## Prefatory Note

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## Monetary Policy Alternatives

Prepared for the Federal Open Market Committee by the Staff of the Board of Governors of the Federal Reserve System

## MONETARY POLICY ALTERNATIVES

## Recent Developments

(1) Federal funds have traded around the intended rate of 5-1/2 percent over the intermeeting period, and quotes on futures contracts for federal funds and Eurodollar deposits suggest that markets expect this level to prevail in coming months (chart). These futures rates are little changed since the Committee's August meeting, as are short-term rates more generally. ${ }^{1}$ Longer-term rates, by contrast, have declined 9 to 16 basis points on net, despite generally stronger-than-anticipated news on spending. The drop came in reaction to unexpectedly low inflation numbers and appeared to reflect a reassessment on the part of some market participants of the fundamental relationship between economic activity and price pressures. Rates on Treasury indexed securities have risen slightly over the intermeeting period, supporting the view that the declines in nominal rates were largely in reaction to some combination of reductions in inflation expectations and in compensation required for inflation uncertainty. The downward movement in long rates further flattened the slope of the yield curve, which now appears consistent with the interpretation that markets have priced in essentially no System tightening even beyond the near-term period covered by the futures market quotes noted above. Stock market indexes have continued to fluctuate sharply but have risen appreciably, on net, over the intermeeting period, encouraged perhaps by the belief that strong growth and low inflation can coexist.

[^1]
(2) The weighted-average foreign exchange value of the dollar has decreased somewhat since the August FOMC meeting; bilateral rates have diverged substantially, reflecting disparate economic developments in major foreign countries. The dollar has declined 3-1/4 percent against the mark, as data suggesting a pickup in German economic activity and consumer price inflation fueled speculation about a possible increase in German short-term interest rates prior to the selection of initial participants in stage III of EMU next spring. In contrast, the dollar has risen 2-3/4 percent against the yen. Weakness in the yen against the dollar has been fostered by continuing sluggish economic conditions in Japan, by persistent problems in its financial system, and by the potential impact of the recent depreciations of Southeast Asian currencies on Japan. Yields on Japanese long-term government bonds have fallen 18 basis points, while equity prices have dropped 7 percent. Long-term interest rates in the United Kingdom fell 60 basis points over the intermeeting period as signs emerged that activity is slowing and as public statements by British officials seemed to increase prospects for sterling's early entry into the third stage of EMU.

The Desk did not intervene.
(3) M2 growth surged in August before slowing to the still-brisk rate of 6-1/2 percent now estimated for September--a much faster advance over the two months than expected at the time of the last meeting. Part of the strength was attributable to heavy inflows to money funds, which seem to have captured balances deflected or withdrawn from stock mutual funds in response to declines in share values in August. However, other
components of M2 were also relatively robust, and, based on the staff projection for nominal GDP, the velocity of this aggregate declined slightly in the third quarter despite steady opportunity costs-the first drop in a year and a half. From the fourth quarter of 1996 to September, M2 has grown at a 5-1/2 percent rate, above its 1 to 5 percent range. M3 growth has remained exceptionally rapid during August and September, even though bank credit growth has been moderate. Banks have substituted large time deposits for foreign borrowings, and inflows to institution-only money funds have been substantial. As of September, M3 had advanced at an 8-1/2 percent rate from its fourth-quarter 1996 base, well above the 6 percent upper end of its range.
(4) In contrast to the monetary aggregates, the expansion of total debt has remained moderate. Growth of the debt of private sectors has been supported in recent months by borrowing by nonfinancial businesses, where credit has apparently been needed to finance inventory accumulation and merger activity. Credit supply and credit quality in the business sector continue to be very good: Spreads on business obligations in markets and at banks are quite narrow, which is not surprising given historically low rates of default and delinquency on junk bonds and business loans. Though growth in the debt of the household sector has remained below the pace of recent years, it is still above that of income. There are indications that credit problems in this sector are leveling off, and credit remains readily available to most potential borrowers. Federal borrowing has resumed in recent months, although at a very slow pace, as the Treasury has chosen to run down its cash balances this quarter; state and local sector debt has shown little if any growth on net, owing to large retirements of higher-yielding obligations. The paucity of government borrowing has reduced
the growth of total debt of nonfinancial sectors a bit in recent months, and expansion from the fourth quarter of 1996 through August was at a $4-1 / 4$ percent rate, below the 5 percent midpoint of the Committee's range.

|  | July | Aug. | Sept. | $\begin{gathered} \text { 96:Q4 } \\ \text { to } \\ \text { Sept. }^{3} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| Money and Credit Aggregates |  |  |  |  |
| M1 | -1.2 | 8.4 | -11.7 | -2.4 |
| Adjusted for sweeps | 3.1 | 12.4 | 1.7 | 5.6 |
| M2 | 3.6 | 11.0 | 6.4 | 5.6 |
| M3 | 10.9 | 12.7 | 10.0 | 8.6 |
| Domestic nonfinancial debt | 4.4 | 4.8 | n.a. | 4.3 |
| Federal | 0.9 | 1.6 | n.a. | 0.6 |
| Nonfederal | 5.6 | 5.9 | n.a. | 5.6 |
| Bank Credit | 8.7 | 3.6 | 6.8 | 8.1 |
| Adjusted ${ }^{1}$ | 5.4 | 1.4 | 9.7 | 7.7 |
| Reserve Measures |  |  |  |  |
| Nonborrowed Reserves ${ }^{2}$ | -6.8 | 8.8 | -22.6 | -9.2 |
| Total Reserves | -5.7 | 13.5 | -26.3 | -8.7 |
| Adjusted for sweeps | 3.7 | 19.6 | 3.1 | 7.9 |
| Monetary Base | $7.3$ | $5.9$ | 4.5 | 5.0 |
| Adjusted for sweeps | 8.1 | 7.1 | 7.3 | 6.8 |
| Memo: (millions of dollars) |  |  |  |  |
| Adjustment plus seasonal borrowing | 409 | 598 | 442 | -- |
| Excess Reserves | 1201 | 1253 | 1136 | -- |

1. Adjusted to remove effects of mark-to-market accounting rules (FIN 39 and FASB 115).
2. Includes "other extended credit" from the Federal Reserve.
3. For nonfinancial debt, 96:Q4 to August.

NOTE: Monthly reserve measures, including excess reserves and borrowing, are calculated by prorating averages for two-week reserve maintenance periods that overlap months. Reserve data incorporate adjustments for discontinuities associated with changes in reserve requirements.

## Policy Alternatives

(5) Economic data received since the August meeting suggest more momentum in final sales but less inflation than the staff had expected. In the Greenbook forecast, the effect of the strength in final sales on production is projected to be partly offset by a slowing of inventory accumulation over the next few quarters. Even so, the expansion of real GDP is expected to remain above the rate of growth of its potential through the remainder of this year and the first half of the next, pulling the unemployment rate down to 4-1/2 percent. Although over time aggregate demand should be restrained by the effects of the past appreciation of the dollar, as well as an assumed rise in long-term rates and tightening in the stance of monetary policy next year, the unemployment rate stays at that low level through the end of 1998. These strains on resources contribute to an increase in inflation over the next year and a half. The outcomes for the unemployment rate and inflation in the staff forecast are near the lower ends of the central tendencies of the projections of Committee members provided at the July meeting for 1997 but a shade below those for 1998.
(6) The staff assessment of the pressures on resources implies that policy restraint is in order at some point to check an upcreep in inflation, but the Committee may, nonetheless, prefer to hold the federal funds rate at its current level of $5-1 / 2$ percent at this meeting, as in alternative B. Over the past few quarters sustained high levels of resource utilization have been associated with flat or, by some measures, even declining inflation. The Committee may read this experience as suggesting the possibility that economic activity can run on the high side of historical norms without putting much pressure on inflation. Even in the staff forecast some of the moderate pickup in consumer prices owes to a smaller drag
from import prices as, by assumption, the dollar stabilizes. Additional impetus to inflation comes from a projected further decline in the unemployment rate. Given these uncertainties attending the prospects for inflation, the Committee might be willing to defer putting restraint in place so as to get more readings on the pace of stock-building, the strength of final sales, and the behavior of wages and prices. A willingness to await new information might be reinforced if the Committee were of the view that any current misalignment of policy was modest at worst. Some reassurance in this regard might be gotten from the likelihood that the real fed funds rate has ticked higher in recent months, as inflation expectations seem to have declined along with the drop in measured inflation, while the nominal funds rate has been held steady. With scant indications of pipeline pressures that normally presage a pickup in inflation, and with business profit margins perhaps ample enough to absorb a portion of any speed up in cost increases, the Committee may well have time to act before an incipient increase in inflation becomes firmly embedded in inflation expectations.
(7) If the Committee were confident that the staff had correctly identified the threat that inflation would pick up, or wanted some greater assurance of further progress toward price stability, it would likely favor raising the federal funds rate promptly, perhaps at this meeting by the 25 basis points of alternative $C$. The need for prompt action might be seen as elevated because the vigor of final sales threatens to add to pressures on resources, and the longer the economy operates beyond its sustainable potential, the more disruptive may be the correction needed to contain inflation. Despite relatively high short-term real rates, financial conditions remain quite supportive to spending: The stock market continues to generate impressive gains in wealth; longer-term real interest rates seem to have held fairly steady or
perhaps edged lower since spring; and capital markets and depositories remain quite receptive to borrowers. The rapid growth of the monetary aggregates in the past few months may be seen as one more warning flag that financial conditions are supporting more spending than can be accommodated without an increase of inflation. While the Committee might be more inclined than ever to view structural changes as permitting the economy to operate at a higher rate than in the past, the projected unemployment rate of $4-1 / 2$ percent falls short of all but the rosiest estimates of the natural rate. Moreover, a portion of the recent good performance of inflation has owed to temporary factors, such as the strength in the foreign exchange value of the dollar, which are not likely to be repeated over coming quarters. Even worker insecurity may be expected to erode in a strong labor market marked by reduced layoffs. With those beneficial forces likely to wind down, the Committee may fear that the effects of strains on resources may show through more forcefully to the prices of goods and services than in the staff forecast, perhaps more in line with traditional relationships.
(8) Virtually no one in the market anticipates action at this meeting, so that yields across the term structure are not likely to budge much and the dollar should continue to trade around its current level on foreign exchange markets immediately following the adoption of the unchanged policy stance of alternative B. Treasury bill rates have been depressed of late by low issuance, and the turnaround in bill sales in the fourth quarter prompted by the seasonal bulge in the federal deficit may roll back some of the decline in rates on those securities. Over time, if economic developments unfold as in the staff forecast, market participants are in store for some disappointment: Inflation will be a touch faster, providing a context in which expected strength in readings on economic activity are more likely to be
taken as evidence that higher real rates are required to slow spending to contain price pressures, and corporate profits should decelerate. Against this backdrop, nominal yields would likely edge higher, with both their real and inflation compensation components rising, and equity prices would likely decline.
(9) The Committee's choice of alternative $\mathbf{C}$ at this meeting would catch market participants completely unawares. Money market rates would rise at least as much as the 25 basis point hike in the federal funds rate, and intermediate- and long-term rates could increase substantially as well. The extent of the increase, of course, would depend on market participants' interpretation of the rationale for Federal Reserve action. The action might be viewed as simply a purchase of limited additional insurance against higher inflation in response to a spurt to final demand. Alternatively, the tightening might be taken as evidence that the Federal Reserve had not become as optimistic as market participants have come to suspect it was about the economy's ability to produce at unusually high rates without generating more inflation; such a reassessment might even lead some investors to revise their own views about inflation as well as about future Federal Reserve behavior. In either case, the implied rise in real rates would buoy the exchange value of the dollar but depress equity values. Stock prices might be doubly hit if confidence in the expected growth of earnings were shaken not only by the prospects for tighter policy but also by a less favorable view of the long-run path of potential output. In these circumstances, incoming data bearing on the strength of spending and inflation pressure would be especially scrutinized, and large swings in financial prices might become even more common.
(10) Under the unchanged policy stance of alternative B, the growth of the monetary aggregates should slow significantly. The expansion of money market fund shares, an important contributor to M2 growth in recent months, has already begun to settle down as the response to last month's equity price decline has abated. Still, the rapid growth of M2 in August and September implies that this aggregate will begin the fourth quarter at a high level, so even substantial slowing thereafter leaves quarterly average growth at an elevated rate-indeed, again a shade above that projected for nominal GDP. M3 growth will slow as well, but will remain above the rate of expansion of M2 owing to continued rapid expansion of institution-only mutual funds, which are gaining market share in the cash management business, and further substantial growth in large time deposits. All told, M2 and M3 growth for 1997 should be about $1 / 2$ and 2-1/4 percentage points, respectively, above their annual ranges. Under alternative $\mathbf{C}$, even though opportunity costs would likely rise with the imposition of monetary restraint, M2 might be bolstered to some extent in the near term should a correction in the stock and bond markets induce investors to favor money market over bond and stock mutual funds.
(11) Credit demands are anticipated to quicken in the fourth quarter, paced by a resumption of substantial net borrowing by the federal government. Markets and depositories will remain ready sources of funds for business, which they will continue to tap in volume in light of substantial external financing needs and a pickup in share retirements. Household borrowing, in contrast, should run at the less rapid pace seen in recent quarters; credit conditions and spending on durables are unlikely to change much from earlier this year. As a
result, the debt of the domestic nonfinancial sectors should finish the year about 4-1/2 percent above its fourth-quarter 1996 base, just a little below the midpoint of its annual range.

Alternative Levels and Growth Rates for Key Monetary Aggregates


## Actual and Projected M2



## Actual and Projected M3



## Actual and Projected Debt



## Directive Language

(12) Presented below is draft wording for the operational paragraph that includes the usual options for Committee consideration.

## OPERATIONAL PARAGRAPH

In the implementation of policy for the immediate future, the Committee seeks conditions in reserve markets consistent with maintaining/INCREASING/DECREASING the federal funds rate at/TO an average of around 5-1/2 _ percent. In the context of the Committee's long-run objectives for price stability and sustainable economic growth, and giving careful consideration to economic, financial, and monetary developments, a somewhat/SLIGHTLY higher federal funds rate would/MIGHT or a SOMEWHAT/slightly lower federal funds rate WOULD/might be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with SOME MODERATION IN THE moderate growth OF in M2 and M3 over coming months.

SELECTED INTEREST RATES
(percent)

 to that, they reflect an average of oftering rates placed by several leading dealers. Data in column 7 are taken from Donoghue's Money Fund Report. Columns 12,13 and 14 are 1 -day quotes for Friday, Thursday or Friday. respectively, following the end of the statement week. Column 13 is the Bond Buyer revenue index. Column 14 is the FNMA purchase yield, plus loan servicing fee, on 30 -day mandatory delivery commitments. Column 15 is the average contract rate on new commitments for fixed-rate mortgages (FRMs) with 80 percent loan-to-value ratios at major institutional lenders. Column 16 is the average initial contract rate on new commitments for 1 -year, adjustable-rate mortgages (ARMs) at major institutional lenders offering both FRMs and ARMs with the same number of discount points.


Adjusted for breaks caused by reclassifications.


Includes money market deposit accounts. IRA and Keogh accounts at commercial banks and thrift institutions are subtracted from small time deposits.
Excludes IRA and Keogh accounts.
Net of large denomination time deposits held by money market mutual funds, depository institutions, U.S. government, and foreign banks and official institutions.
Net of money market mutual fund holdings of these items.
Includes both overnight and term.
preliminary

| Period | Treasury bills |  |  | Treasury coupons |  |  |  |  |  | Federal agencies redemptions (-) | Net change outright holdings total ${ }^{4}$ | Net RPs ${ }^{5}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underset{\text { purchases }}{\text { Net }}$ | Redemptions <br> (-) | Net change | Net purchases ${ }^{3}$ |  |  |  | Redemptions <br> $(-)$ | Net Change |  |  |  |
|  |  |  |  | within 1 year | $1-5$ | 5-10 | over 10 |  |  |  |  |  |
| 1994 | 17,484 | --- | 17,484 | 733 | 9,916 | 3,575 | 3,606 | 2,337 | 15,493 | 942 | 32,035 | -7,412 |
| 1995 | 10,932 | 900 | 10,032 | 390 | 5,366 | 1,432 | 2,529 | 1,776 | 7,941 | 1,003 | 16,970 | -1,023 |
| 1996 | 9,901 | --- | 9,901 | 524 | 3,898 | 1,116 | 1,655 | 2,015 | 5,179 | 409 | 14,670 | 5,351 |
| 1996 ---Q1 | $\cdots$ | .-. | --- | $\cdots$ | -.. | --- | --- | 1,228 | -1,228 | 108 | -1,336 | -8,879 |
| $\cdots$ | 3,399 | --- | 3,399 | 65 | 1,839 | 654 | 920 | 787 | 2,691 | 138 | 5,952 | 2,959 |
| ---Q3 | .-. | $\cdots$ | --- | 459 | 2,060 | 462 | 735 | ... | 3.716 | 79 | 3,637 | -2,454 |
| ---Q4 | 6,502 | --- | 6,502 | .-. | --- | ... | --- | --- | --- | 85 | 6,417 | 13,726 |
| 1997 -..Q1 | --- | --- | --- | 818 | 3,985 | ... | 1,117 | 607 | 5,314 | 230 | 5,084 | -18,046 |
| ---Q2 | 4,602 | $\cdots$ | 4,602 | 877 | 5,823 | 1,233 | 1,894 | 376 | 9,451 | 498 | 13,555 | 12,811 |
| 1996 September | --- | $\cdots$ | .-. | --- | --- | -.. | -- | --- | --- | 27 | -27 | -304 |
| October | .-. | --* | --- | $\cdots$ | --- | --- | --- | $\cdots$ | ... | 63 | -63 | 3,625 |
| November | 6,502 | --- | 6,502 | -.. | --- | --- | $\cdots$ | -.. | --- | 10 | 6,492 | 584 |
| Decernber | .-. | $\cdots$ | .-. | --- | --- | ... | --- | --- | --- | 12 | -12 | 9.518 |
| 1997 January | --- | --- | --- | --- | --- | --- | --- | 607 | -607 | 187 | -793 | -10,151 |
| February | --- | --- | --- | 818 | 1,125 | --- | ... | ... | 1,943 | 27 | 1,916 | -7,371 |
| March | --- | --. | --- | -.. | 2,861 | --- | 1,117 | --- | 3,978 | 17 | 3,961 | -524 |
| April | 4,006 | --- | 4,006 | ... | 1,924 | $\cdots$ | --- | 376 | 1,548 | 24 | 5,530 | 41,665 |
| May | --- | --- | --- | 383 | 1,102 | 734 | 988 | ... | 3,206 | --- | 3,206 | -42,664 |
| June | 596 | --- | 596 | 494 | 2,797 | 499 | 906 | --- | 4,696 | 474 | 4,818 | 13,811 |
| July | --. | -.- | --- | -.. | .-. | ..- | --- | 598 | -598 | 287 | -885 | -12,740 |
| August | --- | --- | --- | ... | --- | --- | --- | --- | --- | 179 | -179 | 30,846 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| June $\begin{array}{r}11 \\ 18 \\ \\ 25\end{array}$ | -.. | $\cdots$ | --- | --- | --- | --- | --- | --- | ... | 67 | -67 | -4,583 |
|  | --- | --- | $\cdots$ | 494 | 1,155 | --- | --- | --- | 1,649 | 100 | 1,549 | 3,511 |
|  | 596 | --- | 596 | --- | 1,642 | .-. | ... | --- | 1,642 | --- | 2,238 | 4,393 |
| $\begin{array}{ll}\text { July } & 2 \\ & 9 \\ & 16 \\ & 23 \\ & 30\end{array}$ | --- | -.. | -... | ... | .-. | 499 | 906 | --- | 1,405 | 260 | 1,145 | -9,119 |
|  | --- | --. | --- | --- | --- | ... | ... | --- | --- | $\cdots$ | --* | $-1,390$ |
|  | --- | --. | --- | --- | --- | --- | --- | 598 | -598 | 27 | -625 | 2,631 |
|  | --- | --- | --. | --. | --- | --- | --- | -.. | --- | --- | .-- | -5,356 |
|  | --- | --- | --- | ... | --- | ... | .-. | --- | --- | --- | --- | 6,303 |
| $\begin{array}{ll}\text { August } & 6 \\ & 13 \\ 20 \\ 27\end{array}$ | --- | --- | --- | --- | -.- | --- | .-. | ... | --- | 164 | -164 | -3,773 |
|  | .-. | $\cdots$ | --- | --- | --- | ... | --- | --- | --- | 15 | -15 | 9.191 |
|  | --- | --- | --. | ... | --- | --- | --- | --- | --- | --- | --- | 1,954 |
|  | --- | --- | --- | --- | --- | --- | --- | --- | --- | -.. | --- | 12,012 |
| $\begin{array}{ll}\text { September } & 3 \\ 10 \\ 17 \\ 24\end{array}$ | --- | --- | --- | --- | --- | -.. | --- | --- | -.- | 70 | . 70 | 6,012 |
|  | --- | $\cdots$ | --- | $\cdots$ | --- | --- | ... | ... | ... | 35 | -35 | 2,917 |
|  | --- | -.. | -.. | 644 | 1,042 | --. | --- | --- | 1,686 | --- | 1,686 | 3,457 |
|  | --- | --- | $\cdots$ | -.. | - | --- | --- | $\cdots$ | ... | --- | --- | 3,972 |
| Memo: LEVEL (bil. \$) ${ }^{6}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| September 24 |  |  | 209.6 | 42.7 | 91.4 | 37.7 | 44.7 |  | 216.5 |  | 427.0 | -14.9 |

1. Change from end-ot-period to end-oi-period.
2. Outright transactions in market and with foreign accounts.
3. Outright transactions in market and with foreign accounts, and shor-term notes acquired in exchange for maturing bills. Excludes maturity shifts and rollovers of maturing issues.
4. Reflects net change in redemptions (-) of Treasury and agency securities.
5. Includes change in RPs $(+)$, matched sale-purchase transactions ( $\cdot$ ), and matched purchase sale transactions ( + ).
6. The levels of agency issues were as follows:

| within <br> 1 year | $1-5$ | $5-10$ | over 10 | total |
| ---: | ---: | ---: | :---: | :---: |
| 0.3 | 0.3 | 0.3 | 0.0 | 0.9 |


[^0]:    ${ }^{1}$ In some cases, original copies needed to be photocopied before being scanned into electronic format. All scanned images were deskewed (to remove the effects of printer- and scanner-introduced tilting) and lightly cleaned (to remove dark spots caused by staple holes, hole punches, and other blemishes caused after initial printing).
    ${ }^{2}$ A two-step process was used. An advanced optimal character recognition computer program (OCR) first created electronic text from the document image. Where the OCR results were inconclusive, staff checked and corrected the text as necessary. Please note that the numbers and text in charts and tables were not reliably recognized by the OCR process and were not checked or corrected by staff.

[^1]:    1. The three-month Treasury bill rate was an exception to this pattern, dropping $1 / 4$ percentage point as bill issuance was trimmed.
