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ECONOMIC PERSPECTIVES

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Redesign of publications continues

As reported in the Midyear issue of **Economic Perspectives**, *the Research Department has been redesigning the bank's publications to satisfy the interests of a wide variety of readers. One of the first results of this effort was the introduction of* **Midwest Update**, *a monthly newsletter focusing on regional economic developments.*

Beginning in January 1983, a new economic review will replace **Economic Perspectives**. *Current subscribers will automatically receive this new publication. During the 1982 transition period,* **Economic Perspectives** *is being published less frequently. In addition to the Midyear and Fall issues, there will be a final Winter issue.*

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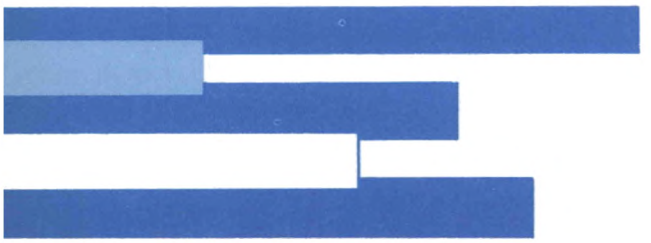


ECONOMIC PERSPECTIVES

Fall 1982, Volume VI, Issue 2

Monetary policy objectives for 1982

Pursuant to the Full Employment and Balanced Growth Act of 1978 (Humphrey-Hawkins Act), the Board of Governors is required to report to the Congress twice each year its annual targets for the growth of money and credit and how achievement of these targets relates to the administration's economic goals. The following article consists of a summary of the midyear report plus the testimony of Federal Reserve Board Chairman Paul A. Volcker before the Congress in July of this year.

Monetary policy in 1982 and 1983

There is a clear need today to promote higher levels of production and employment in our economy. The objective of Federal Reserve policy is to create an environment conducive to sustained recovery in business activity while maintaining the financial discipline needed to restore reasonable price stability.

The growth of money and credit in 1982

The annual targets for the monetary aggregates reported to Congress in February were chosen to be consistent with continued restraint on the growth of money and credit in order to exert sustained downward pressure on inflation. At the same time, these targets were expected to result in sufficient money growth to support an upturn in economic activity.

At its July meeting, the Federal Open Market Committee concluded that a change in the previously announced targets was not warranted at this time. Because of the tendency for the demand for money to run strong on average in the first half, and also responding to a congressional budget resolution, careful consideration was given to the question of whether some raising of the targets was in order. However, the available evidence did not suggest that a large increase in the ranges was justified; and a small change in the ranges would have represented a degree of "fine tuning" that appeared inconsistent with the degree of uncertainty currently surrounding the precise relationship of money to other economic variables. However, the Committee concluded, based on current evidence, that growth this year around the top of the ranges for the various aggregates would be acceptable.

The Committee also agreed that possible shifts in the demand for liquidity might require more than ordinary elements of flexibility and judgment in assessing appropriate needs for money in the months ahead. In the near term, measured growth of the aggregates may be affected by the income tax reductions that occurred on July 1, cost-of-living increases in social security benefits, and by the ongoing difficulties of accurately accounting for seasonal movements in the money stock. But more fundamentally, it is unclear to what degree businesses and households will continue to wish to hold unusually large precautionary liquid balances. To the extent the evidence suggests that relatively strong precautionary demands for money persist, growth of the aggregates somewhat above their targeted ranges would be tolerated for a time and still would be consistent with the FOMC's general policy thrust.

Ranges of monetary growth 1982[1]

	1982 planned QIV'81-QIV'82	1982 actual QIV'81-QII'82	1982 actual QIV'81-June '82	1981 QIV levels*
M1	2½ to 5½ percent	6.8 percent	5.6 percent	436.7
M2	6 to 9 percent	9.7 percent	9.4 percent	1807.4
M3	6½ to 9½ percent	9.8 percent	9.7 percent	2171.3
Commercial bank credit[2]	6 to 9 percent	8.3 percent	8.0 percent	1323.1

*Billions of dollars, seasonally adjusted.

[1]M1 is the sum of currency held by the public, plus travelers' checks, plus demand deposits, plus other checkable deposits (i.e., negotiable order of withdrawal (NOW) accounts, automatic transfer service (ATS) accounts, and credit union share draft accounts.)

M2 is M1 plus savings and small denomination time deposits, plus shares in money market mutual funds (other than those restricted to institutional investors), plus overnight repurchase agreements and Eurodollars.

M3 is M2 plus large time deposits at all depository institutions, large denomination term repurchase agreements, and shares in money market mutual funds restricted to institutional investors.

Bank credit is total loans and investments of commercial banks.

[2]Because of the introduction of International Banking Facilities (IBFs), the bank credit data beginning in December 1981 are not comparable to earlier data. Thus, the target for 1982 was stated in terms of growth from the average level of December 1981 and January 1982 (shown in the last column) to the average level in the fourth quarter of 1982, so that the initial shift of assets to IBFs that occurred at the end of the year would not have a major impact on the pattern of growth. Actual growth rates for bank credit are calculated from the December-January base.

The policy of firm restraint on monetary growth has contributed importantly to the recent progress toward reducing inflation. But when inflationary cost trends remain entrenched, the process of slowing monetary growth can entail economic and financial stresses. These strains—reflected in reduced profits, liquidity problems, and balance sheet pressures—place particular hardships on industries that depend heavily on credit markets such as construction, business equipment, and consumer durables.

Unfortunately, these stresses cannot be easily remedied through faster money growth. The immediate effect might be lower interest rates, especially in short-term markets. In time, however, such an attempt would founder, embedding inflation and expectations of inflation even more deeply into the nation's economic system. The present and prospective pressures on financial markets urgently need to be eased not by relaxing discipline on money growth, but by the adoption of policies that will ensure a lower and declining federal deficit. Moreover, a return to financial health will require the adoption of more prudent credit practices on the part of private borrowers and lenders alike.

Tentative ranges for 1983

Looking ahead to 1983 and beyond, the FOMC remains committed to restraining money growth in order to achieve sustained noninflationary economic expansion. At its July meeting, the FOMC felt that the ranges now in effect could remain as preliminary targets for 1983. Because the monetary aggregates in 1982 will likely be close to the upper ends of their ranges, or perhaps even somewhat above them, the preliminary 1983 targets are fully consistent with a reduction in the actual growth of money in 1983.

Tentative ranges of monetary growth 1983
(Based on QIV'82 to QIV'83)

M1	2½ to 5½ percent
M2	6 to 9 percent
M3	6½ to 9½ percent
Commercial bank credit	6 to 9 percent

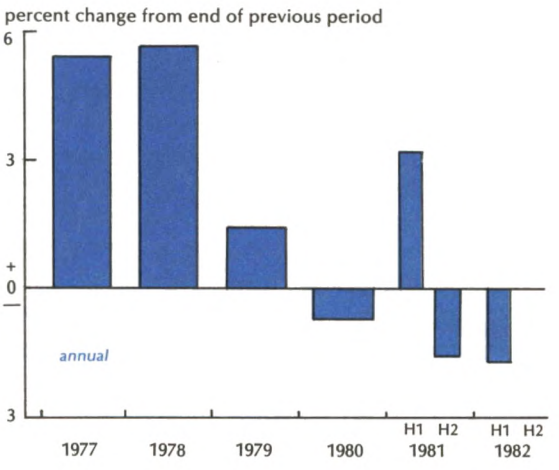
In light of the unusual uncertainty surrounding the economic, financial, and budgetary outlook, the FOMC stressed the tentative nature of its 1983 targets. On the one hand, experience strongly suggests that, with economic activity on an upward trend, precautionary motives for holding liquid balances should begin to fade, contributing to a rapid rise in the velocity of money. Moreover, regulatory actions by the Depository Institutions Deregulation Committee that increase the competitive appeal of deposit instruments—as well as the more widespread use of innovative cash management techniques, such as "sweep" accounts—also could reduce the demand for money relative to income and interest rates. On the other hand, the long upward trend in the velocity of money since the 1950s took place in an environment of rising inflation and higher nominal interest rates that provided incentives for economizing on money holdings; as these incentives recede, the attractiveness of cash holdings may be enhanced and more money may be held relative to the level of business activity.

The outlook for the economy

The economy at midyear appears to have leveled off following sizable declines last fall and winter. Consumption has strengthened, with retail sales up significantly in the second quarter. New and existing home sales have continued to fluctuate at depressed levels, but housing starts nonetheless have edged upward. In the business sector, substantial progress has been made in working off excess inventories, and the rate of liquidation appears to have declined. On the negative side, however, plant and equipment spending, which typically lags an upturn in overall activity, is still depressed. The trend in export demand also continues to be a drag on the economy reflecting the dollar's strength and weak economic activity abroad.

An evaluation of the balance of economic forces indicates that an upturn in economic activity is highly likely in the second half of 1982. Monetary growth along the lines targeted by the FOMC should accommodate this expansion in real GNP, given the increases in velocity that typically occur early in a cyclical recovery, and absent an appreciable resurgence of inflation. The 10 percent cut in income tax rates that went into effect July 1 is boosting disposable personal income and

Real GNP



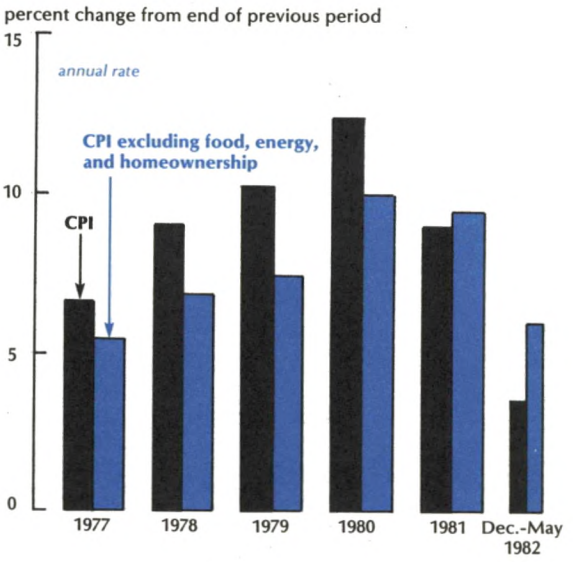
should reinforce the growth in consumer spending. Given the improved inventory situation, any sizable increase in consumer spending should, in turn, be reflected in new orders and a pickup in production. The continuing rise in defense spending and the associated private investment outlays needed for the production of defense equipment will be another element supporting real GNP growth. During its initial phase, the expansion is likely to be more heavily concentrated in consumer spending than in past business cycles; current pressures in financial markets and liquidity strains may inhibit the recovery in residential and business investment.

The excellent price performance so far this year has been helped by slack demand and exceptionally favorable energy and food supply developments. For that reason, the recorded rate of inflation may be higher in the second half of the year. However, prospects appear excellent for continuing the downtrend in the underlying rate of inflation. There has been significant progress in slowing the rise in labor compensation, and improvement in underlying cost pressures should continue over the balance of the year. Unit labor costs also are likely to be held down by a cyclical rebound in productivity growth as output recovers. Moreover, lower inflation will contribute to smaller cost-of-living wage adjustments, which will moderate cost pressures further.

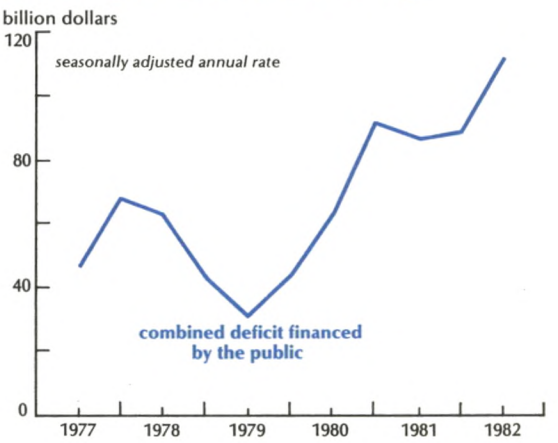
A critical factor influencing the composition and strength of the expansion in economic activity over the next year and a half will be the extent to which pressures in financial markets moderate. This, in turn, depends importantly on the progress made in further reducing inflationary pressures. A decrease in inflation would take pressure off financial markets in two ways. First, slower inflation will lead to a reduced growth in transactions demands for money, given any particular level of real activity. Second, further progress in curbing inflation will help lower long-term interest rates by reducing the inflation premium contained in nominal interest rates.

Another crucial influence on financial markets and thus on the nature of the expansion in 1983 will be the federal budgetary decisions that are made in coming months. The budget resolution that was recently passed by the House and Senate is a constructive first step in reducing budget deficits as the economy recovers, but appropriation and revenue legislation is needed to implement this resolution. How the budget process un-

Consumer prices



Federal government borrowing



FOMC members' economic projections

		Actual* 1981	Projected 1982	1983
Changes, fourth quarter to fourth quarter, percent	Nominal GNP	9.6	5½ to 7½	7 to 9½
	Real GNP	0.7	½ to 1½	2½ to 4
	GNP Deflator	8.9	4¾ to 6	4 to 5¾
Average level in the fourth quarter, percent	Unemployment rate	8.3	9 to 9¾	8½ to 9½

*Based on revised GNP data that were published after the full Humphrey-Hawkins report was submitted.

folds will determine future credit demands by the federal government and thus the extent to which deficits will preempt the net savings generated by the private economy. A strong program of budget restraint would minimize pressures in financial markets and thereby enhance the prospects for a more vigorous recovery in homebuilding, business fixed investment, and other credit-dependent sectors.

In assessing the economic outlook, the individual members of the FOMC have made projections for economic performance that generally fall within the ranges in the table above. In addition to the monetary targets discussed above, these projections assume that the federal budget will be put on a course that over time will result in significant reductions in the federal deficit.

Looking ahead, the Committee members, like the administration and the Congress, foresee continued economic expansion in 1983, but currently anticipate a less rapid rate of price increase and somewhat slower real growth than the assumptions underlying the budget. The monetary targets tentatively set for 1983—which will be reviewed early next year—would imply, under the budgetary assumptions, relatively rapid growth in velocity.

Testimony of Paul A. Volcker, Chairman, Federal Reserve Board

I am pleased to have this opportunity once again to discuss monetary policy with you within the context of recent and prospective economic developments. As usual on these occasions, you have the Board of Governors' "Humphrey-Hawkins" Report before you. This morning I want to enlarge upon some aspects of that Report and amplify as fully as I can my thinking with respect to the period ahead.

Crossroads on inflation

In assessing the current economic situation, I believe the comments I made five months ago remain relevant. Without repeating that analysis in detail, I would emphasize that we stand at an important crossroads for the economy and economic policy.

In these past two years we have traveled a considerable way toward reversing the inflationary trend of the previous decade or more. I would recall to you that, by the late 1970s, that trend had shown every sign of feeding upon itself and tending to accelerate to the point where it threatened to undermine the foundations of our economy. Dealing with inflation was accepted as a top national priority, and, as events developed, that task fell almost entirely to monetary policy.

In the best of circumstances, changing entrenched patterns of inflationary behavior and expectations—in financial markets, in the practices of business and financial institutions, and in labor negotiations—is a difficult and potentially painful process. Those, consciously or not, who had come to "bet" on rising prices and the ready availability of relatively cheap credit to mask the risks of rising costs, poor productivity, aggressive lending, or over-extended financial positions have found themselves in a particularly difficult position.

The pressures on financial markets and interest rates have been aggravated by concerns over prospective huge volumes of Treasury financing, and by the need of some businesses to borrow at a time of a severe squeeze on profits. Lags in the adjustment of nominal wages and other costs to the prospects for sharply reduced inflation are perhaps inevitable, but have the effect of prolonging the pressure on profits—and indirectly on financial markets and employment. Remaining doubts and skepticism that public policy will "carry through" on the effort to restore stability also affect interest rates, perhaps most particularly in the longer-term markets.

In fact, the evidence now seems to me strong that the inflationary tide has turned in a fundamental way. In stating that, I do not rely entirely on the exceptionally favorable consumer and producer price data thus far this year, when the recorded rates of price increase (at annual rates) declined to 3½ percent and 2½ percent, respectively. That apparent improvement was magnified by some factors likely to prove temporary, including, of course, the intensity of the recession; those price indices are likely to appear somewhat less favorable in the second half of the year. What seems to me more important for the longer run is that the trend of underlying costs and nominal wages has begun to move lower, and that trend should be sustainable as the economy recovers upward momentum. While less easy to identify—labor productivity typically does poorly during periods of business decline—there are encouraging signs that both management and workers are giving more intense attention to the effort to improve productivity. That effort should "pay off" in a period of business expansion, helping to hold down costs and encouraging a revival of profits, setting the stage for the sustained growth in real income we want.

Economic strains

I am acutely aware that these gains against inflation have been achieved in a context of serious recession. Millions of workers are unemployed, many businesses are hardpressed to maintain profitability, and business bankruptcies are at a postwar high. While it is true that some of the hardship can reasonably be traced to mistakes in management or personal judgment, including presumptions that inflation would continue, large areas of the country and sectors of the economy have been swept up in more generalized difficulty. Our financial system has great strength and resiliency, but particular points of strain have been evident.

Quite obviously, a successful program to deal with inflation, with productivity, and with the other economic and social problems we face cannot be built on a crumbling foundation of continuing recession. As you know, there have been some indications—most broadly reflected in the rough stability of the real GNP in the second quarter and small increases in the leading indicators—that the downward adjustments may be drawing to a close. The tax reduction effective July 1, higher social security payments, rising defense spending and orders, and the reductions in inventory already achieved, all tend to support the generally held view among economists that some recovery is likely in the second half of the year.

I am also conscious of the fact that the leveling off of the GNP has masked continuing weakness in important sectors of the economy. In its early stages, the prospective recovery must be led largely by consumer spending. But to be sustained over time, and to support continuing growth in productivity and living standards, more investment will be necessary. At present, as you know, business investment is moving lower. House building has remained at depressed levels; despite some small gains in starts during the spring, the cyclical strength "normal" in that industry in the early stages of recovery is lacking. Exports have been adversely affected by the relative strength of the dollar in exchange markets.

I must also emphasize that the current problems of the American economy have strong parallels abroad. Governments around the world have faced, in greater or lesser degree, both inflationary and fiscal problems. As they have come to grips with those problems, growth has been slow or non-existent, and the recessionary tendencies in various countries have fed back, one on another.

In sum, we are in a situation that obviously warrants concern, but also has great opportunities. Those opportunities lie in major part in achieving lasting progress—in pinning down and extending what has already been achieved—toward price stability. In doing so, we will be laying the base for sustaining recovery over many years ahead, and for much lower interest rates, even as the economy grows. Conversely, to fail in that task now, when so much headway has been made, could only greatly complicate the problems of the economy over time. I find it difficult to suggest when and how a credible attack could be renewed on inflation should we neglect completing the job now. Certainly the doubts and skepticism about our capacity to deal with inflation—which now seem to be yielding—would be amplified, with unfortunate consequences for financial markets and ultimately for the economy.

I am certain that many of the questions, concerns, and dangers in your mind lie in the short run—and that those in good part revolve around the pressures in financial markets. Can we look forward to lower interest rates to support the expansion in investment and housing as the recovery takes hold? Is there, in fact, enough liquidity in the economy to support expansion—but not so much that inflation is reignited? Will, in fact, the economy follow the recovery path so widely forecast in coming months?

These are the questions that we in the Federal Reserve must deal with in setting monetary policy. As we approach these policy decisions, we are particularly conscious of the fact that monetary policy, however

important, is only one instrument of economic policy. Success in reaching our common objective of a strong and prosperous economy depends upon more than appropriate monetary policies, and I will touch this morning on what seem to me appropriately complementary policies in the public and private sectors.

Review of money growth in 1982

Five months ago, in presenting our monetary and credit targets for 1982, I noted some unusual factors could be at work tending to increase the desire of individuals and businesses to hold assets in the relatively liquid forms encompassed in the various definitions of money. Partly for that reason—and recognizing that the conventional base for the M1 target of the fourth quarter of 1981 was relatively low—I indicated that the Federal Open Market Committee contemplated growth toward the upper ends of the specified ranges. Given the "bulge" early in the year in M1, the Committee also contemplated that that particular measure of money might for some months remain above a "straight line" projection of the targeted range from the fourth quarter of 1981 to the fourth quarter of 1982.

As events developed, M1 and M2 both remained somewhat above straight line paths until very recently. M3 and bank credit have remained generally within the indicated range, although close to the upper ends. Taking the latest full month of June, M1 grew 5.6 percent from the base period and M2 9.4 percent, close to the top of the ranges. To the second quarter as a whole, the growth was higher, at 6.8 percent and 9.7 percent, respectively. Looked at on a year-over-year basis, which appropriately tends to average through volatile monthly and quarterly figures, M1 during the first half of 1982 averaged about 4¾ percent above the first half of 1981 (after accounting for NOW account shifts early last year). On the same basis, M2 and M3 grew by 9.7 percent and 10.5 percent, respectively, a rate of growth distinctly faster than the nominal GNP over the same interval.

In conducting policy during this period, the Committee was sensitive to indications that the desire of individuals and others for liquidity was unusually high, apparently reflecting concerns and uncertainties about the business and financial situation. One reflection of that may be found in unusually large declines in "velocity" over the period—that is, the ratio of measures of money to the gross national product. M1 velocity—particularly for periods as short as three to six months—is historically volatile. A cyclical tendency to slow (relative to its upward trend) during recessions is common. But an actual decline for two consecutive quarters, as happened late in 1981 and the first quarter of 1982, is rather unusual. The magnitude of the decline during the first quarter was larger than in any quarter of the entire postwar period. Moreover, declines in velocity of this magnitude and duration are often accompanied by (and are related to) reduced short-term interest rates. Those interest rate levels during the first half of 1982 were distinctly lower than during much of 1980 and 1981, but they rose above the levels reached in the closing months of last year.

Desire for liquidity

More direct evidence of the desire for liquidity or precautionary balances affecting M1 can be found in the behavior of NOW accounts. As you know, NOW accounts are a relatively new instrument, and we have no experience of behavior over the course of a full business cycle. We do know that NOW accounts are essentially confined to individuals, their turnover relative to demand accounts is relatively low, and, from the standpoint of the owner, they have some of the characteristics of savings deposits, including a similarly low interest rate but easy access on demand. We also know the great bulk of the increase in M1 during the early part of the year—almost 90 percent of the rise from the fourth quarter of 1981 to the second quarter of 1982—was concentrated in NOW accounts, even though only about a fifth of total M1 is

held in that form. In contrast to the steep downward trend in low-interest savings accounts in recent years, savings account holdings have stabilized or even increased in 1982, suggesting the importance of a high degree of liquidity to many individuals in allocating their funds. A similar tendency to hold more savings deposits has been observed in earlier recessions.

I would add that the financial and liquidity positions of the household sector of the economy, as measured by conventional liquid asset and debt ratios, has improved during the recession period. Relative to income, debt repayment burdens have declined to the lowest level since 1976. Trends among business firms are clearly mixed. While many individual firms are under strong pressure, some rise in liquid asset holdings for the corporate sector as a whole appears to be developing. The gap between internal cash flow (that is, retained earnings and depreciation allowances) and spending for plant, equipment, and inventory has also been at an historically low level, suggesting that a portion of recent business credit demands is designed to bolster liquidity. But, for many years, business liquidity ratios have tended to decline, and balance sheet ratios have reflected more dependence on short-term debt. In that perspective, any recent gains in liquidity appear small.

In the light of the evidence of the desire to hold more NOW accounts and other liquid balances for precautionary rather than transaction purposes during the months of recession, strong efforts to reduce further the growth rate of the monetary aggregates appeared inappropriate. Such an effort would have required more pressure on bank reserve positions—and presumably more pressures on the money markets and interest rates in the short run. At the same time, an unrestrained build-up of money and liquidity clearly would have been inconsistent with the effort to sustain progress against inflation, both because liquidity demands could shift quickly and because our policy intentions could easily have been misconstrued. Periods of velocity decline over a quarter or two are typically followed by periods of relatively rapid increase. Those increases tend to be particularly large during cyclical recoveries. Indeed, velocity appears to have risen slightly during the second quarter, and the growth in NOW accounts has slowed.

The monetary targets—balance of 1982

Judgments on these seemingly technical considerations inevitably take on considerable importance in the target-setting process because the economic and financial consequences (including the consequences for interest rates) of a particular M1 or M2 increase are dependent on the demand for money. Over longer periods, a certain stability in velocity trends can be observed, but there is a noticeable cyclical pattern. Taking account of those normal historical relationships, the various targets established at the beginning of the year were calculated to be consistent with economic recovery in a context of declining inflation. That remains our judgment today. Inflation has, in fact, receded more rapidly than anticipated at the start of the year potentially leaving more "room" for real growth. On that basis, the targets established early in the year still appeared broadly appropriate, and the Federal Open Market Committee decided at its recent meeting not to change them at this time.

However, the Committee also felt, in the light of developments during the first half, that growth around the top of those ranges would be fully acceptable. Moreover —and I would emphasize this—growth somewhat above the targeted ranges would be tolerated for a time in circumstances in which it appeared that precautionary or liquidity motivations, during a period of economic uncertainty and turbulence, were leading to stronger than anticipated demands for money. We will look to a variety of factors in reaching that judgment, including such technical factors as the behavior of different components in the money supply, the growth of credit, the behavior of banking and financial

markets, and more broadly, the behavior of velocity and interest rates.

I believe it is timely for me to add that, in these circumstances, the Federal Reserve should not be expected to respond, and does not plan to respond, strongly to various "bulges"—or for that matter "valleys"—in monetary growth that seem likely to be temporary. As we have emphasized in the past, the data are subject to a good deal of statistical "noise" in any circumstances, and at times when demands for money and liquidity may be exceptionally volatile, more than usual caution is necessary in responding to "blips."*

We, of course, have a concrete instance at hand of a relatively large (and widely anticipated) jump in M1 in the first week of July—possibly influenced to some degree by larger social security payments just before a long weekend. Following as it did a succession of money supply declines, that increase brought the most recent level for M1 barely above the June average, and it is not of concern to us.

It is in this context, and in view of recent declines in short-term market interest rates, that the Federal Reserve yesterday reduced the basic discount rate from 12 to 11½ percent.

The monetary targets—1983

In looking ahead to 1983, the Open Market Committee agreed that a decision at this time would—even more obviously than usual—need to be reviewed at the start of the year in the light of all the evidence as to the behavior of velocity or money and liquidity demand during the current year. Apart from the cyclical influences now at work, the possibility will need to be evaluated of a more lasting change in the trend of velocity.

The persistent rise in velocity during the past twenty years has been accompanied by rising inflation and interest rates—both factors that encourage economization of cash balances. In addition, technological change in banking—spurred in considerable part by the availability of computers—has made it technically feasible to do more and more business on a proportionately smaller "cash" base. With incentives strong to minimize holdings of cash balances that bear no or low interest rates, and given the technical feasibility to do so, turnover of demand deposits has reached an annual rate of more than 300, quadruple the rate ten years ago. Technological change is continuing, and changes in regulation and bank practices are likely to permit still more economization of M1-type balances. However, lower rates of interest and inflation should moderate incentives to exploit that technology fully. In those conditions, velocity growth could slow, or conceivably at some point stop.

To conclude that the trend has in fact changed would clearly be premature, but it is a matter we will want to evaluate carefully as time passes. For now, the Committee felt that the existing targets should be tentatively retained for next year. Since we expect to be around the top end of the ranges this year, those tentative targets would of course be fully consistent with somewhat slower growth in the monetary aggregates in 1983. Such a target would be appropriate on the assumption of a more or less normal cyclical rise in velocity. With inflation declining, the tentative targets would appear consistent with, and should support, continuing recovery at a moderate pace.

The blend of monetary and fiscal policy

The Congress, in adopting a budget resolution contemplating cuts in expenditures and some new revenues, also called upon the Federal Reserve to "reevaluate its monetary targets in order to assure that they are fully complementary to a new and more restrained fiscal policy." I can report that members of

*In that connection, a number of observers have noted that the first month of a calendar quarter—most noticeably in January and April—sometimes shows an extraordinarily large increase in M1—amplified by the common practice of multiplying the actual change by 12 to show an annual rate. Those bulges, more typically than not, are partially "washed out" by slower than normal growth the following month. The standard seasonal adjustment techniques we use to smooth out monthly money supply variations—indeed, *any* standard techniques—may, in fact, be incapable of keeping up with rapidly changing patterns of financial behavior, as they affect seasonal patterns.

the Committee welcomed the determination of the Congress to achieve greater fiscal restraint, and I want particularly to recognize the leadership of members of the Budget Committees and others in achieving that result. In most difficult circumstances, progress is being made toward reducing the huge potential gap between receipts and expenditures. But I would be less than candid if I did not also report a strong sense that considerably more remains to be done to bring the deficit under control as the economy expands. The fiscal situation as we appraise it, continues to carry the implicit threat of "crowding out" business investment and housing as the economy grows—a process that would involve interest rates substantially higher than would otherwise be the case. For the more immediate future, we recognized that the need remains to convert the intentions expressed in the Budget Resolution into concrete legislative action.

In commenting on the budget, I would distinguish sharply between the "cyclical" and "structural" deficit—that is, the portion of the deficit reflecting an imbalance between receipts and expenditures even in a satisfactorily growing economy with declining inflation. To the extent the deficit turns out to be larger than comtemplated entirely because of a shortfall in economic growth, that "add on" would not be a source of so much concern. But the hard fact remains that, if the objectives of the Budget Resolution are fully reached, the deficit would be about as large in fiscal 1983 as this year even as the economy expands at a rate of 4 to 5 percent a year and inflation (and thus inflation-generated revenues) remains higher than members of the Open Market Committee now expect.

In considering the question posed by the Budget Resolution, the Open Market Committee felt that full success in the budgetary effort should itself be a factor contributing to lower interest rates and reduced strains in financial markets. It would thus assist importantly in the common effort to reduce inflationary pressures in the context of a growing economy. By relieving concern about future financing volume and inflationary expectations, I believe as a practical matter a credibly firmer budget posture might permit a degree of greater flexibility in the actual short-term execution of monetary policy without arousing inflationary fears. Specifically, market anxiety that short-run increases in the Ms might presage continuing monetization of the debt could be ameliorated. But any gains in these respects will of course be dependent on firmness in implementing the intentions set forth in the Resolution and on encouraging confidence among borrowers and investors that the effort will be sustained and reinforced in coming years.

Taking account of all these considerations, the Committee did not feel that the budgetary effort, important as it is, would in itself appropriately justify still greater growth in the monetary aggregates over time than I have anticipated. Indeed, excessive monetary growth—and perceptions thereof—would undercut any benefits from the budgetary effort with respect to inflationary expectations. We believe fiscal restraint should be viewed more as an important complement to appropriately disciplined monetary policy than as a substitute.

Time to move ahead

In an ideal world, less exclusive reliance on monetary policy to deal with inflation would no doubt have eased the strains and high interest rates that plague the economy and financial markets today. To the extent the fiscal process can now be brought more fully to bear on the problem, the better off we will be—the more assurance we will have that interest rates will decline and keep declining during the period of recovery, and that we will be able to support the increases in investment and housing essential to healthy, sustained recovery. Efforts in the private sector—to increase productivity, to reduce costs, and to avoid inflationary and job-threatening wage increases—are also vital, even though the connection between the actions of individual firms and workers and the performance of the economy may not always be

self-evident to the decision makers. We know progress is being made in these areas, and more progress will hasten full and strong expansion.

But we also know that we do not live in an ideal world. There is strong resistance to changing patterns of behavior and expectations ingrained over years of inflation. The slower the progress on the budget, the more industry and labor build in cost increases in anticipation of inflation or government acts to protect markets or impede competition, the more highly speculative financing is undertaken, the greater the threat that available supplies of money and credit will be exhausted in financing rising prices instead of new jobs and growth. Those in vulnerable competitive positions are most likely to feel the impact first and hardest, but unfortunately, the difficulties spread over the economic landscape.

The hard fact remains that we cannot escape those dilemmas by a decision to give up the fight on inflation—by declaring the battle won before it is. Such an approach would be transparently clear—not just to you and me—but to the investors, the businessmen, and the workers who would, once again, find their suspicions confirmed that they had better prepare to live with inflation, and try to keep ahead of it. The reactions in financial markets and other sectors of the economy would, in the end, aggravate our problems, not eliminate them. It would strike me as the cruelest blow of all to the millions who have felt the pain of recession directly to suggest, in effect, it was all in vain.

I recognize months of recession and high interest rates have contributed to a sense of uncertainty. Businesses have postponed investment plans. Financial pressures have exposed lax practices and stretched balance sheet positions in some institutions—financial as well as non-financial. The earnings position of the thrift industry remains poor.

But none of those problems can be dealt with successfully by re-inflation or by a lack of individual discipline. It is precisely that environment that contributed so much to the current difficulties.

In contrast, we are now seeing new attitudes of cost containment and productivity growth—and ultimately our industry will be in a more robust competitive position. Millions are benefitting from less rapid price increases—or actually lower prices—at their shopping centers and elsewhere. Consumer spending appears to be moving ahead, and inventory reductions help set the stage for production increases.

Those are developments that should help recovery get firmly underway. The process of disinflation has enough momentum to be sustained during the early stages of recovery—and that success can breed further success as concerns about inflation recede. As recovery starts, the cash flow of business should improve. And, more confidence should encourage greater willingness among investors to purchase longer debt maturities. Those factors should, in turn, work toward reducing interest rates, and sustaining them at lower levels, encouraging in turn the revival of investment and housing we want.

I have indicated the Federal Reserve is sensitive to the special liquidity pressures that could develop during the current period of uncertainty. Moreover, the basic solidity of our financial system is backstopped by a strong structure of governmental institutions precisely designed to cope with the secondary effects of isolated failures. The recent problems related largely to the speculative activities of a few highly leveraged firms can and will be contained, and over time, an appropriate sense of prudence in taking risks will serve us well.

We have been through—we are in—a trying period. But too much has been accomplished not to move ahead and complete the job of laying the groundwork for a much stronger economy. As we look forward, not just to the next few months but to long years, the rewards will be great: in renewed stability, in growth, and in higher employment and standards of living. That vision will not be accomplished by monetary policy alone. But we mean to do our part.

Reserve targeting and discount policy

*Paul L. Kasriel and Randall C. Merris**

The recent approval in principle by the Board of Governors of the Federal Reserve System of a return to a modified form of contemporaneous reserve accounting[1] raises important questions regarding the role of Federal Reserve discount policy.[2] This article analyzes the factors that enter into an individual bank's decision to borrow from the Fed for short-term reserve adjustment purposes and how the borrowing function for the banking *system* relates to the determination of the federal funds rate—the "cutting edge" of monetary policy in terms of the money supply process. Finally, it briefly discusses the implications for discount policy of the proposed move to a modified form of contemporaneous reserve accounting.

Prior to October 6, 1979 the Fed conducted open market operations so as to hit a targeted federal funds rate that the Federal Open Market Committee (FOMC) thought consistent with its desired money growth.[3] Borrowed reserves simply fell out as a residual from the actions taken by the Fed to maintain the targeted federal funds rate. As a result, neither discount policy per se nor knowledge of the relationship between discount window borrowing and the federal funds rate was of great significance for monetary control purposes.

The situation is quite different under the Fed's current nonborrowed reserve targeting procedure adopted October 6, 1979. Under this procedure, the FOMC chooses an initial level of reserve adjustment borrowing through the discount window (referred to as the borrowing assumption) that appears consistent with the achievement of the Committee's monetary growth objective over the period until its next meeting. Then the Federal Reserve Board staff estimates an average level of total reserves conditioned upon the FOMC's monetary growth objectives, reserve requirement ratios, and estimates of several key variables, including reservable liabilities other than those included in the FOMC-targeted monetary aggregates, excess reserves demanded by banks, and currency demanded by the public. The final step is to derive the nonborrowed reserve target by subtracting the FOMC's borrowed reserve assumption from the Board staff's estimate of total reserves.

Suppose that the monetary aggregates start to grow faster than the FOMC desires. This higher-than-desired monetary growth results in more rapid growth in required reserves and (assuming no change in banks' demands for excess reserves) total reserves relative to the targeted level of nonborrowed reserves. As a result, borrowed reserves would rise. For reasons to be discussed below, this increase in borrowed reserves, all else the same, tends to push up both the federal funds rate—the rate charged on interbank loans

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[1]As currently discussed the proposal would involve a two-week settlement period, with the reserve settlement period beginning and ending two days later than the reserve computation period.

[2]Discount policy refers to the level at which the discount rate is set and the Reserve Banks' administration of the discount window borrowing privilege.

[3]Although the federal funds rate is simply the cost of one source of funds among many, it is of special significance in the money supply process. Federal funds borrowing is a close substitute for discount window borrowing as a source of short-term adjustment credit and changes in it are quickly reflected in other short-term rates.

with short, usually one-day, maturities—and rates on funds from other sources. As under the old operating procedure, higher funding costs discourage banks from acquiring additional earning assets, culminating in a slowdown in money growth. Conversely, slower-than-desired monetary growth leads to slower growth in required and (assuming, again, no change in excess reserves) total reserves relative to the targeted level of nonborrowed reserves supplied by the Fed; a reduction in borrowing at the discount window; a fall in the federal funds rate; and, ultimately, an increase in money growth.

The basic change in monetary control under the new operating procedure, as contrasted to the old procedure, is that the Fed no longer pegs the federal funds rate in the short run. Rather, it translates the desired degree of restrictiveness or ease into an initial borrowed reserves assumption and, hence, a target for nonborrowed reserves. Adherence to the nonborrowed reserve target means that the federal funds rate is free to fluctuate in the short run. Nevertheless, the average level of the federal funds rate—assuming the Fed has picked the proper target level for nonborrowed reserves—should be such as to produce the desired rates of monetary growth. Thus, the relationship between discount window borrowing for short-term reserve adjustment reasons[4] and the federal funds rate is crucial in the monetary control process under the Fed's current nonborrowed reserve targeting procedure.

Individual banks' demands for borrowed reserves

For an individual bank, the decision to borrow from the discount window is part of a larger decision regarding the size and composition of its portfolio. Assuming expected profit maximization, a bank acquires earning assets up to the point at which the present value of the expected return on an additional dollar of assets is equal to the present value of the expected cost of funding that additional dollar of assets over its term to maturity.[5] From the standpoint of an individual bank, borrowing from the discount window is just one source of funds among many others, including federal funds, CDs, RPs, etc. The profit-maximizing bank will allocate its acquisition of funds among the different available sources so as to equate the cost of the last dollar raised from each source for the same time period.

If banks could borrow from the discount window in unlimited quantities, with unlimited frequency, and for unlimited periods of time, no bank would be willing to pay a higher rate for funds than the discount rate. The fact that the costs of alternative sources of funds are often above the discount rate is indicative that banks cannot borrow from the discount window at will. That is, the administration of the window by Reserve Bank discount officers introduces elements of nonprice rationing, often referred to as surveillance costs, in addition to the explicit cost of the discount rate. These costs take the form of close monitoring by the discount officer of the bank's asset and liability behavior, informal pressure to make asset adjustments that will enable the bank to pay off its borrowing at the window, and the implicit threat that the bank may not be accommodated at the window at some future date if it "abuses" its borrowing privileges now. The total of such costs—and, importantly, the cost per dollar of borrowing—varies directly with the amount, frequency, and duration of borrowing.

Because of their limited access to the discount window, banks will attempt to save

[4]Because borrowings under the extended credit program do not have to be repaid as promptly as traditional adjustment borrowings, their money market impact is similar to that of nonborrowed reserves and they are treated as such in implementing monetary policy. For the purposes of this article, credit extended by the Federal Reserve Banks under the seasonal borrowing privilege is also excluded from adjustment borrowings.

[5]These conclusions abstract from the problem of risk. To the extent that the bank is concerned about the variance, or risk, associated with the level of expected profits, the conclusions would have to be modified slightly.

their borrowing privileges for the most profitable occasions. Presumably, those occasions would occur when the costs of alternative sources of funds were high relative to the discount rate and when this cost differential or spread was expected to narrow over some relevant time horizon.

Figure 1 is a simplified graphical representation of the summation of individual banks' demands—i.e., the banking system's demand—for borrowed reserves in relation to the spread between the federal funds rate and the discount rate. The positive slope of line OA indicates that, as the federal funds rate-discount rate spread widens, the demand for borrowed reserves increases.[6] At spread SP^0, borrowed reserves BR^A will be demanded.

Two of the major determinants of the relationship between aggregate bank borrowing and the current spread between the federal funds rate and the discount rate are the administration of the window by the 12 Reserve Banks and, given banks' concern to preserve their borrowing privileges in the future, their expectations of future spreads between the federal funds rate and the discount rate.

Administration of the discount window

At each Reserve Bank, discount administration is guided by established criteria in judging the appropriateness of a bank's request for short-term reserve adjustment credit. These criteria include the reason for the borrowing, the amount of borrowing requested as a percentage of the bank's domestic deposits, the number of consecutive weeks the bank has borrowed, and the number of weeks within some specified period (e.g., a 13-week or 26-week period) that a bank has borrowed.

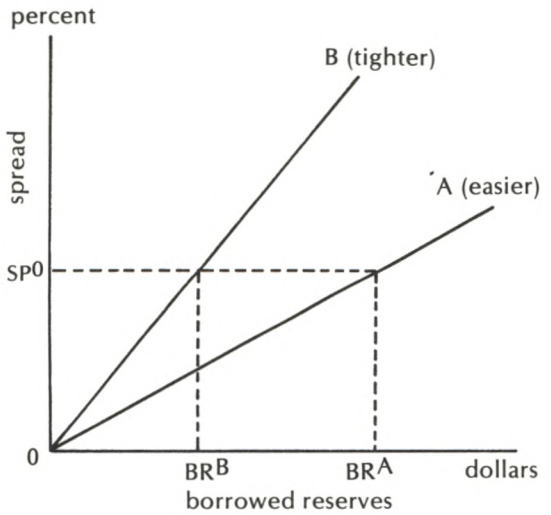
In recent years, efforts have been made to standardize window administration across Federal Reserve districts through a more precise definition of appropriate reasons for borrowing and through more uniform numerical guidelines for duration and frequency of borrowing. Each Reserve Bank's discount officer, however, still exercises discretion in judging the appropriateness of borrowing. Moreover, within the guideline categories, different subjective and quantitative weights are applied to borrowing requests depending on the size of the bank seeking reserve adjustment credit. Typically, less administrative pressure is applied to smaller banks, because their alternative sources of adjustment credit are more limited than those of larger banks.

The slope of the aggregate bank borrowing function in figure 1 depends both on the 12 Reserve Banks' combined administration of their respective discount windows and on banks' perceptions of this administration. "Tighter" administration results in a more steeply sloped borrowing function such as OB in figure 1. In this case, for any given spread between the federal funds rate and the discount rate, a relatively smaller amount of borrowed reserves will be demanded by the banking system under a "tighter" administration of the window. At the spread SP^0 in figure 1, the amount of borrowed reserves will be BR^A under relatively easier administration of the discount window but only BR^B under tighter discount window administration.

The borrowing function can be expected to vary from week to week due to many factors, including (but not restricted to) the duration of individual banks' previous borrowing, the sizes of banks requesting adjustment credit, and the variability of window administration among District Reserve Banks. In addition, banks' attitudes about borrowing from the window are quite diverse. Some banks are quite reluctant to borrow while

[6]Strictly speaking, banks do not base borrowing decisions on the spread between the federal funds rate and the nominal discount rate per se, but on the spread between the federal funds rate and the effective discount rate—i.e., the nominal discount rate plus surveillance costs. Although the latter vary with the amount of borrowing, they are not directly observable. However, if banks borrow from each source up to the point where marginal costs are equal, the federal funds rate-discount rate spread will just measure the annualized per dollar surveillance costs of discount window borrowings at each level of borrowing.

Figure 1:
Slope of aggregate borrowing function depends on tightness of discount window administration



NOTE: The borrowing functions OA and OB are drawn through the origin for expositional simplicity. These functions could intersect the horizontal axis at positive levels of borrowings to illustrate that some borrowing, especially by smaller banks, occurs even when the federal funds rate-discount rate spread is zero or negative.

Symbols used in figures 1-4 are defined as follows: R_{FF} = federal funds rate, R_D = discount rate, spread (SP) = $R_{FF} - R_D$, BR = borrowed reserves, NBR = nonborrowed reserves, and RR = required reserves.

others are much less inhibited. For example, large banks typically borrow for only one day at a time. Thus, a given spread between the federal funds rate and the discount rate would be expected to result in a relatively large amount of borrowing in a week when a disproportionately large number of small banks with little reluctance to borrow, and which have borrowed sparingly in recent weeks, come to the discount windows in Districts with less stringent administration. In practice, week-to-week variations in borrowing are dominated by borrowings by a relatively few large banks, usually as the result of miscalculations of reserve flows toward the end of the settlement week.

Expectations of future rate spreads

Banks' expectations of the federal funds rate-discount rate spread in the near future and the confidence with which they hold those expectations also will affect the aggregate bank borrowing function. If banks expect the spread to widen, they will tend to borrow less from the window at the current spread than if they expect the spread to narrow. They would want to save their borrowing privileges for more profitable future occasions.

Moreover, in an era of low federal funds rate variability, a small increase in the spread might induce a large increase in borrowing because of the high probability that the spread will narrow in the future. Even if the spread did not narrow, the cost of being wrong in spread forecasting would be relatively small, given the low variability of the federal funds rate.

In contrast, when there is greater federal funds rate variability, banks have less confidence that a given small increase in the spread will narrow in the future, and the cost of wrong predictions about future rate movements could be higher. In this case, an increase in the spread might induce a relatively small increase in borrowing.

Relevance of the borrowing function under nonborrowed reserve targeting

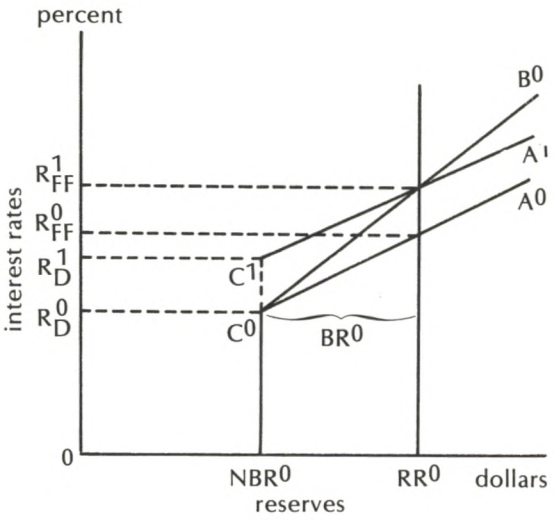
So far, the analysis has suggested that each individual bank is free to choose how much to borrow from the window. For the banking system as a whole, however, a certain minimum level of borrowing in a given week is fixed once the FOMC sets the level of nonborrowed reserves. This predetermination of a weekly minimum level of aggregate bank reserve adjustment borrowing is a consequence of lagged reserve accounting—the system used since 1968 in which the calculation of required reserves in the current week is based on the level of reservable deposits that banks held two weeks earlier. If, in a given week, the (predetermined) level of

required reserves exceeds the level of nonborrowed reserves targeted and provided by the Federal Reserve, then aggregate borrowing must be at least large enough to make up the shortfall in required reserves.[7] Although an individual bank can make up its reserve deficiency by purchasing federal funds, selling CDs, etc., the banking *system* can repair its reserve deficiency only by borrowing from the Federal Reserve. As banks bid for funds in the market, interest rates begin to rise. It is this rise in rates relative to the discount rate that eventually induces some banks to borrow voluntarily the amount needed to bring aggregate reserve demand (required reserves plus excess reserves) into equality with aggregate reserve supply (nonborrowed reserves plus borrowed reserves).

If the monetary aggregates and, therefore, required reserves are growing faster than the FOMC's targets, then monetary policy works by forcing the banking system to borrow more for reserve adjustment purposes, bringing about increases in the federal funds rate and in rates on funds from other sources. The higher cost of funds, all else the same, induces the banking system to reduce (or slow the growth of) its earning assets and, thus, its deposits.[8]

Figure 2 is a graphical representation of this model of federal funds rate determination. The line C^0A^0 in figure 2 corresponds to the borrowing function OA in figure 1. The vertical line segment at NBR^0 indicates the amount of nonborrowed reserves supplied by the FOMC. The vertical line RR^0 indicates

Figure 2:
Under nonborrowed reserve targeting, increase in discount rate or in slope of borrowing function leads to higher federal funds rate



the level of required reserves for the banking system. Notice that the policy implications of a specified nonborrowed reserve (or, implicitly, borrowed reserve) target depend critically on the level of the discount rate and the shape of the aggregate bank borrowing function (i.e., the slope of line C^0A^0).

All else the same, a higher discount rate will result in a higher federal funds rate and slower money growth. An increase in the discount rate from R^0_D to R^1_D is illustrated in figure 2 by the upward parallel shift in the borrowing function C^0A^0 to C^1A^1 reflecting the higher discount rate R^1_D and resulting in an increase in the federal funds rate from R^0_{FF} to R^1_{FF}. The same qualitative results will obtain if banks' demand for borrowed reserves should decrease in the current week due to a change in one or more of the factors that determine this demand (e.g., banks revised upward their expectations of the future spread between the federal funds rate and the discount rate). In terms of figure 2, this

[7]This abstracts from reserve carryover, i.e., the privilege banks have of carrying over a surplus or deficiency of up to 2 percent of required reserves into the following reserve settlement week. It also abstracts from banks' demand for excess reserves. To the degree that some banks wish to hold excess reserves, the aggregate amount borrowed from the window in a given week will equal the aggregate shortfall in nonborrowed reserves compared to required reserves plus the amount of excess reserves desired by the banking system.

[8]For a more detailed description of the money supply process, see Robert D. Laurent, "Lagged Reserve Accounting and the Fed's New Operating Procedure," *Economic Perspectives*, Federal Reserve Bank of Chicago (Midyear 1982), pp. 32-43.

Box 1

In order to investigate the relationship between reserve adjustment borrowing and the federal funds rate-discount rate spread (hereafter referred to as the spread), equation (1) in the table below was estimated using weekly average data from the week ending January 5, 1972, through October 3, 1979. The coefficient on the spread variable used to explain adjustment borrowings in equation (1) has the expected positive sign, indicating that banks increase adjustment borrowings as the spread widens.

An econometric problem arises if the same equation specification is used for the period after October 6, 1979. Before October 6, 1979 the FOMC directly targeted the federal funds rate and implicitly targeted the spread, given the level of the discount rate. Therefore, the spread could be considered an independent variable in explaining the level of adjustment borrowing. Since October 6, 1979, however, the FOMC has targeted nonborrowed reserves on a weekly basis. Because lagged reserve accounting implies a predetermined level of required reserves in any given settlement week, nonborrowed reserve targeting in effect "forces" a minimum amount of reserve adjustment borrowing onto the banking system. This minimum amount is equal to the shortfall of nonborrowed reserves supplied in any given settlement week below the amount needed to satisfy reserve requirements. From an econometric standpoint, the major implication is that a strong case can be made for treating borrowed reserves for the banking *system* as an independent variable in explaining the spread. This argument holds for the aggregate specification relating to the banking system even though individual banks take the spread as given and adjust their borrowings to it.

Taking this independence of reserve adjustment borrowings into account, equation (2) shown in the table below relates the spread to aggregate borrowings and to the imposition of the discount rate surcharge[1] using weekly average data for the

		Independent variables							
Equation	Dependent variable	Intercept	$(R_{FF} - R_D)$	BR	DUMSUR	SEE	$\bar{R}^2$	DW	Rho
(1)	Borrowed reserves (BR)	.435 (11.11**)	.427 (16.75**)			.259	.84	2.21	.64
(2)	Federal funds rate-discount rate spread	1.015 (1.23)		.696 (3.72**)	1.033 (2.01*)	.850	.89	1.94	.89

SYMBOLS: BR = reserve adjustment borrowing excluding seasonal and extended credit (in billions of dollars).
$(R_{FF} - R_D)$ = spread between the federal funds rate and the discount rate (in percent).
DUMSUR = a dummy variable equal to one during weeks when the surcharge was imposed and zero otherwise.

NOTE: SEE denotes the standard error of the estimate, $\bar{R}^2$ denotes the coefficient of determination corrected for degrees of freedom, DW denotes the Durbin-Watson statistic, and Rho denotes the estimated parameter in a first-order serial correlation correction. Parenthetical entries below the estimated coefficients are t-statistics with double asterisks (**) indicating statistical significance at the .01 level and single asterisks (*) indicating significance at the .05 level.

change in expectations is represented by the more steeply sloped borrowing function C^0B^0, resulting in the higher federal funds rate R_{FF}^1. A given level of nonborrowed reserves, therefore, can result in various levels for the federal funds rate—and the money supply—depending on the level of the discount rate, the ease or tightness of discount window administration, and the other factors that influence banks' demands for borrowed reserves.

Prior to October 6, 1979, when the FOMC

period from October 10, 1979 to July 29, 1981. The coefficients on both independent variables have the expected positive signs, indicating that the spread between the federal funds rate and the discount rate widens either as adjustment borrowing rises or when the surcharge is imposed.

Because of the need to treat borrowings as an independent variable, a reliable specification of the borrowings equation, such as in equation (1), cannot be estimated for the post-October 6, 1979 period. As a result, the usual econometric tests for structural changes in the borrowing function across FOMC operating policy regimes are inapplicable. However, a stability test for the borrowing-spread relationship across policy regimes can be performed using the partial correlation coefficient—i.e., the familiar simple correlation coefficient adjusted for the influence of additional variables. The relevant partial correlation coefficients are calculated from the t-statistics of the coefficient on the spread variable in Subperiod I and the coefficient on the borrowing variable in Subperiod II, respectively, by the following formula:

$$t / \sqrt{t^2 + n - k}$$

where t denotes the t-statistic; n denotes the number of observations; and k denotes the number of independent variables (including the intercept).[2]

The partial correlation coefficient between borrowed reserves and the spread went from 0.641 in the pre-October 6 period to 0.362 in the post-October 6 period—a 43 percent decline. This reduced correlation indicates greater uncertainty in the relationship between reserve adjustment borrowing and the spread in the post-October 6 subperiod. Consequently, it became more difficult during the second subperiod to forecast the effects of policy changes that now depend on this relationship.[3] This has interesting implications for monetary control, particularly if lagged reserve accounting is taken as given. It suggests that, if policymakers were willing to move the federal funds rate as much as it has been allowed to move under the post-October 6 operating procedure, control of money might, in principle, be superior under a direct federal funds rate targeting procedure. At least the perceived "appropriate" federal funds rate could be achieved on a weekly basis with a high degree of accuracy under such a procedure, even though the precise relationship between the federal funds rate and the money supply might remain difficult to ascertain.

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[1]In 1980 and 1981, the Federal Reserve applied a surcharge to short-term adjustment credit borrowings by institutions with deposits of $500 million or more that had borrowed in successive weeks or in more than four weeks in a calendar quarter. A 3 percent surcharge was in effect from March 17, 1980, through May 7, 1980. There was no surcharge until November 17, 1980, when a 2 percent surcharge was adopted; the surcharge was subsequently raised to 3 percent on December 5, 1980, and to 4 percent on May 5, 1981. The surcharge was reduced to 3 percent effective September 22, 1981, and to 2 percent effective October 12. As of October 1, the formula for applying the surcharge was changed from a calendar quarter to a moving 13-week period. The surcharge was eliminated on November 17, 1981.

[2]For a derivation of this formula, see Henri Theil, *Principles of Econometrics* (John Wiley & Sons, 1971), p. 174.

[3]It is not possible to say that the decline in correlation between reserve adjustment borrowing and the spread was due to the FOMC's adoption of nonborrowed reserve targeting. Other changes in the economy that occurred at approximately the same time may be responsible for the decline.

was directly targeting the federal funds rate, the effects on the federal funds rate of changes in the discount rate or in the aggregate borrowing function were quickly offset by changes in nonborrowed reserves via Federal Reserve open market operations. In figure 3, for example, if the borrowing function should change from C^0A^0 to the more steeply sloped C^0B^0, all else the same, the federal funds rate in that week would rise from R^0_{FF} to R^1_{FF}. However, if the Fed were targeting a federal funds rate of R^0_{FF}, then open market operations would be undertaken to increase nonborrowed reserves from NBR^0 to NBR^1

Box 2
Implications of uneven intraweek borrowing patterns

One of the problems posed by the decreased stability of the relationship between borrowed reserves and the federal funds rate-discount rate spread, as indicated by preliminary econometric evidence (See box 1), is that the FOMC at times could be faced with an undesirable tradeoff resulting from banks' intraweek borrowing behavior at the discount window. On these occasions, the FOMC would have the choice of either holding to its nonborrowed reserve target while watching the federal funds rate vary significantly between the early and later days of the settlement week or deviating from its nonborrowed reserve target in order to dampen intraweek movements in the federal funds rate.

To illustrate, suppose nonborrowed reserves were kept on target for the settlement week, but banks had borrowed heavily at the discount window on the first few days of the settlement week. Sufficiently large borrowings early in the settlement period—for example, resulting from banks' expectations that the spread between the federal funds rate and discount rate will narrow later in the week—could lead to weekly average total reserve holdings far in excess of required reserves—i.e., very large excess reserve holdings for the week—even if banks completely repaid their borrowings later in the week. With lagged reserve accounting, this reserve excess would manifest itself in a sharply lower federal funds rate later in the settlement week. This lower federal funds rate, if *interpreted incorrectly* by the public as a more accommodative monetary policy, might actually *produce* above-target money growth resulting from expansionary effects on banks' earning assets.

Any misleading indications to the public of a more accommodative monetary policy should be short lived. In particular, on Friday afternoon following the settlement week ending on Wednesday, the Federal Reserve releases reserve data useful to banks and other market participants for assessing current FOMC policy. These data include the aggregate amount of reserves borrowed from the discount window for Wednesday as well as the daily average level of borrowed reserves for the settlement week ending on Wednesday. From these borrowing components of the release, market participants would be able at least to ascertain that above-average levels of discount window borrowing occurred on some day or days prior to Wednesday.

The Friday data release from the Federal Reserve also includes excess reserve data for the banking system. These excess reserve data, when used in conjunction with the borrowed reserve data, facilitate the calculation of the level of free reserves, defined as excess reserves minus borrowed reserves. Because the FOMC implicitly targets free reserves (also defined as nonborrowed reserves minus required reserves),[1] market participants look at the level of free reserves along with current market rates and other factors in judging the current thrust of monetary policy and in predicting future interest rates for portfolio decision purposes. From the combined information on borrowed reserves and free reserves, the public could deduce that the fall in interest rates late in the relevant settlement week was in fact caused by the large increase in excess reserves attributable to borrowing early in the settlement week—not a fundamental change in the FOMC's monetary policy stance. Again it should be emphasized that this information would become available with a two-day lag on the Friday following the close of the settlement week.[2]

An alternative approach used by the FOMC at times, when faced with this above-projected borrowing early in the settlement week, has been to deviate from its weekly nonborrowed reserve target.[3] On these occasions, the FOMC has pro-

(implying a shift in the curve NBR^0-C^0-B^0 to NBR^1-C^1-B^1 in figure 3 and a decrease in borrowed reserves from BR^0 to BR^1) in order to return the federal funds rate to its desired level, R^0_{FF}.

Similarly, as shown in figure 4, an increase in the discount rate from R^0_D to R^1_D would shift the borrowing function from C^0A^0 to C^1A^1 and would increase the federal funds rate to R^1_{FF}. In order to keep the federal funds rate at its targeted level of R^0_{FF}, the Fed would have to increase nonborrowed reserves to NBR^1, thereby reducing borrowed reserves to BR^1.[9]

vided nonborrowed reserves at levels below their weekly targets in order to prevent the accumulation of large excess reserve holdings and a resulting sharp decline in the federal funds rate. Deviations from the weekly nonborrowed reserve target in such cases would not only dampen federal funds rate volatility but also would produce a lower level of free reserves than implied by the original weekly nonborrowed reserve target. The resulting weekly level of free reserves, if significantly lower than in previous weeks, might be misinterpreted by the public as a shift toward less accommodative monetary policy. In addition, a lower level of free reserves and upward revisions in the public's forecasts of future short-term interest rates might cause banks to reduce their earning asset expansion and thereby *actually* might slow money growth below the growth rate desired by the FOMC.

This misinterpretation of FOMC policy possibly could be corrected in subsequent weeks by returning free reserves to levels close to prevailing levels prior to the week of abnormally high early-in-the-week borrowing. However, increased uncertainty about the interpretation of FOMC policy actions may have been introduced. Specifically, the public would be more uncertain in any given week as to whether the FOMC's policy intentions were being signaled through the behavior of the federal funds rate or through the level of nonborrowed reserves and, implicitly, free reserves. Greater uncertainty of policy intent could cause a delay in the requisite changes in banks' earning assets necessary to produce the FOMC's desired money growth.

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[1]Free reserves (FR) are defined as excess reserves (ER) minus borrowed reserves (BR). Using the reserve accounting identities for excess reserves (ER) and nonborrowed reserves (NBR), it can be shown that free reserves are also identical to nonborrowed reserves minus required reserves (RR):

(1) FR = ER – BR Free reserves

(2) ER = TR – RR Excess reserves

(3) NBR = TR – BR Nonborrowed reserves

Substituting (2) and (3) into (1) yields

(4) FR = TR – RR – BR

= (TR – BR) – RR

= NBR – RR

When free reserves are negative—i.e., borrowed reserves exceed excess reserves—the term "net borrowed reserves" is used to refer to the difference between excess reserves and borrowed reserves.

When the FOMC targets nonborrowed reserves on a weekly basis, it is implicitly targeting free reserves, defined as nonborrowed reserves minus required reserves, because of the predetermination of required reserves that results from lagged reserve accounting. Such implicit free reserve targeting is designed to produce money market conditions necessary to achievement of the FOMC's desired monetary growth. This procedure differs importantly from that followed during the free reserve targeting era in the late 1950s and early 1960s. During that period free reserves were treated as an instrument for achieving the FOMC's ultimate economic policy objectives, but without specific regard to the behavior of the monetary aggregates. For a discussion of these earlier policies, see Peter Keir and and Henry Wallich, "The Role of Operating Guides in U.S. Monetary Policy: A Historical Review," *Federal Reserve Bulletin*, vol. 65 (September 1979), pp. 679-91.

[2]It has been suggested by some market analysts that this information lag should be reduced by the Federal Reserve through earlier release of aggregate data on borrowed reserves. Daily borrowing data could be made available on the next business day following the actual borrowing. When the FOMC was directly targeting the federal funds rate, the daily effective federal funds rate was available on each following day. In a sense, release of daily borrowing data with a one-day lag would be the logical analog under the current operating procedure.

[3]For additional discussion of this issue, see Peter D. Sternlight, *et al.*, "Monetary Policy and Open Market Operations in 1980," *Quarterly Review*, Federal Reserve Bank of New York (Summer 1981), pp. 64-65.

Concluding comments

The nonborrowed reserve targeting procedure adopted by the Fed on October 6, 1979, in conjunction with the existing lagged reserve accounting system, has increased the importance for monetary control of Federal Reserve discount policy and banks' demand for borrowed reserves. Given the weekly level of nonborrowed reserves, the federal funds rate depends critically on the level of the discount rate, the nonprice rationing criteria imposed at the discount window by the District Federal Reserve Banks, and other

Figure 3:
Under federal funds rate targeting, effect of increase in slope of borrowing function . . .

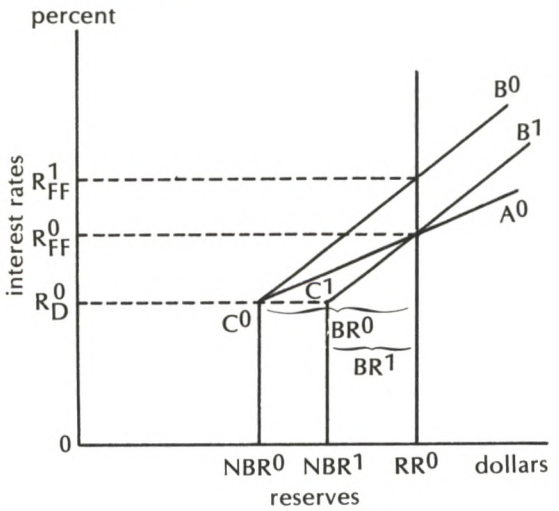
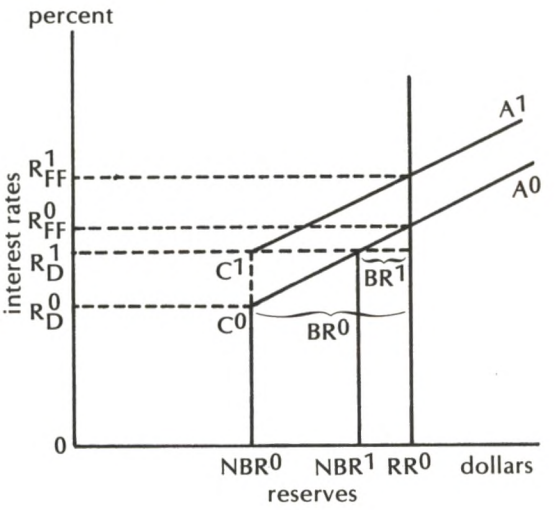


Figure 4:
. . . or of rise in discount rate is offset by increase in nonborrowed reserves



elements that enter into banks' demand for borrowed reserves (such as their expectations of future federal funds rate-discount rate spreads). The resulting federal funds rate plays a pivotal role in determining the money supply through its effect on banks' portfolio behavior. The less predictable is banks' demand for borrowed reserves, the less predictable is the money supply resulting from a given level of nonborrowed reserves.

Preliminary econometric estimations of the relationship between discount window reserve adjustment borrowing and the federal funds rate-discount rate spread indicate that this relationship became less stable after nonborrowed reserve targeting was adopted by the FOMC. (See box 1 for a summary of these preliminary econometric estimations.) One possible explanation for the decreased stability of the relationship between borrowed reserves and the federal funds rate-discount rate spread is the greater interest rate variability that has prevailed in the post-October 6, 1979 period.[10] To the degree that increased interest rate variability results in increased uncertainty about future federal funds rate-discount rate spreads, a given spread will elicit less discount window borrowing, all else remaining the same.

It has been suggested that the Fed's proposed return to some modified form of contemporaneous reserve accounting will again reduce the significance of discount policy. This reasoning is based in part on experience

[9]Notice that under a direct targeting procedure for the federal funds rate, an increase in the discount rate necessarily reduces the federal funds-discount rate spread, assuming no change in the federal funds rate target. This means that the intramarginal subsidy that accrues to banks that borrow from the Federal Reserve can be reduced. In contrast, if the Federal Reserve is adhering to a nonborrowed reserve target, an increase in the discount rate will, all else the same, have no effect on the federal funds rate-discount rate spread and, thus, the intramarginal subsidy. For a discussion of this "spread" issue see Paul L. Kasriel, "The Discount Rate—Will It Float?" *Economic Perspectives*, Federal Reserve Bank of Chicago (May/June 1981), pp. 20-23.

[10]For a discussion of some of the possible causes and potential social costs of increased interest rate variability in the post-October 6, 1979 period, see Paul L. Kasriel, "Interest Rate Volatility in 1980," *Economic Perspectives*, Federal Reserve Bank of Chicago (January/February 1981), pp. 8-11, 14-17.

prior to the adoption of lagged reserve accounting in 1968. However, both before 1968 and afterwards until 1979, the Fed employed a federal funds rate targeting procedure. Presumably, a move to contemporaneous reserve accounting as currently contemplated (i.e., with a two-day settlement lag; see footnote 1) would be accompanied by either a continuation of nonborrowed reserve targeting or total reserve targeting.

Achieving a total reserve target, in particular, would require a willingness on the part of the Fed to make borrowing for reserve adjustment purposes sufficiently costly on the last two days of the reserve settlement period that banks would adjust their portfolios earlier in the reserve settlement period to ensure that required reserves for the banking system would not exceed the FOMC's targeted level of total reserves. Without these high costs of borrowing toward the end of the settlement period, considerable slippage could occur in monetary control. In short, discount policy plays a key role in the monetary control process under any reserve targeting regime in which the reserve settlement period ends later than the reserve calculation period.

Deregulation of the financial sector

The Conference on Bank Structure and Competition, sponsored by the Federal Reserve Bank of Chicago, serves as a forum for the exchange of views and research on a variety of issues facing the financial industry. Participants include academicians, economists, regulators, and executives of a wide variety of financial institutions. Their ideas endow the conference with both a theoretical and a practical perspective.

The 18th conference, held in April this year, focused on interest rate risk and deregulation, two key industry concerns. Following are excerpts from papers delivered at a session entitled "Deregulation of the Financial Sector." The full text of these papers and the remainder of the 1982 Proceedings will be published in October.

Implications of deregulation for product lines and geographic markets of financial institutions

*George G. Kaufman, Larry Mote, and Harvey Rosenblum**

Recent changes in financial markets have been sweeping: NOW accounts, failures of large banks and thrift institutions, creation of money market mutual funds, Merrill Lynch's cash management account, American Express's acquisition of Shearson, Sears' acquisition of Dean Witter, and interstate mergers of savings and loan associations. Two primary driving forces behind the recent innovations are the unexpected and abrupt increases in the level and volatility of interest rates and the major technological improvements in the transmission, processing, and storage of information. The impact of interest rate volatility and technology on the financial system was much more dramatic and severe than it otherwise might have been because of a third factor—the existence of a pervasive system of regulations that limited and distorted the responses of existing financial institutions and contributed to the emergence of new institutions.

Many of the regulations that banks face were written in haste during the financial panic of the 1930s, predicated on the belief that banks must be sheltered both from competition and from their own poor judgment. Unfortunately, the restrictions imposed on banking remain nearly a half century after they were first introduced.

The last two decades have become a contest of wits and wills between the regulator and the regulated. Blocked from competing on rates, banks tried to compensate by offer-

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ing greater convenience. Banks also sought to escape their perceived chains through the device of the one-bank holding company whose subsidiaries were free to enter almost any activity that they wished until 1970.

The Depository Institutions Deregulation and Monetary Control Act of 1980 will provide benefits in the form of a modest improvement in the technical means for monetary control, more equitable treatment of competing financial institutions, and most importantly, a greater ability of depository institutions generally to meet the competition of unregulated competitors and to withstand interest rate fluctuations. The Monetary Control Act, however, was silent on many regulatory issues, and it is in these areas that the battles are being fought. For example, de jure geographic restrictions on banks and other financial institutions remain, although they are slowly giving ground. The spirit and economic substance, if not the letter of these restrictions have been trampled on. Not only have geographic restrictions been circumvented, but the same holds true for product-line restrictions. The distinctions between traditional forms of depository and nondepository financial institutions continue to erode as each tries to expand the scope of its activities.

The most dramatic expansions by financial institutions have been the recent incursions by nondepository financial institutions into areas of business where they were not previously represented. The inroads of basically nonfinancial businesses into the financial sector also continue. It is easy to exaggerate the significance of this expansion; the fact is that commercial banks have roughly held their own in most of their major markets over the last two decades.

Of course, this is subject to change. Technological advances pose a threat to the hegemony of depository institutions in the financial services business. To survive and prosper, they not only have to utilize state of the art credit information processing technology, but they also need to maintain a source of funding that is cheaper than that obtainable by such nonfinancial information-processing firms as, say, TRW or Dun and Bradstreet. This is not to say that banks need fear for their survival. Banks have an excellent record of earning profits and have been doing so for a long time.

The financial services industry of the future is unlikely to consist of the same familiar types of institutions that we know today. In the deregulated environment, banks should find it more efficient to compete for deposits by paying higher rates and to avoid some operating costs by closing down some branches. A consolidation movement in banking should begin in the very near future, but there should continue to exist a large number of smaller, retail-oriented banking or thrift institutions. We will likely end up initially with about 25 or so fully integrated national financial conglomerates. It is likely that several of the leading financial services conglomerates will disappear through bankruptcy or merger, and we will be left with at most a dozen national firms. The importance of the "one-stop, one-shop" convenience offered by such firms is easily overstated. The managements of many other institutions will choose to specialize; some managements may be convinced that they can perform a narrow range of functions better than anyone else.

The public policy questions raised by these developments are many, varied, and important. One of our major concerns has to do with whether existing antitrust laws are capable of dealing with the market and the aggregate concentration that will result from the developing consolidation movement. Another area that we would like to see given more attention is the adoption of risk-related federal deposit insurance premiums. Without this change, deregulation will not go very far.

The coming years promise to be interesting ones for financial institutions. The financial system that we have today was designed and built for a more stable economy than the one we have witnessed in recent years. In the past, the unique attributes and capabilities that distinguished banking as a well-defined

industry were largely the product of regulation. With the demise of these artificial barriers, the notion of banking as a separate and distinct industry will slowly but inexorably disappear. If the present level of economic volatility continues, then after a period of initial turmoil we can expect greater stability and a less fragile financial system that responds promptly and efficiently to the needs of its customers.

The future competitive environment: strategic planning for the 1990s

*Sanford Rose**

The banking industry is beginning to contemplate its inevitable transition from the business of money brokerage to that of marriage brokerage. In the coming years, an increasing portion of bank income will be derived from introducing those who are cash rich to those who are cash poor without actually borrowing from the one in order to lend to the other. And by the end of the decade, banks may make more money on the flow of assets through (and around) their balance sheets than on the stock of assets on those balance sheets.

In the past, banks made money in two basic ways. Their "front-end" profit came from the ability to analyze and evaluate credit risk. Supplementing this primary profit was a return that persisted over the life of the loan assets the banks created. This return, dubbed the funding profit, was essentially derived from the normal, or upward-sloping shape of the yield curve.

However, the behavior of the yield curve has become increasingly erratic in the last few years. Indeed, the yield curve has inverted so often in recent years that some banks have taken to lending shorter than they borrow—the reverse of the historical pattern. But that tactic doesn't work too well either. In the last few months, the yield curve has moved from a negative to a positive slope and back again with dizzying rapidity. Bankers are becoming increasingly uncomfortable borrowing at a maturity either much shorter or much longer than that at which they lend. Now that Regulation Q is eroding, banks no longer have much scope to gamble on interest-rate turns. Soon there will be no scope at all.

But if a bank plays it safe and matches the maturities of its loans and investments to those of its increasingly rate-sensitive deposits, there can be no funding profits. Many banks, however, are unreconciled to the notion of relinquishing their funding profits. So despite the growing amount of lip service being paid to maturity balance, many banks selectively mismatch their maturities. These institutions are willing to take on a considerable amount of risk in order to achieve what they believe will be a higher level of profits. Sometimes the gamble pays off; sometimes it doesn't.

There is, however, a way to reduce risk and at the same time raise the return on stockholders' equity. If banks can increase their leverage—the volume of loans both on and off the balance sheet per dollar of equity capital—the return on equity will rise. But the level of permissible leverage depends quite crucially on the amount of risk banks assume. Of the two basic types of risk in banking, credit risk and interest-rate or funding risk, by far the more important is funding risk. If banks therefore eschewed the elusive pursuit of interest-rate profits, they could reduce overall risks quite substantially. They could increase the volume of loan extensions per dollar of existing equity without frightening the regulators or the financial marketplace.

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Most borrowers want long-term fixed-rate credit, preferably of five to seven years' duration. To finance such loans without seriously mismatching their portfolios, banks need multi-year fixed-rate deposits. Since banks have not gotten much long-term money, they haven't made many long-term loans. If banks can't get long-term money from their depositors, can they perhaps get it from nonbank investors? If banks sold, or more precisely brokered many of the long-term loans they made, they could conceivably extend much more five-year credit, in effect escaping from the tyranny of their rather rigid deposit structures.

Although many banks seem anxious to sell loans, the desire may be more theoretical than practical. Many bankers are emotionally unprepared to become mere conduits for loan transactions. The concept of off-balance sheet leverage is foreign to them. Then too, there seem to be some powerful organizational constraints. It is my thesis that once organizational obstacles to loan sales are surmounted, banks will use the following mechanism to broker loans. For loans that must be sold with recourse, the bank will offer a letter-of-credit guarantee and then drop the guaranteed loans into a special-purpose corporation organized by a Wall Street house. This corporation will then issue its own securities backed by these loans and stand ready to make a secondary market in the new securities. The loan-backed securities will be marketed to the unit investment trusts and the bond funds. The theory is that while institutional sources of funds are limited, the retail investor has an untapped yearning for good quality, liquid, intermediate-term securities. Given the greater likelihood that inflation will decelerate in the future, the retail investor would like to rebalance his portfolio, substituting shares of five-year loans for shares of money-market funds. Thus banks can find buyers for their loans, which means that they can resume making long-term fixed-rate loans, provided they can enforce prepayment penalties.

The future of banking: a community bankers perspective

*Lee E. Gunderson**

There has been a lot of rhetoric lately about competition and how difficult it is for banks to labor under the regulatory burdens imposed on them when money market mutual funds—and now even Sears—are moving in on what had traditionally been bank markets.

It is true that it is tougher these days to run a small bank profitably. It is true that the financial services marketplace has changed dramatically in the past decade. If community banks are straining their resources under the weight of the competition, they would be wise to call out the reinforcements. They will need to make the best use of *all* the tools and *all* the resources at their disposal in meeting the challenges that deregulation is bringing.

While it is necessary to plan for a free market approach to financial services, it is also important to keep in mind that there is still work to be done to make this free market a reality. Deregulation is discussed as if it were already an accomplished fact. While it was mandated by the 1980 omnibus banking law, implementing the new and phasing out the old is proving to be no small task. What banks, and all other members of the financial services industry, need is a well-managed transi-

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tion to deregulation to minimize the guesswork involved.

The Depository Institutions Deregulation Committee's pledge to provide a predictable schedule for the phaseout of the differential and Regulation Q is of immediate concern to bankers. While the Deregulation Committee did establish a specific phaseout schedule earlier this year, assurance is now needed that the Committee will abide by its decision.

In looking ahead, it appears that the national landscape will be dotted coast-to-coast with community banks that have survived the deregulation process and have adapted to change. Deregulation will certainly not lessen the need for what community banks all over the country do best.

Knowledge of the market, as well as of more advanced marketing techniques, and knowledge of new technological and regulatory developments affecting the industry form the buttresses for a solid and prosperous community banking structure in this country. Not only are community bankers finding more competition from nontraditional sources, but they are also seeing even tougher competition from other depositories. All of this has had the effect of discounting the traditional concept of a bank charter.

Product development is one of the areas in which community banks will be forced to become more competitive. Deregulation opens the door to new products and services, but profitability will depend on the creative design, development, and pricing of those new products and services. Effective product development for the community bank will mean maintaining a clear-eyed view of reality that accommodates innovation to the proper scale.

Community banks, as well as other depositories, must also prepare now for the increased emphasis on fee-based selling. Fee income generated by expanded real estate powers, insurance powers, and securities powers will bring new sources of profitability. Learning to manage this concept and adapting it to the business of community banking are immediate challenges for community bankers.

There is a great deal of enthusiasm for these new opportunities among community bankers. The public is already becoming acclimated to the idea of fees for services. When faced with the reality that banks cannot offer services that are unprofitable, bank customers will accept this new way of doing business as it is dictated by the marketplace. Anticipating how to build fees into new products should be an important component of a community bank's strategic planning.

Change should not be awaited passively and with trepidation. The new era of deregulation will bring *more* opportunities for community banks. The responsibility for the destiny of each and every community bank, however, rests with each bank's directors and management.

The future of banking: a national market and its implications

*Alex J. Pollock**

Managers of banks, managers of investment companies, and others unabashedly talk about how competitors are entering "*our* markets, *our* turf, *our* states, *our* region." This *our* is a scandal: it suggests the belief that a certain competitor or group of competitors should own a market or a *turf*, in other words, a set of customers.

The force causing these comments is the evolution of a true national market for finan-

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cial services brought about by communications, technology, and travel. The development of nationwide competition is most frightening and upsetting to banks which have a strange fixation on state boundaries. When viewed from the perspective of other industries, however, this fixation seems bizarre. Imagine someone making the argument that cornflakes from Michigan should not be sold in Minnesota because they would compete with the local products.

Of the financial industries, banking is by far the largest. This huge industry is, however, extremely fragmented, the result of regulations, contrived during the Depression era, which try to guarantee banking profitability by limiting competition through geographic barriers. These barriers have caused the current fragmentation and the pain involved in the transition to a national competitive market. If, however, we take the formation of a true national market as the dominant theme for the 1980s and 1990s, then I believe there are three fundamental implications: excess capital in banking, reregulation, and differentiation.

One of the most discussed topics in banking is its capital shortage. The case is exactly the opposite: banking has a capital excess. There is too little profit in banking compared to the capital committed to it; therefore, bank stocks sell at substantial discounts from book value. In other words, relative to the earnings potential, there is too much capital already. In 1980, the banking system earned 13 percent on its book equity. The average return on book equity of the Standard and Poor's 500 stocks was 15.6 percent; the average return of investment-brokerage companies was 22 percent; and the average return of life insurance companies was 15.4 percent. Realizing their low rates of return, many banks have raised their profitability targets.

It seems unlikely, however, that the entire banking system will be able to raise its return without industry consolidation. This is especially the case if we consider the increasing risk to bank profitability from the well-publicized competitive challenge of others in the financial services business.

The demise of Regulation Q is well known and its crunching of the savings and loan business apparent. The dollar magnitude of the challenge its demise poses to commercial banking is not, however, always appreciated. There are still about $160 million of 5½ percent passbook savings in U.S. commercial banks, and with the market value of money at 13½ percent, passbook savings represent about $13 billion of vulnerable pre-tax earnings for the entire banking system. One of the adjustments to this situation will probably be a consolidation of the banking system as part of a larger consolidation in financial businesses. There are simply too many banks, too much brick and mortar, and too much overhead committed to the banking sector.

We have heard a great deal about deregulation of banking, but what we will certainly get is reregulation as opposed to deregulation for two fundamental reasons. The first is the abstract nature of financial assets and financial businesses which makes them particularly prone to creativity, imagination, and fooling people. The second reason for reregulation is that the central bank and the government will continue to underwrite the risk of savings. It is impossible for the government not to regulate financial companies in order to manage its own risk and to avoid the debacle of a system failure.

One possible element of reregulation is a limitation of the interest rate risk that may be undertaken by financial intermediaries. A second element in reregulation could be redefinition of capital requirements, perhaps on a formula basis like the "haircut" rules applied to securities firms. A third possibility, highly desirable although unlikely, would be lifting the reserve tax on banks. The tax is heavy; in the long run, the market will always find ways around a mechanism which has special taxes imposed on it.

Whatever its specifics, reregulation of banking will need to recognize the national market for financial services which reflects the integrated U.S. economy.

Every business strategy is in some mea-

sure a way to differentiate a company from its competitors. When product offerings are identical, as has been the case in banking, a large number of competitors can co-exist if the market is geographically divided. When a national market emerges, geographic differentiation erodes, and the competitors who survive must develop some other form of differentiation.

The challenge to the management of banks and other financial companies is to find the different path which takes maximum advantage of the existing combination of market needs and organizational competence. In one nationwide financial services market, a still large number of competitors can co-exist if they develop different strategic roles.

In a national market, these different roles will be less and less based on geography. They must then be based on specialized service to particular market segments, superior capability, or discovering and serving new financial needs. This is the most important theme for financial companies in their strategic planning for the 1980s and 1990s.

Planning for the 1990s from the perspective of a large diversified financial services company

*Herbert M. Allison Jr.**

The most widely accepted scenario of the financial services industry's future is that the financial world will become polarized into two main kinds of competitors: large, highly diversified firms, very similar in the scope of their businesses, and small boutiques servicing narrow niches of the market.

According to this scenario, the industry will become far more concentrated. Large firms will dominate and smaller firms will either go broke, merge into larger firms, or hunker down into a narrow specialty overlooked by the market leaders.

There seems to be much evidence supporting this prevalent view including a wave of mergers just getting underway, rapid diversification of large firms, and abolition or circumvention of regulatory barriers.

I'd like you to consider some reasons favoring an alternative scenario in which there is greater diversity among financial competitors than ever before, in which there is strong competition from many small and medium-size *diversified* firms, and in which there is great similarity in the challenges, choices, and opportunities facing firms of all sizes.

Until recently, financial firms could be placed into a few well-defined categories such as banks, thrifts, insurance companies, and securities brokers. Now, the decline of traditional and regulatory barriers gives firms many more options for defining their businesses and their orientations as well.

Companies can define their businesses to meet certain kinds of needs (financing, investing, insuring) for a wide variety of customers. Or they can define their businesses in terms of a certain type of distribution such as personal service or electronic delivery.

But no firm has—or will have—the expertise and resources to offer *all* kinds of financial products/services to *all* kinds of customers through *all* kinds of distribution systems. Although larger firms will overlap each others' businesses, they still must concentrate on certain areas or else they will risk becoming spread too thin and losing share to more focused firms.

The pace of change, driven by new technologies, new products/services, and economic and regulatory developments, will be so rapid and the ways for a firm to define its

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business will be so numerous and the competition will be so fragmented that small and medium-size firms should have more opportunities to differentiate themselves and to compete effectively.

As an outgrowth, therefore, we're all going to be operating in a financial world which is almost incomprehensible in its complexity, and for that very reason, it will offer almost unlimited opportunities. It will also entail greater risk stemming from much keener competition and less regulatory protection for inefficient firms.

What must firms do in order to improve their chances of surviving and prospering in that environment? They'll have to rely much more on systematic experimentation in the marketplace to identify customers' needs and to develop the most appropriate mix of products/services, pricing, promotion, and distribution systems. Instead of simply trying to think their way to success through the use of formal planning, leading firms will rely more on groping their way through a well-organized process of trial and error, building a growing base of knowledge as they go. Understanding the natural interrelationships between customers' needs will be essential to building systems of services which create competitive advantages and greater profitability.

Another way that companies can position themselves for success is by maintaining flexibility to take advantage of change. Two techniques which successful companies will use are contingency planning and make-or-buy analysis. Contingency planning is based on the premise that no firm can accurately forecast the future. Therefore, the firm devises many different scenarios and arranges to have reserve resources and products/services available. Make-or-buy analysis is, for example, deciding whether to buy or lease a computer as opposed to using a timesharing facility.

Some firms will decide that the best way to maintain flexibility is to focus on packaging and distributing products and services manufactured by others, thereby transferring much of the business risk to outside suppliers.

One other determinant of success (as always) will be the quality of service. Successful firms won't allow the glamour issues (deregulation, diversification, and mergers) to distract them from the mundane but vital task of improving the quality of service.

But the overriding determinant of a firm's success in the 1980s will be the quality of its leadership. Leadership will be far more important than a firm's size or resources since each will have the opportunity to grow and thrive in the emerging financial services industry. But to do so they will need leaders with the courage to take substantial risks and to make major changes in traditional ways of doing business.

What a savings and loan can learn from General George Armstrong Custer

*Glenn C. Hansen**

Historically, the principal role of each type of financial intermediary was straightforward. Their markets were segmented. The commercial banks met the needs of "corporate America" and the international sector, and in some instances, they pursued the consumer market. Thrifts and community banks met the financial needs of households. Insurance companies provided for the continuation of income flow should premature death or disability occur in a household. Finance companies met the higher risk secured and unsecured borrowing needs of consumers.

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The brokerage and investment intermediaries served the private capital market. And the mercantile companies sold refrigerators, in part because they provided financing as part of the deal.

We are now in a marketplace with new rules and new competitive roles. The traditional marketplace, with new segments, has been injected with new competitors. The economy certainly has impacted financial intermediaries. Now our economic system confronts us with a monetary policy designed to control inflation and a fiscal policy—expansionary in nature—with the hoped-for goal of stimulating saving and investment. We have experienced unimaginable short-term interest rates and now must confront the phase-out of interest rate ceilings on deposits.

The legal environment has also impacted competitive structure. The Depository Institutions Deregulation and Monetary Control Act of 1980 created a *potentially* level playing field by phasing out Regulation Q and granting new asset/liability powers.

It appears that interstate branching will soon be here; it is, in my opinion, only a short period of time before the McFadden Act will be amended and full interstate branching will be permitted. On the regulatory horizon, commercial banks are vigorously seeking to expand their bond underwriting authority and other privileges. Thrifts have been allowed to expand their markets by aggressive branching and now have new asset and liability powers. Thrifts also have the ability to use the Fed's discount window.

Technology has changed at an incredible rate. Nationwide automated teller systems, point-of-sale funds transfer systems and merchant cash register-to-financial institution transfer systems are a technological reality.

There has been a change in the value systems of people. The ethic of commitment and the idea of the family will be revived.

What does this collage of competitive, economic, legal, regulatory, and social changes depict for the financial services industry? It is obvious that the traditional segmentation has collapsed and the financial market pie is ready to be resliced. I believe it will be segmented by scale; there will be the mass marketers and there will be the market focusers. And each will have different managerial economics driving the bottom line.

Many aggressive thrift managers recognize that they are at, or near, the trough in this business cycle as it relates to their industry and have mapped strategies on which to concentrate. Associations that survive and prosper will be those who become market focusers. Market focusing begins with corporate self-analysis. Associations must find out who they are, identify their most profitable customers, and list those products that have the best acceptance and profit characteristics. Associations must define their markets in terms of geography, demographics, and products. They must analyze their markets and identify present competitors and likely future competitors. Lastly, they must determine their sources of competitive advantage and leverage one or more of them into a strategy or program to influence the relative market position in their favor.

R. K. Ready and Edward Ranelli of the University of West Florida discussed the possible roles thrifts may play in the financial market in a recent article in the *Federal Home Loan Bank Journal*. They identified the potential roles of mini-commercial banks, mortgage banks, real estate developers/financiers, and full-service family financial centers. To this I would like to add the concept of the "diversified family financial service company," which will function much like a consumer-level bank offering NOW accounts, credit card services, consumer loans, bill payer services, trust services, and financial counseling services. Its primary asset investment will continue to be consumer home loans, but its managerial economics will not be rooted solely in spread management or asset-liability management.

Large thrifts will expand distribution systems to provide accessibility and convenience and will concentrate on loan origination, packaging, sales, and servicing as tools to generate gross revenues. Most important-

ly, more emphasis will be placed on subsidiary service corporation development. The key to a thrift institution's succcess via diversification is not in trying to be all things to all people but rather in focusing on those industries and segments that fit an institution's particular strengths and that show promise of achieving the desired share of the market. A diversified family financial service company whose primary asset is consumer home loans would meet the charter of the savings and loan system by meeting the thrift and home financing needs of households. It could also provide a stable method of financing the housing industry which is so critical to the economic, social, and political well-being of this country. It would allow well-managed thrifts—those that understand both *planning* and *control*—the ability to reduce the inherent susceptibility of their earnings stream to interest rate risk. Thrift institutions that are patient and understand why they were created—to meet the thrift and home financing needs of households—will prosper. A successful thrift will patiently await orders from the market. It will focus its strengths to meet expressed needs and recast its balance sheet in light of this imperative.

Bank structure and competition: a general perspective

*Vergil V. Miller**

Between 1945 and 1968 the mutual fund industry grew rapidly; between 1969 and 1974 the industry experienced "hard times," and there was virtually zero growth between 1971 and 1978. While total assets of the mutual fund industry changed little during the seven years ending in 1978, assets of depository institutions rose a healthy $934 billion. Since 1978, total assets of all types of mutual funds have risen substantially, primarily because of money market funds. Inflation and high interest rates have imputed unique values to money market funds.

It may be enlightening to analyze the real impact of money market funds on the fortunes of depository institutions. Should these funds vanish tomorrow, depository institutions would not be relieved by the probable dispersion of the approximately $182 billion of money fund assets as of year-end 1981, because the approximately $71 billion in institutional investments would go into short-term securities along with about $87 billion in individual accounts.

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The plight of the savings and loan industry does not stem from the slower growth it is now experiencing; its problems stem from its deteriorating earning capability due to the narrowing "spread" between the cost of lendable funds and its income stream generated from previously granted low-yielding loans. Banks are also feeling the pressures of narrowing spreads, and they view the growth of money market funds as threatening their domain. However, there is convincing evidence that the problems faced by depository institutions are not due to money market funds but to the fact that they are not able to maintain their former competitive ability to attract a lion's share of deposits because of Regulation Q.

Elimination of Regulation Q has been resisted by the savings and loan industry because a sudden repeal would force thrift institutions to operate in a competitive market environment for deposits. Only when steps are taken to solve the pressing financial crisis of the thrift industry can the Depository Institutions Deregulation Committee get on with the program of eliminating Regulation Q.

The Glass-Steagall Act is also under attack

with much attention being focused on its prohibitions. For almost two decades the nation's largest banks have sought to enter the securities business from which they have been excluded for over 100 years. Their previous experience suggests that the Glass-Steagall Act was put in place for good reason. Within three years after the McFadden Act of 1927 legitimized underwriting of corporate securities by commercial banks, they had captured over 60 percent of the market. Although this experience suggests that commercial banks tend to dominate any sector of the securities industry they are permitted to enter, it is up to the Congress to sort out the pluses and minuses in terms of public policy.

Quite properly, in my view, our society considers aspirations for legitimate growth as a virtue. And if we accept this premise, then it is appropriate and necessary for firms to pursue expansion and integration of the financial services they offer to the public.

At least five factors have contributed to the rapid rate of change experienced by the financial services industry: a) historically high levels of inflation and interest rates, b) "consumerism" fostered by savers' increasing sophistication in money matters, c) new products competing for savings, d) technological innovation, and e) a changed philosophy in government concerning competition within and among industries.

Regulatory changes will facilitate the development of "scrambled finance" under which each type of financial institution seeks entrance into the business of the others. More institutions will seek, and government will approve, the broadening of their line of financial services. The provision of services on a fee basis will be a major growth area; the resulting structure of the industry will appear more homogenized and offer customers far more choices as to where they may obtain a broad range of financial services. Hedging with futures will be a common practice for closing the "maturity gap" created by borrowing short-term funds and lending them for a longer term. Much progress in circumventing the McFadden Act has already been accomplished through banks taking advantage of the Edge Act to establish offices at distant locations to enhance international trade and through banks' strategic placement of loan production offices. Further inroads will more than likely be made in interstate banking through the use of electronic funds transfer systems and automatic teller machines located at points of sale. Commercial banks and thrift institutions will probably be allowed only limited authority to underwrite corporate securities. Brick and mortar facilities will be largely replaced by intrastate and interstate networks of ATMs.

There is little doubt that fewer institutions will be providing financial services through a greater number of outlets. The systems of financial institutions in the United States are currently unique in the world, but in the future, the differentials will gradually diminish. Those organizations whose leaders cling to the ways of the past and expect to remain dependent on "cheap money" will not share in shaping and coping with the financial services industry of the 1990s.

Activities of International Banking Facilities: the early experience

Sydney J. Key*

Among the steps toward deregulation discussed at the 1982 Conference on Bank Structure and Competition were the 1981 amendments to Regulations D and Q that authorized banking offices located in the United States to establish International Banking Facilities. In this article, which is based on a paper she presented at the conference, Sydney J. Key of the Federal Reserve Board's Division of International Finance summarizes the amendments to the Board's regulations and discusses the activities of International Banking Facilities during their first few months of operation.

Banking offices in the United States were able to begin establishing International Banking Facilities (IBFs) on December 3, 1981. Through their IBFs, U.S. banking offices may accept deposits from and make loans to foreign residents, including foreign banks, without being subject to Federal Reserve interest rate ceilings and reserve requirements or to FDIC insurance coverage and assessments. In addition, nine states, including New York, California, Illinois, and Florida, have encouraged banking institutions to establish IBFs by granting favorable tax treatment under state law for IBF operations. The end result is that banking offices located in the United States are able to operate through their IBFs in a regulatory environment similar to that of the Eurocurrency market without having to go offshore.

This article reviews briefly the development of the IBF proposal, summarizes the legal framework for IBF operations, and discusses the activities of IBFs during the first seven months of their existence.

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Development of the IBF proposal

During the 1960s, the Eurodollar market and participation in the market by foreign branches of U.S.-chartered banks grew rapidly. This development was in part a result of U.S. financial policies: the Interest Equalization Tax and Voluntary Foreign Credit Restraint Program, which were in effect from the mid 1960s until January 1974, and also interest rate ceilings, maturity limitations, and reserve requirements on deposits at banks in the United States.

In the early 1970s, the first IBF-type proposals arose in the context of the Voluntary Foreign Credit Restraint Program (VFCR), which set ceilings on U.S. banking offices' claims on foreigners. The purpose of these asset ceilings was to limit U.S. banks' foreign lending, which was considered to be a factor contributing to the growth of short-term or "liquid" liabilities to foreigners that were counted in one widely used measure of the U.S. balance-of-payments deficit. There were no comparable limitations on the activities of offshore branches of U.S. banks because lia-

bilities of these branches were not included in the measure of the U.S. balance-of-payments deficit.

As offshore banking activity expanded, some banks requested that the Federal Reserve Board consider amending the VFCR to allow banks in the United States to increase loans to foreign residents to the extent they acquired additional deposits from foreign residents, that is, to calculate the U.S. office position vis-à-vis foreign residents on a net rather than a gross basis. As part of this proposal, the banks requested that Regulations D and Q be amended so that they would not apply to deposits of foreign residents at U.S. banking offices provided that such deposits were offset by loans to foreign residents. However, this proposal was never adopted, and, as noted above, the VFCR and other capital controls were removed in January 1974.

After the removal of U.S. capital controls, the idea of IBF-type regulations arose in a different context, specifically, as a possible method of reducing the burden of domestic reserve requirements and interest rate limitations. Proposals for what was called a "foreign window" or a "free-trade banking zone" were studied within various branches of the government as methods of granting regulatory relief. The Federal Reserve Board, however, was concerned about the effect the adoption of IBF-type proposals would have on the conduct of monetary policy and on competition among different groups of U.S. banks.

The proposal that eventually culminated in the final IBF regulations was raised with the Board by a New York bank in 1977 and then submitted by the New York Clearing House Association as a formal written proposal in July 1978. In June 1978, the New York State legislature had enacted a statute granting favorable tax treatment to IBFs provided that the Federal Reserve Board would take action to exempt IBF activities from reserve requirements and interest rate limitations.

The Board considered the IBF proposal at a public meeting in December 1978 and decided to consider it further and request comment on a number of its features. During the next two years the Federal Reserve staff also studied issues involving reserve requirements and Eurobanking in general, partly in connection with discussions being held at the Bank for International Settlements. After the passage of the Monetary Control Act of 1980, which broadened the scope of the Federal Reserve Board's authority to impose reserve requirements, the Federal Reserve Board gave further attention to IBFs. The Board issued proposed IBF regulations for comment in December 1980 and adopted final regulations in June 1981. The regulations became effective December 3, 1981.

Federal Reserve Board regulations

Although it is common practice to regard an IBF as engaging in loan and deposit transactions, in reality an IBF is not an institution but rather a set of asset and liability accounts segregated on the books of its so-called "establishing entity." Under Federal Reserve Board regulations, the establishing entity may be a U.S.-chartered depository institution, a U.S. branch or agency of a foreign bank, or a U.S. office of an Edge or Agreement corporation.

The basic definition of the types of transactions that may be booked at an IBF is contained in amendments to the Federal Reserve Board's Regulations D and Q. In adopting these amendments, the Board wanted to facilitate the provision of international banking services at banking offices located in the United States. However, the Board was concerned about the possibility of "leakage" of reserve-free transaction accounts into the domestic monetary system and thus wanted to take steps to prevent IBFs from being used to circumvent reserve requirements or interest rate restrictions. As a result, the Board imposed a number of limitations on IBF activities that do not apply to foreign branches of U.S.-chartered banks.

First, there are limitations on IBF-eligible customers. IBF loan and deposit customers

are restricted to foreign residents (including banks), other IBFs, and the entity establishing the IBF. Lending to or accepting deposits from any other U.S. resident is prohibited. Funds advanced to a U.S. banking office from its own IBF are subject to Eurocurrency reserve requirements in the same manner as funds advanced from a bank's foreign offices to its U.S. offices.

Second, there are maturity limitations on what are referred to as "IBF time deposits," which may be in the form of deposits, borrowings, placements, or similar instruments. An IBF may offer such deposits to foreign banks and to other IBFs with an overnight maturity. However, IBF time deposits of nonbank foreign residents are subject to a minimum maturity or notice requirement of two business days. An IBF is not permitted to provide transaction accounts.

Third, there are transaction size limitations. Deposits of nonbank customers at IBFs are subject to a minimum transaction amount of $100,000 for both deposits and withdrawals; a withdrawal of less than this amount is permitted only if the transaction is being made to close out the account or if accumulated interest is being withdrawn. Deposits of bank customers at IBFs are not subject to any minimum transaction amount.

Fourth, IBFs are prohibited from issuing negotiable instruments, since such instruments could be transferred by the original holder to U.S. residents who are not eligible deposit customers of IBFs.

Fifth, IBF loans to foreign nonbank customers and IBF time deposits of such customers are subject to a use-of-proceeds requirement and a use-of-funds requirement, respectively. Under the Board's regulations, an IBF may extend credit to a foreign nonbank customer only if the proceeds are used to finance the borrower's (or its affiliates') operations outside the United States. Similarly, an IBF may accept a deposit from a foreign nonbank customer only if the funds are used to support the depositor's (or its affiliates') operations outside the United States. This policy must be communicated in writing to IBF nonbank customers at the time a credit or deposit relationship is first established; for foreign affiliates of U.S. corporations, a written acknowledgement from the customer is required.

IBFs may engage in secondary market transactions, that is, they may purchase (or sell) IBF-eligible assets such as loans, loan participations, securities, CDs, and bankers' acceptances from (or to) any domestic affiliates of the establishing entity. The transactions must be at arm's length and without recourse, and such assets must satisfy the use-of-proceeds requirement. In addition, an establishing entity (and its affiliates) may not endorse or in any way guarantee a negotiable instrument sold by its IBF in a secondary market transaction.

State and local tax statutes and regulations

Favorable tax treatment under state and local statutes is an important factor in the framework for IBF operations. Among the states that have enacted special tax legislation for IBFs, the provisions for tax relief differ considerably.[1] These differences reflect both underlying differences in state tax structures and different limitations on the amount and timing of the tax relief provided for IBF operations. There have been no modifications to federal tax statutes for IBFs.

In 1978, New York became the first state to pass legislation granting favorable tax treatment to IBFs; however, the legislation contains a number of limitations on the tax relief granted for IBF activities. The New York State statute established a complex formula for determining what is called an IBF's "adjusted eligible net income," which is the amount that is deductible from New York taxable income in computing New York State and City income taxes. It may be useful to summarize the New York formula, since the bulk

[1]In addition to New York, California, Illinois, and Florida, the other states that have enacted IBF tax legislation are Connecticut, Maryland, Georgia, North Carolina, and Washington. As of this writing, IBF legislation is pending in the District of Columbia.

of IBF activity is located there.

First, an IBF's "eligible net income" must be calculated. This is defined as the IBF's "eligible gross income" minus the IBF's "applicable expenses." The components of eligible gross income are the gross income from making, arranging for, placing, or servicing loans to foreign persons; the income derived from deposits and placements with foreign banks, other IBFs, or an IBF's own establishing entity; and certain foreign exchange gains and losses. Under the regulations issued by the New York State Department of Taxation and Finance, applicable expenses include interest expenses, bad debt deductions, and certain indirectly related expenses.

Once an IBF's eligible net income has been computed, two further adjustments are required. The first adjustment is what is called the "ineligible funding amount." It reflects the decision to allow an IBF to receive a tax benefit only to the extent that it is funded by foreign persons, including other IBFs.

The second adjustment is the "floor amount." Its purpose is to grant a tax benefit to IBFs only to the extent that the establishing entity (including its IBF) has increased the volume of its foreign lending activity since 1975-77, the base period. The floor amount is phased out, but it is not reduced to zero until the beginning of the tenth tax year of an IBF's existence.

In Illinois, the portion of a bank's federal taxable income subject to Illinois taxation is determined using a one-factor formula, the ratio of a bank's gross income from Illinois sources to its gross income subject to federal taxation. Tax relief for IBFs was granted by allowing a bank to exclude the "adjusted income" of its IBF from its Illinois gross income for purposes of this formula. However, like New York, Illinois requires that a "floor amount" be used to adjust an IBF's income. The effect of the floor amount is to grant a tax benefit to IBFs only to the extent that IBF lending exceeds any decline in foreign lending on the books of the establishing entity since 1980, the base year, and this floor amount is not phased out. Illinois does not use the concept of ineligible funding.

In California, the portion of a bank's worldwide income subject to California taxation is determined by an apportionment formula that takes into account the ratio of California to worldwide assets, revenues, and payroll. Tax relief for IBFs was granted by treating IBF assets and revenues as if they were located outside California for purposes of this formula.

In some states, special legislation for IBFs is considered unnecessary; for example, in Texas there is no state tax on corporate income. In Florida, although foreign source income is not subject to state income taxes, special IBF legislation was enacted. Its purpose was to insure that all IBF operations would be exempted from Florida income and other taxation.

IBF activities: the first seven months

As shown in table 1, as of July 7, 1982, 363 banking institutions had established IBFs. Nearly half of these institutions are located in New York; an additional one-third are located in California and Florida. U.S. agencies and branches of foreign banks account for 55 per-

Table 1

Entities establishing IBFs as of July 7, 1982

	U.S.-chartered banks	Agencies and branches	Offices of Edge corporations	Total
New York	36	120	15	171
California	12	45	6	63
Florida	20	16	19	55
Illinois	5	12	4	21
Texas	12	—	1	13
Pennsylvania	6	2	0	8
Massachusetts	3	1	1	5
District of Columbia	4	1	0	5
Other states*	20	2	0	22
Total	118	199	46	363

*Connecticut, Georgia, Kentucky, Louisiana, Michigan, New Jersey, North Carolina, Ohio, Rhode Island, and Washington.

cent of the total number of institutions establishing IBFs.

Although the total number of IBFs that have been established by all types of entities is quite large, as of July 7, only a little more than half—or 200—of these IBFs had total assets or liabilities of at least $50 million and were therefore required to file weekly reports of their IBF activities with the Federal Reserve. Thirty-four of these IBFs had total assets or total liabilities of $1 billion or more.

On December 9, the end of the first week of IBF operations, total assets at all weekly reporting IBFs amounted to $39 billion. During December, IBF assets grew rapidly as increasing numbers of IBFs were opened and as assets were shifted to IBFs from their establishing entities and from foreign offices of their establishing entities. Since the beginning of this year, growth has continued, but at a more modest pace. As can be seen from table 2, as of July 7, 1982, total IBF assets were $133 billion. Assets of IBFs located in New York accounted for nearly 80 percent of this total. California accounted for about 12 percent of total IBF assets, Illinois for about 6 percent, and Florida for about 2 percent.

Total IBF claims on unrelated parties amounted to $118 billion on July 7; this figure is shown in the top line of table 2. The single largest asset category was business loans to foreign residents, which accounted for 28 percent of these claims. The other major asset categories were loans to foreign banks and balances due from foreign banks, which, taken together, accounted for about 43 percent of claims on unrelated parties, and loans to foreign governments and official institutions.

At first, IBFs were funded largely by their establishing entities and by foreign offices of their establishing entities. As of December 30, 1981, IBF liabilities to unrelated parties were equal to only one-third of IBF claims on unrelated parties. But the pattern of IBF funding has been changing. As of July 7, 1982, total IBF liabilities to unrelated parties amounted to $66 billion and were equal to 56 percent of IBF claims on unrelated parties.

So far, most IBF liabilities due to unrelated parties represent deposits of banks in foreign countries, and in terms of the size of the Eurocurrency market, the amounts are rather small. For example, as of July 7, IBFs established by U.S.-chartered banks had only $7½ billion in liabilities due to unrelated foreign banks. In comparison, as of the end of April, foreign branches of U.S.-chartered banks had $112 billion of such liabilities. Although IBFs may offer time deposits with an overnight maturity to banks, 90 percent of the deposits of banks in foreign countries now on the IBF books have maturities of 14 days or over.

The inter-IBF market is still very small, although it is growing. As of July 7, IBF liabilities due to other IBFs amounted to about $11½ billion, compared with $1¼ billion at the end of December. IBF interbank deposit rates are virtually the same as Eurodollar rates.

IBF loans and deposits may be denominated in either U.S. dollars or in foreign currencies. To date, however, the volume of foreign currency-denominated business of IBFs has been very small, accounting for only about 2 or 3 percent of total assets or total liabilities.

Some of the assets and liabilities now on the IBF books were shifted there from domestic and foreign offices of the establishing entities. The Federal Reserve has collected information on amounts that were shifted from the U.S. books only. Based on data through the end of January, U.S. agencies and branches of foreign banks accounted for a large proportion of the approximately $34 billion in claims on unrelated parties that were shifted to IBFs from U.S. banking offices. For example, agencies and branches accounted for $12 billion of $14 billion shifted in business loans to foreign residents. This is not surprising since, compared with U.S.-chartered banks, the agencies and branches had more IBF-eligible assets on their U.S. books in the first place. As expected, shifts from the U.S. books of agencies and branches of Japanese and Italian banks were particularly large, since almost none of the Japanese and Italian

Table 2

Assets and liabilities of International Banking Facilities as of July 7, 1982

(billion dollars)

	Total for all entities[2]	Large U.S.-chartered banks[3]	Agencies and branches[4]	All other entities[5]
ASSETS				
I. Total claims on unrelated parties[1]	117.5	51.7	58.1	7.6
A. Loans and balances due from other IBFs	11.0	1.6	7.7	1.6
B. Gross due from:				
(1) Banks in foreign countries	23.9	10.9	9.1	3.9
(2) Foreign governments and official institutions	0.2	0.1	0	0
C. Securities of foreign addressees:	1.0	0.1	0.9	0
D. Loans to foreign addressees:				
(1) Commercial and industrial loans	33.1	16.0	16.5	0.7
(2) Banks in foreign countries	26.4	12.4	13.0	1.0
(3) Foreign governments and official institutions	15.4	6.7	8.5	0.2
(4) Other loans	1.1	0.7	0.3	0.1
E. Other assets in IBF accounts	3.0	1.7	1.2	0.2
II. Gross claims on foreign offices of establishing entity[1]	15.7	4.3	11.0	0.4
III. Total assets other than claims on U.S. offices of establishing entity[1]	133.2	56.0	69.1	8.0
LIABILITIES				
IV. Total liabilities due to unrelated parties[1]	65.7	19.0	40.9	5.8
A. Liabilities due to other IBFs	11.4	1.8	9.1	0.6
B. Liabilities due to banks in foreign countries	33.5	7.5	24.5	1.5
C. Liabilities due to foreign governments and official institutions	5.9	3.6	2.2	0.2
D. Liabilities due to other foreign addressees	11.2	4.6	3.5	3.0
E. Other liabilities in IBF accounts	2.1	0.7	0.9	0.5
V. Gross liabilities due to foreign offices of establishing entity[1]	54.1	32.2	20.5	1.3
VI. Total liabilities other than due to U.S. offices of establishing entity[1]	119.8	51.2	61.4	7.1
RESIDUAL				
VII. Net due from (+)/Net due to (–) U.S. offices of establishing entity (item VI. minus item III.)[1]	–13.4	–4.8	–7.7	–0.9
MEMORANDA				
Net due from (+)/Net due to (–) foreign offices of establishing entity (item II. minus item V.)[1]	–38.4	–27.9	–9.5	–0.9
Number of reporters	200	32	138	30

[1]Figures on this line include amounts denominated in both U.S. dollars and other currencies; unless footnoted, figures on all other lines include only amounts denominated in U.S. dollars.

[2]Includes data only for entities whose IBFs had assets or liabilities of at least $50 million on July 7, 1982.

[3]"Large U.S.-chartered banks" refers to banks with domestic assets of $750 million or more on December 31, 1977.

[4]U.S. agencies and branches of foreign banks.

[5]U.S.-chartered banks with domestic assets of less than $750 million on December 31, 1977, and U.S. offices of Edge and Agreement corporations.

Table 3

Assets and liabilities of International Banking Facilities in the Seventh Federal Reserve District as of July 7, 1982

(million dollars)

	Total for all entities[2]
ASSETS	
I. Total claims on unrelated parties[1]	$6,367
A. Loans and balances due from other IBFs	1,053
B. Gross due from:	
(1) Banks in foreign countries	718
(2) Foreign governments and official institutions	—
C. Securities of foreign addressees:	109
D. Loans to foreign addressees:	
(1) Commercial and industrial loans	2,237
(2) Banks in foreign countries	1,382
(3) Foreign governments and official institutions	554
(4) Other loans	47
E. Other assets in IBF accounts	170
II. Gross claims on foreign offices of establishing entity[1]	1,684
III. Total assets other than claims on U.S. offices of establishing entity[1]	8,050
LIABILITIES	
IV. Total liabilities due to unrelated parties[1]	1,866
A. Liabilities due to other IBFs	464
B. Liabilities due to banks in foreign countries	945
C. Liabilities due to foreign governments and official institutions	89
D. Liabilities due to other foreign addressees	236
E. Other liabilities in IBF accounts	120
V. Gross liabilities due to foreign offices of establishing entity[1]	6,093
VI. Total liabilities other than due to U.S. offices of establishing entity[1]	7,959
RESIDUAL	
VII. Net due from (+)/Net due to (–) U.S. offices of establishing entity[1]	– 92

[1]Figures on this line include amounts denominated in both U.S. dollars and other currencies; unless footnoted, figures on all other lines include only amounts denominated in U.S. dollars.

[2]Includes data only for entities whose IBFs had assets or liabilities of at least $50 million on July 7, 1982.

banks has Caribbean shell branches.

On the liability side, both U.S.-chartered banks and U.S. agencies and branches of foreign banks have transferred balances due to their own foreign offices from their U.S. books to their IBFs. Transfers, including those made at maturity, from U.S. books to IBFs of liabilities due to unrelated parties have been relatively small. Agencies and branches accounted for the bulk of the $6 billion in such transfers that did occur.

In the case of both assets and liabilities, a number of entities that have established IBFs still have loans to foreign residents and deposits of foreign residents on their U.S. books. Thus, it would be premature to conclude that shifting of loans and deposits to IBFs from U.S. offices has been completed.

No direct data are available on the amounts that have been shifted to IBFs from foreign branches of U.S.-chartered banks. As of the end of January, IBFs of U.S.-chartered banks had about $25 billion in claims on unrelated parties and about $6 billion in liabilities due to unrelated parties that were *not* shifted from U.S. offices of these banks during the first four weeks after establishment of the IBFs. However, these amounts include not only shifts from the banks' foreign branches but also new business booked at the IBFs and shifts from U.S. offices that occurred after the four-week domestic shift report had been filed. At best, therefore, these numbers represent an upper limit on amounts that may have been shifted to IBFs from foreign branches of U.S.-chartered banks through the end of January.

Data from the monthly reports filed by foreign branches of U.S. banks are consistent with these numbers. Although it is impossible to determine what changes in branch assets and liabilities would have occurred in the absence of IBFs, it appears that shifting to IBFs has resulted in some decline in claims on and liabilities due to foreign residents at branches in Nassau and the Caymans and also, although to a lesser extent, in London. From the end of November 1981 to the end of January 1982, claims on unrelated foreign residents declined by about $23 billion at the Caribbean branches of U.S. banks that had established IBFs and by about $31 billion at the Caribbean and London branches combined. Over the same period, liabilities due to unrelated foreign residents declined by about $7 billion at

IBFs in the Seventh Federal Reserve District

The following banking offices located in the Seventh Federal Reserve District had established International Banking Facilities by August, 1982.

U.S.-chartered banks

Banco di Roma (Chicago)
Continental Illinois National Bank
Chicago-Tokyo Bank
First National Bank of Chicago
Harris Trust and Savings Bank
Manufacturers National Bank of Detroit
National Bank of Detroit
Northern Trust Company

Agencies and branches of foreign banks

Lloyds Bank International, Ltd.
Banca Commerciale Italiana
Sanwa Bank
Bank Hapoalim B.M.
Mitsubishi Bank, Ltd.
Fuji Bank, Ltd.
Banco di Roma
Credit Agricole
Banca Nazionale Del Lavoro
Tokai Bank, Ltd
Banque Nationale de Paris
Korean Exchange Bank
Banco de la Nacion Argentina

Edge corporations

Bank America International
Chase Bank International
Chemical Bank International
Banco Real International

the Caribbean branches and by about $15 billion at the Caribbean and London branches combined. It is still too early, however, to draw any firm conclusions regarding the extent to which assets and liabilities will be shifted to IBFs from foreign branches of U.S. banks or, more important, the extent to which IBFs will be used instead of offshore branches to book new business.

Summary

IBF claims on unrelated parties amounted to $57 billion at the end of December 1981. Since then, IBF activity has continued to grow, with claims on unrelated parties reaching $118 billion as of July 7, 1982.

It appears that both U.S.-chartered banks and agencies and branches that have established IBFs are still developing experience in the use of IBFs. Final New York State tax regulations for IBFs were not issued until March 25, 1982, and the prolonged uncertainty regarding these regulations may partially explain why some banking institutions have moved slowly in shifting assets to their IBFs.

In terms of future growth of IBFs, there are a number of factors involved. The ability of IBFs to attract new deposits from foreign residents, particularly from nonbanks, will depend, among other things, on depositors' perceptions of the possible advantages regarding the sovereign risk offered by IBFs.

But, as mentioned above, because of its concern about not undermining the effectiveness of monetary policy in permitting reserve-free banking to be conducted in the United States, the Federal Reserve Board imposed limitations on the activities of IBFs that do not apply to foreign branches of U.S. banks. These limitations will obviously play a role in determining the scope for future growth of IBFs.

So it remains to be seen how competitive IBFs will be with other banking centers. It seems likely that in the near future there will be further growth in IBF activity. And, in the longer term, there is the potential for IBFs to become a significant center of Euromarket activity.

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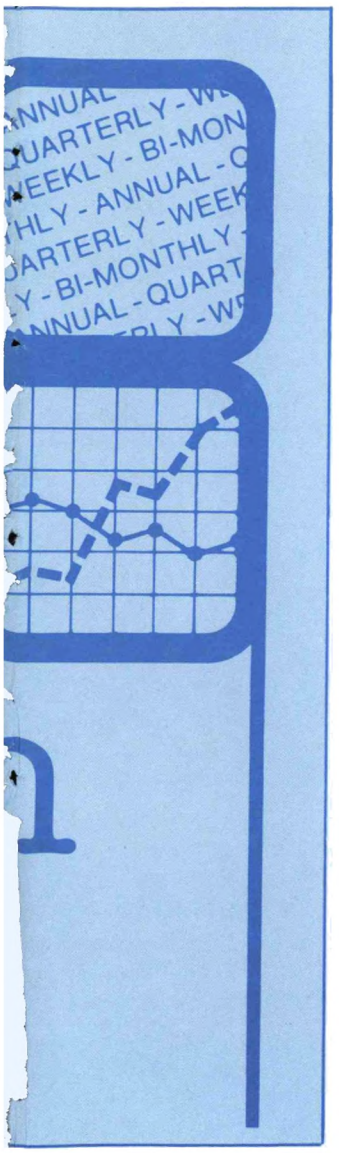

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A comprehensive listing of these materials can be found in the 1982 edition of *Public Information Materials of the Federal Reserve System*, which will be available in mid-October.

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