## Prefatory Note

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[^0]
## MONETARY Policy Alternatives

## Recent Developments

(1) Interest rates fell markedly over the intermeeting period. ${ }^{1,2}$ Although the Committee's decision to reduce the target level of the federal funds rate 50 basis points at the October meeting was largely foreseen by market participants, short- and intermediate-term market interest rates declined somewhat that afternoon, as investors apparently interpreted the announcement as raising the likelihood of additional policy easings. Economic data subsequently released had a weaker-thanexpected cast and helped to bring the net declines in short-term interest rates to 30 to 40 basis points. Judging by futures market prices, investors are confident of at least a 25 basis point cut in the funds rate target at the November meeting and put roughly even odds on a 50 basis point move. These quotes also suggest that the funds rate is expected to drop to 1-3/4 percent by early next year (chart). Markets have priced in about 1 percentage point of monetary policy tightening over the subsequent twelve months, likely in the expectation that the economy will be rebounding rather quickly then.
(2) Yields on off-the-run Treasury coupon securities fell 30 to 45 basis points over the intermeeting period, partly reflecting the weaker tone to the

1. Financial markets generally functioned normally over the intermeeting period (as discussed in the box on page 2), and the few remaining strains had little net effect on interest rates.
2. Over the intermeeting period, the federal funds rate traded at an average of 2.47 percent, close to its intended level of 2-1/2 percent, and intraday volatility in the funds rate was somewhat below normal, probably as the result of a temporary boost in required reserve balances attributable to the surge in deposits after the September 11 attacks. The Desk purchased $\$ 3.7$ billion of Treasury securities in outright operations over the period, including $\$ 0.7$ billion in Treasury bills and $\$ 3.0$ billion in coupon securities. The outstanding volume of long-term System R Ps increased $\$ 5$ billion to $\$ 24$ billion.

Chart 1
Financial Market Indicators


## Market Functioning

Brokers and dealers in money and capital markets generally have returned to more normal operations since September 11, though some are still at contingency sites, and the hardest-hit firms have not regained their market shares. Bottlenecks in clearance and settlement systems have mostly been resolved, and fails to deliver government securities are gradually diminishing from the elevated levels of recent weeks, owing in part to the reopening of the on-the-run ten-year Treasury issue in early October. The limits on the Desk's securities lending program that had been relaxed after September 11 to enhance the a vailability of securities in short supply were reinstituted on October 18. In the financing market, however, repo rates on on-the-run five-year and ten-year notes remain well below the rate on general collateral. Market liquidity also has been largely restored, though bid-asked spreads in some markets still tend to widen temporarily on large trades, perhaps reflecting heightened economic uncertainty more than the effects of any lingering problems with market infrastructure.
economic outlook and the associated marking down of policy expectations. In addition, the market had to digest considerable news on the volume and composition of Treasury issuance going forward. As to the volume of issuance, market participants apparently now expect a fiscal package implying a larger deterioration in the budget balance than previously anticipated. As to the composition of issuance, just yesterday, the Treasury announced the suspension of future sales of thirty-year securities (both nominal and indexed to inflation) and hinted that it would scale back its buy-back program. ${ }^{3}$ Yields on private securities also moved sharply lower over the intermeeting period, particularly in the past two days (although it has been difficult to get firm readings of late given volatile market conditions). Despite the sense of a weaker near-
3. Yesterday's announcement that the Treasury would no longer sell securities at the thirty-year maturity caught market participants unawares, and the yield on the on-therun thirty-year bond fell 40 basis points over the next two days, presumably reflecting an increased scarcity premium that was especially acute as traders scrambled to cover short positions.
term outlook, investors seemed to become somewhat more confident about longerterm economic prospects and more willing to take on risk: Yield spreads on speculative-grade bonds fell substantially over the period, albeit to levels well above those in early September. Moreover, even without much in the way of encouraging news regarding third-quarter and prospective earnings, the Wilshire index rose about 5 percent over the intermeeting period and the Nasdaq rebounded 18 percent.
(3) The dollar's exchange value has risen modestly against other major currencies on balance since the October meeting. With data for foreign industrial economies also coming in on the weak side of expectations, market interest rates abroad declined about as much as in the United States. Policy interest rates were lowered 75 basis points in Canada and 25 basis points in the United Kingdom. While the ECB did not adjust its policy stance during the intermeeting period, near-dated euribor futures appear to embed expectations of some easing by year-end and further moves in early 2002. Major equity indexes rose 4 to 8 percent over the intermeeting period in Germany, the United Kingdom, and Japan, more than reversing declines recorded in September. Over the intermeeting period,

## U.S. monetary

authorities did not intervene.
(4) The dollar's average exchange value against the currencies of our other important trading partners changed little on net over the intermeeting period. The Mexican peso strengthen ed 2-1/2 percent against the dollar, more than rolling back its declines in the aftermath of the September 11 terrorist attacks. The recent announcement that the Argentine government would seek to restructure its debt further intensified fears of a default, widening Argentina's EMBI+ spread by 600 basis points, on balance, over the intermeeting period. Reflecting some spillover from Argentina, the Brazilian real depreciated against the dollar, but only modestly as the authorities offset some of that pressure by sales of dollar-in dexed debt. In general,
risk spreads for most other emerging market economies increased only slightly, on net, and share prices showed mixed changes.
(5) Despite the slowing of the economy and the disruptions in financial markets associated with the September 11 attacks, the debt of households and businesses has apparently continued to expand at a moderate rate. The bond market absorbed a substantial amount of issuance by investment-grade firms in both September and October. Better-rated speculative-grade firms were able to tap the market in October after a near shutdown of junk issuance in September. Net issuance of commercial paper also resumed in October, after a fall-off the prior month, in part to repay backup lines at banks that had been drawn upon in September. Banks report a further tightening of terms and standards on business loans, but the extent of the tightening did not exceed that reported earlier in the year, and no widespread cut-off of credit supply seems in train. Household mortgage borrowing has maintained a fairly brisk pace, aided by a further reduction in mortgage interest rates that has triggered another wave of mortgage refinancings. Consumer credit, in contrast, likely continued to expand sluggishly through September, restrained in part by the redirection of some cash extracted from mortgage refin ancing to debt con solidation. In part boosted by a sizable expansion of federal debt to finance the last round of tax rebate checks, the to tal debt of the no nfinancial sectors grew at a 7 percent pace in September.
(6) After a surge in September that owed importantly to the tem porary buildup of deposits when securities trades failed to settle, the level of M2 declined slightly in October. Nevertheless, this monetary aggregate grew at an average rate of 12 percent over the past two months, reflecting the sharp drop in market interest rates and perhaps a fillip from the deposit of some tax rebates. The velocity of M2 declined at a 7-1/4 percent rate through the first three quarters of the year, in response mainly to the substantial reduction in opportunity costs associated with policy easings and
perhaps as well to some effects on money demand of mortgage refinancings, tax rebates, and the disenchantment of household investors with the stock market.

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

|  | Jul 2001 | Aug 2001 | Sep 2001 | Oct 2001 (p) |
| :---: | :---: | :---: | :---: | :---: |
| Money and Credit Aggregates |  |  |  |  |
| M2 | 9.0 | 7.7 | 25.2 | -0.9 |
| M3 | 6.6 | -0.3 | 22.6 | 9.5 |
| Domestic nonfinancial debt <br> Federal <br> Nonfederal | $\begin{aligned} & 3.3 \\ & 5.1 \\ & 2.9 \end{aligned}$ | $\begin{aligned} & 5.5 \\ & 7.6 \\ & 5.1 \end{aligned}$ | $\begin{gathered} 6.9(\mathrm{p}) \\ 12.3(\mathrm{p}) \\ 5.8(\mathrm{p}) \end{gathered}$ | $\begin{aligned} & \text { n.a. } \\ & \text { n.a. } \\ & \text { n.a. } \end{aligned}$ |
| Bank credit Adjusted ${ }^{1}$ | $\begin{array}{r} -0.6 \\ 2.0 \end{array}$ | $\begin{array}{r} 3.1 \\ -0.6 \end{array}$ | $\begin{aligned} & 17.2 \\ & 13.6 \end{aligned}$ | $\begin{array}{r} -8.8 \\ -10.6 \end{array}$ |
| Memo: |  |  |  |  |
| Monetary base <br> Adjusted for sweeps | $\begin{aligned} & 11.6 \\ & 11.3 \end{aligned}$ | $\begin{aligned} & 15.4 \\ & 15.1 \end{aligned}$ | $\begin{aligned} & 47.3 \\ & 44.6 \end{aligned}$ | $\begin{aligned} & -15.6 \\ & -12.3 \end{aligned}$ |

1. Adjusted to remove the effects of mark-to-market accounting rules (FIN 39 and FASB 115).
p -- preliminary

Chart 2
Growth of Money and Debt Aggregates

Growth of M2


Growth of M3


Growth of Total Nonfinancial Debt
Percent

p-Preliminary.

Growth of Nonfederal Nonfinancial Debt
Percent

p-Preliminary.

## Policy Alternatives

(7) The staff has read incoming economic information as suggesting a more pronounced near-term contraction than projected in the last Greenbook, owing to weaker capital spending and more aggressive inventory liquidation. The Greenbook forecast now assumes that the federal funds rate will be cut an additional 1/4 percentage point, to $2-1 / 4$ percent, by year-end, and will remain at this level through 2002 before rising modestly. Yields on long-term Treasury securities and mortgages are expected to change little from their current levels, but those on investment-grade corporate bonds are projected to decline somewh at as risk premiums unwind further. The dollar is assumed to hold near current levels on foreign exchange markets. After some near-term softening related to disappointing corporate earnings, equity prices should trend up gradually, albeit on an appreciably higher track than expected in the September Greenbook. The impetus from fiscal policy is now expected to provide a bigger boost to activity in 2002 and 2003. Against this policy and fin ancial backdrop, the staff expects real GDP to turn up noticeably in the spring. Although output growth begins to outpace that of its potential in the second half of next year, the typical lag in the response of the unemployment rate explains why it continues to edge higher until mid 2002 and only slips off later in the forecast period. With the emergence of some labor market slack, core PCE inflation edges lower to 1-1/4 percent in 2003.
(8) The Com mittee might choose to leave the federal funds rate unchanged if it were of the view that action at this meeting would be unlikely to affect the contours of the near-term economic downturn and that past monetary policy easing, probable new fiscal measures, and the natural resiliency of private demand should provide enough stimulus to underpin a solid economic recovery before long. In effect, the Committee would implicitly be making the judgment that the gap between the current real funds rate and its likely equilibrium value provides a sufficient amount
of impetus to economic activity over time (see chart and table). Indeed, the Committee may be especially reluctant to ease policy if it thinks the equilibrium real funds rate is likely to rise in the future-as risk and equity premiums narrow, as is seemingly consistent with recent stock price gains, but also as the thrust of fiscal policy intensifies. With the budget package still working its way through the legislative process, considerable uncertainty surrounds the magnitude of the coming fiscal stimulus. Because this uncertainty should be resolved relatively promptly, the Committee may prefer to keep policy unchanged at this meeting so as to be able to calibrate better its policy action to the size and composition of what becomes law. If the Committee saw easing as a close call, with the federal funds rate as low as 2-1/2 percent, it might be argued that action should be deferred at this meeting so that the Committee would have more scope to respond to potential adverse shocks down the road. As described in the box on the zero bound to nominal interest rates on page 9, this tactic of "saving your ammunition" would follow from the judgment that policy action in a narrow wind ow following an adverse shock would be more effective in bolstering activity over time than lowering rates more aggressively now so that any future shock falls on a stronger economy.
(9) Committee inaction at this meeting, even if combined with a statement reaffirming the assessment of predominant downside risks, would surprise market participants. Considerable doubts would be created about whether the federal funds rate would go as low as $1-3 / 4$ percent by the early months of next year as market participants currently expect. In consequence, other short-term interest rates would move noticeably higher. The likely upward movement of bond yields would be tempered by an immediate selloff of equities. To the extent that the outlook for spending and income turned gloomier, the exchange value of the dollar might fail to appreciate despite the tighter-than-anticipated policy stance.

# Chart 3 <br> Actual Real Federal Funds Rate and Range of Estimated Equilibrium Real Rates 



Note: The shaded range represents the maximum and the minimum values each quarter of five estimates of the equilibrium real federal funds rate. Real federal funds rates employ four-quarter lagged core PCE inflation as a proxy for inflation expectations, with the staff projection used for 2001Q4.

Equilibrium Funds Rate Estimates
Percent

| Method | $\underline{2000}$ | $\underline{2001 H 1}$ | 2001Q3 | 2001Q4 |
| :---: | :---: | :---: | :---: | :---: |
| Statistical Filter |  |  |  |  |
| -Based on historical data* | 2.7 | 2.4 | 2.3 | 2.3 |
| September Greenbook | 3.1 | 2.8 | 2.8 | --*** |
| -Based on historical data and the staff forecast | 2.5 | 1.9 | 1.8 | 1.7 |
| September Greenbook | 2.5 | 1.9 | 1.6 | 1.5 |
| FRB/US Model |  |  |  |  |
| -Based on historical data** | 4.0 | 2.9 | 2.1 | 2.1 |
| September Greenbook | 3.9 | 2.8 | 1.8 | --*** |
| -Based on historical data and the staff forecast | 3.1 | 2.6 | 2.5 | 2.7 |
| September Greenbook | 3.0 | 2.2 | 2.0 | 2.2 |
| Treasury Inflation-Indexed Securities | 4.2 | 3.9 | 3.8 | 4.0 |
| September Greenbook | 4.2 | 3.9 | 3.8 | --*** |
| * Also employs the staff forecast for 2001Q4 and 2002Q1. <br> ** Also employs the staff forecast for 2001Q4. Backward-looking moving averages, rather than centered moving averages, are used to estimate the persistent and transitory components of shocks to the model. *** No values for 2001Q4 were available at the time of the September Greenbook. |  |  |  |  |

## The Ze ro Bound to the Nominal Interest Rate

With the overnight interest rate at $2-1 / 2$ percent, the zero bound to the nominal interest rate may loom larger now in the Committee's deliberations than at any time in the past four decades. The experience of Japan, in which the policy rate has flirted with zero for five years and economic performance has been dismal, serves as a cautionary note for monetary policy makers. Of course, the short-term rate in the United States is still some distance away from zero, and intermediate- and longer-term rates here remain far above levels seen in Japan. Even if Committee members were to consider the zero bound as potentially relevan $t$, observers have put forward two quite different approach es to avoiding a situation in which the economy is weak and further reductions in the nominal policy rate are not possible.

1. "Saving your ammunition." It may be viewed as quite possible that adverse shocks will emerge in the near term; in particular, global events could prompt further downdrafts in household and business confidence. The Committee may want to be able to counter such adverse outcomes by easing, on the expectation that being seen as responsive to current events helps to bolster confidence. Action taken now limits the scope for such future monetary policy reaction to confidenceshaking events.
2. Responding preemptively to skewed risks. If it were accepted that policy op tions would be severely curtailed should the federal funds rate hit its zero floor and that the adverse consequences would be potentially quite large, the Committee might want to act now to reduce the possibility of that outcome. That is, the cost of easing too much currently may weigh less in the Committee's consideration than the cost of easing insufficiently now and winding up pinned to the zero bound at a later date.

Staff analysis of the zero bound tends to support the latter view: Avoiding the zero bound counsels more aggressive action in advance of zero in response to adverse shocks than is the norm. Moreover, timely policy actions taken sooner would work to put the economy on a stronger footing when adverse shocks subsequently hit. But that determination would be less persuasive if the Committee's view, as opposed to the mechanisms embodied in most econometric models, was that its action could have a greater effect on confidence, and hence the economy, if taken on the heels of an adverse shock or that monetary policy operations could still adequately stimulate the economy even if the nominal short-term interest rate were zero.
(10) The Committee may consider the staff forecast to be both probable and, under the circumstances, a satisfactory outcome, and it may judge that an im mediate cut in the federal funds rate of $\mathbf{2 5}$ basis points is justified. With investors skittish and risks predominately skewed to the downside, the Committee may be reluctant to adopt a policy stance that is appreciably tighter than financial markets expect, which could further adversely affect hou sehold and business sentiment. The small disappointment of market expectations implied by the adoption of this alternative might actually be viewed favorably by the Committee if it wished to slow the current pace of easing from its recent trajectory to help forestall financial markets from building in the expectation of considerably more easing than appropriate to achieve the Committee's objectives. In effect, a modest disappointment now may pose less of a strain on markets than a more sizable one later on.
(11) The Committee may judge that a $\mathbf{5 0}$ basis point policy move is warranted on the grounds that the path of output is likely to fall short of that in the staff forecast-either because the contraction will be greater or the subsequent pickup less robust. The Committee might anticipate the near-term outcomes for spending to be weaker than in the staff outlook if, for example, it suspected that the ongoing contraction of foreign economic activity and the stresses in financial markets of developing countries may portend greater-than-anticipated adverse feedbacks on U.S. production. The Committee may also have doubts that household and business spending will respond as vigorously to likely fiscal initiatives as embed ded in the staff forecast. Even if the Committee viewed a 50 basis point move as a bit larger than necessary given its current assessment of the economic situation, the more substantial move might be favored if some weight were placed on the possibility of shocks that would be sufficiently adverse to make the zero bound to nominal interest rates a real constraint on the effectiveness of monetary policy at some point in the future.
(12) As already noted, market participants are about evenly split between
expecting $1 / 4$ percentage point and $1 / 2$ percentage point of easing at this meeting. Thus, some portion of them would be disappointed by the choice of either action. Working to temper any reaction, though, would be the sense that it is more likely that the timing of the easing they are expecting-in the neighborhood of $3 / 4$ percentage points over the next half year-had changed, not the cumulative amount. Market participants universally expect that the balance of risks will remain tilted toward economic weakness, so not much would be read in its retention. A 25 basis point easing would prompt some backup in short- and intermediate-term rates and a decline in equity prices. A half point ease, in contrast, would pull short-term rates lower and, unless countered by a clear sense in the statement that the Committee had viewed its action as likely bringing this easing phase to a close, would lead market participants to mark down the entire expected path of policy rates. The implied support to spending would likely bolster equity markets and offset to a considerable extent any downward pressure on the exchange value of the dollar directly emanating from lower interest rates.
(13) Given the funds rate assumption in the staff forecast, M2 growth over the October-to-March interval is expected to fall appreciably, to about a 7-1/2 percent annual rate. The effects on opportunity costs of the previous easings, as well as that of the further 25 basis point cut in the staff projection, should abate over time. Together with the Greenbook's forecast for nominal GDP, the implied rate of decline in M2 velo city lessens from about 10-1/2 percent in the current quarter to $5-1 / 2$ percent in the first quarter.
(14) Over the six months from September to March, the staff projects that growth of the total debt of domestic nonfinancial sectors will slip to a 4-1/2 percent rate, reflecting a slowing in the expansion of household debt. Consumer credit borrowing is expected to be especially light, owing to dep ressed spending on durables. Even the growth of home mortgage debt, which has been exceptionally robust in
keeping with the decline in mortgage rates, is seen as tailing off a little as refinancings diminish and housing activity slows. Business borrowing is likely to stay around its third-quarter pace, concentrated in the corporate bond market. Neither banks, which have been tightening terms and standards on C\&I loans, nor the commercial paper market, which also has become more selective, are anticipated to be major sources of funds. Federal debt should be rising at only a $1 / 2$ percent annual rate, as the budget is foreseen to be in a modest deficit position on average over this six months.

## Directive and Balance-of-Risks Language

(15) Presented below for the members' consideration is draft wording for (1) the directive and (2) the "balance of risks" sentence to be included in the press release issued after the meeting (not part of the directive).
(1) Directive Wording

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with MAINTAINING/INCREASING/reducing the federal funds rate AT/to an average of around ___2-1/2 percent.
(2) "Balance of Risks" Sentence

Against the background of its long-run goals of price stability and sustainable economic grow th and of the information currently available, the Committee believes that the risks [ARE BALANCED WITH RESPECT TO PROSPECTS FOR BOTH GOALS] [ARE WEIGHTED MAINLY TOWARD CONDITIONS THAT MAY GENERATE HEIGHTENED INFLATION PRESSURES] [continue to be weighted mainly toward conditions that may generate economic weakness] in the foreseeable future.

Alternative Growth Rates for Key Monetary and Credit Aggregates

| No | Ease | Ease |
| :---: | :---: | :---: |
| Change | 25 bps | 50 bps |


| M2 | M3 |
| :---: | :---: |
| Greenbook | recast* |


| Monthly Growth Rates |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Apr-2001 |  | 10.7 | 10.7 | 10.7 | 10.7 | 19.1 | 5.2 |
| May-2001 |  | 5.7 | 5.7 | 5.7 | 5.7 | 14.0 | 6.7 |
| Jun-2001 |  | 10.1 | 10.1 | 10.1 | 10.1 | 13.0 | 6.1 |
| Jul-2001 |  | 9.0 | 9.0 | 9.0 | 9.0 | 6.6 | 3.3 |
| Aug-2001 |  | 7.7 | 7.7 | 7.7 | 7.7 | -0.3 | 5.5 |
| Sep-2001 |  | 25.2 | 25.2 | 25.2 | 25.2 | 22.6 | 6.9 |
| Oct-2001 |  | -0.9 | -0.9 | -0.9 | -0.9 | 9.5 | 4.1 |
| Nov-2001 |  | 8.0 | 8.2 | 8.4 | 8.0 | 9.3 | 3.6 |
| Dec-2001 |  | 7.6 | 8.2 | 8.8 | 7.8 | 9.5 | 4.7 |
| Jan-2002 |  | 6.9 | 7.7 | 8.5 | 7.5 | 8.0 | 3.5 |
| Feb-2002 |  | 6.4 | 7.2 | 7.9 | 7.2 | 8.0 | 4.0 |
| Mar-2002 |  | 5.7 | 6.3 | 6.9 | 6.5 | 8.0 | 6.1 |
| Quarterly Averages |  |  |  |  |  |  |  |
| 2000 Q2 |  | 6.4 | 6.4 | 6.4 | 6.4 | 8.9 | 6.2 |
| 2000 Q3 |  | 5.6 | 5.6 | 5.6 | 5.6 | 9.0 | 4.8 |
| 2000 Q4 |  | 6.3 | 6.3 | 6.3 | 6.3 | 7.4 | 4.5 |
| 2001 Q1 |  | 10.7 | 10.7 | 10.7 | 10.7 | 13.6 | 4.7 |
| 2001 Q2 |  | 10.4 | 10.4 | 10.4 | 10.4 | 15.0 | 5.9 |
| 2001 Q3 |  | 10.5 | 10.5 | 10.5 | 10.5 | 9.1 | 5.2 |
| 2001 Q4 |  | 8.8 | 8.9 | 9.0 | 8.8 | 11.3 | 4.9 |
| 2002 Q1 |  | 7.0 | 7.6 | 8.3 | 7.5 | 8.5 | 4.2 |
| Growth Rate |  |  |  |  |  |  |  |
| From | To |  |  |  |  |  |  |
| Dec-2000 | Oct-2001 | 10.9 | 10.9 | 10.9 | 10.9 | 13.1 | 5.4 |
| Dec-2000 | Dec-2001 | 10.5 | 10.6 | 10.6 | 10.5 | 12.6 | 5.2 |
| Sep-2001 | Mar-2002 | 5.7 | 6.2 | 6.7 | 6.1 | 8.9 | 4.4 |
| Oct-2001 | Mar-2002 | 7.0 | 7.6 | 8.2 | 7.5 | 8.7 | 4.4 |
| 2000 Q4 | Oct-2001 | 10.6 | 10.6 | 10.6 | 10.6 | 13.0 | 5.4 |
| 2000 Q4 | Dec-2001 | 10.3 | 10.4 | 10.5 | 10.3 | 12.6 | 5.2 |
| 2001 Q4 | Mar-2002 | 6.7 | 7.4 | 8.1 | 7.3 | 8.4 | 4.5 |
| 1999 Q4 | 2000 Q4 | 6.2 | 6.2 | 6.2 | 6.2 | 9.3 | 5.3 |
| 2000 Q4 | 2001 Q4 | 10.5 | 10.5 | 10.5 | 10.5 | 12.8 | 5.3 |

* This forecast is consistent with nominal GDP and interest rates in the Greenbook forecast.

|  | Treasury Bills |  |  | Treasury Coupons |  |  |  |  |  | FederalAgencyRedemptions$(-)$ | Net change total outright holdings ${ }^{4}$ | Net RPs ${ }^{5}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c} \text { Net } \\ \hline \text { Purchases }{ }^{2} \\ \hline \end{array}$ | $\begin{gathered} \text { Redemptions } \\ (-) \end{gathered}$ | $\begin{gathered} \text { Net } \\ \text { Change } \end{gathered}$ | $<1$ | Net Purcha $1-5$ | 5-10 | Over 10 | $\underset{(-)}{\text { Redemptions }}$ | $\begin{gathered} \text { Net } \\ \text { Change } \end{gathered}$ |  |  | $\begin{aligned} & \text { Short- } \\ & \text { Term }{ }^{6} \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Long- } \\ & \text { Term } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Net } \\ \text { Change } \end{gathered}$ |
| 1998 | 3,550 | 2,000 | 1,550 | 6,297 | 12,901 | 2,294 | 4,884 | 2,676 | 23,699 | 322 | 24,902 | -7,242 | 463 | -6,779 |
| 1999 | --- | --- | --- | 11,895 | 19,731 | 4,303 | 9,428 | 1,429 | 43,928 | 157 | 43,771 | 2,035 | 8,347 | 10,382 |
| 2000 | 8,676 | 24,522 | -15,846 | 8,809 | 14,482 | 5,871 | 5,833 | 3,779 | 31,215 | 51 | 15,318 | -2,027 | 7,133 | 5,106 |
| 2000 QIII | 2,587 | 12,238 | -9,651 | 4,770 | 7,152 | 2,362 | 1,774 | 1,254 | 14,803 | 10 | 5,142 | -1,911 | -2,025 | -3,937 |
| QIV | 3,795 | 4,822 | -1,027 | 2,000 | 3,111 | 1,281 | 982 | 1,567 | 5,806 | --- | 4,779 | 1,398 | 4,067 | 5,465 |
| 2001 Q | 3,782 | 1,076 | 2,706 | 1,672 | 5,792 | 1,283 | 1,791 | 3,951 | 6,586 | 120 | 9,172 | 1,884 | -1,378 | 506 |
| QII | 3,097 | 7,476 | -4,379 | 6,611 | 8,592 | 2,047 | 3,573 | 6,656 | 14,167 | --- | 9,788 | 639 | -2,186 | -1,547 |
| QIII | 3,965 | 1,543 | 2,422 | 1,619 | 5,854 | 1,691 | 1,535 | 5,723 | 4,976 | --- | 7,398 | 3,775 | 2,587 | 6,362 |
| 2001 Feb | 2,683 | 638 | 2,046 | 1,605 | 2,983 | --- | 495 | 1,529 | 3,554 | 120 | 5,480 | 666 | -6,327 | -5,661 |
| Mar | 579 | 211 | 368 | 67 | 1,883 | --- | 1,000 | --- | 2,950 | --- | 3,318 | -1,078 | -11 | -1,089 |
| Apr | 308 | 3,537 | -3,229 | 3,027 | 4,480 | 1,390 | 913 | 4,368 | 5,441 | --- | 2,212 | 669 | 0 | 669 |
| May | 624 | 3,939 | -3,315 | 2,174 | 2,685 | 657 | 1,241 | 2,287 | 4,469 | --- | 1,154 | 2,035 | 1 | 2,036 |
| Jun | 2,165 | --- | 2,165 | 1,410 | 1,428 | --- | 1,419 | --- | 4,257 | --- | 6,422 | -2,781 | -3 | -2,783 |
| Jul | 718 | --- | 718 | 235 | 4,193 | 756 | 815 | 4,668 | 1,330 | --- | 2,048 | 1,455 | -1 | 1,454 |
| Aug | 2,899 | --- | 2,899 | 1,385 | 810 | 935 | 720 | 1,055 | 2,795 | --- | 5,694 | -668 | 3,421 | 2,753 |
| Sep | 348 | 1,543 | -1,195 | --- | 851 | --- | --- | --- | 851 | --- | -344 | 12,132 | 983 | 13,115 |
| 2001 Aug 8 | 288 | --- | 288 | --- | --- | --- | --- | - --- | --- | --- | 288 | -1,125 | 2,000 | 875 |
| Aug 15 | 2,215 | --- | 2,215 | --- | --- | --- | --- | - --- | --- | --- | 2,215 | -3,828 | 2,000 | -1,828 |
| Aug 22 | 251 | --- | 251 | 1,385 | --- | --- | --- | --- | 1,385 | --- | 1,635 | 4,348 | 2 | 4,350 |
| Aug 29 | 145 | --- | 145 | --- | 810 | 557 | --- | --- | 1,367 | --- | 1,512 | -2,110 | 3 | -2,107 |
| Sep 5 | 127 | --- | 127 | --- | --- | 379 | 720 | 1,055 | 44 | --- | 171 | 6,908 | --- | 6,908 |
| Sep 12 | 27 | --- | 27 | --- | 851 | --- | --- | --- | 851 | --- | 878 | -3,379 | --- | -3,379 |
| Sep 19 | 68 | 1,543 | -1,475 | --- | --- | --- | --- | --- | --- | --- | -1,475 | 33,559 | -2,859 | 30,700 |
| Sep 26 | 126 | --- | 126 | --- | --- | --- | --- | ---- | --- | --- | 126 | -34,686 | 6,285 | -28,401 |
| Oct 3 | 46 | --- | 46 | --- | --- | --- | --- | ---- | --- | --- | 46 | 6,549 | -997 | 5,552 |
| Oct 10 | 86 | --- | 86 | --- | --- | --- | --- | --- | --- | --- | 86 | -5,886 | 3,143 | -2,743 |
| Oct 17 | 184 | --- | 184 | 1,411 | 22 | 422 | 238 | --- | 2,093 | --- | 2,276 | 3,022 | -2,286 | 737 |
| Oct 24 | 140 | --- | 140 | --- | --- | --- | 468 | --- | 468 | --- | 608 | -9,738 | 4,712 | -5,026 |
| Oct 31 | 316 | --- | 316 | --- | --- | --- | 478 | --- | 478 | --- | 794 | 9,542 | -3 | 9,539 |
| 2001 Nov 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | -13,706 | --- | -13,706 |
| Intermeeting Period Oct 2-Nov 1 | 728 | --- | 728 | 1,411 | 22 | 422 | 1,184 | --- | 3,039 | --- | 3,767 | -8,549 | 4,995 | $-3,554$ |
| Memo: LEVEL (bil. \$) Nov 1 |  |  | 201.4 | 84.6 | 147.1 | 50.2 | 79.8 |  | 361.7 | 0.0 | 563.1 | -11.4 | 24.0 | 12.6 |

[^1]6. Original maturity of 15 days or less
7. Original maturity of 16 to 90 days.


[^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]:    

