

## APPENDIX

NOTES FOR FOMC MEETING  
MAY 16, 1989

SAM Y. CROSS

At various times since late March, there have been waves of upward pressure against dollar exchange rates. The widespread demand for dollars appears to be coming from private and official investors plus some corporate customers, and the dollar is now trading at its highest level against the mark in about 2-1/2 years. Since the day of your last meeting, the U.S. monetary authorities have sold around \$2.8 billion to counter the dollar's rise, and other monetary authorities have intervened to sell dollars in substantial amounts. These operations, and the market's increased trepidation about central bank action as we approach higher levels have certainly helped to contain the dollar's rise and the dollar is now trading about 2-1/2 to 3 percent above the levels that prevailed at the time of your last meeting.

Although a variety of factors have contributed to the upward pressure on the dollar, a main focus of market participants has been the profitability of dollar investments. With the dollar relatively stable and at times rising during the last year, investment managers have come to view their portfolios as underweighted in dollar assets. Foreigners appear to have increased dollar investments by purchasing sizable amounts of fixed-income securities and also equities, as well as by direct investment. Part of the increase in foreign dollar exposure has taken the form of investors with dollar holdings lowering their hedge ratios. In these circumstances, the U.S. current account deficit has been easily financed, indeed over-financed, and has attracted little market attention. Although concern about inflation lingers, some investors have been encouraged by recent U.S. business

statistics and what they see as a softening of demand and growth, which they expect will lead to an easing of U.S. interest rates. Since few other countries appear to be this close to the peak of interest rates, the U.S. fixed-income markets appear to offer the most likely prospects for capital gains.

Reportedly, this strong investor demand has been accompanied by a persistent though not overwhelming demand for dollars from industrial and commercial firms. Our sense is that speculators and interbank dealers have not been the leaders in the recent dollar rally; in many cases they have remained cautious and appear to have been kept at bay by apprehension about central bank intervention.

This intervention has symbolized the commitment of the Group of Seven (G-7) nations to stability in the foreign exchange markets. The official communique issued after the G-7 meetings in early April impressed the market by expressing much more concern about a dollar rise than about a dollar decline. It was followed up by the first Bank of Japan intervention sales of dollars in more than three years. The exchange markets then remained relatively stable until the end of April.

The most recent wave of dollar buying started on April 28. Since then, the demand for dollars has been both widespread and persistent. The U.S. authorities reentered the market to resist the dollar's rise, in coordination with other central banks. These operations have helped keep the upward pressure from accelerating, but have not turned the situation around. In the past couple of days we have been making a more vigorous effort to try to resist the market pressures more effectively, and with all the major G-7 participants acting uniformly and forcefully. Neither we nor our G-7 partners want

to see a further substantial rise in the dollar which would exacerbate the already difficult international adjustment problem.

Exchange rates are relative assessments, and the dollar's recent strength has certainly been caused in part by what the market perceives to be bad news abroad. Capital outflows from Germany have continued into 1989 and are exceeding Germany's growing current account surplus. Some of this outflow has been prompted by the relative stability of exchange rates, with investors choosing to place funds not only in the dollar but also in various higher-yielding European currencies. Some of the outflow has been prompted by uncertainty, confusion, and discouragement surrounding the imposition and later withdrawal of a German withholding tax on interest income. Also there is growing political concern that Chancellor Kohl's own position, as well as the position of his party and that of all center parties, has been weakened. Recent unpleasant disagreements on defense matters have underscored the vulnerabilities. Some market participants have also expressed concern about the possibility that inflationary pressures in Germany are mounting. On April 20, the Bundesbank did raise its discount and Lombard rates, but the market was not favorably impressed for long.

The Japanese yen has also suffered from political uncertainty. Most importantly, the long simmering Recruit scandal has boiled up to the point that the Prime Minister has tendered his resignation and no clear successor is in view.

So it is clear that political factors in both Japan and Germany account for a part of the weakness of their currencies, or conversely the strength of the dollar.

So that's where we are at present, Mr. Chairman, but it's useful to look back at our intervention over a longer period. If you

go back to the Louvre, 2+ years ago, when we started trying to bring more stability to the dollar, at that time, February 23, 1987, the DM stood at 99 and a fraction. Yesterday, it stood at 100 and a fraction. That's pretty good. Of course, it's an average. Against the DM, the dollar is 6 percent higher and against the yen it is 10 percent lower. But that's to be expected. Overall, the outcome has been very good.

Mr. Chairman, I would like to seek the Committee's approval for the Desk's operations during the period since your last meeting. The System's share of intervention sales of dollars was \$1,394.5 million, including \$969.5 million sold against marks and \$425 million against yen. An equal amount was financed by the U.S. Treasury. In addition, the U.S. Treasury augmented its yen balances through non-market purchases of \$117.1 million equivalent of yen.

NOTES FOR FOMC MEETING  
MAY 16, 1989

PETER D. STERNLIGHT

Domestic Desk operations since the last meeting have sought to maintain the degree of reserve pressure prevailing at the time of that meeting. The path allowance for borrowing was kept at \$500 million, although it was regarded with flexibility in light of continuing uncertainty about the relationship of borrowing and funds rates. As it turned out, there was little occasion to exercise this flexibility--borrowing averaged fairly close to path, about \$565 million, while funds typically hovered around 9-3/4 - 9-7/8 percent and averaged 9.83 percent through yesterday. The borrowing level reflected increasing use of seasonal borrowing as this component worked up from the \$160 million area in late March to around \$340 million more recently.

Against this fairly steady background of reserve pressures, market sentiment underwent some appreciable change in response to information on the economy. In late March, the predominant market view was that some further firming of monetary policy was likely, not too far down the road. By early April this gave way to a more balanced feeling that essentially saw no great likelihood of imminent change either way, though with the usual backing and filling of individual participants' views from day-to-day. By the close of the period, and particularly after last Friday's unexpectedly moderate price number, sentiment leaned more toward an anticipation of possible easing though with many overtones of the need for caution in any such move.

Desk operations were complicated, although not too seriously hampered, by the unexpectedly large reserve needs generated by high

Treasury tax receipts. These inflows, while of course welcome in their deficit-reducing effects, caused Treasury balances to run far above the capacity of tax and loan accounts at the commercial banks. Indeed, over-all Treasury balances reached peaks in late April and early May some \$10 billion or so beyond the levels anticipated just before the mid-April tax date. At the same time, other reserve factors, including slower growth in currency and required reserves and sizable increases in foreign currency holdings, tended to temper the need for long-term reserve additions through domestic operations. Thus while meeting part of the period's large reserve need with outright purchases--about \$2.2 billion of coupon issues in the market on April 5, \$2.4 billion of bills in the market on April 26 and \$1 billion of bills bought day-to-day from foreign accounts--the really "heavy lifting" was done through repurchase agreements. This was especially so in late April-early May when the Desk arranged huge rounds of pre-announced multi-day nonwithdrawable RPs, climaxed by a record one-day injection of \$15.8 billion in RPs on May 4.

In fact, the Desk's outright purchases did not quite exhaust the normal intermeeting leeway, let alone make use of the enlarged leeway that the Committee provided at the last meeting. Clearly, we could have done more through outright buying, but given the longer-term outlook, that would have overdone the reserve provision needed now as Treasury balances subside. Even as it is, the prospect of an overabundance of reserves in the reserve period to start this Thursday caused us to run off some bills in yesterday's weekly auction.

As market sentiment shifted from anticipations of further firming to neutrality and then a tilt toward ease, interest rates declined appreciably over the intermeeting period. Indeed, the magnitude of rate declines--close to a full percentage point for some

shorter-term Treasury issues and about half a percentage point at the long end--seems to overstate the extent of a shift as articulated by market participants. One has the sense that pools of investible funds had been dammed up in anticipation of rate hikes and then released as the balance of expectations shifted, but with exaggerated immediate market impact.

Underlying the shift was a flow of news on the economy that was preponderantly--though not universally--on the moderating side, suggesting that the economy's growth was abating to a pace less likely to exacerbate inflation. The persistently strong dollar was also a background factor. Just lately, a few observers also have cited slow money growth as an element bolstering market optimism. Considerable solace was taken in the slower nonfarm employment gains reported for March and April, weaker than expected April retail sales, and especially from the slight decline in April producer prices exclusive of food and energy reported last Friday. That last number alone sparked a rally that pulled the whole yield curve down about 20-40 basis points. In fact, until that price report was released, yield declines were fairly modest at the long end, partly out of concern over that upcoming number and inflation prospects generally, and partly because the market had some considerable supply to digest in the Treasury's May financing.

Another supply element that may or may not be "really factored in," depending on whom you ask, is the prospect for substantial issuance of long-term bonds to finance thrift bail-outs. The long bond market was set back in early May when the Treasury announced that it was prepared to supply the long-term zero coupon issues to be used to defease the 30-year Refcorp bonds that would be issued under the Administration's plan. Some market participants had

anticipated that at least some of the zeros would be bought in the market, so this prospective source of market demand evaporated--but the market view was so preponderant that it would be inadvisable and indeed infeasible for the zeros to be bought in the market that the Treasury decision should have caused no great surprise. Much of the reaction may have been merely the reminder that the bail-out plan was progressing through the Congress and that long-term bond sales were coming closer. Even now, though, there is a question whether the prospective sales are fully factored in to market expectations--and the continuing uncertainty surrounding the off-budget/on-budget debate now going on perhaps justifies the market's fuzzy focus.

For the full period, yields on Treasury coupon issues declined about 40 to 95 basis points, with the largest declines in the 1-5 year area that had been showing the highest yields under the recently inverted yield curve. Now the curve is essentially flat from one year to 30 years. The Treasury raised about \$19 billion in the coupon market including \$13 billion in the just completed May refunding. That refunding got off to a shaky start with the 3-year note initially trading at below-auction price levels, but those price adjustments brought better acceptance of the 10- and 30-year offerings and after last Friday's rally all three issues commanded handsome premiums.

In the bill market, yields dropped about 80-85 basis points, spurred by technical shortages as well as the aforementioned changing views about the economy and policy prospects. The Treasury paid down about \$10 billion, net, in the bill market, reflecting not only the expected redemption of cash management bills after the April tax date but also some greater-than-expected reductions in weekly offerings in the aftermath of heavy tax receipts. Our market purchase also

impinged a bit on supplies. In yesterday's regular auctions, the 3- and 6-month bills sold at average discount rates of 8.21 and 8.19 percent, respectively, down from 9.10 and 9.12 percent just before the last meeting. Even with technical scarcities continuing, it is hard to imagine bill rates staying this low against a background of broadly unchanged funds rates and day-to-day financing costs.

Among financial market participants and observers who articulate their views, there are many who still feel inflation is a considerable problem and that at some point the System will have to apply greater restraint--but few if any look for early moves in that direction. Not many say they expect much early indication of an overtly easier stance, either, although market rate relationships seem to imply some edging toward the accommodative side--and very few participants seem disposed to "fight the tape." The current mood of complacency, bordering on mild euphoria, may last no longer than this Thursday's consumer price index report--but this remains to be seen.

On dealer relationships matters, I should note that another primary dealer--Lloyds Government Securities Corporation, a subsidiary of Lloyds Bank--decided a couple of weeks ago to fold its tent and withdraw from market-making due essentially to poor earnings experience. That's the third drop-out this year and it trims the number of primary dealers to 43. Meantime, a few weeks before that, the Desk added Yamaichi International (America)--which was already on the primary dealer list--to the group of firms with which we have a trading relationship. We now trade with 41 of the 43 primary dealer firms.

Michael J. Prell  
May 16, 1989

**FOMC BRIEFING -- ECONOMIC OUTLOOK**

At the last meeting of the Committee, the staff noted that there were tentative signs that the expansion of the economy was slowing--not only because of aggregate supply constraints, but in part because of the effects of monetary restraint on aggregate demand. Today, we feel much more confident in that assessment, and, indeed, the information received since last Wednesday suggests that we may have underestimated in the Greenbook the degree of deceleration that has occurred thus far this year.

What I want to emphasize this morning, however, is that at this point we believe the change in the picture is, most probably, one of degree rather than kind. More specifically, we still think what is in prospect is a period of slow growth, rather than imminent recession.

To bring you up to date on the most recent economic data, the retail sales figures were released the day after the Greenbook was published. We had expected the level of sales in April to be much higher than it was, either as a result of a surge last month or an upward revision to prior months; the revisions were minor, and the gain in April was small. As it now stands, the PCE control grouping, which excludes auto dealers and building supply stores, has declined in real terms for three straight months.

Yesterday, we received the figures on sales of new domestic cars in the first 10 days of May, and, at a 7.4 million unit annual

rate, they were close to the improved April pace and in line with our expectations.

Combining the retail trade and auto data, it now appears unlikely that there will be much of a pickup in the current quarter in the growth of real consumer spending from the roughly 1-1/2 percent pace of the first quarter.

The data on industrial production we published yesterday also suggest a weaker picture. The main news here is in the revisions rather than in the figure for the latest month. While we've estimated that IP increased a substantial 0.4 percent in April, the levels of production were revised down for February and March. Growth in the first quarter now is put at about 2 percent, at an annual rate, rather than the 3 percent growth rate we had been looking at before. We are projecting another 2 percent gain in the current quarter, and it seems fairly clear that the manufacturing sector has lost a good deal of the upward thrust it had in 1987-88.

The weaker industrial output figures for the first quarter in a sense fit nicely with some of the other data we've received since the Commerce Department published their advance GNP estimate. As we reported in the Greenbook, the figures for March on construction and on equipment shipments were weaker than Commerce had built into their estimate. And the retail inventory data published last Friday suggest that inventory accumulation was less than Commerce anticipated. Overall, barring an upside surprise in tomorrow's trade figures, it appears that first-quarter non-farm GNP growth could easily be cut to

less than 2 percent, depending on how they decide to use the available data.

The last item of news is, of course, this morning's housing release, which showed starts in April at 1.36 million units, at an annual rate, off from 1.40 in March. In contrast, permits recovered some of their March dive, rising 7 percent last month, to 1.32 million. In terms of our current-quarter forecast, the fact that single-family starts rebounded to 1.04 million units suggests that construction spending will be reasonably close to our expectation. The weak area was 5-or-more family starts, a very erratic number, which plunged almost 30 percent last month; expenditures per unit in this sector are less than half those in the single-family and they occur with a longer lag.

In sum, a better guess about nonfarm growth over the first two quarters of the year might be something less than 2 percent, at an annual rate, rather than the almost 2-1/2 percent that we had in mind in putting together the Greenbook forecast. That said, the issue naturally arises of whether this shortfall should be extrapolated into the latter half of this year. You will recall that our forecast already puts growth at only 1-3/4 percent in that period.

Several considerations lead us to think that such an extrapolation probably is not warranted. First, the combination of inventory and industrial output data for the first quarter suggest to us that what we have seen is another episode of prompt adjustment of production to weakening demand and incipient inventory build-up. Final sales, excluding CCC purchases, rose at less than a 2-1/2 percent annual rate in the second half of last year, after rising almost 6 percent in

the first half; that slower growth appears to have persisted in the first quarter of this year. But inventory controls seem to be much tighter than they used to be, and production adjustments appear to have been made in a timely manner.

To be sure, such assessments of inventory behavior have been the Achilles' heel of many economic forecasts, but we think there are other indications that the economy isn't on the brink of recession. The performance of the stock market provides some comfort; the market's reliability as a leading indicator may be questioned, but we know that rising share values have been adding to wealth. In addition, initial claims for unemployment compensation have been at a low level in recent weeks, suggesting that layoffs have not been widespread and that growth in employment and labor income probably has been fairly well maintained. Against that backdrop, the risk of a more serious retrenchment by consumers seems limited. And while any heightened caution on the part of businessmen could lead them to cancel orders, the anecdotal evidence doesn't suggest this is happening yet and backlogs look quite deep for aircraft and some categories of machinery.

Should we be proven wrong, and the economy were to weaken more in the near term than we are projecting, the dividend would be a reduction in pressures on prices and interest rates. In that regard, last Friday's PPI contained some pleasant surprises. While the jump in energy prices was even greater than we expected, the other components of both the finished and intermediate goods indexes were on the low side of our guesses. At the finished goods level, prices ex food and energy declined 0.1 percent, and even if one excludes motor vehicles--which

perhaps one shouldn't entirely, because heftier promotional incentives may be around for a while--the rise still was only 0.2 percent. At the intermediate level, the ex food and energy total was flat, extending in more dramatic fashion the tendency toward deceleration we had noted over the preceding few months. At bottom, we see these data as suggesting that, for a considerable range of U.S.-produced goods, a combination of easing capacity pressures and the competition from slower rising import prices is helping to curb inflation.

Even so, we believe that, overall, price inflation for final goods and services is still on a gradual upward trend. One consideration in that judgment is the wage picture. Although the incoming data, especially the employment cost indexes, suggested that the degree of acceleration in compensation through the first quarter of this year was milder than we had been anticipating, the uptrend was not broken. And even with the April rise in the unemployment rate, labor markets still appear tight on the whole. Moreover, with the likely downward revision in the first-quarter estimate for nonfarm output, the tendency toward deterioration in labor productivity performance will once again be clear. Thus, from the labor cost side, pressures on prices are not likely to abate soon.

In our forecast, the worst of the price news is behind us by midyear, as the food and energy sectors begin to exert a favorable influence. But it is not until well into 1990 that the trend of wage and price inflation more generally begins to improve. We continue to believe that, to achieve that turnaround, we are going to have to see a further damping in the expansion of aggregate demand, to put downward

pressure on prices in product markets and to cause some noticeable loosening of the labor markets. This is made all the more necessary because a number of factors are likely to be working against us next year: higher payroll taxes; probably, a hike in the minimum wage; and, on our assumption about exchange rates, a pickup in import prices.

I should note, in conclusion, that we have retained our forecast that the necessary monetary restraint will be associated with somewhat higher interest rates in the second half of this year. Admittedly, one's conviction on this score has to be tempered somewhat by the recent signs of greater economic weakness than we had projected. Perhaps the more crucial assertion that we would still want to make today is that, while a further rise in rates might not be necessary, a significant policy-induced decline in rates at this time likely would jeopardize the chances of restoring a disinflationary trend any time soon. Especially if such an easing action were to result in an appreciable depreciation of the dollar, it seems likely to us that demands on domestic resources would be strong enough to lead to a further deterioration in U.S. inflation.

May 16, 1989

**FOMC BRIEFING**  
**Donald L. Kohn**

The chart package labelled "Financial Indicators" has again been distributed before the meeting. I do not intend to key my remarks to these charts each meeting, but if FOMC members find this kind of information in this format useful, I could distribute it with the bluebooks.

Today I plan to focus on one class of these indicators--that is, the monetary aggregates, given their recent weakness relative both to the Committee's expectations, and for M2, to the annual range.

Before getting to this subject, which is covered in the last few charts in the package, a brief review of the other financial indicators might be useful, in light of their movements over the inter-meeting period and uncertainty about the implications of the stance of policy for the outlook. You may be relieved to learn I do not intend to discuss each chart in the package.

On balance, most of these indicators suggest that incoming data on the economy only served to convince market participants that recent policy has been about right--that economic growth will continue, but on the more moderate track needed to contain inflation with only minor adjustments to monetary policy. As can be seen in chart 1, the yield curve retains its very mild overall downward slope measured using the funds rate. However, it has lost the hump out to two years that previously had indicated that market participants saw the possibility that some additional firming of policy would be needed over the intermediate

run. The upward slope at the very short end probably owes more to supply factors than to rate expectations. Indeed, relationships among short-term rates now suggest that markets expect a slight easing over coming months. The rise in stock prices, chart 2, likely reflects the favorable outlook for sustaining growth, and strong demands for dollar assets in this economic environment as Sam already discussed have lifted the exchange value of the dollar, though this may also have involved pessimism about developments in other countries as well as an element of mystery. While the higher dollar would be expected to restrain demand in the United States, the behavior of the stock market suggests that this feedback has not been seen as serious enough to jeopardize the earnings prospects of U.S. firms.

As usual, it is difficult to determine how much of the recent drop in nominal interest rates has represented a change in real rates. The declines suggested by the "plus" sign in chart 4 may reflect the combination of nominal yields from last week with inflation expectations from surveys or data pertaining to April. The upward movement in near term inflation expectations in the Hoey survey shown in the first column of chart 5 may have been reversed in May after the most recent round of weak economic and price statistics. Nonetheless, at least until last Friday, continuing concerns about inflation were frequently cited as a major reason for the muted response of the bond market to lower short-term rates. An unchanged or even lower level of real rates might have a more restrictive effect on spending if households and businesses expected the economy to weaken substantially, implying a lower equilibrium interest rate. That real rates haven't become substantially

more restrictive, however, is suggested not only by the advance of the stock market, but also by relatively flat commodity prices, chart 7. This pattern of commodity prices seems inconsistent with a sharp break in more general inflation or substantial weakness in the economy.

One set of indicators that does seem to be giving cautionary signals is the monetary aggregates. Growth of M2 is given in chart 8. Expansion of this aggregate had slowed substantially even before its most recent weakness, increasing at only around a 3 percent rate on average over the second half of last year through the first quarter of 1989. This behavior can be largely explained from the money demand side by the rise in opportunity costs as the Federal Reserve tightened, so that the slackening of money growth did not reflect a contemporaneous slowdown in the economy but rather a rise in velocity, as shown in the lower panel. Whether such slow M2 growth portends a more substantial weakening of the economy than might be desired is, of course, the more difficult and important issue. From one perspective, it involves a judgement about the level of interest rates that produced the rise in velocity, as those rates feed through to real rates, exchange rates and spending decisions. As we just discussed, it would appear that the financial markets generally do not judge these levels to be inconsistent with reasonably satisfactory economic performance.

Of course, aggregates as targets or indicators were intended to reduce the need to make such judgments. Relative to its past behavior, M2 growth through the second quarter is likely to be about as weak as any period on the chart. The staff is projecting a pick-up in M2 over the balance of 1989 and in 1990. Opportunity costs level out as market

interest rates rise only a little further in the staff forecast and deposit offering rates catch up. This behavior of opportunity costs is mirrored in velocity, so that M2 grows more in line with income. We are projecting M2 growth of about 6 percent in the second half of this year, bringing growth for 1989 to 4 percent, and 6 percent expansion again in 1990. The next chart uses the CPI to convert those nominal movements of M2 into real terms on a four-quarter moving average basis. Although the projected pick-up in nominal M2 raises real M2 as well, a substantial decline in real M2 does seem to be in train. The decline is not as severe as some in recent history, but, at least since 1959, any decrease in real M2 was a precursor of recession.

However, there are several factors that might explain why weakness in real M2 might not lead to the same degree of economic weakness as in the past, and instead be more consistent with the projection of slow economic growth in the staff forecast. First, it is not expected to be accompanied by an appreciable drop in real M3. For 1989, M3 is projected to increase 5-1/2 percent in nominal terms and 6-1/2 percent in 1990. This suggests that there is a large volume of fairly liquid assets being created, albeit not those in M2, and that intermediaries issuing these instruments are continuing to extend sizable amounts of credit, avoiding quantity, if not price, constraints on borrowing and spending. Indeed, the relationship between M2 and spending may have changed because we now rely more on interest rates to damp demand than the quantity constraints formerly associated with disintermediation. Over the short- and intermediate-term, with sluggishly adjusting offering rates, the interest elasticity of M2 probably is not that

different than in the past. If rates must move over a wider range, so should M2, its velocity, and real M2, implying that a given restraint on income would now be associated with a sharper deceleration of money.

Second, we think we have some special explanations for a portion of the weakness in deposits, which imply that shortfalls in M2 might not be linked to shortfalls in the economy--current or prospective. The first involves runoffs of deposits at FSLIC-insured thrifts. These were very large in the first quarter, and were accompanied by a surge in noncompetitive tenders at Treasury auctions that suggested some flight to the securities market as well as to banks and money funds. On balance the effects probably weren't large, but they could have shaved half of a percent or so off M2 growth in Q1. Thrift outflows have tapered off a little, although they still continue, and noncompetitive tenders are no longer increasing. As a consequence, we have allowed for only negligible effects on M2 of thrift outflows in the second quarter, though this constitutes some downside risk to the money projections.

The second special factor pertains to recent weeks, shown in the next chart, and involves tax payments and refunds. Final payments on federal personal taxes after April 17 were much larger than we had anticipated, and refunds somewhat weaker. Both also were out of line with past years, and therefore with the normal flows implied by the money seasonals. M2 was running a little ahead of expectations in the first half of April--in retrospect this might have reflected some last minute build up in balances before the tax date. But, as can be seen, M2 fell sharply late in April and in early May when tax checks were clearing and Treasury balances were soaring. This shortfall in M2 fed

through to M3 as, in effect, rising Treasury balances in banks, which are not in M3, substituted as a source of funds for declining core deposits.

We have projected a rebound in M2 growth under all the alternatives, not only to trend rates consistent with income and interest rates, but a little beyond as people rebuild depleted balances. While M2 is not projected to reach the bottom of its cone by June, under alternatives A or B it would be expected to do so some time in the third quarter. But this assumes income and spending are around or somewhat below the greenbook forecast. If M2 were not to rebound, but experienced a prolonged and substantial shortfall from expectations without convincing explanations of special factors, there might be cause for some concern that it was indicating a more serious weakening of income or spending.

Our P-star model, the last chart, would suggest, however, some caution in how strong a rebound was desirable. Even with the special factors affecting M2 growth, p-star is just about equal to actual prices in the second quarter, indicating that policy has only now become sufficiently restrictive to stop prices from accelerating, but has not yet reached the point where it was exerting sufficient restraint to reduce inflation. Cranking the staff M2 growth projections through the model produces only a very mild easing of inflation pressures, shown in the lower panel. More generally, a sharper rebound in money growth probably would not be consistent with the need to continue to restrain demand, as seen both in the current staff forecast and in the projections of FOMC members in February. Unless the last PPI is indicative of a marked break

in inflation from past patterns, containing price pressures is still likely to involve a transition period of slow economic growth and restraint on nominal demand consistent with historically weak money growth.

Finally, Mr. Chairman, a few words about the directive. One suspects that the uncertainties in the outlook may mean that the Committee will be paying particular attention to the instructions for intermeeting adjustments. In that regard, within the existing framework the Committee has two sets of choices in structuring the symmetry or asymmetry of those instructions. One is the amount of the intermeeting adjustment thought acceptable--and that involves choices between "somewhat" and "slightly". The second involves the certainty of any response to new information--the "woulds" and the "mights". This not only affords a number of subtle, if not excessively subtle, possibilities for asymmetry, but it also allows some shading of a symmetrical directive. Predisposition to an active response to new information in either direction would be indicated by "somewhat greater or lesser reserve restraint would"; if uncertainties were such that the Committee preferred more inertia in intermeeting adjustments--that is, a tendency toward remaining at the initial level of reserve pressure unless the evidence were very strong, this could be indicated by "slightly greater or lesser reserve restraint might".

With regard to the level of borrowing associated with each alternative, the staff has interpreted recent experience as suggesting that the surge in seasonal borrowing has and will be reducing the shortfall that developed last fall in borrowing relative to the funds rate.

As a consequence, we have suggested a technical upward adjustment to borrowing of \$100 million to align it better with the funds rates expected under each alternative. Thus, for example, "maintaining the existing degree of pressure on reserve positions" would be interpreted as involving \$600 million of borrowing, rather than the \$500 million objective the desk has been working with. We would expect this to be associated with federal funds continuing in the 9-3/4 to 9-7/8 area. Alternatives A and C were scaled down and up from the specifications of B by the usual rules of thumb correlating 50 basis point moves in the funds rate with \$200 million changes in borrowing.

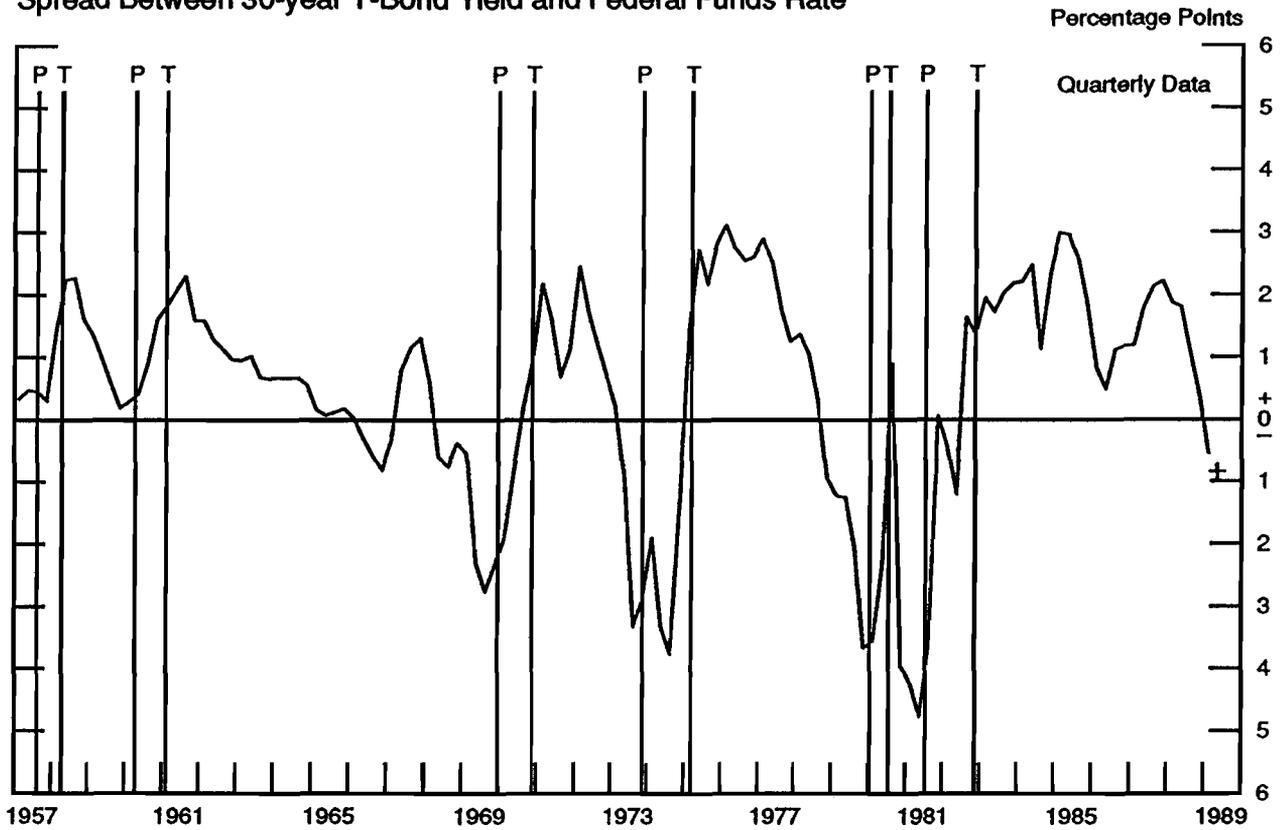
# *Financial Indicators*

*May 16, 1989*

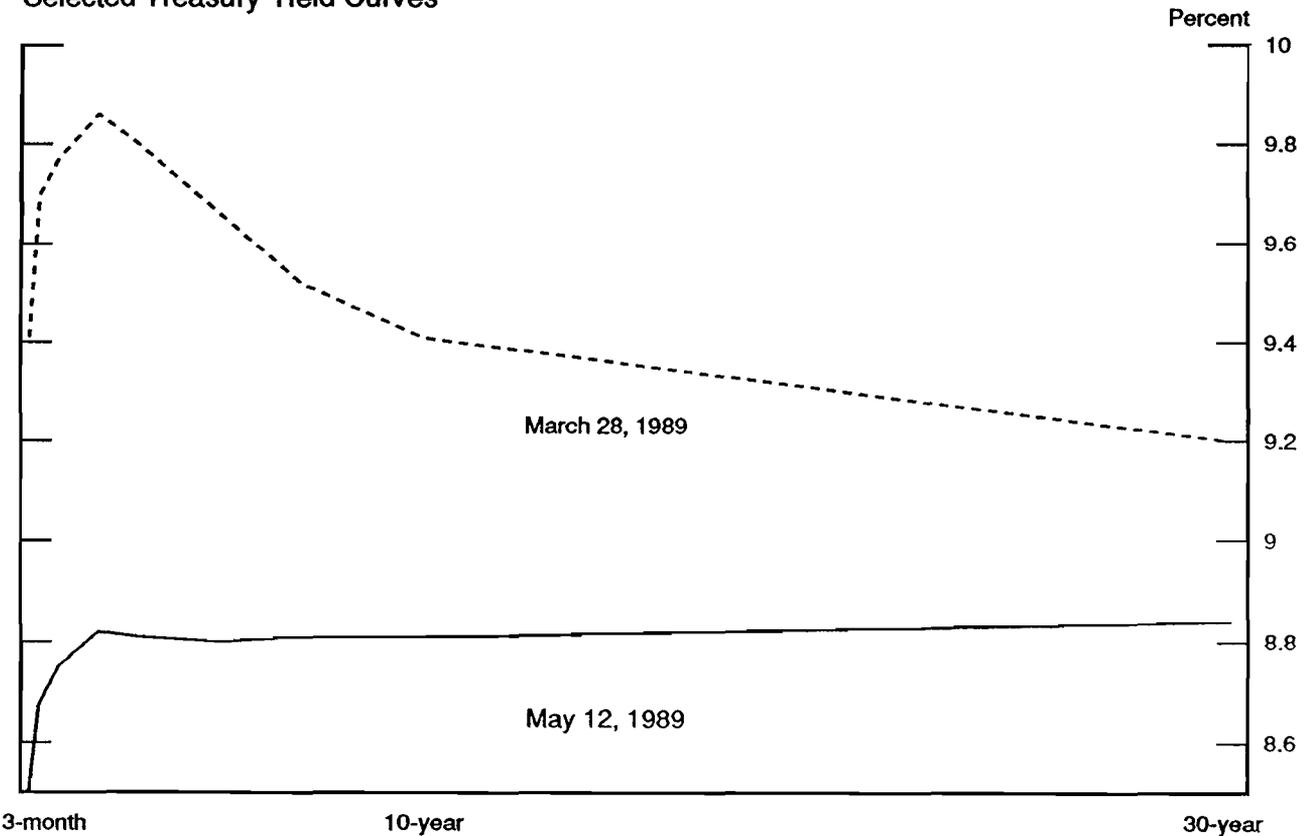
Chart 1

# The Yield Curve

## Spread Between 30-year T-Bond Yield and Federal Funds Rate\*



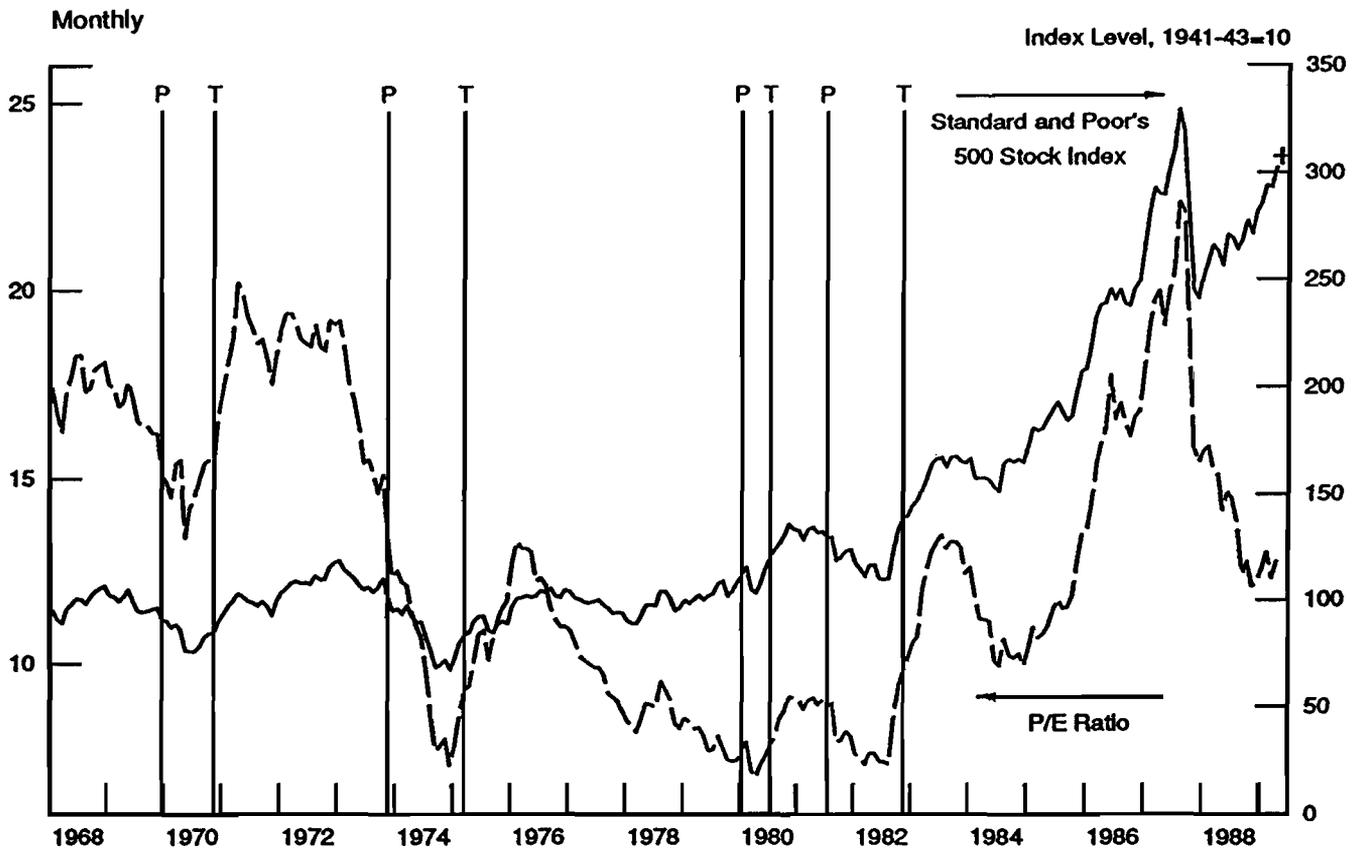
## Selected Treasury Yield Curves



\*Spread between the 20-year Treasury constant maturity and the federal funds rate (bond equivalent basis) prior to 1977:Q2. Beginning in 1977:Q2, the 30-year Treasury constant maturity is used.  
+ Denotes most recent weekly value.

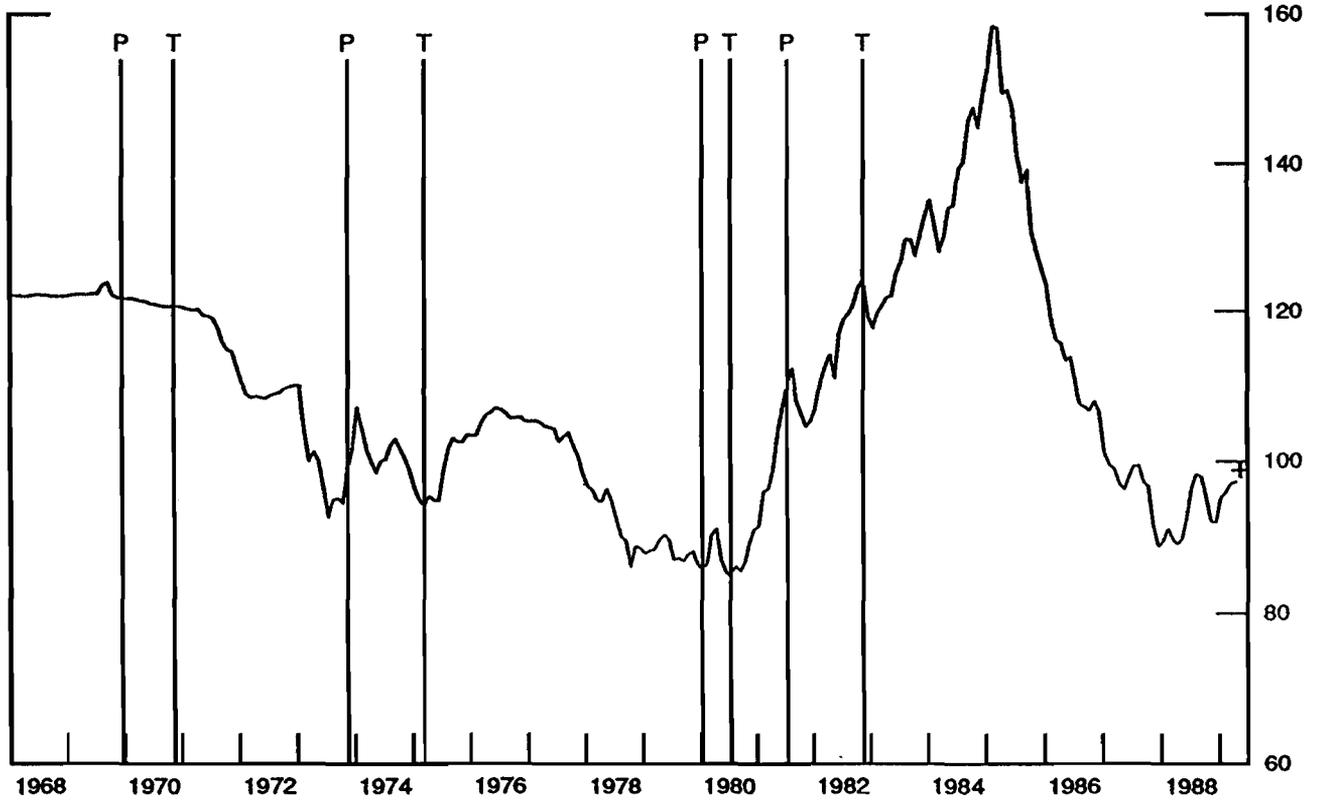
Chart 2

### Stock Indices and the Exchange Value of the Dollar



G-10 Index

Index Level, March 1973=100



+ Indicates most recent weekly value

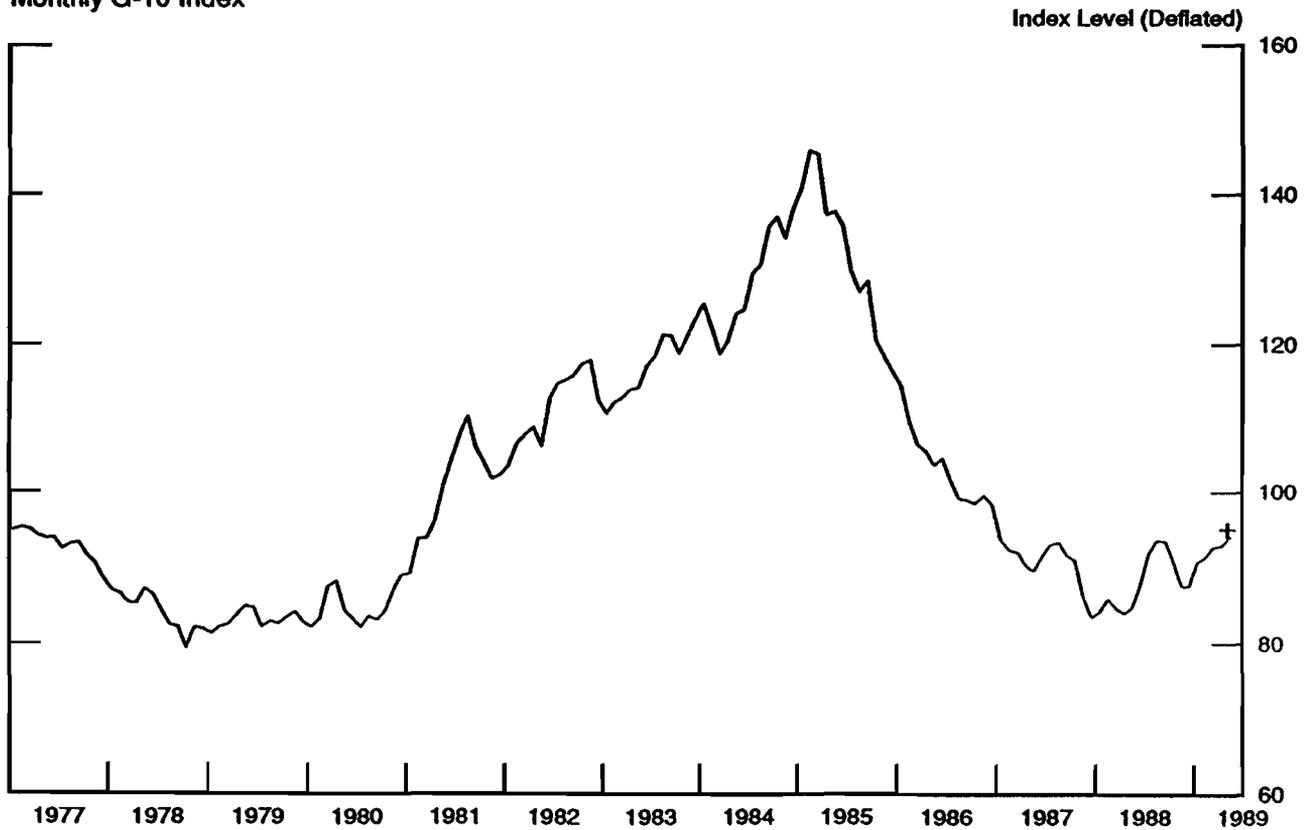
Chart 3

### Standard and Poor's 500 and G-10 Index (Real Measures)

Monthly Standard and Poor's Stock Index



Monthly G-10 Index

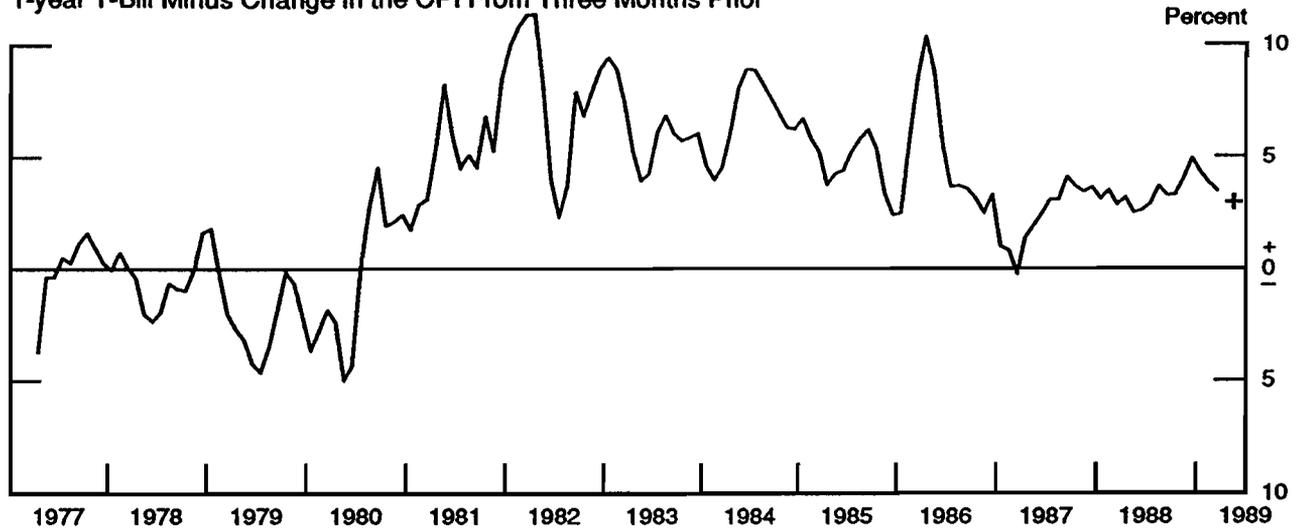


+ Denotes most recent weekly deflated value

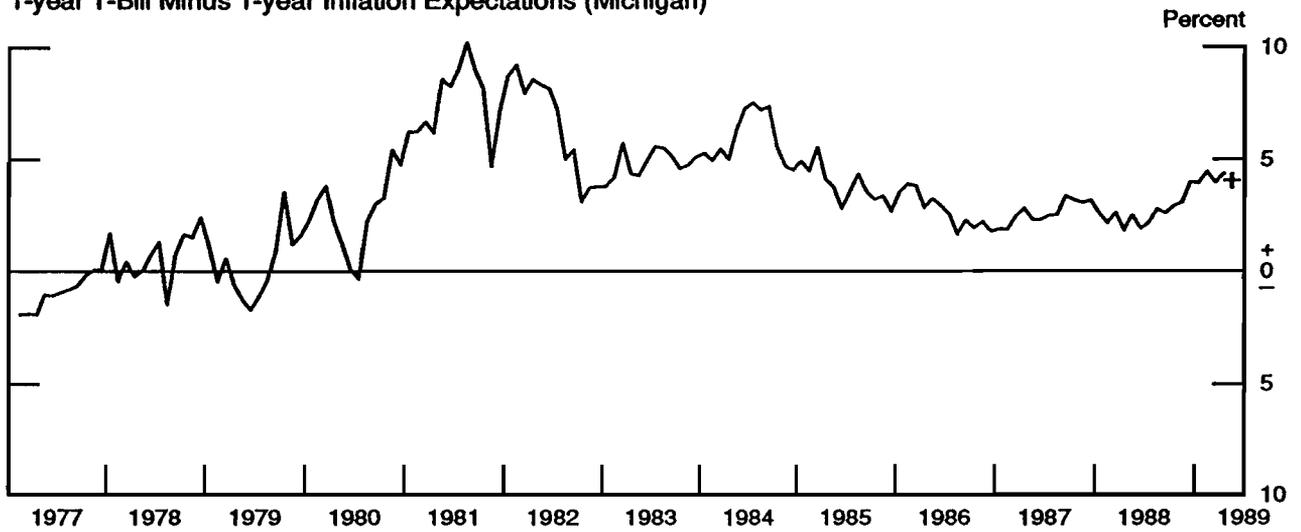
Chart 4

### Short-Term Real Interest Rates

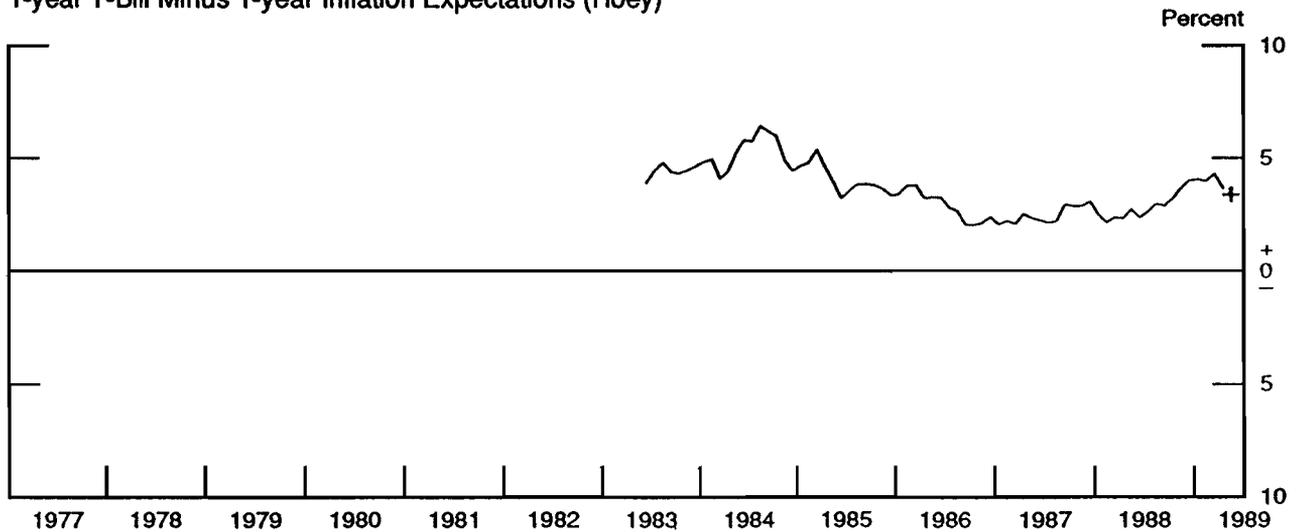
1-year T-Bill Minus Change in the CPI From Three Months Prior



1-year T-Bill Minus 1-year Inflation Expectations (Michigan)



1-year T-Bill Minus 1-year Inflation Expectations (Hoey)



NOTE: Hoey Survey is not available prior to June 1983.

+ Denotes most recent weekly T-bill less most recent Inflation expectation.

Chart 5

Inflation Expectations  
(Hoey Survey)

Survey Date	Next 12 months	First 5 years	Second 5 years	10-year average
-----annual rate, percent-----				
1986: Q4	3.6	4.7	5.5	5.1
1987: January	3.8	4.9	5.4	5.1
March	4.0	5.2	5.8	5.5
May	4.7	5.3	5.4	5.3
June	4.6	5.2	5.3	5.3
August	4.9	5.4	5.7	5.5
September	4.7	5.3	5.6	5.4
November	4.1	5.0	5.3	5.1
1988: January	4.5	5.2	5.5	5.3
March	4.3	5.0	5.3	5.2
April	4.7	5.1	5.0	5.1
June	5.1	5.1	4.9	5.0
August	5.3	5.1	4.8	4.9
October	4.9	4.7	4.9	4.8
November	4.8	4.6	4.7	4.7
December	5.0	4.6	4.6	4.6
1989: February	5.3	4.7	4.7	4.7
April	5.7	4.8	4.6	4.7

LONG-TERM REAL INTEREST RATE

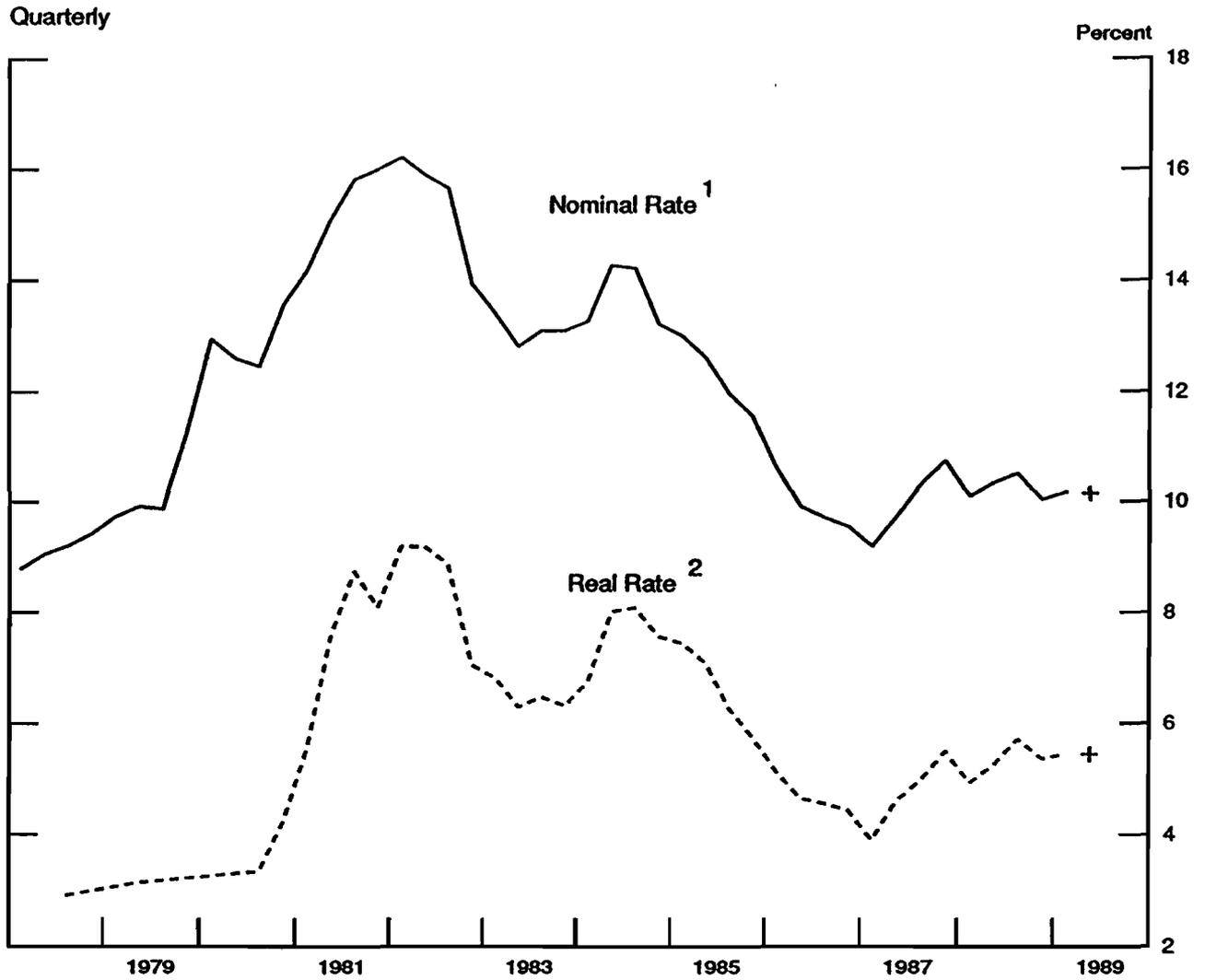
10-year Treasury bond yield less 10-year average inflation expectation (Hoey survey).



+ - Denotes most recent weekly value less most recent inflation expectation.

Chart 6

### Nominal and Real Corporate Bond Rates

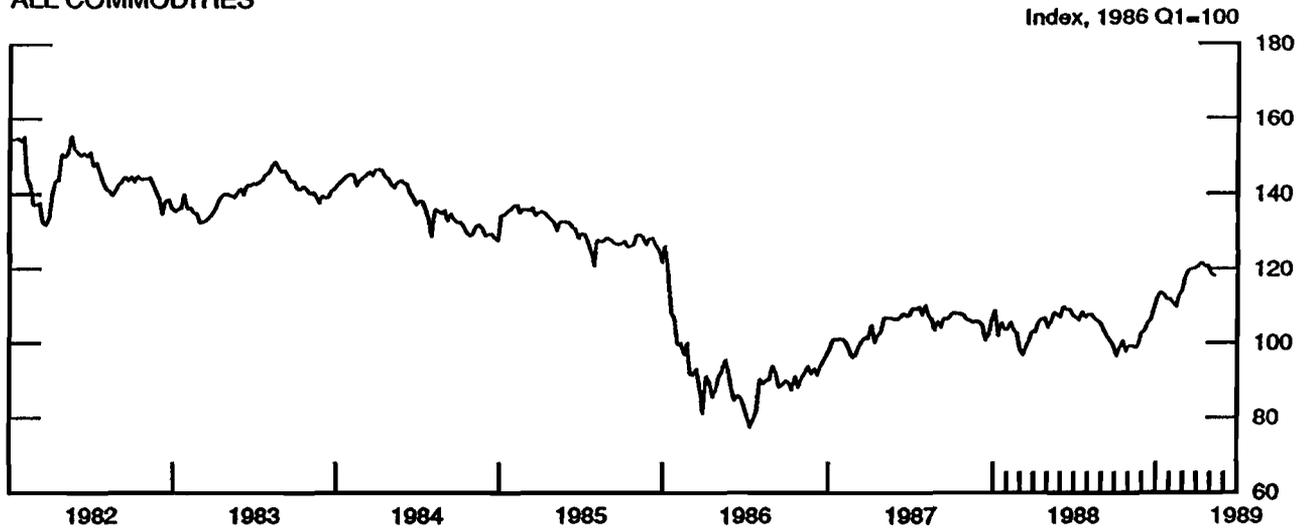


1. Yield on Moody's A-rated corporate bonds, all industries.
  2. Nominal rate less Hoey survey of ten-year inflation expectations.
- + Denotes most recent weekly value.

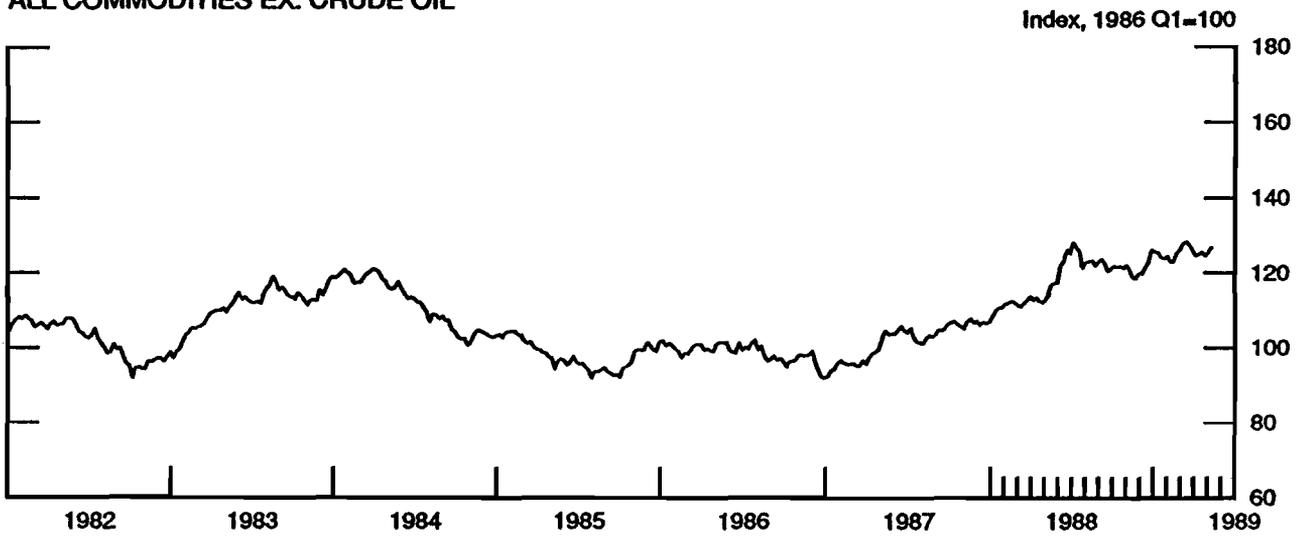
Chart 7

Experimental Price Index for 21 Commodities(Weekly)

ALL COMMODITIES



ALL COMMODITIES EX. CRUDE OIL



ALL COMMODITIES EX. FOOD and CRUDE OIL

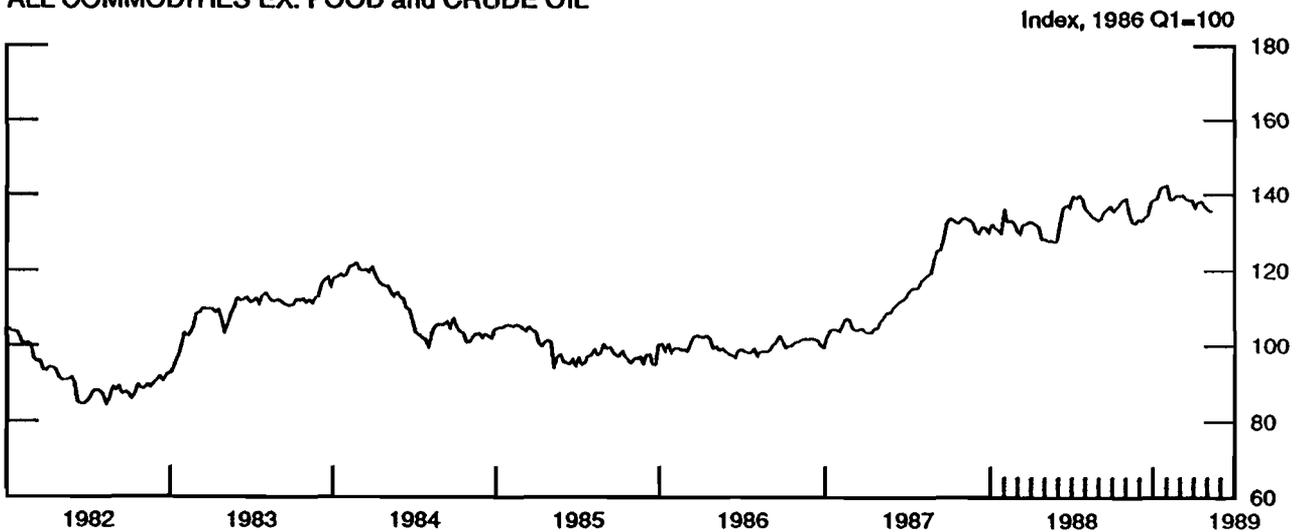
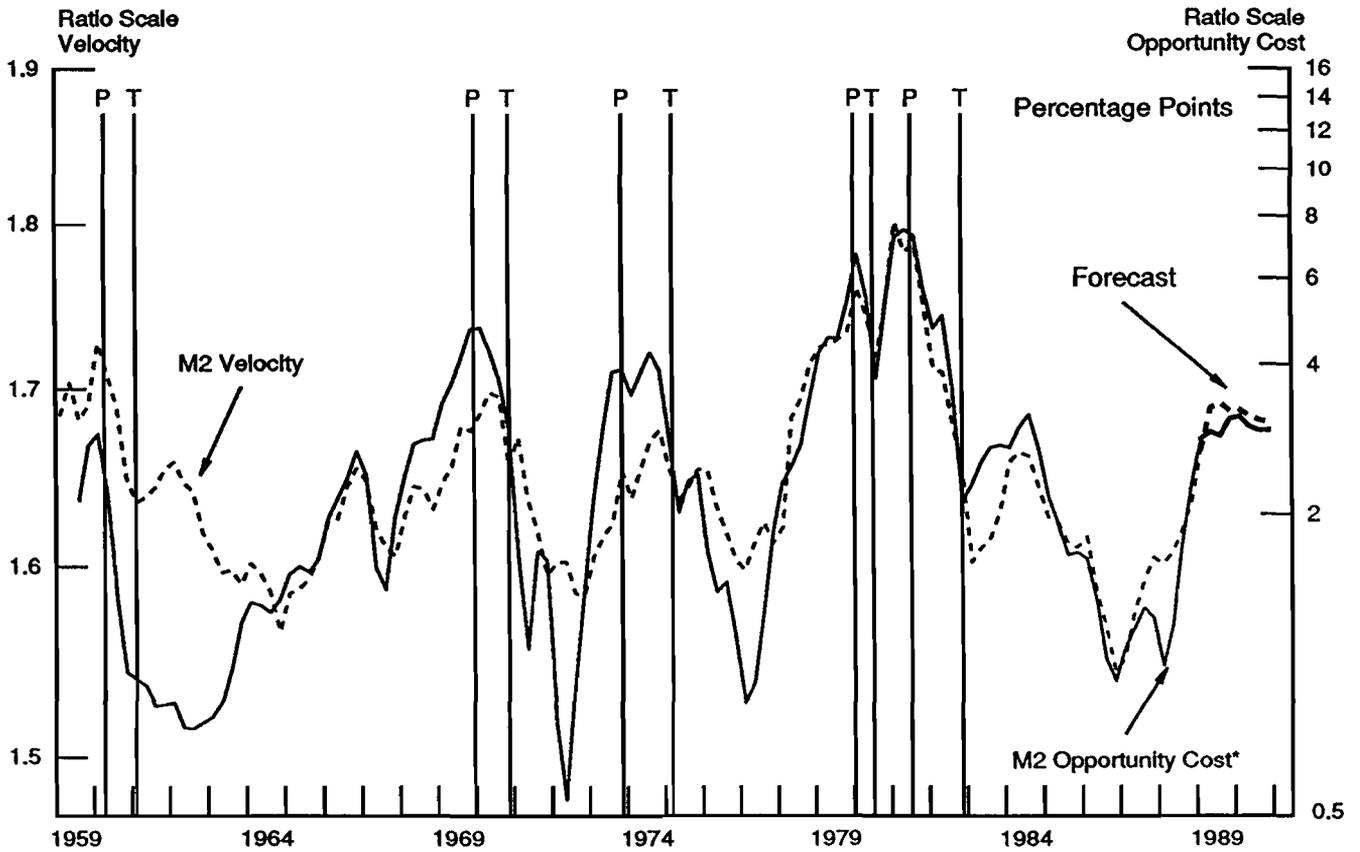
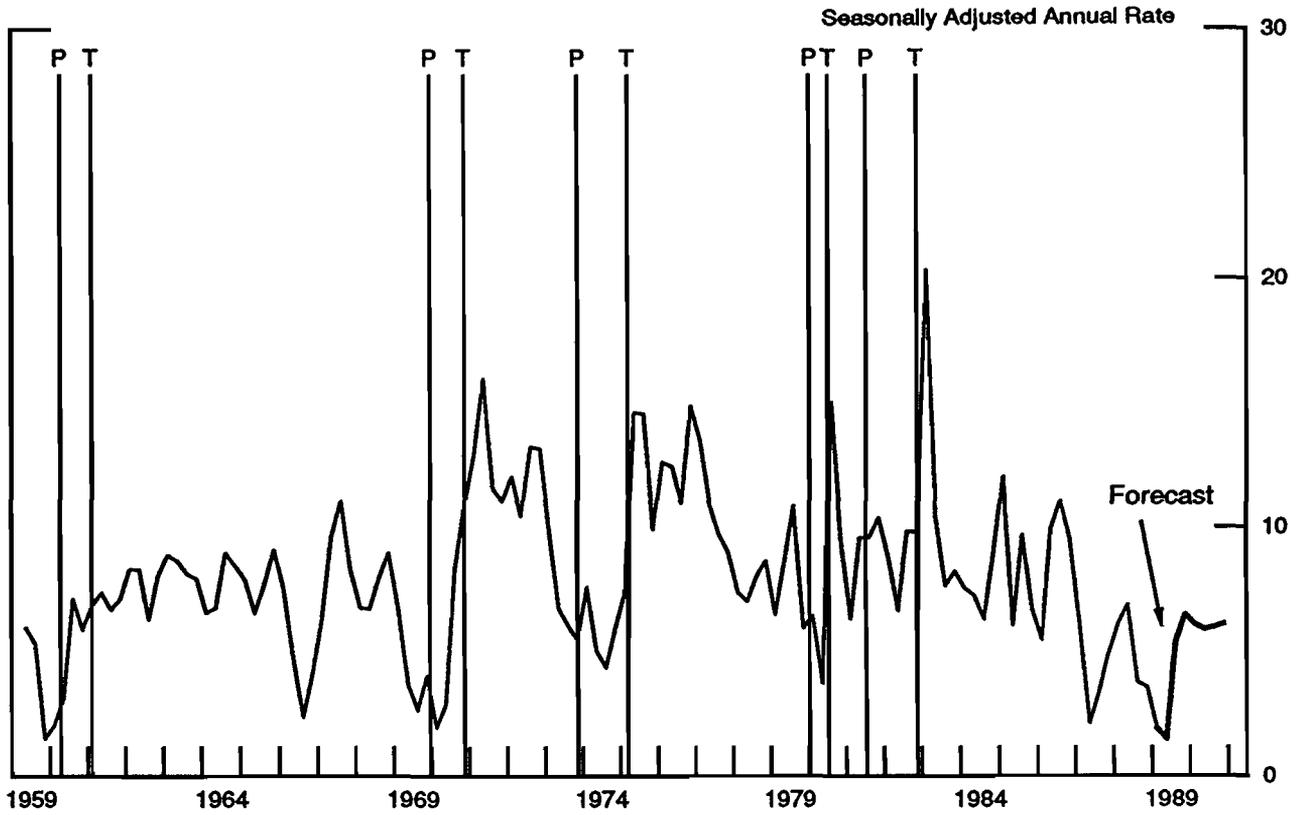


Chart 8

### Growth Rate, Velocity, & Opportunity Cost of M2 (Quarterly Data)

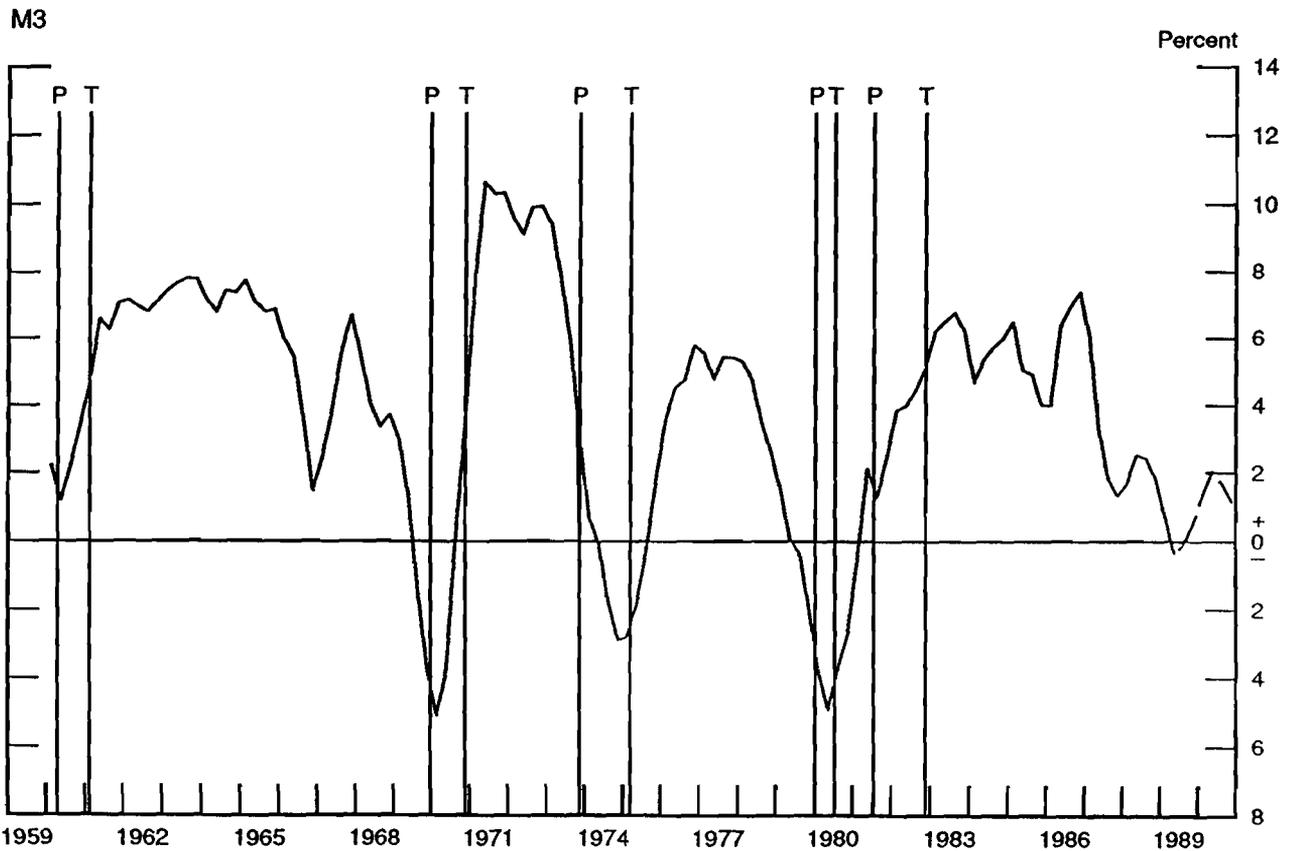
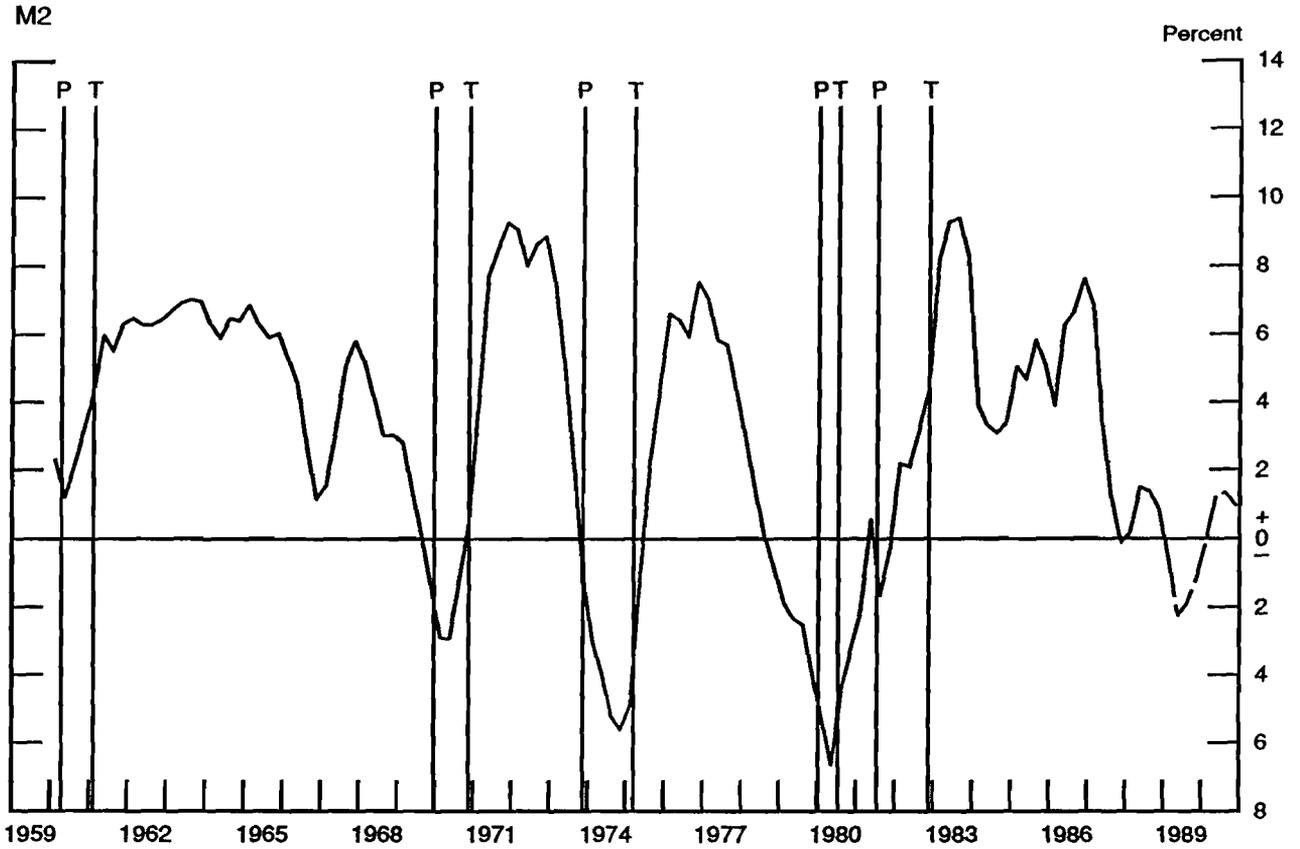
Growth of Nominal M2



\*Two quarter moving average.

Chart 9

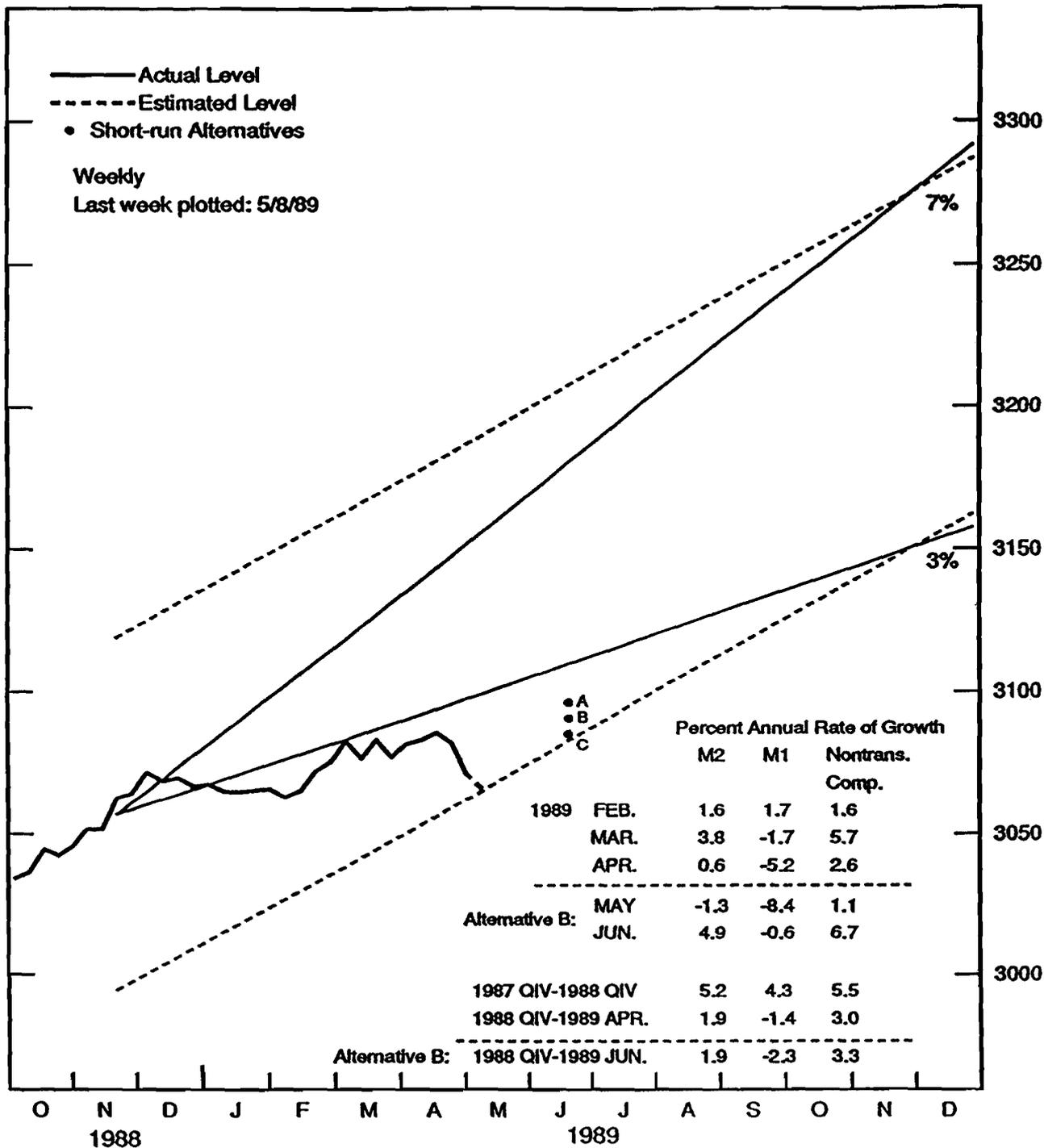
### Growth of Real M2 and M3



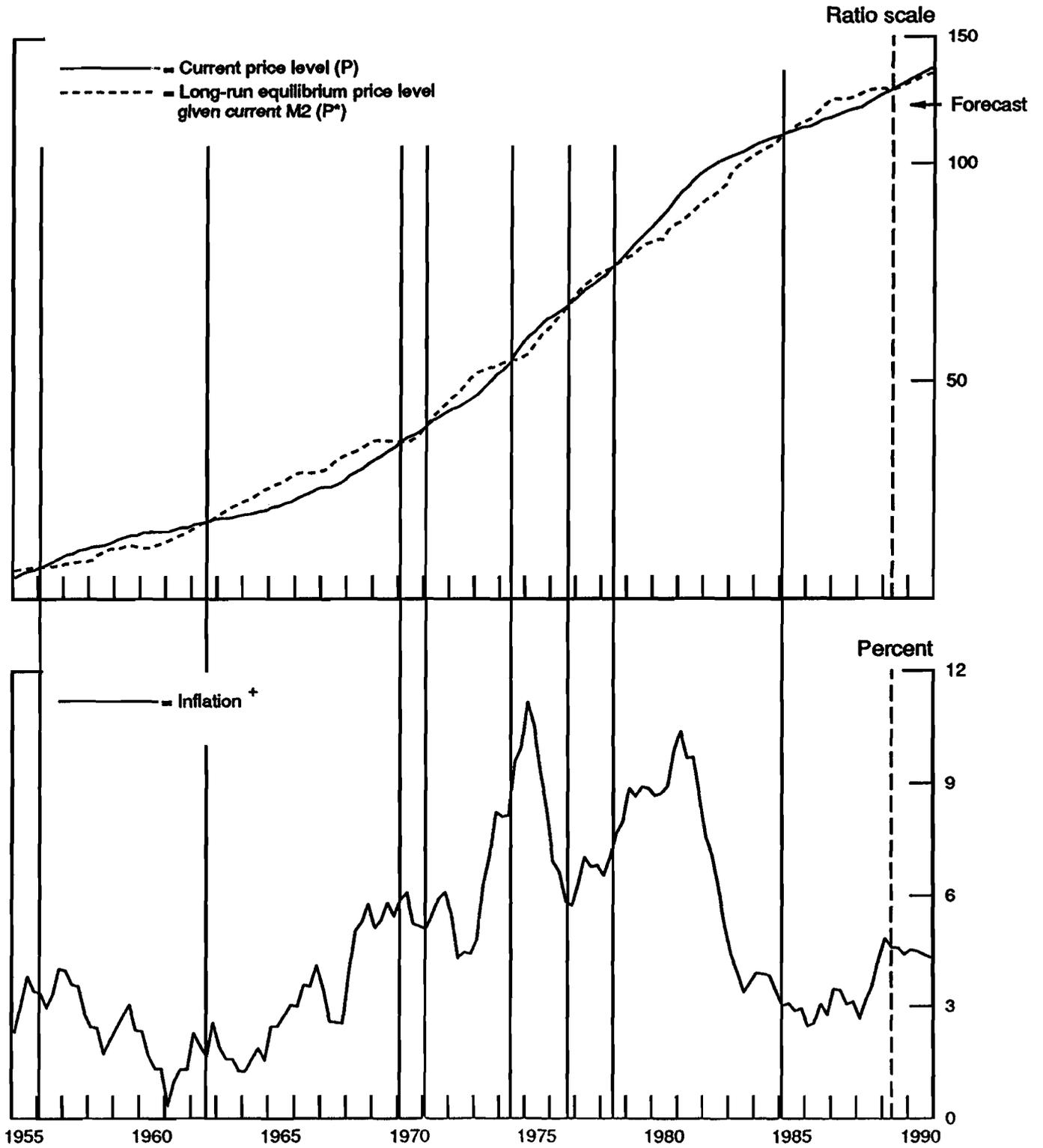
NOTE: Four quarter moving average deflated by the CPI.

M2

Billions of dollars



### Inflation Indicator Based on M2



+Change in GNP implicit deflator over the previous four quarters.

Note: Price level and Inflation for 1989:Q2 - 1990:Q4 are forecasts from P\* model, using staff money projections in calculating P\*.

Vertical lines mark crossing of P and P\*.