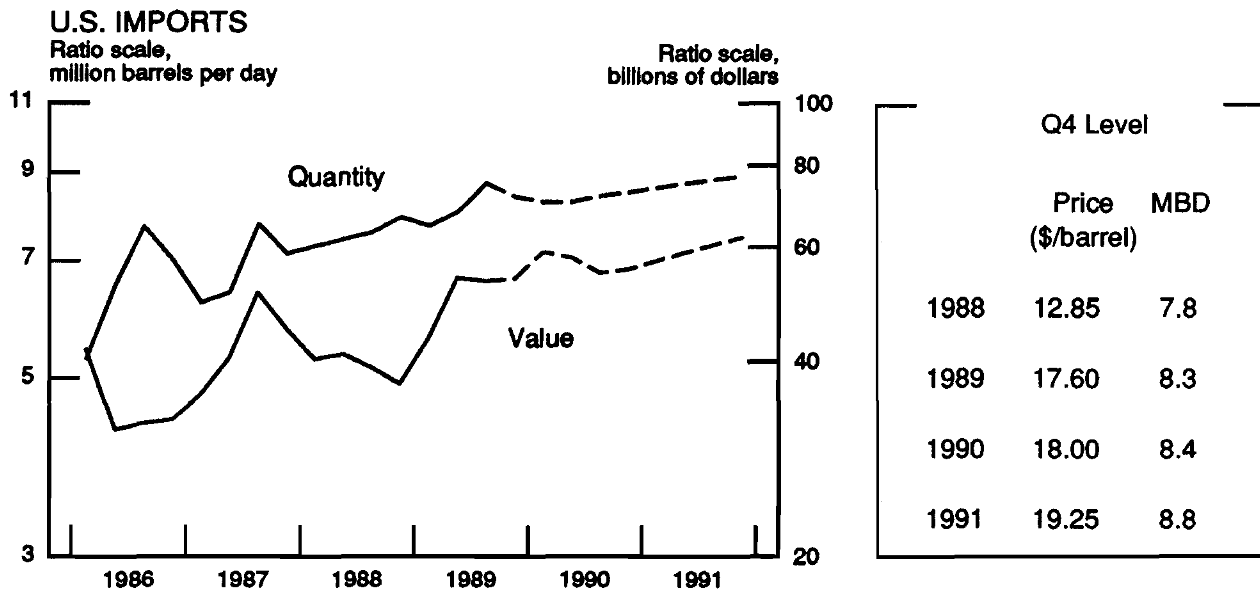
Percent change Q4 to Q4	1989	1990	1991
Value	2	6	8
Price	0	5	6
1982$	3	2	2

Chart 20

Petroleum and Products





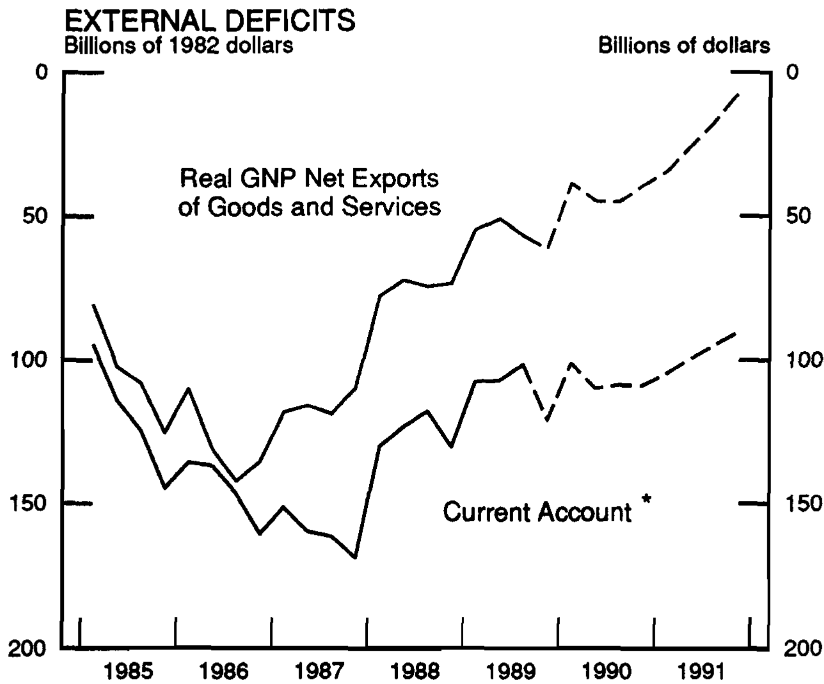


Q4 Level

	Price ($/barrel)	MBD
1988	12.85	7.8
1989	17.60	8.3
1990	18.00	8.4
1991	19.25	8.8

Chart 21

U.S. External Accounts



Billions of dollars
Annual rate, Q4

	1989	1990	1991
Merchandise Trade	–125	–111	–96
Current Account *	–121	–109	–90
Real Net Exports	–62	–40	–8

* Excludes capital gains and losses.

U.S. CAPITAL TRANSACTIONS

Billions of Dollars, Net Inflows = +

	1987	1988	1989 e	1990 p
1. Private Capital, net	**103**	**105**	**88**	**74**
2. U.S. Banking Offices [1]	47	21	12	15
3. Bonds and Stocks [1 2]	26	36	45	38
4. Direct Investment [2 3]	22	43	26	17
5. Other Flows	8	5	5	4
6. U.S. and Foreign Official Assets	**55**	**32**	**–16**	**22**
7. United States [1] (increase = –)	10	–7	–27	1
8. Other G–10 Countries	39	16	–4	16
9. Other Countries	6	23	15	5
10. Statistical Discrepancy	**2**	**–11**	**37**	**11**
Memo:				
11. *Current Account* [3]	–160	–126	–109	–107
12. U.S. and Other G–10 net Purchases of Dollars	97	2	–72	n.a.

1. The refinancing of foreign governments' military sales debt through the sale of securities guaranteed by the U.S. government has been excluded from changes in U.S. government assets, U.S. purchases of foreign securities, and changes in bank custody claims on foreigners.
2. Transactions with finance affiliates in the Netherlands Antilles have been excluded from direct investment and added to foreign purchases of U.S. securities.
3. Excludes capital gains and losses.

e = estimate
p = projection

February 6, 1990

Long-run Ranges Briefing
Donald L. Kohn

The Committee's decision about its monetary objectives for 1990, may be subject to a bit more scrutiny than in recent years. The public discussion and debate of the Federal Reserve's price stability objective and the costs of achieving it have heightened interest in the Committee's medium-term strategy. For example, the Senate Banking Committee, in its letter of invitation to the Chairman for his forthcoming testimony, posed questions about how our annual targets fit into our plans to achieve price stability, and about the implications of this objective for growth and resource utilization.

The question of costs was discussed extensively at the last meeting, and is raised again in the context of longer-term strategies, which I will be getting to in a minute. The relationship of annual money targets to long-term goals is, unfortunately, complex. Year-to-year growth rates in money may not convey, in a way that can be easily understood, the underlying objective of monetary policy. This can be seen quite clearly in the staff forecasts of money and debt growth rates for 1990 consistent with the greenbook forecast, which are shown in the right hand column of the table on page 12 of the bluebook. Although that forecast involves some restraint on underlying inflation pressures, M2 growth is expected to accelerate from the 4-1/4 to 5-1/4 percent range of the last three years to around 6-1/2 percent this year. The faster growth of M2 in the forecast occurs because of a judgment that underlying demands for goods and services have been sufficiently damped,

largely by past monetary restraint, that price pressures can be held in check without significant further upward movement of interest rates in 1990. The forces imparting an upward bias to money velocity in the past several years will no longer be operating, and money growth will be more in line with spending. In fact, the staff expects a small decrease in velocity this year, of less than 1 percent, owing to the lagged effects of declining interest rates over the second half of 1989. I might note that the risks around the M2 projection are probably more heavily weighted toward somewhat less growth than somewhat more. The shortfall would occur if deposit offering rates are reduced more than expected--by banks flooded with thrift core deposits, and by thrifts with renewed access to RTC funds to paydown high-cost liabilities.

With respect to M3 and debt, we see the opposite pattern developing--that is, a damping of growth that is out of proportion to the policy restraint assumed in the forecast. For M3, this reflects the effects of the working out of the thrift situation, involving a major restructuring of mortgage flows in credit markets, with a much lower than usual fraction of mortgage assets ending up in the portfolios of depository institutions and financed with M3. We are projecting only 4 percent M3 growth this year, extending the atypical relationship of this aggregate to M2 and spending that developed in the second half of 1989 when the thrift industry began to shrink in earnest. Debt is expected to decelerate from 8 to 7 percent in 1990. Nearly half of this slowdown is attributable to an assumed decrease in debt issuance to retire corporate equity, rather than a contraction of underlying finance available to support spending.

The complex relationship of yearly money growth to developments in the economy and inflation also can be seen in the alternative policy simulations shown on page 8 of the bluebook. Even in the tighter strategy II, M2 running a little above its average pace of recent years is consistent with a drop in inflation to 2 percent by 1994. This pattern partly reflects a relatively stable path for nominal GNP, with output depressed initially and picking up later, while prices slow with a lag. In addition, however, it is a function of declines in interest rates and velocity as inflation moderates, so that the same money growth supports slower nominal spending in the transition period to price stability. This is an aspect of the so-called re-entry problem, in which, to avoid precipitating deflation, M2 must be allowed to expand faster than its long-run equilibrium growth rate for a time as nominal and real interest rates fall when price stability is approached. To the extent the drop in interest rates since the middle of last year reflected a decrease in inflation expectations, so that restraint in terms of real interest rates can be maintained at lower nominal interest rates, stronger M2 growth in 1990 can be seen as a taste of the kinds of counter-intuitive money growth paths that may be associated with attaining price stability.

A few other points are worth noting about the simulations. First, they start from the presumption that the unemployment rate has to rise from current levels to keep inflation from accelerating in an underlying sense. This can be seen most clearly in the easier strategy III, in which, despite economic growth below potential and a small rise in the unemployment rate this year, inflation is little changed in later

years aside from the effects of dollar depreciation through 1991. To relieve pressure on resource use sufficiently to damp inflation probably requires some upward movement in real interest rates, though the size of the increase is not large, at least in the baseline.

Second, because of the starting point, and also the implied short-run trade-offs in the model between resource utilization and inflation, a sustained period of subpar growth would be needed over the next few years to make substantial progress in curbing inflation, as under the tighter strategy II. However, the model makes no allowance for changes in Federal Reserve credibility as markets measure our actions against our rhetoric. Maintaining a taut policy under this strategy, even as the unemployment rate rises, might induce business and workers, as well as financial market participants, to give greater weight to our stated long-run objective, speeding the reduction in inflation expectations. Thus, even though none of the simulations presented show price stability in the 5-year horizon, the resource utilization path of strategy II might actually have a good chance of closely approaching price stability at or just beyond 1994.

Although money growth rates do not translate easily into, say, inflation intentions, the choice of objectives for 1990 can convey something about the Committee's medium-term strategies and priorities. With this in mind, and with an eye to the current outlook for growth of the various aggregates, the staff presented on page 12 of the bluebook, not only the tentative ranges, but also several alternatives.

When the Committee adopted its tentative ranges last July, it carried over the existing 1989 ranges into 1990. These ranges could be

adopted as final. Staff projections for the three aggregates lie within the tentative ranges, and it seems likely that these ranges also would support the path for the economy and prices most Committee members envision as well, since the central tendency of your forecasts is similar to the staff projection.

However, one reason the Committee simply carried over the 1989 ranges was because of the uncertainties in the financial outlook, associated in part with the workout of the thrift situation. These uncertainties seem to be resolving themselves in ways that suggest adjusting the ranges, at least for M3 and debt. To recognize the structural shifts brought about by greater thrift shrinkage and reduced equity retirements than was contemplated in July, all the alternatives have in common lower M3 and debt ranges. Some reduction in these ranges would not connote a "tighter" policy than contemplated in July or than would be consistent with modest restraint on inflation pressures, given these structural shifts. In this context, the staff considered alternative II, which reduces the M3 and debt ranges, but retains the M2 range, to be roughly equivalent, in a policy sense, to the tentative ranges. Indeed, even greater reductions would be needed to center the M3 and debt ranges around the staff outlook, but such reductions were not proposed partly because of the possibility that the ranges might have to be raised in future years after special effects abated, and the difficulties such a reversal might raise in public perception of monetary policy intentions. The alternative II ranges would seem to be balanced in a way that suggested more scope for a tightening of policy than for

an easing, with the range for M2, the most interest sensitive of the targeted aggregates, providing the principal reading in that regard.

Although an M2 range of 3 to 7 percent may be consistent with staff and FOMC projections, it probably would not encompass the administration's economic forecast. The 7 percent nominal GNP for 1990 and falling interest rates of that forecast suggest M2 growth on the order of 8 percent in 1990. The administration has addressed this potential inconsistency in the CEA report released yesterday. This report is generally very supportive of the conduct of monetary policy and the Committee's objective of price stability. But it acknowledges that M2 could exceed its tentative range for 1990, and suggests two approaches: raising the range, or simply allowing an overshoot to develop, which would be explained ex post as an artifact of declining velocity. The Humphrey-Hawkins report also is required to address the relationship of the FOMC's ranges and the administration's forecast. The inconsistency of the M2 range with the administration forecast might connote something a bit more fundamental than a disagreement over velocity, since it arises from more rapid income growth than the FOMC's central tendency, as well as from the assumed drop in rates. The rate decline could be attributed to the tighter fiscal policy assumed by the administration, but higher real and nominal income growth might be considered less conducive to inflation restraint than the Committee might believe desirable.

Alternative I contains a higher M2 range, should the Committee wish to allow for significantly greater income growth than in the staff or FOMC forecasts, or for a drop in interest rates. Faster income

growth might be considered appropriate if the Committee wanted to key policy to maintaining the expansion of the economy close to the rate of growth of its potential in coming years. Room for more rapid M2 growth might also be appropriate if the Committee saw the risks as greater on the side of a shortfall in aggregate demand. Actions to sustain growth under such circumstances by reducing interest rates might soon lead to M2 growth above the upper limit of its tentative range. The increase in the M2 range might be seen as connoting more attention to and concern about the performance of the real economy on the part of the Federal Reserve. However, given the expectations for M3 and debt growth, the ranges for these aggregates still could be reduced without compromising the intent of alternative I.

On the other hand, if the tentative range for M2 were adopted, as in alternative II, it would be the first time in four years that the M2 range had not been reduced, and might be seen as casting doubt about the Federal Reserve's commitment to its price stability objective. A reduction in the M2 range, as under alternative III, would underline that commitment, and imply that the Federal Reserve was more concerned about risks of inflation accelerating than of economic expansion falling a little short of expectations. With M2 already running along the upper end of this range, adoption of alternative III would seem to imply a prompt response to tendencies for this aggregate to run over its range, as might occur if price pressures in the economy turned out to be a little stronger than expected. It would also imply more limited responses, in the form of reducing interest rates, to any tendency for economic activity to fall short of expectations. Presumably the range

would not be allowed to constrain actions to cushion a major shortfall in demand and downturn in the economy, which might require an overshoot of the upper bounds of all the alternatives. But the lower range may imply the desire to delay a reaction to data suggesting softness in the economy in order to gauge the extent of the weakness, and a willingness to allow relatively minor shortfalls in demand to show through into slower growth initially and ultimately into a reduced rate of price increase.

February 7, 1990

Short-Run Policy Briefing
Donald L. Kohn

I will be relatively brief Mr. Chairman, partly because you've heard enough from me today, but also because yesterday's discussion of bond yields covered much of the ground I was prepared to go over. This won't deter me entirely, however; the issue of what has been driving long-term rates is of sufficient import for the stance of monetary policy that I thought it might be useful to sum up the arguments and to add some thoughts on possible implications of other cross currents recently evident in financial markets.

With regard to the bond yields--first, I think it was generally agreed that the rise in bond yields was largely an increase in real interest rates. Inflation prospects may be a little worse over the near-term, and the outlook for a significant downward adjustment in longer-term inflation rates probably looks less likely to those who had thought the economy was slipping into recession. Nonetheless, it seems farfetched that developments over the intermeeting period would have caused long-term inflation expectations to be revised up by more than 1/2 percentage point.

Second, if at least some of the rise in real rates can be seen as an increase in equilibrium real rates, then it might not imply much more restrictiveness. To an extent, this can be inferred from the yield curve. The slight upward slope of that curve is consistent, taking into account usual liquidity premiums, with market expectations that economic

expansion will be sustained at something like the current level of short-term rates, without any significant moderation of inflation.

A major factor behind the market's rethinking appears to have been the incoming data on the U.S. economy, which presented much more of a mixed picture than had been built into the earlier prevailing expectations of further Federal Reserve easing. Apparently, previous levels of real rates were now seen to be less restrictive than had been thought. Increases in foreign rates may also have played a role, though one needs to be careful in interpreting the simultaneous increases in rates in industrial countries. To the extent the rise in worldwide interest rates represented a response to perceptions of newly opening opportunities in Eastern Europe, or if the upward movements of rates abroad resulted from a generally stronger demands on their economies, the equilibrium real rate in the US also would tend to rise. The expansion of those economies will feed back onto the US economy through, for example, greater demands for our exports, supporting growth here at the higher real rates.

But other factors may have been pushing up bond yields as well, with less benign implications for the United States. For one, some of the increase may have involved market overshooting, arising perhaps from a rush of sales when investors decided simultaneously to lighten portfolios, or even from one of those mysterious Japanese accounting rule changes. A suspicion that such transitory factors may have been involved lay behind the hint in the bluebook that bond yields could edge down once the Treasury refunding is over. In addition, our rates could be reacting to the prospects for tighter monetary policy abroad, though

in the past this generally has shown through mainly in exchange rate changes rather than interest rates, and there has been little confirming evidence in short-term rates abroad. Or, uncertainty may have increased, driving investors into shorter-term instruments, or even into gold. That these additional uncertainties are emanating at least as much from Japan and eastern Europe as from the United States, could be another explanation behind the the worldwide nature of the rise in bond yields.

On balance, it would appear that most of the increase in bond yields might be attributable to increases in actual or perceived equilibrium real rates, and to a lesser extent to higher inflation expectations. But some part also may represent a tightening of conditions that could damp demand in certain sectors, perhaps more than now expected by the market. Other developments in financial markets have also worked in this direction. The drop in the stock market has reinforced the sense of higher capital costs to businesses and has reduced the wealth of share holders. And the evidence that lenders are adopting a more cautious attitude, however welcome from a supervisory perspective, may be raising the cost and reducing the availiblility of credit for some private borrowers. These borrowers are, in effect, facing even greater increases in real rates than suggested by tracking rates in the Treasury, or even private securities markets.

On the other side of the ledger is the depreciation of the dollar against major currencies, except the yen. Whatever the reason for its behavior, the drop in the dollar would make US goods more competitive in international markets, stimulating output and import price increases. It seems likely that the decline in the dollar contributed

to the rise in US bond yields, through revisions to both expected real rates and inflation. If this is an important channel for the transmission of interest rates around the world, it suggests that the mechanism for such a transmission itself carries somewhat offsetting effects for the economy--both for the countries whose currencies are depreciating and those whose currencies are appreciating.

Money growth, after slowing in January, is expected to rebound over the balance of the quarter. The M2 growth in the staff projection would imply expansion in the first half of 1990 close to the upper bound of the long-run range you adopted today. Moreover, such growth would still keep P* close to the projected price level, reinforcing the notion that the stance of monetary policy implied little near-term downward impetus to price pressures.

Finally, although inflation concerns may not account for much of the rise in bond yields, they have worsened recently, as was evident from the consumer surveys discussed yesterday. Under these conditions, restraint on the pace of economic activity, as might arise in part from some of the bond and credit market developments just discussed, may be necessary to prevent temporary increases in food and fuel prices from becoming embedded in long-term price expectations.

In light of the divergent signals given by these various factors, the Committee might want to extend the period of stable operating policy, as under alternative B, awaiting further developments that would point more clearly to the need for policy adjustment. If the Committee were to view the evidence as suggesting the need for a further slight easing of policy at this time, it could well be that such an easing