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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) Throughout the intermeeting period, the federal funds rate has averaged close to the Committee's expectation of 3 percent. ${ }^{1}$ Many other interest rates moved up some when the Chairman's HumphreyHawkins testimony was interpreted as raising the odds of a tightening of monetary policy over the medium term, but they retreated later in response to weaker-than-expected economic news, passage of the deficit reduction package, and, most recently, favorable price readings for July. On balance over the intermeeting period, money market rates are unchanged and intermediate-term yields are down about 5 basis points, while yields on long-term Treasury and corporate bonds have fallen as much as 35 basis points. ${ }^{2}$ Stock prices have increased 1-1/2 to 3 percent. Rates on fixed-rate mortgages, which tend to move with intermediate-term Treasuries, are down 6 basis points from around the time of the July FOMC meeting.
(2) The dollar's weighted average exchange value rose 1-1/4 percent, on balance, over the intermeeting period. The dollar strengthened slightly against the German mark, but rose more against most other ERM currencies after the allowed margins of fluctuation were greatly widened in response to massive selling pressures on the French franc and

[^1]several other currencies at the end of July. The prospect of more expansionary monetary policies after the bands were widened, especially by non-German ERM monetary authorities, not only weakened those currencies but also resulted in strong rallies in the domestic bond and stock markets of those countries. Since the widening, however, monetary authorities have been cautious in relaxing policies, and short-term rates outside of Germany are generally still above their levels at the time of the last $F O M C$ meeting. In Germany, by contrast, three-month interest rates declined 85 basis points over the intermeeting period, reflecting some actual and further anticipated easings, despite the Bundesbank's decision not to cut its discount rate in late July; long-term rates decreased 30 basis points. With continued focus on Japan's trade surplus, the dollar depreciated 5-1/4 percent against the yen, reaching a new record low below Y102; the change in the Japanese government had only a temporary depressing effect on the yen. Japanese short-term rates declined 15 basis points, while long rates fell 30 basis points. The Desk did not intervene in exchange markets during the period;
(3) The growth rates of M2 in June and July averaged 1-3/4 percent, leaving this aggregate a shade under the 1 percent lower bound of its downward-revised annual range. Although growth was only a bit below the subdued pace foreseen in the last bluebook, it was supported to a greater degree than anticipated by identifiable special factors. These included surprisingly robust mortgage refinancings, which boosted demand deposits, and the purchase of Chicago Research and Trading (CRT), a nonbank primary dealer, by NationsBank, which boosted the level of
bank RPs. Underlying growth in M2 thus was somewhat weaker than foreseen. Nominal income during the second quarter expanded more slowly than the staff had forecast; moreover, flows to bond and stock mutual funds strengthened in June and anecdotal evidence suggests they remained brisk in July. ${ }^{3}$ M1 growth averaged 10-1/2 percent over the two months, with each of its components posting average growth rates in the low double digits. ${ }^{4}$
(4) M3 contracted at a 1-3/4 percent rate over June and July, compared with the modest increase predicted in the last bluebook. Since the fourth quarter of last year, M3 has declined at about a $1 / 2$ percent rate, leaving it below the lower edge of its newly reduced 0 to 4 percent annual growth rate range. The weakness in M3 over June and July partly reflected a substantial drop in institution-only money market mutual funds, whose returns had not kept pace with the increase in money market rates in late spring. Also damping M3 growth, depositories increased their reliance on various nondeposit sources of funds, including borrowings from abroad, equity, and subordinated debt. Bank credit edged down from a 9-1/2 percent growth rate in June to an $8-1 / 2$ percent rate in July. The expansion in July would have been only half as rapid had not NationsBank's purchase of CRT boosted the U.S. government securities and security loans components of bank credit.
(5) Credit flows to nonfederal sectors have strengthened a bit in recent months. In the household sector, consumer credit picked up somewhat in June, and consumer loans at banks in July--the only data

[^2]available-continued to grow briskly. With a strengthening of home sales and some equity extraction involved in heightened mortgage refinancing activity, net mortgage borrowing by households likely also firmed in June. Net borrowing by businesses evidently has been moderate. Responding to lower long-term yields and elevated equity prices, corporations offered a substantial volume of bonds, including some 50-and 100-year issues, and equity. Much of the proceeds of this activity was earmarked for repaying previously issued high-cost bonds as well as bank loans, which dropped last month after two months of expansion. Businesses are apparently finding securities markets quite receptive: Quality spreads, already low, have narrowed further, reflecting firms' improved financial conditions and perhaps also a willingness of investors to take on more risk in their attempt to improve on available deposit returns and to replace higher-yielding securities that matured or were retired. In addition, banks have shown a greater willingness to lend to businesses: A larger fraction of domestic bank respondents to the August lending practices survey reported some easing of standards and terms on business loans over the preceding three months than did so in May. Overall debt of nonfederal nonfinancial sectors grew at a 4 percent rate again in June, bringing its rate of expansion since the fourth quarter to $3-1 / 4$ percent. With federal debt increasing at a 10-1/2 percent rate over the same period, total domestic nonfinancial debt rose at a 5 percent rate from its fourth quarter base through June, in the lower half of its newly specified 4 to 8 percent annual monitoring range.

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

|  | May | June | July | QIV <br> to <br> July |
| :---: | :---: | :---: | :---: | :---: |
| Money and credit aggregates |  |  |  |  |
| M1 | 27.4 | 7.3 | 13.8 | 10.1 |
| M2 | 10.5 | 2.1 | 1.5 | 0.9 |
| M3 | 8.5 | -1.3 | -2.2 | -0.6 |
| ```Domestic nonfinancial debt Federal Nonfederal``` | $\begin{array}{r} 5.7 \\ 10.9 \\ 3.9 \end{array}$ | $\begin{array}{r} 6.4 \\ 13.2 \\ 3.9 \end{array}$ | -- | $\begin{array}{r} 5.1 \\ 10.6 \\ 3.2 \end{array}$ |
| Bank credit | 8.6 | 9.5 | 8.6 | 5.2 |
| Reserve meastires |  |  |  |  |
| Nonborrowed reserves ${ }^{2}$ | 35.5 | 3.8 | 8.1 | 10.6 |
| Total reserves | 36.5 | 5.1 | 9.4 | 10.9 |
| Monetary base | 13.8 | 10.9 | 9.6 | 10.0 |
| Memo: (Millions of dollars) |  |  |  |  |
| Adjustment plus seasonal borrowing | 121 | 181 | 244 | -- |
| Excess reserves | 996 | 911 | 1090 | -- |

1. QIV to June 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.

## Policy Alternatives

(6) Three alternatives are presented below for consideration by the Committee. Under alternative $B$, federal funds would continue to trade around 3 percent in association with an allowance for adjustment plus seasonal borrowing of $\$ 250$ million. ${ }^{5}$ Under alternative $A$, the federal funds rate would decline to $2-1 / 2$ percent, either through a drop in the borrowing allowance to $\$ 225 \mathrm{million}$ or a cut in the discount rate of 50 basis points in combination with an unchanged level of borrowing. Under alternative $C$, the federal funds rate would rise to $3-1 / 2$ percent accompanying a boost in adjustment plus seasonal borrowing to $\$ 275 \mathrm{mil}$ lion.
(7) Market participants are not expecting a change in policy over the relatively short upcoming intermeeting period. Thus, under alternative $B$, short-term interest rates should remain around current levels in the weeks ahead. The prime rate, at 6 percent, is unlikely to move, as banks' increased willingness to lend will probably take the form of narrower spreads relative to benchmark rates and more attractive nonprice terms. Although the passage of the deficit reduction package has removed one element of uncertainty, questions remain about its effects, suggesting that rates could be quite sensitive to information bearing on household and business spending. Currently, market participants appear to be anticipating a tightening of monetary policy by early next year, on the presumption that short-term rates will have to move up to forestall any incipient buildup of inflation pressures. Given these expectations, intermediate- and perhaps long-term rates could drift lower if, in line with the staff economic forecast, incoming indicators point to more subdued spending and inflationary pressures than now seem

[^3]built into market expectations; in such circumstances, market participants would likely see tightening actions as being pushed further into the future. The dollar should trade around recent levels on foreign exchange markets, with any downward pressure from possible declines in U.S. interest rates being balanced by projected reductions in rates abroad.
(8) The interest rates under alternative $B$ are consistent with those of the staff Greenbook forecast, which has the federal funds rate around current levels through 1994 and long-term rates edging lower. In that forecast, persistent low levels of real short-term interest rates are needed to counter fiscal drag and other impediments to economic growth. Under these circumstances, the unemployment rate does not decline from its current level, while core inflation slows only modestly. With this configuration of income and interest rates, broad money aggregates are projected to expand sluggishly while total nonfinancial debt increases around the pace of nominal GDP.
(9) Over the balance of 1993, M2 is projected to grow at about a $1-1 / 2$ percent pace under alternative $B$, and, as shown in the table below, to finish the year around the lower bound of its new annual range. ${ }^{6}$ Although special factors that have boosted M2 growth in recent months are seen as fading somewhat, underlying growth in this aggregate is boosted by a little faster growth in nominal income. The lure of capital market instruments-from the still fairly steep yield curve and reported capital gains on securities to date-is expected to remain strong, and inflows to mutual funds probably will stay near the record pace of the year thus far. As a consequence, the velocity of M2

[^4]is expected to increase at a 3 percent rate in the second half of the year, only a little less than the 4 percent rate of the first half. ${ }^{7}$ M3 under alternative $B$ is projected to bottom out in August and to edge higher over the remainder of the year. Although bank credit growth should slow a bit, more of it is expected to be funded by deposits. given the very comfortable capital levels of many banks. Still, M3 would finish the year a little below its fourth-quarter 1992 base and the lower bound of its range.

|  | Alt. A | A1t. B | Alt. C |
| :---: | :---: | :---: | :---: |
| Growth from July to September |  |  |  |
|  |  |  |  |
| M3 | 1/4 | 0 | -1/4 |
| M1 | 7-1/2 | 6-3/4 | 6 |
| Growth from September to December |  |  |  |
| M2 | 2-1/4 | 1-1/2 | 3/4 |
| M3 | 1 | 3/4 | 1/2 |
| M1 | 11 | 9-1/2 | 8 |
| Growth from Q4:1992 |  |  |  |
| to December 1993 |  |  |  |
| M2 | 1-1/4 | 1 | 3/4 |
| M3 | 0 | -1/4 | $-1 / 4$ |
| M1 | 10-1/4 | 9-3/4 | 9-1/4 |

(10) Private-sector credit is expected to grow a little faster in the second half of the year than the first. In addition to a pickup in credit demands associated with the faster growth of nominal spending, we anticipate that credit terms and standards at intermediaries will

[^5]Alternative Levels and Growth Rates for Key Monetary Aggregates

|  |  | M2 |  |  | M3 |  |  | M1 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | A1t. A | Alt. B | Alt. C | Alt. A | A1t. B | A1t. C | Alt. A | 1t. B | 1t. C |
| Levels in Billions |  |  |  |  |  |  |  |  |  |  |
| May-93 |  | 3504.9 | 3504.9 | 3504.9 | 4171.2 | 4171.2 | 4171.2 | 1066.8 | 1066.8 | 1066.8 |
| Jun-93 |  | 3511.0 | 3511.0 | 3511.0 | 4166.8 | 4166.8 | 4166.8 | 1073.3 | 1073.3 | 1073.3 |
| Jul-93 |  | 3515.3 | 3515.3 | 3515.3 | 4159.0 | 4159.0 | 4159.0 | 1085.6 | 1085.6 | 1085.6 |
| Aug-93 |  | 3522.4 | 3521.8 | 3521.2 | 4157.6 | 4157.3 | 4157.0 | 1093.0 | 1092.7 | 1092.3 |
| Sep-93 |  | 3526.3 | 3523.8 | 3521.5 | 4160.4 | 4159.0 | 4157.6 | 1099.3 | 1097.9 | 1096.4 |
| Oct-93 |  | 3530.7 | 3525.9 | 3521.1 | 4162.0 | 4159.4 | 4156.6 | 1108.1 | 1105.2 | 1102.3 |
| Nov-93 |  | 3538.7 | 3531.8 | 3524.8 | 4167.2 | 4163.5 | 4159.5 | 1118.6 | 1114.4 | 1110.2 |
| Dec-93 |  | 3546.3 | 3537.7 | 3528.7 | 4172.3 | 4167.7 | 4162.7 | 1129.5 | 1124.1 | 1118.7 |
| Monthly Growth Rates |  |  |  |  |  |  |  |  |  |  |
| May-93 |  | 10.5 | 10.5 | 10.5 | 8.5 | 8.5 | 8.5 | 27.4 | 27.4 | 27.4 |
| Jun-93 |  | 2.1 | 2.1 | 2.1 | -1.3 | -1.3 | -1.3 | 7.3 | 7.3 | 7.3 |
| Jul-93 |  | 1.5 | 1.5 | 1.5 | -2.2 | -2.2 | -2.2 | 13.8 | 13.8 | 13.8 |
| Aug-93 |  | 2.4 | 2.2 | 2.0 | -0.4 | -0.5 | -0.6 | 8.2 | 7.8 | 7.4 |
| Sep-93 |  | 1.3 | 0.7 | 0.1 | 0.8 | 0.5 | 0.2 | 6.9 | 5.7 | 4.5 |
| Oct-93 |  | 1.5 | 0.7 | -0.1 | 0.5 | 0.1 | -0.3 | 9.6 | B. 0 | 6.4 |
| Nov-93 |  | 2.7 | 2.0 | 1.3 | 1.5 | 1.2 | 0.9 | 11.4 | 10.0 | 8.6 |
| Dec-93 |  | 2.6 | 2.0 | 1.4 | 1.5 | 1.2 | 0.9 | 11.6 | 10.4 | 9.2 |
| Quarterly Averages |  |  |  |  |  |  |  |  |  |  |
| 93 Q1 |  | -1.9 | -1.9 | -1.9 | -3.8 | -3.8 | -3.8 | 6.6 | 6.6 | 6.6 |
| 93 Q2 |  | 2.1 | 2.1 | 2.1 | 2.3 | 2.3 | 2.3 | 10.5 | 10.5 | 10.5 |
| 93 Q3 |  | 2.8 | 2.7 | 2.6 | -0.1 | -0.1 | -0.2 | 12.0 | 11.7 | 11.5 |
| 93 Q4 |  | 2.0 | 1.3 | 0.6 | 0.8 | 0.5 | 0.2 | 9.5 | 8.2 | 7.0 |
| Growth Rate |  |  |  |  |  |  |  |  |  |  |
| From | To |  |  |  |  |  |  |  |  |  |
| Mar-93 | Jun-93 | 4.4 | 4.4 | 4.4 | 3.5 | 3.5 | 3.5 | 14.7 | 14.7 | 14.7 |
| Jun-93 | Sep-93 | 1.7 | 1.4 | 1.2 | -0.6 | -0.7 | -0.9 | 9.7 | 9.2 | 8.6 |
| Jul-93 | Sep-93 | 1.9 | 1.4 | 1.0 | 0.2 | 0.0 | -0.2 | 7.6 | 6.8 | 6.0 |
| Jun-93 | Dec-93 | 2.0 | 1.5 | 1.0 | 0.3 | 0.0 | -0.2 | 10.5 | 9.5 | 8.5 |
| Jul-93 | Dec-93 | 2.1 | 1.5 | 0.9 | 0.8 | 0.5 | 0.2 | 9.7 | 8.5 | 7.3 |
| Sep-93 | Dec-93 | 2.3 | 1.6 | 0.8 | 1.1 | 0.8 | 0.5 | 11.0 | 9.5 | 8.1 |
| 91 Q4 | 92.04 | 1.8 | 1.8 | 1.8 | 0.3 | 0.3 | 0.3 | 14.3 | 14.3 | 14.3 |
| 92 Q4 | 93 Q4 | 1.2 | 1.0 | 0.8 | -0.2 | -0.3 | -0.4 | 10.0 | 9.6 | 9.2 |
| 92 Q4 | Jul-93 | 0.9 | 0.9 | 0.9 | -0.6 | -0.6 | -0.6 | 10.1 | 10.1 | 10.1 |
| 92 Q4 | Sep-93 | 1.1 | 1.0 | 0.9 | -0.4 | -0.5 | -0.5 | 9.7 | 9.5 | 9.3 |
| 92 Q4 | Dec-93 | 1.3 | 1.1 | 0.8 | -0.1 | -0.2 | -0.3 | 10.2 | 9.7 | 9.2 |
| 1993 Target Ranges: |  |  | 1.0 to 5.0 |  | 0.0 to 4.0 |  |  |  |  |  |

## ACTUAL AND TARGETED M2



## ACTUAL AND TARGETED M3




## DEBT


continue to ease. Nonetheless, borrowing is expected to remain concentrated in longer-term markets, where credit-risk premiums should remain unusually low. In contrast, a pause in rapid federal debt growth is anticipated in the months just ahead, as the Treasury draws on its large cash balance before returning to the debt markets in volume later in the year. As a consequence, growth of the total debt of domestic nonfinancial sectors is projected to slow slightly from the first half of the year to $4-1 / 2$ percent over the second half, implying an increase of $4-3 / 4$ percent for the year as a whole.
(11) The easing under alternative A would come as a surprise to market participants, and short-term rates would decline by the full 50 basis point drop in the funds rate. Intermediate-term rates would decrease noticeably, and longer-term rates also would move lower, at least in the immediate aftermath of the easing action. The fall in longer-term nominal interest rates might be limited if inflation expectations were worsened by a sense that the Federal Reserve was putting less weight on its longer-run price stability objective. Even if longer-term nominal rates were little affected, real rates across the maturity structure would fall. However, unless the easing itself prompted a more downbeat market assessment of the underlying strength of spending, the drop in real capital market rates might be muted to some extent by questions about how long the reduced federal funds rate could be sustained, given its already low level in real terms.
(12) In light of the likelihood of some decline in an array of real interest rates, as well as the real foreign exchange value of the dollar, alternative A might be favored if economic growth in the staff forecast were seen to be unsatisfactory and the Committee were willing to accept little or no further disinflation. Or this option might
appear attractive if the risks to the staff forecast were seen to be tilted significantly toward the downside, especially in view of continued fiscal drag. The lower interest rates of this alternative would tend to boost money growth relative to alternative $B$ and, under the spending propensities incorporated in the staff forecast, would give a little more assurance that the broad aggregates would finish the year at or above the lower bounds of their ranges for 1993. Faster growth in M2 under alternative $A$ owes both to more growth in nominal income later in the year than under alternative $B$ and to the improvement in the attractiveness of assets in M2 relative to money market instruments. However. the strengthening of M 2 would be only modest, because the elasticity of this aggregate with respect to short-term interest rates now seems to be quite small. M3 under alternative A would expand slowly over the final four months of the year as bank credit growth remained damped in the context of continued heavy financing in the securities markets.
(13) The tightening of policy under alternative $C$ would come much sooner than is now envisioned by market participants. As a consequence, rates at the short end would increase by the half-point boost in the federal funds rate. The prime rate would rise, likely by one-half point, although a quarter-point increase in the federal funds rate might not elicit any change in the prime rate. Intermediate-term rates, both nominal and real, would move higher, with the extent of the increase depending on whether market participants viewed the action as merely moving forward the current trajectory of expected rate increases or as a fundamentally more aggressive posture that was more certain to achieve price stability. Perceptions of a firmer stance against inflation would put some downward pressure on more distant forward rates, muting the
likely rise in bond yields. In any case, the dollar would move higher on foreign exchange markets.
(14) Alternative $C$ might be favored if the Committee saw a need to move sooner, rather than later, to contain or reduce future inflationary pressures. An outlook for economic growth and inflation stronger than in the staff forecast would bolster the rationale for a policy firming action. Such an outlook might follow from a view that the more aggressive posture being adopted by banks and other lenders would provide, with lags, considerable stimulus to the economy and prices. With the staff's outlook for spending propensities, M2 would expand at only a 1 percent pace over the final five months of this year under alternative $C$, ending the year about $3 / 4$ percent above its fourthquarter 1992 level. Growth in this aggregate would be restrained not only by larger opportunity costs but also by slower income growth as year-end approached. Weaker M2 would show through to M3 which would be about flat over the remainder of the year.

## Directive Language.

(15) Presented below is draft wording for the operational paragraph that includes the usual options for Committee consideration. In keeping with the practice adopted at the February meeting, the draft does not indicate specific growth rates for $M 2$ and M3 over the shorter run.

## QPERATIONAL PARAGRAPH

In the implementation of policy for the immediate future, the Committee seeks to DECREASE SOMEWHAT/maintain/ INCREASE SOMEWHAT the existing degree of pressure on reserve positions. In the context of the Committee's longrun 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 the broader monetary aggregates M2 AND LITTLE NET CHANGE IN M3 over the BALANCE OF THE third quarter.
(percent)

|  |  |  | Short-Term |  |  |  |  |  |  |  | Long-Term |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | federal funds | Treasury bills secondary market |  |  | CDssecondarymarket3-month |  | money <br> market <br> mutual <br> fund | bank <br> prime <br> loan | U.S. government constant maturity yields |  |  | corporate <br> A-utility recently offered | municipal Bond Buyer | conventional home mortgages |  |  |
|  |  |  | secondary market |  |  |  | primary market |  |  |  |  |  |  |  |  |
|  |  |  | 3-month | 6-month | 1-year | 3 -year |  |  |  |  | 10-year | 30-year | Tixed-rate |  |  | fixed-rate | ARM |
|  |  |  | 1 | 2 | 3 | 4 |  | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 92 -- High |  |  |  | 4.20 | 4.05 | 4.22 | 4.51 | 4.32 | 5.02 | 4.51 | 6.50 | 6.32 | 7.65 | 8.07 | 8.99 | 6.87 | 9.09 | 9.03 | 6.22 |
| -- Low |  |  |  | 2.86 | 2.69 | 2.82 | 2.91 | 3.07 | 3.17 | 2.74 | 6.00 | 4.24 | 6.30 | 7.29 | 8.06 | 6.12 | 7.73 | 7.84 | 4.97 |
| 93 -- High |  |  | 3.24 | 3.10 | 3.26 | 3.48 | 3.28 | 3.39 | 2.92 | 6.00 | 5.06 | 6.73 | 7.46 | 8.28 | 6.44 | 8.17 | 8.14 | 5.36 |
| -- Lo |  |  | 2.87 | 2.82 | 2.94 | 3.07 | 3.06 | 3.07 | 2.59 | 6.00 | 4.24 | 5.74 | 6.48 | 7.31 | 5.68 | 7.08 | 7.16 | 4.51 |
| Monthly |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Aug | 92 |  | 3.30 | 3.13 | 3.21 | 3.33 | 3.31 | 3.38 | 3.07 | 6.00 | 4.72 | 6.59 | 7.39 | 8.16 | 6.31 | 7.91 | 7.98 | 5.27 |
| Sep | 92 |  | 3.22 | 2.91 | 2.96 | 3.06 | 3.13 | 3.25 | 2.91 | 6.00 | 4.42 | 6.42 | 7.34 | 8.11 | 6.40 | 7.85 | 7.92 | 5.11 |
| Oct | 92 |  | 3.10 | 2.86 | 3.04 | 3.17 | 3.26 | 3.22 | 2.79 | 6.00 | 4.64 | 6.59 | 7.53 | 8.40 | 6.59 | 8.12 | 8.09 | 5.06 |
| Nov | 92 |  | 3.09 | 3.13 | 3.34 | 3.52 | 3.58 | 3.25 | 2.83 | 6.00 | 5.14 | 6.87 | 7.61 | 8.51 | 6.56 | 8.35 | 8.31 | 5.26 |
| Dec | 92 |  | 2.92 | 3.22 | 3.36 | 3.55 | 3.48 | 3.71 | 2.82 | 6.00 | 5.21 | 6.77 | 7.44 | 8.27 | 6.43 | 8.22 | 8.22 | 5.45 |
| Jan | 93 |  | 3.02 | 3.00 | 3.14 | 3.35 | 3.19 | 3.21 | 2.83 | 6.00 | 4.93 | 6.60 | 7.34 | 8.13 | 6.40 | 8.03 | 8.02 | 5.23 |
| Feb | 93 |  | 3.03 | 2.93 | 3.07 | 3.25 | 3.12 | 3.14 | 2.72 | 6.00 | 4.58 | 6.26 | 7.09 | 7.80 | 6.12 | 7.65 | 7.68 | 4.98 |
| Mar | 93 |  | 3.07 | 2.95 | 3.05 | 3.20 | 3.11 | 3.15 | 2.66 | 6.00 | 4.40 | 5.98 | 6.82 | 7.61 | 5.85 | 7.57 | 7.50 | 4.79 |
| Apr | 93 |  | 2.96 | 2.87 | 2.97 | 3.11 | 3.09 | 3.13 | 2.65 | 6.00 | 4.30 | 5.97 | 6.85 | 7.66 | 5.99 | 7.46 | 7.47 | 4.71 |
| May | 93 |  | 3.00 | 2.96 | 3.07 | 3.23 | 3.10 | 3.11 | 2.62 | 6.00 | 4.40 | 6.04 | 6.92 | 7.75 | 5.92 | 7.48 | 7.47 | 4.65 |
| Jun | 93 |  | 3.04 | 3.07 | 3.20 | 3.39 | 3.21 | 3.19 | 2.62 | 6.00 | 4.53 | 5.96 | 6.81 | 7.59 | 5.87 | 7.41 | 7.42 | 4.64 |
| Jul | 93 |  | 3.06 | 3.04 | 3.16 | 3.33 | 3.16 | 3.15 | 2.64 | 6.00 | 4.43 | 5.81 | 6.63 | 7.43 | 5.80 | 7.19 | 7.21 | 4.56 |
| Weekly |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Apr | 28 | 93 | 2.87 | 2.88 | 2.96 | 3.09 | 3.07 | 3.10 | 2.61 | 6.00 | 4.27 | 5.95 | 6.84 | 7.76 | 5.98 | 7.43 | 7.43 | 4.67 |
| May | 5 | 93 | 2.98 | 2.89 | 2.97 | 3.12 | 3.07 | 3.09 | 2.62 | 6.00 | 4.26 | 5.97 | 6.86 | 7.67 | 5.88 | 7.38 | 7.42 | 4.66 |
| May | 12 | 93 | 2.90 | 2.88 | 2.98 | 3.11 | 3.06 | 3.07 | 2.59 | 6.00 | 4.25 | 5.91 | 6.83 | 7.74 | 5.90 | 7.52 | 7.42 | 4.63 |
| May | 19 | 93 | 3.01 | 2.97 | 3.07 | 3.23 | 3.11 | 3.11 | 2.60 | 6.00 | 4.43 | 6.08 | 6.98 | 7.84 | 5.97 | 7.53 | 7.52 | 4.64 |
| May | 26 | 93 | 3.07 | 3.02 | 3.15 | 3.32 | 3.14 | 3.13 | 2.59 | 6.00 | 4.55 | 6.14 | 6.99 | 7.77 | 5.94 | 7.51 | 7.50 | 4.65 |
| Jun | 2 | 93 | 3.09 | 3.06 | 3.21 | 3.43 | 3.19 | 3.16 | 2.62 | 6.00 | 4.59 | 6.10 | 6.92 | 7.69 | 5.91 | 7.55 | 7.47 | 4.66 |
| Jun | 9 | 93 | 2.96 | 3.10 | 3.26 | 3.48 | 3.24 | 3.19 | 2.62 | 6.00 | 4.64 | 6.07 | 6.89 | 7.59 | 5.92 | 7.43 | 7.48 | 4.67 |
| Jun | 16 | 93 | 3.01 | 3.06 | 3.19 | 3.37 | 3.20 | 3.19 | 2.62 | 6.00 | 4.54 | 5.99 | 6.83 | 7.58 | 5.86 | 7.37 | 7.38 | 4.64 |
| Jun | 23 | 93 | 3.00 | 3.07 | 3.18 | 3.36 | 3.19 | 3.19 | 2.62 | 6.00 | 4.51 | 5.93 | 6.79 | 7.48 | 5.79 | 7.29 | 7.34 | 4.59 |
| Jun | 30 | 93 | 3.13 | 3.06 | 3.16 | 3.35 | 3.20 | 3.21 | 2.63 | 6.00 | 4.42 | 5.82 | 6.69 | 7.46 | 5.75 | 7.17 | 7.23 | 4.58 |
| Jul | 7 | 93 | 3.10 | 3.00 | 3.09 | 3.27 | 3.15 | 3.17 | 2.63 | 6.00 | 4.36 | 5.79 | 6.68 | 7.44 | 5.76 | 7.20 | 7.19 | 4.56 |
| Jul | 14 | 93 | 3.01 | 3.02 | 3.12 | 3.27 | 3.15 | 3.15 | 2.64 | 6.00 | 4.35 | 5.76 | 6.62 | 7.36 | 5.74 | 7.08 | 7.16 | 4.53 |
| Jul | 21 | 93 | 3.09 | 3.04 | 3.15 | 3.29 | 3.14 | 3.13 | 2.63 | 6.00 | 4.39 | 5.74 | 6.56 | 7.48 | 5.87 | 7.33 | 7.20 | 4.56 |
| Jul | 28 | 93 | 3.03 | 3.09 | 3.24 | 3.46 | 3.18 | 3.15 | 2.65 | 6.00 | 4.59 | 5.92 | 6.68 | 7.37 | 5.87 | 7.19 | 7.25 | 4.55 |
| Aug | 4 | 93 | 3.10 | 3.06 | 3.20 | 3.40 | 3.16 | 3.16 | 2.65 | 6.00 | 4.52 | 5.84 | 6.55 | 7.31 | 5.83 | 7.23 | 7.21 | 4.55 |
| Aug | 11 | 93 | 2.98 | 3.03 | 3.17 | 3.36 | 3.16 | 3.15 | 2.64 | 6.00 | 4.48 | 5.82 | 6.48 | -- | 5.68 | -- | 7.17 | 4.51 |
| Daily |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Aug | 12 | 93 | 2.95 | 3.01 | 3.13 | 3.32 | 3.13 | 3.14 | -- | 6.00 | 4.43 | 5.77 | 6.37 | -- | -- | -- | -- | -- |
| Aug | 13 | 93 | -- p | -- | -- | -- | -- | .- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

 lollowing the end of the statement week. Colurnn 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 ate mortgages (ARMs) at major institutional lenders offering both FRMs and ARMs with the same number of discount points
p - preliminary data


| Period | Currency | Demand deposits | Other checkable deposits | Overnight RPs and Eurodollars NSA ${ }^{1}$ | Savings doposits ${ }^{2}$ | Small denomination time deposits ${ }^{3}$ | Money market mutual funds |  | Large denomination time deposits ${ }^{5}$ | Term RP's NSA' | Term Eurodollars NSA ${ }^{1}$ | Savings bonds | Short-term Treasury securities | Commercial papor' | Bankers" acceptancos |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | general purpose and broker/ dealer ${ }^{4}$ | Institutions only |  |  |  |  |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | $\bigcirc$ | 10 | 11 | 12 | 13 | 14 | 15 |
| Levels (\$8111Tons): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Annually (4th Qtr.) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1990 | 245.4 | 277.7 | 293.1 | 78.8 | 919.8 | 1171.6 | 348.2 | 131.5 | 496.8 | 93.6 | 58.0 | 125.2 | 329.9 | 356.2 | 36.3 |
| 1991 | 265.8 | 287.0 | 329.6 | 73.4 | 1028.8 | 1081.0 | 362.9 | 175.6 | 432.3 | 74.7 | 60.7 | 137.0 | 319.4 | 336.3 | 24.4 |
| 1992 | 290.0 | 338.8 | 380.2 | 74.7 | 1179.0 | 882.8 | 344.1 | 207.5 | 361.9 | 80.6 | 47.0 | 154.5 | 325.6 | 369.6 | 20.4 |
| Monthly |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1992-JULY | 279.5 | 317.5 | 358.6 | 72.8 | 1134.5 | 941.5 | 350.4 | 212.5 | 382.5 | 75.1 | 51.1 | 145.8 | 324.8 | 351.2 | 21.7 |
| $\boldsymbol{1 0 0 .}$ | 282.4 | 322.5 | 362.8 | 76.2 | 1145.7 | 926.9 | 348.9 | 220.9 | 378.1 | 75.8 | 51.4 | 147.4 | 322.9 | 355.7 | 21.1 |
| SBP. | 286.3 | 329.0 | 366.7 | 73.8 | 1158.9 | 912.7 | 343.9 | 220.7 | 373.7 | 77.6 | 49.4 | 149.3 | 320.9 | 363.4 | 20.7 |
| OCT. | 288.0 | 336.0 | 373.7 | 75.0 | 1170.5 | 896.5 | 346.3 | 210.9 | 367.0 | 79.7 | 48.1 | 151.9 | 320.1 | 368.0 | 20.5 |
| NOV. | 289.8 | 339.5 | 381.6 | 75.1 | 1180.4 | 881.7 | 343.7 | 209.2 | 361.3 | 81.5 | 47.2 | 154.7 | 325.0 | 372.4 | 20.3 |
| DEC. | 292.3 | 340.9 | 385.2 | 73.9 | 1186.0 | 870.1 | 342.3 | 202.3 | 357.5 | 80.7 | 65.6 | 156.8 | 331.6 | 368.4 | 20.4 |
| 1993-JAN. | 294.8 | 341.9 | 388.6 | 72.3 | 1184.4 | 860.9 | 339.6 | 297.7 | 350.7 | 79.9 | 43.6 | 158.9 | 337.0 | 360.7 | 20.6 |
| PBE. | 296.9 | 341.9 | 386.4 | 72.9 | 1182.4 | 855.1 | 333.6 | 201.9 | 346.3 | 82.2 | 47.0 | 161.1 | 340.9 | 355.9 | 20.2 |
| MAR. | 299.0 | 342.0 | 386.3 | 73.2 | 1178.8 | 850.3 | 333.1 | 200.9 | 340.5 | 85.8 | 50.4 | 162.7 | 338.0 | 360.3 | 19.3 |
| APR. | 301.4 | 347.3 | 386.2 | 71.0 | 1181.6 | 843.7 | 331.7 | 200.4 | 346.0 | 88.4 | 50.2 | 163.9 | 337.5 | 365.5 | 19.2 |
| MAX | 304.0 | 359.1 | 395.5 | 67.6 | 1193.7 | 837.8 | 336.5 | 202.8 | 345.9 | 88.0 | 51.8 | 164.8 | 345.9 | 368.2 | 19.4 |
| JUNE | 306.8 | 360.6 | 397.9 | 70.6 | 1198.7 | 829.7 | 336.1 | 198.1 | 362.1 | 89.7 | 50.3 | 165.7 | 351.9 | 371.4 | 18.3 |
| JULY p | 309.6 | 365.8 | 402.3 | 71.6 | 1199.8 | 820.5 | 335.8 | 195.0 | 336.8 | 92.3 | 47.1 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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Net of money market mutual fund holdings of these items. Includes money market deposit accounts.
Includes retall repurchase agreements. All IRA and Keogh accounts at commercial banks and thritt 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.
preliminary

NET CHANGES IN SYSTEM HOLDINGS OF SECURITES ${ }^{1}$
Millions of dollars, not seasonally adjusted

| August 13, 1993 | Millions of dollars, not seasonally adjusted |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Period | Treasury bills |  |  | Treasury coupons |  |  |  |  |  | Federal agencies redemptions (-) | Net change outright holdings total 4 | Net RPs ${ }^{5}$ |
|  | Netpurchases ${ }^{2}$ | Redemptions <br> (-) | Nel change | Net purchases ${ }^{3}$ |  |  |  | Redemptions <br> (-) | $\begin{aligned} & \text { Net } \\ & \text { Change } \end{aligned}$ |  |  |  |
|  |  |  |  | $\begin{array}{r} \text { within } \\ 1 \text { year } \\ \hline \end{array}$ | 1-5 | 5-10 | over 10 |  |  |  |  |  |
| 1990 | 17.448 | 4,400 | 13,048 | 425 | 50 | -100 | --- | $\cdots$ | 375 | 183 | 13,240 | 11.128 |
| 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 |
| 1992 ---Q1 | -1,000 | 1,600 | -2,600 | $\cdots$ | 2,452 | --- | $\cdots$ | ... | 2,452 | 85 | -233 | -14,636 |
| ---Q2 | 4,415 | --. | 4,415 | 285 | 2,193 | 597 | 655 | --- | 3,730 | 250 | 7,896 | 1,137 |
| ---Q3 | 867 | --- | 867 | 350 | 3,900 | 945 | 731 | --- | 5,927 | 176 | 6,617 | 14,195 |
| -.-Q4 | 8,805 | --- | 8,805 | 461 | 4,572 | 1,276 | 947 | --- | 7,256 | 121 | 15,939 | -13,912 |
| 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 |
| 1992 Augusi | 271 | --- | 271 | $\cdots$ | 400 | 195 | --- | --- | 595 | 54 | 812 | 5,371 |
| September | 595 | --- | 595 | 350 | 3,500 | 750 | 731 | --- | 5,332 | 37 | 5,890 | 9,739 |
| October | 4,072 | --- | 4,072 | -.. | 200 | --- | --- | --- | 200 | -.- | 4,272 | -19,267 |
| November | 1,064 | ... | 1,064 | 461 | 4,172 | 1,176 | 947 | --- | 6,756 | --- | 7,820 | 2,425 |
| December | 3,669 | --- | 3,669 | ... | 200 | 100 | --- | $\cdots$ | 300 | 121 | 3,848 | 2,929 |
| 1993 January | --- | --- | $\cdots$ | --- | -.. | --. | --- | --- | --- | 103 | -103 | -6,128 |
| February | --- | --* | --- | $\cdots$ | --- | --- | $\cdots$ | --- | , … | 85 | -85 | 4,788 |
| March | --- | --- | $\cdots$ | 279 | 1,441 | 716 | 705 | --- | 3,141 | 101 | 3,039 | 879 |
| April | 121 | -.. | 121 | 244 | 2,490 | 1,147 | 1,910 | --- | 4,990 | 28 | 5,083 | -5,514 |
| May | 349 | --- | 349 | -.. | --- | --- | -- | --- | $\cdots$ | 41 | 308 | 4.112 |
| June | 7.280 | -.. | 7,280 | --- | $\cdots$ | --- | --- | --- | $\cdots$ | 22 | 7,258 | 12,027 |
| July | -.- | --- | --- | --* | 200 | --- | --- | --- | 200 | 366 | -166 | -14,317 |
| Weekly |  |  |  |  |  |  |  |  |  |  |  |  |
| April 28 | --- | --- | --- | $\cdots$ | --- | $\cdots$ | --- | --- | --- | --- | -- | -3,968 |
| $\begin{array}{ll}\text { May } & 5 \\ & 12 \\ & 19 \\ & 26\end{array}$ | -- | -.- | $\cdots$ | --- | --- | --- | $\cdots$ | --- | $\cdots$ | --- | --- | -78 |
|  | $\cdots$ | --- | --- | -- | --- | --- | --- | --- | --- | --- | $\cdots$ | 7,936 |
|  | 75 | $\cdots$ | 75 | --- | $\cdots$ | --- | $\cdots$ | --- | $\cdots$ | $\cdots$ | 75 | -7,824 |
|  | 142 | --- | 142 | -.- | -.. | --- | --- | --- | --- | 41 | 107 | 13,471 |
| $\begin{array}{ll}\text { June } & 2 \\ & 9 \\ 16 \\ & 23 \\ & 30\end{array}$ | 228 | --- | 228 | --. | $\cdots$ | --- | --- | --- | --- | --- | 228 | -7,245 |
|  | 5,664 | --- | 5,664 | $\cdots$ | $\cdots$ | --- | --- | --- | $\cdots$ | --- | 5,664 | $-5,464$ |
|  | 819 | --- | 819 | --- | -.. | --- | $\cdots$ | --- | $\cdots$ | --- | 819 | 1,458 |
|  | 420 | --- | 420 | $\cdots$ | --- | --- | --- | --- | --- | --- | 420 | 9,629 |
|  | 280 | --- | 280 | --- | --- | --- | --- | --- | --. | 22 | 258 | 4,161 |
| $\begin{array}{ll}\text { July } & 7 \\ & 14 \\ & 21 \\ & 28\end{array}$ | --- | --- | --- | $\cdots$ | $\cdots$ | $\cdots$ | -- | $\cdots$ | $\cdots$ | $\cdots$ | --- | -6,769 |
|  | ..- | --- | --- | --- | --- | --- | --- | --- | --- | 19 | -19 | -2,771 |
|  | --- | --- | --- | $\cdots$ | --- | --- | --- | --- | --- | 298 | -298 | 3,712 |
|  | -.. | --- | --- | --- | $\cdots$ | --- | --- | --- | $\cdots$ | 49 | -49 | -9,914 |
| $\begin{array}{ll}\text { August } \\ & 4 \\ & 11\end{array}$ | --- | ... | $\cdots$ | -- | 300 | $\cdots$ | $\cdots$ | -.. | 300 | --- | 300 | 6,299 |
|  | 379 | --- | 379 | --- | $\cdots$ | $\cdots$ | --- | --- | --- | --- | 379 | -1,159 |
| $\underset{\text { August }{ }_{\text {Mema }} 11}{ }$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 158.3 | 196.9 | 70.5 | 21.0 | 30.1 |  | 318.5 |  | 324.7 | -6.1 |

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

| within <br> 1 <br> year | 1.5 | 5.10 | over 10 | total |
| ---: | ---: | ---: | ---: | ---: |
| 2.3 | 2.2 | 0.6 | 0.1 | 5.2 |


[^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. To take account of the summer upswing in seasonal borrowing, the Desk's allowance for adjustment plus seasonal borrowing at the discount window was raised to $\$ 225 \mathrm{million}$ and then to $\$ 250$ million at the start of the first and second maintenance periods, respectively, after the FOMC meeting. Adjustment and seasonal borrowing averaged just below its allowance in these two maintenance periods, before surging over the first weekend of the current period owing to computer problems at a large bank.
    2. Financial market quotations in this bluebook are as of noon, Friday, August 13.
[^2]:    3. M2 plus bond and stock mutual funds (excluding institutional holdings and IRA/Keogh accounts) is estimated to have grown at a 5-3/4 percent rate in June. Growth in this augmented aggregate from the fourth quarter of last year to June was at a 4-1/2 percent rate, matching its rate of expansion over the four quarters of last year.
    4. Total reserves and the monetary base grew at 7-1/4 and 10-1/4 percent rates, respectively over June and July.
[^3]:    5. The flood in the Mississippi River basin and its aftermath are expected to have little effect on discount window borrowing.
[^4]:    6. Growth rates in the table are based on the assumption that the federal funds rate is held for the remainder of the year at the level established under each of the alternatives.
[^5]:    7. Accompanying 8-1/2 percent growth in Ml over the balance of the year, total reserves and the monetary base are projected to expand at 4-1/4 and 8-3/4 percent rates, respectively, over the July-toSeptember period and at $10-1 / 4$ and $8-3 / 4$ rates over the September-toDecember period.
