STRICTLY CONFIDENTIAL (FR)
CLASS I - FOMC

TO: FOMC

DATE: December 10, 1985

FROM: S. H. Axilrod

The attached staff memorandum evaluates the behavior of M1, M2, and M1A over recent years, with particular focus on 1985. Taking account of this experience, and the forthcoming final stage of deposit deregulation, it also assesses the characteristics of the aggregates in terms of their suitability as policy guides. This analysis was designed to provide background for Committee discussion at the December meeting of the usefulness of money supply measures in policy formation and implementation, including the relative weight that may be placed on particular aggregates, or on the aggregates as a whole. At the February meeting, as normally occurs at that time, the staff will present an array of alternative long-run ranges for various monetary aggregates for Committee consideration.

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM

STRICTLY CONFIDENTIAL (FR)
CLASS I - FOMC

Office Correspondence

Date December 10, 1985

To Federal Open Market Committee

From Staff*

Subject: Evolving Characteristics of the Monetary Aggregates and Their Suitability as Policy Guides

Introduction

To help in evaluation of the monetary aggregates as guides for policy, this paper presents an analysis of recent and prospective monetary behavior. Recent experience with the velocity, demand, and indicator properties of the various monetary aggregates may be suggestive of their future characteristics. In addition, experience gained with institutions' setting of rates on deregulated deposits can provide further clues about the impact of the deregulation of all deposit rates (save the prohibition of interest on demand deposits) early next year.

The following section assesses the growth of the monetary aggregates over 1985 in the context of their association with nominal GNP and interest rates during the 1980s and relative to typical patterns during earlier decades. Next, developments this year are interpreted in light of interactions between deposit offering rates and market interest rates. Then, the implications of the final step of deposit deregulation in early 1986 are examined, both in terms of initial deposit shifts and of the characteristics of demand for the various monetary aggregates over time. Finally, conclusions (beginning on page 20) are drawn about characteristics of the various aggregates that affect their relative suitability as guides to policy in the future.[1]

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1. Appendix A discusses in more detail the typical structure of deregulated deposit pricing, while Appendix B reports on planned deposit pricing after final deposit deregulation in early 1986, based on surveys by the Reserve Bank Contact Group and the Trans Data Corporation.

Review of Recent Monetary Developments

Over the past year, expansion of the narrow monetary aggregates accelerated markedly from the earlier five-quarter period of moderate growth, and M2 growth speeded up a little, despite a slowdown in growth of nominal GNP, as shown in the table below. These developments occurred against a backdrop of declines in market interest rates, following the previous period of firming. The rest of this section places the experience of 1985 in a broader perspective. For each of these monetary aggregates, the behavior in 1985 of its velocity, demand, and association with later GNP movements are compared with the behavior in the earlier years of transaction deposit deregulation and with average postwar experience.

Table 1

Selected Monetary Aggregates,
Nominal GNP and Interest Rates
(percent change, annual rate)

	1983Q3 to 1984Q4	1984Q4 to 1985Q4[e]
M1-A[1]	3.5	8.0
M1	5.5	11.6
M2	7.9	8.7
Nominal GNP	7.8	5.8
Federal funds rate[2]	23.5	-30.6

Memo:	1983Q2[2]	1984Q3[2]	1985Q3[2]
Federal funds rate (quarterly average, percent)	8.80	11.39	7.90

e--partly estimated
1. M1-A is composed basically of currency and demand deposits.
2. To account for delayed impacts, the periods for measuring the federal funds rate are lagged one quarter behind the periods used for money and GNP growth.

The velocity of M1, shown in the second panel of chart 1, has fallen on balance since 1981, in contrast to its average increase from the early 1950s to the late 1970s of about 3 percent per year. Since perhaps up to a half of this previous uptrend in V1 can be traced to the secular increase in market interest rates over those decades, the substantial reduction in interest rates over the 1980s seems to have been one factor behind the net decline in V1 since 1981. The pattern of V1 in recent years roughly corresponds to that of a two-quarter moving average of the three-month Treasury bill rate, shown in the top panel, but the precise relationship has varied. Compared with the extent of interest rate declines this year, the drop in V1 is relatively large. The estimated 5-1/4 percent rate of decline in M1 velocity over the four quarters of 1985 is somewhat greater than the 4-2/3 percent annual rate of decline in V1 from 1981Q3 to 1983Q1, but the bill rate did not decrease as rapidly over 1985 as during the earlier period, especially in terms of absolute changes in basis points.[1]

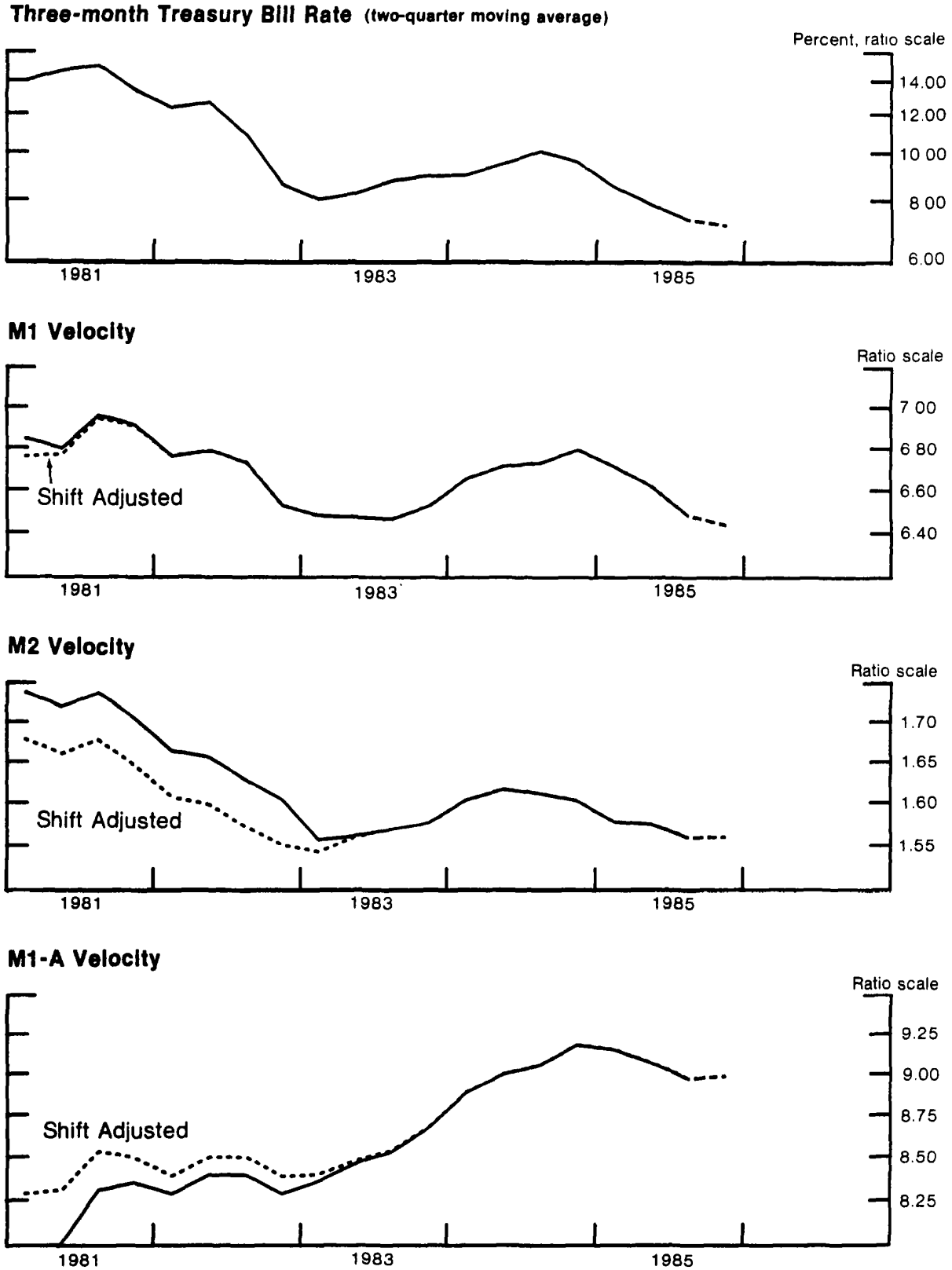
In contrast to the behavior of V1, the fall in V2 over 1985, shown in the third panel, was slower than the shift-adjusted V2 decline in the earlier period: 2-1/2 percent this year versus 5-1/3 percent at an annual rate before. The velocity of M2, like V1, has trended down over the 1980s.

The velocity of M1-A, unlike either V1 or V2, generally has continued to rise over the 1980s, as shown in the bottom panel, departing considerably less from historical trends than V1. The velocity of M1-A fell less steeply than V1 this year, as was also the case in the earlier period of declining

1. The Treasury bill rate (on a two-quarter average basis) fell 238 basis points or 25 percent over 1985 versus 465 basis points or 31 percent, both at annual rates, from 1981Q3 to 1983Q1.

Chart 1

Treasury Bill Rate and Current Velocities



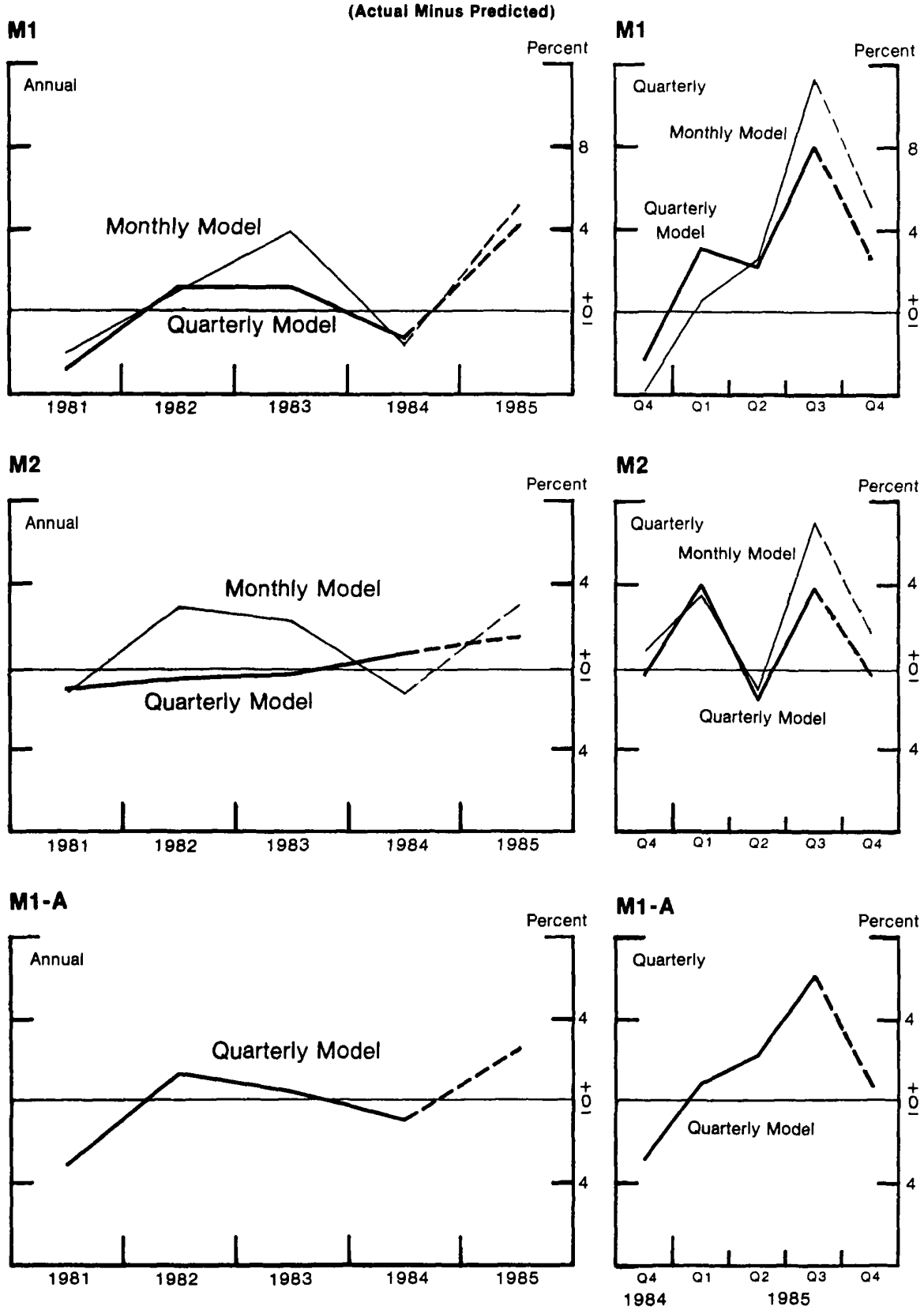
velocities (even after adjusting for shifts out of demand deposits into newly authorized accounts). Nevertheless, the chart suggests that the correspondence between V1-A and interest rates is not tight. Over 1985, declines in V1-A were more rapid than the decreases in shift-adjusted V1-A over the 1981Q3-1983Q1 period, even though interest rates fell more slowly this time than before.

The relationship between velocity and interest rates is most naturally viewed from a money demand perspective. The demand for a narrow monetary aggregate is usually thought to depend primarily on the volume of transactions, as captured by nominal GNP, and on the opportunity cost of transactions balances, as captured by the difference between the returns on alternative instruments and the return on transactions balances. The timing and size of the response of money demand to those determinants could well be complicated. If so, econometric models that take these complications into account in principle might reveal a more stable underlying relationship behind the behavior of M1 in 1985 than is portrayed in chart 1.

In fact, chart 2 reveals an even more dramatic departure of M1 in 1985 from previous relationships than was conveyed in chart 1. Chart 2 shows differences between actual growth rates of the aggregates and growth rates predicted by the Board staff's quarterly and monthly models. Model predictions underestimated M1 growth by 4-1/4 to 5-1/4 percentage points over 1985 as a whole and by 8 to 11-1/4 percentage points at an annual rate in the third quarter. These errors are of unprecedented size for both models, though the monthly model also considerably underestimated M1 growth in 1983. The lower panels indicate that the models' growth errors for M2 and M1-A over 1985 and in the third quarter, while more sizable than typical of past periods, were somewhat smaller than for M1.

Chart 2

Money Growth Rate Errors
In Board Staff Quarterly and Monthly Demand Models
(Actual Minus Predicted)



A different perspective on the association between money and GNP focuses on the tendency over the postwar period for changes in money growth to foreshadow changes in nominal GNP expansion. This pattern encompasses the whole set of relationships beyond money demand that could make monetary aggregates reasonably reliable leading indicators of future spending. From this perspective of money leading GNP, it is appropriate to examine velocity calculated with the money stock measured for an earlier period than for GNP.

Chart 3 shows velocities of the various aggregates calculated as ratios of current GNP to money lagged two quarters. This procedure smooths somewhat the variations in M1 velocity through 1985, suggesting some relationship that runs from M1 to GNP. However, the relationship remains erratic and still involves a marked departure in the 1980s of V1 from its historical uptrend. This measure of V1 now lies well below its 1981 peak. Moreover, a further decline in this measure would be in store in the first half of 1986 unless nominal GNP grows at an annual rate of 12 percent over that period.

Similarly, lagging M2 and M1-A in their velocity calculations would appear to produce further sizable declines in their velocities in the first half of 1986, when nominal GNP growth is likely to be slower than the growth of these aggregates over the last half of this year. However, lagging these aggregates by two quarters otherwise has less effect on the contours of their velocities than for M1.

Because a change in money may anticipate movements in GNP beyond two quarters, and because other influences, such as fiscal policy, affect GNP, econometric models incorporating longer lags and a fiscal variable might be able to capture the underlying patterns between lagged money and current GNP better than chart 3. However, chart 4 shows that the indicator

Chart 3

Treasury Bill Rate and Velocities Using Two-Quarter Money Lag

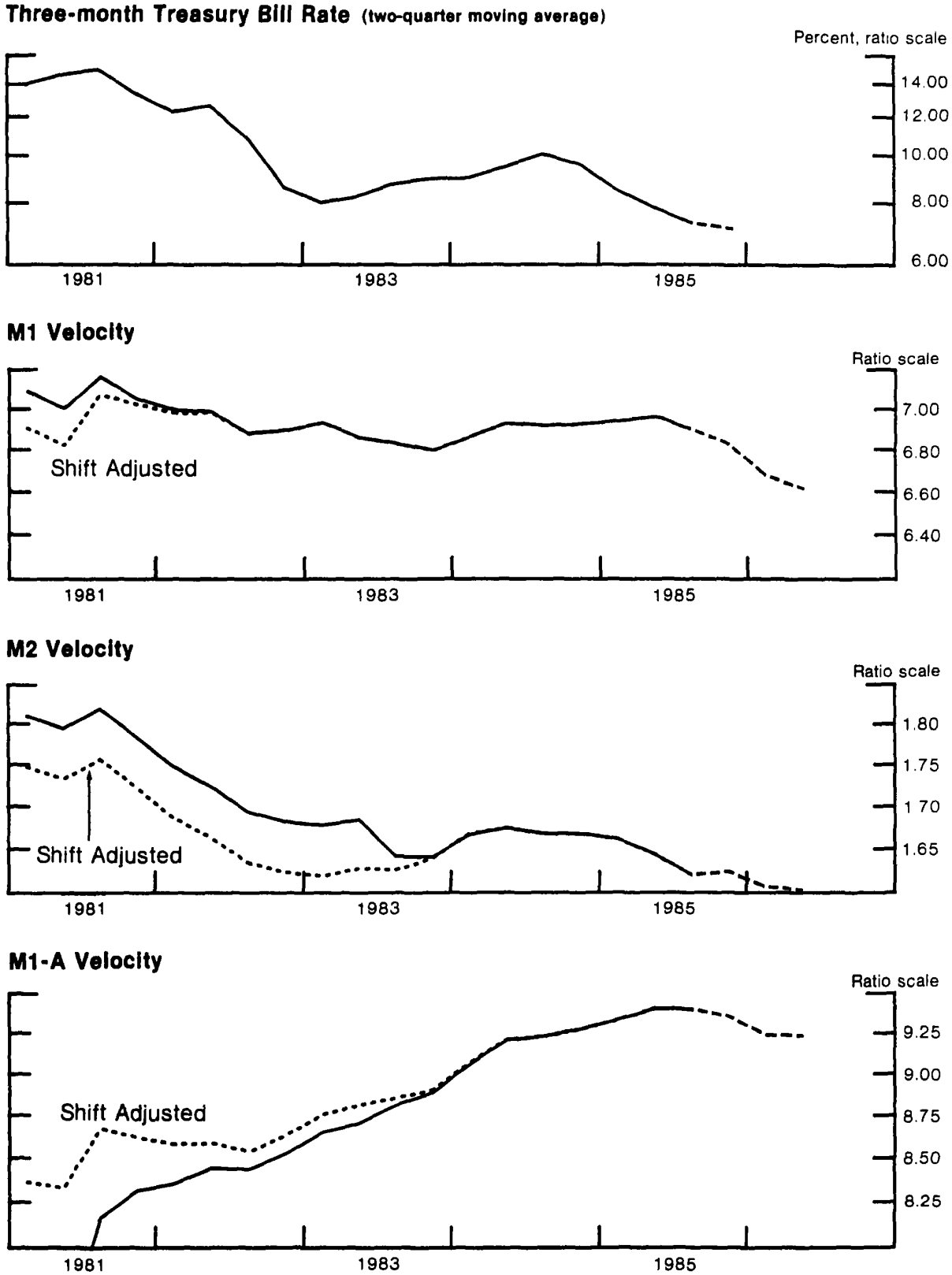
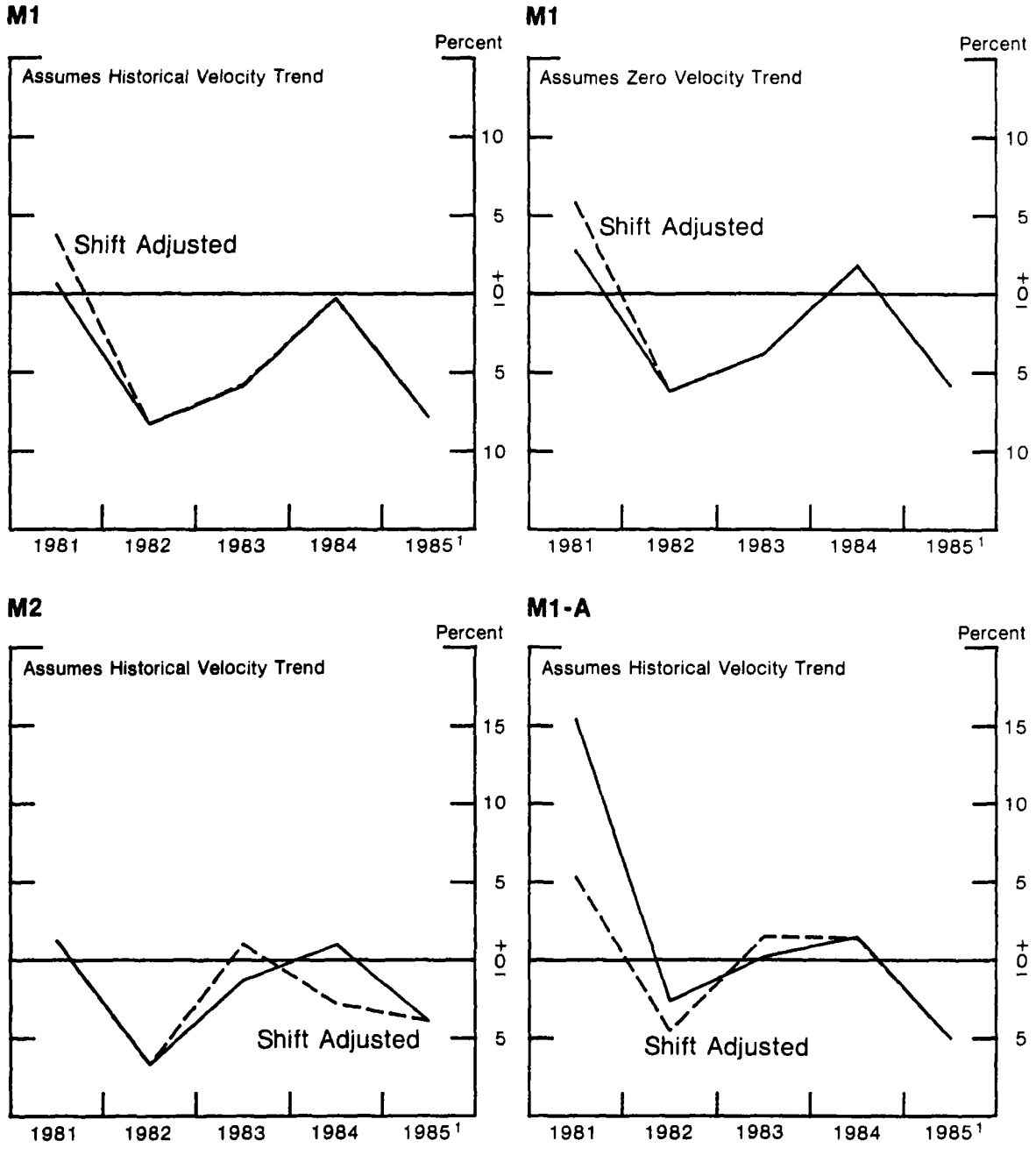


Chart 4

Nominal GNP Growth Errors in St. Louis-type Reduced-form Models

(Actual Minus Predicted)



[1] Through third quarter

properties of the monetary aggregates, especially M1, have deviated significantly in the 1980s from historical experience as represented by such models. St. Louis-type reduced-form models, relating nominal GNP growth to current and lagged values of money growth and of a fiscal policy variable, have experienced very large prediction misses. Actual GNP growth fell far short of predicted growth in the M1 model over 1982, 1983, and 1985, as shown in the top left panel. These errors are not reduced by much in the upper right panel by setting to zero the term in the model incorporating an uptrend in M1 velocity. Even assuming a zero trend for V1, the GNP growth errors using M1 remain generally larger than those using shift-adjusted M2 or M1-A in the models, despite the sizable overpredictions in 1982 and 1985 with these alternative aggregates.

In general, as shown on charts 1 through 4, relations involving M1 deviated noticeably in 1985 from previous experience. In earlier years, notably 1982 and 1983, M1 also showed aberrant behavior relative to postwar patterns. For M2, its demand was captured reasonably well by the quarterly model, at least through mid-1985. However, this aggregate indicated much higher nominal GNP growth than actually occurred in 1982 and so far in 1985, though M1 fared somewhat worse in this regard. Finally, these comparisons show that M1-A, though superior to M1 in some years, on balance had qualitatively similar problems, even in 1985.

Interpretation of Recent Monetary Developments

From the perspective either of money demand or the association with future GNP, the growth of M1 and M1-A in 1985 appears to have been far higher than past relationships would have suggested. This is less the case with M2. To help interpret the recent departures from previous experience, table 2 shows the contribution of the components of the aggregates to their recent growth.

Table 2
Shares of Components in Recent Growth of M1 and M2
(Percent)

	Share of Level 1985Q4	Share of Growth 1983Q3 to 1984Q4	Share of Growth 1984Q4 to 1985Q4[e]	Memo: Annual Growth Rate 1983Q3 to 1984Q4	Memo: Annual Growth Rate 1984Q4 to 1985Q4[e]
M1	100.0	100.0	100.0	5.5	11.6
M1-A	71.6	48.8	51.1	3.5	8.0
Currency and Travelers Checks	28.5	41.9	19.9	8.0	7.9
Demand Deposits	43.2	7.0	31.2	.8	8.1
Other Checkable Deposits	28.4	51.2	48.9	11.6	21.8
Regular NOWs	18.3	20.4	23.8	6.4	16.6
Super NOWs	10.1	30.8	25.1	23.6	32.4
M2	100.0	100.0	100.0	7.9	8.7
M1	24.2	16.7	31.5	5.5	11.6
Nontransactions M2	75.8	83.3	68.5	8.7	7.8
Savings Deposits	12.0	-12.1	7.5	-6.6	5.2
MMDAs	19.9	14.5	51.2	6.6	25.9
Small Time Deposits	34.2	63.7	-3.2	14.4	-.7
Other Components[1]	9.6	17.3	12.9	12.9	12.0

e--partly estimated.
1. Money market mutual fund shares (other than institution-only), overnight RPs, and overnight Eurodollars.

As interest rates have declined, growth rates of M1, M1-A, and other checkable deposits (OCD) have roughly doubled from their pace over the previous period of rising rates. During both periods, OCD and M1-A each accounted for about a half of total M1 growth, though OCD even now represents little more than one-quarter of the level of M1.

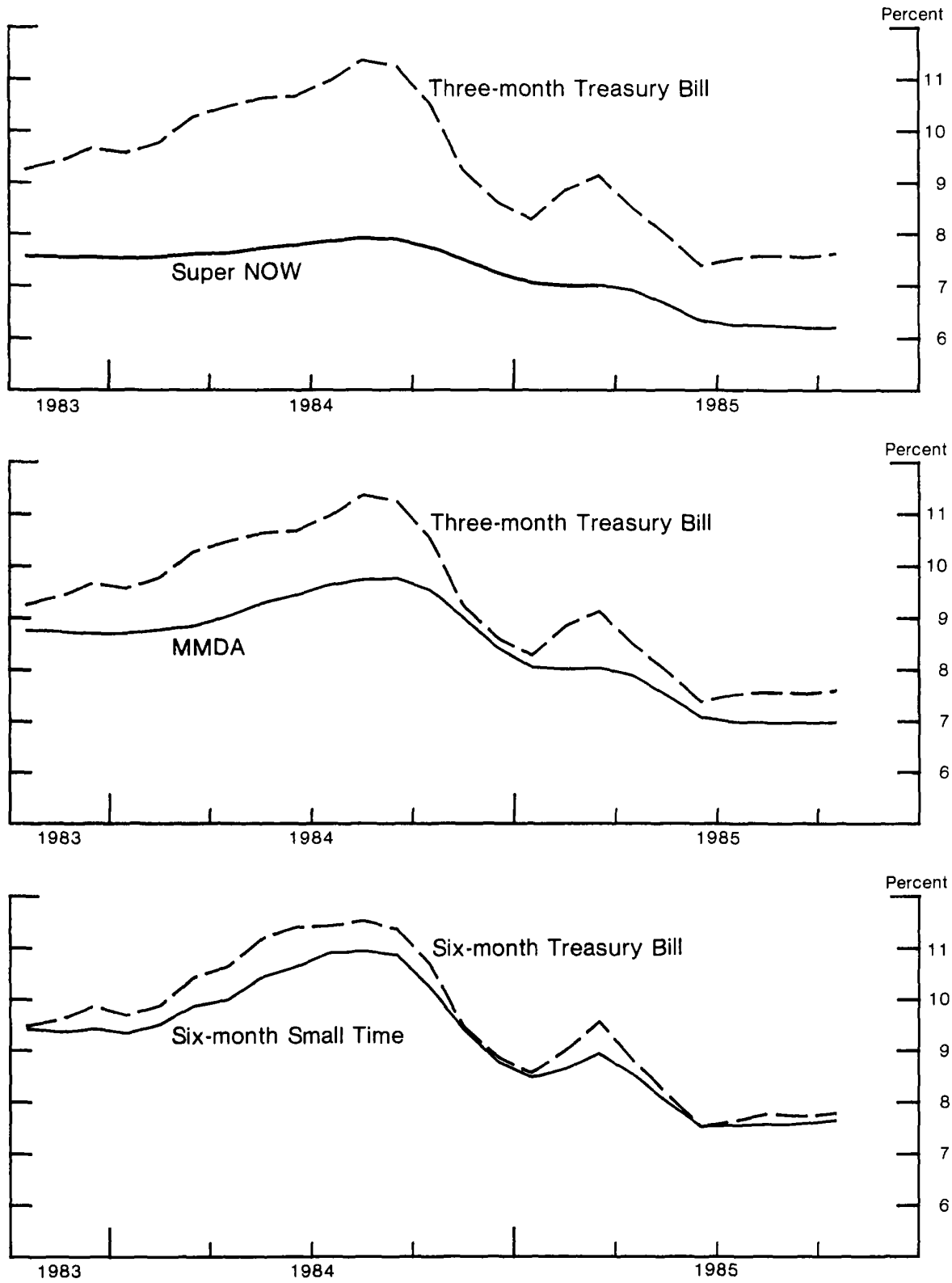
While M2 growth has been fairly stable across the two time periods on the table, its components' growth rates have changed markedly. Virtually all the 1985 growth of M2 has been accounted for by M1, MMDAs, and savings deposits; small time deposits actually have run off. By contrast, in the earlier period shown, small time deposits alone accounted for nearly two-thirds of M2 growth, M1 and MMDAs grew less rapidly than M2, and savings deposits ran off.

Developments in 1985 apparently reflect in part a larger response than models suggest to the sizable narrowing of the gap between market interest rates and offering rates on more liquid accounts. The opportunity costs of holding fixed-ceiling regular NOWs and savings deposits have declined in percentage terms to a much greater degree than market interest rates.[1] The tendency of offering rates on Super NOWs to adjust incompletely to changes in market interest rates--as shown in the top panel of chart 5--make their opportunity costs, especially in the short run, subject to much the same fluctuations as the still-regulated accounts.[2]

1. For example, the average rate on 3-month Treasury bills fell from 10-1/2 percent in July 1984 to around 7-1/4 percent now. This roughly one-third decline in short-term rates has caused about a two-thirds fall in the opportunity costs of savings and regular NOW deposits, currently amounting to 1-3/4 to 2 percentage points compared with 5 to 5-1/4 percentage points in July 1984.
2. The stated rate of return on regular and Super NOWs underestimates the true marginal yield for some depositors, implying they face even lower effective opportunity costs. The pricing practices of tiering transaction-account interest rates and fees--that is, offering higher interest returns on the whole account and waiving fees for balances that satisfy required minimums--augment realized rates of return on those additional deposits of funds that push the balance above required minimums. To the extent effective yields on some NOW balances are boosted in this way, percentage reductions in their opportunity costs due to market interest rate declines are magnified further. Appendix A provides a discussion of retail pricing, including tiering.

Chart 5

Bank Offering Rates and Market Interest Rates



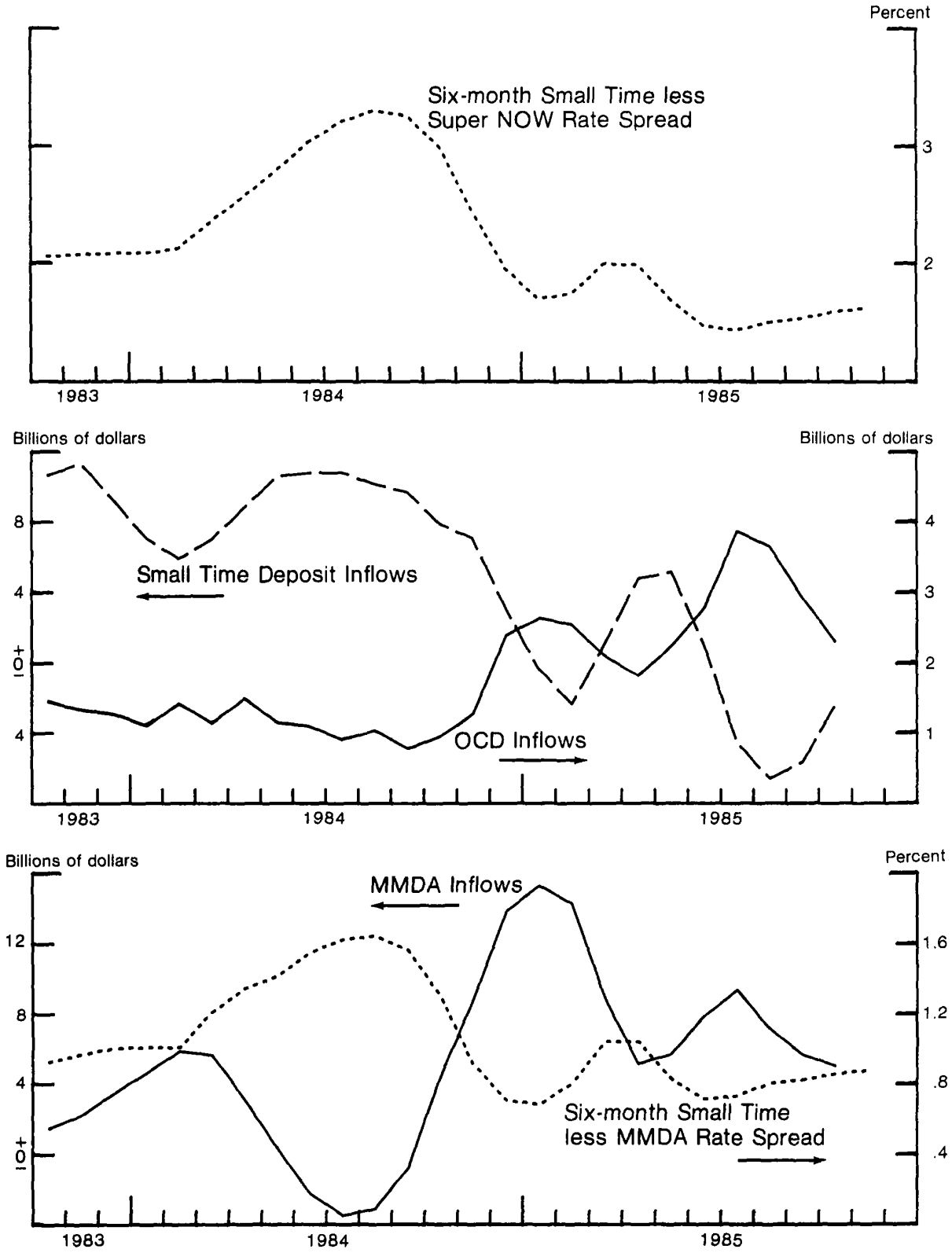
Offering rates on MMDAs--shown in the middle panel of chart 5--also have reacted sluggishly to market interest rate declines, though not to the same degree as Super-NOW rates. The lower panel of chart 5, which matches average offering rates on 6-month small time deposits with yields on 6-month Treasury securities, demonstrates that rates on small time deposits have been much more responsive than either MMDA or Super-NOW rates to market interest rate movements. When market interest rates have declined sharply, this rate-setting behavior has caused the gap between small time rates and rates on Super NOWs and MMDAs to narrow, enhancing the attractiveness of the more liquid deposits relative to small time deposits as well as market instruments.

The effects of these different offering rate patterns on deposit flows are suggested in chart 6. The top panel of the chart shows the spread between the average commercial bank offering rates on small time deposits and Super NOWS. In the middle panel, an inverse relationship is evident between net flows to small time deposits and to OCD at all depository institutions after cessation of the temporary boost to small time inflows induced by the deregulation of rates on virtually all these time deposits in October 1983. This inverse pattern of deposit flows seems fairly closely related to the spread of the returns on the two accounts. The negative relationship between OCD and small time deposit inflows is a sign that savings or investment motives have played a role in recent OCD growth. The lower panel illustrates a similar pattern of association between the MMDA inflows and the spread of small time deposit rates over MMDA rates at commercial banks.

While growth of M1-A in 1985 has trailed the pace of M1 expansion, it nonetheless has been in excess of what previous relationships would suggest, judging by predictions of the Board staff's quarterly model. After an

Chart 6

Rate Spreads and Deposit Inflows[1]



[1] Rate spreads are calculated using average offering rates at commercial banks. Deposit inflows are three-month moving averages of inflows at all depository institutions.

extended period of virtually no net growth, demand deposits accelerated sharply this year. Available data from the Demand Deposit Ownership Survey indicate that growth of gross demand deposits through September was concentrated in business accounts. In Board staff interviews with bankers in June and cash managers in October, the increases in business demand deposits were attributed mainly to the effects of lower market interest rates. Lower market interest rates could cause increased holdings of business demand deposits to compensate banks for services provided to firms. However, increases in compensating balances reportedly reflected no more than the normal response to falling rates, in part because firms also paid additional fees. No widespread special factors were identified that could explain the demand deposit surge.[1]

In general, for M1 as a whole, the surge in 1985 appears to derive largely from the much lower level of market interest rates. However, the public's response has been more pronounced than historical experience would suggest. The interaction of these lower market interest rates with deregulated transactions deposit rates seems to have induced especially heavy inflows to OCD accounts. Recent spreads between offering rates on these deposits and interest rates on alternative instruments, low by the standards of recent decades, apparently have diminished the incentives to separate "savings" balances from transactions balances. Moreover, some of the reallocation of funds to liquid balances in 1985 may have been motivated by concerns about financial fragility and a desire to have readily accessible insured deposits.

1. There was only scattered evidence that the publicity surrounding the E.F. Hutton case may have altered some firms' cash management practices; the consensus view in the cash management community was that the E.F. Hutton case did not have a significant impact on aggregate demand deposits.

Shifting of funds to more liquid accounts has had a smaller net impact on M2 than on M1, since most of the flows have been internalized in the broader aggregate. Expansion of nontransactions M2 also has been restrained this year by factors besides shifts of funds into transactions accounts. The household saving rate has been declining, and households have been increasingly investing in bond and equity mutual funds.

Final Deposit Deregulation in Early 1986 and Initial Impacts on Monetary Aggregates

The minimum balance regulations on MMDAs and Super NOWs expire on January 1, 1986. All NOW accounts will essentially be deregulated, and institutions at that time could reclassify the vast bulk of savings deposits, regardless of size, as MMDAs, should they so choose.[1] As of April 1, 1986, remaining interest rate ceilings on savings deposits and on 7- to 31-day small time deposits under $1,000 expire. Only the prohibition of explicit interest on demand deposits will remain.

These final deregulatory steps will increase the proportions of the monetary aggregates free of interest rate restrictions. Based on deposit levels in the fourth quarter of 1985, institutions will be able to pay unrestricted interest on 28 percent of M1, up from 10 percent today, as all regular NOWs are deregulated. Furthermore, as rates on savings deposits and the shortest-maturity small time deposits are deregulated, the proportion of the nontransactions component of M2 free of interest rate restrictions rises from about 85 percent to 100 percent. The fraction of M2 that becomes ceiling free increases from 66 to 83 percent.

1. A small amount of savings accounts currently allowing more than six transfers per month and reserved as transactions balances are the exception.

The initial effect of this final deregulatory step on growth of the various monetary aggregates will depend mainly on the reaction of institutions in their pricing decisions and promotional activity. At this time, any initial shifts of funds from one monetary aggregate to another induced by the final step of deposit deregulation seem likely to be minor.[1]

Immediate effects on monetary aggregates were quite small in early 1985 when minimum balance requirements were reduced from $2,500 to $1,000. This time, the direct potential impact is confined largely to small accounts of $1,000 or less; for a perceptible effect on the monetary aggregates to occur, millions of these accounts would have to shift across monetary aggregate boundaries. Also, no new accounts are being authorized and, as discussed in Appendix B, recently surveyed institutions are planning only limited promotional efforts. The Reserve Bank Contact Group reports that institutions generally are likely to continue paying their current regular NOW and savings depositors the present ceiling rates after ceilings expire even if short-term market rates were to move noticeably above or below today's levels. With little prospect of attracting nondeposit funds and no advantage to attracting their own depositors into higher-interest accounts, institutions can be expected to be wary of precipitating rate wars.

Regarding Super NOW accounts, most surveyed institutions did not lower their minimums to $1,000 last January 1. Moreover, because of account fees, the minimum NOW balance that most such depositors find economical substantially exceeds $1,000, as suggested by the high average balances for existing regular and Super NOW accounts (around $5,000 and $13,000, respectively).

1. Forthcoming Board proposals on the criteria for reserving various types of deposits could have an influence in this regard.

Although some institutions reportedly were planning to incorporate their regular NOW accounts formally into Super NOW accounts, very few intended to offer more attractive terms to current regular NOW account holders. To be sure, most institutions appear to have adopted the present $1,000 allowable minimum balance on MMDAs, but few recently surveyed institutions were planning to lower it further next year. In general, institutions seem to be taking a "wait and see" attitude toward their pricing decisions next year.

Final Deposit Deregulation and the Characteristics of the Monetary Aggregates Over Time

The final step of deposit deregulation may have effects over the longer run. Along with ongoing technological developments, it could influence the future evolution of pricing practices and account offerings, which in turn could affect the characteristics of the monetary aggregates over time, including their interest sensitivity and trend velocity growth.

Interest Elasticities. With savings deposits and regular NOW accounts free from interest rate ceilings, long-run interest elasticities for both M1 and M2 will probably decline somewhat. All interest-bearing deposits are likely to have returns that respond over a long horizon to sustained changes in market rates, or at least to large changes. The result for shorter-run market interest elasticities of the monetary aggregates will depend mainly on the short-term flexibility of offering rates on accounts that contain today's regular NOWs and savings deposits. Their degree of future offering rate responsiveness to market interest rates probably will lie somewhere between their current state of no flexibility and the rather sluggish adjustment to market rates observed for MMDAs and especially Super NOWs.

Smaller-balance NOW accounts likely will receive a lower rate, which will probably be adjusted less flexibly than the higher market-oriented rate paid on large-balance NOW accounts---preserving to a degree in practice the present regulatory distinction between regular and Super NOW accounts. Future returns on today's savings accounts would more clearly tend to lag MMDA rates if institutions continue to offer segregated accounts. Even to the extent they combine savings and MMDAs, smaller-sized savings deposits would probably receive a lower rate that likely would adjust more slowly than the market-related, high-balance rate.

As a starting point for the analysis, estimates of a range for the interest elasticities of M1 and M2 after full deregulation in 1986 can be inferred from simulations of the Board staff's quarterly model under different assumptions about these offering rates, as shown in table 3. The three sets of columns are distinguished by alternative assumptions about the degree of responsiveness and ultimate level of offering rates on funds currently held as regular NOWs and savings deposits; in all the columns, offering rates on Super NOWs, MMDAs, and small time deposits are assumed to adjust to changes in market interest rates in the same way they have since the spring of 1983.

The first and third set of columns incorporate extreme, unrealistic assumptions about rates after full deregulation on funds now lodged in regular NOWs and savings deposits. In the first set, these rates are assumed not to change at all from their present ceiling levels, regardless of movements in market interest rates away from current levels. This set of columns provides one useful benchmark since it corresponds to today's regulatory structure. In the third set of columns, these rates are assumed to always equal (and thereby adjust exactly as rapidly as) market-oriented rates on large NOWs

Table 3

Estimated Interest Elasticities of M1 and M2
Quarterly Econometric Model

Time Horizon	No Adjustment of Regular NOW and Savings Rates[1]		Partial Adjustment of Regular NOW and Savings Rates[2]		Same Adjustment of Regular NOW as Super NOW Rates and Savings as MMDA Rates[3]		Memo: All Cases
	M1	M2	M1	M2	M1	M2	M1A
1 quarter	-.015	-.009	-.015	-.009	-.014	-.007	-.014
1 year	-.086	-.086	-.080	-.065	-.074	-.026	-.084
long-run	-.086	-.110	-.067	-.012	-.067	-.012	-.087

1. Assumes 5-1/4 percent rate on regular NOW accounts and 5-1/2 percent rate on savings deposits.
2. Assumes rate on regular NOWs adjusts at one-half the speed observed for Super NOWs, the rate on savings deposits adjusts at one-half the speed observed for MMDAs, and that both rates ultimately settle 50 basis points below the rate on Super NOWs and MMDAs, respectively.
3. Assumes rate on regular NOWs always equals rate on Super NOWs, rate on savings deposits always equals rate on MMDAs, and continuation of observed speed of adjustment of Super NOW and MMDA rates.

and MMDAs, respectively. The second set of columns represents an intermediate assumption, in which rates on funds today in regular NOW and savings deposits, after full deregulation, adjust to changes in market rates at half the speed of Super NOW and MMDA rates, respectively, and ultimately attain equilibrium levels averaging 50 basis points below Super NOW and MMDA rates, respectively.

Comparing the "partial" and "full" adjustment cases to the "no adjustment" case suggests that the final step of deposit deregulation is unlikely to affect by much the responsiveness within one quarter of either M1 or M2 to interest rate movements. However, both the one-year and long-run interest elasticity of M1 and M2 might be expected to be reduced by complete deregulation, since rates on small-sized NOWs and savings deposits are likely to adjust, at least to a degree. The interest elasticity of M1 should not fall as much as for M2, because as relative returns respond to movements in market yields, shifts to or from M1 deposits will be partly offset by associated outflows or inflows to other components within M2. Hence, the interest elasticity of M2 over all horizons can be expected to be lower than for M1, as the estimates suggest even now is the case over a one-quarter horizon.

Considerable uncertainties remain, however, about the future sensitivity of offering rates on today's regular NOWs and savings accounts, about the behavior of other deposit offering rates, and about the public's response to relatively low opportunity costs of holding interest-bearing transactions deposits. As discussed earlier, attractive returns on interest-bearing transactions balances have contributed to an influx of savings-type balances into M1, which has increased the unpredictability of M1 demand as general portfolio balance considerations have become a more important influence. The deregulation of small time deposit rates, the authorization of MMDAs, and

the development of money market mutual funds already have afforded scope for substantial variations in the structure of relative returns affecting M1.

For M2 the range of possible interest elasticities in the table is even wider than for M1, owing to the influence of different assumptions about the responsiveness of the rate on present savings deposit balances. These varying estimates underscore the difficulty of predicting the structure of M2 demand as well.

In the memo item to the table, the estimated interest elasticity for M1-A, though somewhat higher than for M1 once regular NOW rates are deregulated and begin to adjust over time, is about the same as for M1 under the current regulatory structure, represented by the first set of columns. As noted earlier, however, the more rapid growth of M1 than of M1-A over the past year seems to have been at least partly explained by a higher interest elasticity. If so, the model's estimates would appear to understate both the present and prospective elasticity of OCD. The model does not seem to have as yet fully reflected the incentives for attracting inflows of "savings" balances provided by lower effective opportunity costs of holding regular and Super NOWs.[1]

The prospective trend of velocities. The trend of growth in the various monetary aggregates, in the absence of changes in market interest rates, can be affected not only by trend growth of real output and prices but also by the pace of innovations in payments practices, which could be affected

1. However, since taking this effect into account would raise the estimated elasticity of M1 more than M2 in all cases, our conclusions about their relative elasticities after final deregulation would be unaffected. But the interest elasticity of M1 might well not drop much below that of M1-A in the future, even over a year's horizon.

by final deregulation. The analysis is usefully carried out by examining the factors behind trend velocity growth--on the assumption of constant market interest rates. The determinants of the trend in the velocity of a monetary aggregate can be expressed in the following formula:

Annual velocity trend growth

= (1 - real income elasticity) times (annual real income trend growth)

plus

time trend of annual downward shift in money demand reflecting technological change in payments practices.

The outlook for these separate factors can be reviewed here briefly, since a detailed analysis previously has been distributed to the Committee.[1] Table 4 provides econometric estimates of these terms taken from the Board staff's quarterly and monthly econometric models. With the real income elasticity now estimated to be around .85 or above for all the monetary aggregates, the additional boost to their velocity growth trends accounted for by real income growth is at most about .4 percentage points per year for a range of estimates of the trend growth of potential real GNP. (As an example, a 3 percent trend growth of potential real output is assumed in the table.)

The primary determinant of future velocity trends probably will be the time trend effect. Many econometric models of money demand do not explicitly incorporate a time trend in their specification but rather allow the effects of financial innovation to be picked up implicitly by the real income or interest rate variables. Those models that do incorporate a time trend, including the Board staff's monthly and quarterly models, find it to be statistically significant over the post-war period. This finding seems

1. S. H. Axilrod, "Money Growth and Price Stability," memorandum to Chairman Volcker, January 23, 1984.

Table 4

Estimated Trends in Velocity
Quarterly and Monthly Econometric Models
(percent change, annual rate)

$$\text{Trend in velocity} = (1 - \text{real income elasticity}) \times \left(\begin{array}{c} \text{trend in} \\ \text{real income} \end{array} \right) + \text{time trend}$$

M1

Quarterly Model

2.1% = (1 - .86) x 3% + 1.7%

Monthly Model

1.1% = (1 - 1.02) x 3% + 1.2%

M2

Quarterly Model

.2% = (1 - .95) x 3% - 0.0%

Monthly Model

.6% = (1 - .91) x 3% + .3%

Memo:
M1-A

Quarterly Model

1.9% = (1 - .88) x 3% + 1.5%

consonant with casual observation of innovations in payments practices over the period, for example the spreading popularity of corporate cash management techniques and of household credit card usage.

The deregulation of transactions deposit rates so far in the 1980s, together with the lower market interest rates that have emerged, already may have lowered the time trend affecting M1 velocity by considerably reducing the opportunity cost of holding certain transactions balances included in M1. Certainly incentives have been lessened for developing both new techniques to economize on M1 balances and new transactions-type instruments outside M1. There is some evidence of this effect in recent reestimates of the monthly model. Statistical estimates of the model's annual time trend for V1 have fallen from 2.2 percent to the 1.2 percent shown in table 4 as successive years in the 1980s are added to the estimation period.[1]

What these monthly model reestimates pick up as a falling time trend, however, might actually be one-time effects of the successive liberalizations of rates on transactions accounts over the 1980s.[2] Accurately disentangling one-time shift effects from the effect of a diminishing underlying time trend is virtually impossible. Hence, the extent of the boost to M1 velocity next year and beyond from a time trend effect is hard to gauge from econometric evidence.

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1. Since the estimates represent average effects over the whole sample period, the lowering of estimates of the "average" time trend with each added recent year could mean that a still lower time trend is actually operating in recent years, thereby pulling down the average as more years are added to the sample.
2. The quarterly model incorporates separate terms for the availability of new accounts in explaining shifts of funds into the monetary aggregates in the 1980s. With these terms at work, estimates of the annual time trend stay about constant at around 1.7 percent when successive years since 1980 are added to the sample period.

The future behavior of trend M1 velocity is also murky because potential longer-term changes in pricing arrangements or terms could begin to be felt even next year, but their influences are uncertain and possibly conflicting. A factor that conceivably could restrain V1 at some point, by raising business demand deposits, is the promulgation of new guidelines designed to limit daylight overdrafts at Reserve Banks, which will begin to go into effect as of March 27, 1986. However, these guidelines may not end up materially altering business demand deposit holdings. As currently proposed, limits on daylight overdrafts should not much affect business payments practices, at least for the time being. The proposed sender net debit caps do not appear to be strongly binding in 1986 for most institutions. Moreover, the limits are voluntary and will be monitored only on an ex post basis. As planned, few, if any, banks should have to refuse to transmit a particular payment. Finally, the limits on a depository institution's overdrafts may have only minor, or no, impacts on business demand deposits, since the institution's own funding patterns likely contribute significantly more to daylight overdrafts than do its nonbank customers' payments. Indeed, the staff expects that institutions can alter their funding patterns in order to reduce their present volume of daylight overdrafts without affecting corporate payments very much.

Another potential pricing development might tend to damp M1 growth and raise its velocity trend. Institutions may move more over time toward "relationship pricing" of consumer deposits by explicitly linking M1 deposits to MMDAs or savings deposits. Through a variety of techniques, balances held in transactions accounts and subject to a 12 percent reserve requirement could be minimized, while still fully servicing transactions. Transactions account

fees could be waived based on balances in MMDAs, savings accounts, or even IRAs, and minimum balance requirements on NOWs and households' demand deposits reduced or eliminated. Limited preauthorized or telephone transfer arrangements could be set up to transfer funds into the NOW account a few times each month, while automatic sweep arrangements could move funds out of the NOW account whenever a maximum balance was breached. By thus avoiding the reserve requirement tax on transactions deposits, depositors could be offered higher overall returns.[1]

Another issue is how widespread the packaging of services, such as life and travel insurance, with transactions accounts will become and whether institutions over time will raise their tier balance levels for waiving fees and paying higher interest rates on NOWs and, perhaps, smaller-sized MMDAs. A final question is how demands for corporate cash management and information services and associated compensating balance arrangements will evolve in a climate of lower interest rates than in the 1970s.

The balancing of all these potential forces will depend on the competitive pressures, technological innovations, and depository pricing decisions that emerge. Although the exact contours of prospective developments are subject to considerable uncertainty, the process is likely to be evolutionary in nature, as it requires developing new technologies, training staff, and educating consumers. Major changes in depositor behavior also are likely to come slowly. The underlying alterations in the structure of deposit pricing can be monitored as the process unfolds.

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1. The scope for such arrangements is suggested by the $13,000 average balance currently in Super NOWs.

All things considered, our best guess about trend M1 velocity growth (abstracting from interest rate movements) continues to center around a positive one percent per year figure, since the pace of innovations seems likely to be below model estimates over past periods. This guess, though, is subject to a rather wide range of possible outcomes. For M2, trend velocity may be about flat, as was the case over most of the post-war period. For M1-A, a 1 to 2 percent estimate of the velocity trend seems reasonable--a little higher than for M1 to incorporate the likelihood of an ongoing conversion of demand deposits to interest-bearing accounts.

Conclusions

To be most suitable as an intermediate guide for monetary policy, a monetary aggregate should have a predictable relationship to GNP. The aggregate ideally should exhibit stable demand behavior and an interest-rate sensitivity that is neither excessively small nor excessively large. These characteristics would tend to ensure that maintaining growth of the aggregate within preselected target ranges over periods of, say, six months to a year would exert a stabilizing influence on the future path of nominal spending without undesirably large short-run volatility in credit market conditions. If spending were unexpectedly to weaken, for example, then the demand for money would weaken in sympathy. As the central bank pushed the aggregate back into its target range by injecting nonborrowed reserves, market interest rates would automatically tend to fall, which over time would act to cushion the weakening of nominal spending and real economic activity.

Instability of money demand would reduce the suitability of the aggregate as a policy guide. Target ranges would be difficult to set in advance. Attaining a predetermined target could tend to destablize, rather than stabilize,

future nominal spending, as shifts in demand for the aggregate unconnected with spending trends induced inappropriate movements in interest rates and credit conditions generally. The aggregate's movements would not necessarily reflect spending fluctuations nor signal the appropriate reserve posture.

An overly small interest elasticity in practice would induce undesirable interest rate volatility if money growth were kept on track in the face of temporary disturbances to spending or money demand. But too large an interest sensitivity of money demand also would undermine the practical suitability of a monetary aggregate as a policy guide. If underlying spending were to drop off unexpectedly, then a substantial interest rate decline would be required to moderate the economic slackening. However, a high interest elasticity of the aggregate would under the circumstances tend to pull this aggregate above the upper bound of its annual range. To the extent this tendency were resisted and the aggregate were confined within its target range, the easing of reserve positions needed to sustain an adequate economic expansion would be curtailed.

Either demand instability or an overly large interest sensitivity could undermine the aggregates's properties as an indicator of economic performance. In the former case, movements in the aggregate would be largely independent of incipient spending trends, while in the latter case, the aggregate would tend to dance to the tune of relatively small changes in market rates that themselves would little influence future spending. Even if neither of these conditions were the case, the indicator properties of a monetary aggregate also could be impaired by substantial, persisting shifts in the relationship of nominal spending to income and interest rates.

This paper has examined the recent and likely future characteristics of three monetary aggregates in these respects. The findings for each can be summarized:

M1 has shown periods of considerable demand instability so far in the 1980s, and its ability to indicate future GNP also seems to have deteriorated. The patterns of its velocity declines and demand-equation errors in the 1980s suggest an increasing interest responsiveness, especially during 1985. The completion of deposit deregulation early next year might in principle be expected to diminish its long-run interest sensitivity. However, given the currently low spreads between market interest rates and offering rates on interest-bearing transactions deposits, its shorter-run interest responsiveness may well not decline by much and in any event is subject to considerable uncertainty. The ongoing trend rate of growth in M1 velocity, abstracting from interest rate movements, has probably diminished some, as lower interest rates and deregulation of transactions deposit rates may have discouraged innovations. But recent experience affords scant guidance in this regard, because disentangling the separate effects of lower interest rates and initial deposit shifts (following previous deregulatory steps) from a lessened trend of innovations is virtually impossible.

M1-A has shown a little tighter association with future spending since 1981 than M1, but not to a dramatic degree. The unaccountable strength in demand deposits during 1985 is a sign that its demand behavior as market rates have moved lower is not well understood. The velocity of M1-A has continued on an upward trend until recently; its future trend rate of velocity increase may exceed that of M1 for some time, depending upon the extent of the ongoing conversion of demand deposits to other accounts.

M2 demand during the first half of the 1980s has been more predictable than demand for the narrower monetary aggregates, judging by the quarterly econometric model, but this aggregate has not been markedly better in foreshadowing growth in nominal GNP. Deregulation has clearly reduced the interest elasticity of M2, and its recent growth rates seem largely undisturbed by sizable shifts among its components in response to changing relative returns as market interest rates have declined, though special factors may have played a role too. The exact magnitude of its future interest elasticity, which depends on how depositories set offering rates on small-sized savings-type accounts, seems rather uncertain, but is likely to be lower than that of M1 and M1-A over all time horizons. M2 has shown no significant long-term velocity trend; such behavior might be expected to continue over the long run.

The Committee's assessment of the appropriate weight to place on the various aggregates in 1986 is complicated by the considerable uncertainty surrounding the aggregates' prospective behavior after full deregulation. Although the initial shifting of funds across monetary aggregate boundaries induced by the final step of deposit deregulation now seems likely to be minor, their underlying growth trends relative to GNP, especially for M1, are difficult to determine. If current interest rate levels persist, then once investors have finally completed their desired adjustment of asset stocks, M1 growth could be expected to subside. Nonetheless, how long the recent sizable inflows into transactions deposits, especially those bearing explicit returns, will continue difficult to foresee. Inflows of "savings" balances might impart a considerable upward thrust to M1 growth well into 1986 even without further rate declines.

If market rates were to move down further, the possibility exists that the response of M1 growth could be substantial. A large M1 responsiveness, combined with the present wide range of uncertainty about future interest rate levels consistent with adequate economic performance, would make it harder to prescribe a suitably narrow target range for M1.

Unfortunately, the other aggregates also have drawbacks. Besides having a velocity that generally has continued moving higher over the 1980s, M1-A has not shown enough superiority relative to M1 in various comparisons over the past several years to suggest that it offers a compelling solution to the problems recently plaguing M1. Moreover, if the final step of deposit deregulation were, contrary to the staff's expectation, substantially to accelerate shifts of funds from demand deposits into NOW accounts, M1-A could be artificially depressed, as was the case in spades during the shift to nationwide NOWs in 1981 and to a degree thereafter.

M2 has had a somewhat spotty record as an indicator of future GNP during the 1980s, though no worse than the narrower measures. Under deregulation M2 likely will come to have a lower interest elasticity than M1 over all horizons, as suggested by experience in 1985 and model simulations. M2 could continue to have a more predictable demand relationship to GNP and interest rates as well. These are not foregone conclusions, however, in light of uncertainties about the extent and speed with which institutions will adjust offering rates on small-sized savings-type accounts as market rates vary.

The pervasive uncertainty concerning all the aggregates basically reflects a lack of sufficient experience with behavior of deposit holders and depository institutions in a deregulated environment under varying economic and financial circumstances. Deregulation has broadened the pricing

freedom afforded depository institutions--complicating deposit "supply" behavior and blurring distinctions between transactions and nontransactions accounts. Today's ease of switching among the expanding universe of financial assets compounds the difficulty of evaluating the consequences of low and changing opportunity costs of liquid balances for the placement of transactions, liquidity, and savings funds by businesses and consumers.

Experience in coming years may help diminish the imponderables involving the monetary aggregates. M2, for example, may become a more useful guide than M1 as the broader aggregate develops less sensitivity to interest rate changes, and if its relationship to GNP over time remains at least no more unstable than M1. On the other hand, M1 should remain more dominated than M2 by transactions motives so that its "transactions" component would probably be more closely connected with movements in GNP. Should the enlarged "savings" component of that aggregate also become more stable or predictable, the usefulness of M1 may be enhanced even if its interest elasticity is somewhat larger than M2. In the interim, though, using the various monetary aggregates as policy guides necessarily involves more judgmental interpretation than in periods when their behavioral characteristics were less uncertain and their relations to other economic measures more predictable.

APPENDIX A
RETAIL DEPOSIT PRICING

The behavior of depository institutions in setting offering rates, as well as in establishing other deposit pricing terms, can have a substantial impact on the behavior of deposit flows by influencing relative rates of return facing depositors. This appendix contains a further examination of the rate-setting behavior discussed in the main text of this memorandum. It also describes other pricing characteristics that comprise the institutional climate within which the final step of deposit deregulation will occur.

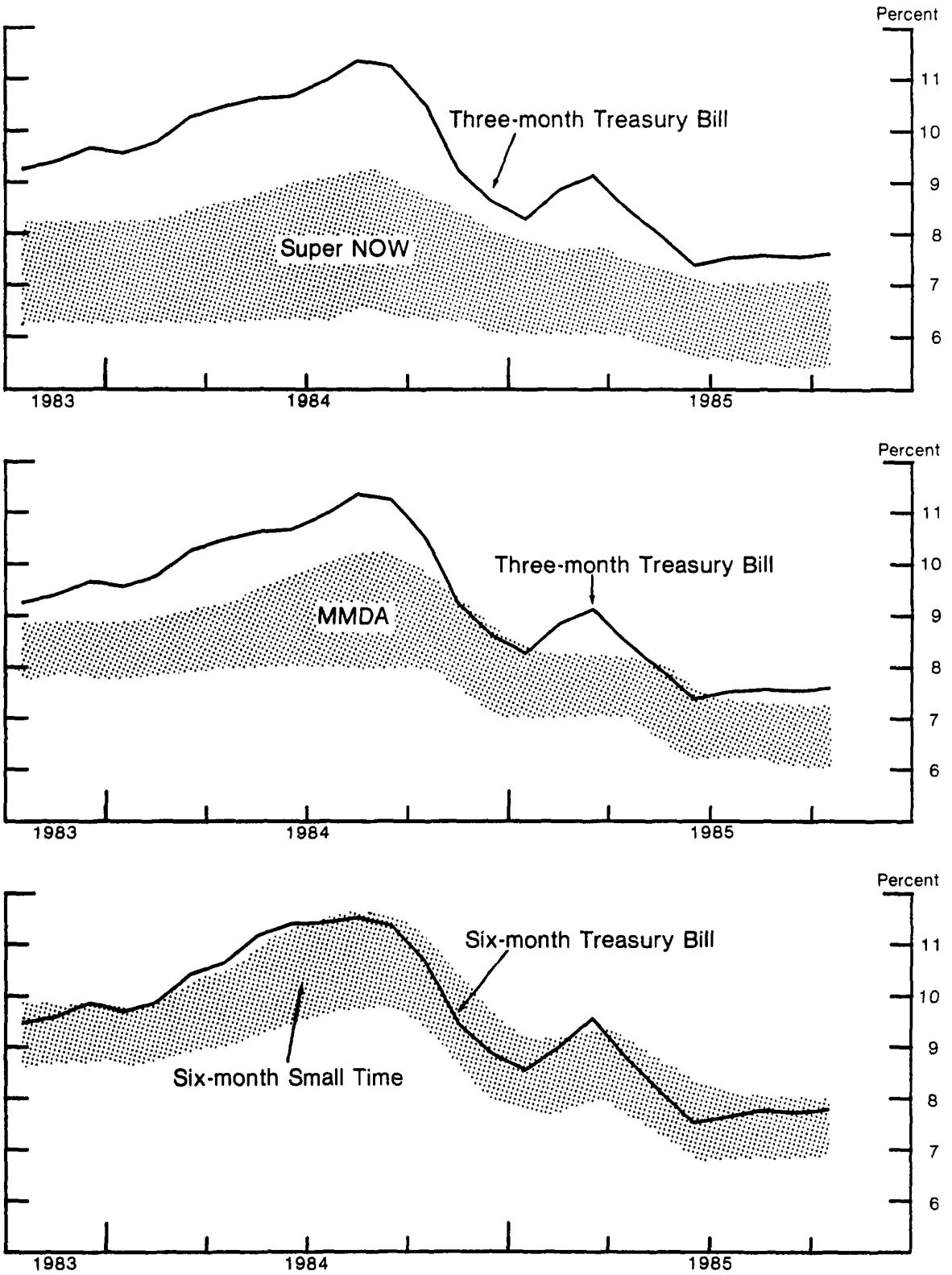
The sluggish response of offering rates on Super NOWs to market interest rates, especially when they are rising, may partly reflect a relative insensitivity of many existing Super NOW depositors to variations in Super NOW rates. For many customers, convenience and service are more important relative attributes of transactions accounts than of other accounts. Chart A1 shows a larger range of rates on Super NOWs across institutions than the ranges of rates on MMDAs and small time deposits, especially when market rates are rising. If most existing Super NOW holders were readily willing to switch their accounts to other institutions based on comparisons of offering rates, these wide variations could probably not persist.

Institutions have little incentive to raise Super-NOW rates flexibly when short-term market yields rise since their relatively interest-insensitive existing depositors would receive the higher rate. By contrast, wholesale managed liabilities such as large-time deposits are held by more rate-conscious investors and roll over gradually so that higher returns on new funds do not involve paying more initially to existing depositors.

Another important aspect of pricing of consumer transaction accounts is the practice of "tiering" account fees and interest rates. Tiering involves

Chart A1

Ranges Containing 90 Percent of Bank Offering Rates (Shaded) and Market Interest Rates



basing fees and interest rates on the account balance, usually the minimum daily balance during the month or else the average balance. (Tiering is much less common for nontransactions accounts, because of their lower operating costs.) Table A1 contains survey data on the tiering of fees and interest rates on regular and Super NOW accounts, and chart A2 demonstrates typical transactions account pricing structures.

Fixed monthly fees or per check charges are common on both regular and Super NOW accounts. These fees are tiered in that they are usually waived for balances above a specified level. Interest-rate tiering is universal on Super NOW accounts, since accounts under $1,000 are still limited to 5-1/4 percent interest; one-third of the surveyed institutions had at least one additional tier. Even regular NOW accounts often have an interest rate tier; on average, institutions require a balance of about $500 before paying the regular NOW account ceiling rate. Once the balance requirement for a particular interest rate tier is satisfied, the higher interest rate typically is paid on all balances, not just those above the minimum balance.[1]

For a depository institution, the tiering of fees and interest rates on transactions accounts is attractive because it can induce larger balances, with at least some of the funds originating outside its own accounts. Consumers are receptive to the tiering of fees partly because of income tax considerations. Since waived fees are not considered taxable income, they are more valuable than the same amount of explicit interest. This benefit is probably more obvious to the average depositor now that both fees and interest are paid explicitly.

1. An alternative to interest rate tiering is interest rate blending. Blending involves paying a higher rate only on balances above the tier amount; the other funds continue to earn a lower rate. This procedure is rare.

Table A1

Survey Data on NOW and Super NOW Pricing[1]

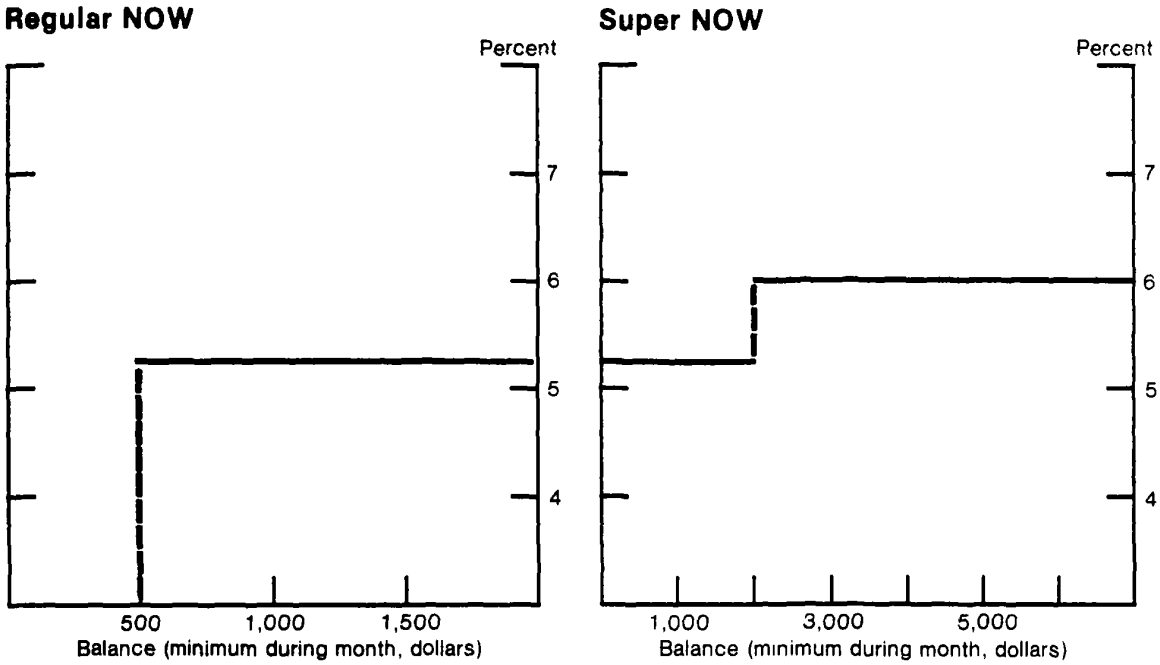
	Regular NOW	Super NOW[2]
1. Percent of institutions imposing a fixed monthly fee	50	31[3]
2. Median monthly fee	$5.00	$5.00
3. Percent waiving monthly fee on high balance accounts	94	60
4. Median required balance for waiving fee	$1,000	$5,000
5. Percent of institutions imposing a per-check charge	25	22
6. Percent of these institutions waiving the per-check charge for high balance accounts	79	36
7. Median balance required to waive per-check charge	$1,000	$5,000
8. Percent of institutions tiering interest rates	[4]	27[5]

1. Based on a national survey of 300 leading depository institutions taken by Trans Data Corporation during the first quarter of 1985.
2. Super-NOW data refer to accounts with balances high enough to earn the Super-NOW rate.
3. 40 percent of those institutions requiring a $1,000 first-tier minimum Super-NOW balance imposed fees as against 28 percent of those with a $2,500 first-tier minimum balance requirement.
4. An average balance requirement of $521 in order to earn any interest was reported.
5. All Super-NOW accounts have at least one tier balance level separating the 5-1/4 percent regular-NOW rate from a higher rate. The survey suggested that 27 percent of institutions have an additional interest-rate tier on their Super NOWs; institutions with a $1,000 first-tier minimum balance requirement were more likely to have an additional tier than those with a $2,500 first-tier minimum balance requirement (32 percent versus 23 percent).

Chart A2

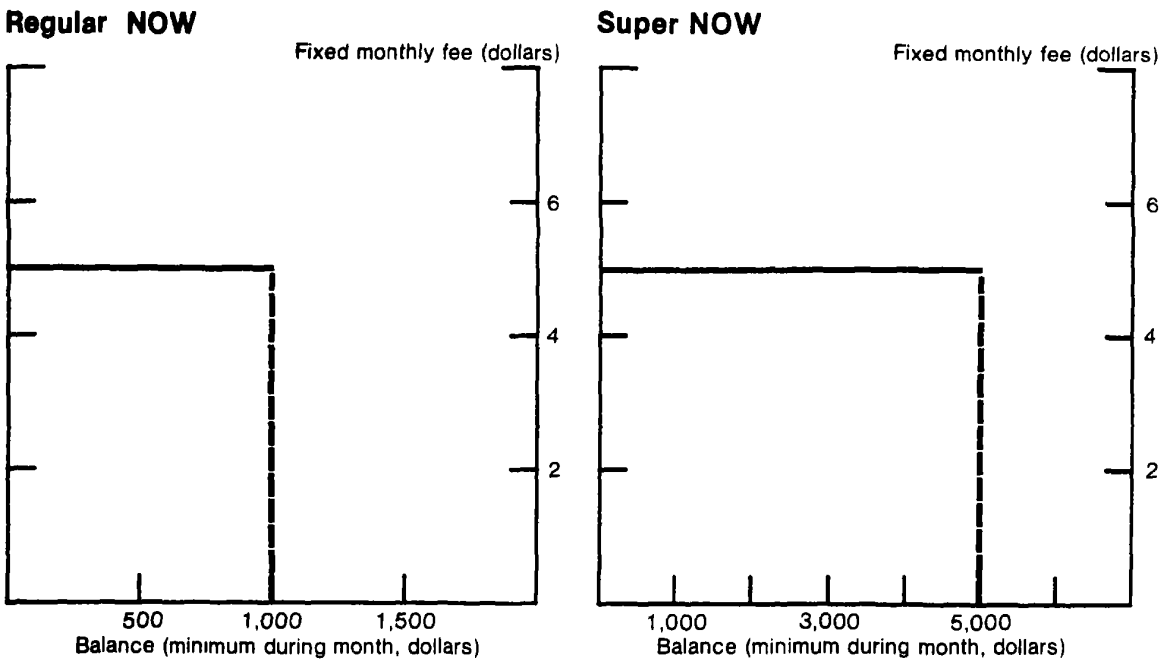
Typical NOW Account Interest-Rate Schedules

Rate Applied to all Balances, Based on Minimum Monthly Account Balance



Typical NOW Account Fee Schedules

Fixed Monthly Fees, Based on Minimum Monthly Account Balance



For some depositors, tiering can provide marginal rates of return on balances added to transactions deposits higher than the explicit rate of interest. Additional funds deposited in an existing regular NOW account just sufficient to qualify for Super-NOW status will in effect earn more than the stated Super-NOW rate.[1] In practice, depositors typically have added more funds than needed to qualify for a full Super-NOW rate, as shown by the average balance data in table A2. These extra funds, though earning no more than the stated high-tier Super NOW rate, are partly used as a cushion to insure the minimum balance requirement is continuously satisfied. In addition, convenience motives likely induce Super-NOW depositors to maintain high balances. With the decline in the returns on alternative instruments emerging this year, additional depositors may have felt that the interest lost in closing other accounts, such as small time deposits, is more than compensated by these benefits of boosting Super-NOW balances.

All these incentives to "trade up" to a Super NOW account seem to be reflected in the growth in the number of these accounts shown in table A3. The number of Super NOW accounts has been rising at a 20 to 25 percent annual rate since late 1984, while the number of regular NOW accounts has stagnated. This shifting apparently continues nearly three years after the introduction of Super NOW accounts. These advantages of Super NOW accounts have made

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1. For example, suppose that adding an idle $1,200 to a regular NOW account allows a depositor to waive a monthly $5.00 fee by ensuring his minimum account balance stays above that level. The marginal $1,200 deposit earns over 10 percent--5-1/4 percent explicit interest and 5 percent (or $60 per year) in waived fees. Alternatively, suppose a depositor holds a regular NOW account with a $2,000 average balance, but could qualify for a Super NOW earning 6 percent by adding an idle $500. Since the Super NOW rate would be paid on the entire account, that $500 marginal deposit would earn 6 percent plus 3/4 percent (the 6 percent Super NOW rate less the 5-1/4 percent regular NOW rate) of $2,000 for a total marginal return of 9 percent.

Table A2

Average Account Size of Total NOWs, Regular NOWs, Super NOWs, and Personal MMDAs at Domestic Commercial Banks[1]

	Total NOW	Regular NOW	Super NOW	Personal MMDA
1981	$4,910	4,910	-	-
1982	5,180	5,180	-	-
1983	5,860	4,630	$13,020	$16,860[2]
1984	6,075	4,825	12,750	16,000
1985[3]	6,390	4,930	13,100	16,225

1. Averages of survey data, middle month of each quarter. The data are not seasonally adjusted.
2. November 1983.
3. Through November.

Table A3

Number of Regular and Super NOW Accounts
and of MMDAs at Domestic Commercial Banks[1]

	Regular NOW Accounts		Super NOW Accounts		MMDAs	
	Number	Growth Rate[2]	Number	Growth Rate[2]	Number	Growth Rate[2]
1983--February	12.15		1.24		7.44	
May	12.09		1.80		9.46	
August	12.33		2.02		10.36	
November	12.62		2.16		11.19	
1984--February	12.97	6.7	2.25	81.5	11.68	57.0
May	12.87	6.5	2.39	32.8	12.43	31.4
August	13.02	5.6	2.49	23.3	13.22	27.6
November	13.30	5.4	2.64	22.2	13.86	23.9
1985--February	13.33	2.8	2.84	26.2	14.32	22.6
May	13.34	3.7	2.93	22.6	15.25	22.7
August	13.15	1.0	3.15	26.5	16.16	16.6

1. Last day of the month data, not seasonally adjusted. Millions of accounts.
2. Growth computed against corresponding month of previous year.

them attractive as savings vehicles. Average Super-NOW balances, shown in table A2, have risen slightly despite the half a million increase in the number of Super NOW accounts between November 1984 and August 1985, which suggests that funds have flowed into Super NOWs from outside M1. The high average balances of both regular and Super NOWs, together with the inverse relation between OCD and small time deposit flows shown in chart 6 of the main text, indicates that savings motives have played a role in the behavior of M1.

APPENDIX B
SURVEY INFORMATION ON 1986 PRICING PLANS

Available information on the 1986 pricing plans of depository institutions suggests that the scheduled removal of minimum-balance regulations and lifting of interest-rate ceilings will have little immediate impact on deposit pricing or promotion. Evidence for this conclusion is found in the responses of the Reserve Bank Contact Group, whose members reported on the expected reactions in their Districts to the coming steps of deregulation, and in the preliminary results of a national survey of depository institutions by the Trans Data Corporation. Both of these surveys were conducted in November; they will be updated in early 1986 to determine actual pricing decisions.

The unanimous opinion of Contact Group members was that depository institutions in their Districts expected the 1986 completion of deposit deregulation to be a "non-event." Very few institutions were planning to step up their promotional activity or offer more attractive deposit terms after January 1. Only two depository institutions, both small, were reported to be currently promoting the coming deregulation. Aside from a few institutions planning to lower minimum balances on 7- to 31-day time deposits to $500, there were virtually no reported plans to further lower minimum balances. Interest rates on presently regulated NOW and savings deposits were not expected to change next year from their present levels--5-1/4 percent for regular NOWs and 5-1/2 percent for savings--even if market interest rates were to vary by as much as 100 basis points either up or down.

The major reason reported for these conservative plans was that the remaining interest rate ceilings and minimum balance regulations are not

especially binding constraints on pricing. With market rates relatively close to the ceiling rates, paying higher rates on small-sized deposits would not appear profitable. A common opinion was that savings deposits are not particularly interest sensitive, so that offering more attractive terms to savings depositors would simply raise interest costs.

The only evidence of changes spurred by the final phase of deregulation was in plans for consolidating deposit offerings. A substantial minority of depository institutions are expected by the Contact Group to combine their existing regular and Super NOW accounts into one NOW account with two or more interest rate tiers. Virtually all of these institutions would offer a consumer demand deposit as well. There was only very scattered evidence of plans to combine existing savings deposits with MMDAs next year--such a combination becomes feasible on January 1, 1986, when MMDAs become free of minimum balance restrictions.

Preliminary results of a survey of about 300 large depository institutions conducted during November by Trans Data Corporation corroborate the conclusions of the Contact Group. Only 4 percent of the survey respondents planned to lower MMDA or Super NOW minimum balance requirements below $1,000. A further 10 percent of institutions expected to lower their minimum balances on these accounts, but only to $1,000 or more. About 20 percent reported plans to merge existing regular and Super NOW accounts, but only 3 percent planned to extend MMDA status to existing savings deposits. Only a few institutions had plans to raise rates paid on savings deposits when ceilings were removed.