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MONETARY POLICY ALTERNATIVES

Prepared for the Federal Open Market Committee

By the staff Board of Governors of the Federal Reserve System

August 12, 1988

MONETARY POLICY ALTERNATIVES

Recent Developments

(1) In accordance with the Committee's decision at its meeting in late June, the allowance for adjustment plus seasonal borrowing was raised immediately from \$550 to \$600 million. Actual borrowing, however, averaged about \$1.3 billion in the first complete reserve maintenance period following the meeting, reflecting a surge in borrowing over the long July 4 weekend and some subsequent difficulties in assessing reserve availability and demand. In the next two reserve maintenance periods, borrowing averaged close to \$600 million.¹ Over much of the intermeeting period, federal funds traded primarily in a range of 7-3/4 to 7-7/8 percent--about 1/4 point over the level at the time of the last Committee meeting and also above Desk expectations and the level consistent with previous relationships between borrowing and interest rate spreads. Contributing to upward pressures were market expectations of further near-term restraint on reserve provision in light of strength in incoming economic data. In addition, reserve management by banks turned more cautious in the aftermath of the earlier bulge in borrowing. On August 9, the discount rate was raised

1. Seasonal borrowing has increased to a record level of around \$400 million in recent weeks; in addition to the effects of the wider spread between the federal funds and discount rates, agricultural banks are reported by Reserve Banks to be experiencing stronger loan demand, though this is said not to be related substantially to the drought.

to 6-1/2 percent.² Federal funds, which were trading around 7-3/4 percent at the time of the increase, have risen to around 8-1/8 percent most recently.

(2) Other interest rates also have risen substantially over the intermeeting period. Before the discount rate hike, short-term rates generally were up 1/4 to 1/2 of a percentage point--including a 1/2 point increase in the prime rate--somewhat more than the increase in the funds rate. Bond yields, held down to an extent by the effects of a reduced supply of long-term issues in several markets, were unchanged to 1/4 point higher. With some further firming of policy already built into the structure of interest rates, private short-term market rates rose only about 1/4 percentage point more following the discount rate increase, although the prime rate was raised another 1/2 percentage point. Bond yields also have risen by about 1/4 of a percentage point in recent days and broad measures of stock prices have fallen around 3 percent. Some of the initial reaction in capital markets seemed to reflect uncertainty about the eventual extent of policy firming and concern about the response of foreign markets and authorities; these were mirrored in the relatively damped adjustment in Treasury bill rates, which increased only about 15

2. Consistent with incoming data suggesting considerable strength in the economy and pressures on wages and prices, the borrowing objective was increased to \$700 million on August 8. However, it was returned to \$600 million the next day after monetary policy was firmed through the increase in the discount rate.

basis points.³ Judging from the behavior of risk premiums and the stock prices of banking and thrift organizations, the failure of First Republic-Bank and the deepening thrift crisis appeared to have had little overall effect on market assessments of the risk of advancing funds to depository institutions and their holding companies.

(3) Responding in part to the firming of monetary policy and to better-than-expected U.S. trade figures for May, the dollar's weighted average exchange value climbed by about 2-1/4 percent over the intermeeting period, . At its peak just following the rise in the discount rate, the dollar was nearly 4 percent above late-June levels, but it has eased off a little in recent days. Some of the strength in the dollar reflected a more general weakness in the mark, even in the face of Bundesbank action that pushed short-term market rates up by nearly a full percentage point over the period. Short-term interest rates in the United Kingdom rose even more, as the Bank of England moved to restrain further a U.K. economy threatening to overheat. Japanese short-term rates increased only slightly.

the Desk sold about \$3 billion against marks, all before the discount rate increase, divided equally between System and Treasury accounts.

3. In the Treasury's mid-quarter refunding, bidding was reasonably good for 3-year notes on the day of the discount rate increase, but less robust for the 10-year notes the next day. These issues yielded 8.77 and 9.27 percent, respectively, about 15 to 20 basis points above yield levels in when-issued trading prior to the discount rate action.

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

| | May | June | July | QIV '87 to July |
|---------------------------------------|------|------|------|-----------------------|
| <u>Money and credit aggregates</u> | | | | |
| M1 | 0.2 | 9.8 | 9.1 | 5.8 |
| M2 | 4.7 | 5.2 | 3.0 | 6.5 |
| M3 | 4.4 | 6.3 | 5.4 | 6.7 |
| Domestic nonfinancial debt | 8.3 | 7.6 | 7.3 | 8.3 |
| Bank credit | 13.0 | 11.1 | 4.8 | 8.2 |
| <u>Reserve measures</u> | | | | |
| Nonborrowed reserves ¹ | -2.2 | 4.3 | 4.7 | 4.1 |
| Total reserves | -0.2 | 5.4 | 12.1 | 5.5 |
| Monetary base | 5.0 | 6.2 | 10.6 | 8.2 |
| Memo: (Millions of dollars) | | | | |
| Adjustment plus seasonal borrowing | 471 | 529 | 902 | -- |
| Excess reserves | 1040 | 888 | 1009 | -- |

1. Includes "other extended credit" from the Federal Reserve.

NOTES: 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) Money and credit flows in July were affected by the previous tightening of monetary policy and by some short-term adjustments in assets and liabilities by banks, their depositors, and borrowers, partly in anticipation of rising rates. Growth of M2 and M3 slowed last month to 3 and 5-1/2 percent annual rates, respectively, both somewhat less than the Committee's specifications of 5-1/2 and 7 percent for the June-to-September period. The weakness in M2 was concentrated in its overnight RP and Euro-dollar components. Both overnight and term RPs declined last month in conjunction with declines in commercial bank holdings of Treasury securities in trading accounts in late June and early July. The drop in overnight Eurodollars was partly mirrored in a jump in term Eurodollar instruments; banks began issuing term Eurodollars at relatively more attractive rates, perhaps to lock in funding costs. Reflecting the rise in market interest rates and opportunity costs since early spring, growth of retail assets in M2--that is, M2 less demand deposits and overnight RPs and Eurodollars--was around 5-1/2 percent, considerably less than in the first few months of the year. In view of the fairly steep retail deposit yield curve, expansion of retail instruments was surprisingly tilted in favor of liquid deposits--especially other checkable deposits--and may have reflected expectations that time deposit rates would continue to rise. M3 slowed only moderately in July despite a sharp deceleration in bank credit;

issuance of managed liabilities in this aggregate was buoyed by substitutions for other sources of funds. Through July, M2 and M3 expanded at 6-1/2 and 6-3/4 percent annual rates from their fourth-quarter bases, leaving them a little above the midpoints of their annual ranges.

(5) M1 expanded at a 9 percent annual rate in July, boosted by the strong growth in other checkable deposits. Since the fourth quarter of 1987, M1 has increased at a 5-3/4 percent annual rate. The monetary base accelerated to a 10-1/2 percent annual rate in July, bringing growth for the year to 8-1/4 percent. Strength in the base mainly reflected a surge in total reserves, to a 12 percent rate, partly as excess reserves rebounded.

(6) Borrowing by domestic nonfinancial sectors moderated in July, especially in bond markets, where offerings by state and local governments and corporations fell substantially following a surge in June. Business borrowing from commercial banks slowed only a bit last month, but commercial paper of nonfinancial business dropped off sharply. Judging from bank data, consumer borrowing also appears to have slowed last month. Federal borrowing was seasonally light, as the Treasury funded operations in part by a sizable drop in its cash balance; however, the Treasury announced financing plans consistent with a large increase in borrowing in coming months. From the fourth quarter of 1987, domestic nonfinancial debt is estimated to have expanded through July at an 8-1/4 percent rate, below the midpoint of its 7 to 11 percent annual range.

Policy Alternatives

(7) Two policy alternatives are presented below. Alternative B maintains the current \$600 million assumption for adjustment plus seasonal borrowing and alternative C increases intended borrowing to \$800 million. Under alternative B, a federal funds rate of around 8 percent would be consistent with the average relationship that prevailed over the first half of this year between borrowing and the funds rate-discount rate spread. However, expectations of a further tightening of policy could persist under alternative B, causing funds to trade somewhat higher, in an 8 to 8-1/4 percent range. Federal funds likely would trade between 8-1/2 and 8-3/4 percent under alternative C, perhaps more toward the lower end of this range if the additional firming acted to dispel expectations of still further near-term policy moves.

(8) The table below gives expected June-to-September growth rates of the monetary aggregates under the two alternatives, as well as the implied growth rates from July to September. Also shown are the associated federal funds rate ranges that trigger Committee consultation; both are higher than the current 5 to 9 percent range, to center them more around the expected level of federal funds trading. (More detailed data are shown on the table and charts on the following pages.) As discussed below, under either alternative, growth in M2 and M3 is projected to fall short of the rates specified for June to September at the last FOMC meeting, mainly reflecting the effects of the rise in interest rates over the last six weeks, which was not assumed in constructing the money paths at the last

meeting, and the unexpected weakness in bank credit along with associated funding needs. Both alternatives would leave M2 near the midpoint of its long-run range by September, and M3 a little above the midpoint of its range.

| | <u>Alt. B</u> | <u>Alt. C</u> |
|--|---------------|-----------------|
| Growth from June to September | | |
| M2 | 3-1/2 | 3 |
| M3 | 5-1/2 | 5-1/4 |
| M1 | 5-1/2 | 4-3/4 |
| Implied growth from July to September | | |
| M2 | 3-3/4 | 3 |
| M3 | 5-1/2 | 5 |
| M1 | 3-3/4 | 2-3/4 |
| Associated federal funds rate range | 6 to 10 | 6-1/2 to 10-1/2 |

(9) Financial markets in recent days have largely built in a federal funds rate of around 8-1/8 percent, although some further adjustments may occur under alternative B. For example, the 3-month Treasury bill rate might edge higher to around 7-1/8 percent as some of the remaining uncertainties about any further responses of capital markets in the U.S. and financial markets and policies abroad are resolved. Bond yields should remain around current levels, especially if the dollar, as expected, continues fairly firm. The dollar could come under downward pressure, however, and bond yields resume their rise, if incoming data suggested that the pace of international adjustment was proceeding considerably less

Alternative Levels and Growth Rates for Key Monetary Aggregates

| | M2 | | M3 | | M1 | |
|------------------------------------|------------|--------|------------|--------|--------|--------|
| | Alt. B | Alt. C | Alt. B | Alt. C | Alt. B | Alt. C |
| Levels in billions | | | | | | |
| 1988 April | 2991.7 | 2991.7 | 3767.0 | 3767.0 | 770.1 | 770.1 |
| May | 3003.3 | 3003.3 | 3780.7 | 3780.7 | 770.2 | 770.2 |
| June | 3016.4 | 3016.4 | 3800.6 | 3800.6 | 776.5 | 776.5 |
| July | 3024.0 | 3024.0 | 3817.6 | 3817.6 | 782.4 | 782.4 |
| August | 3033.6 | 3033.1 | 3834.8 | 3834.4 | 785.0 | 784.8 |
| September | 3042.8 | 3039.0 | 3852.0 | 3849.6 | 787.4 | 785.9 |
| Monthly Growth Rates | | | | | | |
| 1988 April | 9.8 | 9.8 | 7.2 | 7.2 | 11.3 | 11.3 |
| May | 4.7 | 4.7 | 4.4 | 4.4 | 0.2 | 0.2 |
| June | 5.2 | 5.2 | 6.3 | 6.3 | 9.8 | 9.8 |
| July | 3.0 | 3.0 | 5.4 | 5.4 | 9.1 | 9.1 |
| August | 3.8 | 3.6 | 5.4 | 5.3 | 4.0 | 3.7 |
| September | 3.6 | 2.3 | 5.4 | 4.8 | 3.7 | 1.7 |
| Quarterly Ave. Growth Rates | | | | | | |
| 1987 Q3 | 2.8 | 2.8 | 4.5 | 4.5 | 0.8 | 0.8 |
| Q4 | 3.9 | 3.9 | 5.4 | 5.4 | 3.9 | 3.9 |
| 1988 Q1 | 6.7 | 6.7 | 7.0 | 7.0 | 3.8 | 3.8 |
| Q2 | 7.8 | 7.8 | 7.1 | 7.1 | 6.3 | 6.3 |
| Q3 | 4.0 | 3.8 | 5.5 | 5.4 | 6.5 | 6.3 |
| Mar. 88 to June 88 | 6.6 | 6.6 | 6.0 | 6.0 | 7.1 | 7.1 |
| June 88 to Sept 88 | 3.5 | 3.0 | 5.4 | 5.2 | 5.6 | 4.8 |
| July 88 to Sept 88 | 3.7 | 3.0 | 5.4 | 5.0 | 3.8 | 2.7 |
| Q4 87 to Q2 88 | 7.3 | 7.3 | 7.1 | 7.1 | 5.1 | 5.1 |
| Q4 87 to Q3 88 | 6.3 | 6.2 | 6.6 | 6.6 | 5.6 | 5.5 |
| Q4 87 to July 88 | 6.6 | 6.6 | 6.7 | 6.7 | 5.8 | 5.8 |
| Q4 87 to Sept 88 | 6.0 | 5.9 | 6.5 | 6.4 | 5.4 | 5.2 |
| 1988 Target Ranges: | 4.0 to 8.0 | | 4.0 to 8.0 | | | |

Chart 1
ACTUAL AND TARGETED M2

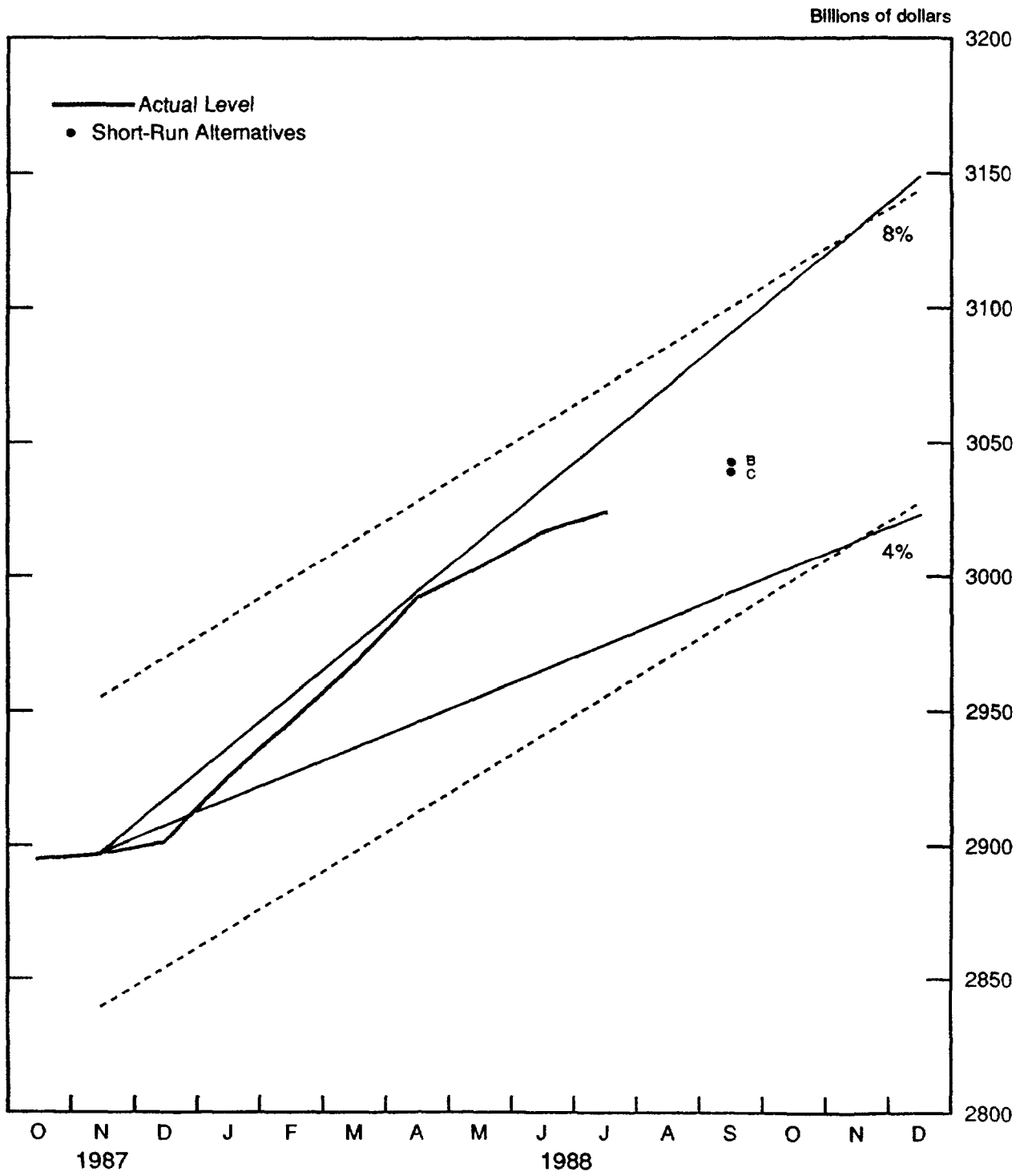


Chart 2
ACTUAL AND TARGETED M3

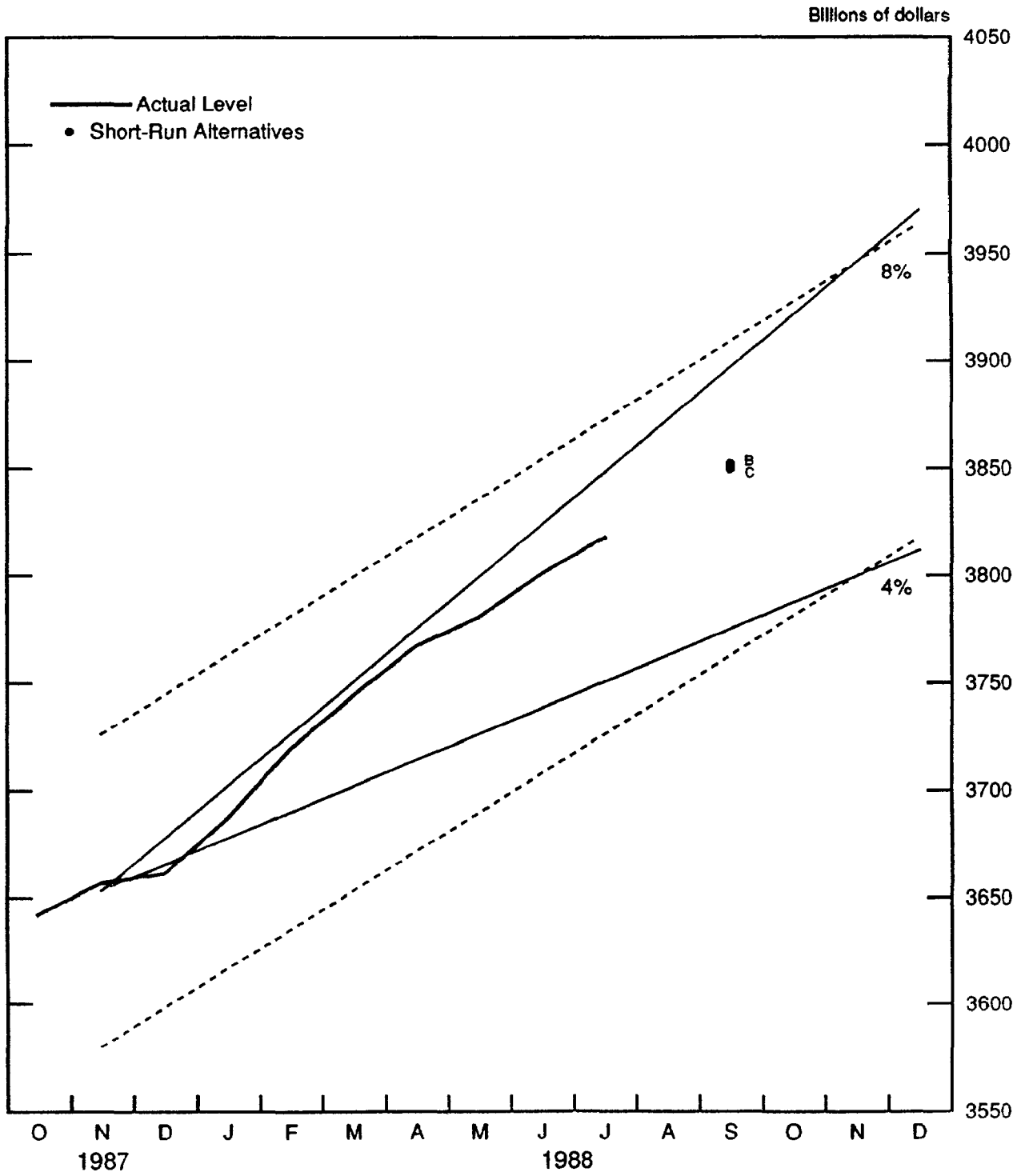


Chart 3

M1

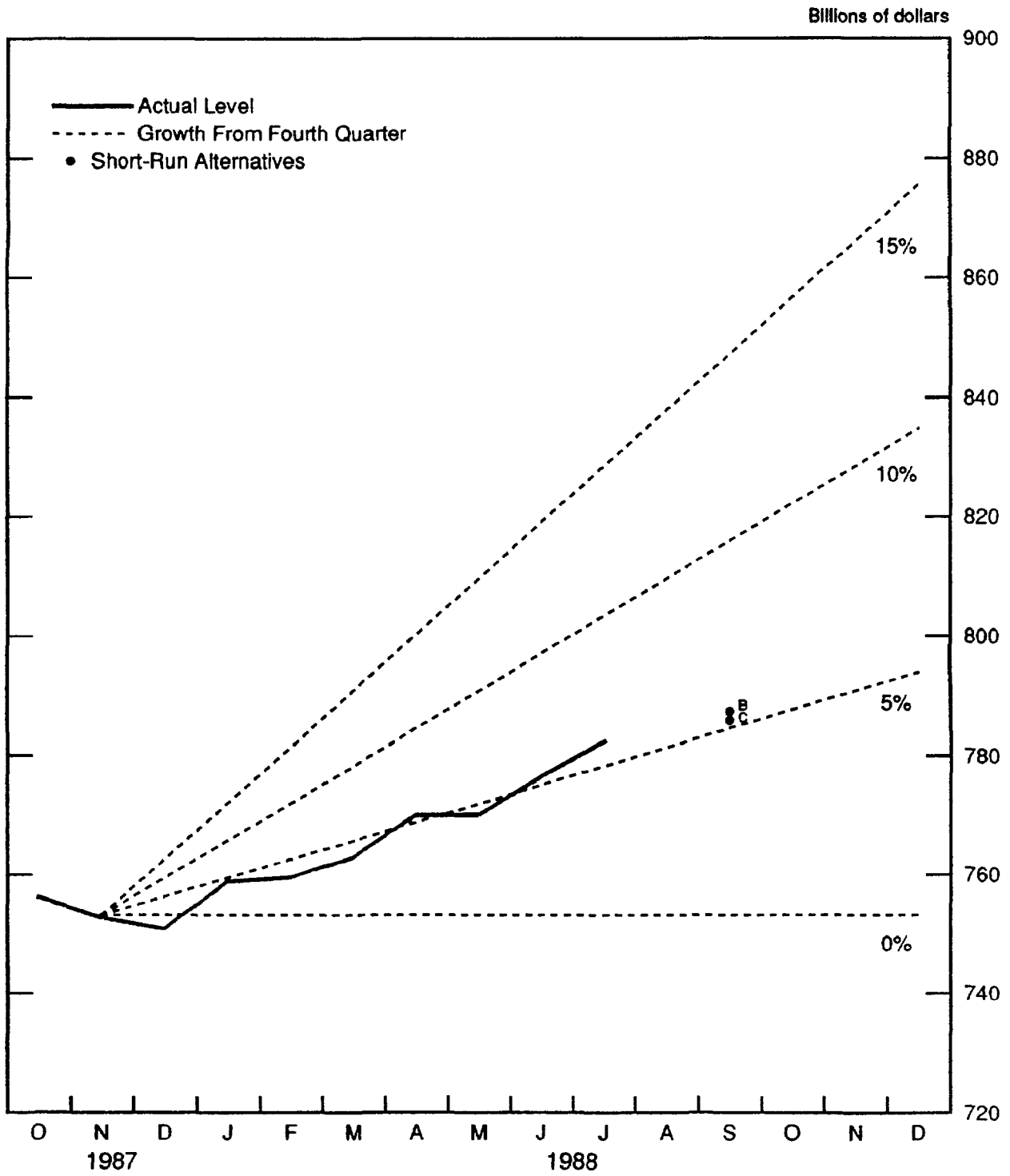
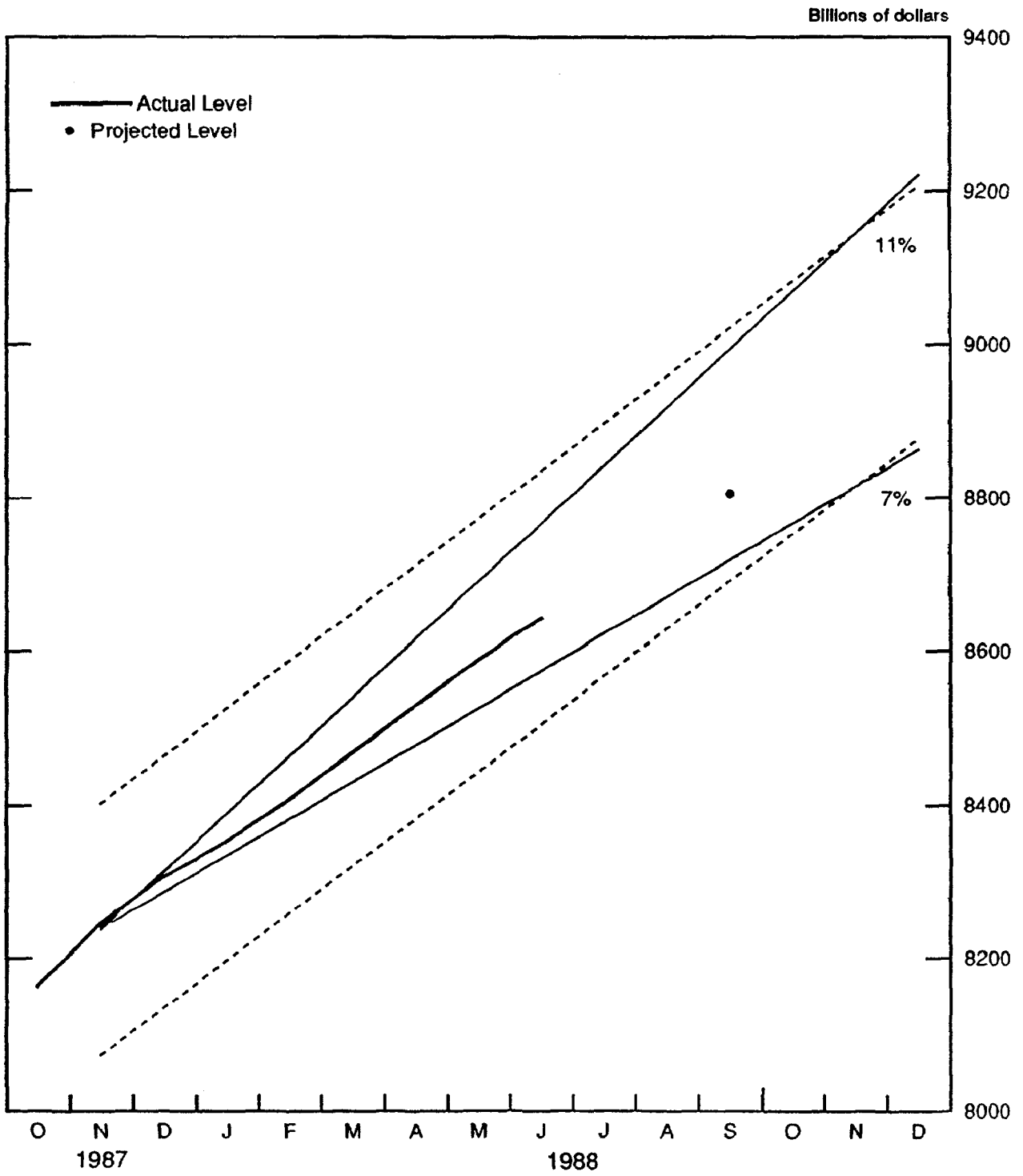


Chart 4
DEBT



rapidly than previous trade reports had suggested, other data were seen as portending greater odds of inflation pressures, or foreign monetary authorities tightened aggressively. In any case, the long-term Treasury bond yield would tend to move higher, perhaps by 10 to 20 basis points, if the Treasury receives authority to issue more of such securities.

(10) M2 under alternative B is expected to increase at a 3-3/4 percent pace over the last two months of the quarter, slightly higher than in July. This speedup is associated with a strengthening in overnight RPs and Eurodollars, already evident in recent weekly data, in part as banks rebuild their government security positions. The retail component of M2 should decelerate in response to wider opportunity costs. Within M2, liquid household deposits, which have begun to soften in early August, are expected to be relatively weak. Small time deposit growth should quicken as the public takes advantage of the more attractive returns offered on fixed-maturity accounts, but not by enough to offset the moderation in liquid deposits. Slower OCD growth, along with weakness in demand deposits as compensating balance requirements are scaled back, should damp M1 expansion over the next two months to an average of just under 4 percent.

(11) On a quarterly average basis, M2 growth in the third quarter would be only 4 percent, implying a 3 percent rate of increase in its velocity given the staff's income projection, after a 1 percent rate of decline in the first half of the year. This rebound in velocity largely reflects the turnaround in market interest rates and opportunity costs since early spring. Even if short-term rates remain near current levels,

velocity still would be expected to rise further in the fourth quarter. Under these circumstances, M2 would be likely to continue growing at around its third-quarter pace, and to end the year near, though perhaps a bit below, the midpoint of its annual range. While the drought is reducing second-half growth in nominal GNP in the staff forecast, it is not expected to affect appreciably the relationship of money demand to GNP and interest rates. Nonetheless, this relationship is more uncertain than usual, given the effects of the drought in boosting the ratio of final sales to current income; on the one hand, for a given level of income, higher nominal purchases would tend to increase transactions demands for money and depress income velocity; on the other, in order to finance these purchases saving flows and associated acquisitions of financial assets, including those in the monetary aggregates, would be reduced, tending to raise income velocity.

(12) Under alternative B, average M3 growth over August and September is projected to stay at its 5-1/2 percent July pace, despite a pickup in bank and thrift credit. Outflows from institution-only money funds are expected to follow the recent rise in market rates, and inflows to Treasury deposits will be holding down needs for managed liabilities. With credit at depository institutions projected to continue in the fourth quarter at around the rates of August and September, M3 could grow at close to a 6 percent rate over the balance of the year, bringing its growth for the year to around 6-1/2 percent. The debt of domestic nonfinancial sectors is projected to grow at around an 8 percent annual rate over the

remainder of the year, placing it a little below the midpoint of its monitoring range by year-end.

(13) The tightening of reserve positions under alternative C immediately following the discount rate hike would be somewhat surprising to market participants and the associated 1/2 percentage point increase in the funds rate probably would show through nearly fully in private money market rates. Nominal bond yields probably would rise by less. This action might allay market concerns about future inflation, implying that the rise in nominal interest rates would reflect at least as large an increase in real rates. The higher real rates would boost the dollar on foreign exchange markets, at least for a time, and the greater foreign demand for dollar assets could cushion somewhat the effects on bond and stock prices.

(14) With the higher interest rates of alternative C, M2 is projected to record only 3 percent growth over August and September. The upward movement of rates would slow M2 even further in the fourth quarter, moving this aggregate appreciably below the midpoint of its annual growth range. Growth of M3, by contrast, would probably not be damped enough under alternative C to move below its midpoint, even by year-end. Long-term debt issuance by businesses likely would be more restrained under alternative C, shifting some business credit demands to banks, despite a probable further increase in the prime rate.

Directive language

(15) Draft language for the operational paragraph, with the usual alternatives for varying degrees of reserve pressure, is presented below. The draft language on possible intermeeting adjustments also has the usual options for symmetry and asymmetry; in the ordering of the factors affecting such adjustments, it retains the implicit emphasis on resisting inflationary pressures adopted at the June meeting.

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. Taking account of indications of inflationary pressures, the strength of the business expansion, developments in foreign exchange and domestic financial markets, and the behavior of the monetary aggregates, somewhat (SLIGHTLY) greater reserve restraint would (MIGHT), or slightly (SOMEWHAT) lesser reserve restraint might (WOULD), be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with growth in M2 and M3 over the period from June through September at annual rates of about ___ AND ___ 5-1/2-and-7 percent, respectively. The Chairman may call for Committee consultation if it appears to the Manager for Domestic Operations that reserve conditions

during the period before the next meeting are likely to be associated with a federal funds rate persistently outside a range of ____ TO ____ 5-~~to~~-9 percent.

SELECTED INTEREST RATES
(percent)

| | Short-Term | | | | | | | | Long-Term | | | | | | | | |
|-----------|------------------------------------|------------|------------|-------------|---|---------------------------|-----------------------------------|-----------------------|--------------------------------|---------|---------|-------------------------------|------------------------|----------------|----------------|------|--|
| | Treasury bills secondary market | | | | U.S. Gov't. constant maturity yields | | | | conventional home mortgages | | | sec mkt primary market | | | | | |
| | federal funds | 3 month | 6 month | 12 month | cds sec mkt 3-month | comm. paper 1-month | money market mutual fund | bank prime loan | 3-year | 10-year | 30-year | corp. A utility rec off | muni. Bond Buyer | fixed- rate | fixed- rate | ARM | |
| 87--High | 7.62 | 6.84 | 7.36 | 7.64 | 8.49 | 8.12 | 6.70 | 9.25 | 9.29 | 9.96 | 9.97 | 11.50 | 9.59 | 11.98 | 11.58 | 8.45 | |
| Low | 5.95 | 5.24 | 5.36 | 5.40 | 5.83 | 5.88 | 5.28 | 7.50 | 6.37 | 7.03 | 7.34 | 8.79 | 6.92 | 8.97 | 9.03 | 7.47 | |
| 88--High | 7.84 | 6.93 | 7.27 | 7.48 | 8.17 | 7.91 | 6.97 | 9.50 | 8.65 | 9.21 | 9.33 | 10.73 | 8.34 | 10.86 | 10.58 | 7.90 | |
| Low | 6.38 | 5.61 | 5.81 | 6.15 | 6.58 | 6.50 | 6.03 | 8.50 | 7.33 | 8.16 | 8.40 | 9.63 | 7.76 | 9.98 | 9.84 | 7.49 | |
| Monthly | | | | | | | | | | | | | | | | | |
| AUG 87 | 6.73 | 6.04 | 6.15 | 6.54 | 6.75 | 6.62 | 6.00 | 8.25 | 8.03 | 8.76 | 8.97 | 10.37 | 8.11 | 10.39 | 10.33 | 7.76 | |
| SEP 87 | 7.22 | 6.40 | 6.64 | 7.11 | 7.37 | 7.26 | 6.22 | 8.70 | 8.67 | 9.42 | 9.59 | 10.84 | 8.61 | 11.01 | 10.89 | 7.95 | |
| OCT 87 | 7.29 | 6.13 | 6.69 | 7.05 | 8.02 | 7.38 | 6.57 | 9.07 | 8.75 | 9.52 | 9.61 | 11.07 | 9.06 | 11.42 | 11.26 | 8.25 | |
| NOV 87 | 6.69 | 5.69 | 6.19 | 6.50 | 7.24 | 6.77 | 6.45 | 8.78 | 7.99 | 8.86 | 8.95 | 10.39 | 8.39 | 10.73 | 10.65 | 8.00 | |
| DEC 87 | 6.77 | 5.77 | 6.36 | 6.69 | 7.66 | 7.76 | 6.57 | 8.75 | 8.13 | 8.99 | 9.12 | 10.42 | 8.43 | 10.82 | 10.65 | 7.96 | |
| JAN 88 | 6.83 | 5.81 | 6.25 | 6.52 | 6.92 | 6.76 | 6.57 | 8.75 | 7.87 | 8.67 | 8.83 | 10.05 | 8.11 | 10.43 | 10.43 | 7.85 | |
| FEB 88 | 6.58 | 5.66 | 5.93 | 6.21 | 6.60 | 6.55 | 6.22 | 8.51 | 7.38 | 8.21 | 8.43 | 9.75 | 7.83 | 10.02 | 9.89 | 7.61 | |
| MAR 88 | 6.58 | 5.70 | 5.91 | 6.28 | 6.63 | 6.57 | 6.04 | 8.50 | 7.50 | 8.37 | 8.63 | 9.91 | 8.08 | 10.12 | 9.93 | 7.52 | |
| APR 88 | 6.87 | 5.91 | 6.21 | 6.56 | 6.92 | 6.80 | 6.09 | 8.50 | 7.83 | 8.72 | 8.95 | 10.23 | 8.22 | 10.44 | 10.20 | 7.58 | |
| MAY 88 | 7.09 | 6.26 | 6.56 | 6.90 | 7.24 | 7.07 | 6.20 | 8.84 | 8.24 | 9.09 | 9.23 | 10.61 | 8.30 | 10.73 | 10.46 | 7.71 | |
| JUN 88 | 7.51 | 6.46 | 6.71 | 6.99 | 7.51 | 7.41 | 6.51 | 9.00 | 8.22 | 8.92 | 9.00 | 10.41 | 8.14 | 10.62 | 10.46 | 7.85 | |
| JUL 88 | 7.75 | 6.73 | 6.99 | 7.22 | 7.94 | 7.72 | 6.77 | 9.29 | 8.44 | 9.06 | 9.14 | 10.40 | 8.15 | 10.64 | 10.43 | 7.84 | |
| Weekly | | | | | | | | | | | | | | | | | |
| MAY 4 88 | 6.82 | 6.06 | 6.39 | 6.70 | 7.05 | 6.89 | 6.13 | 8.50 | 8.00 | 8.89 | 9.13 | 10.56 | 8.27 | 10.68 | 10.32 | 7.63 | |
| MAY 11 88 | 7.02 | 6.28 | 6.48 | 6.83 | 7.17 | 6.98 | 6.14 | 8.57 | 8.17 | 9.02 | 9.18 | 10.51 | 8.26 | 10.58 | 10.40 | 7.66 | |
| MAY 18 88 | 7.04 | 6.22 | 6.48 | 6.85 | 7.24 | 7.08 | 6.27 | 9.00 | 8.20 | 9.07 | 9.19 | 10.73 | 8.34 | 10.79 | 10.52 | 7.79 | |
| MAY 25 88 | 7.14 | 6.26 | 6.65 | 7.00 | 7.28 | 7.08 | 6.28 | 9.00 | 8.34 | 9.21 | 9.33 | 10.70 | 8.32 | 10.86 | 10.58 | 7.77 | |
| JUN 1 88 | 7.41 | 6.44 | 6.82 | 7.11 | 7.47 | 7.34 | 6.37 | 9.00 | 8.41 | 9.17 | 9.27 | 10.43 | 8.21 | 10.73 | 10.58 | 7.90 | |
| JUN 8 88 | 7.37 | 6.44 | 6.71 | 7.01 | 7.46 | 7.36 | 6.41 | 9.00 | 8.25 | 8.99 | 9.09 | 10.46 | 8.15 | 10.57 | 10.51 | 7.88 | |
| JUN 15 88 | 7.43 | 6.40 | 6.61 | 6.89 | 7.43 | 7.34 | 6.50 | 9.00 | 8.11 | 8.84 | 8.95 | 10.47 | 8.10 | 10.65 | 10.35 | 7.79 | |
| JUN 22 88 | 7.54 | 6.42 | 6.74 | 7.02 | 7.53 | 7.41 | 6.56 | 9.00 | 8.27 | 8.97 | 9.05 | 10.36 | 8.10 | 10.53 | 10.40 | 7.83 | |
| JUN 29 88 | 7.63 | 6.55 | 6.75 | 7.01 | 7.58 | 7.50 | 6.62 | 9.00 | 8.23 | 8.88 | 8.91 | 10.25 | 8.12 | 10.43 | 10.39 | 7.81 | |
| JUL 6 88 | 7.81 | 6.55 | 6.72 | 7.02 | 7.67 | 7.58 | 6.68 | 9.00 | 8.18 | 8.83 | 8.89 | 10.39 | 8.14 | 10.65 | 10.38 | 7.79 | |
| JUL 13 88 | 7.59 | 6.65 | 6.93 | 7.21 | 7.85 | 7.64 | 6.70 | 9.00 | 8.40 | 9.04 | 9.09 | 10.44 | 8.15 | 10.65 | 10.44 | 7.82 | |
| JUL 20 88 | 7.83 | 6.70 | 7.05 | 7.26 | 8.00 | 7.77 | 6.83 | 9.50 | 8.49 | 9.11 | 9.21 | 10.44 | 8.16 | 10.75 | 10.46 | 7.89 | |
| JUL 27 88 | 7.80 | 6.84 | 7.10 | 7.27 | 8.06 | 7.79 | 6.91 | 9.50 | 8.53 | 9.11 | 9.22 | 10.41 | 8.13 | 10.73 | 10.49 | 7.87 | |
| AUG 3 88 | 7.84 | 6.93 | 7.12 | 7.33 | 8.10 | 7.86 | 6.94 | 9.50 | 8.54 | 9.08 | 9.17 | 10.31 | 8.05 | 10.66 | 10.44 | 7.90 | |
| AUG 10 88 | 7.75 | 6.93 | 7.27 | 7.48 | 8.17 | 7.91 | 6.97 | 9.50 | 8.65 | 9.15 | 9.18 | 10.53 | 8.18 | 10.97 | 10.57 | 8.00 | |
| Daily | | | | | | | | | | | | | | | | | |
| AUG 5 88 | 7.74 | 6.92 | 7.24 | 7.47 | 8.14 | 7.85 | .. | 9.50 | 8.62 | 9.12 | 9.14 | .. | .. | .. | .. | .. | |
| AUG 11 88 | 8.15 | 7.01 | 7.44 | 7.66 | 8.35 | 8.13 | .. | 10.00 | 8.82 | 9.35 | 9.40 | .. | .. | .. | .. | .. | |
| AUG 12 88 | 8.15p | 7.01 | 7.44 | 7.65 | 8.42 | 8.19 | .. | 10.00 | 8.82p | 9.36p | 9.42p | .. | .. | .. | .. | .. | |

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 a sample of savings and loans. Column 16 is the average initial contract rate on new commitments for 1-year, adjustable-rate mortgages (ARMs) at S&Ls offering both FRMs and ARMs with the same number of discount points.

Money and Credit Aggregate Measures

Seasonally adjusted

AUG. 15, 1988

| Period | Money stock measures and liquid assets | | | | | Bank credit | Domestic nonfinancial debt ¹ | | | |
|--------------------------------|--|--------|----------------------------|------------|--------|-------------|---|------------------------------|--------------------|--------------------|
| | M1 | M2 | nontransactions components | | M3 | L | total loans and investments | U.S. government ¹ | other ¹ | total ¹ |
| | | | in M2 | in M3 only | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ANN. GROWTH RATES (%) : | | | | | | | | | | |
| ANNUALLY (Q4 TO Q4) | | | | | | | | | | |
| 1985 | 12.0 | 8.9 | 7.9 | 3.4 | 7.7 | 8.5 | 10.2 | 15.2 | 12.7 | 13.3 |
| 1986 | 15.6 | 9.4 | 7.4 | 8.1 | 9.1 | 8.3 | 9.9 | 14.7 | 12.8 | 13.3 |
| 1987 | 6.2 | 4.0 | 3.3 | 10.8 | 5.4 | 5.2 | 7.8 | 9.0 | 9.8 | 9.6 |
| QUARTERLY AVERAGE | | | | | | | | | | |
| 1987-3rd QTR. | 0.8 | 2.8 | 3.6 | 11.0 | 4.5 | 4.3 | 6.2 | 5.8 | 8.5 | 7.9 |
| 1987-4th QTR. | 3.9 | 3.9 | 3.9 | 11.3 | 5.4 | 5.7 | 5.5 | 7.6 | 10.9 | 10.1 |
| 1988-1st QTR. | 3.8 | 6.7 | 7.7 | 7.9 | 7.0 | 6.5 | 5.1 | 9.3 | 8.0 | 8.3 |
| 1988-2nd QTR. | 6.3 | 7.8 | 8.4 | 4.2 | 7.1 | 8.5 | 10.8 | 8.2 | 8.5 | 8.4 |
| MONTHLY | | | | | | | | | | |
| 1987-JULY | 2.4 | 2.7 | 2.8 | 1.6 | 2.5 | 0.8 | 2.5 | 1.8 | 7.7 | 6.3 |
| AUG. | 4.7 | 4.7 | 4.9 | 10.7 | 6.0 | 6.4 | 9.7 | 8.7 | 7.2 | 7.6 |
| SEP. | 1.6 | 4.8 | 5.8 | 5.9 | 5.0 | 7.2 | 8.6 | 6.5 | 10.1 | 9.2 |
| OCT. | 14.0 | 5.7 | 2.8 | 12.7 | 7.1 | 8.0 | 6.0 | 4.1 | 12.4 | 10.4 |
| NOV. | -5.6 | 0.8 | 3.0 | 20.4 | 4.8 | 3.1 | 2.6 | 13.0 | 11.9 | 12.1 |
| DEC. | -3.0 | 1.9 | 3.6 | -0.2 | 1.4 | 0.2 | -1.0 | 8.3 | 8.8 | 8.7 |
| 1988-JAN. | 12.8 | 9.9 | 8.9 | 2.8 | 8.4 | 10.2 | 6.1 | 5.3 | 7.3 | 6.8 |
| FEB. | 1.1 | 8.6 | 11.2 | 18.4 | 10.6 | 8.6 | 9.3 | 11.1 | 6.9 | 7.9 |
| MAR. | 5.4 | 8.7 | 9.9 | 5.4 | 8.0 | 7.2 | 7.9 | 15.2 | 6.7 | 8.7 |
| APR. | 11.3 | 9.8 | 9.3 | -2.6 | 7.2 | 11.5 | 11.4 | 7.1 | 9.1 | 8.6 |
| MAY | 0.2 | 4.7 | 6.2 | 3.3 | 4.4 | 7.6 | 13.0 | 2.7 | 10.0 | 8.3 |
| JUNE | 9.8 | 5.2 | 3.7 | 10.3 | 6.3 | 3.5 | 11.1 | 5.3 | 8.4 | 7.6 |
| JULY p | 9.1 | 3.0 | 0.9 | 14.5 | 5.4 | | 4.8 | 4.2 | 8.2 | 7.3 |
| LEVELS (\$BILLIONS) : | | | | | | | | | | |
| MONTHLY | | | | | | | | | | |
| 1988-MAR. | 762.9 | 2967.4 | 2204.5 | 777.0 | 3744.4 | 4418.5 | 2274.8 | 2006.6 | 6462.1 | 8468.8 |
| APR. | 770.1 | 2991.7 | 2221.6 | 775.3 | 3767.0 | 4460.8 | 2297.7 | 2018.5 | 6511.2 | 8529.7 |
| MAY | 770.2 | 3003.3 | 2233.0 | 777.4 | 3780.7 | 4489.2 | 2322.5 | 2023.1 | 6565.4 | 8588.5 |
| JUNE | 776.5 | 3016.4 | 2239.9 | 784.1 | 3800.6 | 4502.3 | 2343.9 | 2032.1 | 6611.2 | 8643.2 |
| JULY p | 782.4 | 3024.0 | 2241.5 | 793.6 | 3817.6 | | 2353.3 | 2039.2 | 6656.4 | 8695.7 |
| WEEKLY | | | | | | | | | | |
| 1988-JULY 4 | 777.5 | 3021.4 | 2243.9 | 784.2 | 3805.6 | | | | | |
| 11 | 784.9 | 3026.2 | 2241.3 | 790.4 | 3816.5 | | | | | |
| 18 | 781.6 | 3022.1 | 2240.6 | 795.9 | 3818.0 | | | | | |
| 25 p | 781.9 | 3022.7 | 2240.8 | 797.5 | 3820.2 | | | | | |
| AUG. 1 p | 784.4 | 3027.7 | 2243.3 | 795.5 | 3823.2 | | | | | |

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

Components of Money Stock and Related Measures

seasonally adjusted unless otherwise noted

AUG. 15, 1988

| Period | Currency | Demand deposits | Other checkable deposits | Overnight RPs and Eurodollars NSA' | MMDAs NSA | Savings deposits | Small denomination time deposits' | Money market mutual funds, NSA | | Large denomination time deposits' | Term RPs NSA' | Term Eurodollars NSA' | Savings bonds | Short-term Treasury securities | Commercial paper' | Bankers acceptances |
|------------------------------|----------|-----------------|--------------------------|------------------------------------|-----------|------------------|-----------------------------------|------------------------------------|-------------------|-----------------------------------|---------------|-----------------------|---------------|--------------------------------|-------------------|---------------------|
| | | | | | | | | general purpose and broker/dealer' | Institutions only | | | | | | | |
| | | | | | | | | 1 | 2 | | | | | | | |
| LEVELS (\$BILLIONS) : | | | | | | | | | | | | | | | | |
| ANNUALLY (4TH QTR.) | | | | | | | | | | | | | | | | |
| 1985 | 166.9 | 263.5 | 176.8 | 67.2 | 509.9 | 299.9 | 877.1 | 176.8 | 64.1 | 433.9 | 62.7 | 77.6 | 78.9 | 292.3 | 201.6 | 43.2 |
| 1986 | 179.3 | 294.6 | 228.6 | 78.0 | 569.2 | 362.2 | 858.9 | 207.6 | 84.7 | 441.5 | 82.2 | 81.0 | 89.7 | 283.8 | 228.5 | 37.8 |
| 1987 | 194.9 | 291.7 | 259.7 | 81.2 | 528.9 | 415.4 | 899.4 | 219.7 | 87.2 | 479.2 | 106.8 | 92.2 | 99.4 | 266.8 | 255.2 | 45.1 |
| MONTHLY | | | | | | | | | | | | | | | | |
| 1987-JULY | 189.0 | 292.3 | 255.6 | 75.7 | 549.4 | 415.5 | 859.1 | 210.6 | 83.8 | 460.2 | 107.0 | 84.5 | 97.5 | 254.8 | 251.8 | 43.4 |
| AUG. | 190.2 | 292.1 | 257.2 | 79.8 | 545.0 | 417.8 | 865.9 | 213.1 | 84.0 | 462.4 | 107.4 | 90.2 | 98.1 | 258.9 | 251.8 | 43.5 |
| SEP. | 191.4 | 290.5 | 258.6 | 83.4 | 540.5 | 418.6 | 872.1 | 216.3 | 81.3 | 465.3 | 109.1 | 94.5 | 98.4 | 263.7 | 256.6 | 44.3 |
| OCT. | 193.1 | 295.9 | 260.3 | 86.0 | 533.9 | 417.0 | 883.3 | 218.2 | 82.5 | 472.3 | 106.1 | 93.0 | 98.8 | 272.7 | 254.2 | 44.5 |
| NOV. | 195.0 | 291.3 | 259.5 | 79.7 | 527.7 | 415.0 | 901.7 | 219.7 | 89.5 | 480.5 | 108.7 | 92.8 | 99.3 | 269.7 | 252.5 | 45.0 |
| DEC. | 196.5 | 288.0 | 259.3 | 78.0 | 525.2 | 414.3 | 913.1 | 221.1 | 89.6 | 484.7 | 105.5 | 90.8 | 100.2 | 258.0 | 258.9 | 45.7 |
| 1988-JAN. | 198.4 | 289.9 | 263.3 | 82.8 | 524.1 | 414.4 | 924.6 | 225.0 | 94.4 | 482.9 | 106.0 | 85.3 | 101.4 | 259.9 | 269.0 | 43.6 |
| FEB. | 199.3 | 287.8 | 265.0 | 78.0 | 522.6 | 416.2 | 941.5 | 231.0 | 98.7 | 489.7 | 109.9 | 85.2 | 102.6 | 255.0 | 274.1 | 40.9 |
| MAR. | 200.9 | 287.9 | 266.9 | 74.8 | 524.7 | 419.8 | 953.5 | 234.9 | 97.4 | 491.5 | 107.3 | 89.4 | 103.5 | 249.7 | 280.3 | 40.6 |
| APR. | 202.5 | 290.2 | 270.1 | 76.6 | 523.3 | 422.7 | 964.8 | 236.1 | 91.9 | 492.9 | 108.1 | 88.7 | 104.6 | 259.7 | 288.2 | 41.2 |
| MAY | 203.6 | 287.4 | 271.9 | 80.9 | 519.6 | 425.1 | 972.0 | 232.7 | 90.0 | 495.9 | 111.1 | 91.0 | 105.4 | 258.6 | 303.9 | 40.6 |
| JUNE | 204.9 | 289.9 | 274.4 | 80.0 | 522.3 | 429.0 | 974.9 | 229.8 | 86.3 | 501.5 | 111.0 | 92.8 | 106.1 | 248.2 | 307.4 | 40.0 |
| JULY p | 206.3 | 290.6 | 278.3 | 76.1 | 521.0 | 431.7 | 977.8 | 230.4 | 84.8 | 509.0 | 110.5 | 94.4 | | | | |

1. Net of money market mutual fund holdings of these items.
 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 and thrift institutions.
- p-preliminary

Net Changes In System Holdings of Securities¹
Millions of dollars, not seasonally adjusted

August 15, 1988

| 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 | | | | Redemptions (-) | Net change | | | |
| | | | | within 1-year | 1-5 | 5-10 | over 10 | | | | | |
| 1982 | 8,698 | 3,000 | 5,698 | 312 | 1,797 | 388 | 307 | -- | 2,803 | 189 | 8,312 | 1,461 |
| 1983 | 15,468 | 2,400 | 13,068 | 484 | 1,896 | 890 | 383 | 87 | 3,566 | 292 | 16,342 | -5,445 |
| 1984 | 11,479 | 7,700 | 3,779 | 826 | 1,938 | 236 | 441 | -- | 3,440 | 256 | 6,964 | 1,450 |
| 1985 | 18,096 | 3,500 | 14,596 | 1,349 | 2,185 | 358 | 293 | -- | 4,185 | 162 | 18,619 | 3,001 |
| 1986 | 20,099 | 1,000 | 19,099 | 190 | 893 | 236 | 158 | -- | 1,476 | 398 | 20,178 | 10,033 |
| 1987 | 12,933 | 9,029 | 3,905 | 3,358 | 9,779 | 2,441 | 1,858 | 70 | 17,366 | 276 | 20,994 | -11,033 |
| 1987--Q1 | -1,914 | 800 | -2,714 | -- | -252 | -- | -- | -- | -252 | 110 | -3,076 | -14,254 |
| Q2 | 5,823 | -- | 5,823 | 1,767 | 5,036 | 1,226 | 920 | -- | 8,948 | 37 | 14,735 | 2,121 |
| Q3 | 4,690 | 8,229 | -3,539 | 143 | 2,356 | 619 | 493 | -- | 3,610 | 59 | 12 | -1,433 |
| Q4 | 4,334 | -- | 4,334 | 1,449 | 2,639 | 596 | 445 | 70 | 5,059 | 70 | 9,323 | 2,533 |
| 1988--Q1 | 319 | 2,200 | -1,881 | -- | -800 | -175 | -- | -- | -975 | 155 | -3,011 | -3,514 |
| 1987--Dec. | 150 | -- | 150 | 479 | 2,589 | 596 | 445 | -- | 4,109 | 13 | 4,246 | -1,629 |
| 1988--Jan. | -49 | 600 | -649 | -- | -- | -- | -- | -- | -- | 131 | -780 | -4,807 |
| Feb. | -192 | 1,600 | -1,792 | -- | -800 | -175 | -- | -- | -975 | 21 | -2,788 | 1,247 |
| Mar. | 560 | -- | 560 | -- | -- | -- | -- | -- | -- | 3 | 557 | 45 |
| Apr. | 423 | -- | 423 | 1,092 | 3,661 | 1,017 | 966 | -- | 6,737 | 120 | 7,040 | 9,111 |
| May | -- | -- | -- | -- | -- | -- | -- | -- | -- | 11 | -11 | -10,575 |
| June | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6,683 |
| July | 515 | -- | 515 | -- | -- | -- | -- | -- | -- | -- | 515 | -5,941 |
| May 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -3,761 |
| June 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7,614 |
| 8 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2,462 |
| 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1,403 |
| 22 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -3,034 |
| 29 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7,328 |
| July 6 | 222 | -- | 222 | -- | -- | -- | -- | -- | -- | -- | 222 | -3,571 |
| 13 | 176 | -- | 176 | -- | -- | -- | -- | -- | -- | -- | 176 | 66 |
| 20 | 118 | -- | 118 | -- | -- | -- | -- | -- | -- | 67 | 51 | -4,012 |
| 27 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -3,261 |
| Aug. 3 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2,825 |
| 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -876 |
| Memo: LEVEL (bil.\$) ⁶ | | | | | | | | | | | | |
| Aug. 10 | -- | -- | 111.5 | 20.5 | 54.5 | 15.5 | 26.5 | -- | 117.0 | -- | 235.7 | -5.8 |

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 coupon issues.

4. Reflects net change and redemptions (-) of Treasury and agency securities.

5. Includes changes 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 |
|---------------|-----|------|---------|-------|
| 2.7 | 3.2 | 1.2 | .2 | 7.2 |