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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

September 22, 1995

MONETARY POLICY ALTERNATIVES

Recent Developments

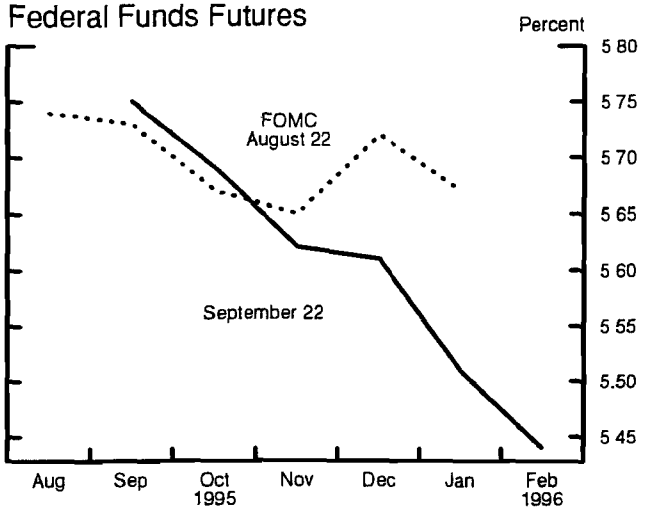
(1) Over the intermeeting period, the federal funds rate averaged 5-3/4 percent, the Committee's intended level.[1] Other market interest rates fell appreciably over most of the period, though they have reversed a portion of those declines in recent days. On net, yields on short-term Treasury securities decreased 15 to 25 basis points and longer-term Treasury yields dropped about 35 basis points. Lower interest rates, together with optimism about prospects for corporate earnings and a continued brisk pace of merger announcements and share buybacks, propelled broad stock price indexes to record levels during the period, though they have ended off their highs.

(2) Contributing to the drop in rates were further evidence of subdued price pressures and indications that the rebound in output growth would be modest; as a consequence, the gradual fall-off in inflation expectations evidenced in survey data in recent years probably has been extended (chart). Greater confidence that the budget process would produce a significant reduction in federal deficits may also have fostered declines in rates. Changes in forward rates, which--atypically--dropped as much at longer horizons as at intermediate horizons, are consistent with the inference of downward revisions to market forecasts of the secular paths of federal deficits and inflation. Market participants see a greater likelihood of further monetary policy easing over the balance of the year now than they did

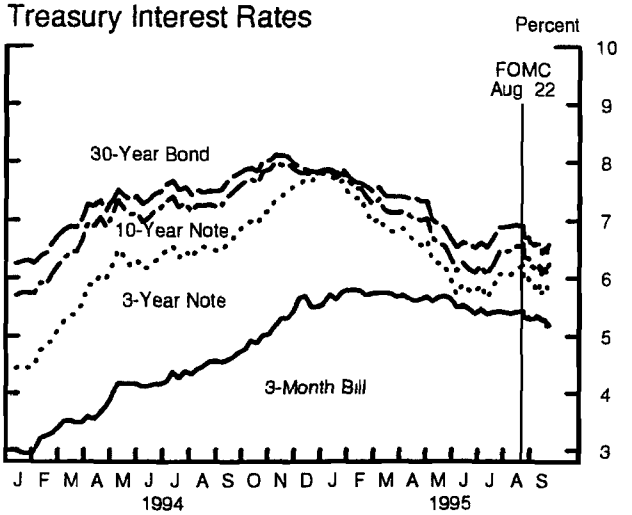
1. The allowance for adjustment and seasonal borrowing was maintained at $275 million over the intermeeting period; actual borrowing averaged close to the allowance.

Chart 1

Federal Funds Futures

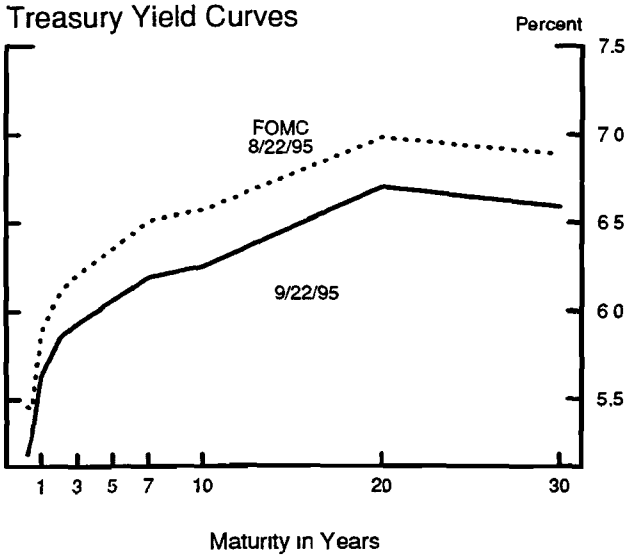


Treasury Interest Rates

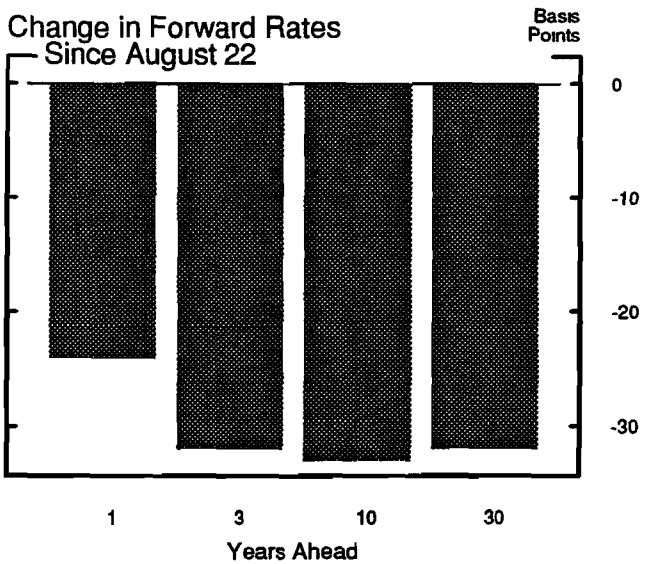


Weekly. Daily after Aug 22

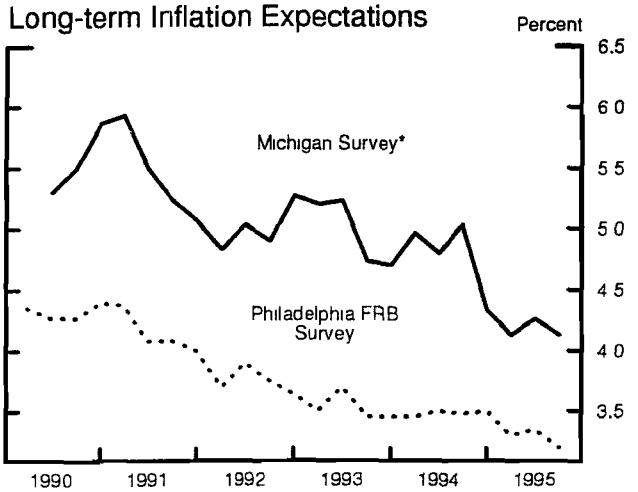
Treasury Yield Curves



Change in Forward Rates Since August 22

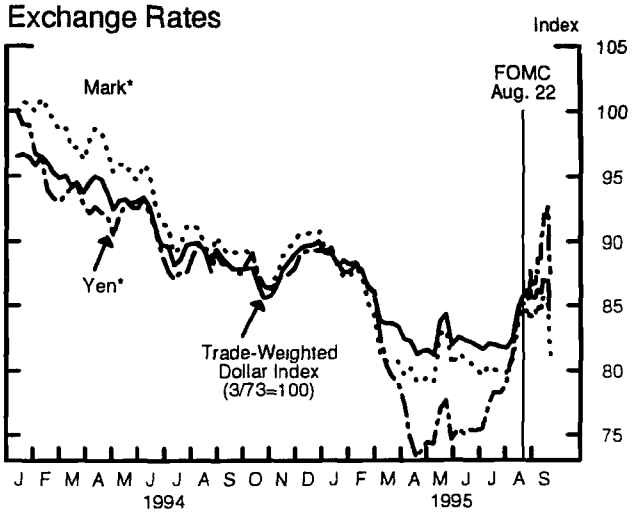


Long-term Inflation Expectations



* Quarterly average

Exchange Rates



* Index, Jan 1994=100
Weekly Daily after Aug 22

in mid-August, but little chance of a move at the September meeting. In recent days, expectations of ease have been trimmed and market rates have backed up, associated in part with a reversal of previous dollar strength.

(3) The dollar's weighted-average exchange value declined 2-1/2 percent, on balance, over the period since the August FOMC meeting; the dollar rose 2-1/2 percent against the yen but fell against other major currencies. For most of the period, the weighted-average dollar had moved higher, owing in part to monetary easings abroad. German short- and long-term rates declined about 35 and 15 basis points, respectively, as the Bundesbank reduced its official lending rates by 1/2 percentage point. The Bank of Japan lowered its discount rate 1/2 percentage point and call money rates nearly as much on September 8. Japanese bond yields declined substantially, reversing much of the backup in earlier weeks. The Japanese policy easing was accompanied by massive intervention to strengthen the dollar against the yen, which was apparently successful at least for a time. Augmenting the dollar's rise against the yen were Japanese trade figures for July, which showed Japan's current account surplus finally turning down in dollar terms. Late in the period, however, the yen reversed course after the announcement of the new Japanese fiscal package, and the mark rose as prospects for European monetary union seemed to dim; the dollar declined against other major currencies as well. Dollar weakness may have been exacerbated by concern about the possibility of a default by the U.S. Treasury on its debt.

. The U.S. monetary authorities did not intervene during the period.

(4) Private debt growth appears to have moderated in recent months from the pace set earlier this year. The expansion of business loans at commercial banks slowed to an annual rate of just 3 percent in August, owing in part to stronger commercial paper issuance, and has remained sluggish this month. Issuance of corporate bonds in public markets also was light in August; a resurgence has been evident in the first half of September in response to declining interest rates, and the calendar of pending issues is full. In the household sector, bank loan data adjusted for securitizations indicate that consumer credit growth has continued to decelerate. Home mortgage borrowing, however, likely has been buoyed by declining interest rates and stronger home sales. Credit supply conditions remain favorable. Banks still seem to be eager providers of funds to businesses, where delinquency rates remain low, and spreads of loan rates over market rates continued to narrow this summer. In the household sector, however, some evidence of rising debt service difficulties appears to be prompting a shift toward a less aggressive stance by banks. In the open markets, yield spreads on junk bonds have widened slightly but remain relatively low, and spreads on higher-rated private paper relative to Treasuries have stayed narrow. Federal debt has been about flat over August and September, as the Treasury has financed the deficit mainly by drawing down its cash balance. Total domestic nonfinancial sector debt rose at only a 3-1/4 percent annual rate in August, bringing growth from the fourth quarter to 5-1/2 percent, near the middle of its 3-to-7 percent annual range.

(5) The broad monetary aggregates have decelerated somewhat in September, though their trend growth remains fairly strong. M2 and M3 are estimated to be expanding this month at rates of 3-3/4 and

4-1/2 percent, respectively, leaving M2 somewhat below and M3 appreciably above the upper ends of their annual ranges. The velocities of the broad aggregates appear to have fallen significantly in the current quarter as they did in the second quarter, marking the first back-to-back declines in more than four years. The drop in market interest rates, and associated declines in the opportunity costs of M2 assets, seems to be the primary factor behind the decline in the velocity of this aggregate, which is being mirrored in sluggish demands for some instruments outside of M2. Net noncompetitive tenders for Treasury securities, for example, have turned negative since earlier this year, and flows into bond mutual funds have remained anemic. Purchases of shares in stock funds, however, have stayed heavy.[2] M3 growth has continued to be supported by brisk issuance of the managed liabilities included in the aggregates as well as by institution-only money funds.

(6) In contrast to the broader aggregates, M1 growth has been quite weak in recent months; this aggregate has contracted at a 4-1/2 percent pace in September and has fallen 1 percent at an annual rate since the fourth quarter of 1994. M1 has been depressed appreciably this year by the introduction by additional banks of programs to sweep NOW account balances into nonreservable MMDAs. Apart from the effects of such sweep accounts, M1 has expanded at an estimated 2-1/2 percent rate in September and at a 1-1/2 percent rate for the year to date.

2. With a strong contribution from capital gains, M2 plus bond and stock funds is estimated to have expanded at a 12 percent annual rate in the third quarter, following growth at a rate 9-1/2 percent in the second quarter.

(A more detailed discussion of OCD sweep arrangements and their effects on the monetary and reserve aggregates appears in an appendix.) Currency growth has remained moderate in September, perhaps reflecting a continuation of slower net shipments of U.S. currency abroad.[3]

3. The monetary base is estimated to have grown at a 1-1/2 percent rate in September. Adjusted for the effects of OCD sweeps, the base has risen at a 3-1/4 percent rate this month. Total reserves have fallen at a 3-1/2 percent rate, while abstracting from sweeps they would have risen at an estimated 10 percent rate.

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

	Jul	Aug.	Sept.	QIV to Sept.[1]
Money and credit aggregates				
M1	1.2	-1.4	-4.4	-0.9
Adjusted for OCD sweeps	1.8	3.3	2.5	1.6
M2	6.0	8.3	3.8	4.6
M3	8.3	8.0	4.4	6.7
Domestic nonfinancial debt	3.0	3.3	--	5.5
Federal	4.1	1.9	--	5.1
Nonfederal	2.6	3.9	--	5.7
Bank credit	3.2	5.3	--	8.8
Reserve measures				
Nonborrowed reserves[2]	4.3	-1.1	-3.4	-4.2
Total reserves	6.3	-2.9	-3.6	-4.2
Adjusted for OCD sweeps	7.5	6.4	10.1	0.6
Monetary base	-0.4	3.3	1.4	4.3
Adjusted for OCD sweeps	-0.2	4.6	3.2	5.0
Memo: (Millions of dollars)				
Adjustment plus seasonal borrowing	371	282	272	--
Excess reserves	1090	985	935	--

1. QIV to August for bank credit and debt aggregates.
2. Includes "other extended credit" from the Federal Reserve.

NOTE: Monthly reserve measures, including excess reserves and borrowing, are calculated by prorating averages for two-week reserve maintenance periods that overlap months. Reserve figures for September incorporate assumptions of $1 billion for excess reserves and $275 million for adjustment and seasonal borrowing in the maintenance periods ending September 27 and October 11. Reserve data incorporate adjustments for discontinuities associated with changes in reserve requirements.

Policy Alternatives

(7) The incoming information since the last FOMC meeting has not altered the general patterns of the staff economic forecast. The staff projection assumes no change in the federal funds rate until late in 1996, with bond yields foreseen as staying around their recent lower levels. Output is still projected to expand at a pace just below that of its potential through the end of next year, while the unemployment rate drifts up to 6 percent. The staff projects inflation in the CPI to come in a little below 3 percent this year and next; with the level of output slightly below its potential in 1996, core CPI inflation moderates a little next year. The staff outlook for output growth and unemployment is consistent with the central tendencies of the July forecasts of the Governors and Presidents for these two years. The outcomes for the total CPI would undershoot the central tendency for this year but would be well within the central tendency specified for next year. In 1997, the staff's forecast of economic growth in the 2 percent area and CPI inflation around this year's pace is accompanied by a slight easing in the nominal funds rate at the end of 1996.

(8) The staff forecast assumes that aggregate spending is not significantly disrupted in the process of determining the new federal budget. The first potential difficulty occurs over the intermeeting period when budget authority for annual appropriations expires on October 1. However, Congress and the Administration are discussing continuing resolutions that would permit spending while negotiations are ongoing. In any case, a lapse in appropriations, even if it were to persist for several weeks, would not have much direct effect on GDP, in part because a considerable volume of government spending

would persist. Moreover, multiplier effects are likely to be minimal as government employees draw on savings to maintain consumption levels in the face of a temporary income loss. With normal government spending and revenue patterns disrupted, however, projections of the Treasury balance, and hence reserve supply, would be more uncertain.

(9) The staff currently estimates that a cash constraint owing to the debt ceiling will become binding on November 15--the date of the next scheduled FOMC meeting--assuming no unprecedented steps by the Treasury to avoid default. A default on federal debt, even if interest on accrued obligations were paid belatedly, would add a risk premium to interest rates on Treasury debt. The impact on private securities markets is difficult to predict. On the one hand, default risk on private issues would not necessarily increase, and indeed, demands for these securities may benefit as substitutions for Treasuries. On the other hand, market psychology could deteriorate, with some possibility of a more generalized flight from dollar assets. In addition, in the event of default, innumerable problems of clearing and settlement could arise and the liquidity position of individual transactors counting on timely Treasury payments could be impaired. Either a shutdown or a default would necessitate a more flexible provision of liquidity by the Federal Reserve--both through open market operations and the discount window. Whether an adjustment to the stance of policy itself might be warranted by such developments might be seen as best determined on the basis of information available at the time.

(10) The case for keeping the funds rate at 5-3/4 percent as under alternative B could rest on an assessment that the current funds rate may well provide the appropriate monetary impulse, at least for

the time being. The staff forecast could be viewed as representing both a likely occurrence under a stable funds rate, even with the substantial fiscal restraint assumed, and a satisfactory balance between the Committee's inflation and employment objectives. Moreover, with the dollar recently under downward pressures, and financial markets looking for clues as to how the Federal Reserve evaluates and will respond to the evolving fiscal situation, any change in the stance of policy could risk market overreaction and misinterpretation. Under these conditions, even if the Committee saw some odds that the economy or inflation would come in below the staff forecast, it might choose to stand pat until easing was more clearly called for by incoming economic data.

(11) Although the data received over the intermeeting period have strengthened market participants' conviction that Federal Reserve easing has become more likely by year-end, only a small probability of a move at the September meeting is seen. Thus, choice by the Committee of alternative B's unchanged funds rate likely would engender just a minor increase of short-term rates. Any immediate reaction in bond or foreign exchange markets should be muted. Over the upcoming intermeeting period, economic reports consistent with the subdued growth in the staff forecast could keep alive expectations of subsequent monetary easing, allowing intermediate- and long-term interest rates to remain near current trading ranges. The exchange value of the dollar would be little changed. Of course, markets may be buffeted by developments in the legislative process suggesting shifting odds on the extent of deficit reduction.

(12) If the Committee saw reasonably high odds of more restrictive effects on the economy than the staff forecast, it might

favor an easing of the funds rate, as under alternative A. Such effects would come at a time when the economy already is expected to be expanding at a rate less than the growth rate of its potential and with monetary policy possibly seen as also on the restrictive side. In July, the Committee reversed only a portion of the move toward policy restraint it made last winter when the risks to the economy of rising inflation were much larger. Real rates across the maturity spectrum remain elevated by historical standards, though, to be sure, the level of equilibrium real rates is uncertain. Moreover, real rates could move up a little further over time with an unchanged funds rate, as current expectations of a policy ease were frustrated.

(13) The downward adjustment of short-term market interest rates that would accompany the unanticipated implementation of alternative A would be a little smaller than the 1/2 percentage point cut in the funds rate operating target. Market participants may well interpret the action as responding to prospective fiscal restraint or to receding inflation pressures, so inflation expectations might not react adversely. On the other hand, they are not likely to project significant further rate cuts pending new information on these factors, limiting rate decreases. On balance, the associated declines in intermediate- and longer-term interest rates probably would be smaller than the fall in short-term rates, which is the historically typical market reaction. The dollar's exchange value could be expected to extend its most recent decline.

(14) The 1/2 percentage point policy tightening of alternative C could be favored if the inflation performance projected by the staff to accompany an unchanged federal funds rate were seen as representing an insufficiently rapid approach to the Committee's ultimate

objective of price stability. Indeed, the staff forecast shows very little downward tilt to inflation rates. Moreover, the current unemployment rate is a little below the staff's estimate of the NAIRU, and economic growth going forward at a pace below potential is by no means assured--especially in light of current bond rates and stock prices. On the basis of relationships embodied in the Greenbook alternative simulation, a policy tightening of the dimensions of alternative C would nudge economic growth to below 2 percent over the next two years, opening up enough slack in labor and product markets to make more noticeable progress toward price stability in 1997 and beyond.

(15) The 1/2 percentage point hike in the funds rate of alternative C would catch market participants off guard. Their interpretation of the action, of course, would be conditioned by the wording of the accompanying announcement, which presumably would emphasize more aggressive pursuit of the Committee's longer-run price stability objective. In that context, the sharp jump in money market interest rates may be accompanied by a much more muted increase in bond yields, if longer-term inflation expectations were favorably affected. If the impact on inflation expectations were negligible, though, an appreciable selloff in the bond market could result. In any event, some intermediate-term rates--real and nominal--would rise significantly as market participants revised up their expected path for short-term rates for some time into the future. The exchange value of the dollar likely would strengthen.

(16) Without serious disruptions to governmental operations, federal debt growth should slow from its pace earlier in the year to a

3-1/4 percent annual rate over the last four months of the year. Nonfederal debt growth would continue at a 4-1/4 percent pace over the same interval. For businesses, borrowing will remain below the first half of the year, held down by lower inventory investment and slower growth in capital spending; the composition of borrowing, however, should tilt back toward the bond market. For households, some pickup in mortgage borrowing should counter a further moderation in consumer credit. Concerning credit supply conditions, banks remain comfortably positioned to lend, although the growing strains on households may lead to a little more caution in this area. As shown in the table below, total debt of domestic nonfinancial sectors is projected to expand at a 4 percent rate over the final four months of this year, placing this aggregate in the fourth quarter a little more than 5 percent above its year-earlier level.

	Sept. to December[1]	Implied 1994-Q4 to 1995-Q4	1995 Ranges
M2	5.7	4.9	1 - 5
M3	6.0	6.7	2 - 6
M1	-1.6	-1.0	--
Total debt	4.0	5.2	3 - 7
Nonfederal	4.3	5.4	--

Note: Growth rates based on alternative B.
1. August to December for debt measures.

(17) The broad monetary aggregates are expected to grow over the remainder of this year somewhat more rapidly than forecasted in the last bluebook. The additional projected strength primarily owes to the recent decline in market interest rates, both short- and long-term, which has further narrowed the opportunity costs of holding

retail money balances.[4] Under alternative B, M2 is projected to grow at a 5-3/4 percent rate over the final three months of the year. M3 is foreseen as expanding at a 6 percent rate, somewhat faster than the staff's projection of bank credit expansion, reflecting the anticipated ongoing shift from nondeposit to deposit sources of funding. In the fourth quarter, the velocities of both monetary aggregates would continue to decline, albeit at a reduced pace. M2 in the fourth quarter would be quite near the top of its 1 to 5 percent annual growth cone, while M3 would be well above its 2 to 6 percent annual growth range. (A table showing the growth rates of the monetary aggregates over the balance of the year under each of the alternatives is attached.)

4. M1 is expected to continue to decline over the remainder of the year, at about a 1-1/2 percent rate under alternative B, as still more banks introduce sweep accounts that transfer funds automatically from NOW accounts to MMDAs to reduce reserve requirements. Assuming about $10 billion of additional sweeps over the last three months of the year, revised up from $3 billion in the last bluebook, this effect will reduce the M1 growth rate over the last three months of the year by 3-1/2 percentage points and over the four quarters of 1995 by 2-3/4 percentage points. Actual M1 over the four quarters of this year is now projected to edge down by 1 percent under alternative B.

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									
Jul-95	3714.3	3714.3	3714.3	4487.4	4487.4	4487.4	1144.9	1144.9	1144.9
Aug-95	3740.0	3740.0	3740.0	4517.5	4517.5	4517.5	1143.6	1143.6	1143.6
Sep-95	3751.8	3751.8	3751.8	4534.2	4534.2	4534.2	1139.4	1139.4	1139.4
Oct-95	3771.2	3769.9	3768.7	4557.6	4556.9	4556.1	1137.7	1137.2	1136.7
Nov-95	3791.9	3788.1	3784.4	4581.9	4579.7	4577.4	1137.5	1136.0	1134.5
Dec-95	3811.8	3805.5	3799.2	4606.0	4602.2	4598.4	1137.5	1134.8	1132.2
Monthly Growth Rates									
Jul-95	6.0	6.0	6.0	8.3	8.3	8.3	1.2	1.2	1.2
Aug-95	8.3	8.3	8.3	8.0	8.0	8.0	-1.4	-1.4	-1.4
Sep-95	3.8	3.8	3.8	4.4	4.4	4.4	-4.4	-4.4	-4.4
Oct-95	6.2	5.8	5.4	6.2	6.0	5.8	-1.8	-2.3	-2.8
Nov-95	6.6	5.8	5.0	6.4	6.0	5.6	-0.2	-1.3	-2.4
Dec-95	6.3	5.5	4.7	6.3	5.9	5.5	-0.1	-1.3	-2.5
Quarterly Averages									
95 Q1	1.7	1.7	1.7	4.3	4.3	4.3	0.0	0.0	0.0
95 Q2	4.3	4.3	4.3	7.0	7.0	7.0	-0.9	-0.9	-0.9
95 Q3	7.5	7.5	7.5	8.8	8.8	8.8	-1.0	-1.0	-1.0
95 Q4	6.0	5.6	5.2	6.1	5.9	5.7	-1.8	-2.3	-2.8
Growth Rate									
From To									
Dec-94 Sep-95	5.0	5.0	5.0	7.2	7.2	7.2	-1.0	-1.0	-1.0
Jun-95 Sep-95	6.1	6.1	6.1	7.0	7.0	7.0	-1.5	-1.5	-1.5
Sep-95 Dec-95	6.4	5.7	5.1	6.3	6.0	5.7	-0.7	-1.6	-2.5
94 Q4 Sep-95	4.6	4.6	4.6	6.7	6.7	6.7	-0.9	-0.9	-0.9
94 Q4 Dec-95	5.1	4.9	4.8	6.7	6.6	6.6	-0.8	-1.1	-1.3
93 Q4 94 Q4	1.1	1.1	1.1	1.4	1.4	1.4	2.4	2.4	2.4
94 Q4 95 Q3	4.5	4.5	4.5	6.8	6.8	6.8	-0.6	-0.6	-0.6
94 Q4 95 Q4	5.0	4.9	4.8	6.7	6.7	6.6	-0.9	-1.0	-1.2
1995 Target Ranges:	1 to 5			2 to 6					

Directive Language

(18) 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 (SOMEWHAT/SLIGHTLY)/maintain/INCREASE (SOMEWHAT/SLIGHTLY) 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, slightly (SOMEWHAT) greater reserve restraint (WOULD/MIGHT) or slightly (SOMEWHAT) lesser reserve restraint would (MIGHT) be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with ~~more moderate~~ growth in M2 and M3 over ~~coming months~~ THE BALANCE OF THE YEAR NEAR THE PACE OF RECENT MONTHS.

Appendix: Sweeps of Transaction Deposits into MMDAs

In January 1994, commercial banks began instituting sweep programs for retail customers.[1] In such programs, household NOW account balances (included in the "other checkable deposits" (OCD) component of M1) are swept into money market deposit accounts (MMDAs). Retail sweeps of this nature legally reduce a bank's required reserves. Assuming a 10 percent marginal reserve requirement and investment of the reserve balances freed by the sweep at a 5-3/4 percent federal funds rate, a bank earns 58 basis points of interest per dollar swept. Improvements in automation over the years have reduced the cost of installing and operating the software required for such a system, making this financial innovation advantageous for many institutions.

While information about the detailed features of retail sweep programs is not available from many of the banks that have implemented them, the typical program appears to be structured as follows. The bank sets up two separate subaccounts for each depositor, a NOW account and a special-purpose MMDA. Each night, any funds in the NOW account in excess of some upper limit, say $1,000, are transferred to the MMDA. If debits to the NOW account threaten to reduce its balance below zero, enough funds are transferred back from the MMDA to replenish the NOW account to a $1,000 balance. While there are no limits on transfers out of NOW accounts, only six transfers per month out of MMDAs are permitted under Regulation D. Because of that limit,

1. Sweep accounts for business customers of banks became widespread in the mid-1970s. They involve sweeps of demand deposits into RPs or other money market instruments whose minimum sizes are too large to accommodate households.

if a sixth transfer is made from the MMDA to the NOW account within the same statement month, then the entire remaining balance is transferred and no further sweeps from the NOW account to the MMDA occur until the following month.

Recently, two banks reported an alternative type of program in which all balances in NOW accounts are swept into MMDAs each Friday night, and returned to the NOW accounts on Monday. With a maximum of five Mondays per month, there is no risk of triggering a sixth transfer. This "weekend-sweep" reduces OCD balances to zero for three-sevenths of each week--implying a smaller reduction in OCDs than the 80 percent typically achieved under the aforementioned schemes, but it is very simple to implement.

Through edit checks and other reports from Reserve Banks, Board staff have learned of the existence of retail sweep programs at 11 banking organizations; each program typically includes several banks within a holding company.[2] No data are available on the ongoing amount of funds that reside in MMDA accounts as a result of sweep activity. However, Board staff have tallied estimates of the total volume of balances swept out of OCD accounts on the day each program was implemented. The cumulative estimated impact effects through September 1995 are $34 billion.[3]

The creation of retail sweep programs has no effect on M2, since OCD balances are being swept into MMDAs, which are themselves a component of M2. However, adjustments need to be made to narrow

2. To date, 28 separately-chartered large banks and 69 small banks have instituted sweeps. Large banks account for 85 percent of the amounts swept.

3. This estimate is likely to be close to the total dollar volume of sweep activity, as it is based on edit checks of daily data supplied weekly to Federal Reserve Banks by all commercial banks having total deposits above $55 million, which includes all banks with marginal reserve requirements of 10 percent.

measures of money and to reserves to avoid misinterpretations arising from new sweep programs. Such adjustments are reported below, based on cumulative impact effects.

	M1	OCD	Monetary Base	Total Reserves
	(percentage annual rates of growth)			
	--------(1993:Q4 to 1994:Q4)---------			
Before Adjustment	2.4	-2.1	8.4	-1.3
After Adjustment	3.3	.3	8.7	.3
Net Sweep Effect	- .9	-2.4	- .3	-1.6
	-----(1994:Q4 to September 1995)-----			
Before Adjustment	-0.9	-9.4	4.3	-4.2
After Adjustment	1.6	-2.3	5.0	0.6
Net Sweep Effect	-2.5	-7.1	.7	-4.8

As shown, the establishment of sweep programs reduced the growth rate of M1 by about a percentage point in 1994, and by about 2-1/2 percentage points from the fourth quarter of 1994 through September of 1995. The growth rate of total reserves was lowered by an estimated 1-1/2 percentage points in 1994 and 4-3/4 percentage points so far this year. Because currency represents a large share of the monetary base, OCD sweeps have had considerably less effect on growth of the base--only 1/4 percentage point in 1994 and 3/4 percentage point so far in 1995.

While Board staff are aware of several other banking organizations that are considering the implementation of retail sweep programs, it is unclear how far this innovation will spread. Small banks who can meet reserve requirements entirely with vault cash would gain

nothing from it, and banks with a 3 percent marginal reserve requirement might not find it cost effective.[4] If sweeps were implemented only by banks that had ex ante a 10 percent marginal reserve requirement and were required to hold balances at the Federal Reserve, then OCD would be reduced by perhaps another $160 billion, assuming that about three-quarters of such balances are swept on average. Required reserve balances held at the Federal Reserve would be reduced from the current level of about $20 billion to $7 billion in consequence.[5] This may be a high estimate of OCD sweep effects, as it includes some large banks having no interest in reducing required reserves, since they hold Federal Reserve balances on the margin for clearing purposes.

However, the new sweeping techniques may not be applied only to NOW accounts. One institution recently began sweeping a small amount of personal demand deposits into MMDAs, and there is no real impediment to the spread of this innovation to corporate demand deposits as well. (Given the uncertainty of corporate payment flows, weekend sweeps may be the technique banks come to use to avoid the reserve requirement tax on demand deposits.) If sweeps of both OCD and demand deposits become widespread, required reserve balances held at Federal Reserve Banks could fall to a very low level.

Major declines in required reserve balances and associated structural changes in reserve demand would have important effects on

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4. If, for each dollar swept, only 3 cents of reserve balances were freed, the return per dollar swept would amount to 17-1/4 basis points with a 5-3/4 percent funds rate. In the extreme, if a bank had the maximum volume of deposits ($50 million) subject to the 3 percent reserve requirement, they were all OCD, and 80 percent were swept, the maximum potential earning would amount to $70,000 annually.

5. The reduction in required reserve balances is smaller than 10 percent of the reduction in OCD because some of the original reserve requirements were met with vault cash rather than with Federal Reserve balances.

the implementation of monetary policy, and could potentially increase substantially the volatility of the federal funds rate.

Depositories hold balances at the Federal Reserve to meet reserve requirements, to make payments, and to access Federal Reserve services. Overdrafts can occur because of large unpredictable transactions between a bank's customers and the customers of other banks. Required reserve balances provide some cushion against the risk of overdrafts. If such balances fall persistently below the levels needed for clearing purposes, a bank may choose to establish a required clearing balance, which earns credits against priced Federal Reserve services. When the marginal dollars in reserve accounts are being held to meet required reserves or required clearing balances, banks have considerable flexibility in managing balances at the Federal Reserve from a day to day. Because such requirements are met on a two-week average basis, banks can arbitrage the federal funds rate within days and across days, and, given carryover, across maintenance periods to a limited extent. This flexibility is an important reason why the funds rate remains close to the FOMC's desired levels.

However, a bank can benefit from required clearing balances only to the extent that it uses Federal Reserve services.[6] If required balances in total are low, a bank's reserve management will be dominated by the daily risk of overdrafts, rather than by the need to meet two-week average requirements. It may, for example, seek excess reserves in the form of precautionary balances early in the day and late-day balances to cover unexpected payments. Depending on the

6. Through August 1995, banks implementing retail sweeps have established required clearing balances amounting to 18 percent on average of the estimated reductions in required reserve balances associated with the sweeps.

distribution of reserves among banks and the degree to which credit lines in the federal funds market have already been filled, the funds rate could become quite volatile late each business day, as some banks try to work down unneeded precautionary balances while others scramble to line up funding for clearing needs. Furthermore, predicting the aggregate reserves needed on a daily basis at the time of the Desk's 11:30 A.M. open market operation becomes much more difficult when reserve demands are based on daily, and even intraday, needs rather than the more smoothly-evolving estimates of maintenance-period average demands for required balances.

Heightened volatility in the federal funds rate was evident in early 1991, after the Federal Reserve reduced to zero the reserve requirements on nontransaction deposits. The upper panel of chart A-1 shows the sharp increases in the intraday trading ranges of the federal funds rate at that time.[7] However, funds rate volatility declined rather quickly as banks adjusted to the lower level of required reserves (in part by establishing required clearing balances), and as required reserves themselves grew rapidly along with M1 deposits in the declining interest rate environment.

As shown in the lower panel, the extreme volatility of the funds rate in early 1991 was associated with an unusually low level of required operating balances, the sum of required reserve and required clearing balances. While such balances are currently several billion dollars above the lows reached in 1991, they could drop well below such levels by the time the new sweep programs have become fully implemented.

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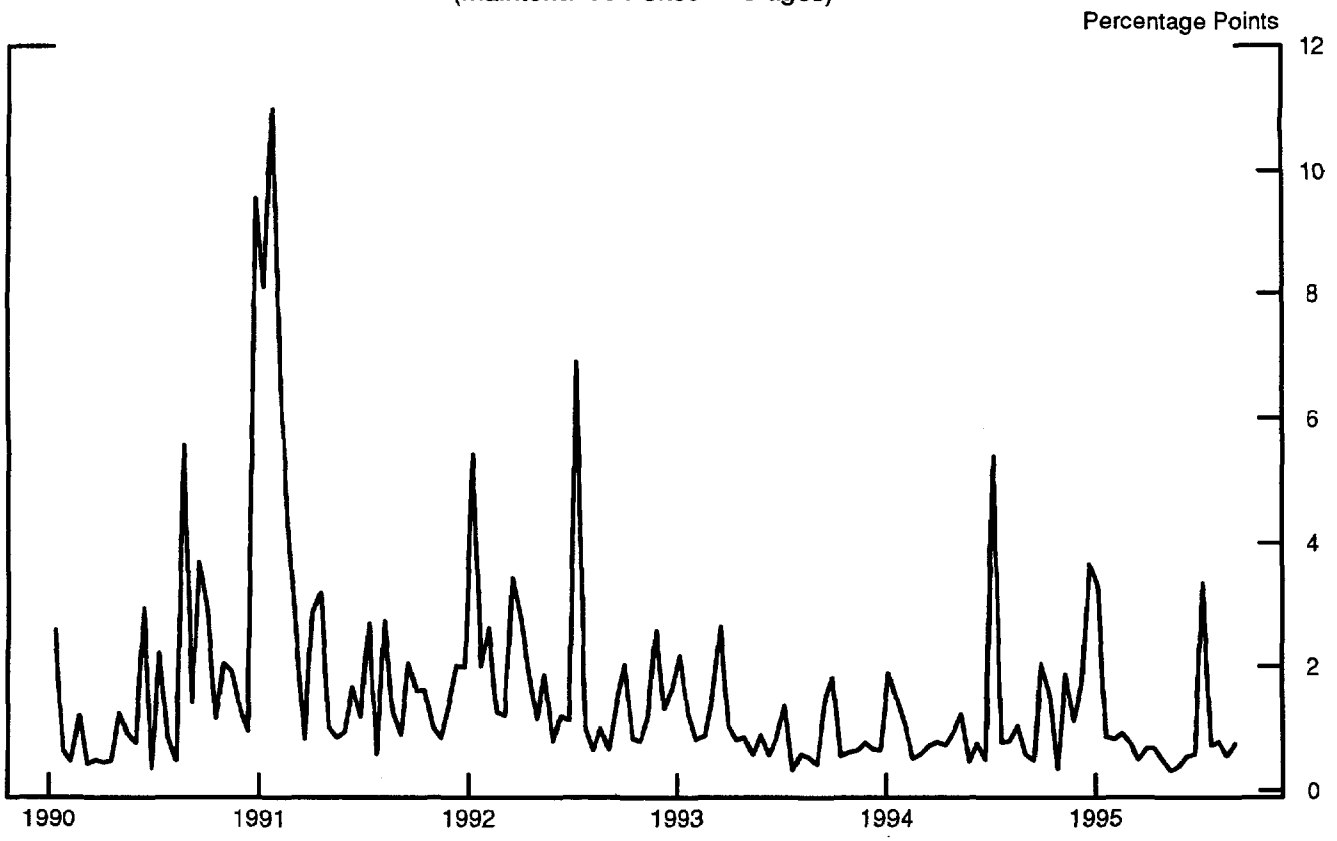
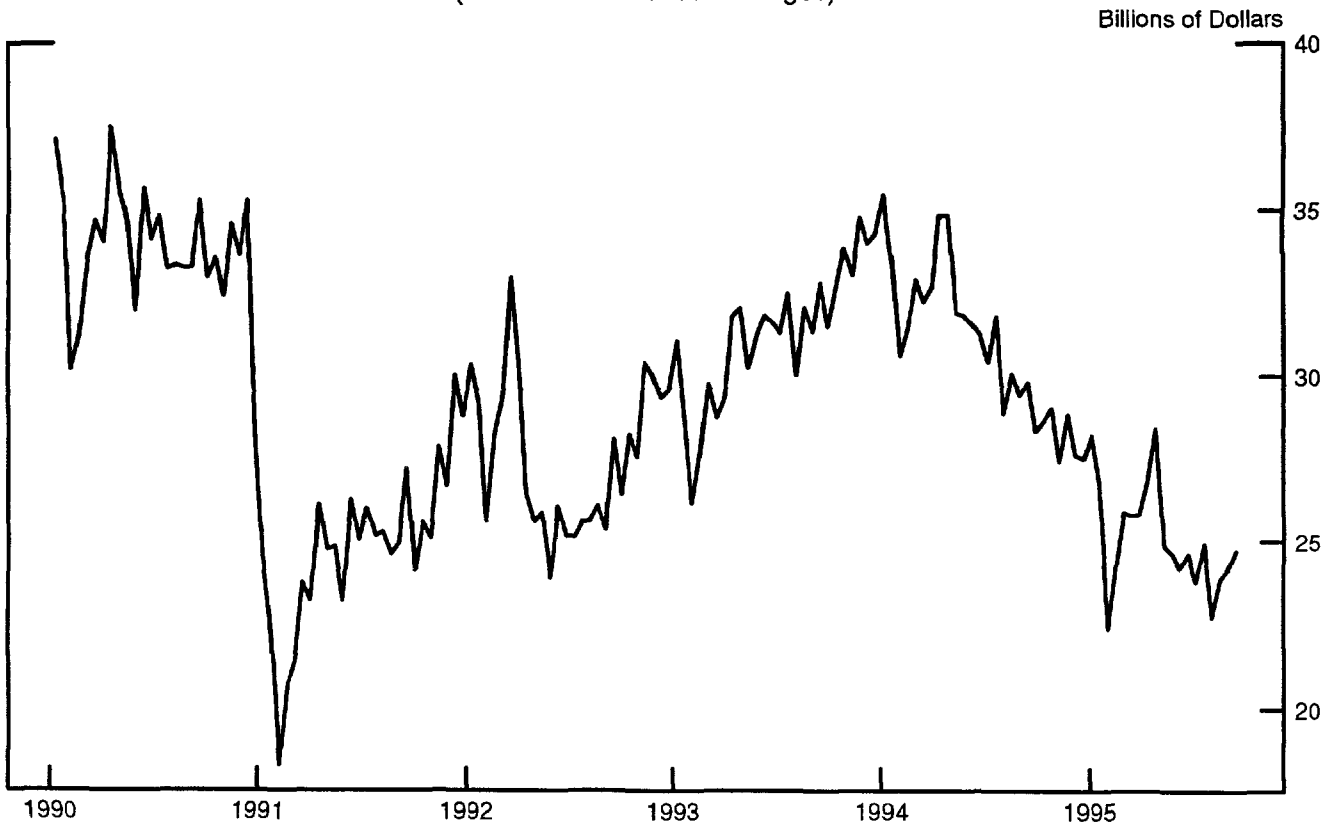
7. Reluctance to use the safety value of the discount window owing to fears of adverse reputation effects in the market contributed to the funds rate volatility.

Chart A-1

Intraday Federal Funds Rate Trading Range
(Maintenance Period Averages)



Required Operating Balances
(Maintenance Period Averages)



However, the current wave of transaction account sweeps is unlike the experience of early 1991 in several respects. The 1991 reserve requirement cut was an industry-wide change implemented by the Federal Reserve without a long lead-time, while in contrast sweep programs are being established voluntarily by commercial banks self-selected for an interest in reserve management on schedules they themselves choose. Moreover, improvements in reserve management since early 1991, including greater awareness of the advantages of establishing required clearing balances, may mitigate the impact of the new sweeps on federal funds rate volatility.

Nevertheless, the uncertainties are considerable. Staff at the Board and the Desk are closely monitoring the diffusion of this financial innovation for signs of potential adverse effects on the implementation of monetary policy, and have begun studying possible modifications to regulations and operating procedures that could mitigate any such effects.

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	conventional home mortgages 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
94 -- High	5.85	5.70	6.26	6.73	6.31	6.11	5.12	8.50	7.79	8.00	8.13	9.05	7.37	9.57	9.25	6.79
-- Low	2.97	2.94	3.12	3.35	3.11	3.11	2.68	6.00	4.44	5.70	6.25	7.16	5.49	7.02	6.97	4.12
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	5.25	5.25	5.15	5.69	5.73	5.16	8.50	5.65	6.06	6.48	7.48	5.94	7.74	7.41	5.77
Monthly																
Sep 94	4.73	4.62	5.04	5.43	5.03	4.90	4.15	7.75	6.69	7.46	7.71	8.62	6.55	8.93	8.64	5.54
Oct 94	4.76	4.95	5.39	5.75	5.51	5.02	4.30	7.75	7.04	7.74	7.94	8.80	6.83	9.25	8.93	5.79
Nov 94	5.29	5.29	5.72	6.13	5.79	5.40	4.62	8.15	7.44	7.96	8.08	8.95	7.27	9.43	9.17	6.10
Dec 94	5.45	5.60	6.21	6.67	6.29	6.08	5.00	8.50	7.71	7.81	7.87	8.78	7.07	9.51	9.20	6.66
Jan 95	5.53	5.71	6.21	6.59	6.24	5.86	5.17	8.50	7.66	7.78	7.85	8.75	6.84	9.41	9.15	6.82
Feb 95	5.92	5.77	6.03	6.28	6.16	6.05	5.36	9.00	7.25	7.47	7.61	8.55	6.45	9.13	8.83	6.68
Mar 95	5.98	5.73	5.89	6.03	6.15	6.07	5.51	9.00	6.89	7.20	7.45	8.40	6.32	8.90	8.46	6.45
Apr 95	6.05	5.65	5.77	5.88	6.11	6.06	5.54	9.00	6.68	7.06	7.36	8.31	6.22	8.71	8.32	6.35
May 95	6.01	5.67	5.67	5.65	6.02	6.05	5.51	9.00	6.27	6.63	6.95	7.89	6.16	8.32	7.96	6.14
Jun 95	6.00	5.47	5.42	5.33	5.90	6.05	5.46	9.00	5.80	6.17	6.57	7.60	6.07	7.96	7.57	5.87
Jul 95	5.85	5.42	5.37	5.28	5.77	5.87	5.39	8.80	5.89	6.28	6.72	7.72	6.21	8.03	7.61	5.83
Aug 95	5.74	5.40	5.41	5.43	5.77	5.85	5.27	8.75	6.10	6.49	6.86	7.84	6.37	8.24	7.86	5.93
Weekly																
Jun 7 95	6.03	5.50	5.41	5.29	5.84	5.99	5.50	9.00	5.71	6.13	6.54	7.71	5.94	8.10	7.51	5.86
Jun 14 95	6.02	5.53	5.50	5.41	5.95	6.04	5.49	9.00	5.90	6.26	6.63	7.62	6.10	8.03	7.55	5.88
Jun 21 95	6.00	5.47	5.44	5.32	5.93	6.07	5.49	9.00	5.79	6.16	6.58	7.52	6.05	7.85	7.53	5.84
Jun 28 95	5.95	5.39	5.37	5.28	5.89	6.07	5.46	9.00	5.74	6.09	6.52	7.64	6.28	8.09	7.53	5.84
Jul 5 95	6.21	5.48	5.39	5.35	5.92	6.10	5.47	9.00	5.89	6.22	6.63	7.53	6.21	7.85	7.63	5.86
Jul 12 95	5.81	5.38	5.29	5.15	5.76	5.87	5.42	8.79	5.65	6.06	6.53	7.60	6.05	7.96	7.41	5.80
Jul 19 95	5.72	5.42	5.38	5.24	5.73	5.82	5.34	8.75	5.84	6.23	6.69	7.94	6.30	8.14	7.60	5.81
Jul 26 95	5.75	5.44	5.43	5.40	5.77	5.83	5.32	8.75	6.08	6.47	6.89	7.88	6.27	8.16	7.79	5.86
Aug 2 95	5.83	5.42	5.38	5.36	5.75	5.85	5.31	8.75	6.05	6.46	6.88	7.88	6.35	8.24	7.82	5.89
Aug 9 95	5.73	5.40	5.40	5.36	5.75	5.85	5.29	8.75	6.05	6.49	6.91	7.96	6.40	8.25	7.80	5.91
Aug 16 95	5.74	5.43	5.45	5.47	5.78	5.86	5.27	8.75	6.17	6.56	6.93	7.89	6.44	8.29	7.94	5.95
Aug 23 95	5.70	5.44	5.46	5.53	5.78	5.85	5.27	8.75	6.22	6.57	6.90	7.70	6.40	8.17	7.88	5.96
Aug 30 95	5.71	5.33	5.35	5.38	5.76	5.84	5.25	8.75	6.02	6.38	6.74	7.60	6.26	8.09	7.76	5.86
Sep 6 95	5.77	5.30	5.30	5.30	5.76	5.83	5.25	8.75	5.88	6.21	6.60	7.58	6.16	7.92	7.63	5.86
Sep 13 95	5.73	5.33	5.32	5.33	5.73	5.82	5.24	8.75	5.90	6.21	6.57	7.48	6.09	7.90	7.60	5.80
Sep 20 95	5.78	5.25	5.25	5.24	5.69	5.81	5.25	8.75	5.81	6.12	6.48	7.58	6.18	8.10	7.57	5.77
Daily																
Sep 15 95	5.80	5.30	5.28	5.24	5.69	5.82	--	8.75	5.80	6.11	6.47	--	--	--	--	--
Sep 21 95	5.71	5.24	5.29	5.30	5.68	5.80	--	8.75	5.91	6.21	6.56	--	--	--	--	--
Sep 22 95	5.69p	5.19	5.29	5.31	5.73	5.80	--	8.75	5.93	6.25	6.59	--	--	--	--	--

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

SEPTEMBER25, 1995

Money and Credit Aggregate Measures

Seasonally adjusted

Period	Money stock measures and liquid assets						Bank credit	Domestic nonfinancial debt[1]		
	M1	M2	nontransactions components		M3	L	total loans and investments[1]	U. S. government[2]	other[2]	total[2]
			In M2	In M3 only						
	1	2	3	4	5	6	7	8	9	10
Annual growth rates(%):										
Annually (Q4 to Q4)										
1992	14.3	2.0	-2.3	-6.3	0.5	1.5	3.7	10.7	2.8	4.8
1993	10.5	1.7	-1.9	-2.5	1.0	1.4	5.0	8.4	4.0	5.2
1994	2.4	1.1	0.5	3.5	1.4	2.4	6.8	5.7	4.9	5.1
Quarterly(average)										
1994-Q3	2.4	1.0	0.3	9.0	2.2	2.6	7.2	3.9	4.4	4.3
1994-Q4	-1.2	-0.3	0.1	12.3	1.7	2.2	4.1	5.9	5.0	5.2
1995-Q1	0.1	1.7	2.4	18.5	4.3	6.5	7.8	5.3	5.7	5.5
1995-Q2	-0.9	4.3	6.7	20.7	7.0	8.3	13.1	5.3	7.2	6.7
Monthly										
1994-AUG.	-1.5	-0.6	-0.2	2.6	-0.1	2.2	4.7	6.1	6.2	6.2
SEP.	0.2	-0.3	-0.5	12.7	1.7	-0.4	4.8	6.0	5.4	5.6
OCT.	-2.9	-1.4	-0.6	18.7	1.8	2.9	3.8	5.4	4.0	4.4
NOV.	-0.6	0.5	1.0	6.7	1.5	2.5	2.0	8.5	5.4	6.3
DEC.	0.4	1.6	2.2	12.5	3.3	4.8	6.7	1.2	4.9	3.9
1995-JAN.	1.0	3.9	5.2	19.2	6.3	5.9	11.9	2.5	6.1	5.1
FEB.	-1.8	-1.5	-1.3	24.1	2.7	9.3	4.9	10.6	6.2	7.4
MAR.	0.6	2.5	3.3	26.1	6.4	9.9	9.0	7.4	5.0	5.6
APR.	1.9	4.2	5.4	15.8	6.2	6.8	23.6	0.7	8.8	6.6
MAY	-7.1	5.3	11.0	21.2	8.0	7.6	9.0	5.9	9.1	8.3
JUNE	0.9	11.7	16.6	17.1	12.7	9.5	4.8	8.4	3.8	5.0
JULY	1.2	6.0	8.2	18.9	8.3	12.1	3.2	4.1	2.6	3.0
AUG. p	-1.4	8.3	12.6	7.0	8.0		5.3			
Levels ($billions):										
Monthly										
1995-APR.	1149.7	3643.7	2494.1	737.3	4381.1	5410.9	3455.0	3559.5	9668.6	13228.1
MAY	1142.9	3659.9	2517.0	750.3	4410.2	5445.3	3480.9	3577.0	9742.2	13319.2
JUNE	1143.8	3695.7	2551.9	761.0	4456.7	5488.6	3494.9	3602.0	9772.9	13374.8
JULY	1144.9	3714.3	2569.4	773.0	4487.4	5544.0	3504.2	3614.4	9794.2	13408.5
AUG. p	1143.6	3740.0	2596.4	777.5	4517.5		3519.6			
Weekly										
1995-AUG. 7	1144.6	3732.2	2587.6	782.2	4514.3					
14	1143.0	3734.6	2591.6	774.6	4509.2					
21	1145.3	3744.7	2599.4	772.5	4517.2					
28	1143.7	3745.9	2602.2	779.5	4525.4					
SEP. 4 p	1142.2	3749.6	2607.4	780.2	4529.8					
11 p	1142.1	3748.8	2606.7	779.4	4528.2					

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

Components of Money Stock and Related Measures

Seasonally adjusted unless otherwise noted

Period	Currency	Demand deposits	Other checkable deposits	Overnight RPs and Eurodollars NSA[1]	Savings deposits[2]	Small denomination time deposits[3]	Money market mutual funds: general purpose and broker/dealer[4]	Money market mutual funds: Institutions only	Large denomination time deposits[5]	Term RP's NSA[1]	Term Eurodollars NSA[1]	Savings bonds	Short-term Treasury securities	Commercial paper[1]	Bankers acceptances
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Levels ($billions):															
Annual (Q4)															
1992	290.1	336.5	380.0	83.0	1177.5	882.2	359.2	205.8	358.4	81.8	46.7	154.5	329.2	365.5	20.6
1993	319.8	381.2	412.6	95.1	1211.7	790.4	357.8	196.9	334.2	96.7	46.5	170.8	328.9	381.8	15.5
1994	352.5	383.1	404.0	114.8	1157.7	810.1	383.9	180.7	357.5	103.5	53.2	179.9	363.6	400.9	13.5
Monthly															
1994-AUG.	345.1	386.6	410.8	111.0	1192.6	782.8	377.0	177.4	342.0	101.0	51.2	178.5	365.0	395.4	13.8
SEP.	347.2	386.5	408.9	112.0	1183.7	789.6	377.4	176.3	348.2	101.7	52.1	179.1	360.6	390.2	14.8
OCT.	350.0	384.5	405.4	114.0	1171.0	799.6	379.5	180.8	353.6	101.9	52.7	179.5	358.6	399.9	13.1
NOV.	353.0	382.5	403.8	113.4	1157.8	810.4	383.3	180.5	357.4	103.1	54.5	179.9	361.9	401.4	13.5
DEC.	354.5	382.2	402.9	117.1	1144.2	820.3	389.0	180.8	361.4	105.6	52.4	180.3	370.3	401.3	14.0
1995-JAN.	357.7	383.6	399.3	123.9	1129.8	835.7	392.1	186.3	361.9	109.4	53.1	180.5	372.3	402.8	13.4
FEB.	358.8	384.1	395.9	118.3	1111.9	855.4	391.5	180.4	371.2	113.4	56.3	180.4	392.0	414.7	13.3
MAR.	362.5	383.3	393.3	118.2	1094.9	878.2	390.9	189.0	378.6	113.4	58.3	180.5	405.3	421.7	14.0
APR.	365.7	381.2	393.6	115.7	1082.4	896.8	396.0	192.9	380.3	116.5	59.8	180.9	404.2	430.8	13.9
MAY	368.1	380.6	385.0	116.5	1081.4	910.7	405.3	194.8	386.0	121.7	60.7	181.6	397.5	443.8	12.3
JUNE	367.4	386.8	380.6	117.3	1091.1	917.5	425.9	205.6	389.9	119.8	61.7	182.3	410.8	427.5	11.3
JULY	367.1	389.5	379.4	114.3	1091.5	921.7	441.5	212.4	396.8	115.2	63.0	183.0	433.7	428.0	11.8
AUG. p	368.3	390.1	376.4	118.4	1098.7	924.0	455.1	210.8	400.0	117.5	62.6				

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

p preliminary

September 22, 1995

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[3]								
	Net purchases[2]	Redemptions (-)	Net change	within 1 year	1-5	5-10	over 10	Redemptions (-)	Net Change			
1992	13,086	1,600	11,486	1,096	13,118	2,818	2,333	---	19,365	632	30,219	-13,215
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
1994 ---Q1	2,164	---	2,164	147	1,413	1,103	618	616	2,665	411	4,418	-11,663
---Q2	6,639	---	6,639	364	2,817	1,117	896	440	4,754	307	11,086	4,179
---Q3	1,610	---	1,610	151	2,530	938	840	302	4,157	114	5,654	-8,530
---Q4	7,071	---	7,071	575	2,408	660	1,252	979	3,916	169	10,818	8,602
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
1994 September	---	---	---	151	2,530	938	840	---	4,459	31	4,428	-6,301
October	518	---	518	450	---	---	---	979	-529	62	-72	819
November	6,109	---	6,109	---	200	---	---	---	200	70	6,239	4,718
December	444	---	444	125	2,208	660	1,252	---	4,245	37	4,652	3,066
1995 January	---	---	---	---	---	---	---	621	-621	91	-712	-8,171
February	---	---	---	---	---	---	---	---	---	55	-55	-686
March	---	---	---	---	---	---	---	---	---	83	-83	4,774
April	---	---	---	---	2,549	839	1,138	370	4,156	20	4,136	-2,758
May	---	---	---	---	---	---	---	---	---	30	-30	2,474
June	4,470	---	4,470	---	---	---	---	---	---	262	4,208	10,678
July	---	---	---	---	---	---	---	---	---	333	-333	-13,602
August	433	---	433	---	---	---	---	---	---	122	311	-2,984
Weekly												
June 7	4,470	---	4,470	---	---	---	---	---	---	186	4,284	-77
14	---	---	---	---	---	---	---	---	---	68	-68	-5,865
21	---	---	---	---	---	---	---	---	---	---	---	15,133
28	---	---	---	---	---	---	---	---	---	8	-8	-12,253
July 5	---	---	---	---	---	---	---	---	---	---	---	1,281
12	---	---	---	---	---	---	---	---	---	15	-15	-3,961
19	---	---	---	---	---	---	---	---	---	300	-300	474
26	---	---	---	---	---	---	---	---	---	18	-18	-4,659
August 2	---	---	---	---	---	---	---	---	---	---	---	4,411
9	---	---	---	---	---	---	---	---	---	---	---	-161
16	---	---	---	---	---	---	---	---	---	35	-35	1,827
23	---	---	---	---	---	---	---	---	---	---	---	-2,512
30	---	---	---	---	---	---	---	---	---	87	-87	1,445
September 6	733	---	733	---	---	---	---	---	---	---	733	1,556
13	---	---	---	---	100	---	100	---	200	---	200	5,466
20	---	---	---	---	---	---	---	---	---	---	---	2,526
Memo: LEVEL (bil. $)[6]												
September 20			190.6	219.5	85.9	30.0	35.6		371.0		384.1	-10.2

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
September 20	1.4	1.1	0.4	0.0	2.9