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[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.

Strictly Confidential (FR) Class I FOMC

# MONETARY POLICY ALTERNATIVES

Prepared for the Federal Open Market Committee

By the staff Board of Governors of the Federal Reserve System

Strictly Confidential (FR)
Class I - FOMC

December 13, 1996

# MONETARY POLICY ALTERNATIVES

## Recent Developments

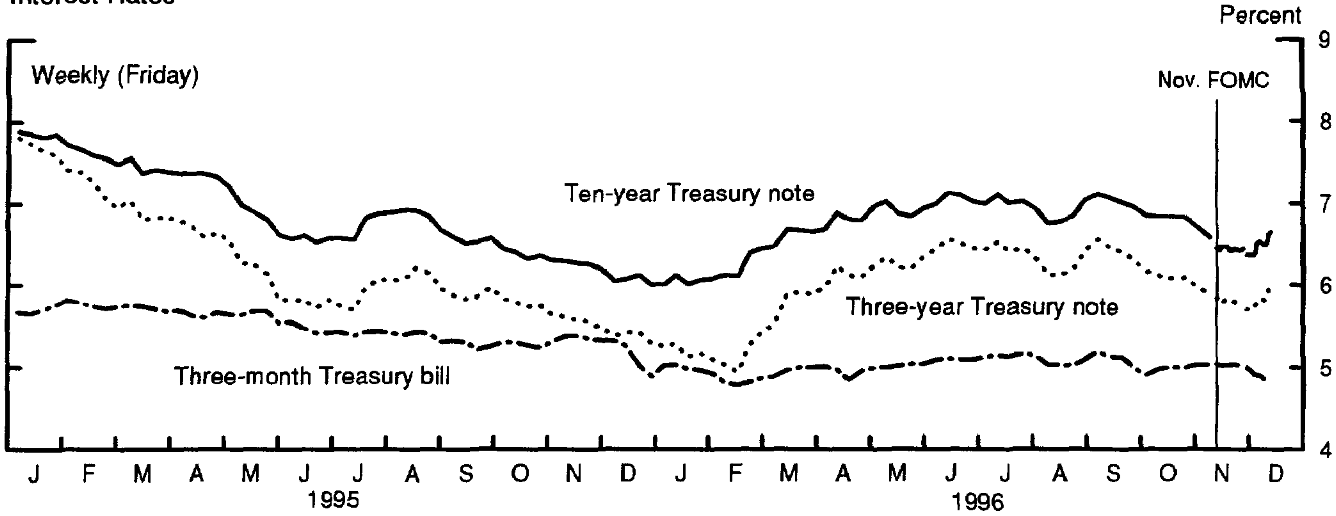
(1) With market participants expecting no change in the stance of monetary policy, the Committee's decision at the November meeting to leave the federal funds rate at 5-1/4 percent elicited no reaction in financial markets.[1] Longer-term interest rates drifted down over the next few weeks as incoming data generally confirmed the view that economic growth would remain moderate and inflation subdued, and equity prices moved higher (chart). Longer-term interest rates subsequently backed up. While the rise occurred against a back-drop of firmer economic data, the reasons are not entirely clear. Over the past week or so, fixed income, equity, and foreign exchange markets here and abroad have become more volatile as investors have questioned the sustainability of current asset price levels, prompted to a degree by Chairman Greenspan's recent comments on that issue.[2] On balance, long-term yields have risen about 15 basis points over the intermeeting period, and broad stock price

1. Over the intermeeting period, the federal funds rate averaged 5.35 percent, somewhat above its intended level. Pressures in the funds market seemed to stem, in part, from several wire transfer problems as well as certain routine events that triggered substantial clearing needs. Required operating balances, while low, were little changed over the intermeeting period. Although banks continued to implement new retail sweep programs, the effect of those programs on required reserves was nearly offset by the seasonal upswing in transaction deposits, and banks increased their required clearing balances.

2. The absence of an anticipated purchase of coupon securities by the System may also have added to the volatility in bond yields on some days. Although the Desk typically purchases coupon securities in late autumn to accommodate seasonal demands for currency and reserves, the Account Manager has elected rather to meet those demands through temporary operations in order to avoid a need to absorb reserves in late January when required operating balances may be at historical lows.

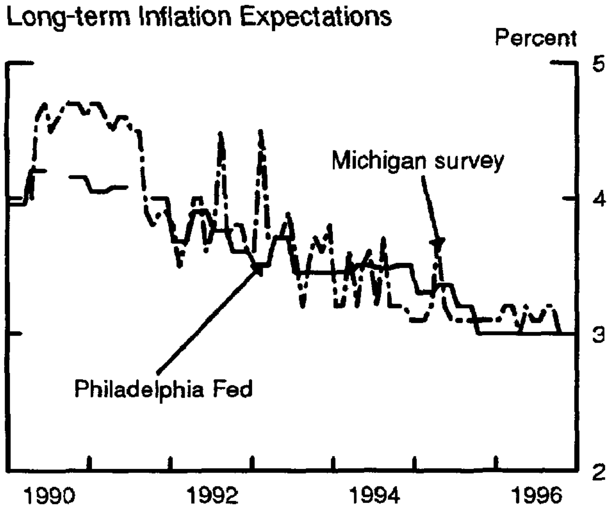
# Chart 1

## Interest Rates



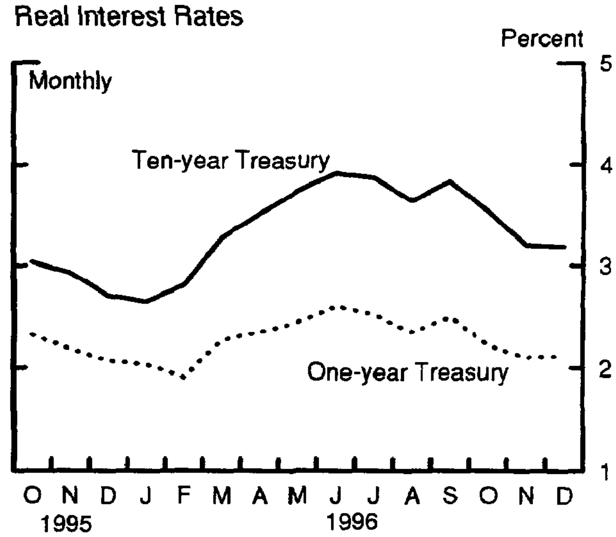

Note. Daily after November 13, 1996.

## Long-term Inflation Expectations



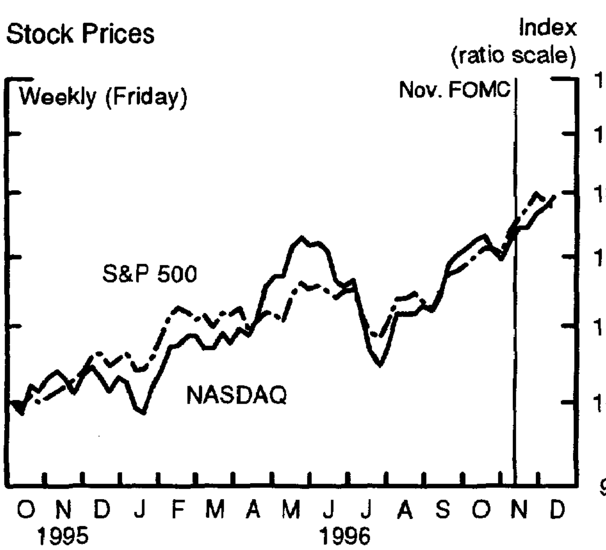

Note. Median responses.

## Real Interest Rates



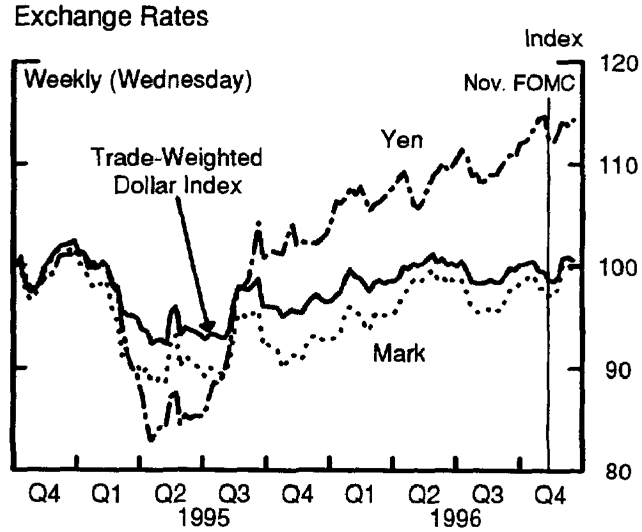

Note. Treasury rates less Phil. Fed expectations.

## Stock Prices




Index, October 6, 1995=100

## Exchange Rates




Index, October 3, 1994=100

indexes have gained 1 to 3 percent despite a sell off in recent days. Most short-term rates have shown small mixed changes. However, the three-month bill rate dropped 20 basis points, reflecting reduced supply and, more recently, heightened demands for safety and liquidity, and yields on one-month private instruments rose 15 to 20 basis points as their maturities crossed year-end, consistent with reports of premiums of 2 to 3 percentage points on forward transactions in federal funds over the year-end. Making some allowance for term premiums and year-end effects, futures quotes appear to imply that investors continue to expect no change in the stance of monetary policy in the next few months.

(2) Long-term rates are now about 50 basis points below the peaks of this summer, having retraced about half of the run-up over the first half of the year (chart). With measures of long-term inflation expectations little changed, real bond yields appear to have followed a pattern similar to that of nominal rates. Most short-term rates have fallen about 1/4 percentage point on balance over the year, in line with the policy easing in January. Broad equity price indexes generally have risen 15 to 25 percent during 1996 on the heels of even larger gains in 1995, leaving prices well above standard valuations based on moderate growth of earnings going forward and historical discount factors. Some market participants, however, apparently see relatively low earnings-price ratios as fully justified in a continued low-inflation environment.

(3) The dollar's exchange value appreciated 2 percent on a weighted-average basis over the intermeeting period. Against the DM, the dollar's appreciation was even greater, nearly 3 percent. Part of the dollar's rise against European currencies was probably attributable to an increase in market apprehension that the euro will not be as strong a

currency as the mark, a notion bolstered by market perceptions of improved odds that Italy will be an early member of the EMU and by comments from various European officials who appeared to be talking down their currencies against the dollar. Foreign long-term rates ended the period little changed on balance after having been down as much as 25 basis points, partly in response to further steps toward fiscal consolidation in Europe.

; the Desk did not intervene.

(4) Total borrowing by private nonfinancial sectors appears to have moderated from the pace earlier in the year as the growth of consumer credit has slowed appreciably. Consumer credit recorded only a small net increase in September and October and, based on bank data, in November as well. The falloff in consumer credit growth probably reflects a more cautious approach to borrowing, perhaps in response to elevated household debt burdens. Supply conditions in this market also have tightened, with banks reporting some firming of terms and standards for consumer loans over recent months. In the nonfinancial business sector, debt growth, after bulging late in the third quarter, has moderated in recent weeks and has shifted to some extent to the bond market. Market conditions remain attractive for business finance, and banks continue to be willing lenders. Net federal borrowing has stayed modest in the fourth quarter. From the fourth quarter of 1995 through November, domestic nonfinancial sector debt expanded at a 5 percent rate, leaving that aggregate in the middle of its 3 to 7 percent range for 1996. As a consequence, the ratio of nonfinancial debt to nominal income was about flat for the sixth year in a row.

(5) Growth of the broad monetary aggregates was strong in November. M2 expanded at a 7-1/4 percent annual rate last month, and partial data for early December suggest that rapid expansion has continued. However, the pickup follows several months of sluggish increases, and the staff does not think it signals a substantial pickup in the underlying trend of moderate growth. The surge last month was due in part to demand deposits, which showed surprising, and probably temporary, strength. Banks continued to implement retail sweep accounts, although at a considerably slower rate than the record pace in October.[3] Liquid deposits rebounded after contracting in October, and money market mutual funds again advanced at a double-digit rate. M3 slowed in November but, at a 6-3/4 percent annual rate, still grew comparatively rapidly.

(6) From the fourth quarter of 1995 through November, M2 expanded at a 4-1/4 percent annual rate, leaving this aggregate in the upper half of its 1 to 5 percent range.[4] M2 growth was about a percentage point slower in 1996 than forecast by the staff in February, even though nominal income growth and short-term opportunity costs came in close to projections. The staff had anticipated that a flat yield curve would lead households to prefer

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3. Total reserves contracted at a 7 percent annual rate in November, while the monetary base expanded at a 5-3/4 percent annual rate. Adjusted for the effects of sweep accounts, total reserves rose at an 10-1/2 percent pace and the monetary base increased at a 7-3/4 percent rate.

4. Through November, M1 contracted at a 4-3/4 percent annual rate during 1996 but expanded at a 5-1/4 percent rate after adjusting for the initial effects of retail sweep accounts. For 1996 as a whole, the initial effects of new retail sweeps are projected to total about $120 billion, reducing required reserves by about $10 billion and required reserve balances by about $8-1/2 billion. At a 5-1/2 percent annual rate, currency growth during 1996 was about in line with that of adjusted M1. Foreign demands for currency are estimated to have made a somewhat smaller contribution to M1 growth than in recent years.

deposits to longer-term investments; in the event, the yield curve steepened and returns on equity funds were unexpectedly robust, evidently attracting funds from deposits to capital market mutual funds.[5] Nonetheless, M2 growth came in only a little below that predicted by the standard staff econometric model. M3 grew 6-1/4 percent during 1996 through November, slightly above the upper end of its 2 to 6 percent range. As expected, expansion of M3 outpaced that of bank credit adjusted for mark-to-market accounting effects. The rapid growth owed partly to money market mutual funds shares, which expanded at about a 15 percent annual rate. In addition, although bank credit growth slowed this year, banks increased their reliance on deposit funding and paid down their borrowings from foreign offices, perhaps partly in response to the earlier reduction in deposit insurance premiums.

5. M2 plus household bond and stock mutual fund holdings is estimated to have increased at a 7-1/2 percent rate during 1996 through November.

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

| | Sept | Oct. | Nov. | QIV to Nov. |
|---|---|---|---|---|
| Money and Credit Aggregates | | | | |
| M1 | -8.7 | -16.8 | 0.3 | -4.7 |
| Adjusted for sweeps | 2.7 | -0.4 | 8.7 | 5.3 |
| M2 | 3.3 | 2.9 | 7.2 | 4.2 |
| M3 | 7.2 | 8.6 | 6.7 | 6.2 |
| Domestic nonfinancial debt | 3.8 | 4.6 | 4.9 | 5.1 |
| Federal | 1.0 | 3.8 | 4.1 | 3.8 |
| Nonfederal | 4.8 | 4.9 | 5.1 | 5.6 |
| Bank Credit | 5.1 | 6.6 | 8.7 | 3.9 |
| Adjusted[1] | 7.0 | 7.1 | 5.2 | 4.4 |
| Reserve Measures | | | | |
| Nonborrowed Reserves[2] | -22.0 | -26.7 | -5.3 | -11.8 |
| Total Reserves | -21.1 | -28.4 | -7.0 | -11.8 |
| Adjusted for sweeps | 3.0 | 4.9 | 10.6 | 7.9 |
| Monetary Base | 4.5 | 3.5 | 5.7 | 3.6 |
| Adjusted for sweeps | 7.2 | 7.2 | 7.8 | 6.2 |
| Memo: (millions of dollars) | | | | |
| Adjustment plus seasonal borrowing | 368 | 287 | 214 | -- |
| Excess reserves | 1038 | 994 | 999 | -- |

1. Adjusted to remove effects of mark-to-market accounting rules (FIN 39 and FASB 115).
2. Includes "other extended credit" from the Federal Reserve.

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**

(7) The staff forecasts that the economy will expand over the next two years at a rate in line with the growth of potential, assuming an unchanged federal funds rate. Over the forecast period, the dollar remains steady, stock prices show little net change, and long-term rates edge lower as fiscal policy becomes more restrictive. In the staff's assessment, the economy is already operating at a level a little beyond its potential, however, and would continue to do so in the forecast. The resulting price pressures are evident in an upward drift in core inflation, especially once account is taken of technical adjustments to the CPI.

(8) Nonetheless, the need for an immediate policy tightening could be questioned. The estimated output gap and underlying inflation pressures in 1997 and 1998 in the staff forecast are fairly modest. Moreover, the Committee may be quite uncertain that there would be any deterioration in inflation, in light of the relatively good behavior of prices recently in the face of both a drop in the unemployment rate below most estimates of NAIRU and adverse supply side shocks in food and energy prices. Moreover, levels of key financial variables going forward may seem especially uncertain, given the exceptional volatility in bond, stock, and foreign exchange markets recently. Such skittish market conditions may make responses to policy actions particularly hard to predict. In these circumstances, the Committee may wish to keep policy unchanged (**alternative B**), awaiting more information to assess how markets may evolve and how the other uncertainties may be resolved.

(9) With market participants almost universally expecting policy to be on hold for a time, the Committee's selection of alternative B would prompt little response in

financial markets. Expectations about the economy built into credit markets appear to be similar to those of the staff, and new information in agreement with that outlook over the intermeeting period should be associated with both interest rates and the exchange rate of the dollar averaging near recent levels. However, signs of significant progress in the political process in resolving budget and entitlement controversies probably would spark a rally in bond and stock markets.

(10) A 50 basis point firming of the funds rate (**alternative C**) might be favored if the Committee wished to move promptly to stem the rise in underlying inflation in the staff forecast and increase the odds on making some headway on its longer-run objective of price stability. With persistent indications of tightness in labor markets, some firming in wages, and disappointing news on reported productivity, the Committee may see significant risks of a resurgence of inflation that could elevate inflation expectations and ultimately prove costly to wring out of the economy. Such concerns might be accentuated if the Committee saw the run-up in share prices as likely to persist, boosting spending above that in the staff forecast, and as indicative of an accommodative monetary policy that would eventually show through to the prices of other assets and goods and services.

(11) The choice of alternative C would surprise market participants and perhaps lead them to reconsider their view on the Federal Reserve's longer-term objectives. Real interest rates would rise, but participants might see the Federal Reserve as more determined to reduce inflation, with beneficial effects on inflation expectations. Given the events of the last several days, however, the market could interpret the move also as importantly motivated by efforts to cap or even drive share prices lower. The

resulting drop in equity values would be an important channel for reducing the excessive aggregate demand that presumably would motivate policy tightening.

(12) A 50 basis point reduction in the federal funds rate (**alternative A**) would seem to require a judgment that the upward pressure on prices is less than in the staff forecast at current interest rate levels. For example, the staff might have underestimated the extent to which forces such as job insecurity are pulling down the natural rate of unemployment. If so, lower short rates might be consistent with the same inflation outlook. Essentially, policy easing would reflect the implied drop in the equilibrium natural real rate of interest and the narrower output gap and reduced price pressures associated with higher potential. In addition, the extraordinary slowing in consumer credit growth could be interpreted as indicating a developing problem in credit markets that will have greater implications for consumer spending than the staff has allowed, despite the recent uptrend in retail sales and favorable anecdotal reports on Christmas spending.

(13) Because the market is not expecting a change in policy, a 50 basis point funds rate reduction, as in alternative A, would show through completely to other short-term rates. The market would probably interpret the action as signaling that the Committee saw inflation risks as considerably less pressing than previously thought. This view would have credence given the Federal Reserve's current reputation for anticipating economic developments, and hence real and nominal interest rates likely would decline along the maturity spectrum, the exchange rate would drop, and the stock market would move higher, providing an impetus for spending over the intermediate run. The decline in nominal yields on longer-term instruments might be

somewhat muted, or ultimately even reversed, were incoming data to turn out more consistent with the staff outlook.

(14) Under alternative B and the staff forecast, both debt and money should expand at moderate rates in coming months, in line with projected nominal GDP. For the debt of nonfinancial sectors, the outlook implies a slight pickup in growth from the pace of recent months to a 4-3/4 percent rate from November to March. The contribution by governments at all levels should remain relatively modest, as state and local governments retire debt out of the proceeds of advanced refundings and the federal government continues to pare its budget. But somewhat stronger borrowing is expected by nonfinancial firms facing a widening financing gap, and household sector borrowing should bounce back somewhat, with debt growth more consistent with moderate increases in spending and income.

(15) M2 growth should slow a little from its elevated pace of November and early December, but remain above the rate of earlier in 1996. Offering rates on M2 deposits are likely to stay at about current levels, maintaining the opportunity cost of holding this aggregate. M2 is projected to grow at a 5-1/2 percent annual rate from November to March reflecting some near-term firming in nominal spending. Over the same period, the growth of M3 is expected to expand at a 7-1/4 percent annual rate.

Growth Rates of Money and Debt
(percent, annual rates)

| | November to March | 1995:Q4 to 1996:Q4 |
|---|---|---|
| M2 | 5-1/2 | 4-1/4 |
| M3 | 7-1/4 | 6-1/4 |
| M1 | -7-3/4 | -4-3/4 |
| Adjusted for sweeps | 4-3/4 | 5-1/4 |
| Debt | 4-3/4 | 5 |

## Alternative Levels and Growth Rates for Key Monetary Aggregates

| | | M2 | | | M3 | | | M1 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Alt. A | Alt. B | Alt. C | Alt. A | Alt. B | Alt. C | Alt. A | Alt. B | Alt. C |
| **Levels in Billions** | | | | | | | | | | |
| Oct-96 | | 3773.7 | 3773.7 | 3773.7 | 4814.7 | 4814.7 | 4814.7 | 1075.8 | 1075.8 | 1075.8 |
| Nov-96 | | 3796.2 | 3796.2 | 3796.2 | 4841.5 | 4841.5 | 4841.5 | 1076.1 | 1076.1 | 1076.1 |
| Dec-96 | | 3820.3 | 3819.7 | 3819.1 | 4878.3 | 4877.8 | 4877.4 | 1072.4 | 1072.2 | 1072.0 |
| Jan-97 | | 3838.2 | 3835.6 | 3833.1 | 4907.4 | 4905.7 | 4904.1 | 1062.4 | 1061.5 | 1060.5 |
| Feb-97 | | 3856.0 | 3850.9 | 3845.8 | 4938.7 | 4935.4 | 4932.1 | 1057.2 | 1055.3 | 1053.3 |
| Mar-97 | | 3872.9 | 3865.4 | 3857.9 | 4962.8 | 4958.1 | 4953.4 | 1051.5 | 1048.3 | 1045.1 |
| **Monthly Growth Rates** | | | | | | | | | | |
| Oct-96 | | 2.9 | 2.9 | 2.9 | 8.6 | 8.6 | 8.6 | -16.8 | -16.8 | -16.8 |
| Nov-96 | | 7.2 | 7.2 | 7.2 | 6.7 | 6.7 | 6.7 | 0.3 | 0.3 | 0.3 |
| Dec-96 | | 7.6 | 7.4 | 7.2 | 9.1 | 9.0 | 8.9 | -4.1 | -4.3 | -4.6 |
| Jan-97 | | 5.6 | 5.0 | 4.4 | 7.2 | 6.9 | 6.6 | -11.2 | -12.0 | -12.8 |
| Feb-97 | | 5.6 | 4.8 | 4.0 | 7.7 | 7.3 | 6.9 | -5.9 | -7.0 | -8.2 |
| Mar-97 | | 5.3 | 4.5 | 3.8 | 5.9 | 5.5 | 5.2 | -6.6 | -8.0 | -9.4 |
| **Quarterly Averages** | | | | | | | | | | |
| 96 Q1 | | 5.7 | 5.7 | 5.7 | 7.1 | 7.1 | 7.1 | -2.7 | -2.7 | -2.7 |
| 96 Q2 | | 3.8 | 3.8 | 3.8 | 5.5 | 5.5 | 5.5 | -0.7 | -0.7 | -0.7 |
| 96 Q3 | | 2.7 | 2.7 | 2.7 | 4.4 | 4.4 | 4.4 | -7.0 | -7.0 | -7.0 |
| 96 Q4 | | 4.6 | 4.5 | 4.5 | 7.5 | 7.5 | 7.5 | -9.0 | -9.0 | -9.1 |
| 97 Q1 | | 6.2 | 5.7 | 5.2 | 7.6 | 7.3 | 7.0 | -6.6 | -7.3 | -8.0 |
| **Growth Rate** | | | | | | | | | | |
| From | To | | | | | | | | | |
| Nov-96 | Mar-97 | 6.1 | 5.5 | 4.9 | 7.5 | 7.2 | 6.9 | -6.9 | -7.8 | -8.6 |
| 95 Q4 | Nov-96 | 4.2 | 4.2 | 4.2 | 6.2 | 6.2 | 6.2 | -4.7 | -4.7 | -4.7 |
| 95 Q4 | Dec-96 | 4.5 | 4.5 | 4.5 | 6.5 | 6.5 | 6.5 | -4.6 | -4.6 | -4.6 |
| 96 Q4 | Mar-97 | 6.0 | 5.4 | 4.9 | 7.3 | 7.0 | 6.7 | -6.5 | -7.4 | -8.2 |
| 93 Q4 | 94 Q4 | 0.6 | 0.6 | 0.6 | 1.6 | 1.6 | 1.6 | 2.4 | 2.4 | 2.4 |
| 94 Q4 | 95 Q4 | 3.9 | 3.9 | 3.9 | 5.9 | 5.9 | 5.9 | -1.8 | -1.8 | -1.8 |
| 95 Q4 | 96 Q4 | 4.2 | 4.2 | 4.2 | 6.3 | 6.3 | 6.3 | -4.8 | -4.8 | -4.8 |
| 96 Q4 | 97 Q1 | 6.2 | 5.7 | 5.2 | 7.6 | 7.3 | 7.0 | -6.6 | -7.3 | -8.0 |
| 1996 Target Ranges: | | | 1.0 to 5.0 | | | 2.0 to 6.0 | | | | |

**Directive Language**

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

**OPERATIONAL PARAGRAPH**

In the implementation of policy for the immediate future, the Committee seeks to DECREASE (SLIGHTLY/SOMEWHAT)/maintain/INCREASE (SLIGHTLY/ SOMEWHAT) the existing degree of pressure on reserve positions. 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, somewhat (SLIGHTLY) greater reserve restraint would (MIGHT) or (SOMEWHAT) slightly lesser reserve restraint (WOULD) might be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with ~~moderate growth in M2 and~~ relatively strong expansion in M2 AND M3 over coming months.

# SELECTED INTEREST RATES
## (percent)

| | Short-Term | | | | | | | | Long-Term | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | federal funds | Treasury bills secondary market | | | CDs secondary market | comm. paper | money market mutual fund | bank prime loan | U.S. government constant maturity yields | | | corporate A-utility recently offered | municipal Bond Buyer | conventional home mortgages | | |
| | | | | | | | | | | | | | | secondary market | primary market | |
| | | 3-month | 6-month | 1-year | 3-month | 1-month | | | 3-year | 10-year | 30-year | | | fixed-rate | fixed-rate | ARM |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 95 -- High | 6.21 | 5.81 | 6.31 | 6.75 | 6.39 | 6.10 | 5.61 | 9.00 | 7.80 | 7.85 | 7.89 | 8.81 | 6.94 | 9.57 | 9.22 | 6.87 |
| -- Low | 5.40 | 4.89 | 5.05 | 4.98 | 5.55 | 5.73 | 5.16 | 8.50 | 5.36 | 5.68 | 6.06 | 6.98 | 5.65 | 7.40 | 7.11 | 5.53 |
| 96 -- High | 5.61 | 5.18 | 5.37 | 5.61 | 5.57 | 5.73 | 5.15 | 8.50 | 6.59 | 7.02 | 7.16 | 8.23 | 6.34 | 8.72 | 8.42 | 6.01 |
| -- Low | 5.08 | 4.79 | 4.71 | 4.57 | 5.13 | 5.28 | 4.73 | 8.25 | 4.95 | 5.59 | 5.97 | 7.00 | 5.63 | 7.35 | 6.94 | 5.19 |
| **Monthly** | | | | | | | | | | | | | | | | |
| Dec 95 | 5.60 | 5.14 | 5.13 | 5.03 | 5.62 | 5.84 | 5.20 | 8.65 | 5.39 | 5.71 | 6.06 | 7.10 | 5.74 | 7.53 | 7.20 | 5.57 |
| Jan 96 | 5.56 | 5.00 | 4.92 | 4.82 | 5.39 | 5.56 | 5.05 | 8.50 | 5.20 | 5.65 | 6.05 | 7.09 | 5.72 | 7.45 | 7.03 | 5.44 |
| Feb 96 | 5.22 | 4.83 | 4.77 | 4.69 | 5.15 | 5.29 | 4.85 | 8.25 | 5.14 | 5.81 | 6.24 | 7.31 | 5.73 | 7.51 | 7.08 | 5.31 |
| Mar 96 | 5.31 | 4.96 | 4.96 | 5.06 | 5.29 | 5.39 | 4.76 | 8.25 | 5.79 | 6.27 | 6.60 | 7.75 | 6.07 | 8.07 | 7.62 | 5.51 |
| Apr 96 | 5.22 | 4.95 | 5.06 | 5.23 | 5.36 | 5.40 | 4.75 | 8.25 | 6.11 | 6.51 | 6.79 | 7.90 | 6.20 | 8.32 | 7.93 | 5.73 |
| May 96 | 5.24 | 5.02 | 5.12 | 5.33 | 5.36 | 5.38 | 4.74 | 8.25 | 6.27 | 6.74 | 6.93 | 8.02 | 6.22 | 8.46 | 8.07 | 5.77 |
| Jun 96 | 5.27 | 5.09 | 5.25 | 5.48 | 5.46 | 5.45 | 4.76 | 8.25 | 6.49 | 6.91 | 7.06 | 8.13 | 6.25 | 8.59 | 8.32 | 5.92 |
| Jul 96 | 5.40 | 5.15 | 5.30 | 5.52 | 5.53 | 5.44 | 4.81 | 8.25 | 6.45 | 6.87 | 7.03 | 8.07 | 6.15 | 8.56 | 8.25 | 5.98 |
| Aug 96 | 5.22 | 5.05 | 5.13 | 5.35 | 5.40 | 5.39 | 4.82 | 8.25 | 6.21 | 6.64 | 6.84 | 7.87 | 6.00 | 8.33 | 8.00 | 5.84 |
| Sep 96 | 5.30 | 5.09 | 5.24 | 5.50 | 5.51 | 5.45 | 4.82 | 8.25 | 6.41 | 6.83 | 7.03 | 8.06 | 6.11 | 8.48 | 8.23 | 5.85 |
| Oct 96 | 5.24 | 4.99 | 5.11 | 5.25 | 5.41 | 5.37 | 4.82 | 8.25 | 6.08 | 6.53 | 6.81 | 7.83 | 5.97 | 8.22 | 7.92 | 5.64 |
| Nov 96 | 5.31 | 5.03 | 5.07 | 5.14 | 5.38 | 5.39 | -- | 8.25 | 5.82 | 6.20 | 6.48 | 7.54 | 5.85 | 7.91 | 7.62 | 5.53 |
| **Weekly** | | | | | | | | | | | | | | | | |
| Aug 28 96 | 5.21 | 5.04 | 5.13 | 5.41 | 5.38 | 5.37 | 4.79 | 8.25 | 6.31 | 6.74 | 6.95 | 8.16 | 6.09 | 8.62 | 8.09 | 5.75 |
| Sep 4 96 | 5.39 | 5.15 | 5.29 | 5.57 | 5.49 | 5.42 | 4.83 | 8.25 | 6.52 | 6.92 | 7.09 | 8.14 | 6.19 | 8.67 | 8.34 | 5.85 |
| Sep 11 96 | 5.16 | 5.17 | 5.33 | 5.59 | 5.54 | 5.46 | 4.82 | 8.25 | 6.52 | 6.94 | 7.12 | 7.99 | 6.12 | 8.42 | 8.28 | 5.90 |
| Sep 18 96 | 5.22 | 5.11 | 5.23 | 5.49 | 5.48 | 5.44 | 4.83 | 8.25 | 6.37 | 6.80 | 7.00 | 8.08 | 6.10 | 8.53 | 8.14 | 5.83 |
| Sep 25 96 | 5.34 | 5.08 | 5.22 | 5.47 | 5.52 | 5.49 | -- | 8.25 | 6.37 | 6.81 | 7.01 | 7.96 | 6.01 | 8.28 | 8.16 | 5.82 |
| Oct 2 96 | 5.40 | 4.91 | 5.07 | 5.35 | 5.48 | 5.42 | 4.86 | 8.25 | 6.22 | 6.66 | 6.89 | 7.77 | 5.95 | 8.20 | 8.06 | 5.70 |
| Oct 9 96 | 5.14 | 4.94 | 5.08 | 5.24 | 5.42 | 5.37 | 4.81 | 8.25 | 6.08 | 6.54 | 6.80 | 7.87 | 5.99 | 8.24 | 7.86 | 5.68 |
| Oct 16 96 | 5.22 | 5.01 | 5.12 | 5.29 | 5.41 | 5.35 | 4.82 | 8.25 | 6.12 | 6.57 | 6.86 | 7.82 | 5.97 | 8.17 | 7.88 | 5.62 |
| Oct 23 96 | 5.22 | 4.99 | 5.12 | 5.25 | 5.40 | 5.35 | 4.80 | 8.25 | 6.08 | 6.53 | 6.82 | 7.86 | 6.01 | 8.25 | 7.86 | 5.57 |
| Oct 30 96 | 5.27 | 5.01 | 5.11 | 5.22 | 5.40 | 5.37 | 4.82 | 8.25 | 6.03 | 6.49 | 6.78 | 7.73 | 5.94 | 8.00 | 7.78 | 5.60 |
| Nov 6 96 | 5.32 | 5.03 | 5.09 | 5.16 | 5.39 | 5.38 | 4.85 | 8.25 | 5.91 | 6.34 | 6.64 | 7.59 | 5.92 | 7.96 | 7.67 | 5.56 |
| Nov 13 96 | 5.21 | 5.03 | 5.08 | 5.15 | 5.38 | 5.37 | 4.86 | 8.25 | 5.86 | 6.24 | 6.47 | 7.52 | 5.86 | 7.87 | 7.59 | 5.52 |
| Nov 20 96 | 5.41 | 5.03 | 5.06 | 5.12 | 5.38 | 5.40 | 4.82 | 8.25 | 5.78 | 6.17 | 6.44 | 7.48 | 5.83 | 7.87 | 7.53 | 5.48 |
| Nov 27 96 | 5.30 | 5.03 | 5.07 | 5.14 | 5.38 | 5.40 | 4.82 | 8.25 | 5.78 | 6.14 | 6.43 | 7.42 | 5.80 | 7.87 | 7.52 | 5.50 |
| Dec 4 96 | 5.52 | 4.94 | 5.03 | 5.11 | 5.40 | 5.51 | 4.88 | 8.25 | 5.72 | 6.08 | 6.37 | 7.62 | 5.83 | 7.97 | 7.44 | 5.47 |
| Dec 11 96 | 5.22 | 4.87 | 5.01 | 5.17 | 5.41 | 5.54 | 4.82 | 8.25 | 5.85 | 6.26 | 6.52 | 7.67 | 5.93 | 8.06 | 7.57 | 5.52 |
| **Daily** | | | | | | | | | | | | | | | | |
| Dec 6 96 | 5.21 | 4.90 | 5.03 | 5.17 | 5.42 | 5.54 | -- | 8.25 | 5.84 | 6.26 | 6.53 | -- | -- | -- | -- | -- |
| Dec 12 96 | 5.25 | 4.84 | 5.00 | 5.20 | 5.42 | 5.59 | -- | 8.25 | 5.98 | 6.40 | 6.64 | -- | -- | -- | -- | -- |
| Dec 13 96 | 5.32p | 4.80 | 5.00 | 5.17 | 5.43 | 5.63 | -- | 8.25 | 5.89 | 6.33 | 6.58 | -- | -- | -- | -- | -- |

NOTE: Weekly data for columns 1 through 11 are statement week averages. Data in column 7 are taken from Donoghue's *Money Fund Report*. Columns 12, 13 and 14 are 1-day quotes for Friday, Thursday or Friday, respectively, following the end of the statement week. Column 13 is the Bond Buyer revenue index. Column 14 is the FNMA purchase yield, plus loan servicing fee, on 30-day mandatory delivery commitments. Column 15 is the average contract rate on new commitments for fixed-rate mortgages (FRMs) with 80 percent loan-to-value ratios at major institutional lenders. Column 16 is the average initial contract rate on new commitments for 1-year, adjustable-rate mortgages (ARMs) at major institutional lenders offering both FRMs and ARMs with the same number of discount points.

p - preliminary data

Strictly Confidential (FR)-
Class II FOMC

# Money and Credit Aggregate Measures

Seasonally adjusted

DECEMBER 16, 1996

| Period | Money stock measures and liquid assets | | | | | | Bank credit | Domestic nonfinancial debt[1] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | M1 | M2 | nontransactions components: in M2 | nontransactions components: in M3 only | M3 | L | total loans and investments[1] | U. S. government[2] | other[2] | total[2] |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| **Annual growth rates (%):** | | | | | | | | | | |
| Annually (Q4 to Q4) | | | | | | | | | | |
| 1993 | 10.5 | 1.4 | -2.4 | -0.5 | 1.0 | 1.4 | 5.0 | 8.4 | 4.0 | 5.1 |
| 1994 | 2.4 | 0.6 | -0.3 | 6.2 | 1.6 | 2.6 | 6.8 | 5.7 | 5.1 | 5.2 |
| 1995 | -1.8 | 3.9 | 6.6 | 14.7 | 5.9 | 7.2 | 8.8 | 4.4 | 5.9 | 5.5 |
| Quarterly(average) | | | | | | | | | | |
| 1995-Q4 | -5.1 | 4.1 | 8.4 | 6.8 | 4.6 | 6.0 | 4.8 | 2.3 | 5.5 | 4.7 |
| 1996-Q1 | -2.7 | 5.7 | 9.4 | 12.7 | 7.1 | 5.0 | 5.6 | 3.0 | 5.8 | 5.0 |
| 1996-Q2 | -0.7 | 3.8 | 5.7 | 12.4 | 5.5 | 5.7 | 2.6 | 4.8 | 5.9 | 5.6 |
| 1996-Q3 | -7.0 | 2.7 | 6.9 | 10.7 | 4.4 | 4.8 | 1.3 | 3.8 | 5.5 | 5.0 |
| Monthly | | | | | | | | | | |
| 1995-NOV. | -3.0 | 3.9 | 7.0 | 0.1 | 3.1 | 1.5 | 4.0 | 3.1 | 5.6 | 4.9 |
| DEC. | -4.4 | 5.7 | 10.2 | -3.4 | 3.9 | 5.4 | 4.1 | 1.0 | 5.1 | 4.0 |
| 1996-JAN. | -6.1 | 4.7 | 9.4 | 18.0 | 7.3 | 3.9 | 10.4 | 0.3 | 5.8 | 4.4 |
| FEB. | -2.0 | 5.1 | 8.2 | 28.7 | 9.9 | 4.3 | 4.3 | 6.1 | 6.3 | 6.2 |
| MAR. | 10.1 | 11.4 | 12.0 | 9.1 | 10.9 | 12.4 | -2.0 | 8.9 | 5.7 | 6.5 |
| APR. | -3.3 | 1.7 | 3.8 | 3.9 | 2.1 | 5.7 | 6.1 | 4.2 | 6.0 | 5.5 |
| MAY | -6.8 | -2.0 | 0.0 | 23.8 | 3.3 | -0.5 | 1.2 | 2.0 | 5.6 | 4.7 |
| JUNE | -0.5 | 5.3 | 7.7 | 4.7 | 5.1 | 6.2 | 2.4 | 2.1 | 6.0 | 5.0 |
| JULY | -9.1 | 1.6 | 6.2 | 7.3 | 2.8 | 3.3 | 1.3 | 6.0 | 5.8 | 5.9 |
| AUG. | -9.9 | 3.8 | 9.5 | 9.3 | 4.9 | 6.5 | -1.9 | 4.5 | 4.6 | 4.5 |
| SEP. | -8.7 | 3.3 | 8.3 | 21.8 | 7.2 | 8.3 | 5.1 | 1.0 | 4.8 | 3.8 |
| OCT. | -16.8 | 2.9 | 10.9 | 29.8 | 8.6 | | 6.6 | 3.7 | 4.9 | 4.6 |
| NOV. p | 0.3 | 7.2 | 9.9 | 5.0 | 6.7 | | 9.0 | | | |
| **Levels ($billions):** | | | | | | | | | | |
| Monthly | | | | | | | | | | |
| 1996-JULY | 1108.2 | 3742.6 | 2634.4 | 990.0 | 4732.7 | 5851.4 | 3683.4 | 3729.4 | 10585.3 | 14314.7 |
| AUG. | 1099.1 | 3754.4 | 2655.3 | 997.7 | 4752.1 | 5883.3 | 3677.7 | 3743.4 | 10625.5 | 14368.9 |
| SEP. | 1091.1 | 3764.7 | 2673.6 | 1015.8 | 4780.6 | 5923.8 | 3693.2 | 3746.5 | 10667.8 | 14414.3 |
| OCT. | 1075.8 | 3773.7 | 2697.9 | 1041.0 | 4814.7 | | 3713.4 | 3758.2 | 10711.6 | 14469.8 |
| NOV. p | 1076.1 | 3796.2 | 2720.1 | 1045.3 | 4841.5 | | 3741.4 | | | |
| Weekly | | | | | | | | | | |
| 1996-NOV. 4 | 1080.6 | 3790.4 | 2709.8 | 1041.1 | 4831.5 | | | | | |
| 11 | 1068.6 | 3792.0 | 2723.4 | 1039.6 | 4831.6 | | | | | |
| 18 | 1075.9 | 3797.2 | 2721.2 | 1047.8 | 4845.0 | | | | | |
| 25 p | 1074.5 | 3792.6 | 2718.1 | 1049.5 | 4842.1 | | | | | |
| DEC. 2 p | 1089.1 | 3814.1 | 2725.0 | 1048.5 | 4862.6 | | | | | |

1. Adjusted for breaks caused by reclassifications.
2. 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

Strictly Confidential (FR)-
Class II FOMC

# Components of Money Stock and Related Measures

**Seasonally adjusted**

DECEMBER 16, 1996

| Period | Currency | Demand deposits | Other checkable deposits | Savings deposits[1] | Small denomination time deposits[2] | Money market mutual funds: Retail[3] | Money market mutual funds: Institution-only | Large denomination time deposits[4] | RP's[5,6] | Eurodollars[5,6] | Savings bonds | Short-term Treasury securities[5] | Commercial paper[5] | Bankers acceptances[5] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| **Levels ($billions):** | | | | | | | | | | | | | | |
| Annual (Q4) | | | | | | | | | | | | | | |
| 1993 | 320.0 | 381.6 | 412.1 | 1215.1 | 792.3 | 356.5 | 196.3 | 334.8 | 155.3 | 66.1 | 170.7 | 339.5 | 382.4 | 15.7 |
| 1994 | 352.8 | 383.3 | 404.2 | 1162.7 | 812.0 | 383.1 | 182.9 | 358.6 | 175.9 | 81.7 | 179.8 | 380.9 | 401.5 | 13.8 |
| 1995 | 371.9 | 388.7 | 359.2 | 1123.8 | 934.2 | 455.5 | 225.2 | 414.1 | 185.8 | 91.6 | 184.5 | 468.6 | 438.2 | 12.7 |
| Monthly | | | | | | | | | | | | | | |
| 1995-NOV. | 371.6 | 388.2 | 360.4 | 1120.6 | 935.1 | 455.5 | 224.8 | 415.3 | 186.8 | 90.7 | 184.5 | 464.5 | 437.1 | 12.6 |
| DEC. | 373.2 | 389.8 | 353.0 | 1134.6 | 937.7 | 460.3 | 227.2 | 417.2 | 179.4 | 91.1 | 184.8 | 475.7 | 437.1 | 12.0 |
| 1996-JAN. | 373.6 | 393.5 | 343.2 | 1151.8 | 937.5 | 463.2 | 230.6 | 416.1 | 186.6 | 95.4 | 185.0 | 466.1 | 437.2 | 11.8 |
| FEB. | 373.3 | 397.4 | 337.8 | 1164.5 | 937.1 | 468.4 | 243.9 | 421.6 | 188.7 | 96.6 | 185.0 | 445.1 | 442.3 | 10.3 |
| MAR. | 375.2 | 407.1 | 335.4 | 1183.0 | 932.5 | 480.1 | 248.3 | 428.5 | 186.8 | 94.4 | 185.2 | 459.5 | 445.1 | 9.8 |
| APR. | 376.0 | 406.3 | 332.4 | 1193.2 | 930.4 | 480.3 | 245.6 | 430.9 | 187.6 | 97.0 | 185.6 | 461.7 | 461.0 | 10.3 |
| MAY | 377.1 | 409.7 | 321.8 | 1197.5 | 928.2 | 478.3 | 243.5 | 436.5 | 203.1 | 97.1 | 186.0 | 433.5 | 473.4 | 10.8 |
| JUNE | 379.4 | 413.7 | 315.0 | 1207.0 | 927.5 | 486.3 | 249.4 | 442.6 | 194.3 | 97.6 | 186.4 | 445.0 | 470.9 | 11.4 |
| JULY | 382.6 | 410.4 | 306.7 | 1213.6 | 929.2 | 491.6 | 252.9 | 448.5 | 192.5 | 96.2 | 186.8 | 447.4 | 473.1 | 11.4 |
| AUG. | 385.0 | 407.3 | 298.4 | 1224.3 | 933.4 | 497.7 | 257.2 | 452.0 | 191.6 | 96.8 | 187.2 | 454.2 | 478.6 | 11.3 |
| SEP. | 387.5 | 405.3 | 290.0 | 1231.4 | 937.4 | 504.9 | 262.7 | 459.9 | 194.7 | 98.5 | 187.3 | 462.1 | 482.4 | 11.5 |
| OCT. | 390.3 | 396.1 | 280.9 | 1244.8 | 942.1 | 511.0 | 264.3 | 476.8 | 196.9 | 103.1 | | | | |
| NOV. p | 392.6 | 400.7 | 274.2 | 1256.2 | 946.6 | 517.3 | 267.2 | 482.9 | 194.1 | 101.1 | | | | |

1. Includes money market deposit accounts.
2. Includes retail repurchase agreements. All IRA and Keogh accounts at commercial banks and thrift institutions are subtracted from small time deposits.
3. Excludes IRA and Keogh accounts.
4. Net of large denomination time deposits held by money market mutual funds, depository institutions, U.S. government, and foreign banks and official institutions.
5. Net of money market mutual fund holdings of these items.
6. Includes both overnight and term.

p preliminary

STRICTLY CONFIDENTIAL (FR)
CLASS II-FOMC

December 13, 1996

# NET CHANGES IN SYSTEM HOLDINGS OF SECURITES[1]

***Millions of dollars, not seasonally adjusted***

| Period | Treasury bills | | | Treasury coupons | | | | | | Federal agencies redemptions (-) | Net change outright holdings total[4] | Net RPs[5] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Net purchases[2] | Redemptions (-) | Net change | Net purchases[3] within 1 year | Net purchases[3] 1-5 | Net purchases[3] 5-10 | Net purchases[3] over 10 | Redemptions (-) | Net Change | | | |
| 1993 | 17,717 | --- | 17,717 | 1,223 | 10,350 | 4,168 | 3,457 | 767 | 18,431 | 774 | 35,374 | 5,974 |
| 1994 | 17,484 | --- | 17,484 | 1,238 | 9,168 | 3,818 | 3,606 | 2,337 | 15,493 | 1,002 | 31,975 | -7,412 |
| 1995 | 10,932 | 900 | 10,032 | 390 | 4,966 | 1,239 | 3,122 | 1,476 | 8,241 | 1,303 | 16,970 | -1,023 |
| 1995 ---Q1 | --- | --- | --- | --- | --- | --- | --- | 621 | -621 | 229 | -850 | -4,083 |
| ---Q2 | 4,470 | --- | 4,470 | --- | 2,549 | 839 | 1,138 | 370 | 4,156 | 312 | 8,314 | 10,395 |
| ---Q3 | 842 | --- | 842 | --- | 100 | --- | 100 | --- | 200 | 501 | 541 | -15,979 |
| ---Q4 | 5,621 | 900 | 4,721 | 390 | 2,317 | 400 | 1,884 | 485 | 4,506 | 261 | 8,965 | 8,644 |
| 1996 ---Q1 | --- | --- | --- | --- | --- | --- | --- | 1,228 | -1,228 | 108 | -1,336 | -8,879 |
| ---Q2 | 3,399 | --- | 3,399 | 35 | 1,899 | 479 | 1,065 | 787 | 2,691 | 138 | 5,952 | 2,959 |
| ---Q3 | --- | --- | --- | 1,240 | 1,279 | 297 | 900 | --- | 3,716 | 79 | 3,637 | -2,454 |
| 1995 December | --- | --- | --- | 390 | 2,317 | --- | 1,884 | --- | 4,591 | 58 | 4,533 | 6,666 |
| 1996 January | --- | --- | --- | --- | --- | --- | --- | 1,228 | -1,228 | --- | -1,228 | -12,623 |
| February | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | -1,689 |
| March | --- | --- | --- | --- | --- | --- | --- | --- | --- | 108 | -108 | 5,433 |
| April | 88 | --- | 88 | 35 | 1,899 | 479 | 1,065 | 787 | 2,691 | 82 | 2,697 | -505 |
| May | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16 | -16 | 4,174 |
| June | 3,311 | --- | 3,311 | --- | --- | --- | --- | --- | --- | 40 | 3,271 | -711 |
| July | --- | --- | --- | --- | --- | --- | --- | --- | --- | 52 | -52 | 7,118 |
| August | --- | --- | --- | 1,240 | 1,279 | 297 | 900 | --- | 3,716 | --- | 3,716 | -9,267 |
| September | --- | --- | --- | --- | --- | --- | --- | --- | --- | 27 | -27 | -304 |
| October | --- | --- | --- | --- | --- | --- | --- | --- | --- | 63 | -63 | 3,625 |
| November | 6,502 | --- | 6,502 | --- | --- | --- | --- | --- | --- | 10 | 6,492 | 584 |
| Weekly | | | | | | | | | | | | |
| September 4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | -3,632 |
| 11 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 25 | -25 | 4,811 |
| 18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | -5,122 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2 | -2 | 4,998 |
| October 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | -8,126 |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6,128 |
| 16 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | -5,749 |
| 23 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 50 | -50 | 9,711 |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13 | -13 | -6,460 |
| November 6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4,626 |
| 13 | 6,502 | --- | 6,502 | --- | --- | --- | --- | --- | --- | --- | 6,502 | -9,749 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 9,865 |
| 27 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10 | -10 | -2,552 |
| December 4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3,743 |
| 11 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 12 | -12 | -4,072 |
| Memo: LEVEL (bil. $)[6] | | | | | | | | | | | | |
| December 11 | | | 205.4 | 222.2 | 95.5 | 33.8 | 41.8 | | 393.3 | | 407.8 | -12.3 |

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

| | within 1 year | 1-5 | 5-10 | over 10 | total |
|---|---|---|---|---|---|
| December 11 | 1.2 | 0.5 | 0.5 | 0.0 | 2.2 |