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[^0]August 14, 1998

## Monetary Policy Alternatives

Strictly Confidential (F.R.)<br>August 14, 1998<br>Class I -. FOMC

## MONETARY POLICY ALTERNATIVES

## Recent Developments

(1) The stable policy adopted at the July Committee meeting came as no surprise to market participants. In the event, the federal funds rate averaged just a little above its intended level of $51 / 2$ percent over the intermeeting period. ${ }^{1}$ Investors appeared mostly to shrug off incoming data on the U.S. economy indicating more underlying strength in domestic demand and economic activity than foreseen, focusing instead on overseas developments. In July, as the prospects for meaningful policy initiatives in Japan initially appeared to improve with a change in government and the yen/dollar rate stabilized, yields on Treasury notes and bonds rose somewhat (chart). In August, however, optimism about Japanese policy faded; a weakening yen against the dollar and its implications for a number of emerging market economies, especially those in Asia with currencies tied to the dollar, along with deepening troubles in Russia, induced a widespread shift toward safe-haven currencies and securities. Treasury yields moved lower both on this flight to quality and on the assessment of market participants that a higher dollar and weaker aggregate demand abroad would damp U.S. output and inflation in the medium term. Concerns about the profit outlook, especially in light of continuing turmoil in Asia, weighed on private securities markets in the United States. Equity prices, as gauged by the Wilshire 5000, were down about $71 / 2$ percent over the intermeeting period, and risk spreads on junk bonds rose appreciably further. These developments apparently strengthened the conviction that monetary

[^1]
## Chart 1


policy would be on hold for longer than previously anticipated and encouraged a minority view that the next move could well be toward ease. On balance over the intermeeting period, Treasury yields fell as much as $1 / 4$ percentage point, with declines greatest in the intermediate-term maturity range.
(2) Against the backdrop of waning confidence that Japanese authorities will deal effectively with financial institution problems and provide adequate fiscal stimulus, the dollar appreciated over the intermeeting period $53 / 4$ percent against the yen, and the Japanese stock market fell 5 percent overall, with bank stock prices down 18 percent. The weakness in the yen renewed speculation that China may choose to devalue the renminbi, which added to downward pressures on the Hong Kong dollar. Higher interest rates in Hong Kong, data showing unemployment at a fifteen-year high, and poor earnings reports sent the Hang Seng stock price index down more than 15 percent. In most other Asian economies, stock markets were off significantly. Asset prices in Russia continued to fall in often disorderly markets. The ruble traded near, and at times below, the lower edge of its official band, and banks encountered funding problems as concerns mounted about the Russian budget and prospects for debt repayment, in part stemming from further softness in oil prices. Russian equity prices plunged more than 25 percent, and spreads on Russian Brady bonds over U.S. Treasuries soared more than $61 / 2$ percentage points. Credit-risk spreads for Brady bonds of other emerging market countries increased from 40 to 400 basis points over the period. Declining oil prices and slack demand for other commodities put pressure on other currencies as well, including the Mexican peso and Canadian dollar. Most interest rates rose in Canada, as market participants increasingly expected the currency's weakness to trigger monetary policy tightening, but the deepening crisis
in Asia and Russia induced decreases in market interest rates in other Western industrial countries. Data releases showing a slowdown in U.K. economic growth contributed to an unwinding of expectations for an imminent rate hike by the Bank of England and a rise in the dollar against the pound. The dollar was little changed on balance against continental European currencies.
. The Desk did not intervene
during the period for the accounts of the System or the Treasury.
(3) After averaging nearly 6 percent over March to June, M2 growth moderated to a 5 percent rate in July. This slowing was expected and moved M2 growth down closer to the projected third-quarter increase in nominal income. Recent stock market weakness seems to have been associated with some shift in household investment preferences, as evidenced by the cessation of flows into equity mutual funds and increased flows into M2 money funds in late July and early August. M3 was about flat in July, even though bank credit grew at a 5 percent pace; however, large time deposits ran off sharply, owing largely to substitution of overseas sources of funding for deposits, particularly at the U.S. branches and agencies of European banks. Institutional money funds also declined in July as investors evidently shifted into market instruments around quarter end to take advantage of a temporary spike in short-term interest rates that was only partially reflected in more slowly adjusting money fund yields. From the fourth quarter of last year through July, M2 and M3 grew at rates of 7 percent and $81 / 2$ percent, respectively.
(4) Borrowing by households and businesses has edged down of late, but remains brisk, boosted by the heavy pace of equity retirements and robust private spending. With long-
term interest rates low, borrowing has been concentrated in bond and fixed-rate mortgage markets. Although investors in securities markets seem to have become a bit more cautious, the August survey of senior loan officers suggested that standards at commercial banks were little changed over the past three months and terms on business loans were eased slightly further on net. ${ }^{2}$ The federal government has continued to pay down debt on a seasonally adjusted basis. Growth of total domestic nonfinancial debt has slowed to the 5 percent area in recent months, leaving its growth from the fourth quarter of last year through June at a 6 percent rate.

[^2](Seasonally adjusted annual rates of growth)

|  | May | June | July | $\begin{gathered} \text { 1997:Q4 } \\ \text { to } \\ \text { July }^{2} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| Money and Credit Aggregates |  |  |  |  |
| M1 | -3.1 | -3.2 | -3.1 | 0.5 |
| Adjusted for sweeps | 0.6 | 3.1 | 4.7 | 5.3 |
| M2 | 2.8 | 5.2 | 4.9 | 7.0 |
| M3 | 6.1 | 5.4 | 0.4 | 8.6 |
| Domestic nonfinancial debt | 4.9 | 5.1 | n.a. | 6.0 |
| Federal | -4.0 | -1.0 | n.a. | -0.9 |
| Nonfederal | 7.9 | 7.1 | n.a. | 8.3 |
| Bank Credit | 7.6 | 2.7 | 5.1 | 7.6 |
| Adjusted ${ }^{1}$ | 7.3 | 0.6 | 4.9 | 7.5 |
| $\underline{\text { Reserve Measures }}$ |  |  |  |  |
| Nonborrowed Reserves | -11.7 | -7.9 | -15.4 | -4.9 |
| Total Reserves | -9.6 | -5.3 | -15.2 | -4.8 |
| Adjusted for sweeps | -0.3 | 7.3 | 3.8 | 5.9 |
| Monetary Base | 4.7 | 6.2 | 5.0 | 5.5 |
| Adjusted for sweeps | 5.2 | 7.4 | 6.6 | 6.5 |
| Memo: (millions of dollars) |  |  |  |  |
| Adjustment plus seasonal borrowing | 153 | 251 | 258 | -- |
| Excess Reserves | 1150 | 1620 | 1368 | - |

[^3]
## Policy Alternatives

(5) Compared with the forecast prepared for the July Greenbook, the staff projection now calls for slightly less core inflation, reflecting in part a higher foreign exchange value of the dollar as well as somewhat less pressure in labor markets. Assuming an unchanged stance of monetary policy, the Greenbook forecasts that real GDP will expand over the second half of this year a little more slowly than the rate of growth of its potential. Next year, output growth moderates to $13 / 4$ percent, below the 2 percent lower end of the FOMC members' central tendency range reported in July. The underlying pace of domestic final demand growth is expected to ebb appreciably, owing partly to the drop in equity prices as well as to the multiplier/accelerator effects of earlier downshifts in inventory investment and net exports. The unemployment rate should edge up to a little more than 5 percent by the end of next year. Although joblessness would remain below its estimated natural rate, the effects of tight labor markets on inflation should be about offset by lower inflation expectations and the continuing pass-through of dollar appreciation; abstracting from technical changes, core CPI inflation is expected to hold steady in 1999. The staff projects that the overall CPI will rise about 2 percent during 1999, a tad below its forecast for the June/July meeting and around the lower end of the Committee members' central tendency range.
(6) If the Committee found the staff forecast, with inflation and unemployment both staying relatively low, to be both a reasonable expectation and a desirable outcome, it presumably would maintain the current $5^{1 / 2}$ percent federal funds rate, as under alternative $\mathbf{B}$. The Committee could still favor alternative $B$ even if it saw higher inflation eventually, but was rather uncertain about its expectation of the eventual pickup in inflation, given the surprisingly
favorable price performance of recent years. The odds on a significant price acceleration within a year or so may be seen as low; in such circumstances, delay would not materially jeopardize the Committee's goal of containing inflation and would buy some time to accumulate information on the evolving dynamics of inflation and hence the need for tightening. Moreover, the Committee may want to weigh any concerns about higher inflation against the increasingly precarious conditions in global financial markets. The greater fragility of these markets evident over the intermeeting period may suggest that the potential for adverse effects of a tightening of U.S. monetary policy on other economies has risen further.
(7) With inflation low, aggregate demand apparently decelerating, and the outlook for Asia quite uncertain, market participants anticipate no policy action at this meeting, and market interest rates are likely to be little affected by selection of alternative B. Under the Greenbook forecast, information about prospective corporate earnings is likely to disappoint investors, keeping equity prices from rebounding and possibly precipitating a further decline. Absent such a decline, which could weaken the exchange value of the dollar as investments in the United States looked less desirable, the dollar should edge higher in coming months, most notably against the yen: The Japanese economy is likely to remain weak and skeptical market participants probably will require substantial, concrete actions to deal with the financial system and the economy before confidence can begin to recover. Should troubles in foreign markets intensify and spread further, the dollar would tend to strengthen more noticeably, equity prices would encounter additional downward pressures amid heightened worries about profits, and interest rates in the United States would continue to decline across the yield curve, reflecting both a more pronounced flight to quality and developing expectations of monetary policy easing.
(8) Although the staff forecast envisions a relatively benign domestic macroeconomic outcome under current money market conditions, the Committee might be concerned either that in the staff forecast progress toward price stability was stalling or that in its own view inflation was more likely to escalate noticeably. In either case, it may prefer to apply additional monetary restraint at this meeting, as in the 25 basis point increase in the federal funds rate of alternative C. A prediction of worsening inflation pressures might be based in part on unambiguously tight labor market conditions and the uptrend already evident in wages and compensation. The odds on much softening of labor markets might be seen as low in light of the surprising momentum of domestic demand, which has been sustaining growth of employment and income. And while the Committee recently decided not to tighten, in part because of unsettled conditions abroad, a continued absence of action would not be desirable if the Committee were reasonably confident that the domestic economic situation was pointing to higher inflation rates before very long. In such a situation, delay would only increase the degree of tightening that would ultimately be necessary. Delayed but greater tightening could be even more disruptive to financial markets, since economies abroad may not be sufficiently improved and markets sufficiently settled to absorb the heavier blow.
(9) Markets would be somewhat unsettled by the 25 basis point firming action of alternative C at this meeting, which would come as a surprise. Short-term market interest rates probably would back up by at least the rise in the federal funds rate. Investors would project lower earnings and use higher discount factors, and equity prices almost certainly would fall significantly further. Boosted nonetheless by higher interest rates, the foreign exchange value of the dollar likely would firm as well, with particularly large increases against the yen, and Asian
countries with currencies tied to the dollar would confront considerable pressures to adjust their pegs. Longer-term dollar interest rates would probably jump initially in response to the rise in short-term rates, but might reverse course before long if market participants began to question the likely duration of the tightening move in view of the added strength in the dollar and lower equity prices; still, real long-term rates are likely to remain at higher levels for a while. Creditrisk spreads on domestic private debt, as well as on the obligations of a number of foreign governments and firms, likely would widen noticeably.
(10) In view of recent developments in global financial markets, the Committee might be inclined to consider a 25 basis point easing of monetary policy, as in alternative $\mathbf{A}$. Aggregate demand in the United States apparently has already decelerated appreciably, and Committee members may believe that the staff forecast does not give enough weight to ongoing deflationary forces coming from developments abroad. Moreover, the staff forecast may be viewed as underplaying the restrictive effects of recent changes in U.S. financial markets, despite declines in some nominal yields: The dollar has strengthened on net against a broad basket of currencies; U.S. equity prices have fallen significantly; and declines in inflation expectations may have largely accounted for the decline in nominal interest rates, leaving real rates little changed. Even in the context of the staff view of the economic outlook, with domestic inflation currently at low levels, the Committee may be willing to risk a slightly less satisfactory outcome in terms of U.S. inflation performance to help foster a recovery in foreign economies, which would be in the long-run interest of the United States. Lower interest rates would help ensure that domestic demand in the United States remains reasonably vigorous. And lower rates, along with somewhat less strength in the dollar, would benefit a number of foreign economies, even those
with currencies not tied to the dollar; for those in the latter group, credit-risk spreads would tend to decline as concerns about foreign debt repayment abated a bit, and the tendency for their currencies to appreciate would give them room to adopt a somewhat less restrictive monetary policy.
(11) Under the unchanged money market conditions assumed in the staff forecast, money and debt growth is expected to decelerate in coming quarters. Expansion of money and debt, however, continues to outpace that of nominal GDP this year as well as next. Increases in household sector debt should be restrained by slowing growth in nominal income and the less rapid advance in expenditures on consumer durables and housing. In the business sector, lower rates of growth of fixed investment and a slower pace of inventory accumulation will reduce needs for credit, but this tendency is partly offset in the staff forecast by a leveling out of internal funds as profits weaken and by the need to finance equity retirements associated with strong merger and acquisition activity. As income growth slows and profits decline, lenders should become a bit more cautious, but the projection does not include a substantial pulling back in credit availability. Federal debt will continue to contract modestly, reflecting continued unified budget surpluses. On balance, domestic nonfinancial sector debt is projected to expand at about a 5 percent annual rate over the remainder of the year, leaving this aggregate on a track to expand at about a $53 / 4$ percent rate over 1998 as a whole, somewhat above the midpoint of its 3 to 7 percent annual range.
(12) M2 and M3 are forecast to expand at 5 and $73 / 4$ percent annual rates, respectively, from July to December under alternative B. The moderation in money reflects the expectation of slightly slower growth in nominal GDP over the second half of the year. In addition, the staff
expects a less-rapid decline in M2 velocity in the second half, in part because the expansion of mortgage refinancing activity, which had boosted M2 growth over the first half of the year, comes to a halt. Bank credit is projected to rise less rapidly in the second half of the year than in the first, reflecting a slowing pace of securities acquisitions as well as some moderation in loan growth, damping banks' needs for funding through M3-type instruments. Despite the slowing in M2 and M3 growth during the second half, both aggregates are expected to overshoot their annual ranges for the year as a whole. ${ }^{3}$

[^4]
## Alternative Growth Rates for Key Money and Credit Aggregates

| M2 |  |  | M3 |  |  | Debt |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alt. | Alt. | Alt. | Alt. | Alt. | Alt. | All Alterna |  |
| 4.9 | 4.9 | 4.9 | 0.4 | 0.4 | 0.4 | 5.7 |  |
| 5.3 | 5.1 | 4.9 | 8.8 | 8.7 | 8.6 | 4.4 |  |
| 5.7 | 5.1 | 4.5 | 8.2 | 7.9 | 7.6 | 4.3 |  |
| 5.9 | 5.1 | 4.3 | 8.3 | 7.9 | 7.5 | 5.2 |  |
| 5.8 | 5.1 | 4.3 | 8.3 | 7.9 | 7.6 | 6.3 |  |
| 5.1 | 4.5 | 3.9 | 6.2 | 6.0 | 5.7 | 5.0 |  |
| 8.0 | 8.0 | 8.0 | 11.0 | 11.0 | 11.0 | 6.3 |  |
| 7.3 | 7.3 | 7.3 | 9.6 | 9.6 | 9.6 | 5.9 |  |
| 4.9 | 4.8 | 4.7 | 4.9 | 4.8 | 4.8 | 5.1 | N |
| 5.7 | 5.0 | 4.4 | 8.1 | 7.8 | 7.5 | 5.2 | 1 |
| 5.6 | 5.0 | 4.4 | 8.1 | 7.8 | 7.5 | 5.1 |  |
| 7.0 | 7.0 | 7.0 | 8.6 | 8.6 | 8.6 | 6.0 |  |
| 6.6 | 6.3 | 6.1 | 8.6 | 8.5 | 8.4 | 5.7 |  |
| 6.8 | 6.7 | 6.6 | 8.7 | 8.7 | 8.6 | 5.7 |  |
| 4.6 | 4.6 | 4.6 | 6.8 | 6.8 | 6.8 | 5.3 |  |
| 5.7 | 5.7 | 5.7 | 8.8 | 8.8 | 8.8 | 5.0 |  |
| 6.7 | 6.5 | 6.3 | 8.7 | 8.6 | 8.5 | 5.7 |  |
|  | to |  |  | to |  |  |  |

## Chart 2

## Actual and Projected M2



## Chart 3

## Actual and Projected M3



Chart 4
Actual and Projected Debt


## Directive Language

(13) 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 $\qquad$ $5-1 / 2$ 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 moderate growth in M2 and M3 over coming months.
(percent)

|  |  |  | Short-Term |  |  |  |  |  | Long-Term |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | federal funds | Treasury bills secondary market |  |  | CDs <br> secondary <br> market <br> 3-month |  | U.S. government constant maturity yields |  |  |  | indexed yields |  | corporate A-utility recently oftered | municipal Bond Buyer | conventional home mortgages primary market |  |
|  |  |  |  | 3-month | 6-month | 1-yөar |  |  | 3-year | 5-year | 10-year | 30-year | 5-year | 10-year |  |  | fixed-rate | ARM |
|  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| $\begin{gathered} 97 \\ \text {.- High } \\ \text {.- Low } \end{gathered}$ |  |  | $\begin{aligned} & 5.80 \\ & 5.05 \end{aligned}$ | $\begin{aligned} & 5.27 \\ & 4.85 \end{aligned}$ | $\begin{aligned} & 5.40 \\ & 4.99 \end{aligned}$ | $\begin{aligned} & 5.66 \\ & 5.07 \end{aligned}$ | $\begin{aligned} & 5.82 \\ & 5.34 \end{aligned}$ | $\begin{aligned} & 5.90 \\ & 5.37 \end{aligned}$ | $\begin{aligned} & 6.64 \\ & 5.69 \end{aligned}$ | $\begin{aligned} & 6.79 \\ & 5.72 \end{aligned}$ | $\begin{aligned} & 6.92 \\ & 5.74 \end{aligned}$ | $\begin{aligned} & 7.12 \\ & 5.90 \end{aligned}$ | $\begin{aligned} & 3.67 \\ & 3.52 \end{aligned}$ | $\begin{aligned} & 3.67 \\ & 3.27 \end{aligned}$ | $\begin{aligned} & 8.27 \\ & 7.05 \end{aligned}$ | $\begin{aligned} & 6.14 \\ & 5.40 \end{aligned}$ | $\begin{aligned} & 8.18 \\ & 6.99 \end{aligned}$ | $\begin{aligned} & 5.91 \\ & 5.45 \end{aligned}$ |
| 98 -- High |  |  | 5.87 | 5.24 | 5.24 | 5.23 | 5.74 5.50 | 5.71 | 5.70 5.78 | 5.72 5.32 | 5.75 | 6.05 | 3.93 | 3.80 3.65 | 7.19 | 5.52 | 7.22 | 5.71 5.50 |
| Monthly |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Aug | 97 |  | 5.54 | 5.14 | 5.19 | 5.27 | 5.60 | 5.55 | 6.06 | 6.16 | 6.30 | 6.58 | 3.57 | 3.57 | 7.67 | 5.68 | 7.48 | 5.55 |
| Sep | 97 |  | 5.54 | 4.95 | 5.09 | 5.23 | 5.60 | 5.49 | 5.98 | 6.11 | 6.21 | 6.50 | 3.61 | 3.58 | 7.58 | 5.64 | 7.43 | 5.55 |
| Oct | 97 |  | 5.50 | 4.97 | 5.09 | 5.17 | 5.65 | 5.49 | 5.84 | 5.93 | 6.03 | 6.33 | 3.60 | 3.57 | 7.44 | 5.63 | 7.29 | 5.51 |
| Nov | 97 |  | 5.52 | 5.14 | 5.17 | 5.17 | 5.74 | 5.53 | 5.76 | 5.80 | 5.88 | 6.11 | 3.55 | 3.54 | 7.24 | 5.59 | 7.21 | 5.49 |
| Dec | 97 |  | 5.50 | 5.16 | 5.24 | 5.24 | 5.80 | 5.78 | 5.74 | 5.77 | 5.81 | 5.99 | 3.63 | 3.60 | 7.10 | 5.44 | 7.10 | 5.52 |
| Jan | 98 |  | 5.56 | 5.04 | 5.03 | 4.98 | 5.54 | 5.46 | 5.38 | 5.42 | 5.54 | 5.81 | 3.73 | 3.68 | 6.97 | 5.32 | 6.99 | 5.54 |
| Feb | 98 |  | 5.51 | 5.09 | 5.07 | 5.04 | 5.54 | 5.47 | 5.43 | 5.49 | 5.57 | 5.89 | 3.72 | 3.66 | 7.02 | 5.33 | 7.04 | 5.60 |
| Mar | 98 |  | 5.49 | 5.03 | 5.04 | 5.11 | 5.58 | 5.51 | 5.57 | 5.61 | 5.65 | 5.95 | 3.79 | 3.71 | 7.11 | 5.41 | 7.13 | 5.69 |
| Apr | 98 |  | 5.45 | 4.95 | 5.06 | 5.10 | 5.58 | 5.49 | 5.58 | 5.61 | 5.64 | 5.92 | 3.86 | 3.75 | 7.10 | 5.44 | 7.14 | 5.67 |
| May | 98 |  | 5.49 | 5.00 | 5.14 | 5.16 | 5.59 | 5.49 | 5.61 | 5.63 | 5.65 | 5.93 | 3.92 | 3.75 | 7.16 | 5.45 | 7.14 | 5.69 |
| Jun | 98 |  | 5.56 | 4.98 | 5.12 | 5.13 | 5.60 | 5.51 | 5.52 | 5.52 | 5.50 | 5.70 | 3.88 | 3.72 | 6.98 | 5.36 | 7.00 | 5.69 |
| Jul | 98 |  | 5.54 | 4.96 | 5.03 | 5.08 | 5.59 | 5.51 | 5.47 | 5.46 | 5.46 | 5.68 | 3.87 | 3.76 | 6.93 | 5.35 | 6.95 | 5.63 |
| Weekly |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jun | 12 | 98 | 5.47 | 5.00 | 5.14 | 5.14 | 5.59 | 5.49 | 5.52 | 5.53 | 5.51 | 5.72 | 3.89 | 3.71 | 6.94 | 5.32 | 7.04 | 5.71 |
| Jun | 19 | 98 | 5.55 | 5.04 | 5.12 | 5.12 | 5.59 | 5.52 | 5.49 | 5.51 | 5.47 | 5.67 | 3.86 | 3.71 | 6.96 | 5.36 | 6.94 | 5.68 |
| Jun | 26 | 98 | 5.45 | 4.93 | 5.11 | 5.13 | 5.60 | 5.54 | 5.52 | 5.50 | 5.46 | 5.65 | 3.88 | 3.73 | 6.92 | 5.36 | 6.96 | 5.68 |
| Jul | 3 | 98 | 5.87 | 4.94 | 5.03 | 5.10 | 5.60 | 5.53 | 5.49 | 5.46 | 5.44 | 5.63 | 3.89 | 3.76 | 6.87 | 5.34 | 6.98 | 5.66 |
| Jul | 10 | 98 | 5.46 | 4.94 | 5.02 | 5.07 | 5.59 | 5.50 | 5.44 | 5.41 | 5.41 | 5.61 | 3.89 | 3.75 | 6.89 | 5.33 | 6.91 | 5.60 |
| Jul | 17 | 98 | 5.50 | 5.01 | 5.04 | 5.08 | 5.59 | 5.50 | 5.48 | 5.47 | 5.49 | 5.71 | 3.88 | 3.77 | 6.98 | 5.37 | 6.94 | 5.64 |
| Jul | 24 | 98 | 5.51 | 4.96 | 5.04 | 5.08 | 5.59 | 5.51 | 5.47 | 5.47 | 5.46 | 5.68 | 3.86 | 3.75 | 6.92 | 5.35 | 6.96 | 5.65 |
| Jul | 31 | 98 | 5.57 | 4.95 | 5.01 | 5.09 | 5.60 | 5.52 | 5.48 | 5.51 | 5.50 | 5.73 | 3.86 | 3.76 | 7.04 | 5.36 | 6.97 | 5.62 |
| Aug | 7 | 98 | 5.57 | 4.93 | 5.00 | 5.04 | 5.59 | 5.51 | 5.39 | 5.43 | 5.43 | 5.66 | 3.87 | 3.78 | 6.98 | 5.37 | 6.94 | 5.61 |
| Aug | 14 | 98 | 5.52 | 4.89 | 4.94 | 4.97 | 5.58 | 5.50 | 5.31 | 5.36 | 5.40 | 5.60 | 3.88 | 3.80 | 7.05 | 5.34 | 6.91 | 5.60 |
| Daily |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jul | 29 | 98 | 5.49 | 4.94 | 5.01 | 5.09 | 5.60 | 5.52 | 5.49 | 5.52 | 5.52 | 5.77 | 3.87 | 3.77 | -- | $\cdots$ | -- | -- |
| Jul | 30 | 98 | 5.61 | 4.94 | 5.01 | 5.10 | 5.60 | 5.52 | 5.49 | 5.52 | 5.50 | 5.73 | 3.87 | 3.77 | -- | -- | "* | -- |
| Jul | 31 | 98 | 5.63 | 4.97 | 5.01 | 5.10 | 5.59 | 5.53 | 5.48 | 5.52 | 5.50 | 5.72 | 3.87 | 3.77 | -- | -- | -- | -- |
| Aug | 3 | 98 | 5.69 | 4.98 | 4.99 | 5.09 | 5.59 | 5.52 | 5.44 | 5.46 | 5.46 | 5.67 | 3.87 | 3.77 | -- | - | $\cdots$ | . |
| Aug | 4 | 98 | 5.54 | 4.97 | 5.04 | 5.06 | 5.59 | 5.52 | 5.42 | 5.44 | 5.43 | 5.65 | 3.87 | 3.77 | $\cdots$ | -- | - | -- |
| Aug | 5 | 98 | 5.53 | 4.95 | 5.01 | 5.03 | 5.59 | 5.50 | 5.38 | 5.43 | 5.43 | 5.66 | 3.87 | 3.78 | -- | -- | -- | -. |
| Aug | 6 | 98 | 5.54 | 4.90 | 5.00 | 5.03 | 5.59 | 5.50 | 5.38 | 5.43 | 5.44 | 5.67 | 3.87 | 3.78 | -- | - | -- | -- |
| Aug | 7 | 98 | 5.44 | 4.86 | 4.96 | 4.98 | 5.59 | 5.50 | 5.33 | 5.39 | 5.40 | 5.63 | 3.88 | 3.80 | "- | -* | -- | -- |
| Aug | 10 | 98 | 5.56 | 4.86 | 4.95 | 4.97 | 5.58 | 5.50 | 5.35 | 5.39 | 5.41 | 5.63 | 3.89 | 3.80 3.79 | -- | $\cdots$ | $\cdots$ | -- |
| Aug | 11 | 98 | 5.47 | 4.90 | 4.93 | 4.94 | 5.58 | 5.50 | 5.30 | 5.33 | 5.37 | 5.60 | 3.87 | 3.79 | -- | -* | -- | -- |
| Aug | 12 | 98 | 5.58 | 4.89 | 4.94 | 4.95 | 5.58 | 5.49 | 5.29 | 5.34 | 5.40 | 5.62 | 3.88 | 3.80 | - | -- | $\cdots$ | -- |
| Aug | 13 | 98 | 5.60 | 4.91 | 4.97 | 4.99 | 5.58 | 5.50 | 5.32 | 5.38 | 5.44 | 5.60 | 3.88 | 3.80 | -- | $\cdots$ | -- | -- |
| Aug | 14 | 98 | $5.52{ }^{\text {p }}$ | 4.90 | 4.93 | 4.98 | 5.58 | -- | 5.30 | 5.34 | 5.40 | 5.55 | 3.88 | 3.81 | -- | - | -- | -. |

 to that, they reflect an average of offering rates placed by several leading dealers. Columns 13 and 14 are 1 -day quotes for Friday or Thursday, respectively. Column 14 is ine Bond Buyer revenue index. 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.
p-preliminary data


1. Debt data are on a monthly average basis, derived by averaging end-of-month levels of adjacent months, and have been adjusted to remove discontinuities.
p preliminary
pe preliminary estimate


[^5]4. Reflects net change in redemptions (-) of Treasury and agency securities.
2. Outright transactions in market and with foreign accounts.
4. Reinclucts nes change in RPs ( + ), matched sale-purchase transactions ( - ), and matched purchase sale transactions ( + ).
3. Outright transactions in market and with foreign accounts, and short-term notes acquired 6. The levels of agency lssues were as follows:
in exchange for maturing bills. Excludes maturity shifts and rollovers of maturing issues.

| within <br> 1 <br> year | $1-5$ | $5 \cdot 10$ | over 10 | total |
| :---: | :---: | :---: | :---: | :---: |
| 0.2 | 0.1 | 0.2 | 0.0 | 0.5 |


[^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 switch to lagged reserve requirements in the maintenance period beginning July 30 went smoothly for both depository institutions and the Federal Reserve System.

[^2]:    ${ }^{2}$ The slight narrowing of spreads reported in the survey is somewhat at odds with anecdotal information from market sources that spreads have stabilized or ticked up for broadly syndicated business loans.

[^3]:    1. Adjusted to remove effects of mark-to-market accounting rules (FIN 39 and FASB 115).
    2. For nonfinancial debt, 1997:Q4 to June.

    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.

[^4]:    ${ }^{3}$ According to elasticities based on staff econometric models, a rise in the federal funds rate on the order of $11 / 2$ percentage points at this meeting would be necessary to restrain M 2 to its annual range by the end of this year. Of course, this calculation does not capture any unusual reactions that might arise in current circumstances from a tightening of this magnitude.

[^5]:    1. Change from end-of-period to end-of-period.
