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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

## MONETARY POLICY ALTERNATIVES

### Recent Developments

- (1) The degree of reserve pressure was left unchanged over the intermeeting period, with the intended level of the federal funds rate remaining at 3 percent and the allowance for adjustment and seasonal borrowing at \$50 million. In the last week of 1992, the federal funds rate was somewhat volatile, reflecting shifting market anticipations of year-end pressures and sizable swings in market factors affecting reserves. However, the Desk ensured that reserves were abundant in the maintenance period spanning year-end, and the funds rate did not show any unusual tightness on December 31 itself. For the intermeeting period as a whole, the federal funds rate averaged 2.99 percent.
- (2) Most short-term interest rates fell 20 to 25 basis points over the intermeeting period, although somewhat larger drops were recorded at the one-month maturity. The declines partly reflected the passing of the year-end statement date, and a return toward more normal relationships with the federal funds rate. With labor market indicators suggesting somewhat less strength than market participants had expected, money supply data weakening, and discussions of near-term fiscal stimulus centering on quite moderate numbers, market participants appear to be scaling back the odds on significant Federal Reserve tightening over the next year or so. Consequently, intermediate-term

<sup>1.</sup> Adjustment and seasonal borrowing averaged \$235 million over the maintenance periods ending January 6 and January 20, well above allowance. The overage reflected a substantial need for funds by one nonbank bank over the long New Year's weekend and a surge in borrowing at the end of the January 20 maintenance period, as extremely heavy tax receipts pushed the Treasury's balance far above projections. Borrowing has been closer to expected levels recently, averaging \$77 million to date in the current maintenance period.

Treasury yields also moved somewhat lower, and fixed-rate mortgage yields fell about 30 basis points. Most recently, indications that the Administration would consider new taxes lent some credibility to its long-term deficit reduction objective and contributed to declines in bond yields, as did suggestions that the Administration might be inclined to shift the composition of the federal debt toward shorter maturities. Even with heavy supply pressures from the corporate market, long-term rates are down about 10 to 15 basis points on balance over the period. Stock market indexes exhibited widely varying results, with the AMEX and NASDAQ indexes up about 5 percent while the NYSE and DJIA were about unchanged.

(3) The dollar's weighted average exchange value rose about 2 percent on net over the intermeeting period. In the first part of the period the dollar moved higher, particularly against the German mark, on the basis of actual and expected further easing of Bundesbank monetary policy. Subsequently, the dollar drifted lower along with U.S. bond yields, but it has firmed in recent days on stronger U.S. economic spending data. Three-month interest rates declined by 55 basis points in Germany, while long-term rates decreased 15 basis points. Rates in other European countries generally showed similar or greater declines, with substantial reductions in the United Kingdom associated with a 100 basis point cut in the Bank of England's official lending rate. In Japan, three-month rates edged down by 25 basis points, while bond yields fell by 20 basis points.

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- (4) After showing some strength in the late summer and autumn of last year, the broader monetary aggregates contracted over December and January—a considerably weaker showing than had been projected in the December bluebook.<sup>2</sup> M2 declined at about a 2 percent annual rate over December and January, and M3 at about a 4-1/2 percent rate.
- (5) The unexpected weakness in the broader aggregates in the last two months entirely reflected sizable and larger-than-projected declines in their nontransaction components. Growth of M1 also slowed, to an average 8 percent rate, but a deceleration had been expected, based partly on special factors. Demand deposit growth plunged on lower mortgage refinancing activity, and other checkable deposits slowed in December because unwinding of its sweep account program had been completed. Currency growth, however, strengthened, apparently as a result of large shipments of currency abroad. 3 Within the nontransaction component of M2, the runoff of small time deposits slackened a bit, but expansion of savings and MMDAs slowed abruptly and money market mutual fund assets declined more rapidly. Anecdotal information suggests that flows into bond and stock mutual funds fell off somewhat in December, but remained fairly robust. The extent of the weakness in the liquid nontransaction components is surprising. While some of this weakness may have been due to earlier widening in opportunity costs, as yields on these components failed to match increases in market rates this fall, the timing of the declines

<sup>2.</sup> The monetary data presented in this bluebook incorporate the results of the annual benchmark and seasonal review--discussed in Appendix A--and should be treated as strictly confidential until their release to the public, tentatively planned for February 4. The December bluebook projections, of course, were done on the old basis, but weakness in money is apparent on the revised basis as well.

<sup>3.</sup> Reflecting the brisk growth in M1 deposits, total reserves rose at a 5 percent pace over the November-January period, and the monetary base expanded at a 9-1/4 percent rate.

suggests that unusually large tax payments and holiday purchases also may have played a role. At the M3 level, the drop-off in large time deposits accelerated around year-end, likely reflecting efforts by banks and thrifts to improve balance-sheet ratios and reduce depositinsurance premiums. Reliance on managed liabilities in M3 was held down by weakness in bank credit in December and January and greater use of funds raised in bond and equity markets. Declines in M3 also were a result of a steep drop in institution-only money fund shares owing to interest rate incentives around year-end.

- (6) The growth of nonfederal debt appears to have remained subdued, below the pace of spending, suggesting that households and business remain cautious in their attitudes toward debt. In the business sector, bond issuance has picked up in December and January, but shorter-term business borrowing has dropped off on balance, perhaps owing partly to reduced needs to finance retail inventories. Consumer credit likely rose a little in December, reflecting a modest pickup in revolving credit. Although mortgage refinancing activity has declined on balance over the past two months, its pace remained brisk. With mortgage borrowing likely supported by equity extraction in the course of refinancing as well by strong existing home sales, mortgage debt likely has continued to expand at a healthy clip. Federal borrowing remained heavy in December, boosting overall debt growth to a 6-1/2 percent pace.
- (7) The table below shows final results for growth of the money and debt aggregates for 1992, incorporating new benchmarks and seasonal factors. For 1992 as a whole, the aggregates expanded at very sluggish rates. M2 and M3 rose 1.9 and 0.5 percent, respectively, leaving both aggregates about 1/2 percentage point below the lower

bounds of their ranges. Domestic nonfinancial sector debt increased 4.6 percent, the lower end of its range. Velocities of the broad monetary aggregates rose substantially despite declining short-term interest rates. The slow growth of these monetary and financial aggregates relative to nominal GDP appears to be due importantly to deleveraging by households and businesses and a rechannelling of credit flows outside the depository sector, and associated incentives for savers to shift funds from M2 assets to debt repayment and longer-term instruments.

Money	and	Cre	edit	Grow	th	in	1992
(1991	:04	to	1992	2:Q4.	₽€	erce	ent)

	<u>Actual</u>	Annual <u>Range</u>	Memo: <u>Velocity Growth</u>
M2	1.9	2.5 to 6.5	3.4
M3	0.5	1.0 to 5.0	4.8
Debt	4.6	4.5 to 8.5	0.7
M1	14.3		-7.8

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

M2 M3 Domestic nonfinancial debt Federal 1	ov.	Dec.	Jan.
M2 M3 Domestic nonfinancial debt Federal 1			
M3  Domestic nonfinancial debt  Federal 1	5.7	8.8	7.2
Domestic nonfinancial debt  Federal 1	2.7	-0.6	-3.5
Federal 1	0.6	-3.2	-6.1
	6.2	6.4	
	0.5 4.7	16.3	
Bank credit	4.8	3.8	-1.8
Reserve measures			
Nonborrowed reserves 2	1.8	8.7	0.3
Total reserves 2	0.9	9.1	1.1
Monetary base	8.7	9.2	9.4
Memo: (Millions of dollars)			
Adjustment plus seasonal borrowing	104	123	161
Excess reserves 1	104	123	101

<sup>1.</sup> 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.

#### Alternative Long-run Strategies

(8) To place the consideration of the annual ranges for money and credit for 1993 in a longer perspective, the table on the following page presents three alternative five-year monetary policy strategies, together with the consequences for output, prices, and resource utilization. The baseline strategy, labelled I in the table, judgmentally extends the greenbook forecast for 1993 and 1994 through 1997. It retains the assumption of no short-run fiscal stimulus, and posits gradual progress through the entire period in reducing the structural deficit as a ratio to GDP; these assumptions also are retained in the simulations shown for the two alternative monetary policy strategies. The simulations incorporate the staff's assessment that potential GDP will grow at a 2-1/4 percent rate, benefiting from a small boost to productivity relative to recent years. The natural rate of unemployment is seen currently as 6 percent, elevated by the labor market mismatches resulting from sizable industry restructuring -- especially in the defense sector--but edges back down to 5-3/4 percent later in the simulation as the pace of restructuring wanes. M2 growth paths for the baseline and the two alternative strategies reflect our expectation that special forces will continue to depress M2 relative to spending, albeit with diminishing intensity. Influences captured in the expanded view of the determinants of opportunity costs -- returns on capital market instruments, loan rates, and a wider array of deposit rates, as well as short-term market rates -- along with other forces will be

operating in ways that both damp money growth and complicate its relation to income.<sup>4</sup>

			<u> 1992</u>	<u> 1993</u>	<u>1994</u>	<u> 1995</u>	<u> 1996</u>	<u> 1997</u>		
М2				(QIV to QIV percent change)						
MZ	I II III	(baseline) (tighter) (easier)		1-3/4	2-1/2 2-1/4 2-3/4	3	4 3-1/4 4-1/4	3		
Free	ala Da	.+.		(four	th-quar	ter lev	el, per	cent)		
run	ds Ra I II III	ice	3.0	3 3-1/4 2-3/4	3-3/8 3-5/8 3-1/4	4-1/8	4 4-1/4 4	4 3-3/4 4		
CPI				(QIV	to QIV	percen	t chang	e)		
I II III		3.0		2.4 2.0 2.8		1.4				
Rea	1 GDF I II III	•	2.9	2.8 2.3 3.5	3.0 2.3 3.6	2.8 2.5 2.2	2.3 2.4 2.0	2.7		
Nom	inal I II III	GDP	5.4		5.0 4.0 6.0	3.8		3.1		
Ilnor	mnlov	ment rate		(fourt	h-quart	er leve	1, perc	ent)		
onei	I I II III	ment late	7.3	7.2	6.6 7.0 6.1		6.6			

<sup>4.</sup> The M2 forecasts were based on the new Feinman-Porter model of M2 demand, supplemented by equations to project various deposit, loan, and intermediate-term market rates needed for the simulation. However, the staff judgmental projections shown in the table are below those forecasted by these econometric relationships, on the order of 3/4 and 1-1/4 percentage point in 1993 and 1994, respectively, and 1/2 percentage point thereafter. The factors not fully captured in the Feinman-Porter model that are thought to depress money growth include a levelling off in mortgage refinancing and resumption of RTC activity later this year and, for all years, the increased availability of mutual fund products at bank and thrift offices and continued restraint on deposit-seeking partly as a result of FDICIA restrictions and requirements involving capital and other aspects of bank business that are not fully captured in the model.

- (9) The policy alternatives encompass somewhat tighter (Strategy II) and somewhat easier (Strategy III) monetary policies, which produce discernable differences in output and inflation over the 5-year simulation period. The difference in policy--measured by interest rates or money supplies -- are narrower than in similar exercises in past bluebooks. In part this reflects the current configuration of a relatively low inflation rate and a moderate gap between the unemployment rate and the natural rate of unemployment. In these circumstances major differences in policy would result in deflation or a significant acceleration of inflation. In addition, we have assumed a faster response of long-term interest rates to changes in the federal funds rate than is usually embodied in the quarterly econometric model, which produces a greater response of spending for a given change in the federal funds rate. The money growth differences are especially narrow, as a result of the low responsiveness of M2 demand to change in short-term interest rates in the Feinman-Porter model.
- (10) The baseline strategy provides a gradual deceleration of inflation as measured by the consumer price index to around 2 percent by 1997. Nominal short-term rates rise somewhat by 1995 under this alternative, and remain flat thereafter. Declining inflation at the same time implies more appreciable increases in real short-term rates. As credit becomes more freely available and other unusual forces damping spending wane, the rise in short-term real rates is necessary to restrain output to its potential. With the disinflation becoming embedded in expectations, long-term nominal rates remain on a downward trajectory, dropping below 6 percent by 1995. The resulting sizable flattening of the yield curve, together with the improvement in bank and household balance-sheet positions as the recovery proceeds, tends

to boost M2 demand, implying the need for a pickup in money growth in later years even as expansion in nominal spending continues to slow gradually.

- to produce reasonable price stability by the end of the simulation period. To do this, policy tightens more promptly than under alternative I, keeping the federal funds rate above and money growth below the baseline case for most of the period. Real rates are substantially higher than in the baseline, given the faster decline in inflation, maintaining considerable slack in resource utilization. The unemployment rate declines very little until late in the simulation. More rapid declines would be possible if this policy reinforced the credibility of the System's price stability objective, producing more rapid decline in inflation expectations.
- (12) Under the easier Strategy III, the economy would return to full employment more quickly, but progress in disinflation would end. Under this policy, money growth exceeds the baseline path by about 1/4 point on average over the simulation period. Short-term interest rates decline in the near term and remain below the baseline path for a time. As a consequence, output is boosted to a 3-1/2 percent rate of expansion in both 1993 and 1994. However, to keep inflation from accelerating, policy must reverse before too long, with short-term rates rising in the first part of next year and moving above the baseline path in 1995.

#### Long-Run Ranges for 1993

(13) The table below presents staff projections for growth of money and debt over the next two years consistent with the greenbook economic forecast, and two alternative sets of ranges for 1993.

(Appendix B gives the ranges and outcomes for money and debt growth since 1979.) Alternative I retains the provisional ranges selected by the Committee last July, and is identical to the ranges used in both 1991 and 1992. The staff forecasts for expansion of M2 and M3 in 1993 are 1/2 percentage point below the lower bounds of these ranges.

Alternative II specifies 1 percentage point lower growth ranges for M2 and M3, which would encompass the staff money forecasts.

				<u>Alternative</u> Alternative I	es for 1993
Growth from QIV to QIV	<u>Actual</u> _1992		orecast 1994	(Provisional Ranges)	Alternative II
<b>M</b> 2	1.9	2	2-1/2	2-1/2 to 6-1/2	1-1/2 to 5-1/2
М3	.5	1/2	1	1 to 5	0 to 4
Debt	4.6	5-1/4	6	4-1/2 to 8-1/2	4-1/2 to 8-1/2
<b>M</b> 1	14.3	8	7-1/4		
Nominal GDP	5.4	5-1/2	5		

(14) The staff is projecting M2 growth this year of 2 percent, the same as in 1992, with nominal GDP also expected to grow at the same pace this year as in 1992. However, the influences working to produce the comparable rise in velocity are shifting somewhat this year. Some of the forces that damped the rise in velocity in 1992 are not expected to be at work in 1993. For one, no further decreases in short-term rates are contemplated in the staff forecast; policy easings last year narrowed opportunity costs on liquid deposits, buoying M2

growth. In addition, mortgage refinancings are expected to level out, meaning that last year's boost to M2 growth from this source will disappear. Finally, RTC resolution activity is assumed to reemerge after midyear, damping the funding needs of the depository sector. However, the tendency for these factors to raise velocity in 1993 relative to 1992 will be offset by some diminution in the effects of some other influences that were boosting velocity in 1992. Among these will be an abatement of credit restraint by lenders and balance sheet restructuring by borrowers. Nonetheless, bank lending to businesses and households, while picking up, is projected to remain damped by historical standards. Moreover, the pickup in loans will be funded by reduced bank security acquisitions. As a consequence, banks are not expected to become significantly more aggressive in pursuing deposits; retail deposit rates should decline further, partly in response to the recent fall in short- and intermediate-term Treasury rates. Even so, the continued downtrend in longer-term interest rates in the staff forecast should be sufficient to narrow the spread of bond rates over retail deposit rates, ultimately reducing the relative attractiveness of capital market instruments, including bond mutual funds. Nevertheless, such spreads would stay unusually wide, capital gains on bond funds would elevate their advertised yields as rates decline, and the process of stock adjustment to lower desired levels of retail deposits, particularly small time deposits, probably still has a way to go. Further reductions in consumer loan rates should cut back on household incentives to deleverage out of nontransaction M2 balances, though here, too, spreads would stay wide.

- (15) With neither further policy easing nor larger mortgage refinancings, the growth of the M1 component of M2 is expected to decline from 14-1/4 percent last year to 8 percent this year. About offsetting this slowing, the partial unwinding of the influences that have been depressing the non-M1 component of M2 relative to spending is expected to mute its contraction over 1993 to 1/2 percent versus 2-1/2 percent last year.
- (16) M3 growth this year at 1/2 percent also is projected to hold at last year's rate. Bank credit is not expected to pick up, as banks meet greater loan demands by curtailing security acquisitions. Thrift credit is projected to change little over 1993, after an appreciable decline last year, despite the anticipated resumption of RTC resolution activity in the second half. As a consequence, we see a slower runoff of large time deposits in 1993 compared to 1992. However, the effects of this on M3 are about counterbalanced by much smaller inflows to institution-only money funds, which had been boosted in 1992 by temporary rate advantages brought on by drops in short-term market interest rates.
- (17) Debt of domestic nonfinancial sectors is projected to pick up to a 5-1/4 percent rate over 1993. On the assumption of no fiscal stimulus package, federal debt growth is expected to slow to a 9-1/2 percent rate after last year's 10-3/4 percent pace. Most of the strengthening in growth of the nonfederal component--from 2-1/2 percent last year to 3-3/4 percent over 1993--is seen as occurring in the business sector. Business spending on fixed investment and inventories this year is expected to move above the flow of internally

<sup>5.</sup> We expect continued sizable flows of currency abroad, especially to Eastern Europe and the former Soviet Union, to buoy the growth of the monetary base to 9 percent.

generated funds, and equity issuance is projected to drop back as businesses feel more comfortable with their financial structures. Last year's runoff of business loans at banks should reverse, owing partly to an easing of lending terms prompted by improved bank capital positions and perceptions of reduced credit risk as the expansion continues. In the household sector, lowered debt service burdens, further decreases in consumer credit costs, and improved employment prospects are anticipated to induce a resumption in consumer credit expansion after no change on balance last year. The growth of mortgage debt should hold at around last year's pace as housing construction again strengthens this year, supported by further declines in fixed-rate mortgage interest rates.

(18) Alternative II could be preferred if the Committee viewed further substantial increases in velocities as a likely outcome in 1993. The continued slow growth in the broader monetary aggregates since mid-1992 in the face of still lower short-term interest rates and a speedup of nominal GDP might be seen reinforcing the case for additional unusual velocity increases this year. Thus, growth of M2 and M3 in the lower portions of the reduced ranges of alternative II could be viewed as fully compatible with economic outcomes along the lines of the greenbook projection. And considerable scope would exist for money growth higher up in the ranges if a more vigorous economic expansion should emerge or be desired, or if velocity behavior returns more to normal; even in those cases, growth near the reduced upper ends of the alternative II ranges seems unlikely. Alternative II also might be seen as being more consistent than alternative I with the Committee's intention to move toward price stability over time. If the staff view of velocity is correct, M2 growth within the alternative I range

would be consistent with a significant acceleration in nominal income, forestalling further progress in reducing inflation in 1994. M2 growth in line with the staff forecast, or even a little higher, would be sending a much stronger signal to ease reserve conditions under alternative I. Moreover, the decrease in the M2 range would renew the process of reducing those ranges to levels more consistent with reasonable price stability. Alternative II does not include a reduction in the debt range, despite the staff forecast that debt will grow in the lower half of the proposed range. If the Committee viewed the reduction in money ranges as essentially "technical," leaving the debt range unchanged might reinforce that perception. On the other hand, a reduction in the debt range would underline the favorable trend toward reduced leverage.

(19) Alternative I could be selected if the greenbook projections were viewed as representing an unacceptably weak economic expansion, with an unemployment rate still around 7 percent in the fourth quarter of this year. Such an objective would be fostered by the higher money growth and lower interest rates of this alternative. Alternative I might signal the Federal Reserve's intent to accommodate the effects on spending of a near-term fiscal stimulus package through higher money growth. Keeping the range unchanged might also be seen as better conveying the uncertainty about velocity behavior. The alternative I ranges would be more consistent with M2 and M3 growth needed to support the staff GDP projection if velocity were behaving in line with historical relation to short-term interest rates. The Committee could choose to retain the current range but announce its willingness to accept a shortfall if velocity were again to increase unusually.

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#### Short-Run Policy Alternatives

- (20) Three short-run policy alternatives are presented for consideration by the Committee. Under alternative B, the allowance for adjustment and seasonal borrowing would be retained at \$50 million, in association with trading in federal funds continuing to be centered around 3 percent. Under alternative A, the federal funds rate would drop to 2-1/2 percent; this could be achieved either through a reduction in the borrowing allowance to \$25 million or by a half percentage point cut in the discount rate with unchanged borrowing. Federal funds would trade around 3-1/2 percent under alternative C in combination with a \$25 million boost to the borrowing allowance.
- in the period just ahead and thus interest rates would be expected to remain near current levels under alternative B. Longer-term rates might come under a little downward pressure if, consistent with the staff greenbook forecast, news on prices continues to be good, and economic indicators point to a little less momentum in the economic expansion than in the second half of last year. Intermediate- and long-term rates are likely to be especially volatile as markets digest reports and rumors of fiscal initiatives or shifts in debt management policy by the new Administration, and as they assess how any initiatives might influence monetary policy. The upcoming mid-quarter refunding announcement, scheduled for February 3, will be watched closely by market participants for clues of the Administration's debt management plans, and the general shape of the Administration's fiscal policy plans are likely to be covered in the President's address to the

<sup>6.</sup> An upward technical adjustment of \$25 million to the borrowing allowance might prove necessary in March should demands for seasonal credit prove to be stronger than now anticipated.

Congress on February 17. The dollar would fluctuate around current levels under alternative B, moving up on any news of unexpected economic weakness or policy easing abroad, or down should the news about the U.S. economy prove to be softer than expected.

- would decline by the half-point drop in the federal funds rate under alternative A. Availability constraints on business credit at banks might ease more noticeably should bankers come to see lower rates as improving the outlook for business profitability and lessening strains in this sector. If incoming information suggested that the economic expansion had lost some of its steam--such as a weak employment report--or if the easing were seen as being associated with the likelihood of more fiscal policy restraint, this alternative might be viewed as needing to be reversed before long. In these circumstances, declines in intermediate- and long-term rates would be limited. The dollar would move lower on foreign exchange markets.
- (23) Although market participants seem to believe that some tightening of monetary policy over the next year will be forthcoming, they do not see this happening soon and thus would be surprised by the election of alternative C. Short-term rates would rise by about 1/2 percentage point. Long-term rates, too, would rise, although the boost to nominal rates would be held in check by the associated better outlook for disinflation. The dollar would climb higher on foreign exchange markets.
- (24) The table below presents monetary growth rates over the December-to-March period thought to be consistent with these

alternatives. M2 and M3 decline in February under all three alternatives owing to the extraordinary contraction over the latter part of January. On the thought that this drop owes in part to exceptionally large tax payments at mid-month and repayment of holiday credit card bills, elevated by unusual holiday spending, a rebound in March is foreseen as the replenishing of these balances shows through.

	Alt. A	<u>Alt. B</u>	Alt. C
Growth from December to March			
M2 M3 M1	-1/2 -2-1/4 4-1/2	-1 -2-1/2 3-1/2	-1-1/2 -2-3/4 2-1/2
Growth from 1992Q4 to March			
M2 M3 M1	-1/4 -2-1/4 6-1/4	-1/2 -2-1/4 5-1/2	-1 -2-1/2 4-3/4

(25) Under alternative B, M2 would be about flat on average over February and March. The rebound in March owes partly to the narrowing of opportunity costs that has occurred recently. Holding down this pickup will be diminished mortgage refinancing closings in the period just ahead, reflecting the fall-off in applications late in 1992, which will act as a drag on M1. (M1 is expected to grow at only

<sup>7.</sup> Following standard practice, the base for the short-run alternatives is December instead of the November base used in the current directive. The detailed table on monetary growth gives projections for March to June and QIV 1992 to June to give an indication of where money would be at midvear.

money would be at midyear.

8. The new seasonal adjustment factors for February may be exaggerating the weakness in that month. Revisions to seasonal adjustment factors, using long-standing statistical methods that incorporate minimal staff judgmental intervention, were especially marked for the month of February owing to considerable strength in not seasonally adjusted money data in that month in recent years. That strength may have been influenced importantly by the timing of System policy easings rather than newly emerging seasonal influences and would not be expected to be so evident this year.

# Alternative Levels and Growth Rates for Key Monetary Aggregates

		M2		м3			M1		
	Alt. A	Alt. B	Alt. C	Alt. A	Alt. B	Alt. C	Alt. A	Alt. B	Alt. C
Levels in billions									
1992 October	3496.2	3496.2	3496.2	4186.1	4186.1	4186.1	1005.9	1005.9	1005.9
November	3504.2	3504.2	3504.2	4188.2	4188.2	4188.2	1019.1	1019.1	1019.1
December	3502.4	3502.4	3502.4	4177.2	4177.2	4177.2	1026.6	1026.6	1026.6
1993 January	3492.2	3492.2	3492.2	4155.9	4155.9	4155.9	1032.8	1032.8	1032.8
February	3484.6	3483.2	3481.9	4147.1	4146.2	4145.7	1030.5	1029.7	1028.8
March	3497.1	3493.3	3489.8	4153.6	4151.0	4148.8	1038.2	1035.7	1033.1
Monthly Growth Rates									
1992 October	4.6	4.6	4.6	0.1	0.1	0.1	19.1	19.1	19.1
November	2.7	2.7	2.7	0.6	0.6	0.6	15.7	15.7	15.7
December	-0.6	-0.6	-0.6	-3.2	-3.2	-3.2	8.8	8.8	8.8
1993 January	-3.5	-3.5	-3.5	-6.1	-6.1	-6.1	7.2	7.2	7.2
February	-2.6	-3.1	-3.6	-2.6	-2.8	-3.0	-2.6	-3.6	-4.6
March	4.3	3.5	2.7	1.9	1.4	0.9	9.0	7.0	5.0
Quarterly Ave. Growth Ra									
1992 Q1	3.2	3.2	3.2	2.0	2.0	2.0	15.5	15.5	15.5
Q2	0.6	0.6	0.6	-0.3	-0.3	-0.3	10.5	10.5	10.5
Q3	0.8	0.8	0.8	0.0	0.0	0.0	11.7	11.7	11.7
Q4	3.0	3.0	3.0	0.4	0.4	0.4	16.8	16.8	16.8
1993 Q1	-1.1	-1.3	-1.5	-3.0	-3.1	-3.2	6.5	6.1	5.7
Q2	3.5	2.8	2.1	1.7	1.3	0.9	9.8	8.0	6.2
Nov 92 to Mar 93	-0.6	-0.9	-1.2	-2.5	-2.7	-2.8	5.6	4.9	4.1
Dec 92 to Mar 93	-0.6	-0.9	-1.4	-2.3	-2.7 -2.5	-2.7	4.5	3.5	2.5
Jan 93 to Mar 93	0.8	0.2	-0.4	-0.3	-2.3	-1.0	3.1	1.7	0.2
Mar 93 to Jun 93	4.2	3.5	2.8	2.2	1.9	1.6	11.4	9.7	8.0
Q4 91 to Q4 92	1.9	1.9	1.9	0.5	0.5	0.5	14.3	14.3	14.3
Q4 91 to Dec 92	1.8	1.8	1.8	0.3	0.3	0.3	14.2	14.2	14.2
Q4 92 to Jan 93	-1.5	-1.5	-1.5	-4.0	-4.0	-4.0	9.2	9.2	9.2
Q4 92 to Feb 93	-1.9	-2.0	-2.2	-3.5	-3.6	-3.6	5.2	4.9	4.6
04 92 to Mar 93	-0.3	-0.6	-0.9	-2.2	-2.3	-2.5	6.2	5.5	4.7
Q4 92 to Jun 93	1.6	1.1	0.6	-0.3	-0.5	-0.8	8.6	7.4	6.1
<del>-</del>									

Provisional 1993

Target Ranges: 2.5 to 6.5 1.0 to 5.0

Chart 1
ACTUAL AND TARGETED M2

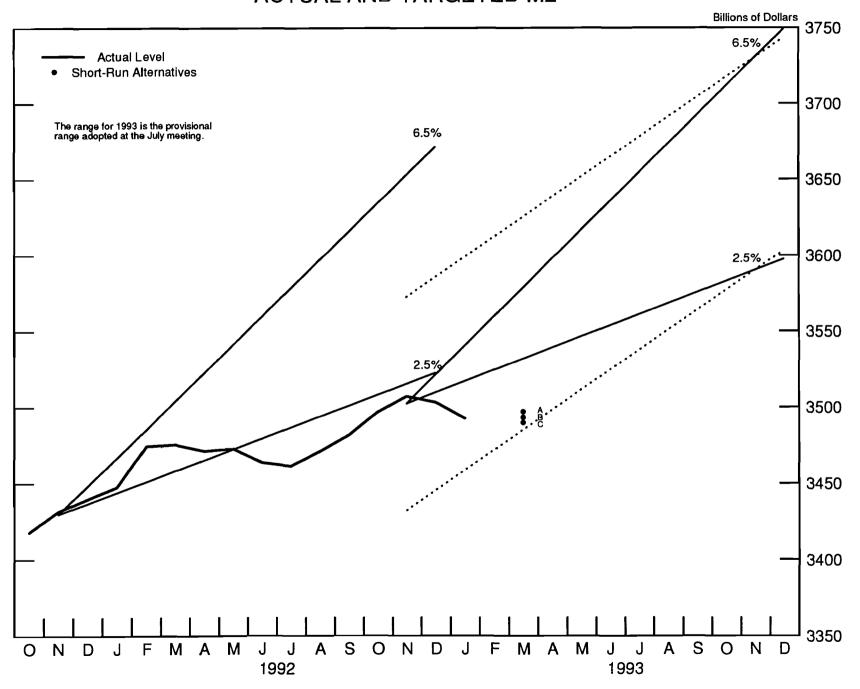
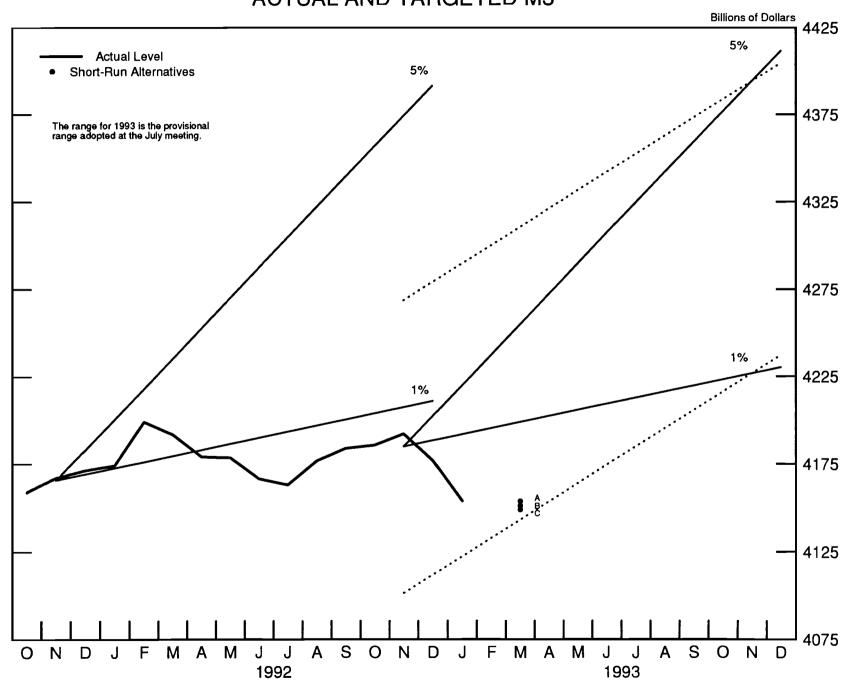
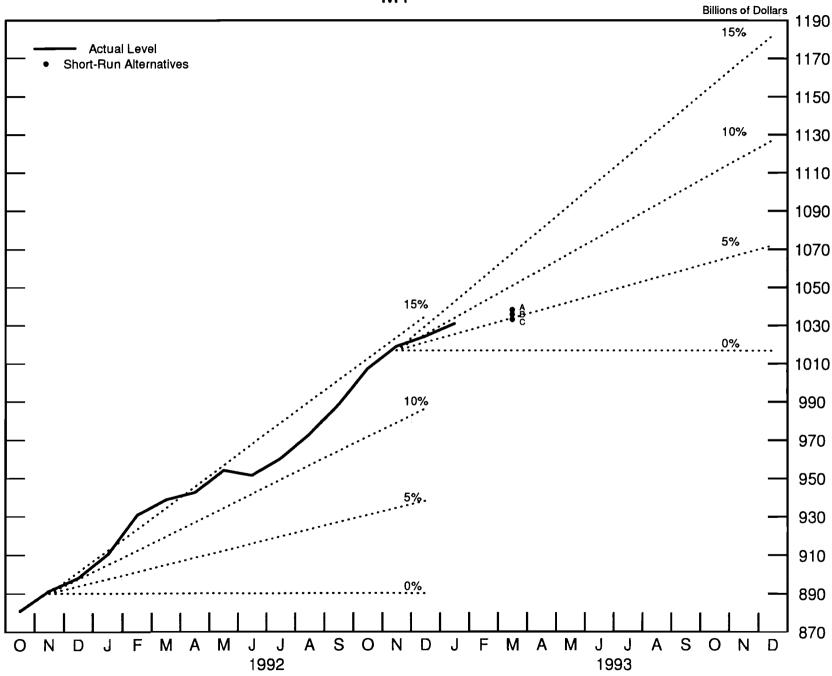


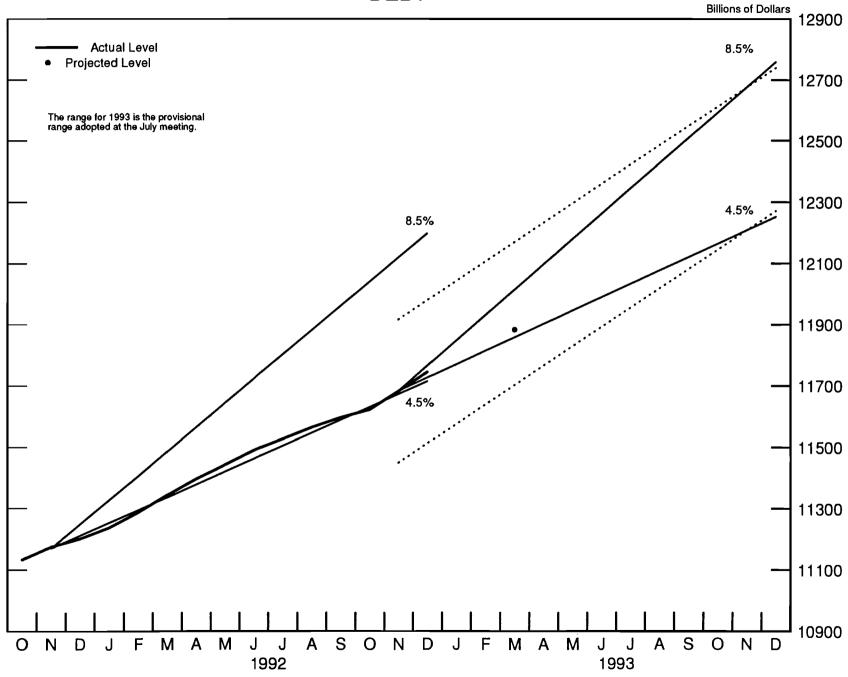
Chart 2
ACTUAL AND TARGETED M3



M1







- a 1-3/4 percent rate over February and March.) Still, M2 would remain below its fourth-quarter 1992 level and, on a quarterly average basis, would decline at a 1-1/4 percent pace in the first quarter, implying a sharp 7-1/2 percent rate of increase in its velocity.
- (26) Although M3 would resume growing in March under alternative B, this aggregate would contract on balance over February and March. A rebound in institution-only money market mutual funds as year-end effects disappear and rate relationships are more favorable acts to hold down the M3 run-off in February. Banks' needs for funds are seen as remaining quite modest as businesses continue to concentrate their financing in the capital markets and as household spending and borrowing moderate. Overall private credit demands are expected to remain around the sluggish pace of recent months. Federal borrowing which has been held down in January and February by unexpected tax inflows, will strengthen substantially in March, boosting growth in domestic nonfinancial debt to a 5-1/2 percent rate over February and March and expansion from the fourth quarter of 1992 through March to 5 percent.
- (27) Under alternative A, growth in M2 would pick up to a 1 percent annual rate over February and March, returning this aggregate to its fourth-quarter 1992 level in March. In response to more attractive opportunity costs and the boost to income, M2 would be on a trajectory to reach the lower bound of its long-run alternative II range for 1993 by June, but would remain noticeably below its alternative I range. Bigger inflows to savings and MMDAs, as well as to M1 balances, would account for the faster growth in M2 in the months ahead. A buildup of institution-only money funds, as holders responded to more attractive rate relationships, would buoy M3 over February and March

under alternative A, and hold down the net declines in this aggregate over these two months. Nonetheless, the level of M3 in March would remain well below that of the fourth quarter of 1992, and the firmer path of this aggregate in subsequent months still would not be sufficient to return it to its fourth-quarter level until July.

March as larger opportunity costs act as an additional drag on this aggregate. The rebound in its M1 component in March would about offset a decline in February and it, too, would be about unchanged over these two months. M3 would drop at a 1/4 percent annual rate over February and March, as less attractive returns on M3-money funds lead to outflows from such funds. The weaker trajectory of this aggregate in later months implies that even by midyear it would remain well below its fourth-quarter 1992 level.

#### Directive Language

(29) Presented below for Committee consideration is draft language relating to the Humphrey-Hawkins ranges for 1993 and to the operating paragraph for the intermeeting period.

## 1993 Ranges

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. In furtherance of these objectives, the Committee at THIS its meeting on June 30-July 1 reaffirmed the ranges it had established in February RANGES for growth of M2 and M3 of 2-1/2 to 6-1/2 \_\_\_ TO \_\_\_ percent and 1 to 5 \_\_\_ TO \_\_\_ percent respectively, measured from the fourth quarter of 1992 1991 to the fourth quarter of 1993 1992. The Committee anticipated that developments contributing to unusual velocity increases could persist DURING in the second half of the year. The monitoring range for growth of total domestic nonfinancial debt also was SET maintained at 4-1/2 to 8-1/2 \_\_\_ TO \_\_\_ percent for the year. For 1993, the Committee on a tentative basis set the same ranges as in 1992 for growth of the monetary aggregates and debt measured from the fourth quarter of 1992 to the fourth quarter of 1993. The behavior of the monetary aggregates will continue to be evaluated in the light of progress toward price level stability, movements in their velocities, and developments in the economy and financial markets.

## OPERATIONAL PARAGRAPH

In the implementation of policy for the immediate future, the Committee seeks to DECREASE SOMEWHAT/maintain/
INCREASE 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, 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 GROWTH OF (DECLINES IN) M2 AND M3 AT ANNUAL RATES growing at a rate of around 1-1/2 percent \_\_\_ AND \_\_\_ PERCENT RESPECTIVELY OVER M3 about unchanged in the period from DECEMBER November through March.

#### APPENDIX A

#### MONEY STOCK REVISIONS

Measures of the money stock have been revised to incorporate the results of the annual benchmark and seasonal factor review. The attached tables compare growth rates of the old and revised series. These data should be regarded as confidential until their release to the public, tentatively planned for February 4.

#### Benchmark Revisions

Data for the monetary aggregates have been benchmarked using call reports through September 1992 and other sources. The benchmark revisions lowered the annual growth rate of M2 by .2 percentage point over 1992. Other growth rates of M1, M2, and M3 were revised by no more than .1 percentage point for any year.

The benchmark incorporates a change in the type of data used to measure large time deposits held by domestic banks. We had relied on reports from issuing banks as to bank holders of their CDs; we now use reports by banks of CDs they hold, which we have learned to be more accurate. (This item is one of several that are subtracted from gross large time deposits to measure the quantity of such time deposits held by the nonbank public.) As a result of the change, this netting item revised upward by as much as \$12 billion over the past seven years, thereby reducing the level of M3 by the same amount, but causing little revision to the annual growth rates of M3. The benchmark also incorporates corrections for the previous misreporting by banks of some brokered time deposits. Initially, these deposits had been misclassified as large time deposits, rather than as small time deposits. In last year's benchmark, this misclassification was corrected for data reported by several large banks in 1990 and 1991. In this year's benchmark, after a more thorough examination of the problem, the misclassification was corrected for a large number of additional banks, for data reported over the past nine years. The reclassification of these deposits, which amounted to as much as \$6 billion in 1988, boosted the level of M2 but left M3 unaffected.

The benchmark also folded in historical data for several money market mutual funds that began reporting for the first time during 1992, raising the level of M3 by almost \$9 billion in late 1992. Numerous other, smaller revisions were also made to the aggregates.

#### Seasonal Factor Revisions

Seasonal factors for the monetary aggregates have been revised using the X-11 ARIMA procedure applied to data through preliminary estimates for January 1993. The seasonal adjustment procedure used this year is identical to that used last year.

The revisions to seasonal factors redistributed some growth in each of the aggregates from the first and fourth quarters to the second and third quarters of 1992.

Appendix Table A.1

Comparison of Revised and Old M1 Growth Rates (percent changes at annual rates)

			-	Difference	
	Revised	01d 	(1) - (2)	Benchmark	Seasonals
	(1)	(2)	(3)	•	(5)
Monthly					
1991Oct.	9.8	12.2	-2.4	-0.3	-2.1
Nov.	15.7	14.3	1.4	-0.1	1.5
Dec.	11.0	9.0	2.0	-0.2	2.2
1992Jan.	16.4	16.4	0.0	0.1	-0.1
Feb.	19.4	27.2	-7.8	0.1	-7.9
Mar.	11.5	10.3	1.2	0.7	0.5
Apr.	7.8	4.9	2.9	0.4	2.5
May	14.0	14.6	-0.6	-0.2	-0.4
June	0.5	-3.3	3.8	-0.1	3.9
July	13.5	11.1	2.4	-0.3	2.7
Aug.	15.2	15.7		0.3	-0.8
Sept.	18.0			0.0	-1.1
Oct.	19.1			-0.1	-3.5
Nov.		13.9	1.8	-0.1	1.9
Dec.	8.8	6.1	2.7	0.1	2.6
1993Jan.	7.2	7.9	-0.7	0.0	-0.7
Quarterly					
1991QIV	10.4	11.0	-0.6	-0.2	-0.4
1992QI	15.5	16.5	-1.0	0.2	-1.2
QII	10.6	9.8	0.8	0.2	0.6
QIII	11.6	10.3	1.3	-0.1	1.4
QIV	16.8	17.5	-0.7	0.0	-0.7
Semi-Annual					
444					
1992QIV '91 to QII '92	13.2	13.4	-0.2	0.2	-0.4
QII '92 to					
QIV '92	14.4	14.2	0.2	0.0	0.2
Annual (QIV TO QIV)					
1991		8.0	0.0	0.0	0.0
1992	14.3	14.2	0.1	0.1	0.0

Appendix Table A.2

Comparison of Revised and Old M2 Growth Rates (percent changes at annual rates)

	Revised			Differenc	
	(1)	(2)	(3)	   (4)	(5)
Monthly					
1991Oct. Nov. Dec.	1.5 4.6 3.4	2.1 4.8 2.9	-0.6 -0.2 0.5	0.1 -0.1 0.2	-0.7 -0.1 0.3
1992Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.	1.9 5.7 0.6 -0.3 0.8 -1.8 0.5 2.8 2.8 4.6 2.7 -0.6	2.7 9.4 0.4 -1.5 0.5 -3.1 -0.9 3.3 3.7 5.2 3.5 -1.3	-0.8 -3.7 0.2 1.2 0.3 1.3 1.4 -0.5 -0.9 -0.6 -0.8 0.7	-1.3 -0.1 0.0 0.1 0.0 0.1 -0.3 -0.1 -0.7 0.3 -0.6 0.2	0.5 -3.6 0.2 1.1 0.3 1.2 1.7 -0.4 -0.2 -0.9 -0.2 0.5
1993Jan.	-3.2	-3.4	0.2	-0.1	0.3
Quarterly					
1991QIV	2.1	2.4	-0.3	0.0	-0.3
1992QI QII QIII QIV	3.2 0.6 0.8 3.0	4.2 0.4 0.2 3.6	-1.0 0.2 0.6 -0.6	-0.4 0.1 -0.2 -0.2	-0.6 0.1 0.8 -0.4
Semi-Annual					
1992QIV '91 to QII '92	1.9	2.3	-0.4	-0.2	-0.2
QII '92 to QIV '92	1.9	1.9	0.0	-0.2	0.2
Annual (QIV TO QIV)					
1991 1992	2.8 1.9	2.8 2.1	0.0 -0.2	0.0 -0.1	0.0 -0.1

Appendix Table A.3

Comparison of Revised and Old M3 Growth Rates (percent changes at annual rates)

	Differer Revised Old (1) -			Difference   Benchmark	
	(1)	(2)	(3)	l (4)	(5)
Monthly					
1991Oct. Nov. Dec.		1.8 2.4 1.2	-0.3 -0.3 0.2	0.0 0.7 -0.8	-0.3 -1.0 1.0
1992Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.		0.8 7.2 -2.1 -3.6 -0.1 -3.4 -1.0 3.9 2.1 0.5 1.8 -4.4	0.4 -2.4 1.4 2.2 0.5 0.6 0.7 -1.3 -0.8 -0.4 -1.2 1.2	-0.3 0.8 0.6 0.8 0.9 -0.4 -0.6 -0.3 -0.6 0.3 -0.2	0.7 -3.2 0.8 1.4 -0.4 1.0 1.3 -1.0 -0.2 -0.7 -1.0 1.3
1993Jan.	-6.4	-7.0	0.6	-0.2	0.8
Quarterly					
1991QIV	0.6	1.0	-0.4	-0.1	-0.3
1992QI QII QIII QIV Semi-Annual		2.2 -1.3 0.0 1.0	-0.2 1.0 0.0 -0.6	0.1 0.7 -0.3 -0.2	-0.3 0.3 0.3 -0.4
1992QIV '91 to QII '92	0.8	0.4	0.4	0.3	0.1
QII '92 to QIV '92	0.2	0.5	-0.3	-0.2	-0.1
Annual (QIV TO QIV)					
1991 1992		1.2		-0.1 0.0	0.0

ADOPTED LONGER-RUN GROWTH RATE RANGES FOR THE MONETARY AND CREDIT AGGREGATES (percent annual rates; numbers in parentheses are actual growth rates as reported at end of policy period in February Monetary Policy Report to Congress)

			M1.	<u>M2</u>	<u>M3</u>	Domestic Non- financial Debt <sup>1</sup>
QIV	1978 - QIV	1979 <sup>2</sup>	3 - 6 (5.5)	5 - 8 (8.3)	6 - 9 (8.1)	7.5 - 10.5 (12.2)
QIV	1979 - QIV	1980	$4 - 6.5 (7.3)^{3.4}$	6 - 9 (9.8)	6.5 - 9.5 (9.9)	6 - 9 (7.9)
QIV	1980 - QIV	1981	$3.5 - 6  (2.3)^{3.5}$	6 - 9 (9.4)	6.5 - 9.5 (11.4)	6 - 9 (8.8) <sup>6</sup>
QIV	1981 - QIV	1982	$2.5 - 5.5 (8.5)^3$	6 - 9 (9.2)	6.5 - 9.5 (10.1)	$6 - 9^7 \qquad (7.1)^6$
QIV	1982 - QIV	1983	5 - 9 <sup>8</sup> (7.2)	7 - 10 <sup>9</sup> (8.3)	6.5 - 9.5 (9.7)	8.5 - 11.5 (10.5)
QIV	1983 - QIV	1984	4 - 8 (5.2)	6 - 9 (7.7)	6 - 9 (10.5)	8 - 11 (13.4)
QIV	1984 - QIV	1985	$3 - 8^{10} (12.7)$	6 - 9 (8.6)	6 - 9.5 (7.4)	9 - 12 (13.5)
QIV	1985 - QIV	1986	3 - 8 (15.2)	6 - 9 (8.9)	6 - 9 (8.8)	8 - 11 (12.9)
QIV	1986 - QIV	1987	n.s <sup>11</sup> (6.2)	5.5 - 8.5 (4.0)	5.5 - 8.5 (5.4)	8 - 11 (9.6)
QIV	1987 - QIV	1988	n.s (4.3)	4 - 8 (5.3)	4 - 8 (6.2)	7 - 11 (8.7)
QIV	1988 - QIV	1989	n.s (0.6)	3 - 7 (4.6)	3.5 - 7.5 (3.3)	6.5 - 10.5 (8.1)
QIV	1989 - QIV	1990	n.s (4.2)	3 - 7 (3.9)	1 - 5 <sup>12</sup> (1.8)	5 - 9 (6.9)
QIV	1990 - QIV	1991	n.s (8.0)	2.5 - 6.5 (2.8)	1 - 5 (1.2)	4.5 - 8.5 (4.5)
QIV	1991 - QIV	1992	n.s (14.3)	2.5 - 6.5 (1.9)	1 - 5 (0.5)	4.5 - 8.5 (4.6)

n.s. -- not specified.

<sup>1.</sup> Targets are for bank credit until 1983; from 1983 onward targets are for domestic nonfinancial sector debt.

<sup>2.</sup> At the February 1979 meeting the FOMC adopted a QIV'78 to QIV'79 range for M1 of 1-1/2 to 4-1/2 percent. This range anticipated that shifting to ATS and NOW accounts in New York State would slow M1 growth by 3 percentage points. At the October meeting it was noted that ATS/NOW shifts would reduce M1 by no more than 1-1/2 percentage points. Thus, the longer-run range for M1 was modified to 3-6 percent.

<sup>3.</sup> The figures shown reflect target and actual growth of M1-B in 1980 and shift-adjusted M1-B in 1981. M1-B was relabeled M1 in January 1982. The targeted growth for M1-A was 3-1/2 to 6 percent in 1980 (actual growth was 5.0 percent); in 1981 targeted growth for shift-adjusted M1-A was 3 to 5-1/2 percent (actual growth was 1.3 percent).

shift-adjusted MI-A was 3 to 5-1/2 percent (actual growth was 1.3 percent).
4. When these ranges were set, shifts into other checkable deposits in 1980 were expected to have only a limited effect on growth of MI-A and MI-B. As the year progressed, however, banks offered other checkable deposits more actively, and more funds than expected were directed to these accounts. Such shifts are estimated to have decreased MI-A growth and increased MI-B growth each by at least 1/2 percentage point more than had been anticipated.

<sup>5.</sup> Adjusted for the effects of shifts out of demand deposits and savings deposits into other checkable deposits. At the February FOMC meeting, the target ranges for observed M1-A and M1-B in 1981 on an unadjusted basis, expected to be consistent with the adjusted ranges, were -4-1/2 to -2 and 6 to 8-1/2 percent, respectively. Actual M1-B growth (not shift adjusted) was 5.0 percent.

<sup>6.</sup> Adjusted for shifts of assets from domestic banking offices to International Banking Facilities.

<sup>7.</sup> Range for bank credit is annualized growth from the December 1981-January 1982 average level through the fourth quarter of 1982.

<sup>8.</sup> Base period, adopted at the July 1983 FOMC meeting, is QII'83. At the February 1983 meeting the FOMC had adopted a QIV'82 to QIV'83 target range for M1 of 4 to 8 percent.
9. Base period is the February-March 1983 average.

<sup>10.</sup> Base period, adopted at the July 1985 FOMC meeting, is QII'85. At the February 1985 meeting the FOMC had adopted a QIV'84 to QIV'85 target range for M1 of 4 to 7 percent.

11. No range for M1 has been specified since the February 1987 FOMC meeting because of uncertainties about its underlying relationship to the behavior of the economy and its sensitivity to economic and financial circumstances.

<sup>12.</sup> At the February 1990 meeting the FOMC specified a range of 2 - 1/2 to 6 - 1/2 percent. This range was lowered to 1 to 5 percent at the July 1990 meeting.

Table 1
SELECTED INTEREST RATES
(percent)

			_		(parcent)															
				Short-Term CDs money											·Term					
				federal funds		•	reasury bills ondary market		comm. paper	money market mutual	bank prime	U.S. government constant maturity yields			recently Bond	municipal Bond	convention secondary market	onal home m prim mar	ary	
		_			3-month	6-month	1-year	3-month	1-month	fund	loan	3-year	10-year	30-year	offered	Buyer	fixed-rate	fixed-rate	ARM	
				1	2	3	4	5	6	7	8	. 9	10	11	12	13	14	15	16	
91 Hig Lov				7.46 4.22	6.46 3.84	6.50 3.93	6.43 4.01	7.75 4.25	8.49 4.88	7.37 4.53	9.93 7.07	7.47 5.24	8.35 6.96	8.52 7.58	9.96 8.49	7.40 6.76	9.97 8.38	9.75 8.35	7.78 6.02	
92 Hig Lov				4.20 2.86	4.05 2.69	4.22 2.82	4.51 2.91	4.32 3.07	5.02 3.17	4.51 2.74	6.50 6.00	6.32 4.24	7.65 6.30	8.07 7.29	8.99 8.06	6.87 6.12	9.22 7.86	9.03 7.84	6.22 4.97	
Monthly																				
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec	92 92 92 92 92 92 92 92 92 92 92			4.03 4.06 3.98 3.73 3.82 3.76 3.25 3.30 3.22 3.10 3.09 2.92	3.80 3.84 4.04 3.75 3.63 3.66 3.21 3.13 2.91 2.86 3.13 3.22	3.87 3.93 4.18 3.87 3.75 3.77 3.28 3.21 2.96 3.04 3.34 3.36	3.95 4.08 4.40 4.09 3.99 3.98 3.45 3.33 3.06 3.17 3.52 3.55	4.05 4.07 4.25 4.00 3.82 3.86 3.37 3.31 3.13 3.26 3.58 3.48	4.11 4.11 4.28 4.02 3.87 3.91 3.38 3.25 3.22 3.25 3.71	4.18 3.84 3.73 3.66 3.52 3.45 3.25 3.07 2.91 2.79 2.83 2.82	6.50 6.50 6.50 6.50 6.50 6.00 6.00 6.00	5.40 5.72 6.18 5.93 5.81 5.60 4.91 4.72 4.42 4.64 5.14 5.21	7.03 7.34 7.54 7.48 7.39 7.26 6.84 6.59 6.42 6.59 6.87	7.58 7.85 7.97 7.96 7.89 7.84 7.60 7.39 7.34 7.53 7.61 7.44	8.57 8.79 8.91 8.82 8.70 8.62 8.38 8.16 8.11 8.40 8.51 8.27	6.67 6.83 6.86 6.80 6.72 6.66 6.32 6.31 6.40 6.59 6.56 6.43	8.65 8.92 9.17 8.98 8.85 8.66 8.25 8.04 7.98 8.25 8.48 8.34	8.43 8.76 8.94 8.85 8.67 8.51 8.13 7.98 7.92 8.09 8.31 8.22	5.89 5.88 6.11 6.15 6.00 5.87 5.51 5.27 5.11 5.06 5.26 5.45	
Weekly Oct Oct Oct	14 21 28	92 92 92		3.20 3.05 2.96	2.85 2.95 2.93	2.96 3.11 3.18	3.06 3.27 3.35	3.19 3.34 3.39	3.19 3.26 3.26	2.77 2.79 2.74	6.00 6.00 6.00	4.48 4.76 4.93	6.49 6.70 6.79	7.50 7.58 7.64	8.42 8.55 8.52	6.51 6.71 6.81	8.22 8.41 8.47	8.06 8.23 8.21	5.05 5.13 5.12	
Nov Nov Nov Nov	4 11 18 25	92 92 92 92		3.07 2.91 2.97 3.10	2.99 3.06 3.12 3.21	3.21 3.26 3.34 3.41	3.40 3.44 3.51 3.58	3.40 3.47 3.63 3.66	3.25 3.26 3.28 3.22	2.75 2.74 2.74 2.74	6.00 6.00 6.00 6.00	4.99 5.07 5.12 5.19	6.83 6.94 6.83 6.83	7.65 7.72 7.55 7.54	8.65 8.49 8.40 8.48	6.70 6.57 6.48 6.47	8.53 8.44 8.48 8.47	8.29 8.32 8.32 8.29	5.17 5.20 5.32 5.34	
Dec Dec Dec Dec Dec	2 9 16 23 30	92 92 92 92 92		3.37 2.94 2.93 2.94 2.86	3.30 3.26 3.23 3.18 3.17	3.47 3.37 3.39 3.33 3.33	3.66 3.55 3.63 3.52 3.47	3.75 3.60 3.50 3.36 3.34	3.46 3.88 3.78 3.65 3.60	2.77 2.79 2.80 2.83 2.86	6.00 6.00 6.00 6.00	5.38 5.22 5.26 5.17 5.13	6.94 6.80 6.80 6.71 6.70	7.58 7.48 7.44 7.39 7.38	8.35 8.27 8.24 8.18 8.21	6.48 6.42 6.45 6.41 6.40	8.41 8.35 8.34 8.28 8.30	8.34 8.23 8.19 8.13 8.14	5.52 5.47 5.44 5.38 5.36	
Jan Jan Jan Jan	6 13 20 27	93 93 93 93		3.03 2.98 3.10 2.94	3.09 3.05 2.98 2.95	3.26 3.19 3.12 3.08	3.43 3.42 3.33 3.28	3.28 3.24 3.17 3.15	3.39 3.26 3.17 3.15	2.92 2.83 2.77 2.77	6.00 6.00 6.00 6.00	5.05 5.06 4.93 4.84	6.64 6.73 6.61 6.53	7.35 7.46 7.35 7.27	8.28 8.13 8.05 7.95	6.44 6.41 6.40 6.36	8.27 8.10 8.11 8.01	8.07 8.04 8.00 7.86	5.28 5.25 5.20 5.06	
Daily Jan Jan Jan	22 28 29	93 93 93		2.86 2.97 3.00p	2.97 2.90 2.90	3.06 3.05 3.07	3.27 3.23 3.24	3.15 3.14 3.11	3.15 3.14 3.13	  	6.00 6.00 6.00	4.85 4.73 4.72	6.57 6.44 6.39	7.30 7.23 7.21	  	  	  	  	 	

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

# **Money and Credit Aggregate Measures**

Seasonally adjusted

FEB. 1, 1993

	<u> </u>	<del></del>	Money stock mea	Bank credit Domestic nonfinancial debt							
Period	M1	M2		nsactions ponents in M3 only	М3	L	total loans and investments	U.S. government <sup>2</sup>	other <sup>2</sup>	total	
	1	2	3	4	5	6	7	8	9	10	
ANN. GROWTH RATES (%): ANNUALLY (Q4 TO Q4) 1990 1991 1992	4.2 8.0 14.2	4.0 2.8 2.1	3.9 1.1 -2.1	-7.2 -5.7 -7.3	1.7 1.2 0.5	1.8	5.5 3.5 3.9	10.3	5.9 2.3	6.9	
QUARTERLY AVERAGE 1992-1st QTR. 1992-2nd QTR. 1992-3rd QTR. 1992-4th QTR.	16.5 9.8 10.3 17.6	4.2 0.4 0.2 3.6	-0.1 -3.0 -3.6 -1.9	-7.3 -9.5 -1.2 -11.8	2.2 -1.3 -0.0 1.0	1.5 0.6 1.1	4.5 3.3 2.8 5.0	10.0 14.4 10.8	2.5 2.5 1.9	4.3 5.4 4.2	
MONTHLY 1992-JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. DEC.	16.4 27.2 10.3 4.9 14.6 -3.3 11.1 15.7 19.1 22.7 13.9 6.2	2.7 9.4 01.5 -0.1 -3.1 -0.3 -3.7 -3.7 -3.5 -3.5 -3.3	-2.1 3.0 -3.8 -4.7 -3.0 -5.4 -1.4 -2.4 -1.6	-8.4 -3.1 -13.7 -14.4 -5.3 -1.9 -7.0 -6.0 -23.1 -6.3 -20.3	0.8 7.2 -2.1 -3.6 -0.1 -3.4 -1.0 3.9 2.1 0.5 1.8	-1.8 6.8 2.5 -1.7 -2.3 2.9 -1.9 4.2 2.0 5.3	4.7 1.25 3.53 6.22 2.53 6.7 3.8 4.8	7.7 8.3 17.1 15.0 13.0 14.6 10.0 9.7 5.0 -1.4	2.6 4.5 2.4 2.0 1.7 1.7 1.9 2.7 4.0	3.40 5.89 44.99 33.62	
1993-JAN. pe	8	-4	-8	-22	-7						
LEVELS (\$BILLIONS): MONTHLY 1992-AUG. SEP. OCT. NOV. DEC.	973.1 988.6 1007.3 1019.0 1024.3	3471.2 3481.9 3497.1 3507.3 3503.4	2498.1 2493.2 2489.8 2488.3 2479.2	705.6 702.1 688.6 685.0 673.4	4176.8 4184.0 4185.8 4192.2 4176.9	5024.8 5042.5 5051.0 5073.5	2898.3 2914.4 2923.9 2935.7 2944.9	2992.4 3004.8 3001.4 3027.7	8572.3 8591.7 8620.6 8654.3	11564.7 11596.5 11622.0 11682.0	
MEEKLY 1992-DEC. 7 14 21 28	1022.7 1021.5 1019.7 1029.2	3509.9 3506.2 3498.9 3502.3	2487.3 2484.7 2479.2 2473.1	679.5 682.0 676.3 665.6	4189.5 4188.2 4175.2 4167.9						
1993-JAN. 4 11 p 18 p	1028.9 1034.4 1031.6	3493.9 3500.8 3493.8	2465.1 2466.4 2462.2	648.3 652.6 666.7	4142.2 4153.4 4160.5						

Adjusted for breaks caused by reclassifications.

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

FEB. 1, 1993

			Other	Overnight		Small denomi-		market I funds	Large denomi-				Short-		Bankers
Period	Currency	Demand deposits	checkable deposits	RPs and Eurodollars NSA	Savings deposits <sup>2</sup>	nation time deposits <sup>2</sup>	general purpose and broker/ dealer <sup>4</sup>	Institu- tions only	nation time deposits	Term RPs NSA'	Term Eurodollars NSA'	Savings bonds	term Treasury securities	Commer- cial paper*	accep- tances
1.5151.5.45511.5515.	1 1	2	3	4	5	<u> </u>	7	8	9	10	11	12	13	14	15
LEVELS (\$BILLIONS): ANNUALLY (4TH QTR.) 1990 1991 1992	245.5 266.0 290.3	277.5 287.0 338.1	292.7 329.1 379.8	78.8 73.3 74.5	919.9 1028.8 1180.0	1167.7 1079.1 885.4	346.2 359.8 347.8	130.1 173.6 201.1	502.1 443.1 369.2	93.6 73.0 78.7	68.0 60.7 49.7	125.2 137.0	329.8 319.6	357.4 337.9	33.0 24.0
MONTHLY 1991-DEC.	267.3	289.5	333.2	76.2	1042.6	1063.0	360.5	179.1	437.1	70.5	57.6	137.9	316.1	339.7	23.
1992-JAN. Feb. Mar.	269.4 271.6 271.8	293.9 305.1 309.6	339.0 346.3 349.5	77.7 77.8 74.6	1061.2 1083.9 1098.0	1042.9 1019.8 1002.8	358.6 361.7 358.3	182.4 188.2 185.3	427.9 420.7 413.0	70.5 71.7 73.3	55.7 56.1 58.0	138.9 140.1 141.2	310.0 319.9 327.7	334.8 327.5 337.0	23. 22. 22.
APR. May June	273.6 274.7 276.2	311.2 315.1 311.0	350.0 356.4 356.7	72.6 69.2 72.0	1111.2 1122.4 1127.0	985.3 968.7 956.2	355.9 356.7 355.3	189.2 194.8 199.7	405.7 400.9 395.3	72.5 73.4 73.6	54.9 52.8 51.8	142.4 143.5 144.6	328.0 329.9 335.0	341.7 329.4 347.1	21. 22. 22.
JULY AUG. Sep.	278.9 282.3 286.4	315.6 320.6 327.8	358.2 362.2 366.1	72.4 75.8 74.2	1134.4 1145.6 1159.6	942.4 928.0 915.2	351.7 349.7 344.7	207.7 217.2 217.2	388.5 384.6 380.0	72.5 73.3 75.1	51.0 51.4 49.5	145.9 147.5 149.5	326.3 327.1 324.3	350.3 352.4 364.4	21. 20. 20.
OCT. NOV. DEC.	288.4 290.0 292.5	336.2 339.2 338.8	374.0 381.2 384.3	75.2 74.8 73.5	1171.6 1181.7 1186.8	898.8 884.3 873.2	347.6 348.7 347.2	205.6 203.5 194.3	373.2 368.8 365.7	77.3 79.5 79.2	49.3 50.0 49.8	152.0 154.7	323.2 332.0	369.5 375.0	20. 19.
				10 13 13 13 13											

Net of money market mutual fund holdings of these items.
 Includes money market deposit accounts.
 Includes retail repurchase agreements. All IRA and Keogh accounts at commercial banks and thrift institutions are subtracted from small time deposit Excludes IRA and Keogh accounts.
 Net of large denomination time deposits held by money market mutual funds and thrift institutions.
 p-preliminary

### NET CHANGES IN SYSTEM HOLDINGS OF SECURITES<sup>1</sup> Millions of dollars, not seasonally adjusted

January 29, 1993

			Treasury bills	<u> </u>			Treasur	Federal	Net change				
Period		Not	Redemptions	Net		Net pu	rchases 3		-	agencies	outright		
	enod	Net 2 purchases	(-)	Net change	within 1 year	1-5	5-10	over 10	Redemptions (-)	Net Change	redemptions (-)	holdings total 4	Net RPs 5
1990		17,448	4,400	13,048	425	50	-100			375	183	13,240	11,128
1991		20,038	1,000	19,038	3,043	6,583	1,280	375		11,282	292	27,726	-1,614
1992		13,086	1,600	11,486	1,061	13,178	2,598	2,528		19,365	632	30,219	-13,215
1991	Q1	2,160	1,000	1,160	800	2,950	400	•••		4,150		5,310	-16,864
	Q2	4,356		4,356	900	550				1,450	128	5,698	992
	Q3	7,664		7,664	1,165	650			*	1,815	55	9,419	152
	Q4	5,858		5,858	178	2,433	880	375		3,867	109	7,299	14,106
1002	Q1	-1,000	1,600	-2,600		2,452				0.450			44000
1992	Q2						597	 		2,452	85	-233	-14,636
	Q3	4,415 867		4,415		2,478		655	•••	3,730	250	7,896	1,137
	Q3 Q4			867	550	3,725	725	926		5,927	176	6,617	14,195
	<b>U</b> 4	8,805		8,805	511	4,522	1,276	947		7,256	121	15,939	-13,912
1992	January	-1,628	1,600	-3,228							85	-3,313	-12,874
	February	123		123		1,027				1,027		1,150	-2,010
	March	505		505		1,425				1,425		1,930	248
	April										49	-49	345
	May	4,110		4,110		200				200	160	4,149	-1,203
	June	306		306		2,278	597	655		3,530	40	3,796	1,996
	July										85	-85	-914
	August	271		271	•	400		195		595	54	812	5,371
	September	595	•••	595	550	3,325	725	731		5,332	37	5,890	9,739
	October	4,072		4,072		200				200		4,272	-19,267
	November	1,064		1,064	511	4,122	1,176	947		6,756		7,820	2,425
Mookly	December	3,669		3,669		200	100			300	121	3,848	2,929
Weekly October	00	450		450		000							
November		153		153		200				200		353	987
Moverniber		3,918		3,918								3,918	1,522
	11· 18	277				250				250		250	2,440
	25			277		600	4 470			600		877	-4,792
December		250 825		250 825	511	3,272	1,176	947		5,906		6,156	-343
December												825	-2,101
	9	246		246		200	100			300		546	-1,531
	16	3,136		3,136		•••			•		84	3,051	1,353
	23										•••		11,480
•	30										37	-37	-7,487
January	6		***										11,371
	13									•		•	-16,595
	20										65	-65	10,941
	27		•••	***				***			38	-38	-10,279
Memo: LFV	'EL (bil. \$) <sup>6</sup>												
January				150.2	38.0	68.7	18.7	27.8		153.2		308.7	-6.0

<sup>1.</sup> Change from end-of-period to end-of-period.

within 1 year	1-5	5-10	over 10	total
2.0	2.4	0.7	0.1	5.2

<sup>2.</sup> Outright transactions in market and with foreign accounts.

<sup>3.</sup> Outright transactions in market and with foreign accounts, and short-term notes acquired 6. The levels of agency issues were as follows: in exchange for maturing bills. Excludes maturity shifts and rollovers of maturing issues.

<sup>4.</sup> Reflects net change in redemptions (-) of Treasury and agency securities.

<sup>5.</sup> Includes change in RPs (+), matched sale-purchase transactions (-), and matched purchase sale transactions (+).