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## MONETARY POLICY ALTERNATIVES

Prepared for the Federal Open Market Committee
By the staff Board of Governors of the Federal Reserve System

## MONETARY POLICY ALTERNATIVES

## Recent Developments ${ }^{1}$

(1) The System tightened the stance of monetary policy on August 16 through Board approval of an increase in the discount rate of $1 / 2$ percentage point, to 4 percent, and a decision by the Committee to allow the entire increase in the discount rate to show through to interest rates in reserve markets. The latter was implemented by leaving the borrowing assumption unchanged at $\$ 450$ million. ${ }^{2}$ Short-term rates, which had incorporated an anticipation of a somewhat less aggressive policy move, backed up on the announcement of these actions that day. Commercial banks increased their prime rates 1/2 percentage point, to $7-3 / 4$ percent, maintaining the 300 basis point spread over the federal funds rate that has prevailed since late 1992. However, expectations of the level of short-term rates likely to prevail beyond the next few months were revised down in response to the accompanying announcement suggesting that the Federal Reserve would take no further action for a time, and perhaps also to a sense that less tightening might ultimately be required following the unexpectedly aggressive action. This shift in expectations was reflected in federal funds futures rates after October, shown in the upper left panel of Chart 1, and in declines in note and bond yields.
(2) Short-term rates remained steady in the weeks after the policy move. In the last few weeks, however, these rates have moved

[^1]
## Chart 1



Treasury Yield Curves

up appreciably. Markets built back in a steeper trajectory of nearterm Federal Reserve tightening as incoming economic data were seen as pointing to a greater risk of inflation. The initial declines in long-term rates were rolled back within a few days of the System action, and these rates have risen noticeably further in response to the recent data. On balance over the intermeeting period, long-term rates have moved up about 20 to 40 basis points. Equity markets also declined in recent days, but advanced on net over the period.
(3) With inflation concerns heightened, rising interest rates in the latter part of the period did not buoy the dollar, which declined about 1-3/4 percent, on balance. Contributing to the dollar's weakness were signs of unexpected strength in the German economy and associated increases in German interest rates: Short-term rates moved only slightly higher, but long-term rates rose 35 basis points. In Japan, incoming data pointed to a subdued recovery, and short- and long-term rates showed little change. In Canada, market concerns over a possible Quebec secession faded in the wake of the weaker-thanexpected showing of support for the Parti Quebecois in provincial elections. Consequently, the Canadian currency rose 2-1/2 percent against the U.S. dollar, while Canadian short- and long-term interest rates declined 50 and 10 basis points, respectively.
(4) The monetary aggregates declined in August and data for early September suggest a leveling off this month, leaving M2 and M3 a little above the lower bounds of their long-term ranges. On balance, the aggregates have been weaker than anticipated at the time of the
last meeting, even after allowing for the effects of the recent tightening of monetary policy. Weakness in August was concentrated in the liquid components. Demand deposits, continuing to be depressed by declines in mortgage refinancing, contracted in August, following two months of surprising strength. Other checkable deposits and savings deposits also ran off, reflecting the substantial gap between rates on these and competing instruments that has opened up since the System began to tighten in February. ${ }^{3}$ Some of the balances in the latter accounts apparently have been shifted into small time deposits, which accelerated in August. Rates on time deposits, although reacting more slowly than usual to increases in market rates, have risen somewhat in recent weeks, whereas returns on liquid deposits have barely budged this year. In light of the sluggish behavior of deposit rates, the overall weakness in M2 is roughly in line with historical relationships embodied in money demand models, given the staff forecast of spending in the current quarter. The relative attractiveness of market investments can be seen in the volume of noncompetitive tenders in Treasury auctions, which was exceptionally heavy in August. Flows into stock mutual funds continued to be strong, but outflows from bond funds persisted; the total of the two was well below the pace of 1992 and 1993, suggesting, at most, modest net shifts between M2 and capital market mutual funds. ${ }^{4}$ Institution-only money funds dropped sharply in response to the rise in market yields, and as a consequence M3 also was weak last month. The broader aggregate was buoyed by

[^2]brisk issuance of large time deposits, as banks continued to rely on managed liabilities to fund credit growth. As in recent months, however, banks continued to make heavy use of sources outside the monetary aggregates, particularly borrowings from foreign offices.
(5) Bank credit slowed in August, although loan growth remained strong. Business loans expanded at an annual rate of almost 10 percent. Anecdotal evidence of further easing in the standards and terms for business loans continued to accumulate. In recent months, bank lending to businesses has been boosted by rising external financing needs and growing merger and acquisition activity, as well as by shifts away from capital market financing. Consumer loan growth at banks remained in double digits in August, suggesting that consumer credit continued to expand briskly. Nonetheless, growth of overall debt of nonfinancial sectors slowed in recent months, held down by retirements of state and local obligations from the proceeds of earlier advance refundings. Moreover, federal borrowing has moderated a bit from earlier in the year on a seasonally adjusted basis. On net, nonfinancial debt is estimated to have expanded in recent months at less than a 5 percent annual rate, down from earlier this year. keeping it well in the lower half of its 4 to 8 percent monitoring range.

MONEY, CREDIT, AND RESERVE AGGREGATES (Seasonally adjusted annual rates of growth)


Money and credit aggregates

| M1 | 3.7 | 7.5 | -1.9 | 3.6 |
| :---: | :---: | :---: | :---: | :---: |
| M2 | -2.2 | 4.5 | -2.1 | 1.4 |
| M3 | 0.0 | 6.1 | -1.9 | 0.7 |
| Domestic nonfinancial |  |  |  |  |
| debt | 3.4 | 2.5 | -- | 4.9 |
| Federal | 4.9 | 1.2 | -- | 5.6 |
| Nonfederal | 2.9 | 3.0 | -- | 4.6 |
| Bank credit | 3.2 | 12.8 | 5.0 | 7.1 |

## Reserve measures

| Nonborrowed reserves $^{2}$ | -6.7 | -0.3 | -6.3 | -2.8 |
| :--- | ---: | ---: | ---: | ---: |
| Total reserves | -4.0 | 2.2 | -6.0 | -1.5 |
| Monetary base | 7.7 | 8.1 | 6.3 | 8.8 |

Memo: (Millions of dollars)
Adjustment plus seasonal
borrowing $\quad 333 \quad 458 \quad 469$--

1. QIV to July for debt aggregates.
2. Includes "other extended credit" from the Federal Reserve.

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.

## Monetary Policy Alternatives

(6) Three monetary policy alternatives are presented below for consideration by the Committee. Under alternative $B$, the federal funds rate would continue to trade around 4-3/4 percent, consistent with retaining an allowance of $\$ 475$ million for adjustment plus seasonal borrowing. ${ }^{5}$ Alternative $C$ envisages raising the federal funds rate $1 / 4$ percentage point, to 5 percent, in conjunction with an increase in the borrowing allowance to $\$ 500$ million. Under alternative $D$, the federal funds rate would be moved up to 5-1/4 percent, achieved either by an increase in the initial borrowing allowance to $\$ 525$ million or by an unchanged borrowing allowance and a hike in the discount rate to $4-1 / 2$ percent.
(7) In the Greenbook forecast, the policy restraint now in place is not viewed as adequate to slow spending sufficiently to forestall a buildup of inflation pressures, given the apparent underlying strength of aggregate demand and the likely absence of any margin of economic slack. The policy firming built into the staff forecast would push the federal funds rate up around one percentage point before next spring. A tightening of about this magnitude over the next few quarters seems to be built into the structure of market interest rates; in contrast to the staff assumption, that structure also can be read as implying further increases subsequently. The firming assumed by the staff keeps short- and longer-term real interest rates high enough to rein in output to the neighborhood of potential; core inflation picks up a bit late this year, but edges down over 1995 to a rate slightly above its recent pace.

[^3](8) Alternative $B$, which would retain current reserve conditions, is not inconsistent with the staff assumption of policy firming, provided that firming resumes some time soon. Inaction might be deemed particularly appropriate if the Committee believed that strains on capacity could be less pressing than in the staff forecast, either because potential output might be greater than assumed by the staff or because more restraint on spending could be in the pipeline in view of the substantial increases in interest rates over the past year. Moreover, slow growth of a broad array of monetary and credit aggregates might be seen as suggesting that financial conditions are not conducive to a pickup in underlying inflation. A pause would allow the Committee to accumulate more evidence on these questions. Such a wait-and-see posture would accord with the tone of the press statement announcing the policy action taken at the August meeting.
(9) Market opinions on what the Committee might do at this meeting are split. Some analysts have interpreted the recent economic news as implying sufficiently greater inflation potential to overcome any presumption of a policy pause; they expect a firming action, perhaps of 50 basis points. Others still anticipate a hiatus in the process of policy tightening; however, even many of those in the latter camp seem to expect some action no later than the November meeting. While few actually foresee a 25 basis point increase, the composite effect of these different views has produced a federal funds futures rate for October that is 25 basis points above the current funds rate. Nonetheless, maintenance of existing reserve conditions under alternative $B$ might elicit little reaction in rates beyond the very shortest maturities because market participants would assume that
tightening had simply been postponed. In these circumstances, longerterm instruments might trade in their current ranges at least for a time, although security prices probably will remain quite sensitive to news bearing on inflation pressures as market participants attempt to gauge the extent of future policy restraint. In that regard, under the staff forecast, economic releases over the next few months would suggest that inflation is on a slightly higher track and that final demand remains fairly vigorous. Absent unanticipated changes in policy abroad, the foreign exchange value of the dollar most likely would remain around its current level, though it could come under some downward pressure if inflation expectations began to deteriorate further.
(10) A tightening in reserve conditions at this meeting might be favored if the Committee saw a significant risk that output is in the process of surpassing its long-run potential. Waiting in these circumstances might risk the development of a degree of inflation momentum--partly through expectations channels--that could make it more difficult to contain inflation at recent rates, much less achieve the long-run goal of price stability. The 50 basis point firming of alternative $D$ is the most likely of the three policy options to keep the Federal Reserve "ahead of the curve" of inflation pressures and consequently to limit the extent to which policy might later need to tighten. If the Committee were uncertain about how much tightening would be required but wanted to respond to recent data, the more modest 25 basis point move of alternative C might be considered appropriate.
(11) The 25 basis point tightening of alternative $C$ is consistent with the current structure of market rates, and this policy
action might well trigger only muted interest rate reactions. However, since most market participants expect either no action or a 50 basis point tightening, alternative $C$ could raise questions about System intentions, potentially unsettling markets. A considerable portion of the 50 basis point increase in the federal funds rate under alternative $D$ would pass through to other short-term rates. In light of recent experience and the split in market expectations, it's difficult to say what immediate impact this alternative would have on interest rates in capital markets. Eventually, assuming economic and price data consistent with the staff forecast, intermediate-term yields could tend to work their way a bit higher, as market participants raised their expected path for Federal Reserve tightening in this phase of the business cycle. But the System's evident willingness to deal with inflation pressures through a 50 basis point move should alleviate longer-run concerns in this regard, limiting any increases in bond yields. With the rise in real interest rates, the dollar would likely appreciate somewhat on exchange markets.
(12) Under all three alternatives outlined above, the debt of the domestic nonfinancial sectors should expand at about a 5 percent rate over the balance of the year, placing the annual growth of this aggregate also at 5 percent, in the lower half of its 4 to 8 percent monitoring range. With capital spending by nonfinancial corporations anticipated to outpace their internally generated funds by a widening margin and merger activity continuing at its more elevated pace, business borrowing could strengthen some over the balance of the year. Commercial banks are anticipated to remain aggressive lenders to this sector, including for merger-related activity. In the household sector, consumer credit growth is expected to remain near a
double-digit rate even as borrowing costs continue to edge up, supporting solid expansion of consumer durables spending. Despite somewhat faster expansion of federal debt late in 1994, growth for the year--projected at 5-1/2 percent--would be the slowest in fifteen years.
(13) Growth of the monetary aggregates over the September-to-December period is presented below for alternatives B and D. Any action taken this late in the year is unlikely to have much of an impact on the annual growth rates of the aggregates for 1994, shown in the lower panel of the table. For illustrative purposes, the path under alternative $B$ was derived assuming that the funds rate would hold at its current level for the remainder of the year. The path for the aggregates under alternative $D$ assumes that the funds rate moves up to 5-1/4 percent at this meeting and stays there for the balance of the year. Thus, neither alternative matches the assumption in the Greenbook forecast. (The response of the aggregates under alternative C would lie midway between the two alternatives.)

Growth from September

## Alt. B

to December

| M2 | $1-1 / 2$ | $1 / 2$ |
| :--- | ---: | ---: |
| M3 | $1-1 / 4$ | $3 / 4$ |
| M1 | $2-1 / 2$ | $1-1 / 2$ |

Implied growth from 93:Q4 to 94:Q4

| M2 | $1-1 / 4$ | 1 |
| :--- | ---: | :--- |
| M3 | $3 / 4$ | $3 / 4$ |
| M1 | $3-1 / 4$ | 3 |

(14) Over the September-to-December period, M2 would expand at a 1-1/2 percent rate under alternative B. The staff has assumed that deposit rates will continue to adjust sluggish1y to market rates.

## Alternative Levels and Growth Rates for Key Monetary Aggregates

|  |  | M2 |  | M3 |  | M1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Alt. B | Alt. D | Alt. B | Alt. D | Alt. B | Alt. D |
| Levels in Billions |  |  |  |  |  |  |  |
| May-94 |  | 3596.1 | 3596.1 | 4226.4 | 4226.4 | 1142.9 | 1142.9 |
| Jun-94 |  | 3589.4 | 3589.4 | 4226.4 | 4226.4 | 1146.4 | 1146.4 |
| Jul-94 |  | 3603.0 | 3603.0 | 4247.8 | 4247.8 | 1153.6 | 1153.6 |
| Aug-94 |  | 3596.8 | 3596.8 | 4240.9 | 4240.9 | 1151.8 | 1151.8 |
| Sep-94 |  | 3596.6 | 3596.6 | 4243.0 | 4243.0 | 1152.7 | 1152.7 |
| Oct-94 |  | 3599.6 | 3597.7 | 4246.6 | 4245.5 | 1154.5 | 1154.0 |
| Nov-94 |  | 3603.9 | 3598.8 | 4251.5 | 4248.8 | 1156.9 | 1155.2 |
| Dec-94 |  | 3609.5 | 3601.8 | 4256.2 | 4251.5 | 1159.6 | 1156.8 |
| Monthly Growth Rates |  |  |  |  |  |  |  |
| Jun-94 |  | -2.2 | -2.2 | 0.0 | 0.0 | 3.7 | 3.7 |
| Jul-94 |  | 4.5 | 4.5 | 6.1 | 6.1 | 7.5 | 7.5 |
| Aug-94 |  | -2.1 | -2.1 | -1.9 | -1.9 | -1.9 | -1.9 |
| Sep-94 |  | -0.1 | -0.1 | 0.6 | 0.6 | 0.9 | 0.9 |
| Oct-94 |  | 1.0 | 0.4 | 1.0 | 0.7 | 1.9 | 1.3 |
| Nov-94 |  | 1.4 | 0.3 | 1.4 | 1.0 | 2.5 | 1.3 |
| Dec-94 |  | 1.9 | 1.0 | 1.3 | 0.8 | 2.8 | 1.6 |
| Quarterly Averages |  |  |  |  |  |  |  |
| 94 Q1 |  | 1.9 | 1.9 | 0.3 | 0.3 | 6.0 | 6.0 |
| 94 Q 2 |  | 1.9 | 1.9 | 0.5 | 0.5 | 1.9 | 1.9 |
| 94 Q3 |  | 0.7 | 0.7 | 1.6 | 1.6 | 3.2 | 3.2 |
| 94 Q 4 |  | 0.6 | 0.1 | 0.7 | 0.4 | 1.5 | 0.9 |
| Growth Rate |  |  |  |  |  |  |  |
| From | To |  |  |  |  |  |  |
| Dec-93 | Sep-94 | 1.1 | 1.1 | 0.3 | 0.3 | 2.9 | 2.9 |
| Sep-94 | Dec-94 | 1.4 | 0.6 | 1.2 | 0.8 | 2.4 | 1.4 |
| $93 \mathrm{Q4}$ | Sep-94 | 1.3 | 1.3 | 0.7 | 0.7 | 3.3 | 3.3 |
| 91 Q4 | 92 Q4 | 1.9 | 1.9 | 0.5 | 0.5 | 14.3 | 14.3 |
| $92 \mathrm{Q4}$ | 93 Q4 | 1.4 | 1.4 | 0.7 | 0.7 | 10.5 | 10.5 |
| 93 Q4 | $94 \mathrm{Q4}$ | 1.3 | 1.1 | 0.8 | 0.7 | 3.2 | 3.0 |
| 1994 Target Ranges: |  |  | 1.0 to 5.0 |  |  | 0.0 to 4.0 |  |

ACTUAL AND TARGETED M2


## Chart 3 <br> ACTUAL AND TARGETED M3




Chart 5
DEBT


In addition, declines in mortgage prepayments will continue to depress demand deposits. These factors will place a particular drag on liquid accounts, and M1 will expand at only a $2-1 / 2$ percent rate over the period. ${ }^{6}$ While the growth of small time deposits should remain robust, not all the funds lost from liquid deposits will remain in M2. Direct purchases of securities, including noncompetitive tenders at Treasury auctions, are anticipated to continue at a healthy clip. As a result, $M 2$ velocity is expected to continue increasing rapidly in the fourth quarter-at a rate near 5 percent. M3 growth should pick up a bit over the remainder of 1994, reflecting somewhat reduced reliance of banks on nondeposit sources of funding.
(15) Under alternative D, M2 would grow at a $1 / 2$ percent rate over the September-to-December period. The sluggish adjustment of deposit rates to the rise in market rates would further widen opportunity costs, depressing M1 and savings deposits even more. However, should policy firming be accompanied by some price declines in capital markets, outflows from bond mutual funds could intensify, some of the outflows might find their way into deposits and money market mutual funds, partly offsetting the effects on M2 of the higher cost of holding deposits. M3 would grow at a $3 / 4$ percent rate over the remaining months of the year, pulled down by a runoff of institu-tion-only money funds as their yields lag behind the increase in money market rates that would be in train under alternative $D$.
6. Rapid currency growth should continue to bolster m1 over the balance of the year. As a result, under alternative $B$, the monetary base should expand at about a $8-1 / 4$ percent rate, while total reserves should grow at a 1-3/4 percent rate over the September-to-December period.

## Directive Language

(17) 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 to DECREASE SOMEWHAT (SLIGHTLY)/MAINTAIN/increase somewhat (SLIGHTLY) the existing degree of pressure on reserve positions, taking account of a possible increase in the discount rate. 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, slightly (SOMEWHAT) greater reserve restraint (WOULD/MIGHT) or slightly (SOMEWHAT) lesser reserve restraint would (MIGHT) be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with modest growth in M2 and M3 over THE BALANCE OF THE YEAR coming months.

Table 1
SELECTED INTEREST RATES
(percent)

|  |  |  | Short-Term |  |  |  |  |  |  |  | Long-Term |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | federal funds | Treasury bills secondary market |  |  | $\begin{array}{\|c\|} \hline \text { CDS } \\ \text { secondary } \\ \text { market } \\ \hline \text { 3-month } \\ \hline \end{array}$ | $\begin{gathered} \begin{array}{c} \text { comm. } \\ \text { paper } \end{array} \\ \hline \text { 1-month } \end{gathered}$ | money market mutual fund | $\begin{aligned} & \hline \text { bank } \\ & \text { prime } \\ & \text { loan } \\ & \hline 0 \end{aligned}$ | U.S. government constant maturity yields |  |  |  | municipal <br> Bond Buyer | Conventional home mortgages  <br> secondary primary <br> market market |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 3-month | 6 -month | 1-year | 3-year |  |  |  |  | 10-year | 30 -year | pixed-rate |  |  | fixed-rate | ARM |
|  |  |  |  | 1 | 2 | 3 | , | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 93 -- High |  |  | 3.24 | 3.12 | 3.27 | 3.48 | 3.36 | 3.44 | 2.92 | 6.00 | 5.06 | 6.73 | 7.46 | 8.28 | 6.44 | 8.17 | 8.14 | 5.36 |
| -- Low |  |  | 2.87 | 2.82 | 2.94 | 3.07 | 3.06 | 3.07 | 2.59 | 6.00 | 4.07 | 5.24 | 5.83 | 6.79 | 5.41 | 6.72 | 6.74 | 4.14 |
| 94 -- High |  |  | 4.74 | 4.64 | 5.06 | 5.47 | 5.00 | 4.89 | 4.17 | 7.75 | 6.71 | 7.49 | 7.75 | 8.69 | 6.66 | 9.02 | 8.77 | 5.58 |
| -- Low |  |  | 2.97 | 2.94 | 3.12 | 3.35 | 3.11 | 3.11 | 2.68 | 6.00 | 4.44 | 5.70 | 6.25 | 7.16 | 5.49 | 7.02 | 6.97 | 4.12 |
| Monthly |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sep | 93 |  | 3.09 | 2.95 | 3.06 | 3.22 | 3.12 | 3.14 | 2.65 | 6.00 | 4.17 | 5.36 | 6.00 | 6.94 | 5.50 | 6.89 | 6.92 | 4.36 |
| Oct | 93 |  | 2.99 | 3.02 | 3.12 | 3.25 | 3.24 | 3.14 | 2.65 | 6.00 | 4.18 | 5.33 | 5.94 | 6.91 | 5.48 | 6.85 | 6.83 | 4.25 |
| Nov | 93 |  | 3.02 | 3.10 | 3.26 | 3.42 | 3.35 | 3.15 | 2.66 | 6.00 | 4.50 | 5.72 | 6.21 | 7.25 | 5.71 | 7.32 | 7.16 | 4.24 |
| Dec | 93 |  | 2.96 | 3.06 | 3.23 | 3.45 | 3.26 | 3.35 | 2.70 | 6.00 | 4.54 | 5.77 | 6.25 | 7.28 | 5.59 | 7.27 | 7.17 | 4.23 |
| Jan | 94 |  | 3.05 | 2.98 | 3.15 | 3.39 | 3.15 | 3.14 | 2.71 | 6.00 | 4.48 | 5.75 | 6.29 | 7.24 | 5.54 | 7.12 | 7.06 | 4.21 |
| Feb | 94 |  | 3.25 | 3.25 | 3.43 | 3.69 | 3.43 | 3.39 | 2.73 | 6.00 | 4.83 | 5.97 | 6.49 | 7.45 | 5.65 | 7.35 | 7.15 | 4.20 |
| Mar | 94 |  | 3.34 | 3.50 | 3.78 | 4.11 | 3.77 | 3.63 | 2.86 | 6.06 | 5.40 | 6.48 | 6.91 | 7.82 | 6.16 | 7.96 | 7.68 | 4.55 |
| Apr | 94 |  | 3.56 | 3.68 | 4.09 | 4.57 | 4.01 | 3.81 | 3.03 | 6.45 | 5.99 | 6.97 | 7.27 | 8.20 | 6.48 | 8.55 | 8.32 | 4.96 |
| May | 94 |  | 4.01 | 4.14 | 4.60 | 5.03 | 4.51 | 4.28 | 3.29 | 6.99 | 6.34 | 7.18 | 7.41 | 8.37 | 6.46 | 8.78 | 8.60 | 5.46 |
| Jun | 94 |  | 4.25 | 4.14 | 4.55 | 4.98 | 4.52 | 4.36 | 3.61 | 7.25 | 6.27 | 7.10 | 7.40 | 8.30 | 6.38 | 8.62 | 8.40 | 5.45 |
| Jul | 94 |  | 4.26 | 4.33 | 4.75 | 5.17 | 4.73 | 4.49 | 3.75 | 7.25 | 6.48 | 7.30 | 7.58 | 8.45 | 6.48 | 8.82 | 8.61 | 5.52 |
| Aug | 94 |  | 4.47 | 4.48 | 4.88 | 5.25 | 4.81 | 4.65 | 3.95 | 7.51 | 6.50 | 7.24 | 7.49 | 8.36 | 6.44 | 8.82 | 8.51 | 5.53 |
| Weekly |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jun | 8 | 94 | 4.13 | 4.11 | 4.52 | 4.92 | 4.47 | 4.35 | 3.57 | 7.25 | 6.16 | 6.97 | 7.27 | 8.21 | 6.20 | 8.49 | 8.25 | 5.45 |
| Jun | 15 | 94 | 4.21 | 4.12 | 4.51 | 4.90 | 4.44 | 4.32 | 3.59 | 7.25 | 6.19 | 7.04 | 7.34 | 8.32 | 6.34 | 8.61 | 8.33 | 5.43 |
| Jun | 22 | 94 | 4.19 | 4.15 | 4.53 | 4.94 | 4.49 | 4.35 | 3.63 | 7.25 | 6.28 | 7.14 | 7.44 | 8.41 | 6.43 | 8.68 | 8.46 | 5.41 |
| Jun | 29 | 94 | 4.19 | 4.16 | 4.58 | 5.11 | 4.62 | 4.41 | 3.64 | 7.25 | 6.38 | 7.20 | 7.48 | 8.49 | 6.56 | 8.89 | 8.57 | 5.48 |
| Jul | 6 | 94 | 4.38 | 4.21 | 4.67 | 5.19 | 4.78 | 4.52 | 3.70 | 7.25 | 6.50 | 7.33 | 7.62 | 8.57 | 6.52 | 8.91 | 8.68 | 5.56 |
| Jul | 13 | 94 | 4.30 | 4.38 | 4.83 | 5.23 | 4.79 | 4.55 | 3.75 | 7.25 | 6.57 | 7.41 | 7.68 | 8.42 | 6.47 | 8.79 | 8.72 | 5.58 |
| Jul | 20 | 94 | 4.30 | 4.27 | 4.67 | 5.06 | 4.66 | 4.47 | 3.78 | 7.25 | 6.37 | 7.22 | 7.52 | 8.45 | 6.46 | 8.82 | 8.52 | 5.46 |
| Jul | 27 | 94 | 4.28 | 4.39 | 4.79 | 5.23 | 4.69 | 4.46 | 3.80 | 7.25 | 6.49 | 7.29 | 7.56 | 8.27 | 6.47 | 8.71 | 8.57 | 5.54 |
| Aug | 3 | 94 | 4.28 | 4.33 | 4.74 | 5.12 | 4.68 | 4.45 | 3.83 | 7.25 | 6.36 | 7.15 | 7.43 | 8.37 | 6.37 | 8.82 | 8.38 | 5.50 |
| Aug | 10 | 94 | 4.26 | 4.42 | 4.87 | 5.24 | 4.75 | 4.50 | 3.85 | 7.25 | 6.52 | 7.26 | 7.52 | 8.35 | 6.49 | 8.84 | 8.57 | 5.56 |
| Aug | 17 | 94 | 4.35 | 4.47 | 4.93 | 5.29 | 4.82 | 4.66 | 3.88 | 7.39 | 6.55 | 7.25 | 7.47 | 8.39 | 6.45 | 8.87 | 8.54 | 5.52 |
| Aug | 24 | 94 | 4.66 | 4.56 | 4.93 | 5.32 | 4.88 | 4.80 | 4.03 | 7.75 | 6.54 | 7.27 | 7.51 | 8.36 | 6.46 | 8.74 | 8.56 | 5.54 |
| Aug | 31 | 94 | 4.72 | 4.57 | 4.88 | 5.27 | 4.87 | 4.79 | 4.08 | 7.75 | 6.48 | 7.23 | 7.49 | 8.38 | 6.43 | 8.69 | 8.48 | 5.49 |
| Sep | 7 | 94 | 4.74 | 4.55 | 4.84 | 5.26 | 4.87 | 4.81 | 4.12 | 7.75 | 6.48 | 7.24 | 7.52 | 8.59 | 6.46 | 8.90 | 8.51 | 5.47 |
| Sep | 14 | 94 | 4.70 | 4.58 | 4.95 | 5.34 | 4.94 | 4.85 | 4.14 | 7.75 | 6.62 | 7.41 | 7.68 | 8.69 | 6.51 | 8.93 | 8.66 | 5.49 |
| Sep | 21 | 94 | 4.73 | 4.64 | 5.06 | 5.47 | 5.00 | 4.89 | 4.17 | 7.75 | 6.71 | 7.49 | 7.75 | -- | 6.66 | 9.02 | 8.73 | 5.56 |
| Daily |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sep | 16 | 94 | 4.68 | 4.61 | 5.03 | 5.48 | 4.98 | 4.88 | -- | 7.75 | 6.72 | 7.52 | 7.78 | -- | -- | -- | -- | -- |
| Sep | 21 | 94 | 4.87 | 4.79 | 5.19 | 5.57 | 5.04 | 4.91 | -- | 7.75 | 6.81 | 7.56 | 7.80 | -. | -- | -- | -- | -- |
| Sep | 22 | 94 | 4.78 | 4.79 | 5.19 | 5.55 | 5.18 | 4.98 | -- | 7.75 | 6.80 | 7.56 | 7.79 | -- | - | -- | -- | -- |

NOTE: Weakly data for columns 1 through 11 are statement week averages. Data in column 7 are taken from Donoghue's Money Fund Report. Colurnns 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 rate mortgages (ARMs) at major institutional lenders offering boih FRMs and ARMs with the same number of discount points.


Adusted for breaks caused by rectassifications.
preliminary
preliminary estimate


Net of money market mutual fund holdings of these items.
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.
5. Net of large denomination time deposits held by money market mutual funds, depository institutions, U.S. government, and foreign banks and official institutions.

| Period | Treasury bills |  |  | Treasury coupons |  |  |  |  |  | Federal agencies redemptions (-) | $\begin{aligned} & \text { Net change } \\ & \text { outright } \\ & \text { holdings } \\ & \text { total } 4 \\ & \hline \end{aligned}$ | Net RPs ${ }^{5}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Netpurchases ${ }^{2}$ | Rademptions$\qquad$ | Net change | Net purchases ${ }^{3}$ |  |  |  | Redemptions$(-)$ | Net Change |  |  |  |
|  |  |  |  | $\begin{aligned} & \text { within } \\ & 1 \text { year } \\ & \hline \end{aligned}$ | $1-5$ | 5-10 | over 10 |  |  |  |  |  |
| 1991 | 20,038 | 1,000 | 19,038 | 3,043 | 6,583 | 1,280 | 375 | --- | 11,282 | 292 | 27,726 | $-1,614$ |
| 1992 | 13,086 | 1,600 | 11,486 | 1,096 | 13,118 | 2,818 | 2,333 | --- | 19,365 | 632 | 30,219 | -13,215 |
| 1993 | 17,717 | 468 | 17,249 | 1,223 | 10,350 | 4,168 | 3,457 | --* | 19,198 | 1,072 | 35,374 | 5,974 |
| 1993 ---Q1 | --- | --- | --- | 279 | 1,441 | 716 | 705 | --- | 3,141 | 289 | 2,851 | -461 |
| ---Q2 | 7,749 | --- | 7,749 | 244 | 2,490 | 1,147 | 1,110 | --- | 4,990 | 91 | 12,648 | 10,624 |
| ---Q3 | 1,268 | $\cdots$ | 1,268 | 511 | 3.700 | 1,297 | 817 | --- | 6,326 | 526 | 7,067 | -8,644 |
| ---Q4 | 8,700 | 468 | 8,232 | 189 | 2,719 | 1,008 | 826 | --- | 4,742 | 166 | 12,807 | 4,455 |
| 1994 ---Q1 | 2,164 | --- | 2,164 | 147 | 1,413 | 1,103 | 618 | 616 | 2,665 | 411 | 4,418 | -11,663 |
| ---Q2 | 6,639 | --- | 6,639 | 364 | 2,817 | 1,117 | 896 | 440 | 4,754 | 307 | 11,086 | 17,719 |
| 1993 September | 366 | --- | 366 | 411 | 2,400 | 797 | 717 | --- | 4,326 | 35 | 4,656 | 1,262 |
| October | 1,396 | 468 | 927 | - | --. | --- | --- | --- | --- | 70 | 857 | -6,723 |
| November | 5,911 | .-. | 5,911 | -- | 100 | --- | --- | --- | 100 | 15 | 5,996 | 7,232 |
| December | 1,394 | --- | 1,394 | 189 | 2,619 | 1,008 | 826 | ... | 4,642 | 81 | 5,954 | 3,947 |
| 1994 January | --- | --- | --- | $\cdots$ | --- | --- | --- | 616 | -616 | 202 | -817 | -7,757 |
| February | 1,264 | --- | 1,264 | $\cdots$ | $\cdots$ | $\cdots$ | --- | --- | --- | 102 | 1,163 | -3,946 |
| March | 900 | --- | 900 | 147 | 1,413 | 1,103 | 618 | -- | 3,281 | 108 | 4,073 | 40 |
| April | 1,101 | --- | 1,101 | 209 | 2,817 | 1,117 | 896 | 440 | 4,599 | 180 | 5,520 | 8,208 |
| May | 1,395 | --- | 1,395 | 155 | --- | ... | --- | --- | 155 | 70 | 1,480 | 5.441 |
| June | 4,143 | --- | 4,143 | --- | $\cdots$ | --- | --- | --" | -.- | 58 | 4,085 | 4,070 |
| July | $\cdots$ | --- | $\cdots$ | $\cdots$ | --* | -.. | -- | ... | --- | 322 | -322 | -5,023 |
| August | 1,610 | --- | 1,610 | $\cdots$ | --- | $\cdots$ | --- | --- | $\cdots$ | 63 | 1,547 | 3,335 |
| Weekly |  |  |  |  |  |  |  |  |  |  |  |  |
| June 8 | 3,750 | --- | 3,750 | -- | --- | --- | --- | --- | --- | $\cdots$ | 3,750 | -5,396 |
| 15 | --- | --- | --- | -- | $\cdots$ | $\cdots$ | --- | -.. | --- | 26 | -26 | 2,127 |
| 22 | --- | --- | $\cdots$ | -- | $\cdots$ | --- | --- | -- | $\cdots$ | $\cdots$ | --- | 435 |
| 29 | 246 | --- | 246 | $\cdots$ | --- | --- | $\cdots$ | --- | --- | 32 | 214 | 94 |
| July 6 | 147 | --- | 147 | -- | --- | --- | --- | --- | --- | --- | 147 | 2,042 |
| 13 | --. | --- | --- | $\cdots$ | --- | --. | $\cdots$ | -.. | --- | $\cdots$ | - | 1,009 |
| 20 | --- | --. | --- | --- | --- | $\cdots$ | --- | --- | --- | 302 | -302 | -864 |
| 27 | --- | --- | --- | $\cdots$ | --- | --- | --- | --- | --- | 20 | -20 | -3,057 |
| August 3 | --- | --- | $\cdots$ | $\cdots$ | $\cdots$ | --- | --- | --- | --- | -.. | -- | 2,321 |
| 10 | 184 | --- | 184 | $\cdots$ | --- | $\cdots$ | -- | --- | --- | $\cdots$ | 184 | 144 |
| 17 | 517 | --- | 517 | --- | --- | --- | -- | --- | --- | 5 | 512 | -5,421 |
| 24 | 409 | --- | 409 | $\cdots$ | --- | --- | --- | --- | --- | --- | 409 | 4,056 |
| 31 | 501 | $\cdots$ | 501 | --- | --- | --- | --- | -- | $\cdots$ | 58 | 443 | 4,298 |
| September 7 | --- | --- | -- | 151 | 2,530 | 938 | 840 | --- | 4,459 | $\cdots$ | 4,459 | -4,550 |
| 14 | --- | --- | --- | --. | --- | --- | --- | --- | -.- | 20 | -20 | $-1,916$ |
| 21 | --- | --- | $\cdots$ | $\cdots$ | --- | -- | --- | --- | --- | --- | --- | -1,400 |
| Memo: LEVEL (bil. \$) ${ }^{6}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| September 21 |  |  | 178.3 | 207.0 | 87.1 | 26.1 | 34.3 |  | 354.5 |  | 365.4 | 6.5 |

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

| within <br> 1 year | 1.5 | $5-10$ | over 10 | total |
| :---: | :---: | :---: | :---: | :---: |
| 1.5 | 1.7 | 0.6 | 0.0 | 3.8 |


[^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. Financial market quotations in this section are taken as of
    noon, Friday, September 23.
    2. To accommodate shifts in seasonal credit demands, the borrowing assumption was subsequently raised to $\$ 475$ and $\$ 500 \mathrm{million}$ and reduced more recently back down to $\$ 475$ million. Borrowing averaged $\$ 498$ million in the maintenance period ending August 31 and dropped to $\$ 447$ million in the period ending September 14 on declines in both seasonal and adjustment borrowing.
[^2]:    3. M1 declined at a 2 percent rate in August, as currency growth slowed a bit, while transaction deposits ran off. Reserves dropped at a 6 percent rate, holding down the growth of the base to 6-1/4 percent. Over all of 1994, reserves have dropped at a 1-1/2 percent rate, while the base has increased at a rate of $8-3 / 4$ percent.
    4. M2+ was flat in August; from the fourth quarter of last year through August, this expanded aggregate grew at a 1-1/4 percent rate, nearly the same pace as for M2.
[^3]:    5. Over the intermeeting period, seasonal borrowing should trend down, as is the norm for this time of year, necessitating technical reductions in the borrowing assumption.
