

# CONDUCT OF MONETARY POLICY

Report of the Federal Reserve pursuant to the  
Full Employment and Balanced Growth Act of 1978,  
P.L. 95-523, and  
The State of the Economy

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## HEARING

BEFORE THE

SUBCOMMITTEE ON

ECONOMIC GROWTH AND CREDIT FORMATION

OF THE

COMMITTEE ON BANKING, FINANCE AND

URBAN AFFAIRS

HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

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FEBRUARY 22, 1994  
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# THE CONDUCT OF MONETARY POLICY

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TUESDAY, FEBRUARY 22, 1994

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON ECONOMIC GROWTH  
AND CREDIT FORMATION,  
COMMITTEE ON BANKING, FINANCE AND URBAN AFFAIRS,  
*Washington, DC.*

The subcommittee met, pursuant to notice, at 10:03 a.m., in room 2128, Rayburn House Office Building, Hon. Paul E. Kanjorski [chairman of the subcommittee] presiding.

Present: Chairman Kanjorski, Representatives Neal, LaFalce, Klein, Dooley, Fingerhut, Roth, and Nussle.

Also present: Representatives Bachus and Thomas.

Chairman KANJORSKI. The subcommittee will come to order.

The subcommittee meets today to receive the semiannual report of the Federal Reserve System on economic and monetary policy as mandated under the Full Employment Balanced Growth Act of 1978.

I want to welcome Chairman Greenspan back before the subcommittee today. Since we last met to discuss monetary policy in July, there have been major developments in our Nation, the economy, and the Federal Reserve and the Federal Open Market Committee.

Much of the economic news of the last 6 months has been encouraging:

Inflation remains low. In January the Consumer Price Index was unchanged. In the fourth quarter of 1993 it increased at an annual rate of only 1.9 percent; and for the last 2 years it has increased only 3 percent per year, the lowest rate in many years.

Labor costs, which are a major predictor of future inflation, remain stable.

Unemployment continues to decline.

The Gross Domestic Product continues to grow. Gross Domestic Product grew 2.9 percent in 1993, and preliminary data suggests it grew between 5.9 percent and 7 percent in the fourth quarter of 1993.

Until the Federal Reserve's action on February 4, interest rates remained low. At the end of 1993 interest rates for virtually all maturities hovered at or below the rates of 6 months or 1 year earlier.

Bank and thrift profits are up, and the costs of S&L cleanup is dropping.

And, finally, but no less importantly, the Federal deficit is being significantly reduced. Passage of President Clinton's Deficit Reduc-

tion bill has substantially reduced both current and future Federal deficits.

While there has been progress on many fronts, areas of concern remain.

Commercial industrial lending by banks remains stagnant. Even with orders and new home construction up, total commercial lending by banks remains virtually unchanged.

The California earthquake and unusual snow storms and cold weather in the East may depress first quarter economic activity.

The Fed increased the Federal funds rate by one-fourth of 1 percent on February 4, triggering an increase in short-term interest rates and a 96-point drop in the Dow Jones industrial average. The Dow's drop was the largest 1-day drop in 2 years and was not temporary. More than 2 weeks later, the Dow is still 80 points, or 2 percent, below the level it closed on February 3.

It is clear that stock and bond traders are very unsettled by recent developments. In the words of one news report, "It appears that, rather than reassuring traders and investors, the Federal Reserve has managed to leave them with a worse case of jitters."

What concerns me most, and what I hope Chairman Greenspan will explain today, is why did the Fed raise short-term interest rates when there has been no evidence that inflation is increasing? In addition to the fact that most recent CPI figures indicate that inflation is frozen in its tracks, inflation data is no worse today than it was when Chairman Greenspan last reported to us in July. In fact, actual inflation performance is at the absolute low end of the range Chairman Greenspan predicted last July.

Why did the Federal Reserve increase the Federal funds rate when inflation is at or below the rate you predicted? How are economic conditions today different from last July? And if the inflation rate was not a problem in 1993, why is it suddenly a problem in 1994 when the basic rate remains unchanged?

Like many Americans, I am concerned that the Federal Reserve's action may impede or even end our slow economic recovery. I know that Federal Reserve economists have models which predict the economic consequences of the Fed's February 4 action. I hope that Chairman Greenspan will describe for us today what the Fed's model projects and what he will—and that he will provide a detailed description of that model for the record.

Since the Federal Reserve has tightened monetary policy in the absence of data suggesting that inflation is increasing, it is incumbent on the Chairman to advise us what types of circumstances in the future would warrant similar action by the Fed. If inflation remains at the 3 percent level, can we expect the Fed to raise the Federal funds rate again or take other action to contract the money supply?

Another area that concerns me is the Federal Open Market Committee's continued inability to meet its projections for M2 and M3 growth. Leaving aside the arguments over whether the Federal Open Market Committee's targets for M2 and M3 are too high, too low or too broadly defined, it sounds to me that the FOMC consistently fails in any meaningful way to keep M2 and M3 in the ranges they predict.

This inability to meaningfully meet broad targets that the Federal Reserve itself selects does not inspire confidence in the Fed.

Chairman Greenspan, why isn't the Fed doing a better job meeting its monetary targets?

If, as Chairman Greenspan has reported to us on several occasions, the Fed has less confidence than in the past in the value of M2 and M3 as economic indicators, I hope he will also report to us today what steps the Fed is taking to identify or define an acceptable substitute. We need to know what measuring sticks the Fed is using so we can evaluate the performance of the economy as well as the performance of the Fed.

Finally, the Federal Reserve has been very vocal in recent months in suggesting that it is imperative that the Fed continue in its role as a regulator of financial institutions and that banks should be able to choose not only whether they have a Federal or a State charter but also whether their primary Federal regulator should be the Federal Reserve or the administration's proposed Federal Banking Commission.

Some critics have suggested that the three-way regulatory scheme advocated by the Feds perpetuates unnecessary overlap and duplication and also makes it easier for financial institutions to play one regulator off against another. Many of these same critics contend that this least common denominator approach to financial regulation was a major contributor to the S&L crisis.

In what other regulated industry does the regulated entity not only get to choose between Federal and State regulation but also gets to choose which Federal regulator they want? What makes bank regulation so different from securities regulation, food and drug regulation, and nuclear powerplant regulation? What public purpose is served by allowing banks to choose that other regulated industries do not have?

Again, let me welcome you back before the subcommittee, Chairman Greenspan. There are clearly a number of important issues which we must discuss, and I look forward to hearing your testimony.

[The prepared statement of Mr. Kanjorski can be found in the appendix.]

Chairman KANJORSKI. Mr. Roth, do you have an opening statement?

Mr. ROTH. Thank you very much, Mr. Chairman. Because it is such an important hearing, let me be very brief.

I want to join the chairman and the other members, Chairman Greenspan, to welcome you before our subcommittee. I think that when you raised interest rates and the stock market fell 96 points on that day, I think all of us in Congress realized that you have more power over the economy than we do. And, of course, that is of great concern to us.

And what we are basically interested in is what formula did you use to justify the interest rate increase and are you going to use that formula again? In other words, what is in store for us down the road? And what is in store for people who have money in the market?

The market is, many of us believe, rather high now, and what kind of assurances can we give people who have money in the mar-

ket? Are interest rates going to stabilize? Are they going to increase? What kind of activity are we going to have?

You covered, and we had hearings on this before, about how the Fed goes through the process of making decisions. And everything is clouded. There is a tremendous shroud of secrecy around it. And we in the Congress are saying, we have got to have some more assurances. We have got to have some sort of a gauge by which we can see what is unfolding here.

Now, you covered your justification for raising interest rates on February 4 in expectations of inflation. Well, what I would like to know is, what formula was used to arrive at that decision; and, again, is that formula going to be utilized again?

Many of us feel that you are taking the punchbowl away as the guests are still taking their coats off. The economy is just coming out of a slump, and we want a strong economy. We feel that interest rates—raising interest rates is not the route to take. But that is why your testimony here is so important for us today, so that you can answer some of the questions that we have and so that we also have some sort of a gauge for what action will follow henceforth.

Thank you, Mr. Chairman.

Chairman KANJORSKI. Mr. LaFalce from New York.

Mr. LAFALCE. Thank you very much.

I think the chairman did an excellent job of outlining the primary issues of concern to us, and I anxiously await your testimony to, in part, respond to those concerns.

Thank you.

Chairman KANJORSKI. Thank you, Mr. LaFalce.

Mr. Bachus.

Mr. BACHUS. Thank you, Mr. Chairman.

Chairman Greenspan, I am interested in why we—why you increased the rates on the Fed funds, but I am also interested in where you see the long-term trend going. And I plan to ask you some questions about that.

But two things which have not been mentioned thus far are, as you know, the Senate this week will consider the balanced budget amendment. And I want to ask you what you consider the effect of the deficit, which in 1985, the last time they considered such an amendment, the deficit stood at \$2.1 trillion. Today it is \$4.5 trillion. I want to get your views on how you think that deficit affects the economy.

And, also, there has been a lot of discussion about the trade deficit with Japan. I want to know what our monetary policy in relationship with that deficit is and what effect that deficit has on our monetary policy.

Chairman KANJORSKI. Thank you, Mr. Bachus.

Mr. Klein of New Jersey.

Mr. KLEIN. Yes, thank you, Mr. Chairman.

Chairman Greenspan, I want to thank you, and I look forward with great anticipation to your testimony.

While it is quite obvious that the stock market has continued to go up, I think that there is a great dichotomy between the large companies of this country, big business and their economic health as compared with the small- and medium-size companies. I con-



tinue to hear from small- and medium-size businesses the same concerns and the same anxieties that they have had throughout the down slump of the last several years. And I share with our chairman the comments that he has raised but, most particularly, the concern about raising interest rates in light of very, very little inflation and the very strong need for continued credit on the part of small- and medium-size businesses. And I would particularly like you to address that concern as well as others in your testimony.

Thank you very much.

Chairman KANJORSKI. Thank you, Mr. Klein.

Mr. Thomas of Wyoming.

Mr. THOMAS. Thank you, Mr. Chairman. I appreciate being allowed to sit in here. I am not on your subcommittee.

Welcome, sir. All of us are interested, of course, in what you have to say.

It was interesting that the President reacted, I believe, to the increase by saying short-term interest increases didn't bother him but long-term ones did. Since February 4, the long-term interest rate has gone up from 6.2 to 6.6. I understand this to be a substantial increase. Like Mr. Roth, it seems to me that most anyone ought to be able to take a look at a formula, a sort of a formula, and get a notion as to what the Fed might be doing in general, what kinds of factors that you could expect would cause a change. It would be interesting to have you comment on that.

And I don't know whether you will get into it or not, but the regulatory structure of banking is also a matter of interest, and that would be interesting to have you comment.

Glad to have you here, sir. Thank you.

Chairman KANJORSKI. Thank you very much, Mr. Thomas.

Mr. Dooley of California.

Mr. DOOLEY. Thank you, Mr. Chairman. I have no statement.

Chairman KANJORSKI. Thank you very much.

Mr. Chairman, we are ready for your statement.

#### **STATEMENT OF HON. ALAN GREENSPAN, CHAIRMAN, FEDERAL RESERVE SYSTEM**

Mr. GREENSPAN. Thank you very much, Mr. Chairman and members of the subcommittee. I am pleased to appear today to present the Federal Reserve semiannual monetary policy report to the Congress. I would request, Mr. Chairman, that the full report be included for the record, from which I will excerpt.

Chairman KANJORSKI. Without objection, so ordered.

Mr. GREENSPAN. In the 7 months since I gave the previous Humphrey-Hawkins testimony, the performance of the U.S. economy has improved appreciably. Private-sector spending has surged, boosted in large part by very favorable financial conditions. With mortgage rates at the lowest level in a quarter of a century, housing construction soared in the latter part of 1993. Consumer spending, especially on autos and other durables, has exhibited considerable strength. Business fixed investment has maintained its previous rapid growth. Important components of gross domestic product growth in the second half of last year represented one-time upward adjustments to the level of activity in certain key sectors,

and, with output in these areas unlikely to continue to climb as steeply, significant slowing in the rate of growth this year is widely expected. In addition, the southern California earthquake and severe winter weather may have dulled the force of the favorable trends in spending in January and February. Nonetheless, as best we can judge, the economy's forward momentum remains intact.

The strengthening of demand has been accompanied by favorable developments in labor markets. In the second half of the year, employment continued to post moderate gains, and the unemployment rate fell further, bringing its decrease over the full year to nearly 1 full percentage point. The unemployment rate in January apparently declined again on both the old and new survey bases.

On the inflation front, the deterioration evident in some indicators in the first half of 1993 proved transitory. For the year as a whole, the Consumer Price Index rose  $2\frac{3}{4}$  percent, the smallest increase since the big drop in oil prices in 1986. Broader inflation measures covering purchases by businesses as well as consumers rose even less.

While declining oil prices contributed to last year's good readings, inflation measured by the CPI excluding food and energy also diminished slightly further, to just over a 3 percent rate for the whole year. In January the CPI remained quite well behaved on the whole.

Not all signs have been equally favorable, however. For example, a number of commodity prices have firmed noticeably in recent months. And indications that such increases may be broadening engendered a backup in long-term interest rates in recent days. In particular, the Philadelphia Federal Reserve Bank's survey showing a marked increase in prices paid by manufacturers early this year was taken as evidence of a more general emergence of inflationary pressures.

It is important to note, however, that in the past such price data have often been an indication more of strength in new orders and activity than a precursor of rising inflation throughout the economy. In the current period, overall cost and price pressures still appear to remain damped. Wages do not seem to be accelerating despite scattered reports of some skilled worker shortages, and advances in productivity early this year are holding down unit labor costs. Moreover, while private borrowing has picked up, broad money—to be sure a highly imperfect indicator of inflation in recent years—has continued to grow slowly.

Nonetheless, markets appear to be concerned that a strengthening economy is sowing the seeds of an acceleration of prices later this year by rapidly eliminating the remaining slack in resource utilization. Such concerns were reinforced by forecasts that recent data suggest that revised estimates of fourth quarter GDP to be released next week will show upward revisions from the preliminary 5.9 percent annual rate of growth. Rapid expansion late last year, it is apparently feared, may carry over into a much smaller deceleration of activity in 1994 than many had previously expected.

But it is too early to judge the degree of underlying economic strength in the early months of 1994. Anecdotal evidence does indicate continued underlying strength in manufacturers' new orders

and production, but we will have a better reading on new orders on Thursday when preliminary data for January are released.

The labor markets are signaling a somewhat less buoyant degree of activity as initial claims for unemployment insurance in recent weeks have moved up a notch. Clearly, the Federal Reserve will have to monitor carefully ongoing developments for indications of potential inflation or a strengthening in inflation expectations. As I have often noted, if the Federal Reserve is to promote long-term growth, we must contribute, as best we can, to keeping inflation pressures contained.

In this regard, a clear lesson we have learned over the decades since World War II is the key role of inflation expectations in the inflation process and in the overall performance of the macro-economy. As I indicated in my testimony before the Joint Economic Committee last month, until the late 1960's, economists often paid inadequate attention to expectations as a key determinant of inflation. Unemployment and inflation were considered simple tradeoffs. A lower rate of unemployment was thought to be associated with a higher, though constant, rate of inflation. Conversely, a higher rate of unemployment was associated with a lower rate of inflation.

But the experience of the past three decades has demonstrated that what appears to be a tradeoff between unemployment and inflation is quite ephemeral and misleading. Attempts to force-feed the economy beyond its potential have led in the past to rising inflation as expectations ratcheted higher and, ultimately, not to lower unemployment, but to higher unemployment, as destabilizing forces and uncertainties associated with accelerating inflation induced economic contraction. Over the longer run, no tradeoff is evident between inflation and unemployment. Experience both here and abroad suggests that lower levels of inflation are conducive to the achievement of greater productivity and efficiency and, therefore, higher standards of living.

In fact, lower inflation historically has been associated not just with higher levels of productivity but with faster growth of productivity as well. Why inflation and productivity growth are linked in this way empirically is not clear. To some extent, higher productivity growth may help to damp inflation for a time by lessening increases in unit labor costs. But the process of cause and effect in all likelihood runs the other way as well. Lower inflation and inflation expectations reduce uncertainty in economic planning and diminish risk premiums for capital investment. They also clarify the signals from movements in relative prices, and they encourage effort and resources to be devoted to wealth creation rather than wealth preservation. Many people do not have the knowledge of, or access to, ways of preserving wealth against inflation. For them, low inflation avoids an inequitable erosion of living standards.

The reduced inflation expectations of recent years have been accompanied by lower bond and mortgage interest rates, slower actual inflation, falling unemployment, and faster trend productivity growth. The implication is clear: When it comes to inflation expectations, the nearer zero, the better.

It follows that price stability, with inflation expectations essentially negligible, should be a long-run goal of macroeconomic policy. We will be at price stability when households and businesses need

not factor expectations of changes in the average level of prices into their decisions. How those expectations form is not always easy to discern, and they can for periods of time appear to be at variance with underlying economic forces. But history tells us that it is economic and financial forces and their consequences for realized inflation that ultimately shape inflation expectations.

Fiscal and monetary policy are important among those forces and have contributed to the decline in inflation expectations in recent years along with decreases in long-term interest rates. The actions taken last year to reduce the Federal budget deficit have been instrumental in this regard. Although we may not all agree on the specifics of the deficit reduction measures, the financial markets are apparently inferring that, on balance, the Federal Government will be competing less vigorously for private saving in the years ahead.

Concerns that the deficit is out of control have diminished. In the extreme, explosive Federal debt growth makes an eventual resort to the printing press and inflationary finance difficult to resist. By shrinking any perceived risk of this outcome, the deficit reduction package apparently had a salutary effect on long-term inflation expectations.

The Federal Reserve's policies in recent years also have helped to damp inflation and expectations. We were able to do so, even while adopting an increasingly accommodative policy stance. By placing our actions in the context of a thorough analysis of the prevailing situation and of a longer term underlying strategy, our move to greater accommodation could be seen as what it was—a deliberate effort to counter the various "headwinds" that were retarding the advance of the economy rather than a series of short-term actions taken without consideration for potential inflation consequences over time.

As I discussed with this subcommittee last July, the longer run strategy implies that the Federal Reserve must take care not to overstay an accommodative stance as the headwinds abate. But determining when a policy stance is becoming too accommodative is not an easy matter. Unfortunately, although subdued inflation is the hallmark of a successful monetary policy, current broad inflation readings are actually of limited use as a guide to the appropriateness of current policy instrument settings. Patently, price measurements over short time spans are subject to transitory special factors.

More important, monetary policy affects inflation only with a significant lag. That a policy stance is overly stimulative will not become clear in the price indexes for perhaps a year or more. Accordingly, if the Federal Reserve waits until actual inflation worsens before taking countermeasures, it would have waited far too long. At that point, modest corrective steps would no longer be enough to contain emerging economic imbalances and to avoid a buildup of inflation expectations and a significant backup of long-term interest rates. Instead, more wrenching measures would be needed, with unavoidable adverse side effects on near-term economic activity.

Inflation expectations likely have more of a forward-looking character than do measures of inflation itself, and, in principle, could be used as a direct guide to policy. But available surveys have lim-

ited coverage and are subject to sampling error. As I have testified previously, price-indexed bonds of various maturities, which would indicate underlying market inflation expectations, would be a useful adjunct to our information base for making monetary policy, provided there was a sufficiently broad and active market for them. In addition, the price of gold, which has been especially sensitive to inflation concerns, the exchange rate, and the term structure of interest rates can give important clues about changing expectations.

Of course, a number of factors in addition to inflation expectations affect all of these indicators to a degree. Short- and long-term rates, for example, tend to be highly correlated through time, in part because they are responding to the same business cycle pressures. Thus, when the Federal Reserve tightens reserve market conditions, it is not surprising to see some upward movement in long-term rates, as an aspect of the process that counters the imbalances tending to surface in the expansionary phase of the business cycle.

The test of successful monetary policy in such a business cycle phase is our ability to limit the upward movement of long-term rates from what it would otherwise have been with less effective policy. Moderate to low long-term rates, with rare exceptions, are an essential ingredient of sustainable long-term economic growth. When we take credible steps to head off inflation before it can begin to intensify, the effects on long-term rates are muted.

By contrast, when Federal Reserve action is seen as lagging behind the need to counter a buildup of inflation pressures, long rates have tended to move sharply higher, as eventually happened in the late 1970's. This suggests an important conclusion: Failure to tighten in a timely manner will lead to higher than necessary nominal long-term rates as inflation expectations intensify. Ultimately, short-term rates will be higher as well if policy initiatives lag behind inflation pressures. The higher short-term rates are required not only to take account of rising inflation expectations but also to provide the additional restraint on real rates necessary to reverse the destabilizing inflation process.

For decades, the monetary aggregates, especially M2, provided generally reliable early warning signals of emerging inflationary imbalances. But, as I have discussed in detail in previous testimonies and will touch on later in this statement, the signals they have sent in recent years have been effectively jammed by structural changes in financial markets and the unusual nature of the current business cycle.

Our monetary policy strategy must continue to rest, then, on ongoing assessments of the totality of incoming information and appraisals of the probable outcomes and risks associated with alternative policies. Our purpose over the longer run is to help the economy grow at its greatest potential over time. To do so, we must move toward a posture of policy neutrality, that is, a level of real short-term rates consistent with sustained economic growth at the economy's potential. That level, of course, is difficult to discern and, obviously, is not a fixed number but moves with developments within the economic and financial markets.

Over a period of several years starting in 1989, the Federal Reserve progressively eased its policy stance, in the process reducing real short-term rates to around zero by the autumn of 1992. We undertook those easing actions in response to evidence of a variety of unusual restraints on spending. Households and nonfinancial businesses on the borrowing side and many lenders, including depository institutions, were suffering from balance sheet strains. These difficulties stemmed from previous overleveraging combined with reductions in net worth from impairments to asset quality, through, for example, falling values of commercial real estate. Corporate restructuring and defense cutbacks compounded the problems of the economy by reducing job opportunities and fostering a more general sense of insecurity about employment prospects.

The deliberate maintenance of low short-term rates for a considerable period was intended to decrease the drag on the economy created by these headwinds. Households and businesses could refinance outstanding debt at much reduced interest cost. In addition, lower rates and improved performance by borrowers would take the pressure off of depository institutions, helping them recapitalize. Low interest rates, along with reduced financial strains, would encourage private spending to pick up the slack left by defense cuts. Once financial positions were well on the road to recovery and employment and confidence began to recover, it was believed that the economic expansion would gain self-sustaining momentum. At that point abnormally low real short-term rates should no longer be needed.

As the Federal Open Market Committee surveyed the evidence at its February 4 meeting, a consensus developed that the balance of risks had, in fact, shifted. Debt repayment burdens had been lowered enough to unleash strong aggregate demand in the economy. Real short-term rates close to zero appeared to pose an unacceptable risk of engendering future problems. We concluded that our policy stance could be made slightly less accommodative without threatening either the continued improvement in balance sheet structures or, ultimately, the achievement of solid economic growth.

Indeed, the firming in reserve market pressures was undertaken to preserve and protect the ongoing economic expansion by forestalling a future destabilizing buildup of inflationary pressures, which in our judgment would eventually surface if the level of policy accommodation that prevailed throughout 1993 were continued indefinitely. We viewed our move as low-cost insurance.

The projections of the FOMC members suggest a continuation of good economic performance in 1994, with reasonable growth and subdued inflation. The central tendencies of the economic forecasts made by the Governors and Bank presidents imply expectations that economic growth this year likely will be 3 percent or slightly higher. With this kind of growth, a further edging down of the unemployment rate from its January reading is viewed as a distinct possibility. Inflation, as measured by the overall CPI, is seen as rising only a little compared with 1993, even though last year's benefit from falling oil and tobacco prices may not be repeated, and last year's crop losses could raise food prices in 1994.

There are, of course, considerable risks to this generally favorable outlook. Some observers have pointed to downside risks to economic activity associated with fiscal restraint and weak foreign economies. I believe these factors will have some effects, but they are likely to be less than feared. As for fiscal restraint, a good portion of the negative impact of last year's budget bill may already be behind us, as some households and businesses have adjusted their behavior to the new structure of taxes and to curtailments in defense and other budget programs.

The concern about weak foreign economies relates to the strength of foreign demand for U.S. exports going forward. Many of our major trading partners have been experiencing economic difficulties. But some already appear to be pulling out of recession, and a number of others seem to have improved prospects. Moreover, containing inflation will keep increases in production costs of traded goods made in the United States subdued, so that our products will remain competitive in world markets. With competitive goods and an improving world economy, the growth of U.S. exports should strengthen this year, lessening the drag from the external sector on our output growth.

There are upside risks as well. Inventories have reached a low level relative to sales, suggesting the possibility of a boost to production from inventory rebuilding beyond that currently anticipated. In addition, with both borrowers and lenders in stronger financial condition, low interest rates have proven a powerful stimulant to spending.

While we were reasonably convinced at the last FOMC meeting that a zero real Federal funds rate put real short-term rates below a "neutral level," we cannot tell this subcommittee, with assurance, precisely where the level of neutrality currently resides. To promote sustainable growth, history suggests that real short-term rates are more likely to have to rise than fall from here. I cannot, however, tell you at this time when any such rise will occur. I would hope that part of any increase in real short-term rates ultimately would be accomplished through further declines in inflation expectations rather than through higher nominal short-term rates.

In assessing our policy stance, we will continue to monitor developments in money and credit, but in 1994, as in 1993, the FOMC is unlikely to be able to put a great deal of weight on the behavior of these aggregates relative to their ranges. We have set the ranges as best we can in an evolving financial situation to be consistent with our objectives for sustained growth and low inflation.

Based on our experience in 1993 and expectations about financial relationships for 1994, the FOMC judges that the growth of money and credit this year will stay within the annual ranges set previously last July, which were reaffirmed at its meeting early this month. Specifically, these ranges call for growth of 1 to 5 percent for M2, zero to 4 percent for M3 and 4 to 8 percent for domestic nonfinancial sector debt.

In conclusion, Mr. Chairman, the Federal Reserve has welcomed both the strengthening activity and the generally subdued price trends, because the intent of our monetary policy in recent years has been to foster precisely this kind of healthy economic performance. Looking forward, our policy approach will be to endeavor to

select on a continuing basis the monetary instrument settings that will minimize economic instabilities and maximize living standards over time. The outlook, as a result of subdued inflation and still low long-term interest rates, is the best we have seen in decades. It is important that we do everything we can to turn that favorable outlook into reality.

Thank you very much, Mr. Chairman.

[The prepared statement of Mr. Greenspan can be found in the appendix.]

Chairman KANJORSKI. Thank you very much, Mr. Chairman. I suspect you will.

The questions of the subcommittee members in their opening statements regard the question that since economic factors are not significantly different today than they were in July 1993 when you testified, what is the basis for the increase that was issued by the Open Market Committee on February 4? Is there some model, some definition, other than—

Mr. GREENSPAN. Mr. Chairman, in fact, I would point out that the economy is actually doing better at this stage than we had expected last July. Certainly, the second half of 1993 was far stronger than we had expected, especially in the fourth quarter, where, as I indicated in my prepared statement, there are a number of forecasts out there which suggest that the gross domestic product for the fourth quarter will be revised up from its 5.9 percent rate.

The basic question which you posed, I would reverse. I would say if, as in our judgment—which I think is confirmed very appreciably by history—an accommodative stance eventually engenders an acceleration of inflationary pressures, the question is more to the point focused on if the economy is strong enough so that we can move away from our accommodative stance, then the reasons for doing that become increasingly strong.

It was the judgment of the FOMC that the economy has done precisely that, that we are beginning to see ever-increasing evidence that the economic recovery is well-entrenched. And if that argument holds, which I believe the evidence strongly supports, then the question really gets to the issue: What basis do we have for continuing the accommodative policy which we had?

And, as a consequence of that, even though we recognize—as you point out and indeed as I make clear in my statement—that there is no immediate evidence of accelerating price inflation at this particular time, the question essentially is not what inflation is now, which as somebody said recently is looking in a rearview mirror, but what are the processes which are developing which will affect the rate of inflationary pressures later on. And it is that question which we are addressing.

We are focusing increasingly at this stage on the outlook for 1995 and beyond, and we want to make certain that our monetary policy addresses that outlook in a manner which sustains what is really the most extraordinarily positive pattern of economic growth, interest rates, and inflation that we have seen in several decades.

Chairman KANJORSKI. I appreciate that, and, of course, the entire Congress supports long-term growth, low interest rates. But we do worry about whether this is an analysis based initiative or



whether there is some objective tool by which we can anticipate and the financial markets of the world will anticipate.

You cite in your testimony the exam that many of you used, the Philadelphia reserve numbers, but then go on to discount that, that those numbers generally indicate economic recovery and stability.

Mr. GREENSPAN. Not necessarily stability. But what I want to point out is that the evidence shows that those are very valuable indicators but more so for new orders and short-term activity than for any indication that inflation is occurring. They do, however, tend to also be used in certain measures to forecast inflation, but my impression basically is that they have tended in the past to reflect that particular acceleration in the economy which in past periods has tended largely to create a sense of pressure on capacity, shortages, and price inflation.

But I must say, Mr. Chairman, history also tells us that inflation requires financial tinder, which at the moment, as I see it, is lacking, and I know of no inclination on the part of the Federal Reserve to supply it.

So our basic view is that we see this process of acceleration that is occurring in the economy, and we want to make certain that, unlike periods in the past, that it does not engender a set of inflationary pressures.

Chairman KANJORSKI. This is inoculation, when the subsequent—

Mr. GREENSPAN. Yes. If one uses the analogy, what we are endeavoring to do is to find a proper policy stance which will create an environment in which maximum sustainable economic growth is possible.

Chairman KANJORSKI. At what point, however, can we separate when the economy drives inflation or the expectation from when the Federal policy drives the expectation of inflation?

Mr. GREENSPAN. Mr. Chairman, we have had innumerable periods in our history in which we have had very strong economic activity without inflation. And the reason that that has occurred is that we did not have accommodative monetary policies or excessive credit growth which spilled over into excessive growth in the monetary aggregates. So while there have been, unquestionably, periods in the past when the growth in the economy has, been related to strong inflationary increases because it was associated with increases in money and credit, that is not a necessary consequence of economic growth. And it is our view that what we would like to foster is—or replicate, I might say—the high growth and low inflation numbers of those previous periods.

And this goes back decades and generations, where we have had very considerable economic strength, prolonged expansions in economic activity, without inflationary imbalances occurring, and these situations occurred to a very large extent because we did not have the financial tinder which too often has been the basis for accelerating an expansionary economy which created major imbalances and eventually led to a significant economic contraction.

Chairman KANJORSKI. Mr. Chairman, when we last talked, I was worried about the impact of the earthquakes and the cold weather during the first quarter of 1994. And for the most part you assured me at that time that the indicators you were reading showed that

the economy, in spite of those conditions, was growing at a fast rate or relatively fast rate relative to past years.

But you also indicated to me that you felt the effect of the increase would only be on short-term rates, not long-term rates, and we have seen over the last several days an increase of four-tenths of 1 percent, I believe, on long-term interest rates. Could you give us some explanation of whether that was a misreading on your part or has some phenomenon occurred?

Mr. GREENSPAN. Basically, the evidence of the slowing down in the rate of growth coming off the fourth quarter so far to date has raised the possibility that we may not be moving very rapidly to what is the consensus of a real growth rate of approximately 3 percent. It is that concern in the market that has led to a considerable amount of discounting of the possibility.

In other words, if the probability were even less than 50-50 that coming off this very high fourth-quarter growth rate down to the expected more moderate growth rate then the markets will tend to discount the possibility that the growth rate will be stronger and that the possibility of inflationary acceleration would be greater and, hence, the market moved up.

I think what was unanticipated in the marketplace, and indeed by most everybody, was the extent to which we went through the period of the earthquake and the weather with an economy as strong as we have had. Industrial production in January was somewhat higher than expected, and the weekly data for the month of February still show that it is moving forward.

Now, if, as may well be the case, the growth rate does come down to where we all expect it—and there are no reasons to believe that that is not, in fact, the case—then we are likely to see adjustments in the outlook and in the markets.

Chairman KANJORSKI. Thank you very much, Mr. Chairman. My time has just expired.

If I may say, I am going to recognize in order of arrival the subcommittee members first, and then those members that are sitting with us that are not members of the subcommittee on the basis of their arrival time; and I recognize Mr. Roth of Wisconsin.

Mr. ROTH. Thank you very much, Mr. Chairman.

Mr. Greenspan, I think the reason we ask you these pointed questions is because we are very much interested in your testimony and going to Alan Greenspan is like going to the oracle of Delphi to find out what is going to happen with the economy.

I was wondering, are you getting us ready for somewhat—if not a recession, a downturn in the economy? It says the level of activity in certain key sectors and with the output of these areas unlikely to climb as steeply, a significant slowing of the rate of growth is expected.

Can you shed more light on that?

Mr. GREENSPAN. Sure. Congressman, as you go back to the summer of last year, indeed when I was here the last time, we had motor vehicle sales and housing at moderate levels. As the second half accelerated, both of these, and in fact there is an interrelation between the two, moved up very sharply, and indeed contributed to a very substantial part of the rate of growth of gross domestic product in the second half.

We have now arrived at levels of car and truck sales and of housing starts which are really quite high. They may go higher, but they almost surely will not continue the rate of growth which they experienced earlier. So, if the major thrust in the economy during the second half was the motor vehicle and residential construction market, and they are going to slow down very dramatically, clearly, the total has to slow down.

Notice that is not to say by any means that the slowdown is to a level which is subnormal. On the contrary, it is the expectation of the members of the FOMC that the growth rate will be at 3 percent or slightly higher, which is enough to cause a continued further decline in the unemployment rate.

Mr. ROTH. Thank you. The Fed gets blamed for a lot of things and so when I was reading in some of our leading newspapers the stock market's downturn last week was blamed in part on the recent rise in short- and long-term interest rates and fears that further rate increases are coming. Do you agree with the analysts who state that the long awaited stock market correction has arrived?

Mr. GREENSPAN. Congressman, I used to forecast what the stock market was doing and with some foolishness answer questions like that when I was a private citizen. Having chosen not to respond to those questions, and I think that having not responded in 6½ years, has stood me in good stead. So I must apologize for withdrawing from the theatre, if I may say so.

Mr. ROTH. Do you think that the stock market is overvalued based on earnings today?

Mr. GREENSPAN. I repeat my previous answer.

Mr. ROTH. Well, in your testimony, you put a tremendous amount of emphasis on inflation. It seems to me you almost have a phobia when it comes to inflation. Do you see the Fed focusing maybe too much on inflation and to the detriment of an expanding economy?

Mr. GREENSPAN. Congressman, the concept of phobia presupposes an irrational response. I would submit to you that on the basis of all we have been able to glean about how our system works, the most virulent element to create economic distress and unemployment is inflationary pressures which have been allowed to get out of hand. So, if you are going to say are we very much concerned about the issue of inflation as the central bank, I certainly hope so.

Mr. ROTH. So that means if I read in the newspaper that inflation is going up, that means that the Fed might be in for another round of interest rate increases?

Mr. GREENSPAN. What it is that we do in the market is dependent on a lot of things, but you can certainly assume that if we perceive that inflationary pressures are rising, it is very important for the stability of this economy that we respond to try to contain it.

Mr. ROTH. Thank you, Mr. Chairman.

Chairman KANJORSKI. Mr. LaFalce.

Mr. LAFALCE. Thank you, Mr. Chairman.

Dr. Greenspan, prior to the fourth quarter of calendar 1993, most economists were predicting a GNP increase of approximately 3 percent; is that correct?

Mr. GREENSPAN. That is correct.

Mr. LAFALCE. So now it looks as if most economists were approximately 100 percent off.

Mr. GREENSPAN. That is an arithmetically fair statement.

Mr. LAFALCE. All right. Good. It really brings to mind the validity of all these economic assumptions that we have in budget forecasting and the balanced budget constitutional amendments that estimates can be so far off, it turning out to be approximately 6 percent. But let me not go off on to the balanced budget argument. Let me ask you some other questions.

You put almost all of your argument for increasing the rates on dealing with inflationary expectations, but to what extent were you concerned with this huge increase in GNP in the fourth quarter? And suppose it had come in at approximately 3, 3.5, 4 percent, do you think that that adherence to economic prognostications would have been an indication that inflationary expectations were not so great?

Is there a relationship between inflationary expectations and this virtual doubling of the prognostications?

Mr. GREENSPAN. Let me just say that while it is certainly correct that virtually all forecasters missed the extent of the acceleration in the fourth quarter, the forecasts have been generally correct in describing the quality of what the recovery is all about, and what is happening.

What I think happened is that growth was compressed and the compression was not foreseen, and that is where the mistake occurred. But I don't consider it an important mistake. Important mistakes in economic forecasting are when you think things are going up and they go down. But when they happen faster or slower by a moderate amount, that is not a surprise. There is no way that a forecaster—

Mr. LAFALCE. One hundred percent is not exactly moderate—a doubling.

Mr. GREENSPAN. I can't deny that the word "moderate" may be a bit inappropriate here.

Mr. LAFALCE. Let me get to my point. I am looking to the future and trying to figure out what the Fed is going to do for various reasons. And you place primary emphasis on inflationary expectations.

In determining what inflationary expectations are, it seems to me that on page 7 you look to price-indexed bonds of various maturities. If there were a sufficient market for them, you conclude, inferentially I believe, that there is not a broad enough market for that to be a criteria.

Then you say, "In addition to the price of gold, which has been especially sensitive to inflation concerns, exchange rates, and the term structure of interest rates can give important clues to changing expectations."

I have some qualms about using those as criteria. Are you using those as criteria? Of what validity is it to use the price of gold? Isn't that primarily a guessing game, the same way that investing in the stock market is a guessing game where mob psychology is at least as important as real indicators. The exchange rate is often determined by the decisions of governments, it seems to me, and dependent upon trade balances, and trade balances or imbalances often lead to adjustments in exchange rates, and so forth.

Mr. GREENSPAN. I don't think so, Congressman. I think that what the price of gold reflects is a basic view of the desire to hold real hard assets versus currencies. It is different. Gold is a different type of commodity because virtually all of the gold that has ever been produced still exists and, therefore, changes in the levels of production have very little effect on the ongoing price, which means that it is wholly a monetary demand phenomenon since it is a store of value, not something which is used to a very large extent in industry.

So it is a store of value measure which has shown a fairly consistent lead on inflation expectations and has been over the years a reasonably good indicator, among others, of what inflation expectations are doing. It does this better than commodity prices or a lot of other things. Because of the fact that we have lost the monetary aggregates as a major tool, we are seeking anything which gives us insight into the process; and what history does tell us is that gold is a useful indicator thereof.

Mr. LAFALCE. If you were to put all of those items you mentioned on page 7 in a basket, how much would the criteria of gold weigh in that basket?

Mr. GREENSPAN. I wouldn't say that you weigh them in any particular way.

Mr. LAFALCE. It sounds to me that you are giving primary attention to the price of gold as an indicator of inflationary expectations.

Mr. GREENSPAN. No, not necessarily. I think what we need are confirmations of various, different indications. Look, the price of gold on occasion has materially deviated from where one would have expected it to be. It is not a perfect indicator, but it is a very good indicator you can use, unless we were on the gold standard, which is a wholly different type of regime. One can argue, and I happen to be one of those who believes, that things were a lot better in many respects back when we had stable gold prices. But the issue that we have to confront here is a very complex economy, one which is extraordinarily dynamic and one which is global in nature, and one which has very major interactions with foreign economies.

And I will tell you, any indicators of any particular aspects or measures which give us forewarning of what events may eventually be are very useful. And I should say to you that we will not dispense with them unless and until they prove to be inadequate to their task. We don't have enough of them to basically have the great luxury of picking and choosing.

Mr. LAFALCE. My time has expired. Thank you.

Chairman KANJORSKI. Thank you. We will now go to Mr. Nussle.

Mr. NUSSLE. Thank you, Mr. Chairman. I think most of my questions have been answered by the written testimony, I would like to yield to my colleagues that were here first. I appreciate the courtesy, but I would like to extend it to them. They were here before I was.

Chairman KANJORSKI. We are going to continue in order, Mr. Nussle. We are now going to Mr. Klein of New Jersey.

Mr. KLEIN. Thank you very much, Chairman Kanjorski.

As I indicated in my opening statement, I am very concerned about the small- and medium-sized business sector of the economy. And my own personal observations are that they still have a dif-

ficult time in terms of availability of credit. Bank lending is statistically very, very low with respect to those.

And I would ask you, first of all, whether you have any observations on that score; and second, what the effect of the increase in short-term rates would be on that sector because I am troubled about it.

Mr. GREENSPAN. Congressman, first of all, let me say that I fully agree with the point you are making that small- and medium-sized business are crucial to this economy. Indeed, it is where the innovation occurs and it is where the employment occurs. In fact, it is the part of the system which is the most dynamic and may, in fact, be the most important element in economic growth, certainly in recent years.

We have a reasonably good recovery in the small business area. In fact, nonfarm proprietors' income has been rising fairly rapidly over the last couple of years. That is usually a fairly good observation of proprietorships and partnerships and small corporations will tend to move pretty much in that direction. And there is no question that they have benefited from lower interest rates.

Indeed, it was the credit crunch which emerged, as you know, in the latter part of the 1980's, which was a major element which directed us to start to move rates lower well before any weakness in economic activity occurred. And the reason that we did is that we were observing in the small business community a real contraction in the availability of credit, and we knew that the commercial banks were effectively the sole source of funds for many of them, whereas larger corporations were able to get financing in the capital markets.

We were not fully successful in taking the credit crunch from its severity down to zero, but we did prevent it, in my judgment, from getting worse, and we did contribute to a major ease of the crunch in the last year or so. Indeed, our estimates that we get on the degree of credit availability from our senior loan officers survey does suggest that in the last several quarters there has been a marked easing in the availability of loans to small business.

We also have seen in recent months, after a very prolonged period of virtually no change, total business loans, commercial and industrial loans, starting to move up and a substantial part of that has been going to the small business community.

Are they fully out of the woods at this stage? I think not. I agree with you that there are still problems there. And I do think that the improvements that are occurring in the economy generally are working their way throughout the system, both small and large firms, and I think we will see that the situation there will continue to improve.

The various surveys that are available from the associations which are connected with small business show that credit availability has been improving for them, but it is still not to some of the levels that existed at an earlier time.

My impression, basically, of the issue of whether a small increase in short-term interest rates would have an impact on small business lending is I frankly doubt it. There has been very little evidence that loan rates have gone up in any appreciable manner which would affect them. But more importantly, they, like all other

businesses, indeed like everybody in the economy, are very severely hurt if inflationary pressures emerge and the economy goes into a swoon.

So, in summary, Congressman, if there was any segment of the economy which we were focusing on, that we wanted to see do well, it was small- and medium-sized business.

Mr. KLEIN. Well, just one other question, and I realize my time has expired because your answer was lengthy, but since you are in some doubt as to what the effect is on small business and medium-sized business, you point out on page 6, that there is a significant time lag between the effect of any monetary policy, the institution of the policy, and the effect of the policy, indeed a lag of a year or more. Assuming for the moment that the policy is incorrect, the increase in the interest rates was an incorrect policy, would it be true then that you would not understand or perceive the effect of that incorrect policy for a year or more and it would be very difficult to correct that mistake, if indeed it were a mistake?

Mr. GREENSPAN. Yes, I agree with that, Mr. Klein. The correct policies show up as beneficial a year or so out and incorrect policies the same. And it is precisely that issue that the Federal Open Market Committee has to address. At its meeting on February 4, we concluded that the balance of risks were such that were we not to move, that that failure to move would have been an incorrect policy in which that incorrect policy's effects would show up a year out. And it was in our judgment that the balance of risk very severely suggested that we were far safer for our purposes to sustain the recovery to move up a notch than not to do so.

Mr. KLEIN. Thank you very much, Mr. Chairman.

Chairman KANJORSKI. Thank you, Mr. Klein. I am going to recognize Mr. LaFalce for 10 seconds.

Mr. LAFALCE. Dr. Greenspan, could you please amplify your response to Mr. Klein in writing, giving some of the data, the surveys that you were referring to with respect to small business for this subcommittee and for me as chairman of the Small Business Committee?

Mr. GREENSPAN. I would be glad to do that.

[The information referred to can be found in the appendix.]

Chairman KANJORSKI. Mr. Neal.

Mr. NEAL. Chairman Greenspan, I would like to congratulate you on taking this early action to ward off future inflation. This quarter point increase couldn't possibly hurt anyone. What hurts is letting inflation get out of control and then having to go up on interest rates to control it. And I think it is—certainly this is another argument for keeping the Fed out of the political process. Those of us in the political process are always under pressure to do what is most appealing for the short term. We can't help it. That is sort of built into our system.

And we have set up your institution so that with long terms and a good deal of isolation from that everyday political pressure, you can take the longer view. And I commend you for doing it and you and all the rest of your associates, I hope that you will always do that. I mean it is so important to our economy.

I think of Mr. Roth's earlier comments and I would try to put those in a little more positive light. What we have learned is that

the benefits of low or preferably no inflation are quite incredible, and in fact give us everything else we want. I mean with low inflation, ultimately we will get the lowest possible sustainable long-term interest rates and short-term interest rates. If we had no inflation at all, zero inflation, then long rates would probably be 3 percent and short rates would be almost nothing, somewhere between 1 and 3 percent, we would have accomplished the essential element necessary for the maximum level of sustained economic growth, the maximum sustainable level of employment, the highest rates of savings, the most competitive possible position that we could maintain in international trade, the most efficiency in our economy.

There is no element of our economy that wouldn't benefit from the lowest possible rates of inflation, if I understand it correctly, and I, of course, would like to get you to comment on it. But, the tradeoff that you have there is between sometimes having to do what may be politically unpopular, raise the short rate a little bit, the tradeoff between that and the possibility of continuing to get lower and lower inflation and lower and lower interest rates, more sustainable growth and so on. Isn't that the tradeoff?

It just seems so clear to me that in a nutshell we get every possible benefit we can get from monetary policy, and they are very considerable, by focusing on low inflation. It is the low inflation that gives us everything else we want, including low sustainable interest rates, growth, savings, efficiency, competitiveness, and so on, and every now and then you do have to make a little adjustment in order to sustain that.

Isn't that about it? Is it true that we get all these other benefits from low inflation? Isn't that the goal? Shouldn't that be the goal of Fed policy?

Mr. GREENSPAN. I agree with that, Congressman. One of the important things that we have all learned over the last decade, the last two decades, is the fact that there is no downside to low inflation so far as long-term growth is concerned. It is consistent with maximum, sustainable economic growth, the lowest level of sustainable unemployment and from what we can gather from most recent studies, the highest level of growth in productivity which leads to higher standards of living. And I would say that you could not argue that very readily, say 20 or 30 years ago.

It is the evidence of recent decades which has created a much more important insight into what low inflation creates for an economy than we had in the earlier postwar period.

Mr. NEAL. I think that is an important point because I think this is something relatively new. And it is almost like the discovery of antibiotics for disease or the discovery that good nutrition and exercise is good for the human body. I mean, this is a very important discovery for our economy, and it is inherently verified in recent years. And almost nothing is more important, it seems to me, in terms of understanding how our economy works and what we can do to make it work better over time. Isn't that right?

What I am asking about now is not only the fact of it, but the magnitude of the importance of this discovery.

Mr. GREENSPAN. Congressman, you have to remember that back in the early postwar years, the conventional wisdom was that a



mildly increasing rate—I should say, a moderate rate of inflation—actually greased the wheels of economic growth and that lower levels of inflation were actually detrimental to the efficiency of the system. That has clearly been demonstrated to be false.

Mr. NEAL. It was also thought that you could increase employment by increasing inflation, which is another mistake, I believe.

Mr. GREENSPAN. Yes, that is absolutely the case, and that is no longer accepted by anybody as a long-term proposition. But I do think that it is very interesting to see the change in attitudes of what the optimum inflation path for an economy is. And while there is no doubt, there continues to be significant disagreement among economists about, for example, is there much gained in economic efficiency as you go below a 5 percent inflation rate. We are now at a point where everybody agrees that over 5 percent is detrimental and an increasing number of analysts are concluding that as we go below 5 percent, the evidence increasingly suggests that there are benefits there as well.

Mr. NEAL. Thank you.

Chairman KANJORSKI. Thank you very much Mr. Neal.

Mr. Bachus:

Mr. BACHUS. Thank you, Mr. Chairman.

Chairman Greenspan, you know—I am not sure the people in the audience know—that a 1978 law requires you to come before this subcommittee twice a year to give a report on the economy and on the conduct of monetary policy. There is another law that was passed in 1989 that requires you to come back before this subcommittee twice a year as a member of the RTC Oversight Committee and give testimony.

And as you know, several Republicans on this subcommittee are very concerned that those hearings have not been conducted. Have you been contacted to appear before this subcommittee concerning those RTC oversight hearings?

Chairman KANJORSKI. Will the gentleman yield?

The gentleman is far out of the realm of this hearing with this question. And I am very disappointed that the Chair invites members of the full committee, minority and majority, to join in this session and to use it for the intentions for which it was scheduled and not for political purposes, and I ask the gentleman to withdraw his question at this point and pursue the course of conduct and questions for which Mr. Greenspan is before this subcommittee to answer.

Mr. BACHUS. Mr. Chairman, I will honor that request.

Let me say this, at the February 3 hearing when you made the decision to increase the Fed funds rate, you broke with tradition and announced that decision immediately. There was almost as much speculation, as much comment by the press over the decision to go public immediately as there was with the rate increase. Could you please discuss in more detail the reasons behind your decision to immediately go public so soon this time?

I know Chairman Gonzalez, the *Wall Street Journal* at least said that he claimed credit for your immediate disclosure and there was a lot of speculation that there was some pressure of disclosure. I mean certain people on this subcommittee have pushed for more

disclosure and in fact one of the last times you testified before us you argued for the ability not to go public so quickly.

Could you comment on this? And also some people are saying that this announcement has set a new precedent and that you will now be going and announcing these decisions almost immediately in the future.

Mr. GREENSPAN. We have not changed any of our Federal funds rate or discount rate readings for well over a year; and indeed, have not raised the funds rate for 5 years. And as I commented before this subcommittee in discussing this question, we have basically two approaches to moving rates when rates are being moved.

One is with the discount rate in which we make an announcement when we move the discount rate, and indeed we do it basically for the purpose of essentially making a very important point so that we have effectively—some of us like to say—hit the gong. We are doing something. We have chosen not to do that with the Federal funds rate because there are also advantages in being able to calibrate certain types of money market moves which are not punctuated with an announcement.

We were confronted with the issue of making what is clearly a very important move—actually it was the February 4 part of the February 3 and 4 meeting. And we decided that we thought it inappropriate to move the discount rate, but we did want to make an announcement, we did want to have an announcement effect so that we chose at that point to announce the change in the Federal funds rate.

As a spokesman for the Federal Reserve indicated at that time, this was not meant as a precedent as such. Congressman, we are in the process of reviewing as we have for the last year—and hopefully will have some conclusions reasonably soon—our general approach to a number of different things with respect to disclosure. And this, obviously, is one of the issues that is on the table. But, it was not meant at that time as a precedent. It was meant to convey a very specific monetary policy purpose.

Mr. BACHUS. My last question, and Chairman, if I could have—I guess my time was not taken by the first question.

Chairman KANJORSKI. The first question is nonexistent. You may have your full time.

Mr. BACHUS. I understand that Vice Chairman Mullins and Governor Angell actually argued for a full half-point increase in Fed funds at that February meeting. And many economists have actually stated that Fed funds could rise to 4 percent without damaging the economy, and in fact that that is where Fed funds are probably headed.

Could you basically tell me what the primary arguments for higher rates that were made by these two Governors were; what their arguments were, first of all? And second of all, could you comment on those economists who are saying that Fed funds are headed for 4 percent rate?

Mr. GREENSPAN. Congressman, neither Governor Angell nor Vice Chairman Mullins chose to attend the February 3 and 4 meeting, because it is a convention of the FOMC that you try to leave a sufficient gap in time between when you leave and when you are going to access to internal distributions of the FOMC, so neither

one of them were there at the time. I would not like to go further on any issue of discussion of interest rates and their impact over and above the fairly detailed instruction, which I hope I was able to be forthcoming on in the content of my formal statement.

Mr. BACHUS. All right. Thank you, Mr. Chairman.

Chairman KANJORSKI. Thank you, Mr. Bachus.

Mr. Chairman, if I could ask you a question now. At what point would an increase in economic activity in a given year be allowable and at what point would it be discouraged?

Could the American economy grow by 4 percent and not have inflationary pressures of 5 percent? Is there some magic number?

Mr. GREENSPAN. There are a lot of people that calculate what is called potential economic growth in which they try to put together changes in population, and that, the labor force. And it is really effectively growth in the labor force plus the growth in productivity. And most of the numbers in that respect over the long term, whether or not it is the CBO, the Council of Economic Advisers, private people, or ourselves, are roughly 2.5 percent.

The difficulty, however, is that the productivity gains are not very easy to project over the long term. Indeed, you can often get a much stronger growth and not know that the potential has gone up until well after the fact. But let me say generally with respect to the issue of growth, I don't think it is appropriate to try to look at any particular growth rate and say that is too high, we must bring it down, because you really don't know that it is engendering inflationary instabilities until you look at the inner core, the structure of what is going on.

And if, indeed, growth is being caused by improved efficiency or improved productivity, it is not one which one should be concerned about. And so rather than look at a specific number, we tend to look at the internal workings of the economy, and make judgments as to whether any particular pace is essentially unsustainable or not.

Chairman KANJORSKI. As you know, many Americans look at the Chinese economy growing at 8 and 9 percent and they wonder why the American economy, a more mature economy, cannot grow at that rate. But there seems to be some measure that you use, and all of us, even with the budgetary considerations, seem to work around the magical number of 3 percent. That seems to be the number that without fear of exacerbating inflation or that we are approaching full production, that would generally maintain stability in the economy. Is that—

Mr. GREENSPAN. What the budget forecasts try to do, because the requirement is essentially to project the budget over a 5- or 8-year period, is to try to get a judgment as to where the long-term growth path is likely to be without specifically focusing on any individual year's growth as being above or below, because you can't forecast that that easily, but you can get a general thrust.

We know that the underlying forces in the Chinese economy are running up far faster than ours basically because their productivity is so strong, and because they start from such a low base that they have a lot of room to grow so that their potential is clearly much superior to ours. But what we endeavor to do is project this longer term growth and from it calculate the receipts for various different

elements in the budget as a consequence of that, and what that sort of growth would imply with respect to the expenditure side. But I don't think that it is necessarily a projection by either OMB or CBO of what they perceive to be the natural growth rate or potential growth rate.

Chairman KANJORSKI. Regarding the rate staying at around 3 percent, and we seem to congratulate ourselves on that, even though at the early part of the Second World War recovery it was significantly lower than 3 percent, this seems to have become the accepted level. Is there any impact you can see that we are having through public policy on cost of living adjustments being built in, indexing tax laws and should the Congress reexamine that policy?

Mr. GREENSPAN. I don't think that there is a general agreement that 3 percent is acceptable, because the trouble with modest rates of inflation, and 3 percent is a modest rate of inflation, is that there is a tendency, if it goes on indefinitely, to accelerate. So I wouldn't want to claim that I would consider that 3 percent is a long-term, stable rate of inflation.

There is another issue which you are alluding to, Mr. Chairman, which is that the 3 percent or whatever we are using for the CPI, probably overestimates the actual underlying rate of inflation. And it does so because as statisticians have demonstrated that if you have a fixed index, which means that the effect of price changes are the same irrespective of the shift in consumption behavior, you tend to have an upward bias in the price index.

Similarly, we have not fully succeeded in getting the improvements in quality from biasing I should say to get the improvements in quality out of the price indexes. And there are a number of other reasons why the indexes probably are anywhere from a half—some people think it is 1.5—percent higher than the actual cost-of-living increase.

So there has been some discussion among economists that the adjustment, both to the expenditure cost of living adjustments, and to the tax structure, is probably higher than the actual true cost of living experienced by either the beneficiaries or the taxpayers who have their rates adjusted by that index.

Chairman KANJORSKI. Thank you very much, Mr. Chairman.

Mr. Roth.

Mr. ROTH. Thank you, Mr. Chairman. And Chairman Greenspan, you have been very generous with your time this morning. I have two short questions and then I have a conclusion to see if you would agree with that.

We start out talking about the formula the Fed uses and so on. Is it accurate to say—am I right or would you agree that what you are telling us here today is that the old rules for the Fed really don't apply anymore? Maybe that is stating it incorrectly. It is that the old rules may apply, but they are not as defined as they were in the past?

Mr. GREENSPAN. There is no question that the way monetary policy was implemented in the past based upon the data systems and the financial information that existed back then is not the same as the procedures that we use today.

Mr. ROTH. So the Fed is moving into uncharted water to some degree?

Mr. GREENSPAN. To some degree. I hope that the reason we are doing so is that we have learned a number of lessons about how monetary policy, both here and abroad, functions which has very significantly added to our arsenal of information. And, hopefully, we are learning from it, and taking those actions which we have observed in the past are more appropriate. We didn't know a number of things 30 years ago about how economies respond to various different types of monetary policies.

Mr. ROTH. Now, the question that I have, you obviously have given this a good deal of thought and thought this through. Do you have a game plan pretty well in mind: If this happens, I am going to do this; if this happens, we are going to do that? Like a football coach, you have a game plan? Have you in your mind thought this through pretty well? Is there a game plan where variables come into play?

Mr. GREENSPAN. Obviously, we cannot implement monetary policy if we don't have a conceptual understanding of a structure of how we think the economy is behaving and how it will behave in the months and years ahead, because if we don't have, then we are flying blind. It is true that we do not have the monetary aggregates in the manner that was so helpful in the past, but that is not to say we do not have a conceptual structure; if you want to say "game plan" as to how the system would work, you are correct because obviously our judgment is if we do X, Y is likely to happen. And along the way, we will be inevitably taking actions or not taking actions depending upon how we envisage the economy responding to not only monetary and fiscal policy but external forces as well.

Mr. ROTH. I don't want to be adversarial, I am just looking for an answer here. You had mentioned searching for zero inflation. Mr. Neal is worshipping at the altar—and fine—of zero inflation. Would it be fair to say that the Fed is really saying may be, inflation is what we are focusing on. Therefore, we are wedded to a tight money policy?

Mr. GREENSPAN. No, actually I wouldn't say that, Congressman. I would say that what we are wedded to is the path of policy which will engender the highest long-term sustainable rate of growth in this economy. Remember that it is the real variables that matter. It is not money as such. It is not prices. It is not interest rates. It is our standard of living. That is what it is all about.

The financial system is a mechanism which enables us to move forward, and the way the central bank functions is through the financial system. I would not say that our basic focus is tight money. I would say that our basic focus is to set the financial conditions which maximize long-term, sustainable economic growth.

There are occasions when, if there are distortions in the system like the credit crunch, in our judgment rates should come down and be accommodative and deliberately accommodative.

Mr. ROTH. What I was striking at, years ago the political debate used to be are you for tight money or easy money and I would say in today's formula if we turned the clock back and they hear this debate they would say, well, they are for tight money.

Mr. GREENSPAN. I am thankful that debate is behind us and those terms don't have terribly much usefulness anymore. At least I hope.

Mr. ROTH. Thank you, Mr. Chairman.

Chairman KANJORSKI. Thank you, Mr. Roth.

Mr. Neal of North Carolina.

Mr. NEAL. Thank you, Mr. Chairman. I was going to put it exactly in those terms. I was making a note to myself in response to Mr. Kanjorski's comment about the growth level in China. It seems to me the focus should be exactly as you put it, on our standard of living, and the economic prosperity. And what we have learned—and I think I misspoke a little bit earlier. This is not really a new discovery.

This is a reaffirmation of something that I think that most economists hail to be true throughout most of our history, is that we are best served by low inflation. And we went through a period, I guess starting during the Great Depression and for some period after when we thought it was a good idea to sort of use monetary policy to fine tune the economy and that we might actually enhance our standard of living today by focusing on something, energy prices tomorrow, and interest rates some other day, on something else.

I think that we have reaffirmed that the way we get everything that we want in terms of economic policy that the Fed can deliver—it can't deliver it all—in terms of enhancing our standard of living is to give us low inflation. You give us low inflation, you enhance our standard of living. That is the emphasis.

And certainly—I want to commend our chairman for his very thoughtful approach to this whole subject and to the hearings and to this major responsibility, because this is so important to our standard of living. China has had opportunity to grow because they started at such a low level, but their standard of living is nothing like ours and it won't be for a long time.

Ultimately, I don't even know what their rate of inflation is now. I know that many years ago they had a dedication to no inflation. They weren't going to let it get out of hand. I understand they have let it get out of hand lately, and if they have then, of course, that will detract from their standard of living.

And one other point I want to make before yielding to the chairman, the real beneficiaries of this are low- and moderate-income people, working people, because these are the people who have the least ability to deal with inflation. I mean, I remember even in the high inflation times of the late 1970's and into the 1980's that sophisticated investors could make money under any circumstances.

It was the working guy that had a heck of a time or a small businessman. I am sorry Mr. LaFalce is not here at this moment, although I know he knows this—it is the small business guy who can't adjust prices rapidly and adjust to inflation. Where a big business or a monopoly or an oligarchic situation would probably maintain a price level in light of even high inflation, a small business guy can't.

I know. I ran a small business during a high inflation time and it was very hard for me to go up in prices in a way that would keep up with it. Anyway, the point is I just think you are right on target when you say that the goal is our high standard of living and what

we have learned and reaffirmed empirically is that the way to enhance our standard of living is to keep inflation down.

I do want to ask you one specific question before I yield, if I may. There is a letter to the editor here in the *New York Times*, I believe this is, and it is signed by Mr. Jeffrey Moore, who is the director of Center for International Business Cycle Research at Columbia University. And he says that—I am paraphrasing now, but he says that Columbia University has developed a very reliable series of leading inflation indicators that have—individually and collectively have a stellar record in predicting cycle turning points in inflation and he mentioned some of them.

For example, in January, commodity price inflation rose sharply. The percentage of purchasing managers reporting higher prices jumped from 51 to 60 percent. These indicators that he mentioned are a composite of leading indicators that were developed by Columbia University and this index has had an extraordinary reliable record of forecasting upturns and downturns in inflation, and that this indicator rose sharply last month and is growing at its fastest pace in 10 years. I wasn't familiar with this index. I am sure you are.

Is it as reliable as he says? Is this something that you look at?

Mr. GREENSPAN. We are in the process of looking at it. And what I am not aware of is whether or not such things as other financial variables which express monetary expansion are excluded and yet may actually be part of the cause of the process. In other words, it may be that the index is a good projector of economic activity. And if economic activity has a large element of monetary accommodation in it, that will engender inflation.

As I said earlier, that is not a necessary result—I should say if the economy expands, it doesn't necessarily mean that inflation is expanding, but it would if there was financial tender in the process. I must say, I will look at this very closely because Prof. Geoffrey Moore taught me Statistics I.

Mr. NEAL. No kidding.

Mr. Roth wanted me to yield.

Mr. ROTH. Thank you. Speaking of professors, we used to have debates in our universities about, you know, zero inflation versus jobs. In other words, you had to have some inflation to create jobs. It was good for the job climate if you had some inflation. Is that all heresy today?

Mr. GREENSPAN. Yes.

Mr. ROTH. It is?

Mr. NEAL. May I just say on that level, I think this is a very important point because there are a lot of people that still think that the way to increase employment is to increase inflation levels. But it is just not sustainable. That is the point.

Sure, you can jump up employment levels for a brief period of time, I think the chairman would agree, by stimulating up the economy. You just can't sustain it. Then you have a correction in the economy, and most of those same people are then unemployed. Isn't that about what happens? So, sure you can do it temporarily, you just can't sustain?

Chairman KANJORSKI. Mr. Bachus of Alabama.

Mr. BACHUS. Mr. Chairman, in my opening remarks, I talked about the Senate considering a balanced budget amendment at the present time. And as you—if you listen to it, there are a lot of moral arguments for why we shouldn't have a budget deficit, but I want to talk about the economic reasons, not the moral reasons, and ask you for some comment.

I read today where former Senator Paul Tsongas made this remark. He said that the deficit threatens our future productivity by sopping up private savings that ought to be invested to create greater wealth in years to come. And it is this idea that the deficit obviously has a negative effect on private savings and, therefore, future productivity. And I have heard before arguments that for every billion dollars of deficit we eliminate 20,000 or 30,000 jobs in the private sector or we retard the growth of jobs in the private sector.

And my question to you is this: What is the economic impact of the deficit? What—and I am going to just pose four or five questions, all of which you can—I think you can answer one or as many as necessary.

One is, what is the effect of the deficit on interest rates? What is the effect of the deficit on inflation? What is the effect of the deficit on job formation in the private sector? And probably maybe something that summarizes all of that, what is the effect of the deficit on future economic growth?

Mr. GREENSPAN. Congressman, as I have testified before this subcommittee and others over the years, most of these issues have come up, and let's see if I can just basically summarize.

The deficit, basically, is a corrosive force in the economy which, as Senator Tsongas mentioned, tends to drain private saving. If the diversion of the saving were into productive assets, then one would have to weigh whether or not the private saving were employed more efficiently than public. But I regret to say that there is very little evidence to suggest that the public investments that have been involved in the diversion have been anywhere near as productive as the loss that occurs as a consequence to private savings, that is, the diverting of private saving from private investment into public investment or spending, whatever we choose to term it.

The deficit is inflationary if it is accommodated by the central bank. That is, to the extent that you are dealing with a very large amount of Federal borrowing, if it overwhelms the private system and there are pressures for the central bank to buy the debt, as has occurred very often in many countries over the decades, you get a major increase in inflation. And, indeed, virtually all of the hyperinflations that we have seen around the world occurred as a consequence of that particular process.

The issue of jobs is a little more difficult, in the sense that it is not evident over the long run that the unemployment rate is significantly affected one way or the other. So that what we are looking at is not the job issue as crucial, but the real earnings and the standard of living are affected. In other words, your job may not be eliminated, but your income will be less in real terms if the deficit is diverting resources from private investment into public spending.



And I think that is the lesson for the future. The evident concern that many have had about the deficit, including the President, is that at the current services budget, at least as of last year, was accelerating to the point where, if left unattended, it had within it the seeds of an explosionary expansion of Federal debt, with the potential consequences, as I said in my opening statement, of having to go to the printing presses to finance it.

Mr. BACHUS. Do you say the deficit is a threat to our future economy? And I think you have probably answered that as a yes.

Mr. GREENSPAN. Yes, indeed.

Mr. BACHUS. Mr. Chairman, I have one question about the trade deficit, and I can reserve that for later, but I think it is an important question. And if I could proceed or if you would rather me—

Chairman KANJORSKI. Let's continue the rounds on the 5-minute rule.

Mr. BACHUS. Sure. Thank you.

Thank you, Mr. Chairman.

Chairman KANJORSKI. It is so tempting to get into the budget amendment. I will pass on it.

Mr. Greenspan, in the latter part of my opening remarks I talked about the need for regulatory reform. And I know that from reading some of the most recent editorials in *The Washington Post* and otherwise, some of the jurisdictions debating that issue in town are starting to draw definable support areas. I notice that the Federal Reserve certainly did from the *Post* editorial.

I do favor regulatory reform. I think it is essential that we start reducing the cost of regulation on the various banking institutions involved and to get some structure here that does not have so much overlap. I guess I am asking your opinion or I would ask you to respond to the question of in what other regulatory agency that you are aware of does the industry get to choose from between Federal and State regulation? And then if they do choose Federal regulation, do they get to choose between the regulators?

It seems to me that there is some special favor available here or special accommodation of favor there in our banking institutions that do cost additional monies to other institutions and perhaps begets favoritism or vying for their business, if you will. Could you respond to that?

Mr. GREENSPAN. First of all, it is certainly true that in our Federal system there are a number of activities you cannot have other than a single regulator. For example, Federal Communications Commission, when it is distributing its bands, can't have another regulator sitting there and doing the same thing. Similarly, in our case, there can only be one monetary policy in an economy and that by its very nature can only be done by one agency.

The difference is in the financial system. It varies. For example, while it is certainly true that the Securities and Exchange Commission is the major rulemaker of certain aspects of our financial system, the actual supervision and regulation and examination is done by the self-regulatory organizations—the New York Stock Exchange, and the American Stock Exchange, National Association of Securities Dealers. And in that respect individual companies and individual members can choose to be in one regime or another. So there is an element of choice involved there.

The crucial question, however, which you raise, which is one that we address and are concerned about, is what used to be called the issue of basically shopping for form of competition in laxity, if I may put it that way. There is that potential problem.

In our judgment, however, it is very significantly contained by the fact that the statutes under which we function very much inhibit the degree to which any of the agencies can endeavor to attract clients, if I may put it that way. And, indeed, it is the culture of the Federal Reserve not to do that, and that the element of choice that we consider so important in a regulatory system essentially is an inhibition on arbitrary actions and arbitrary procedures and processes by regulators.

In our judgment, the problem that exists from the question of choice is very easily controlled by the statutes. And, indeed, we have had a number of Federal regulators now, and there is very little in the way of that type of problem evident in today's markets.

Chairman KANJORSKI. Mr. Greenspan, would you not attribute some portion of the S&L disaster to the fact that we had different regulators on the Federal level and the State level and each of the various States had different levels of regulation?

Mr. GREENSPAN. First of all, we had a single Federal regulator. But I don't think that the analogy of that particular type of situation is really relevant to this. That was a debacle which was caused, basically, by very fundamental economic forces. The existence of a depository institution which had long-term assets and short-term liabilities, an institution which can exist only in a non-inflationary environment, a specialized type of institution which, when confronted with inflationary pressures, began to have a major problem associated with it.

And, as you may recall, Mr. Chairman, in the early 1980's when, marked to market, that industry probably had zero capital or probably very significant negative capital. There were a number of actions that were taken both by the Congress and by the State agencies which tried to grow their way out of that problem. And with the very substantial difficulties associated with it.

I would not think that is a relevant model to determine what banking structure should look like because banks are not like savings and loans in the sense that, while there is some mismatch of a minor nature between asset and liability maturities, it is very minor, and the types of difficulties that occurred in the savings and loan area, I do not think, are applicable to banking regulation and, therefore, would not consider that something which would give me grave concern.

Chairman KANJORSKI. Mr. Roth.

Mr. ROTH. Well, Mr. Chairman, it looks like we are winding down our testimony and Q and A today. But before we leave I want to go back to one of our previous hearings we had here on Capitol Hill when the chairman of the full committee had the legislation dealing with the Federal Reserve legislation to open up the Federal Reserve's meetings, deliberations and so on. Since that meeting, have you given some thought to how we should open up the Federal Reserve? I mean, after all, it has got tremendous impact and power over our economy and over the lives of every American.

I was just wondering, since that hearing, what have been some of your thoughts about the Fed and what the people should know about the Federal Reserve?

Mr. GREENSPAN. First of all, Congressman, let me say that when you have a central bank in a democratic society which has to be independent if it is going to have the appropriate authorities to maintain policy, then to the extent that the institution is independent, it should be accountable to the legislature and the electorate.

And the question here gets down to the tradeoff that exists between our efficiencies of deliberation which requires, in my judgment, that we have the ability within our group to be open, frank and not worry about talking in public because of the concern we would have of its effect on the market. So we are caught in this situation where we have got to maintain maximum deliberative capabilities but still recognize that, if we wish to be independent, we have to be accountable.

And it is that sort of issue which we have been working on for well over a year. And we are making some progress in that regard, and I think we are going to find certain things which are not necessary for preserving our deliberative processes and which I think we could probably divulge more so than we have been doing. But that has not been concluded yet. We still have a number of things to do.

And one of the reasons we can't do it piecemeal is that they are all related to one another, and we are trying to find what we hope to be the appropriate balance. It is not easy, but I think that the issue that is involved here is a necessity for accountability if we wish to maintain an independent central bank.

Mr. ROTH. So, basically, a policy is evolving now. And if I understand you correctly, you are giving this some thought. Then you are going to make some statement or something in the future?

Mr. GREENSPAN. Yes, exactly.

Mr. ROTH. Thank you very much, Mr. Chairman.

Chairman KANJORSKI. Mr. Neal.

Mr. NEAL. On that question, it seems to me that the—I mean, obviously, there are different levels of accountability. But you have accountability to not misspend money and not—I mean, that your salary levels are reasonable and all that.

But the most important level of accountability, it seems to me, ought to be how well you are meeting the most important goal of your monetary responsibility, which is low inflation. I mean, it seems to me we miss the point if we try to shift away from that somehow.

I mean, when we go to a mechanic to fix our car, we want him to get the car running right. We don't ask him to let us look over his shoulder down into the pistons. I mean, it wouldn't do us any good anyway. Certainly, wouldn't do me any good because I don't have the foggiest notion of how all that works, and I don't care. What I want is the fixer. I want my dentist to fix the teeth right. I want everybody else to do their job right.

That is what our focus ought to be here, and we shouldn't lose sight of it. I hope we do that.

I want to ask, Mr. Kanjorski—

Mr. GREENSPAN. Can I just comment on that?

Mr. NEAL. Please, yes, sir.

Mr. GREENSPAN. I don't disagree with the basic thrust of how one evaluates the central bank. The ultimate evaluation is not how we do it, but what we do, obviously.

I was actually responding to Congressman Roth's question in a much more narrow sense. I thought he was asking about strictly the issue of disclosure, if I understood him correctly. Not the broader question. And I was trying to respond only to that issue, which is a much narrower question than you are raising.

Mr. NEAL. Exactly.

Mr. Kanjorski raised the issue of regulatory reform, and I just wondered if you would want to comment briefly on that. As I understand it, the reason you think it is important that the Fed keep a hand in the regulatory structure is so that you will be able to better fulfill your responsibilities as lender of last resort or the responsibility that you have been given to help sort things out when our economy gets into crisis situations, as it has on several occasions and may again.

Is that what your concern is? Or I wonder if you would elaborate a little bit on that.

Mr. GREENSPAN. Yes. There are basically two issues, Congressman. The first is that, as lender of last resort, we are in a position where, in the event of a financial crisis it is we who have to in real time act decisively in real time to contain it or, hopefully, in advance to prevent the issue from arising.

We have found over the years that our hands-on supervision and regulation has given us a body of information and a set of relationships with the financial system in very great detail so that, when confronted with a major crisis, we know which buttons to push and where the problems may conceivably arise. If we did not have that expertise of supervision and regulation and did not have the continuing supervisory role that we have, I am not certain that we would be as capable of containing those crises as I think we have been over the years.

Second, we also gain a very important amount of information from our examination and supervision of banks, both large and small. And that has been very helpful to us in formulating monetary policy.

And, in our judgment, while we certainly agree that some consolidation of the Federal regulatory banking agencies is desirable, that there are benefits to be derived from that and it is addressing real problems which I think have to be resolved, in our judgment, virtually all of the benefits that can be derived in consolidating to a single Federal banking regulator would accrue to a system in which there were two regulators and, in which the Federal Reserve was one. And it is especially important because we also bring to the supervisory process a judgment of its impact on the economy.

And, for example, our regulations and rulemaking which were associated with the credit crunch focused substantially on our recognition of how do we make the banking system function better. Our concern is, without the Federal Reserve's presence in that process or some other economic agency's presence in that process, that banking supervision and regulation would become a structure of rules which would not appropriately capture the important role

which banking has in the financing of small- and medium-sized businesses in this country.

Mr. NEAL. May I just say, it seems to me that it might be useful if you could detail how your regulatory role helped you deal with, say, the stock market crash of 1987 or, say, go back and take a look at the time that your predecessor, Mr. Volcker, intervened to help stabilize the savings and loan crisis or your reaction during an oil price jump, some of those things where we might have your thoughts on the Fed's practical experience in some of these areas.

Mr. GREENSPAN. I will be glad to do that.

Mr. ROTH. Would the gentleman yield for a quick comment?

Mr. NEAL. Yes, sir.

Mr. ROTH. Thank you, Mr. Neal, I appreciate it.

This question of openness of the Fed, I think, is very important. I was just going to mention in response to Mr. Neal that I was speaking in the broad sense because I think that this is a big issue and because this affects everyone's lives.

Mr. Neal, you had mentioned that if the Fed takes care of inflation, I don't care how they do it. Well, that is almost like saying I don't care what the government does as long as the trains run on time. That didn't work well with the government, and it wouldn't work well with the Fed either.

So I just want to get this parting comment in, that this openness of the Fed, I think, is very important because the American people are very much affected by what the Fed does.

Mr. NEAL. Another example you might try to detail for us would be the LDC debt situation. I just think some of these specific examples would help us.

Mr. GREENSPAN. Yes, there are a number of episodes which go back to, in the last 15 years, the LDC debt crisis, the Ohio savings and loan crisis, the stock market crash, the junk bond problem that we had with Drexel Burnham, all I think would have been materially affected—or I should say how we handled those would have been materially affected had we not had hands-on supervision and regulatory authorities.

Mr. NEAL. If we could just understand that better, it would help. Thank you.

Mr. GREENSPAN. I will be glad to.

Chairman KANJORSKI. Mr. Chairman, if you would do that for the record, we would appreciate it.

Mr. GREENSPAN. Yes, why don't I do it for the record?

[The information referred to can be found in the appendix.]

Chairman KANJORSKI. Mr. Bachus.

Mr. BACHUS. Thank you, Mr. Chairman.

Chairman Greenspan, one of the most disturbing things about the report, the monetary report, is what you say about trade. And I think on page 4 you say that imports from abroad will continue to increase at a brisk pace and that we can expect, at least short-term, for exports of goods and services to decline, which—is that—

Mr. GREENSPAN. The rate of growth of exports would be less than the rate of growth of imports.

Mr. BACHUS. Which means a growing trade deficit?

Mr. GREENSPAN. Yes.

Mr. BACHUS. Let me ask you this. Are you factoring into that—you know, we have had a pretty—the course of energy prices has been very favorable. We have had declining energy prices for the last year, and yet our trade deficit is going up. And if energy prices turn around and the future course is up or even flat, I think it can even have a greater effect on our trade deficit.

And then we have the problem of our 1993 harvest is less than we had anticipated. We are not going to—we are going to have—some of our agricultural export items are in tight supply.

Mr. GREENSPAN. I think that is correct, sir.

Mr. BACHUS. So it could actually be worse than even maybe we were predicting a few months ago. But my question is maybe not how bad it is. I think by all estimates the trade deficit is growing, and my question to you is, what effect is that going to have on our economy or on our interest rates?

Mr. GREENSPAN. Remember that to a large extent one's trade deficit or current account deficit, which is the broader definition, is a very complex issue which is affected to a very substantial extent by the relationship between our domestic saving and our domestic investment. In other words, if we have to bring in capital to finance our domestic investment, that is another way of saying we have got a current account deficit. The arithmetic requires that. So it is not always clear which of these various elements is causing the process to occur.

It is different, however, from the budget deficit issue. The budget deficit issue is unequivocal in the sense that if the budget deficit gets too large, it becomes a very corrosive force on the economy.

The issue of the trade deficit is somewhat different. In other words, without stipulating what is causing it or what the elements involved in it are, it is not in and of itself something which is negative to the economy. Indeed, the United States imported a huge amount of capital in the 19th century to finance the growth in this country, and I guess even though we didn't have data in those days, we had a current account deficit of substantial proportion for a long period.

It really depends on what it does. In other words, if the capital that comes in that is implicitly the other side of the deficit—is highly productive, it is by no means clear that that is bad. So you can't say in and of itself a trade deficit or a current account deficit is bad. It surely does not, as some argue, shift jobs out of the society, because when our unemployment rate was low, we had a very high deficit—I mean trade deficit.

And, clearly, you know, you can't argue that if our deficit were less that employment would have been higher because it wouldn't have been. It couldn't have been.

So it is a very complex question, and I hope that we are aware that trade deficits per se are not something evil. It used to be when we had mercantilist views of the world several hundred years ago, and regrettably in many areas still today, that one considered one's trade surplus as a measure of the wealth or effectiveness of an economy. That clearly was not true then. It is not true today.

Mr. BACHUS. Mr. Chairman, let me just—you talked about the Nation's savings rate is probably more important. What is the outlook for our Nation's savings rate?

Mr. GREENSPAN. I would say to a large extent, Congressman, it probably depends on the budget deficit. Because to the extent that we lower the budget deficit, the private national saving rate, which is really the crucial number, will tend to rise. And of all of the various policies which we thought about over the years which would enhance the saving rate, there turns out to be none which is likely to be as effective as just bringing down the budget deficit.

Mr. BACHUS. And that would have a positive effect on our savings rate and that should be more our concern than—

Mr. GREENSPAN. Very much so.

Mr. BACHUS. All right. Thank you, Mr. Chairman.

Chairman KANJORSKI. On that point, Mr. Chairman, I think in your testimony you congratulate the President and Congress in the action taken last July. And you call the attention of this subcommittee, and I think in your report, to the fact that this was the first courageous activity taken to turn around the rate of increase in the deficit and that this course is in fact the proper course. Is that correct?

Mr. GREENSPAN. As I testified before this subcommittee and other committees of the Congress, while I may not have agreed—as, indeed, I think nobody fully agreed with the details of the budget processes that were finally hammered out here—the markets very clearly viewed deficit reduction as positive in the sense that there would be, as a consequence of that action, less claim on the Nation's saving than would otherwise have been the case.

Chairman KANJORSKI. Do you want the opportunity to express your opinion on whether or not you favor a constitutional amendment for balanced budget or would you prefer—

Mr. GREENSPAN. I have testified on this issue innumerable in the past, Mr. Chairman, and will very succinctly say that I do think that there is a bias in our budgetary processes which creates the tendency for a rate of increase in outlays which probably exceeds chronically the rate of increase of the tax base and there is a problem there which has to be addressed.

I don't think that endeavoring to constrict expenditures after they have been appropriated is a very useful activity because, as you know better than anyone, once you have an authorization and an appropriation process which pushes funds through the system, to try to reduce it at that point is exceptionally difficult.

So I have argued that if we are to go to a constitutional amendment—and I have done this fairly consistently over a long number of years—I would favor that we address this bias through the requirements of super majorities on both authorizations, appropriations and outlays, in an endeavor to require that you get programs which are considered effective and useful, that you require more than the standard majority. In my judgment, that would effectively reduce the bias and, accordingly, tend to create a much easier budgetary process in the future.

Chairman KANJORSKI. All right.

Mr. Chairman, we are going to soon get an opportunity to leave for lunch. I am going to ask you one more question.

As occurred on February 4 when the FOMC announced its determination to raise the rate, can we anticipate that this is a new procedure or process or precedent that you will follow in the future re-

garding meetings of the FOMC? That if there is an increase, it will be announced that day, or immediately after the meeting? Or do you intend to hold it as you have in the past until some future date? And if you could tell us why as to either.

Mr. GREENSPAN. As I mentioned in answer to one of the questions of your colleagues, the issue of precedent was not addressed in that decision. That is, we had a very specific reason at that specific time to decide that we wanted to have an announcement effect, as well as a rate effect, which we ordinarily have not done, indeed had never done, with respect to the Federal funds rate. That was not meant to be a precedent.

We are, however, discussing a number of these issues—and this reflects my conversation with Congressman Roth—that will go over these and make decisions, hopefully sooner rather than later, as to what our approach is going to be, and find ways, having rethought all of these things, to implement when we announce, what we announce, how we announce and the timeliness of various announcements.

Chairman KANJORSKI. I conclude from your testimony, Mr. Chairman, that you are more optimistic than you are pessimistic about the future of the economy, both short term and long term, and that you think that we are in better shape than we have been in several decades in terms of our economic house being in order; is that correct?

Mr. GREENSPAN. That is correct, Mr. Chairman.

Chairman KANJORSKI. Well, we hope that your reading of the tea leaves is correct, Mr. Chairman. We will have to stand by you as long as that authority rests on your shoulders.

Thank you for coming before the subcommittee and being as accommodating as you have been. Thank you very much.

Mr. GREENSPAN. Thank you.

[Whereupon, at 12:32 p.m., the hearing was adjourned.]



A P P E N D I X

February 22, 1994

## Opening Statement

### The Honorable Paul E. Kanjorski, Chairman Subcommittee on Economic Growth & Credit Formation Semi-Annual Hearing on the Conduct of Monetary Policy February 22, 1994

The Subcommittee meets today to receive the semi-annual report of the Board of Governors of the Federal Reserve System on economic and monetary policy as mandated under the Full Employment and Balanced Growth Act of 1978, popularly known as the Humphrey-Hawkins Act.

Under the Humphrey-Hawkins Act, the Federal Reserve is required to set forth:

1. A review and analysis of recent developments affecting economic trends in the Nation, including changes in the exchange rate;
2. The objectives and plans of the Board of Governors and the Federal Open Market Committee with respect to the ranges of growth or diminution of the money supply, taking into account past and prospective developments in employment, unemployment, production, investment, real income, productivity, international trade, and prices; and
3. The relationship between the Federal Reserve's plans and the short-term goals set forth in the most recent Economic Report of the President, and any goals set by the Congress.

I want to welcome Chairman Greenspan back before the Subcommittee today. Since we last met to discuss monetary policy in July there have been major developments in our nation, the economy, and at the Federal Reserve and the Federal Open Market Committee.

Much of the economic news of the last six months has been encouraging:

- **Inflation remains low** – In January the Consumer Price Index was unchanged. In the fourth quarter of 1993 it increased at an annual rate of only 1.9%; and for the last two years it has increased only 3% per year, the lowest rate in many years.
- **Labor costs, which are a good predictor of future inflation, remain stable** – Both Unit Labor Costs and the Employment Cost Index were unchanged in 1992 and 1993. Unit labor costs increased even more slowly than inflation, rising only 2% each year.

- **Unemployment continues to decline** – While last month's change in the way unemployment data is collected and reported make year-to-year comparisons more difficult, it is clear that the unemployment rate continues to drop, and total civilian employment continues to increase significantly. Just since President Clinton took office, total employment has grown by 3.5 million jobs.

- **The Gross Domestic Product (GDP) continues to grow** – GDP grew 2.9% in 1993. It grew at a rate of at least 4.5% in the second half of the year and preliminary data suggest it grew at between 5.9% and 7% in the fourth quarter of 1993. Furthermore, most of the growth came about as a result of increased sales, not as additions to inventory.

- **Until the Federal Reserves' actions of February 4, interest rates remained low** – At the end of 1993 interest rates for virtually all maturities hovered at, or below, the rates of six months and a year earlier. Stability was the watchword for interest rates in 1993. In 1993, for example the discount rate and the prime rate remained unchanged all year at 3% and 6% respectively, home mortgage rates dropped from 7.8% to 6.8%, and 3-month T-Bill rates never varied far off 3%.

- **Bank and thrift profits are up and the cost of the S&L clean-up is dropping** – The FDIC's Bank Insurance Fund (BIF) is back in the black, and S&L clean-up costs continue to decline, not increase. With the passage of the RTC Completion Act, it is expected that no additional tax dollars will be necessary to resolve past problems. In addition to a third consecutive quarter of record profits, assets and deposits at financial institutions have grown modestly, problem loans have decreased, and capital has increased. For the first three quarters of 1993, 95% of all banks were profitable and earned a total of \$31.4 billion, compared to the relatively small \$840 million lost by the 5% of banks that were unprofitable. And finally, but no less importantly,

- **The federal deficit is being significantly reduced** – Passage of President Clinton's deficit reduction bill has substantially reduced both current and future federal deficits.

While there has been progress on many fronts, areas of concern remain:

- **Commercial and industrial lending by banks remains stagnant** – Even with orders and new home construction up, total commercial lending by banks remains virtually unchanged.

- **The California earthquake and the unusual snow storms and cold weather in the East may depress first quarter economic activity** – Many businesses and individuals lost income and saw their energy costs increase substantially in January and early February.

- **The Fed increased the Federal Funds Rate by 1/4 of 1% on February 4 triggering an increase in short term interest rates and a 96 point drop in the Dow Jones industrial average.** The Dow's drop was the largest one-day drop in two years, and was not temporary, more than two weeks later the Dow is still 80 points, or 2%, below the level it closed on February 3. It is clear that stock and bond traders are very unsettled by recent developments.

In the words of one news report, "...it appears that rather than reassuring traders and investors, the Federal Reserve has managed to leave them with a worse case of the jitters."

What concerns me the most, and what I hope Chairman Greenspan will explain today, is; *Why did the Fed raise short term interest rates when there has been no evidence that inflation is increasing? In addition to the fact that the most recent CPI figures indicate that inflation is frozen in its tracks, inflation data is no worse today than it was when Chairman Greenspan last reported to us in July. In fact, actual inflation performance is at the absolute low end of the range Chairman Greenspan predicted last July.*

*Why did the Federal Reserve increase the Federal Funds Rate when inflation is at or below the rate you predicted? How are economic conditions today different from last July? If the inflation rate was not a problem in 1993, why is it suddenly a problem in 1994 when the basic rate remains unchanged?*

Like many Americans, I am concerned that the Federal Reserve's action may impede or even end our slow economic recovery. I know that Federal Reserve economists have models which predict the economic consequences of the Fed's February 4 action. I hope that Chairman Greenspan will describe for us today what the Fed's model projects, and that he will provide a detailed description of that model for the record.

Since the Federal Reserve has tightened monetary policy in the absence of data suggesting that inflation is increasing, it is incumbent on Chairman Greenspan to advise us what types of circumstances in the future would warrant similar action by the Fed? *If inflation remains at the 3% level, can we expect the Fed to raise the Federal Funds Rate again, or take other action to contract the money supply?*

Another area that concerns me is the Federal Open Market Committee's continued inability to meet its projections for M-2 and M-3 growth. Leaving aside the arguments over whether the FOMC's targets for M-2 and M-3 are too high or too low, or whether the range the FOMC uses for its projections is too wide, it astounds me that the FOMC consistently fails in any meaningful way to keep M-2 and M-3 in the ranges they predict. Furthermore, in recent years the FOMC is consistently below the range it predicts.

This inability to meaningfully meet broad targets which the Federal Reserve itself selects does not inspire confidence in the Fed.

*Chairman Greenspan, why isn't the Fed doing a better job of meeting its monetary targets?*

If, as Chairman Greenspan has reported to us on several occasions, the Fed has less confidence than in the past in the value of M-2 and M-3 as economic indicators, I hope he will also report to us today on *what steps the Fed is taking to identify or define an acceptable substitute*. We need to know what measuring sticks the Fed is using, so that we can evaluate the performance of the economy, as well as the performance of the Fed.

Finally, the Federal Reserve has been very vocal in recent months in suggesting that it is imperative that the Fed continue in its role as a regulator of financial institutions and that banks should be able to choose not only whether they have a federal or a state charter, but also whether their primary federal regulator should be the Federal Reserve or the Administration's proposed Federal Banking Commission.

Some critics have suggested that the three-way regulatory scheme advocated by the Fed perpetuates unnecessary overlap and duplication, and also makes it easier for financial institutions to play one regulator off against another. Many of these same critics contend that this "least common denominator" approach to financial regulation was a major contributor to the S&L crisis.

*In what other regulated industry does the regulated entity not only get to choose between federal and state regulation, but also gets to choose which federal regulator they want? What makes bank regulation so different from securities regulation, food and drug regulation, and nuclear power plant regulation? What public purpose is served by allowing banks a choice that other regulated industries do not have?*

Again, let me welcome you back before the Subcommittee, Chairman Greenspan. There are clearly a number of important issues which we must discuss, and I look forward to hearing your testimony.

For use at 10:00 a.m. EST  
Tuesday  
February 22, 1994

Testimony by

Alan Greenspan

Chairman

Board of Governors of the Federal Reserve System

before the

Subcommittee on Economic Growth and Credit Formation

of the

Committee on Banking, Finance and Urban Affairs

U.S. House of Representatives

February 22, 1994

Mr. Chairman and members of the Subcommittee, I am pleased to appear today to present the Federal Reserve's semiannual monetary policy report to the Congress.

In the seven months since I gave the previous Humphrey-Hawkins testimony, the performance of the U.S. economy has improved appreciably. Private-sector spending has surged, boosted in large part by very favorable financial conditions. With mortgage rates at the lowest level in a quarter century, housing construction soared in the latter part of 1993. Consumer spending, especially on autos and other durables, has exhibited considerable strength. Business fixed investment has maintained its previous rapid growth. Important components of GDP growth in the second half of last year represented one-time upward adjustments to the level of activity in certain key sectors, and, with output in these areas unlikely to continue to climb as steeply, significant slowing in the rate of growth this year is widely expected. In addition, the Southern California earthquake and severe winter weather may have dulled the force of the favorable trends in spending in January and February. Nonetheless, as best we can judge, the economy's forward momentum remains intact.

The strengthening of demand has been accompanied by favorable developments in labor markets. In the second half of the year, employment continued to post moderate gains, and the unemployment rate fell further, bringing its decrease over the full year to nearly 1 percentage point. The unemployment rate in January apparently declined again on both the old and new survey bases.

On the inflation front, the deterioration evident in some indicators in the first half of 1993 proved transitory. For the year as a whole, the Consumer Price Index rose 2-3/4 percent, the smallest

increase since the big drop in oil prices in 1986. Broader inflation measures covering purchases by businesses as well as consumers rose even less. While declining oil prices contributed to last year's good readings, inflation measured by the CPI excluding food and energy also diminished slightly further, to just over a 3 percent rate for the whole year. In January the CPI remained quite well behaved on the whole. Not all signs have been equally favorable, however. For example, a number of commodity prices have firmed noticeably in recent months. And indications that such increases may be broadening engendered a back-up in long-term interest rates in recent days. In particular, the Philadelphia Federal Reserve Bank's survey showing a marked increase in prices paid by manufacturers early this year was taken as evidence of a more general emergence of inflation pressures.

It is important to note, however, that in the past such price data have often been an indication more of strength in new orders and activity than a precursor of rising inflation throughout the economy. In the current period, overall cost and price pressures still appear to remain damped. Wages do not seem to be accelerating despite scattered reports of some skilled-worker shortages, and advances in productivity early this year are holding down unit labor costs. Moreover, while private borrowing has picked up, broad money--to be sure a highly imperfect indicator of inflation in recent years--has continued to grow slowly.

Nonetheless, markets appear to be concerned that a strengthening economy is sowing the seeds of an acceleration of prices later this year by rapidly eliminating the remaining slack in resource utilization. Such concerns were reinforced by forecasts that recent



data suggest that revised estimates of fourth-quarter GDP to be released next week will show upward revisions from the preliminary 5.9 percent annual rate of growth. Rapid expansion late last year, it is apparently feared, may carry over into a much smaller deceleration of activity in 1994 than many had previously expected.

But it is too early to judge the degree of underlying economic strength in the early months of 1994. Anecdotal evidence does indicate continued underlying strength in manufacturers' new orders and production, but we will have a better reading on new orders on Thursday when preliminary data for January are released. The labor markets are signalling a somewhat less buoyant degree of activity as initial claims for unemployment insurance in recent weeks have moved up a notch. Clearly, the Federal Reserve will have to monitor carefully ongoing developments for indications of potential inflation or a strengthening in inflation expectations. As I have often noted, if the Federal Reserve is to promote long-term growth, we must contribute, as best we can, to keeping inflation pressures contained.

In this regard, a clear lesson we have learned over the decades since World War II is the key role of inflation expectations in the inflation process and in the overall performance of the macroeconomy. As I indicated in my testimony before the Joint Economic Committee last month, until the late 1960s, economists often paid inadequate attention to expectations as a key determinant of inflation. Unemployment and inflation were considered simple tradeoffs. A lower rate of unemployment was thought to be associated with a higher, though constant, rate of inflation; conversely, a higher rate of unemployment was associated with a lower rate of inflation.

But the experience of the past three decades has demonstrated that what appears to be a tradeoff between unemployment and inflation is quite ephemeral and misleading. Attempts to force-feed the economy beyond its potential have led in the past to rising inflation as expectations ratcheted higher and, ultimately, not to lower unemployment, but to higher unemployment, as destabilizing forces and uncertainties associated with accelerating inflation induced economic contraction. Over the longer run, no tradeoff is evident between inflation and unemployment. Experience both here and abroad suggests that lower levels of inflation are conducive to the achievement of greater productivity and efficiency and, therefore, higher standards of living.

In fact, lower inflation historically has been associated not just with higher levels of productivity, but with faster growth of productivity as well. Why inflation and productivity growth are linked this way empirically is not clear. To some extent higher productivity growth may help to damp inflation for a time by lessening increases in unit labor costs. But the process of cause and effect in all likelihood runs the other way as well. Lower inflation and inflation expectations reduce uncertainty in economic planning and diminish risk premiums for capital investment. They also clarify the signals from movements in relative prices, and they encourage effort and resources to be devoted to wealth creation rather than wealth preservation. Many people do not have the knowledge of, or access to, ways of preserving wealth against inflation; for them, low inflation avoids an inequitable erosion of living standards.

The reduced inflation expectations of recent years have been accompanied by lower bond and mortgage interest rates, slower actual

inflation, falling unemployment, and faster trend productivity growth. The implication is clear: when it comes to inflation expectations, the nearer zero, the better.

It follows that price stability, with inflation expectations essentially negligible, should be a long-run goal of macroeconomic policy. We will be at price stability when households and businesses need not factor expectations of changes in the average level of prices into their decisions. How those expectations form is not always easy to discern, and they can for periods of time appear to be at variance with underlying economic forces. But history tells us that it is economic and financial forces and their consequences for realized inflation that ultimately shape inflation expectations.

Fiscal and monetary policy are important among those forces and have contributed to the decline in inflation expectations in recent years along with decreases in long-term interest rates. The actions taken last year to reduce the federal budget deficit have been instrumental in this regard. Although we may not all agree on the specifics of the deficit reduction measures, the financial markets are apparently inferring that, on balance, the federal government will be competing less vigorously for private saving in the years ahead. Concerns that the deficit is out of control have diminished. In the extreme, explosive federal debt growth makes an eventual resort to the printing press and inflationary finance difficult to resist. By shrinking any perceived risk of this outcome, the deficit reduction package apparently had a salutary effect on longer-term inflation expectations.

The Federal Reserve's policies in recent years also have helped to damp inflation and inflation expectations. We were able to

do so, even while adopting an increasingly accommodative policy stance. By placing our actions in the context of a thorough analysis of the prevailing situation and of a longer-term underlying strategy, our move to greater accommodation could be seen as what it was--a deliberate effort to counter the various "headwinds" that were retarding the advance of the economy rather than a series of short-term actions taken without consideration for potential inflation consequences over time.

As I discussed with this Subcommittee last July, this longer-run strategy implies that the Federal Reserve must take care not to overstay an accommodative stance as the headwinds abate. But determining when a policy stance is becoming too accommodative is not an easy matter. Unfortunately, although subdued inflation is the hallmark of a successful monetary policy, current broad inflation readings are actually of limited use as a guide to the appropriateness of current instrument settings. Patently, price measurements over short time spans are subject to transitory special factors. More important, monetary policy affects inflation only with a significant lag. That a policy stance is overly stimulative will not become clear in the price indexes for perhaps a year or more. Accordingly, if the Federal Reserve waits until actual inflation worsens before taking countermeasures, it would have waited far too long. At that point, modest corrective steps would no longer be enough to contain emerging economic imbalances and to avoid a build-up of inflation expectations and a significant back-up of long-term interest rates. Instead, more wrenching measures would be needed, with unavoidable adverse side effects on near-term economic activity.

Inflation expectations likely have more of a forward-looking character than do measures of inflation itself, and, in principle, could be used as a direct guide to policy. But available surveys have limited coverage and are subject to sampling error. As I have testified previously, price-indexed bonds of various maturities, which would indicate underlying market inflation expectations, would be a useful adjunct to our information base for making monetary policy, providing there were a sufficiently broad and active market for them. In addition, the price of gold, which has been especially sensitive to inflation concerns, the exchange rate, and the term structure of interest rates can give important clues about changing expectations.

Of course, a number of factors in addition to inflation expectations affect all of these indicators to a degree. Short- and long-term rates, for example, tend to be highly correlated through time, in part because they are responding to the same business cycle pressures. Thus, when the Federal Reserve tightens reserve market conditions, it is not surprising to see some upward movement in long-term rates, as an aspect of the process that counters the imbalances tending to surface in the expansionary phase of the business cycle. The test of successful monetary policy in such a business-cycle phase is our ability to limit the upward movement of long-term rates from what it would otherwise have been with less effective policy. Moderate to low long-term rates, with rare exceptions, are an essential ingredient of sustainable long-term economic growth. When we take credible steps to head off inflation before it can begin to intensify, the effects on long-term rates are muted. By contrast, when Federal Reserve action is seen as lagging behind the need to counter a buildup of inflation pressures, long rates have tended to move sharply higher.

as eventually happened in the late 1970s. This suggests an important conclusion: Failure to tighten in a timely manner will lead to higher than necessary nominal long-term rates as inflation expectations intensify. Ultimately, short-term rates will be higher as well if policy initiatives lag behind inflation pressures. The higher short-term rates are required not only to take account of rising inflation expectations, but also to provide the additional restraint on real rates necessary to reverse the destabilizing inflation process.

For decades, the monetary aggregates, especially M2, provided generally reliable early warning signals of emerging inflationary imbalances. But, as I have discussed in detail in previous testimonies and will touch on later in this statement, the signals they have sent in recent years have been effectively jammed by structural changes in financial markets and the unusual nature of the current business cycle.

Our monetary policy strategy must continue to rest, then, on ongoing assessments of the totality of incoming information and appraisals of the probable outcomes and risks associated with alternative policies. Our purpose over the longer run is to help the economy grow at its greatest potential over time. To do so, we must move toward a posture of policy neutrality--that is, a level of real short-term rates consistent with sustained economic growth at the economy's potential. That level, of course, is difficult to discern and, obviously, is not a fixed number but moves with developments within the economy and financial markets.

Over a period of several years starting in 1989, the Federal Reserve progressively eased its policy stance, in the process reducing real short-term interest rates to around zero by the autumn of 1992.

We undertook those easing actions in response to evidence of a variety of unusual restraints on spending. Households and nonfinancial businesses on the borrowing side and many lenders, including depository institutions, were suffering from balance-sheet strains. These difficulties stemmed from previous overleveraging combined with reductions in net worth from impairments to asset quality, through, for example, falling values of commercial real estate. Corporate restructuring and defense cutbacks compounded the problems of the economy by reducing job opportunities and fostering a more general sense of insecurity about employment prospects.

The deliberate maintenance of low short-term rates for a considerable period was intended to decrease the drag on the economy created by these headwinds. Households and businesses could refinance outstanding debt at much reduced interest cost. In addition, lower rates and improved performance by borrowers would take the pressure off of depository institutions, helping them recapitalize. Low interest rates, along with reduced financial strains, would encourage private spending to pick up the slack left by defense cutbacks. Once financial positions were well on the road to recovery, and employment and confidence began to recover, it was believed that the economic expansion would gain self-sustaining momentum. At that point abnormally low real short-term real rates should no longer be needed.

As the Federal Open Market Committee (FOMC) surveyed the evidence at its February 4 meeting, a consensus developed that the balance of risks had, in fact, shifted. Debt repayment burdens had been lowered enough to unleash strong aggregate demand in the economy. Real short rates close to zero appeared to pose an unacceptable risk of engendering future problems. We concluded that our policy stance

could be made slightly less accommodative without threatening either the continued improvement in balance-sheet structures or, ultimately, the achievement of solid economic growth. Indeed, the firming in reserve market pressures was undertaken to preserve and protect the ongoing economic expansion by forestalling a future destabilizing buildup of inflationary pressures, which in our judgment would eventually surface if the level of policy accommodation that prevailed throughout 1993 were continued indefinitely. We viewed our move as low-cost insurance.

The projections of the FOMC members suggest a continuation of good economic performance in 1994, with reasonable growth and subdued inflation. The central tendencies of the economic forecasts made by governors and Bank presidents imply expectations that economic growth this year likely will be 3 percent or slightly higher. With this kind of growth, a further edging down of the unemployment rate from its January reading is viewed as a distinct possibility. Inflation, as measured by the overall CPI, is seen as rising only a little compared with 1993, even though last year's benefit from falling oil and tobacco prices may not be repeated, and last year's crop losses could buoy food prices in 1994.

There are, of course, considerable risks to this generally favorable outlook. Some observers have pointed to downside risks to economic activity associated with fiscal restraint and weak foreign economies; I believe these factors will have some effects, but they are likely to be less than feared. As for fiscal restraint, a good portion of the negative impact of last year's budget bill may already be behind us, as some households and businesses have adjusted their



behavior to the new structure of taxes and to curtailments in defense and other budget programs.

The concern about weak foreign economies relates to the strength of foreign demand for U.S. exports going forward. Many of our major trading partners have been experiencing economic difficulties. But some already appear to be pulling out of recession and a number of others seem to have improved prospects. Moreover, containing inflation will keep increases in production costs of traded goods made in the United States subdued, so that our products will remain competitive in world markets. With competitive goods and an improving world economy, the growth of U.S. exports should strengthen this year, lessening the drag from the external sector on our output growth.

There are upside risks as well. Inventories have reached a low level relative to sales, suggesting the possibility of a boost to production from inventory rebuilding beyond that currently anticipated. In addition, with both borrowers and lenders in stronger financial condition, low interest rates have proven a powerful stimulant to spending. While we were reasonably convinced at the last FOMC meeting that a zero real federal funds rate put real short rates below a "neutral" level, we cannot tell this Subcommittee, with assurance, precisely where the level of neutrality currently resides. To promote sustainable growth, history suggests that real short-term rates are more likely to have to rise than fall from here. I cannot, however, tell you at this time when any such rise would occur; I would hope that part of any increase in real short-term rates ultimately would be accomplished through further declines in inflation expectations rather than through higher nominal short-term rates.

In assessing our policy stance, we will continue to monitor developments in money and credit, but in 1994 as in 1993 the FOMC is unlikely to be able to put a great deal of weight on the behavior of these aggregates relative to their ranges. We have set the ranges as best we can in an evolving financial situation to be consistent with our objectives for sustained growth and low inflation.

Based on our experience in 1993 and expectations about financial relationships for 1994, the FOMC judges that the growth of money and credit this year will stay within the annual ranges set provisionally last July, which were reaffirmed at its meeting early this month. Specifically, these ranges call for growth of 1 to 5 percent for M2, 0 to 4 percent for M3, and 4 to 8 percent for domestic nonfinancial sector debt. The ranges are the same as the final specifications established last July for 1993.

The final specifications for last year had gone through two rounds of technical downward adjustment after they were first set provisionally in July 1992. These downward revisions reflected the FOMC's recognition that the relationship between spending and money holdings was departing markedly from historical norms. Financial intermediation was moving away from past patterns, as flows of funds were increasingly being rechanneled away from banks toward securities markets, notably via bond and stock mutual funds. Also, banks were relying more heavily on nondeposit funding sources, such as equity and subordinated debt, as they strengthened their capital positions.

In the event, growth of M2 and M3 last year came in above the lower bounds of their reduced ranges with only 1/2 percentage point to spare. M2 grew at 1-1/2 percent and M3 at 1/2 percent over the year as a whole. Even so, nominal GDP advanced more than 5 percent over

the year, extending rapid increases in the velocities of broad money through another year. The discrepancy between the growth rates of nominal GDP and broad money diminished some from that of 1992, but was still unusual in the face of steady short-term interest rates.

Somewhat faster growth of M2 and M3 this year than last year may be in prospect. The governors' and presidents' outlook calls for a small stepup in nominal spending, and the factors depressing growth of the broader aggregates relative to the expansion of spending could well abate to some degree. In particular, the diversion of savings from retail deposits and money funds toward bond and stock mutual funds may lessen, as household portfolios more fully complete the adjustment to the latter's heightened availability. Now that banks have achieved healthier capitalization, they may more readily issue large time deposits instead of equity and subordinated debt to support stepped-up loan growth. Just how far these developments will go, however, is difficult to predict, so the prospective relationship between spending and broad money remains highly uncertain. The FOMC will continue to monitor the behavior of money supply measures for evidence about underlying economic and financial developments more generally, but it will still have to base its assessments regarding appropriate policy actions on a wide variety of economic indicators.

Among those indicators, the Federal Reserve will again pay attention to credit market developments, especially for any light they can shed on the strength of household and corporate balance sheets and spending propensities. The overall debt aggregate put in a repeat performance last year, again growing by around 5 percent, even as the advance of nominal GDP moderated to a similar pace. But this steady

debt growth incorporated an upturn in private borrowing, as the borrowing of the federal government slackened. Households in particular showed a heightened willingness to take on debt to help finance strong purchases of homes and consumer durables. At the same time, massive mortgage refinancings at much reduced interest rates contributed to further reductions in household debt-service burdens relative to income to a level last seen in the mid-1980s. For businesses as well, the bite taken out of cash flow by interest payments was shrunk to a size last observed in the mid-1980s, partly through the refinancing of higher-cost debt and continued equity issuance. Although business borrowing firmed a little, it remained subdued, as enough internal funds were available to finance the bulk of hefty capital expenditures.

Looking ahead, federal borrowing is scheduled to diminish further this year, partly reflecting deficit reduction measures. Borrowing by nonfederal sectors should continue to strengthen, prodded by the anticipated pickup in nominal GDP and the healthier financial condition already attained by households and businesses.

In conclusion, the Federal Reserve has welcomed both the strengthening in activity and the generally subdued price trends, because the intent of our monetary policy in recent years has been to foster precisely this kind of healthy economic performance. Looking forward, our policy approach will be to endeavor to select on a continuing basis the monetary instrument settings that will minimize economic instabilities and maximize living standards over time. The outlook, as a result of subdued inflation and still low long-term interest rates, is the best we have seen in decades. It is important

that we do everything we can to turn that favorable outlook into reality.

**For use at 10:00 a.m., E.S.T.  
Tuesday  
February 22, 1994**

**Board of Governors of the Federal Reserve System**



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**Monetary Policy Report to the Congress  
Pursuant to the  
Full Employment and Balanced Growth Act of 1978**

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**February 22, 1994**

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## Letter of Transmittal

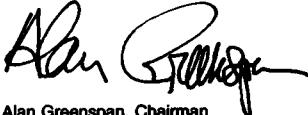
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BOARD OF GOVERNORS OF THE  
FEDERAL RESERVE SYSTEM  
Washington, D.C., February 22, 1994

THE PRESIDENT OF THE SENATE  
THE SPEAKER OF THE HOUSE OF REPRESENTATIVES

The Board of Governors is pleased to submit its Monetary Policy Report to the Congress, pursuant to the Full Employment and Balanced Growth Act of 1978.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Greenspan", with a long horizontal flourish extending to the right.

Alan Greenspan, Chairman

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## Section 1: Monetary Policy and the Economic Outlook

Nineteen ninety-three turned out to be a favorable year for the U.S. economy, with notable gains in real output, declines in joblessness, and a further small drop in the rate of inflation. Financial conditions conducive to growth prevailed throughout 1993 and gave considerable impetus to activity. With the Federal Reserve keeping reserve market pressures unchanged, short-term interest rates held steady during the year at unusually low levels, especially when measured relative to inflation or inflation expectations. In addition, long-term rates declined further, partly in response to actions taken by the Congress and the Administration to put the federal deficit on a more favorable trend.

Against this backdrop, households and businesses were able to take further steps to reduce the burden of servicing debt, and more expansive attitudes toward spending and the use of credit seemed to take hold. Spending in the interest-sensitive sectors of the economy surged ahead, with particularly large advances in residential investment, business outlays for fixed capital, and consumer durables. The growth of real GDP picked up sharply in the second half, and the increases for all of 1993 cumulated to about 2¾ percent according to initial estimates. In the labor market, employment moved up at a moderate pace, and the unemployment rate dropped almost a percentage point over the year. As measured by the consumer price index, the rate of inflation edged lower last year, as unfavorable reports in the first few months of 1993 gave way to more subdued readings thereafter. The performance of the U.S. economy stood in sharp contrast to the continued sluggish growth in many of the other industrial countries and helped to buoy the trade-weighted value of the dollar on foreign exchange markets.

In conducting policy through 1993, the Federal Open Market Committee recognized that it was maintaining a very accommodative stance in reserve markets. Reserve conditions had been eased to this degree over the prior four years to counter the effect of some unusual factors restraining aggregate demand. The Committee recognized that, as these forces abated, short-term interest rates would likely have to rise to forestall inflationary pressures that would eventually undermine the expansion.

Toward the end of 1993 and into early 1994, incoming data on the economy and credit flows have increasingly conveyed a picture of considerable underlying strength. The marked speedup of growth in the economy has been reducing spare capacity, as

is evident in the recent declines in unemployment and increases in capacity utilization rates in industry. Moreover, while movements in broadly based price indexes have remained relatively favorable, there also have been undercurrents suggesting that the process of disinflation might be stalling out. In particular, after slowing considerably in 1992, nominal increases in hourly compensation—comprising wages and benefits—fell no further in 1993, and long-term inflation expectations remain stubbornly above recent inflation rates. Also, commodity prices generally have firmed in recent months.

Earlier this month, the Federal Reserve concluded that the weight of the evidence indicated that undiminished monetary stimulus posed the threat that capacity pressures would build in the foreseeable future to the point where imbalances would develop and inflation would begin to pick up. At its February 1994 meeting, the Federal Open Market Committee determined that it was time to move to a slightly less accommodative stance. While the discount rate remained at 3 percent, the federal funds rate edged up to trade around 3¼ percent, a little above the prevailing rate of inflation.

Strength in spending last year was supported by increased borrowing by both households and businesses. Continuing declines in a number of interest rates, which sparked considerable refinancing of existing obligations, helped to trim debt service burdens for both sectors, undoubtedly facilitating the pickup in borrowing and spending. Indicators of financial stress, including loan default rates and bankruptcy filings, took a decided turn for the better in 1993. Borrowing by households was robust enough to raise the ratio of debt to disposable income; business debt, held down in part by equity issuance, declined relative to income. The debt of all nonfinancial sectors is estimated to have grown about 5 percent last year, the same as in 1992, as a diminution in the net funding needs of the federal government was about offset by the pickup in private demands. This growth placed the debt aggregate in the lower half of its 4 to 8 percent monitoring range.

The growth of M2 slowed in 1993, albeit considerably less than the deceleration in nominal GDP. For the year, M2 advanced 1½ percent, placing it a little above the lower bound of its 1 to 5 percent annual growth cone. M3 expanded ½ percent, the same pace as in 1992, and a bit above the lower bound of its 0 to 4 percent annual range. The ranges had been adjusted

**Ranges for Growth of Monetary and Debt Aggregates<sup>1</sup>**

Percent

Aggregate	1992	1993	1994
M2	2½–6½	1–5	1–5
M3	1–5	0–4	0–4
Debt <sup>2</sup>	4½–8½	4–8	4–8

1. Change from average for fourth quarter of preceding year to average for fourth quarter of year indicated. Ranges for monetary aggregates are targets; range for debt is a monitoring range.

2. Domestic nonfinancial sector.

down by the Federal Open Market Committee during 1993. The adjustments were technical in nature and reflected the Committee's judgment as to the extent of the ongoing distortions of financial flows relative to historical patterns, and of consequent increases in velocities—that is, the ratios of nominal GDP to money.

The special factors shaping the growth of the monetary aggregates included a marked preference by borrowers for capital market financing, rather than bank loans, and a configuration of market returns that enticed investors away from the traditional financial products offered by depositories. Bond and stock mutual funds were the primary beneficiaries of this shift, with inflows into such funds in 1993 setting a new record. This continuing redirection of credit flows has rendered the movements of the broad monetary aggregates less representative of the pace of nominal spending than was evident in the longer historical record. In 1993, nominal GDP grew a shade more than 5 percent, or ¾ percentage points above the rate of expansion of M2 and ½ percentage points above that of M3.

Most of the increase in the broad aggregates was recorded in their M1 component, which grew 10½ percent in 1993, as low money market and deposit interest rates provided little reason to forgo the liquidity of transaction deposits. At times during the year, declines in longer-term market rates produced waves of mortgage refinancing, an activity that is associated with temporary flows through the transaction deposits that are counted in M1. In addition, the currency component expanded at about the same rate as the M1 total, spurred by considerable demands from abroad. The double-digit expansion in M1 deposits pushed reserves up at a 12½ percent rate in 1993, while the monetary base, which includes

reserves and currency, increased 10½ percent, the same rate that was posted in the previous year.

**Money and Debt Ranges for 1994**

At its July 1993 meeting, the Committee had provisionally chosen the same ranges for 1994 as it had established for 1993—1 to 5 percent for M2 and 0 to 4 percent for M3 and a monitoring range of 4 to 8 percent for the domestic nonfinancial debt aggregate. At that time, the Committee noted that disturbances to the historical relationships between the aggregates and spending required that the actual determination of these ranges for 1994, in February of this year, be made in light of additional experience and analysis.

As noted above, the velocities of M2 and M3 increased further in 1993, but at a slower rate than in the previous year. This deceleration might indicate that the forces that had distorted the aggregates over the past few years, while still potent, were beginning to wane. The yield curve, although quite steep, now offers investors less inducement to move outside M2 in the search for better returns than at any time in the past three years. Additionally, firms, having strengthened their financial positions, may feel more comfortable taking on shorter-term obligations and, so, may direct more of their business to depositories. Banks, which are better capitalized and more liquid, should be in a strong position to meet those needs. Still, capital markets will provide attractive alternatives to the depository sector, suggesting that the forces tending to divert funds from depositories—and to raise the velocities of the monetary aggregates—will continue to be important. However, the strength of these forces, and whether or how quickly they might be abating, remains difficult to judge.

**Economic Projections of FOMC Members and Other FRB Presidents for 1994**  
Percent

Item	Range	Central tendency
<i>Change, fourth quarter to fourth quarter<sup>1</sup></i>		
Nominal GDP	4¾–7½	5½–6
Real GDP	2½–3¾	3–3¾
Consumer price index <sup>2</sup>	2¼–4	About 3
<i>Average level, fourth quarter</i>		
Civilian unemployment rate <sup>3</sup>	6½–6¾	6½–6¾

1. Change from average for fourth quarter of preceding year to average for fourth quarter of year indicated.

2. All urban consumers.  
3. Civilian labor force.

Against this background, the Federal Open Market Committee at its most recent meeting reaffirmed the annual growth ranges for the money and credit aggregates that had been chosen provisionally last July. The annual ranges appear to be sufficiently wide to encompass growth of M2 and M3 consistent with Committee members' expectations for nominal income under a variety of alternatives for the behavior of the velocities of the aggregates. If the forces depressing the demand for money relative to income were to persist unabated in 1994, M2 and M3 might be in the lower portion of their cones; should M2 and M3 move closer to their former alignments with spending—buoying the demands for those aggregates and depressing their velocities—then outcomes in the upper portion of the ranges would be expected. The Committee will watch the monetary aggregates closely during the course of the year for evidence on unfolding economic and financial conditions. But, given uncertainties about velocity behavior, that information will necessarily be assessed in combination with a variety of other financial and economic indicators as the Committee formulates policy. Through 1994, as was true last year, the Committee's primary concern will be to foster financial conditions that help to contain price pressures and to sustain economic expansion, and it will have to assess the rates of money growth consistent with these objectives as the year goes on.

Debt growth, which has moved in closer alignment with nominal income over the past few years than have the monetary aggregates, will again be monitored in light of a 4 to 8 percent annual range. With the federal sector's demands on the pool of

saving diminishing, the Committee envisions that an unchanged range would be associated with some pickup in borrowing by the private sector. Healthier balance sheets, lighter debt service burdens, heavier capital spending, and more eager lenders should all act to boost the expansion of nonfederal debt. Overall, the debt of the nonfinancial sectors is expected to grow again at about the pace of nominal income.

#### **Economic Projections for 1994**

In general, the governors and Reserve Bank presidents anticipate that 1994 will be another year of progress for the economy, with low inflation and financial market conditions continuing to provide a setting conducive to sustaining moderate economic growth and rising employment opportunities.

The Federal Reserve officials' forecasts of real GDP growth over the four quarters of 1994 span a range of 2½ percent to 3¾ percent, with the central tendency of the forecasts being 3 to 3¾ percent. The governors and Reserve Bank presidents anticipate that the rise in real GDP will be accompanied by a further increase in labor productivity. Nonetheless, employment gains are expected to be sufficient to bring about some further reduction in the degree of labor market slack over the four quarters of the year. Forecasts of the unemployment rate in the fourth quarter of 1994 span a range of 6½ percent to 6¾ percent. Because of changes in survey design, a comparable rate for the fourth quarter of last year is not available; however, the Bureau of Labor Statistics has estimated that the fourth-quarter rate would have exceeded 7 percent on the new basis.

The sectoral composition of growth in 1994 may well resemble that of 1993. The financial adjustments of recent years have left households better positioned and more willing to boost spending. Moreover, with employment rising, real income growth should be supportive of increased consumer expenditures in the coming year, despite the higher taxes confronting some households. Business investment seems likely to be pushed ahead by ongoing efforts to modernize and by further declines in computer prices. By contrast, further cuts in federal outlays for defense likely will continue to be a restraining factor on the growth of aggregate demand. With the passage of time, the more accommodative monetary policies now in place in a number of countries, together with the moderate fiscal stimulus in Japan, are likely to lead to a gradual pickup in the rates of growth of foreign industrial countries and U.S. exports. However, U.S. imports from abroad will likely continue to move up at a brisk pace. Net exports of goods and services thus may decline somewhat further, albeit at a slower rate than they have over the past year.

The majority of the governors and Bank presidents expect inflation in 1994 to run a shade higher than in 1993. Most of their forecasts for the rise in the consumer price index are close to 3 percent, although the full range of forecasts extends from a low of 2¼ percent to a high of 4 percent. Several developments are likely to work against better inflation performance in 1994. In agriculture, a poor harvest in 1993 has left some crops in very tight supply, and the risk of unfavorable food price developments is greater than it has been in recent years. In addition, although the future course of energy prices is uncertain, a repeat of last year's declines, which helped to hold down the overall CPI, cannot be counted on. More fundamentally, the recent narrowing of the degree of slack in the labor and product markets suggests that competitive pressures damping wage and price increases will be less strong and less pervasive than they have been recently.

The central tendencies of the forecasts of GDP growth, unemployment, and inflation are quite similar to the projections put forth by the Administration in its recent reports. Moreover, insofar as the Administration's numbers were predicated, in part, on the assumption that short-term interest rates would rise modestly in 1994, the recent tightening action by the Federal Reserve does not appear to be inconsistent with the Administration's outlook.

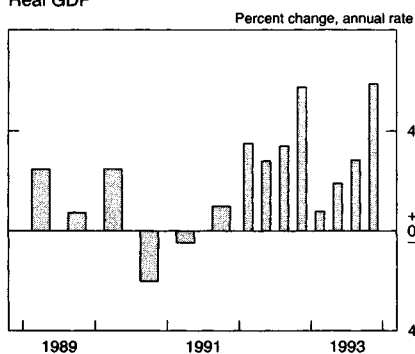
Prospects for sustained growth over the longer run have been bolstered by policy actions on a number of fronts. Considerable work remains to be done, however. Although recent fiscal measures have been helpful in bringing about declines in the federal budget deficit, the Congress and the Administration still must deal with some difficult issues to ensure that the deficit is kept on a downward course through the latter part of the 1990s and into the next century. In the area of trade policy, the nation's long-standing support of an open world trading system was reaffirmed this past year in the form of passage of the North American Free Trade Agreement and the agreement in the Uruguay Round—actions that will yield important benefits over time not only to the United States but also to its trading partners. Nonetheless, serious obstacles to free trade still remain. On a wide range of regulatory issues, the Congress and the Administration face decisions that have the potential to promote—or to damage—the flexibility in labor and product markets and the processes of innovation and investment that are so critical to long-run economic progress. In the area of monetary policy, the challenge is to build on the favorable price performance of late in a situation in which the economy will likely be operating closer to full capacity than it has in recent years. With success in keeping the economy on course toward the long-run goal of price stability, the prospects for sustained expansion will be greatly enhanced.

## Section 2: The Performance of the Economy in 1993

The economy recorded significant gains in 1993, lifted, as in 1992, by a surge in activity in the latter part of the year. Job creation picked up, and the unemployment rate fell appreciably. Inflation continued to trend lower.

The rise in real GDP over the year amounted to 2.8 percent, according to the Commerce Department's first estimate. For a second year, the growth of activity was propelled chiefly by rapid gains in the investment outlays of households and businesses. Households boosted their purchases of homes and motor vehicles considerably, and spending for household durables also rose rapidly. Business investment in computers continued to grow at an extraordinary pace in 1993, and outlays for other types of capital equipment strengthened. Investment in nonresidential structures, which had gone through a protracted decline in the latter part of the 1980s and early 1990s, rose moderately last year. Bolstered by the gains in these sectors, the four-quarter rise in the final purchases of households and businesses amounted to about 5 percent in real terms in 1993, matching the large 1992 rise. Not since the 1983-84 period had private final purchases exhibited a comparable degree of strength.

Real GDP



The increase in private spending in 1993 was augmented by a pickup in the spending of state and local governments, especially for construction. By contrast, real federal purchases of goods and services—the part of federal spending that is included in GDP—fell sharply, as outlays for national defense continued to

trend lower. The federal budget deficit declined somewhat in fiscal 1993, but remained quite large both in absolute terms and relative to nominal GDP. The combined deficit in the operating and capital accounts of state and local governments increased further.

Growth of the economy continued to be significantly influenced in 1993 by the changing patterns of transactions with foreign economies. The weakness of activity in a number of foreign countries that are major trading partners of the United States tended to slow the rise of U.S. exports of goods and services. At the same time, a significant portion of the rise in domestic spending in this country continued to translate into rapid increases in imports. Net exports of goods and services thus fell for the second year in a row, after a run of several years in which real export growth had outpaced the growth of real imports by a considerable margin.

The CPI rose 2.7 percent over the four quarters of 1993, after increases of about 3 percent in both 1991 and 1992. Price increases were damped last year by falling oil prices, near-stable prices for nonoil imports, and a further rise in labor productivity, which held down production costs in the domestic economy.

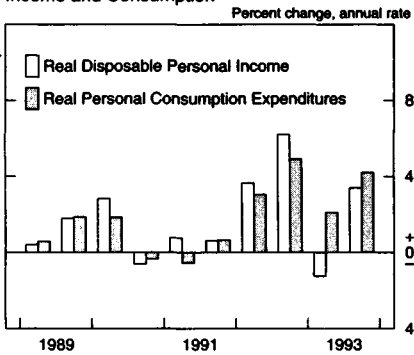
### The Household Sector

Consumer spending recorded a second year of brisk growth in 1993. Support for the rise in expenditures came from declines in interest rates and moderate increases in real incomes. Household balance sheets continued to strengthen in 1993 and debt servicing burdens diminished, easing the financial strains that had inhibited spending earlier in the 1990s.

In real terms, the 1993 advance in personal consumption expenditures amounted to about 3 percent, measured to the year's fourth quarter from the fourth quarter of the previous year. After surging in late 1992, growth of real outlays slowed in the first quarter of 1993. Whatever tendency there may have been for a "payback" after a period of unusually rapid growth was reinforced by a severe late-winter storm on the East Coast, which temporarily hurt retail sales. Thereafter, spending proceeded at a relatively strong pace over the remaining three quarters of the year.

Consumer expenditures for motor vehicles increased 6 percent in real terms over the four quarters of 1993, after rising 9 percent the previous year. The advance in expenditures continued to come partly

## Income and Consumption



from the replacement needs of persons who had put off buying vehicles earlier in the 1990s, as well as from growth in consumers' desired stock of vehicles. Increasingly, buyers have opted for vans, light trucks, and other vehicles instead of cars, and annual sales of these vehicles in 1993 reached the highest level on record. Car sales also rose, but remained well below previous highs. Data for January of this year showed strong gains in the unit sales of both cars and trucks.

Expenditures for a number of other types of durable goods also rose rapidly in 1993. Outlays for furniture and appliances scored further hefty gains, in conjunction with sharp increases in sales of new and existing homes. Consumer purchases of home computers and other electronic equipment remained on a steep uptrend. In total, outlays for durable goods other than motor vehicles increased nearly 9 percent over the year, after a rise of 10 percent in 1992. Other types of consumer expenditures, which typically exhibit less cyclical variation than do the outlays for durables, rose moderately, on balance, during 1993. Consumer purchases of nondurable goods increased about 1¾ percent, after a jump of more than 3½ percent in 1992. Spending for services rose 2¾ percent during 1993, the same increase as reported for the previous year.

Real income continued to advance in 1993, although its trend was masked by tax considerations that had caused a sizable volume of bonuses that would have been paid to workers in early 1993 to be shifted into the latter part of 1992. Abstracting from these shifts in timing, the beneficial effects of continued economic expansion showed through in most categories of income, much as they had in 1992. Wage and salary accruals, a measure of income as it is

earned, rather than as it is disbursed, rose about 4½ percent in nominal terms over the four quarters of 1993, considerably outpacing the rate of inflation for the second year in a row. Further gains also were reported over the course of 1993 in dividends and in the income of proprietors, both farm and nonfarm. Transfer payments, which tend to vary inversely with the state of the economy, slowed in 1993, after rising at rates of 10 percent or more in each of the four previous years. Interest income, which had declined on net in 1991 and 1992, edged up slightly over the four quarters of 1993. Because of the shift in timing of bonuses, growth of real disposable income in 1993 was less than in 1992. However, the cumulative gain over the two-year period was about 6 percent, a clear step-up from the performance of the three previous years, when real income growth had averaged less than 1 percent per year.

The personal saving rate—measured as the percentage of nominal after-tax income disbursements that are not used for consumption or other outlays—declined nearly 2 percentage points, on net, over the course of 1993. However, the saving rate in late 1992 had been temporarily elevated by the aforementioned speedup of bonus payments. Looking through that blip of late 1992, a downward drift still is evident in the saving rate from mid-1992 to the end of 1993. Such a pattern is not uncommon when economic recovery is taking hold and consumer purchases of durable goods are rising rapidly. In effect, households have been holding part of their saving in the form of consumer durables, which, at the time of purchase, are counted fully as consumption in the national accounts, but which in reality will yield households a flow of services over time.

Consumer reliance on credit picked up in 1993. The volume of consumer credit outstanding rose 5¾ percent during the year, after three years in which credit growth had been quite subdued. Growth of consumer credit was especially rapid in the final quarter of the year—about 9 percent at an annual rate. The mortgage debt of households rose about 7 percent from the end of 1992 to the end of 1993, slightly more than in either of the two previous years.

Continued improvement was evident on the asset side of household balance sheets in 1993. As in 1992, the total nominal value of household assets increased at a pace moderately faster than the rate of inflation. Large increases in stocks and bonds boosted the nominal holdings of financial assets, more than offsetting a reduction in the aggregate holdings of deposits and credit market instruments. The nominal value of

tangible assets was lifted by heavy investment in consumer durables and residential structures and by a rise in the average price of existing residential properties. With the jump in growth of consumer credit and the slight pickup in the growth of home mortgage debt, household liabilities rose somewhat faster than in 1992. Nonetheless, net worth appears to have increased, probably in real terms as well as in nominal terms. The incidence of financial stress among households diminished further in 1993, as delinquency rates on various types of household debt continued to decline, in some cases to the lowest levels since the first half of the 1970s. According to survey data, households' own assessments of their financial situations have improved of late, with some survey readings the most upbeat in more than three years.

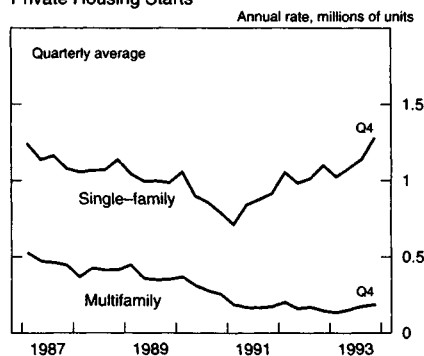
Residential investment increased about 8 percent in real terms over the four quarters of 1993, building on the 18 percent rise of 1992. As in 1992, most of the advance came from increased construction of new single-family homes. The construction of multifamily housing continued to be adversely affected by a persistent overhang of vacant rental units.

In the single-family market, impetus for activity continued to come mainly from declines in mortgage interest rates, which, by autumn, had dropped to the lowest levels in more than two decades. Fairly sharp declines in mortgage interest rates took place early in the year, but the effect of those declines on housing activity was apparently short-circuited for a time by a number of influences. A severe blizzard on the East Coast in mid-March temporarily waylaid the start-up of construction in that region, and a huge runup in lumber prices during late winter also may have discouraged some new construction for a while. Concerns about the possible loss of jobs perhaps continued to deter some potential homebuyers. Other buyers may simply have been holding back, waiting to see how far rates eventually would fall.

In any event, the effects of the drop in mortgage rates began to show through with greater force over the summer and fall, and considerable strength had emerged by year-end in all the major indicators of single-family housing activity. Sales of existing homes rose almost without interruption from April on. By the fourth quarter they had climbed to the highest level on record (the series goes back to 1968). Sales of new homes proceeded in somewhat choppy fashion from month to month, but by the end of the year they had moved well toward the upper end of their historical range. Housing construction also strengthened. The number of single-family starts

increased about 18 percent from the second quarter to the fourth quarter, rising to the highest quarterly level since 1979. Although housing starts fell sharply in January, the decline probably was in large measure a reflection of the unusually bad weather across the country last month. According to survey data, consumers' assessments of home-buying conditions continued to be very upbeat in January and early February. Builders' ratings of the market edged down a touch in early 1994, but remained at a very favorable level.

### Private Housing Starts



Activity in the multifamily housing market remained depressed in 1993. In the mid-1980s, tax incentives and relatively easy availability of credit encouraged overbuilding in many locales. The proportion of multifamily rental units that were vacant soared and has remained high subsequently, even as construction of multifamily units has dwindled. Starts of these units reached the lowest levels on record early in 1993, and they picked up only modestly thereafter, despite restoration of tax credits for low-income units.

### The Business Sector

The year 1993 saw appreciable gains in most important barometers of business activity. Output of the nonfarm business sector increased 3¾ percent during the year, the same as the rise during 1992. Profits rose further, and business balance sheets continued to strengthen. Capital spending surged.

In the industrial sector, production rose 4¼ percent during 1993, the largest advance in six years. Gains of at least moderate proportions were reported in each

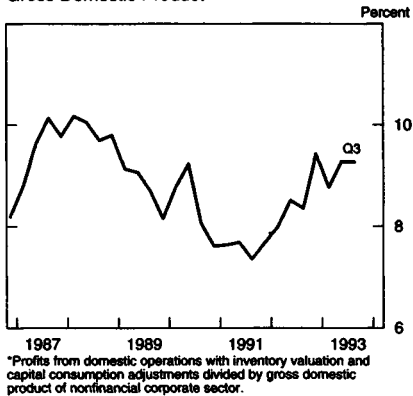
quarter of 1993. The gain in the year's final quarter was quite large—on the order of  $6\frac{1}{2}$  percent at an annual rate. Output of business equipment held to a strong uptrend throughout the year, as did the production of materials that are used as inputs in the durable goods industries. Output of construction supplies rose moderately in the first half of the year and at a stronger pace in the second half. Motor vehicle assemblies also rose appreciably, with strength early in 1993 and in the year's final quarter more than offsetting a stretch of sluggishness through the middle part of the year. By contrast, output of consumer goods other than motor vehicles rose only modestly, and production of defense and space equipment fell  $9\frac{1}{2}$  percent further, extending a downward trend that began in 1987. In January of this year, industrial production rose 0.5 percent. Severe winter weather and the California earthquake cut into the growth of production in the manufacturing sector in January, but the output of utilities was boosted by increased heating requirements. Underlying support for industrial production is coming from large gains in new orders that were reported toward the end of 1993.

#### Industrial Production



The amount of spare capacity in the industrial sector continued to diminish in 1993 and early 1994. The utilization rate in January was 83.1 percent. The rate has increased more than two percentage points during the past year, to the highest level since the second half of 1989. In manufacturing, capacity use in primary processing industries has been running above its long-run average for more than a year, and the rate of utilization in advanced processing industries recently has moved up into line with its long-run average.

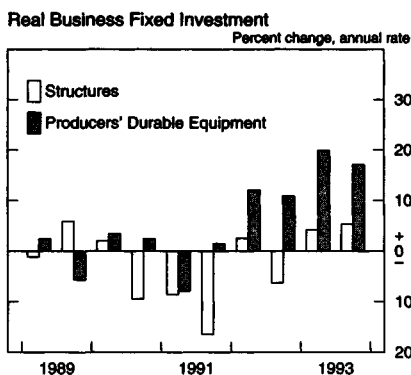
#### Before-tax Profit Share of Gross Domestic Product\*



Corporate profits, which had surged in 1992, increased an additional  $6\frac{1}{2}$  percent over the first three quarters of 1993 and appear to have risen further in the year's final quarter. Financial institutions in general continued to benefit in 1993 from the persistence of a relatively wide margin between their cost of funds and the interest rates on their assets; insurers' profits suffered less drag from natural disasters than in 1992, the year of hurricane Andrew. The profits of nonfinancial corporations moved up slightly further over the first three quarters, boosted by the rise in the volume of output over that period. Operating profits per unit of output held fairly steady, close to the high level reached in the final quarter of 1992. Although nonfinancial corporations raised their prices by only a small amount over those three quarters, they were able to maintain unit profit margins through continued tight control over costs. Gains in productivity restrained the rise in unit labor costs, and net interest expenses per unit of output continued to decline.

Business fixed investment increased about 15 percent in real terms over the four quarters of 1993, after a rise of  $7\frac{1}{2}$  percent in 1992. A spectacular increase in outlays for office and computing equipment accounted for about one-half of the 1993 gain. Business expenditures for these items increased more than 25 percent in nominal terms over the year, the steepest annual gain since 1984, and the rise in real terms was greater still. Technological advances embodied in the latest computers made them far more powerful than equipment that had been at the forefront only a few years ago, and highly competitive market conditions kept prices on a downward course. More real





computing power thus continued to become ever more accessible, and the many businesses eager to boost labor productivity and overall operating efficiency provided a huge market for the new products.

Excluding office and computing equipment, outlays for capital equipment increased about 11 percent in real terms during 1993, the biggest rise in ten years. Business expenditures for motor vehicles advanced about 13 percent, as investment in trucks, which had strengthened considerably in 1992, climbed further. Factories producing heavy trucks were operating at or near full capacity at year-end. Spending for communication equipment also advanced sharply, as did the real outlays for many other types of machinery and equipment. Diminished slack in many industries and expectations of continued business expansion were among the chief factors giving rise to the increase in these outlays. Ample cash flow from internal operations provided a ready source of finance.

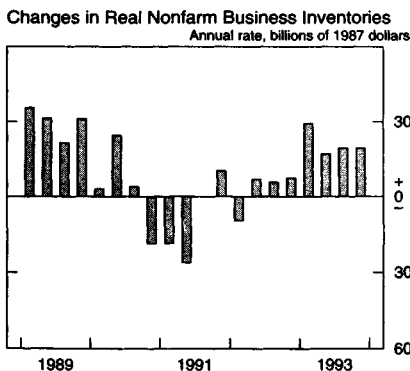
Commercial aircraft was the most notable exception to the general upward trend in equipment spending. Outlays for aircraft plunged in the second half of 1993, and survey data suggest that spending will remain weak in 1994. The reductions in outlays had been foreshadowed by earlier declines in new orders for commercial aircraft, and producers of aircraft have been scaling back their operations for some time.

Business investment in structures rose nearly 5 percent in 1993, the first annual increase since 1989. Declines in the intervening years had cumulated to about 18 percent. Within the sector, divergent trends were evident once again. Outlays for the construction of office buildings fell for the sixth consecutive year, to a level two-thirds below the peak of the mid-1980s.

Several indicators suggested, however, that the worst of the decline in office construction might be over. The rate at which real outlays fell in 1993 was much smaller than the declines of the three previous years. In addition, the national vacancy rate for office buildings, while still quite high, moved down somewhat; improvement was most noticeable in suburban areas, where vacancy rates previously had been the highest. The value of contracts for construction of office building firmed over the course of 1993. Prices of office buildings continued to trend lower, but survey data suggest that the rate of decline has eased in at least some markets.

Investment increased for most other types of structures in 1993. Outlays for industrial structures, which had declined sharply in 1991 and 1992, rose about 8 percent, on net, over the four quarters of 1993. Outlays for commercial structures other than office buildings increased fairly briskly for a second year; by the fourth quarter, they had retraced about 40 percent of the steep decline that took place during 1990 and 1991. Investment in drilling also rose in 1993, as incentives from rising prices for natural gas apparently offset the disincentives associated with falling oil prices. Spending for other types of structures rose by a small amount in the aggregate.

Swings in business inventory investment played only a small role in the economy in 1993. Inventory accumulation in the nonfarm business sector picked up in the early part of the year, but thereafter, the rate of stockbuilding slowed. Accumulation for the year as a whole was of only modest proportions, especially when compared with the rates of buildup seen during previous business expansions. Conceivably, the usual cyclical patterns in inventory change have been



tempered to some degree by the more sophisticated inventory control procedures that have become widespread in the business sector in recent years. Toward year-end, inventories appeared to be comfortably aligned with sales in most industries and were lean in some. Most notable among the latter were the stocks of motor vehicles, which were drawn down by production delays through the summer and strength in sales through the latter part of the year. In view of those developments, producers of motor vehicles have scheduled a further hefty rise in production for the current quarter, with assemblies slated to move up to the highest quarterly rate in more than fifteen years.

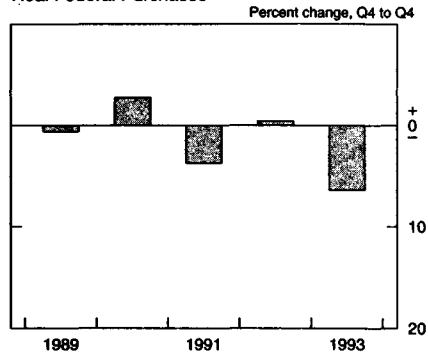
In the farm sector, inventories declined in 1993. Stocks were pulled down by weather-related reductions in crop output, especially in parts of the Midwest, where the worst flood of the century caused millions of acres to be left idle and cut deeply into yields on the acres that were planted. Inventories of a number of major field crops are in tight supply, in some cases the tightest since the mid- 1970s. Farmers whose crops were hurt by weather suffered income losses in 1993, while the producers whose crops were not hurt benefitted from rising prices. Total net farm income thus appears to have held in the range of other recent years, at a level well within the extremes of either boom or bust.

Trends in business finance remained favorable in 1993. Business expenditures for fixed capital and inventories were financed almost entirely with funds generated internally, and, in the aggregate, the relatively little external financing that did take place came partly from positive net issuance of equity. Growth of debt was slow, both in absolute terms and relative to the high rates of debt growth seen in the 1980s. With little growth in debt and interest rates down, the portion of business cash flow required for the repayment of principal and interest declined further in 1993. All this seemed to auger well for sustained expansion of the business sector and the economy.

### The Government Sector

Federal purchases of goods and services, the portion of federal outlays that are included in GDP, fell more than 6 percent in real terms over the four quarters of 1993. Real outlays for national defense, which have been trending down since 1987, declined nearly 9 percent over the year. Growth of nondefense outlays fell slightly, on net, after fairly sizable increases in each of the three previous years. The level of real federal purchases in the fourth quarter of 1993 was down about 10 percent from the peak of six years ear-

Real Federal Purchases



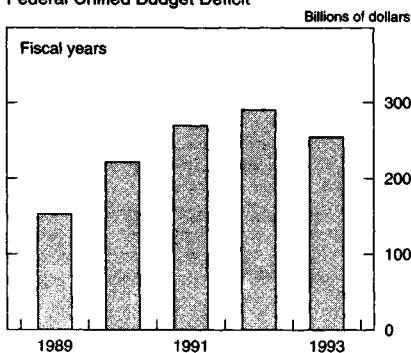
lier. Real defense purchases dropped about 20 percent over that six-year stretch.

Total federal outlays, measured in nominal terms in the unified budget, rose 2 percent in fiscal 1993, the smallest increase in six years. Outlays for defense fell about 2½ percent in nominal terms, and net interest payments were down slightly—the first decline in that category since 1961. Net expenditures for deposit insurance, which had been slightly positive in 1992, were negative in fiscal 1993, held down, in part, by delays in funding the activities of the Resolution Trust Corporation. Federal spending for income security slowed from the rapid pace of 1991 and 1992, as economic expansion led to a reduction in outlays for unemployment compensation and a less rapid rate of increase in outlays for food stamps. Growth in federal expenditures for Medicare and other health programs also slowed, but their rate of increase continued to exceed the growth of nominal GDP by a considerable margin.

Growth of federal receipts picked up a bit in fiscal 1993, to a pace roughly matching that of nominal GDP growth. Combined receipts from individual income taxes and social insurance taxes, which account for about 80 percent of total federal receipts, rose about 5½ percent, after a gain of 3 percent in fiscal 1992. Receipts from corporate income taxes, which account for about half of the remaining receipts, increased more than 17 percent in fiscal 1993, after only a small gain in the previous fiscal year.

Taken together, the slowing of federal outlays and the pickup of receipts led to a decline in the size of the federal budget deficit in fiscal 1993, after three

### Federal Unified Budget Deficit



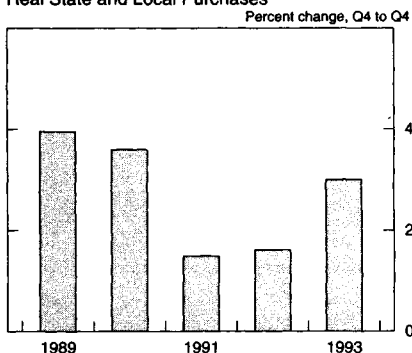
years of sharp increases. The 1993 deficit amounted to \$255 billion and was equal to 4.0 percent of nominal GDP. The previous year, the deficit had amounted to \$290 billion and was equal to 4.9 percent of nominal GDP. In fiscal 1989, toward the end of the last economic expansion, the size of the deficit relative to nominal GDP had reached a cyclical low of 2.9 percent.

In the state and local sector, receipts moved up about in step with the growth of nominal GDP in 1993, but state and local expenditures rose still faster. In nominal terms, the increases in spending cumulated to a rise of about 6¾ percent over the four quarters of the year. State and local transfer payments to persons have slowed from the extraordinary rates of increase seen in the early 1990s, a reflection of improvement in the economy and intensified efforts among state and local governments to tighten control over these types of outlays. Nonetheless, the rate of rise in these payments remained in excess of 10 percent in 1993. Nominal purchases of goods and services rose moderately, but at a pace somewhat faster than that of 1992. The deficit in the combined operating and capital accounts of state and local governments widened further during the first three quarters of the year, from an end-of-1992 level that already was quite sizable; in the fourth quarter, the deficit apparently shrank, but not by enough to fully retrace the earlier increases.

In real terms, purchases of goods and services by state and local governments increased 3 percent over the four quarters of 1993, after gains of about 1½ percent per year in both 1991 and 1992. State and local expenditures for structures rose more than 9 percent in real terms over the year, according to preliminary

data. Some of the spending went for the repair or replacement of structures that had been damaged in recent natural disasters, such as the summer floods in the Midwest. In addition, the efforts of state and local governments to cope with the needs of growing populations prompted increased investment in schools, highways, and other state and local facilities. Low interest rates probably convinced state and local officials to undertake more of this new construction in 1993 than they would have otherwise. Growth in other types of state and local purchases continued to be fairly restrained in 1993. Employee compensation, which makes up roughly two-thirds of state and local purchases, rose about 1¼ percent in real terms during the year, the same as in 1992. Employment growth in the state and local sector was slow by historical standards again in 1993, and increases in hourly compensation were relatively small. State and local purchases of goods rose only moderately.

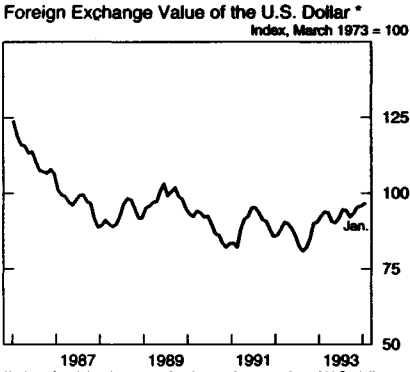
### Real State and Local Purchases



### The External Sector

The trade-weighted foreign exchange value of the U.S. dollar, measured in terms of the other Group-of-Ten (G-10) currencies, rose nearly 6 percent on balance from December 1992 to December 1993. The dollar's 1993 rise in real terms (that is, adjusted for movements in relative consumer prices) was slightly greater than its rise in nominal terms, as U.S. inflation exceeded weighted-average inflation in the other G-10 countries by about ½ percent. The dollar's rise continued into the early weeks of 1994, but by mid-February it had fallen back to a level a bit below its average in December 1993.

The main factor behind the strengthening of the dollar last year appears to have been the general



\*Index of weighted average foreign exchange value of U.S. dollar in terms of currencies of other G-10 countries. Weights are based on 1972-76 global trade of each of the 10 countries.

downward revision in perceptions of the strength of economic activity in a number of foreign countries while activity in the United States seemed to be improving on balance, especially in the latter part of the year. The weakening of activity abroad contributed to large declines in interest rates in the foreign G-10 countries, both in absolute terms and relative to levels of interest rates in the United States. On average, foreign short-term rates fell nearly 3 percentage points relative to U.S. rates last year, and foreign long-term rates fell about 1 percentage point relative to U.S. rates. Foreign short-term rates have changed little on average during the first few weeks of 1994, while long-term rates have edged higher.

The dollar rose 9 percent against the mark and by similar amounts against other currencies in the exchange rate mechanism (ERM) of the European Monetary System during 1993. It appreciated a bit further, on balance, in early 1994. Potential existed for much greater divergence of dollar exchange rates against these currencies as the result of a widening of permitted fluctuation margins following the ERM crisis last summer. Strains developed in the ERM in July and August on growing expectations that weakness in the French economy and an anticipated recovery of the German economy would cause French authorities to reduce interest rates ahead of German rates. Growing pressure on the French, Belgian, Danish, and Iberian currencies led to massive foreign exchange intervention, sharp increases in short-term interest rates in those countries, and in early August, a substantial widening of the ERM margins. Later, market pressures eased and interest rates returned to their pre-crisis levels as it became clear that these countries

would not make use of the wider margins to ease policy, and as the German economy showed signs of weakening further.

The pound, which had depreciated sharply against the dollar in late 1992 after U.K. authorities pulled it from the ERM and substantially lowered interest rates, fell an additional 4 percent relative to the dollar during 1993. The Italian lira depreciated nearly 20 percent against the dollar last year, reflecting market concerns over political uncertainties and massive budget deficits in Italy. Similar concerns, although on a smaller scale, contributed to the Canadian dollar's depreciation against the U.S. dollar of about 4 percent during 1993.

The Japanese yen was the only currency of a foreign G-10 country to appreciate against the dollar in 1993, rising on balance about 11 percent. The dollar-yen exchange rate appeared to be subject to two conflicting sets of pressures last year. During the first eight months of the year, the dollar depreciated nearly 20 percent against the yen, as market attention appeared to be focused mainly on the rising Japanese external surplus and perceived political pressures from abroad, particularly from the United States, to reduce this surplus. The dollar reached a low of almost 100 yen per dollar last August. At that point, statements by U.S. officials expressing concern over the implications of the yen's strength for Japanese growth, accompanied by U.S. intervention support for the dollar, appeared to shift the market's main focus from these external considerations back toward the Japanese domestic economy. Over the latter part of the year, as economic activity in Japan continued to weaken and Japanese interest rates moved lower, the dollar rose against the yen, partially offsetting its earlier decline. That uptrend was halted in February, however, in the face of renewed trade tensions between the United States and Japan, and the dollar fell back close to the low reached in August.

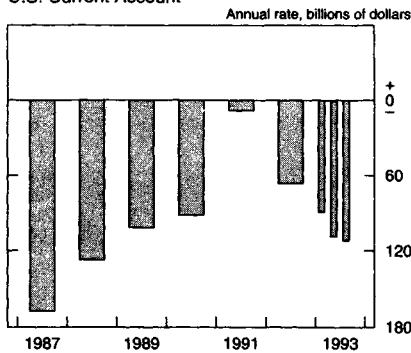
The dollar depreciated slightly in real terms on average against the currencies of major U.S. trading partners among developing countries in Latin America and East Asia in 1993. The Mexican peso rose 6 percent, despite a period of downward pressure amid uncertainty about the outcome of the U.S. Congressional vote on the North American Free Trade Agreement as that vote drew near. The rise in the peso's inflation-adjusted exchange value has cumulated to nearly 35 percent since 1989, reflecting in part a strong inflow of capital from abroad stimulated by domestic reforms, declining world interest rates, and the anticipated positive influence of NAFTA on

Mexico's real growth. The Brazilian cruzeiro rose fairly strongly in real terms against the dollar, as substantial nominal depreciation of the cruzeiro did not keep pace with the even more rapid domestic inflation in that country. Meanwhile, the Hong Kong dollar rose in real terms and the Taiwan dollar fell.

Growth of real GDP in the major industrial countries picked up somewhat, on average, during 1993 from depressed levels in 1992. Growth was lifted as economic recoveries in Canada and the United Kingdom gained some momentum. However, output in Japan and most of continental Europe remained sluggish at best, showing either small increases or small declines for most of the year. The weakness of real activity in the foreign Group-of-Six industrial countries put further downward pressure on CPI inflation, which receded to roughly 2 percent on average last year. Further declines in interest rates in most of these countries during the past year should enhance the prospects of recovery in the coming year. The major developing countries in Asia continued to grow rapidly, fueled in part by exceptionally strong growth in China. Real growth in Mexico fell to near zero, however, reflecting the depressing effects of policy restraint aimed at containing inflationary pressures and, for a time, growing uncertainty about whether NAFTA would be implemented.

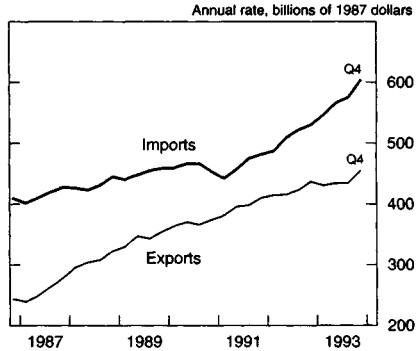
The nominal U.S. merchandise trade deficit widened to more than \$130 billion in 1993, compared with \$96 billion in 1992. Imports grew much faster than exports, partly because the U.S. economic recovery gained momentum while economic growth in U.S. export markets was sluggish on average. The appreciation of the dollar also tended to depress real net exports. The current account worsened about in line

#### U.S. Current Account



with the trade deficit, moving from a deficit of \$66 billion in 1992 to nearly \$105 billion at an annual rate over the first three quarters of 1993. Net service receipts and net investment income receipts both remained little changed over this period.

#### U.S. Real Merchandise Trade



U.S. merchandise exports grew 3¼ percent in real terms over the four quarters of 1993, based on the initial fourth-quarter estimate from the national income and product accounts. Exports changed little, on net, over the first three quarters of the year, but strengthened in the fourth quarter, as shipments of machinery and automotive products increased. The growth of computer exports in real terms slowed from the very rapid pace of recent years, but still posted an increase of more than 15 percent. Agricultural exports declined as a result of reduced U.S. output in the 1993 crop year. By region of the world, the rise in merchandise exports during 1993 was more than accounted for by increased shipments to Canada, the United Kingdom, and Mexico. Shipments to the sluggish economies in continental Europe and Japan declined somewhat, while the growth of exports to developing countries in Asia slowed from the rapid pace of 1992.

Merchandise imports grew about 14 percent in real terms during 1993. The growth in imports was broadly based across commodity categories. Computers accounted for one-third of the growth in real terms, but imports of consumer goods, machinery, automotive products and industrial supplies all rose strongly as well. Import prices declined slightly during 1993, reflecting a sharp decline in the price of oil imports. The average price of non-oil imports rose only slightly, reflecting low inflation abroad and the rise in the dollar.

In the first three quarters of 1993, recorded net capital inflows balanced only part of the substantial U.S. current account deficit, as net statistical errors and omissions were positive and large. Sizable net shipments of U.S. currency to foreigners, which are not recorded in the U.S. international accounts, contributed to the positive net errors and omissions.

Net official capital inflows amounted to \$48 billion. G-10 countries accounted for part of the inflows. In addition, various developing countries, particularly in Latin America, experienced large private capital flows into their countries and added substantially to their official holdings in the United States.

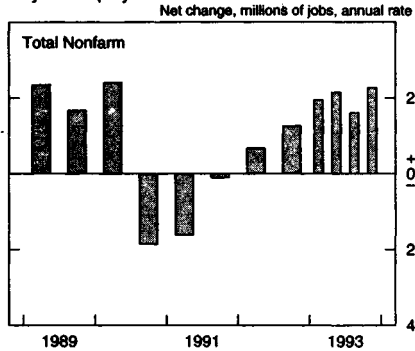
Net private capital inflows into the United States were negligible in the first three quarters of 1993. However, reflecting the continued internationalization of financial markets, both inflows and outflows grew. U.S. net purchases of foreign securities reached a record \$96 billion, about evenly divided between stocks and bonds. Most of these net purchases were accounted for by Western Europe, Canada, and Japan; developing countries in Asia and Latin America accounted for a small but growing share of total U.S. net purchases of foreign stocks and bonds. Foreign private net purchases of U.S. government securities and corporate bonds remained strong; foreign asset holders also resumed making net purchases of U.S. corporate stocks. In addition, capital inflows from foreign direct investors in the United States resumed in the first three quarters of 1993, while capital outflows by U.S. direct investors abroad remained strong.

### Labor Market Developments

The labor market strengthened in 1993, as economic expansion began to translate more forcefully into increased job creation. Payroll employment, a measure of jobs that is derived from a monthly survey of establishments, rose almost 2 million over the twelve months of the year. While this gain was only of moderate size in comparison to annual increases in many years of the 1970s and 1980s, it was about twice the increase of 1992. The increase in employment in January of this year: apparently was held down by bad weather.

Hiring picked up in most major sectors in 1993. The number of jobs in retail and wholesale trade increased about one-half million, the largest annual rise since 1988, and the number of jobs in finance, insurance, and real estate picked up a bit, after a five-year period that had encompassed three years of sluggish growth and two years of unprecedented

### Payroll Employment



reductions. Construction employment rose 200,000, after three years of sharp declines.

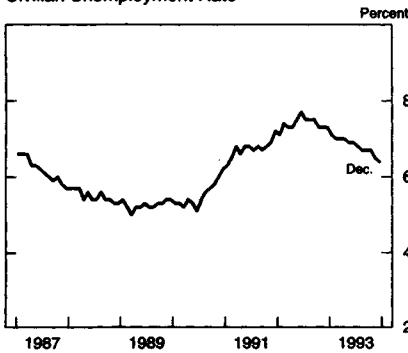
The services industry added about 1.2 million new jobs in 1993. More than one-third of the increase came at firms that supply services to other businesses. Of these firms, the ones exhibiting by far the most rapid growth were personnel supply firms—companies that essentially lease the services of their employees to other businesses, usually on a temporary basis. Many companies requiring additional labor apparently have been attracted by the flexibility of such arrangements, as well as by cost advantages, at least over the short run. Elsewhere in the services industry, health services continued to generate a substantial number of new job opportunities in 1993, even though the gain was not quite as large as those of other recent years. Small to moderate employment gains also were reported during the year at firms supplying a wide variety of other types of services.

Manufacturing employment continued to decline in 1993, but at a slower pace than in any of the three previous years. Although manufacturers boosted output considerably, the gain was achieved mainly through another sizable rise in factory productivity. Labor input in manufacturing reportedly increased only slightly, and the gain took the form of a lengthened workweek, rather than increased hiring. By the latter part of the year, the average workweek in manufacturing had reached 41¾ hours, the longest since World War II. Hiring did pick up late in the year, however, and a further rise in the number of factory jobs was reported in January of this year. Reliance of manufacturers on workers from personnel supply firms reportedly has increased; because these workers are carried on the payrolls of the personnel firms,

actual labor input in manufacturing was greater than the data indicate.

Significant improvement in labor market conditions also was evident in data from the monthly survey of households. The measure of employment that is derived from this survey rose 2½ million over the twelve months of 1993, after an increase of about 1½ million during the previous year. At the same time, the number of unemployed persons fell more than 1 million over the course of 1993, and the civilian unemployment rate declined nearly a full percentage point. Because of changes in the design of the monthly survey of households, the official rate reported for January of this year—6.7 percent—is not comparable with the official rates for 1993 or previous years. However, the Bureau of Labor Statistics has indicated that, abstracting from the changes in survey design, the unemployment rate probably fell in January, with estimates of the size of the decline ranging from 0.1 percentage point to 0.3 percentage point. The aim of the new survey is to achieve more precise classification of persons whose labor market situations may not have been accurately captured by the questions included in the old survey.

Civilian Unemployment Rate

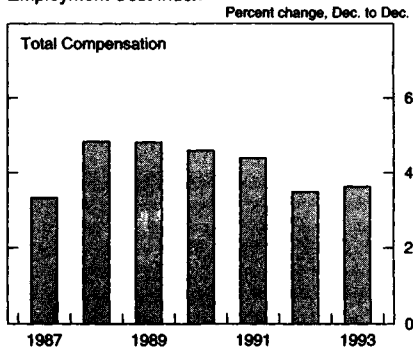


Growth of the civilian labor force—the sum of persons who are employed and those who are looking for work—was relatively sluggish again in 1993. The rise over the four quarters of the year was 1.2 percent, only slightly faster than the rate of growth of the working-age population. Over the past four years, labor force growth has averaged less than 1 percent per year, and the labor force participation rate has edged down slightly, on net. Based on data from the old survey, the number of persons who desired work

but did not seek it because of a perceived lack of job openings changed little over the course of 1993. In addition, the number of persons outside the labor force and not wanting a job rose about 0.8 percent during the year, pulled up, in part, by a sharp increase in the number of retirees. Workers whose careers were cut short by business restructurings and defense cutbacks probably augmented the normal flow of workers into retirement. Growth in the number of persons not wanting a job because of attendance in school also increased during 1993, according to data from the old survey. To the extent that these persons have been honing their job skills, their lack of current participation in the labor force could turn into a positive factor for the economy over the longer run.

The slowing of nominal increases in hourly compensation came to a halt in 1993. The employment cost index for private industry—a labor cost measure that includes wages and benefits and covers the entire nonfarm business sector—increased 3.6 percent from December of 1992 to December of 1993, about the same as the rise of the previous year. Wages rose 3.1 percent over the year, one-half percentage point more than in 1992, and the growth of benefits slowed only a little, to 5.0 percent. Compensation gains picked up for workers in some white-collar occupations, notably sales workers and managers. Slightly bigger gains than in 1992 also were realized by workers in some blue-collar occupations. By contrast, the rate of compensation growth held steady in service occupations and edged down in some blue-collar occupations in which fewer specialized skills are required. The overall rise in hourly compensation during 1993 exceeded the rise in consumer prices by

Employment Cost Index \*

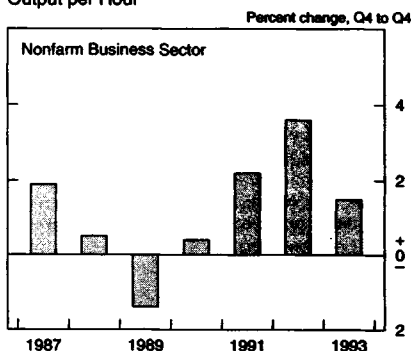


\*Employment cost index for private industry, excluding farm and household workers.

about 1 percentage point. Hourly wage gains more than kept pace with inflation, and the value of benefits provided to workers by their employers continued to rise rapidly in real terms.

Labor productivity continued to increase in 1993, albeit less rapidly than in the earlier stages of the cyclical expansion. According to preliminary data, output per hour in the nonfarm business sector rose 1.5 percent during the year, after large increases in both 1991 and 1992. Although part of the gain in output per hour over this three-year period is no doubt a reflection of normal cyclical processes, the data also seem to suggest that the longer-run trend in productivity is tilting up a bit more sharply than in the 1970s and 1980s, a payoff to heavy investment by business in new information technologies, to the rising skill of workers in exploiting those technologies, and, perhaps, to the more quiescent inflation environment of recent years. With gains in labor productivity offsetting part of the 1993 increase in compensation per hour, unit labor costs in the nonfarm business sector increased just 1.3 percent, a shade less than in 1992.

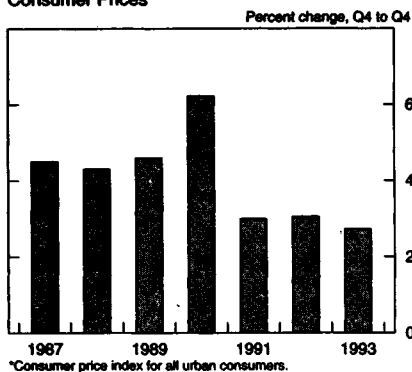
#### Output per Hour



#### Price Developments

Inflation edged down a bit further in 1993. The 2.7 percent rise in the CPI over the four quarters of the year was the smallest increase since 1986, and the four-quarter rise of 3.1 percent in the CPI excluding food and energy was the smallest increase in that measure in more than twenty years. At the same time, however, progress toward lower inflation was sporadic during the year, and the slowing of price increases was less widespread than it had been in

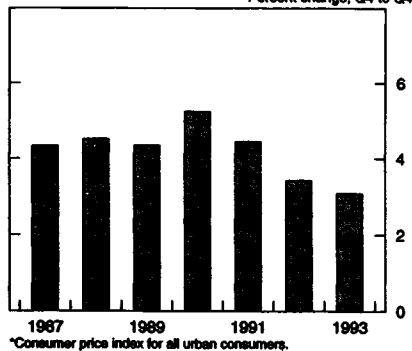
#### Consumer Prices\*



1992. Scattered upward price pressures showed up in the commodity markets from time to time during 1993; late in the year and in early 1994, these increases became more widespread. Producer prices picked up somewhat in January, but prices at the retail level were unchanged, on balance.

The patterns of price change for items other than food and energy were more checkered in 1993 than they had been in 1992, a year when deceleration was widespread among both commodities and services. The CPI for commodities other than food and energy rose only 1.6 percent over the four quarters of 1993, a percentage point less than in 1992. Within this category, the CPI for tobacco fell 5 percent in 1993, after many years of large increases, as the inroads being made by generic brands in that market forced major

#### Consumer Prices Excluding Food and Energy\*



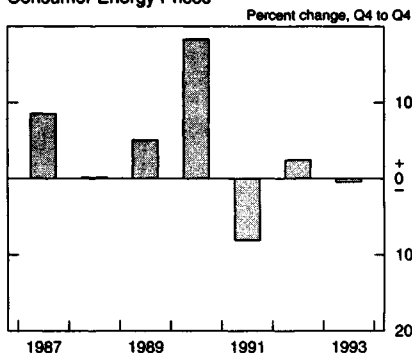


suppliers to alter their basic pricing strategies. Prices of apparel rose less than 1 percent during 1993, an even smaller increase than in 1992. By contrast, the prices of motor vehicles moved up somewhat faster than in 1992; the price rise for trucks was the largest of recent years. The CPI for non-energy services increased 3.8 percent over the four quarters of 1993, about the same as the rise during the previous year. The index for medical care services slowed for the third year in a row, but airfares rose sharply for a second year. Price increases for other services generally were little different from those of 1992, with small deceleration for some items and small acceleration for others.

Food prices picked up in 1993. The consumer price index for food increased 2.7 percent over the four quarters of the year, an acceleration of about a percentage point from the pace of the two previous years. Because price increases in those two previous years had been held down, in part, by unusually favorable supply developments in agriculture, some pickup of food price inflation might have been in store for 1993 even had weather conditions been no worse than average. In the event, the weather was unusually bad. Severe winter weather disrupted livestock production early in the year; drought in the Eastern States hurt crop production in that region during the summer; and flooding of historic severity in the Missouri and Mississippi River Basins cut deeply into output of some of the nation's major field crops. At retail, effects of the various supply disruptions showed through in the prices of meats, poultry, and fresh produce. Price increases for other foods, which account for by far the larger share of total food in the CPI, showed almost no acceleration in 1993; most of

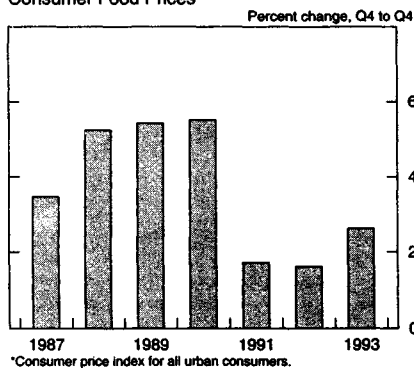
the value added in production of these other foods comes from nonfarm inputs.

#### Consumer Energy Prices\*



Consumer energy prices declined 0.4 percent over the four quarters of 1993, after rising only moderately in 1992. With world oil production outstripping demand, crude oil prices fell sharply during the last three quarters of 1993, to levels in December that were about 25 percent below those of a year earlier. Gasoline prices, after increasing in the early part of 1993, turned down in March and fell for six additional months thereafter. The string of declines was interrupted in October when federal gasoline taxes were raised, but they resumed once again in November and continued through year-end. Average pump prices for the fourth quarter were about 4 percent below the level of a year earlier. Fuel oil prices fell about 3 percent over the same period. Prices of the service fuels—electricity and natural gas—increased during 1993. The rise in electricity prices over the year amounted to 1.7 percent, slightly less than the increase posted in 1992. Natural gas prices rose nearly 5 percent for the second year in a row; consumption of natural gas has picked up in recent years, after trending lower through much of the 1970s and a large part of the 1980s. Since the end of last year, oil prices have changed little, on net, as an upswing in prices during the first few weeks of 1994 has been reversed by more recent declines. The CPI for energy continued to fall in January.

#### Consumer Food Prices\*



The producer price index for finished goods, which includes both consumer goods and capital equipment and covers only the prices received by domestic producers, increased just 0.2 percent over the four

quarters of 1993. An identical increase was reported in the PPI for finished goods other than food and energy; the increase in this measure was the smallest in its history, which goes back to 1974. As at retail, price increases for these domestically-produced goods were held down, in part, by the sharp drop in prices of tobacco products. More broadly, competition from imports and further increases in labor productivity in manufacturing were important elements in pricing restraint. The prices of intermediate materials excluding food and energy rose 1.6 percent over the four quarters of 1993, a small step-up from the pace of the previous year.

In the markets for raw commodities and other primary inputs, scattered upward price pressures emerged from time to time during the first three quarters of 1993, and fairly widespread increases were reported in the year's final quarter and into early 1994. The producer price index for crude materials excluding food and energy thus moved up sharply over the year, by about 10 percent in all. The weight of these inputs in GDP is quite small, however, and, in the absence of more general cost pressures,

increases in their prices usually do not impart much upward thrust to the prices of finished goods.

Inflation expectations, as reported in various surveys of consumers and other respondents, flared up for a time during 1993, but retreated in the latter part of the year. According to one such survey, conducted by the University of Michigan Survey Research Center, the rate of price increase expected one year into the future moved up from an average of 3.8 percent in the final quarter of 1992 to an average of 4.7 percent in the third quarter of 1993. The rise was fully reversed in the fourth quarter, however. A similar but much less pronounced swing in expectations was evident in some other surveys as well. The surveys have continued to show one-year expectations of price change running somewhat higher than the actual increases of recent years. Longer-run expectations of price change have remained higher still, with the Survey Research Center's series on average inflation rates that are expected over a five-to-ten year horizon holding in a range of 4½ percent to 5 percent, according to surveys conducted in the second half of 1993 and early 1994.

### Section 3: Monetary and Financial Developments in 1993

Financial repair continued in 1993, amid increasing signs that borrowers and lenders were more comfortable with their balance-sheet positions. Households, in particular, and firms, to a lesser extent, stepped up their borrowing as the year progressed. Depository institutions, for their part, were sufficiently encouraged by the stronger economy and the improvement in their own financial conditions to ease the terms and conditions of credit for businesses and households.

Nonetheless, with efforts to strengthen financial positions continuing, financing remained concentrated in capital markets, largely bypassing banks and thrifts. In part spurred by the higher returns available in those markets, investors found bonds and stocks to be more attractive alternatives than deposits; flows into bond and stock mutual funds were at record levels last year. As a consequence, the monetary aggregates continued to grow quite slowly relative to the expansion of nominal income. Recognizing the ongoing redirection of financial flows relative to historical norms, the Federal Open Market Committee (FOMC) lowered the annual ranges for M2 and M3 for 1993 in two technical adjustments totalling 1½ percentage points for M2 and 1 percentage point for M3 in February and July 1993. Uncertainty about the extent and duration of the unusual change in velocity meant that growth in the aggregates could not be relied upon to guide changes in reserve conditions, and the FOMC continued to employ a wide variety of information about financial and economic conditions for this purpose.

Assessing the incoming information, the Federal Reserve judged that no change was needed in reserve and money market conditions during 1993 to sustain the economic expansion without engendering inflationary pressure. With money market rates remaining in a range not much, if at all, above the core rate of inflation, however, the members of the FOMC viewed that a tightening in reserve conditions at some point would likely be needed to avoid pressures on capacity and a pickup in inflation.

Concerns about a buildup of inflationary momentum increased in the spring, and, over the three months from mid-May until mid-August, instructions from the FOMC to the Federal Reserve Bank of New York indicated that there was a greater likelihood that money market conditions should be tightened as opposed to eased before the next scheduled meeting of the FOMC. Those concerns again came to the fore as 1994 opened. Considerable underlying strength in

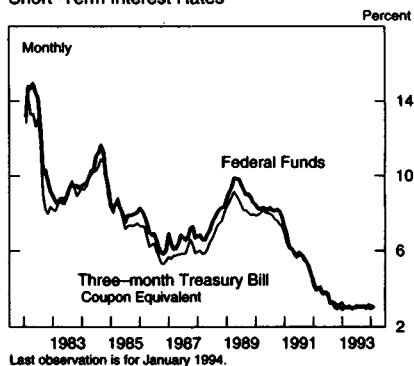
aggregate demand and dwindling levels of excess capacity to meet that demand raised the risk that inflation pressures would strengthen down the road, derailing the expansion. Consequently, in February, the FOMC tightened reserve conditions for the first time in five years, nudging short-term rates up ¼ percentage point.

#### The Implementation of Monetary Policy

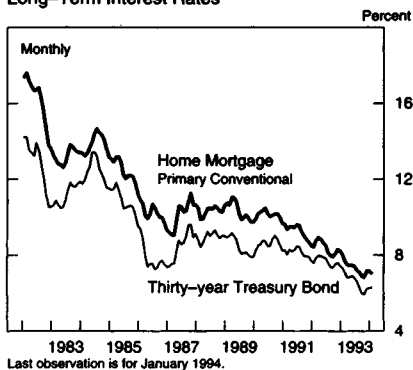
Most short-term interest rates ended 1993 where they had begun the year, at quarter-century lows that had resulted from the substantial easing in reserve conditions engineered by the Federal Reserve from 1989 to 1992. The rate charged for adjustment borrowing at the discount window remained at 3 percent, and the federal funds rate traded around the same level. Despite the stability of short-term interest rates, longer-term interest rates fell as much as 1 percentage point over the course of 1993, to settle at levels not seen on a sustained basis since the late 1960s. Investors apparently were encouraged by the prospects for low inflation and reduced federal budget deficits. Helped by the decline in long-term rates and by brighter earnings reports, the stock market enjoyed strong gains.

In February 1993, the first FOMC meeting of the year, incoming information suggested that the economy had exhibited considerable strength in the fourth quarter of 1992. In the event, final estimates for the last quarter of that year put the increase in real GDP at a 5¼ percent annual rate and the growth of nominal

Short-Term Interest Rates



## Long-Term Interest Rates



GDP in excess of 9 percent. Final demand was seen to be strong, paced by household consumption and business investment. With slack relative to capacity still considerable—the unemployment rate averaged 7¼ percent (on the old basis)—price pressures were not perceived to be likely. The expansion of the monetary aggregates had faltered around the turn of the year, but the sense was that special factors—importantly including a decline of mortgage prepayments that constricted the level of transactions deposits—accounted for some of the weakness. Against this backdrop, it appeared to the members of the FOMC that unchanged reserve conditions would support economic expansion and still be consistent with further declines in inflation and inflationary expectations. Moreover, the situation did not seem to call for a presumption of the likely direction of any intermeeting adjustment in reserve conditions; such a symmetric directive had been issued to the Account Manager of the System Open Market Account at the end of the December 1992 meeting as well.

Investor confidence in the longer-term prospects in capital markets apparently strengthened in the weeks that followed, owing in part to a growing perception that significant progress in reducing the path of future budget deficits might be in the offing. By the time of the March Committee meeting, bond yields had fallen appreciably, touching levels last observed in 1973, with the largest declines posted at the longest maturities. Indicators of real activity suggested some slowing from the torrid fourth-quarter pace, but, in labor markets, payroll employment had strengthened and the unemployment rate had moved down further. Readings on inflation sparked some concern about the

potential for a buildup of inflationary momentum. With fundamental forces still suggesting further disinflation, however, and with those concerns not evident in capital market indicators, or in the exchange value of the dollar, which remained relatively steady, the FOMC retained its symmetric directive.

In May, Committee members were confronted with ambiguous indicators of economic activity, prices, and the financial aggregates, which were all made more confusing by a spell of bad weather that had distorted somewhat the seasonal patterns of spending and production. As for the prices of goods and services, while it was thought by many analysts that the major indexes were distorted by difficulties in seasonal adjustment, data releases showing a variety of price and labor compensation indexes on the high side of investor expectations still roiled financial markets. Slack in the economy remained appreciable, which weighed against any pickup in inflation, but inflation expectations were in danger of ratcheting higher, with possible adverse consequences for inflation itself. Meanwhile, the latest readings on the monetary aggregates showed a burst of growth in early May, but tax-induced distortions and a surge in prepayments of mortgage-backed securities made this information particularly difficult to interpret. In the view of a majority of the members of the FOMC, wage and price developments were sufficiently worrisome to warrant positioning policy for a move toward restraint should signs of mounting inflation pressures continue to multiply. While they saw no immediate need to alter the degree of reserve pressure, they agreed that current conditions made it easier to envisage a tightening as opposed to an easing over the intermeeting period, a sense that was embodied in an asymmetric policy directive.

In advance of the July meeting of the FOMC, the unemployment rate had moved back up to 7 percent (on the old basis), while industrial production had been little changed over the preceding few months. The surge in the monetary aggregates in May apparently had not marked a trend toward more rapid expansion in broad measures of money. Overall, the evidence pointed toward a sustained economic expansion and some ebbing of the recent upsurge in inflationary pressures. News in that vein, along with progress in Congress toward adoption of a deficit-reduction package, had fostered a drop in longer-term bond yields in the days leading up to the meeting. The durability of that improvement in market sentiment remained an open question, however. Monetary policy could be viewed as relatively expansive in light of the behavior of a variety of other indicators, including

the growth in narrow measures of the monetary aggregates and reserves and the low levels of money market interest rates, both in nominal and, in particular, in real terms. In such an environment, Committee members agreed that it was necessary to remain especially alert to the potential for a pickup in inflation. As a result, the FOMC decided to retain the current degree of restraint in the reserve market and an asymmetric tilt toward tightening in the policy directive.

At the time of the August meeting of the Committee, readings on inflation were encouraging: Consumer prices had changed little and producer prices had fallen over recent months. Data on spending and production had a weakish cast and the persistence of the sluggishness in the second quarter had become more apparent. These data releases had bolstered investor confidence in the prospects for continued disinflation, while the recently passed legislation on the federal budget offered the promise of meaningful cuts in the deficit over the next several years. Accordingly, longer-term yields fell about 40 basis points. The resulting capital gains apparently added to the allure of stock and bond mutual funds, thereby weakening M2, which only edged up in July. At this meeting, policymakers saw existing reserve conditions as consistent with their goals. Moreover, the dissipation of the inflation threat and the encouraging downward tilt to expectations of inflation suggested to members of the FOMC that the risks were more evenly balanced than of late. As a result, the Committee reverted to a symmetric directive—instructions that carried no presumption as to the direction of an intermeeting move—which they subsequently retained for the remainder of 1993.

Leading up to the September FOMC meeting, the unemployment rate had edged lower, to 6.7 percent (old basis), housing starts had declined and retail sales were flat in real terms. Substantial drags on economic growth remained: cutbacks in the defense sector, uncertainties regarding the effects of other government policies that had the potential to raise labor and production costs, and slow growth on average in the foreign industrial economies. However, sources of stimulus were also apparent: the cumulative spur to spending of low interest rates, especially at longer maturities; the lessening of balance-sheet constraints on households and firms; and the improving financial condition of the depository sector, which was making credit more available. Given these conflicting influences on spending, the Committee determined that leaving reserve conditions unchanged would be most consistent with maintaining sustainable economic growth.

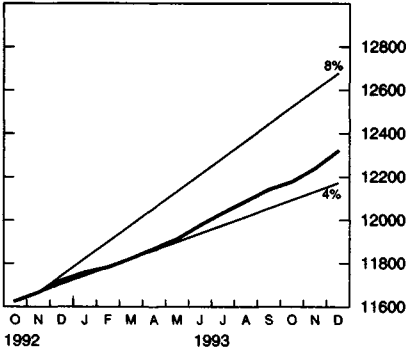
The incoming data in advance of the last two Committee meetings of 1993 indicated a robust near-term expansion in activity with no immediate inflationary pressure. While there was a sense that, with reserves ample and money-market rates at the low end of the range of experience over the past three decades, the next move in policy would be to tighten, the members of the Committee agreed that, until trends became clearer, the current stance of policy should be maintained. The prospects of heightened credit demands and forecasts of looming capacity pressures pushed up longer-term interest rates about  $\frac{3}{8}$  percentage points from their yearly lows set in mid-October. Over that same span, the dollar showed notable strength on foreign exchange markets.

Most market rates held at these higher levels as the FOMC met for the first time in 1994. Readings on activity suggested that 1993 had ended the year on a very strong note, with real GDP expanding about 6 percent at an annual rate in the fourth quarter and reports suggesting that some of this momentum had carried over into 1994. Slack in labor and product markets had been reduced considerably, and the prices of a number of commodities important in the production of durable goods and in construction had begun to move higher. With that backdrop, the Committee decided that it was time to trim back some of the stimulus provided by the current low level of short-term interest rates before it fed through to higher inflation. The Account Manager was directed to tighten reserve conditions, and the federal funds rate moved up to a range around  $3\frac{1}{4}$  percent, while the discount rate remained at 3 percent.

## Money and Credit Flows

The long expansion of the 1980s was associated with growth of total debt of domestic nonfinancial sectors that was about  $1\frac{1}{2}$  times the pace of nominal GDP growth. In the wake of this phenomenal leveraging, the recession and tepid economic recovery from 1990 to 1992 were importantly a balance-sheet phenomenon that was reflected in a slowing in debt growth. In retrospect, it is apparent that this deceleration in debt was one symptom of the general dissatisfaction of both borrowers and lenders with their financial conditions, a concern that also led to some restraint on spending and asset accumulation. Nineteen ninety-three saw some lessening of this restraint, and the growth of the debt of the nonfinancial sectors expanded 5 percent, about in line with nominal GDP. This performance put the debt aggregate in the lower portion of its 4 to 8 percent moni-

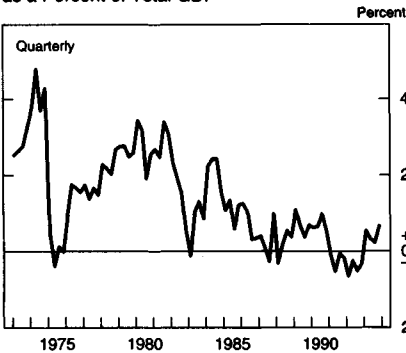
**Debt: Annual Monitoring Range and Actual Growth**  
Billions of dollars



toring range, a range that had been set at the first meeting of the year.

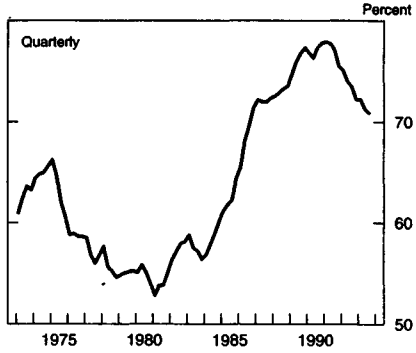
The debt of the nonfederal sectors (nonfinancial businesses, households, and state and local governments) expanded 3¼ percent last year. For nonfinancial corporations, a pickup in fixed investment and inventory investment outpaced increases in internally generated funds, pushing the financing gap into positive territory after two years of negative readings; as those firms sought outside funds, they turned in the main to long-term debt markets, but net equity issuance remained sizable as well. However, the debt markets in 1993 saw far more activity than the net requirements for external funds implied. Low longer-term rates induced many firms to refinance existing obligations, pushing gross public debt issuance by nonfinancial firms above \$190 billion.

**Nonfinancial Corporate Financing Gap as a Percent of Total GDP**

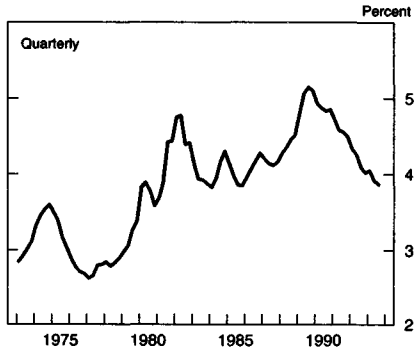


**Indicators of Nonfarm Nonfinancial Corporate Sector Finances**

**Debt to Sector GDP**



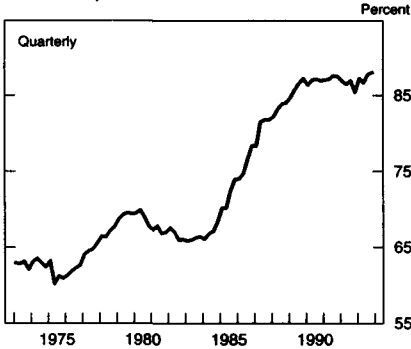
**Debt Service to Sector GDP**



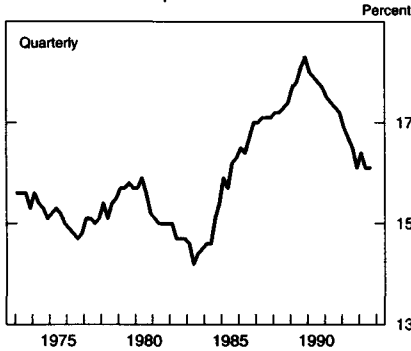
Earlier efforts to restructure balance sheets, along with the opportunities afforded by lower long-term rates to refinance existing obligations, apparently put households in a better position to take on new debt in 1993. With debt-service burdens holding at about 16 percent of income, or about 2¼ percentage points below the peak set at the end of the previous decade, and loan rates declining substantially, households assumed new liabilities rapidly enough, on net, to push up the ratio of their total liabilities to disposable income to just under 90 percent in 1993. The largest swing was in the consumer credit category, as households evidently became more confident of the sustainability of the economic expansion and made previously-delayed purchases of durable goods, especially autos. The record volume of mortgage origina-

Indicators of Household Sector Finances

Debt to Disposable Income

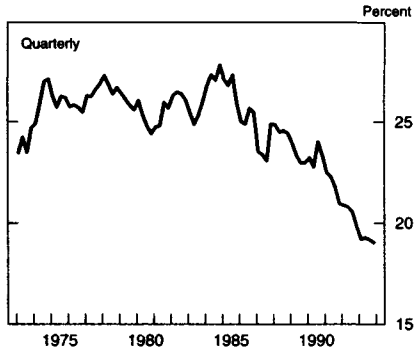


Debt Service to Disposable Income



tions mostly involved refinancings, but with a pickup in construction activity and some cashing out of equity in the process of refinancing, home mortgages expanded 7 percent, on net, last year. Overall, this pickup in liabilities was dwarfed by a substantial expansion of the asset side of the household balance sheet last year, raising net worth to a level about 4¾ times that of disposable income. Within those assets, households continued to shun deposits in favor of the investment products of nonbank intermediaries, notably mutual funds and insurance companies. As a result, deposits shrank to under 20 percent of total household assets, a post-World-War-II low. Much of the declining role for deposits probably owed to the pattern of financial returns, with investors, confronted by a steep yield curve, seeking out the higher yields

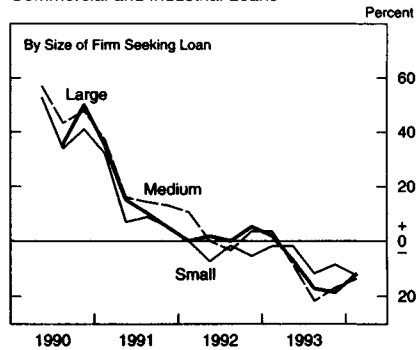
Household Deposits as a Percent of Household Assets



provided by longer maturity instruments that were mostly available from outside the depository sector.

Depository institutions, pressed by their own balance-sheet problems, were unaggressive in seeking deposits and extending credit in the early 1990s. But, by 1993, commercial banks had made substantial strides in improving their capital standing. About three-quarters of the assets at commercial banks were on the books of well-capitalized institutions as of September 1993, 2½ times the proportion at the end of 1990. Partly as a consequence, banks reported on Federal Reserve surveys a substantial easing of terms and standards on business and consumer loans during the year. However, borrowers, endeavoring to lock in longer-term funds, which are not typically supplied

Net Percentage of Domestic Loan Officers Reporting Tightening Standards for Commercial and Industrial Loans



**Assets of Domestic Banks, by Capital Category, Adjusted for Overall Supervisory Ratings, as a Proportion of All Such Assets**

Percent<sup>1</sup>

Category	Year-end			September 1993
	1990	1991	1992	
Well capitalized	30.4	34.4	67.8	73.3
Adequately capitalized	38.5	45.1	21.8	17.8
Undercapitalized	31.1	20.5	10.3	8.9

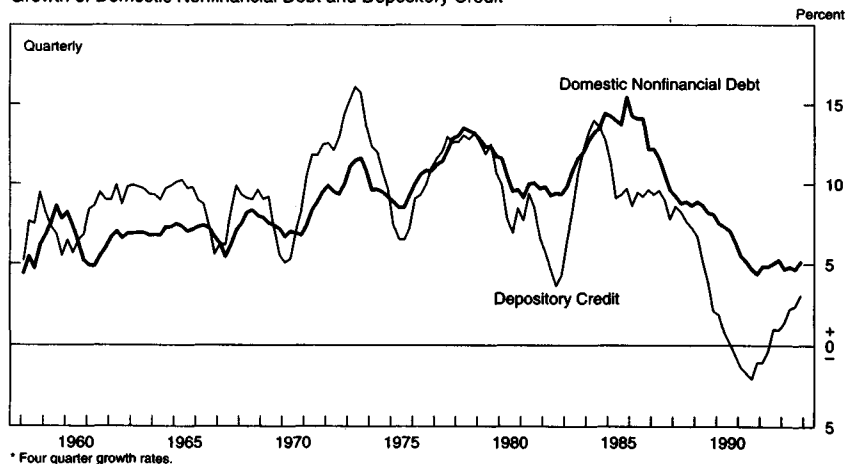
1. Adjustments to capital categories were made according to the rule of thumb of downgrading a bank by one category for a low examination rating by its supervisory agency (CAMEL 3, 4, or 5).

by banks, continued to rely heavily on capital markets, keeping the need of depositories to fund asset expansion subdued. Depository credit did expand modestly in 1993, marking a substantial rebound from the declines posted in the previous three years. The increase in depository credit exceeded the growth of deposit funds, as depositories made extensive use of equity, subordinated debt, and other nondeposit funds to finance the expansion of depository balance sheets. Bank credit increased 5 percent last year, after two years of growth in the neighborhood of 3½ percent, while thrift credit contracted only modestly. Indeed, thrift credit is estimated to have expanded in the

second half of the year, pulled up by extensions of loans by credit unions that outweighed continuing, albeit slackening, runoffs at savings and loans.

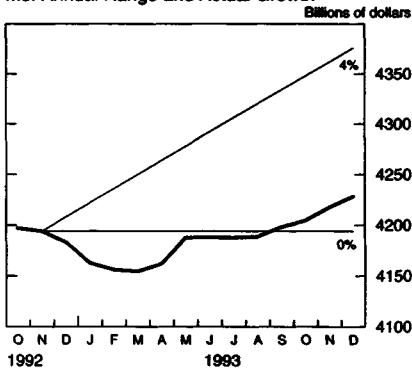
Slow expansion of depository credit, together with the increased reliance by banks on nondeposit funds, damped the growth of M3 in 1993. From the fourth quarter of 1992 to the fourth quarter of 1993, M3 grew ½ percent, ending the year a little above the lower bound of its annual range of 0 to 4 percent. This range had been adjusted down for technical reasons to acknowledge the appreciable upward trend to M3 velocity over the past few years, which accompanied

**Growth of Domestic Nonfinancial Debt and Depository Credit\***





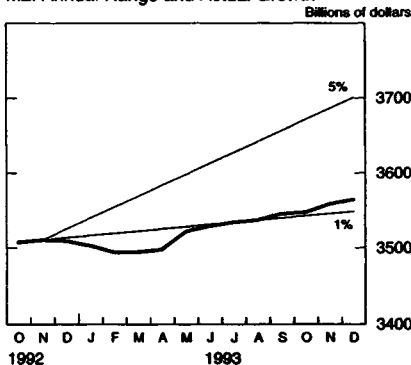
M3: Annual Range and Actual Growth



the shrinking role of depositories in intermediating funds. The part of M3 exclusive to that aggregate declined  $3\frac{1}{2}$  percent on a fourth-quarter-to-fourth-quarter basis, held down by a steep drop in institution-only money market mutual funds. Overall, M3 velocity rose at a  $4\frac{1}{2}$  percent annual rate in 1993, down almost 2 percentage points from the previous year.

The velocity of M2 rose at a  $3\frac{3}{4}$  percent annual rate in 1993 after increasing nearly 5 percent in 1992. The rise in velocity last year was posted even as the return on many competing short-term assets remained relatively constant, and it was this ongoing drift upward in the ratio between nominal GDP and the aggregate that led the FOMC to reduce the annual growth range for M2 from the 2-to-6 percent spread that was set in February to the 1-to-5 percent range

M2: Annual Range and Actual Growth



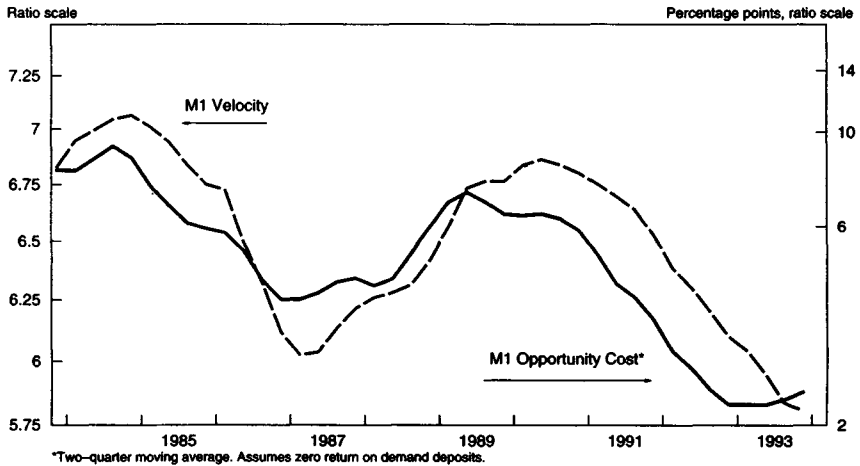
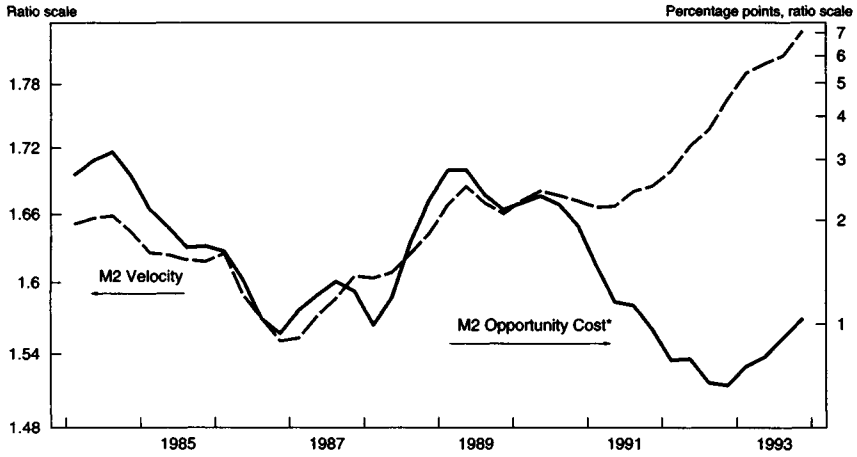
that was ultimately in effect. In the event, M2 grew  $1\frac{1}{2}$  percent from the fourth quarter of 1992 to the fourth quarter of 1993, slowing slightly from the 2 percent growth rate in 1992. Even this anemic expansion was accounted for in part by special factors. In particular, foreign demands for currency were strong and transactions deposits were boosted late in the year by a surge in mortgage refinancings that followed when mortgage rates fell to levels not seen in a generation. Refinancings are associated with the temporary parking of funds in transactions and other highly liquid deposit accounts.

Especially after taking account of such special factors, the growth of M2 was quite subdued in 1993, owing in large part to the attractiveness of capital market instruments. Although the bond market rally trimmed as much as 1 percentage point from longer-term yields, the term structure still retained an abnormally steep tilt through all of 1993. Some investors were willing to expose themselves to the greater price risk inherent in capital market mutual funds in the pursuit of higher average returns. Commercial banks took some measures to keep those customers, if not those deposits: Many banks made it possible to buy stock and bond mutual funds in their lobbies. Promotion of these services picked up and some banks sponsored their own mutual funds or established exclusive marketing arrangements with mutual fund companies, undoubtedly encouraging the diversion of deposits to mutual funds.

At the end of 1993, assets in stock and bond mutual funds totalled about  $\$1\frac{1}{2}$  trillion, up  $\$400$  billion from year-end 1992. About one-half of the December 1993 total was held by institutions and in retirement accounts—two categories generally not in M2. M2 plus the remainder of stock and bond funds expanded at around a  $5\frac{1}{2}$  percent annual rate in 1993, roughly in line with nominal GDP over that period.

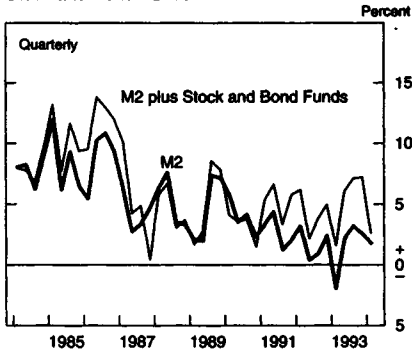
M1 grew at a  $10\frac{1}{2}$  percent pace last year, spurred on by double-digit increases in currency and demand deposits. As noted above, the former was importantly boosted by foreign demands, while the latter was closely related to swings in mortgage refinancing. M1 velocity declined at a  $4\frac{3}{4}$  percent annual rate, despite the relative stability of money market interest rates. In contrast, the narrow aggregate's velocity had followed the path of short rates down during the easing of monetary policy from 1989 to 1992. Altogether, the drop in M1 velocity in recent years illustrates both its high interest-rate sensitivity and the fairly loose relationship of M1 with interest rates and income. With the rapid expansion of transactions deposits,

Monetary Velocities and Opportunity Costs



\*Two-quarter moving average. Assumes zero return on demand deposits.

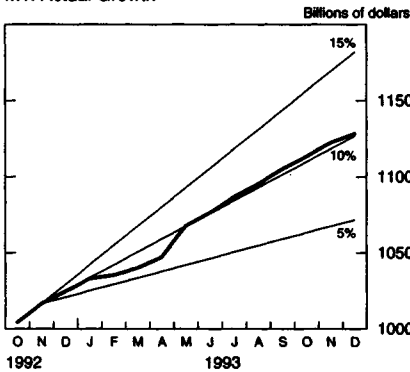
Growth Rates of M2 and M2 Plus Stock and Bond Funds



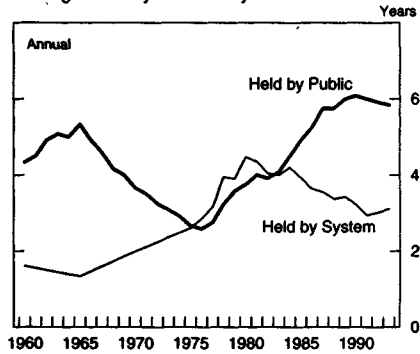
total reserves grew at a 12¼ percent annual rate last year, down from the 20 percent pace posted in 1992. Adding in the increase in currency results in a 10½ percent growth rate for the monetary base in 1993, the same performance as the previous year.

Confronted with this rapid expansion in transaction deposits, and therefore required reserves, and directed by the FOMC to keep reserve market pressures unchanged over all of 1993, the Domestic Desk at the Federal Reserve Bank of New York added about \$35 billion of securities, on net, to the System Open Market Account over the course of the year. In keeping with previous FOMC instructions, those purchases were weighted more heavily than in the past toward longer-maturity instruments. As a result, the average maturity of the Treasury securities held by the Federal Reserve moved up slightly over 1993 to 3.2 years.

M1: Actual Growth



Average Maturity of Treasury Debt



**Growth of Money and Debt**  
Percent

Period	M1	M2	M3	Domestic nonfinancial debt
<i>Annual, fourth quarter to fourth quarter<sup>1</sup></i>				
1980	7.4	8.9	9.6	9.1
1981 <sup>2</sup>	5.4 (2.5)	9.3	12.4	9.9
1982	8.8	9.2	9.9	9.6
1983	10.4	12.2	9.9	12.0
1984	5.5	8.1	10.9	14.0
1985	12.0	8.7	7.6	14.2
1986	15.5	9.3	8.9	13.4
1987	6.3	4.3	5.7	10.3
1988	4.3	5.3	6.3	9.0
1989	.6	4.8	3.8	7.8
1990	4.2	4.0	1.7	6.6
1991	7.9	2.9	1.2	4.6
1992	14.3	1.9	.5	5.0
1993	10.5	1.4	.6	4.9
<i>Quarter (annual rate)<sup>3</sup></i>				
1993:Q1	8.3	-1.3	-3.2	4.0
Q2	10.7	2.2	2.1	4.5
Q3	12.0	2.6	1.1	5.7
Q4	9.4	2.1	2.4	5.2

1. From average for fourth quarter of preceding year to average for quarter of year indicated.

2. M1 adjusted for shift to NOW accounts in 1981.

3. From average for preceding quarter to average for quarter indicated.



BOARD OF GOVERNORS  
OF THE  
FEDERAL RESERVE SYSTEM  
WASHINGTON, D. C. 20551

ALAN GREENSPAN  
CHAIRMAN

February 25, 1994

The Honorable John J. LaFalce  
House of Representatives  
Washington, D.C. 20515

Dear Congressman:

At the hearing on Tuesday before the Subcommittee on Economic Growth and Credit Formation, you requested information about financing conditions for small businesses. I hope that the enclosed materials will be useful. Please let me know if I can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to be "Alan Greenspan", written in a cursive style.

Enclosures



BOARD OF GOVERNORS  
OF THE  
FEDERAL RESERVE SYSTEM  
WASHINGTON D.C. 20551

DIVISION OF MONETARY AFFAIRS

February 10, 1994

TO: HEADS OF RESEARCH AT ALL FEDERAL RESERVE BANKS

Enclosed are copies of a national summary of the January 1994 Senior Loan Officer Opinion Survey on Bank Lending Practices for distribution to respondents.

Enclosures

The January 1994 Senior Loan Officer  
Opinion Survey on Bank Lending Practices<sup>1</sup>

The January 1994 Senior Loan Officer Opinion Survey on Bank Lending Practices posed questions about changes in bank lending standards and terms, about changes in loan demand by businesses and households, and about several bank balance sheet items. Included in the survey were fifty-nine domestic commercial banks and eighteen U.S. branches and agencies of foreign banks.

The survey results again showed an easing of terms and standards on loans to businesses and households by a significant proportion of respondents. Banks reported easing terms and standards on commercial and industrial loans to firms of all sizes, although somewhat fewer banks reported such easing than did so in the November survey. Standards for commercial real estate loans were little changed. Respondents reported increased willingness to make loans to individuals and a small net easing of standards on home mortgage loans.

A significant number of respondents reported an increase in credit demand over the past three months. The number of respondents reporting stronger demand for commercial and industrial loans rose sharply relative to the November survey; firms of all sizes increased their demand. The banks also reported a small net increase in demand for credit lines over the past three months. Household demand for credit, particularly installment credit, was stronger at several banks.

Special questions on the survey addressed the distribution of bank loans by type of loan, bank holdings of state and local tax-exempt securities, and bank loans to brokers and dealers.

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1. This document was prepared in the Division of Monetary Affairs (William B. English, with research assistance by Andrew D. Cohen), Board of Governors of the Federal Reserve System. In the footnotes that follow, table 1 refers to the responses of the domestically chartered banks and table 2 to those of the U.S. branches and agencies of foreign banks.

### Business Lending

**Commercial and industrial loans.**<sup>2</sup> About an eighth of the domestic survey respondents reported having eased standards for approving commercial and industrial loans and lines of credit for customers of all sizes over the previous three months. For large and medium-sized borrowers the proportion doing so was smaller than in the November survey, but the fraction reporting eased standards for small borrowers increased. The proportion of U.S. branches and agencies of foreign banks that reported having eased lending standards was somewhat larger than the fraction of domestic banks that did so.

Many banks reported having eased terms on loans and lines of credit over the past three months, although the fraction doing so was somewhat lower than in the November survey. The two terms eased most frequently were the spreads of loan rates over base rates and the costs of credit lines. Roughly 40 percent of the respondents eased these terms for large and middle-market customers, but less than 20 percent did so for small businesses. Smaller percentages of respondents eased other terms, including loan covenants and collateralization requirements, as well as raised the maximum size credit lines. The percentage of foreign respondents that eased lending terms was somewhat smaller than the percentage of domestic banks that eased terms for large and middle-market firms.

The respondents indicated that the easing of lending terms and standards was primarily the result of a more favorable economic outlook and increased market competition. A substantial number of respondents also pointed to an improvement in their bank's expected capital position. A few of the foreign respondents noted that weak demand in their home market allowed them to increase lending in the United States.

Considerably larger fractions of the domestic respondents than in the November survey reported stronger demand for business loans by firms in all size groups. Loan demand of large businesses, which was relatively weak in the last survey because of increased nonbank financing, showed a substantial rebound. The respondents generally attributed the stronger demand to borrower needs to finance inventories and investment in plant and equipment. Branches and

<sup>2</sup> Table 1, questions 1-5 and 10-16; table 2, questions 8.



agencies of foreign banks also reported a net increase in demand for commercial and industrial loans, although it was more limited than the one that the domestic respondents reported. A few domestic and foreign respondents also noted an increase in demand for lines of credit, as opposed to loans, over the past three months.

**Real estate loans.**<sup>3</sup> Domestic and foreign respondents both indicated that credit standards for commercial real estate loans had eased slightly. The domestic respondents reported a small net easing of standards for all types of commercial real estate loans--the first such easing since the questions were added to the survey in 1990. These responses are consistent with indications of firming markets for commercial real estate in some parts of the country and with the decline in delinquency rates on bank real estate loans over the past two years. Foreign respondents reported a small net easing of standards on construction and land development loans and loans to finance other nonfarm, nonresidential real estate. Their terms for other types of commercial real estate loans were unchanged.

#### Lending to Households<sup>4</sup>

The fraction of domestic banks reporting increased willingness to make consumer loans in the January survey was about twice as large as in November. On net, nearly 30 percent of respondents reported greater willingness to make consumer installment loans, and a similar percentage was more willing to make general purpose consumer loans, including home equity loans. A few banks reported having eased standards for approving mortgage applications for purchasing houses over the past three months.

Demand for household credit appears to have strengthened from November to January. The respondents reported a significant net strengthening of demand for consumer installment loans, and a slightly smaller pickup in demand for home mortgages. In both cases, however, the number of banks reporting stronger demand was somewhat below the level in the November survey. The respondents also reported no net decline in demand for home equity loans over the past three months. In November, the banks had reported a net decline in demand for home

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3. Table 1, questions 6 and 7; table 2, questions 4 and 5.

4. Table 1, questions 8, 9, and 17-19.

equity loans, possibly because of paydowns employing the proceeds from refinancings of first mortgages.

#### Bank Balance Sheet Items<sup>5</sup>

The January survey asked for information on several balance sheet items. First, the respondents were asked to provide the distribution of their business loan portfolios among four categories. The domestic banks reported that "floating-rate loans with stated maturities" accounted for more than 60 percent of the dollar amount of their outstanding business loans at the end of 1993. "Fixed rate loans with stated maturities excluding overnight loans" were the next biggest category, followed by "demand loans." The smallest category was "overnight loans," which accounted for less than 5 percent of the total. The foreign respondents generally reported larger shares of fixed-rate loans and smaller shares of demand loans. On average, demand loans were reported to remain on banks' books for about a year.

The second set of questions was about banks' holdings of tax-exempt municipal securities. After six years of contraction following tax law changes in 1986, holdings of these securities have increased in recent months.<sup>6</sup> According to the respondents, nearly half of the tax-exempt securities on their books were purchased before the 1986 tax changes and so are grandfathered under the old tax rules. The bulk of the remaining holdings are "bank-qualified" securities.<sup>7</sup> The banks that reported an expansion in their holdings of tax-exempt securities indicated that the increase represented primarily purchases of bank-qualified instruments. The respondents explained that they had purchased tax-exempt securities because the yields on these instruments had increased relative to those on comparable taxable securities and also because improved profitability at their banks made tax-exempt securities more attractive.

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5. Table 1, questions 20-27; table 2, questions 9-17.

6. Until the 1986 changes, banks were allowed to deduct 80 percent of the costs of funding tax-exempt securities from taxable income. For most tax-exempt instruments acquired after August 7, 1986, banks are not allowed to deduct any of the funding costs.

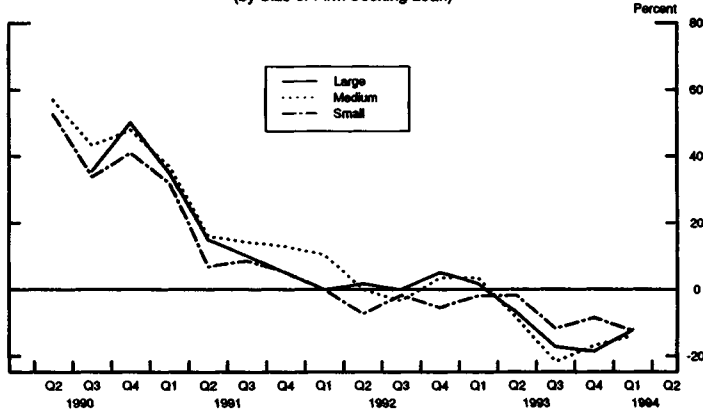
7. Bank-qualified tax-exempt securities are those issued by municipalities whose annual issuance is less than \$10 million. These instruments retain the favorable pre-1987 tax treatment of municipals.

A third set of questions focused on the surge in security loans during 1993. Most of the banks reporting growth in security loans indicated that it resulted primarily from increased funding needs of brokers and dealers. A few respondents also noted that broker and dealer financing had shifted away from other sources, in some cases because their bank offered more aggressive terms.

Finally, the foreign respondents were asked for the causes of the increase (if any) in their net borrowing from their parent bank, its non-U.S. offices, and their own international banking facility since mid-1991. In aggregate, U.S. branches and agencies of foreign banks have significantly increased such borrowing over this period. More than half of the foreign respondents reported increased net borrowing from these sources. They generally attributed the increase to the relatively inexpensive funding available in their home country. A few of the respondents pointed to changes in their organizations' practices for booking certain assets and liabilities, or to the consolidation of their organizations' funding or investment activities.

Measures of Supply and Demand  
For Commercial and Industrial Loans

Net Percentage of Domestic Respondents  
Tightening Standards for C&I Loans  
(by Size of Firm Seeking Loan)



Net Percentage of Domestic Respondents  
Reporting Stronger Demand for C&I Loans  
(by Size of Firm Seeking Loan)

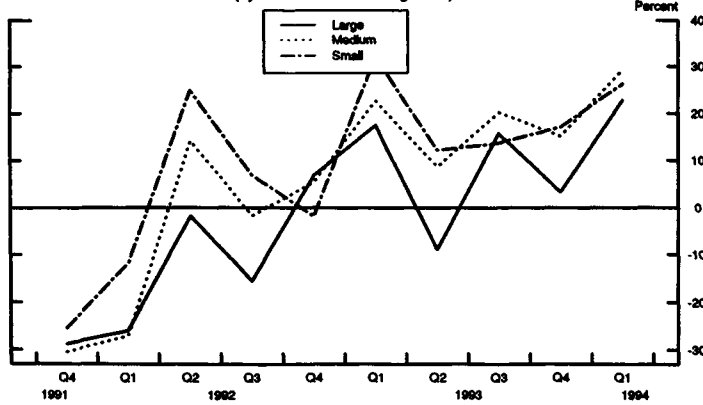


Table 1

**SENIOR LOAN OFFICER OPINION SURVEY ON BANK LENDING PRACTICES  
AT SELECTED LARGE BANKS IN THE UNITED STATES**  
(Status of policy as of January 1994)

(Number of banks and percent of banks answering question)  
(By volume of total domestic assets, in \$ billions, as of September 30, 1993<sup>1</sup>)

NOTE: Questions 1 through 9 of this survey deal with changes in your bank's lending policies over the last three months. If lending policies at your bank have not changed in the last three months, they should be marked "unchanged" even if, for example, these policies remain restrictive relative to longer-term norms. By the same token, if your bank's lending policies have been eased in the last three months, they should be marked as "easier" even if, for example, they nevertheless remain restrictive relative to longer-term norms.

1. In the last three months, how have your bank's credit standards for approving applications for C&I loans or credit lines--other than those to be used to finance mergers and acquisitions--from large corporate, middle market and small business customers changed? (Please report changes in enforcement of existing standards as changes in standards. The middle market has been categorized as consisting of firms with annual sales of between \$50 and \$250 million; in answering this question, refer either to this definition or to any other that may be employed at your bank; please indicate the definition used if it is other than the one suggested. "Large" borrowers would then be those larger than middle market customers and "small" borrowers those that are smaller.)

a. for large firms

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	1	1.7	1	2.9	0	0.0
Basically unchanged	49	84.5	28	80.0	21	91.3
Eased somewhat	8	13.8	6	17.1	2	8.7
Eased considerably	0	0.0	0	0.0	0	0.0
<b>Total</b>	<b>58</b>	<b>100.0</b>	<b>35</b>	<b>100.0</b>	<b>23</b>	<b>100.0</b>

b. for middle market firms

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	50	86.2	30	88.2	20	83.3
Eased somewhat	8	13.8	4	11.8	4	16.7
Eased considerably	0	0.0	0	0.0	0	0.0
<b>Total</b>	<b>58</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>	<b>24</b>	<b>100.0</b>

1. As of September 30, 1993, 35 respondents had domestic assets of \$10 billion or more; combined assets of these banks totaled \$938.9 billion, compared to \$1.1 trillion for the entire panel of 59 banks, and \$3.2 trillion for all domestically chartered federally insured commercial banks.

Note: In questions 5a, 5b, 24a, 24b, 26, and 27 "mean" refers to average rank, with 1 most important, 2 next most important and so on.

## c. for small businesses

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	50	87.7	28	84.8	22	91.7
Eased somewhat	7	12.3	5	15.2	2	8.3
Eased considerably	0	0.0	0	0.0	0	0.0
Total	57	100.0	33	100.0	24	100.0

2. With respect to applications for C&I loans or credit lines--other than those to be used to finance mergers and acquisitions--from large corporate firms that your bank currently is willing to approve, please indicate how terms have changed in the last three months with respect to:

## a. maximum size of credit lines

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Decreased considerably	0	0.0	0	0.0	0	0.0
Decreased somewhat	3	5.2	1	2.9	2	8.7
Basically unchanged	37	63.8	20	57.1	17	73.9
Increased somewhat	18	31.0	14	40.0	4	17.4
Increased considerably	0	0.0	0	0.0	0	0.0
Total	58	100.0	35	100.0	23	100.0

## b. costs of credit lines

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Increased considerably	0	0.0	0	0.0	0	0.0
Increased somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	35	60.3	22	62.9	13	56.5
Decreased somewhat	23	39.7	13	37.1	10	43.5
Decreased considerably	0	0.0	0	0.0	0	0.0
Total	58	100.0	35	100.0	23	100.0

## c. spreads of loan rates over base rates

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Increased considerably	0	0.0	0	0.0	0	0.0
Increased somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	28	48.3	15	42.9	13	56.5
Decreased somewhat	30	51.7	20	57.1	10	43.5
Decreased considerably	0	0.0	0	0.0	0	0.0
Total	58	100.0	35	100.0	23	100.0

## d. loan covenants

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	45	77.6	25	71.4	20	87.0
Eased somewhat	11	19.0	9	25.7	2	8.7
Eased considerably	2	3.4	1	2.9	1	4.3
Total	58	100.0	35	100.0	23	100.0

## e. collateralization requirements

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	1	1.7	0	0.0	1	4.3
Basically unchanged	53	91.4	31	88.6	22	95.7
Eased somewhat	4	6.9	4	11.4	0	0.0
Eased considerably	0	0.0	0	0.0	0	0.0
Total	58	100.0	35	100.0	23	100.0

3. With respect to applications for C&I loans or credit lines--other than those to be used to finance mergers and acquisitions--from middle market firms that your bank currently is willing to approve, please indicate how terms have changed in the last three months with respect to:

## a. maximum size of credit lines

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Decreased considerably	0	0.0	0	0.0	0	0.0
Decreased somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	42	72.4	25	73.5	17	70.8
Increased somewhat	16	27.6	9	26.5	7	29.2
Increased considerably	0	0.0	0	0.0	0	0.0
Total	58	100.0	34	100.0	24	100.0

## b. costs of credit lines

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Increased considerably	0	0.0	0	0.0	0	0.0
Increased somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	37	63.8	22	64.7	15	62.5
Decreased somewhat	20	34.5	11	32.4	9	37.5
Decreased considerably	1	1.7	1	2.9	0	0.0
Total	58	100.0	34	100.0	24	100.0

## c. spreads of loan rates over base rates

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Increased considerably	0	0.0	0	0.0	0	0.0
Increased somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	34	58.6	20	58.8	14	58.3
Decreased somewhat	23	39.7	13	38.2	10	41.7
Decreased considerably	1	1.7	1	2.9	0	0.0
Total	58	100.0	34	100.0	24	100.0

## d. loan covenants

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	50	86.2	29	85.3	21	87.5
Eased somewhat	7	12.1	4	11.8	3	12.5
Eased considerably	1	1.7	1	2.9	0	0.0
Total	58	100.0	34	100.0	24	100.0

## e. collateralization requirements

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	2	3.4	1	2.9	1	4.2
Basically unchanged	54	93.1	31	91.2	23	95.8
Eased somewhat	2	3.4	2	5.9	0	0.0
Eased considerably	0	0.0	0	0.0	0	0.0
Total	58	100.0	34	100.0	24	100.0

4. With respect to applications for C&I loans or credit lines from small businesses that your bank currently is willing to approve, please indicate how terms have changed in the last three months with respect to:

## a. maximum size of credit lines

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Decreased considerably	0	0.0	0	0.0	0	0.0
Decreased somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	52	91.2	29	87.9	23	95.8
Increased somewhat	5	8.8	4	12.1	1	4.2
Increased considerably	0	0.0	0	0.0	0	0.0
Total	57	100.0	33	100.0	24	100.0



## b. costs of credit lines

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Increased considerably	0	0.0	0	0.0	0	0.0
Increased somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	49	86.0	27	81.8	22	91.7
Decreased somewhat	7	12.3	5	15.2	2	8.3
Decreased considerably	1	1.8	1	3.0	0	0.0
Total	57	100.0	33	100.0	24	100.0

## c. spreads of loan rates over base rates

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Increased considerably	0	0.0	0	0.0	0	0.0
Increased somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	46	80.7	25	75.8	21	87.5
Decreased somewhat	10	17.5	7	21.2	3	12.5
Decreased considerably	1	1.8	1	3.0	0	0.0
Total	57	100.0	33	100.0	24	100.0

## d. loan covenants

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	1	1.8	0	0.0	1	4.2
Basically unchanged	49	86.0	28	84.8	21	87.5
Eased somewhat	7	12.3	5	15.2	2	8.3
Eased considerably	0	0.0	0	0.0	0	0.0
Total	57	100.0	33	100.0	24	100.0

## e. collateralization requirements

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	1	1.8	0	0.0	1	4.2
Basically unchanged	53	93.0	31	93.9	22	91.7
Eased somewhat	3	5.3	2	6.1	1	4.2
Eased considerably	0	0.0	0	0.0	0	0.0
Total	57	100.0	33	100.0	24	100.0

5.a. If your bank tightened either its lending standards or loan terms over the last three months (as described in questions 1 to 4) what were the main reasons? (Please rank.)

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Mean	Banks	Mean	Banks	Mean
A deterioration in your bank's capital position	0	0.0	0	0.0	0	0.0
A deterioration in your bank's expected capital position owing to a decline in the quality of your loan portfolio or other factors	0	0.0	0	0.0	0	0.0
A less favorable economic outlook	0	0.0	0	0.0	0	0.0
A worsening of industry specific problems	0	0.0	0	0.0	0	0.0
Other	3	1.0	2	1.0	1	1.0
Total	3		2		1	

5.b. If your bank eased either its lending standards or loan terms over the last three months (as described in questions 1 to 4) what were the main reasons? (Please rank.)

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Mean	Banks	Mean	Banks	Mean
An improvement in your bank's capital position	4	2.5	3	2.7	1	2.0
An improvement in your bank's expected capital position owing to an improvement in the quality of your loan portfolio or other factors	8	2.0	5	2.4	3	1.3
A more favorable economic outlook	13	1.5	10	1.5	3	1.7
A lessening of industry specific problems	7	2.6	4	3.0	3	2.0
Other	23	1.4	17	1.2	6	2.2
Total	31		22		9	

6. In the last three months, how have your bank's credit standards changed for approving applications for construction and land development loans? (Please report changes in enforcement of existing standards as changes in standards.)

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	2	3.4	1	2.9	1	4.2
Basically unchanged	53	91.4	32	94.1	21	87.5
Eased somewhat	2	3.4	1	2.9	1	4.2
Eased considerably	1	1.7	0	0.0	1	4.2
Total	58	100.0	34	100.0	24	100.0

7. Apart from construction and land development loans, in the last three months, how have your bank's credit standards changed for approving applications for nonfarm nonresidential real estate loans used to finance. (Please report changes in enforcement of existing standards as changes in standards.)

a. commercial office buildings

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	55	94.8	32	94.1	23	95.8
Eased somewhat	3	5.2	2	5.9	1	4.2
Eased considerably	0	0.0	0	0.0	0	0.0
Total	58	100.0	34	100.0	24	100.0

b. industrial structures

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	53	91.4	31	91.2	22	91.7
Eased somewhat	5	8.6	3	8.8	2	8.3
Eased considerably	0	0.0	0	0.0	0	0.0
Total	58	100.0	34	100.0	24	100.0

c. other nonfarm nonresidential properties

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	0	0.0	0	0.0	0	0.0
Basically unchanged	56	96.6	33	97.1	23	95.8
Eased somewhat	2	3.4	1	2.9	1	4.2
Eased considerably	0	0.0	0	0.0	0	0.0
Total	58	100.0	34	100.0	24	100.0

8. a. In the last three months, how have your bank's credit standards changed for approving mortgage applications from individuals to purchase homes? (Please report changes in enforcement of existing standards as changes in standards.)

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Tightened considerably	0	0.0	0	0.0	0	0.0
Tightened somewhat	1	1.8	0	0.0	1	4.2
Basically unchanged	50	90.9	29	93.5	21	87.5
Eased somewhat	4	7.3	2	6.5	2	8.3
Eased considerably	0	0.0	0	0.0	0	0.0
Total	55	100.0	31	100.0	24	100.0

8.b. If your bank has tightened its standards for approving mortgage loan applications from individuals, please indicate which of the following measures this involved: (more than one may apply)

	All Respondents		Under \$10.0	
	Banks	Pct	Banks	Pct
Higher income standards to qualify	0	0.0	0	0.0
Higher downpayments	0	0.0	0	0.0
More stringent appraisal requirements	1	100.0	1	100.0
Other	1	100.0	1	100.0
Total	1	100.0	1	100.0

9.a. Please indicate your bank's willingness to make general purpose loans to individuals now as opposed to three months ago. "Loans to individuals" here include standard consumer installment loans plus loans taken down under home equity lines of credit.

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Much more	3	5.3	2	6.1	1	4.2
Somewhat more	15	26.3	12	36.4	3	12.5
About unchanged	38	66.7	19	57.6	19	79.2
Somewhat less	1	1.8	0	0.0	1	4.2
Much less	0	0.0	0	0.0	0	0.0
Total	57	100.0	33	100.0	24	100.0

9.b. Please indicate your bank's willingness to make consumer installment loans now as opposed to three months ago.

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Much more	2	3.4	1	2.9	1	4.2
Somewhat more	16	27.6	13	38.2	3	12.5
About unchanged	39	67.2	20	58.8	19	79.2
Somewhat less	1	1.7	0	0.0	1	4.2
Much less	0	0.0	0	0.0	0	0.0
Total	58	100.0	34	100.0	24	100.0

NOTE: Questions 10 through 19 deal with changes in your customers' demand for credit over the last three months.

10. Please characterize the demand for business loans from large corporate customers in the last three months compared with demand in the preceding three months. Apart from normal seasonal variation, this loan demand in the last three months was:

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Substantially stronger	0	0.0	0	0.0	0	0.0
Moderately stronger	19	33.3	14	40.0	5	22.7
About the same	32	56.1	17	48.6	15	68.2
Moderately weaker	6	10.5	4	11.4	2	9.1
Substantially weaker	0	0.0	0	0.0	0	0.0
Total	57	100.0	35	100.0	22	100.0

11.a. If large corporate customer loan demand strengthened in the last three months, please indicate all primary reasons that apply.

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Customer inventory financing needs increased	10	55.6	6	46.2	4	80.0
Customer investment in plant or equipment increased	10	55.6	7	53.8	3	60.0
Customer financing at other banks decreased	2	11.1	2	15.4	0	0.0
Customer financing at nonbank financial institutions or in capital markets decreased	1	5.6	0	0.0	1	20.0
Other	6	33.3	6	46.2	0	0.0
Total	18	100.0	13	100.0	5	100.0

11.b. If large corporate customer loan demand weakened in the last three months, please indicate all primary reasons that apply.

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Customer inventory financing needs decreased	1	16.7	1	25.0	0	0.0
Customer investment in plant or equipment decreased	1	16.7	1	25.0	0	0.0
Customer financing at other banks increased	3	50.0	3	75.0	0	0.0
Customer financing at nonbank financial institutions or in capital markets increased	6	100.0	4	100.0	2	100.0
Other	0	0.0	0	0.0	0	0.0
Total	6	100.0	4	100.0	2	100.0

12. Please characterize the demand for business loans from middle market firms in the last three months compared with demand in the preceding three months. Apart from normal seasonal variation, this loan demand in the last three months was:

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Substantially stronger	0	0.0	0	0.0	0	0.0
Moderately stronger	20	34.5	11	32.4	9	37.5
About the same	35	60.3	22	64.7	13	54.2
Moderately weaker	3	5.2	1	2.9	2	8.3
Substantially weaker	0	0.0	0	0.0	0	0.0
Total	58	100.0	34	100.0	24	100.0

13.a. If middle market customer loan demand strengthened in the last three months, please indicate all the primary reasons that apply.

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Customer inventory financing needs increased	15	75.0	7	63.6	8	88.9
Customer investment in plant or equipment increased	15	75.0	7	63.6	8	88.9
Customer financing at other banks decreased	2	10.0	2	18.2	0	0.0
Customer financing at nonbank financial institutions or in capital markets decreased	1	5.0	1	9.1	0	0.0
Other	2	10.0	2	18.2	0	0.0
Total	20	100.0	11	100.0	9	100.0

13.b. If middle market customer loan demand weakened in the last three months, please indicate all the primary reasons that apply.

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Customer inventory financing needs decreased	2	66.7	1	100.0	1	50.0
Customer investment in plant or equipment decreased	2	66.7	1	100.0	1	50.0
Customer financing at other banks increased	2	66.7	1	100.0	1	50.0
Customer financing at nonbank financial institutions or in capital markets increased	2	66.7	1	100.0	1	50.0
Other	0	0.0	0	0.0	0	0.0
Total	3	100.0	1	100.0	2	100.0

14. Please characterize the demand for business loans from small businesses in the last three months compared with demand in the preceding three months. Apart from normal seasonal variation, this loan demand in the last three months was:

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Substantially stronger	0	0.0	0	0.0	0	0.0
Moderately stronger	17	29.8	10	30.3	7	29.2
About the same	38	66.7	21	63.6	17	70.8
Moderately weaker	2	3.5	2	6.1	0	0.0
Substantially weaker	0	0.0	0	0.0	0	0.0
Total	57	100.0	33	100.0	24	100.0

15.a. If small business customer loan demand strengthened in the last three months, please indicate all the primary reasons that apply.

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Customer inventory financing needs increased	14	82.4	8	80.0	6	85.7
Customer investment in plant or equipment increased	13	76.5	7	70.0	6	85.7
Customer financing at other banks decreased	4	23.5	1	10.0	3	42.9
Customer financing at nonbank financial institutions or in capital markets decreased	1	5.9	1	10.0	0	0.0
Other	1	5.9	1	10.0	0	0.0
Total	17	100.0	10	100.0	7	100.0

15.b. If small business customer loan demand weakened in the last three months, please indicate all the primary reasons that apply.

	All Respondents		\$10.0 and over	
	Banks	Pct	Banks	Pct
Customer inventory financing needs decreased	1	50.0	1	50.0
Customer investment in plant or equipment decreased	1	50.0	1	50.0
Customer financing at other banks increased	0	0.0	0	0.0
Customer financing at nonbank financial institutions or in capital markets increased	1	50.0	1	50.0
Other	1	50.0	1	50.0
Total	2	100.0	2	100.0

16. Please characterize the demand for lines of credit, as opposed to business loans, from commercial and industrial firms in the last three months compared with demand in the preceding three months. Apart from normal seasonal variation, demand for lines of credit in the last three months was:

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Substantially stronger	0	0.0	0	0.0	0	0.0
Moderately stronger	9	15.3	6	17.1	3	12.5
About the same	45	76.3	26	74.3	19	79.2
Moderately weaker	5	8.6	3	8.6	2	8.3
Substantially weaker	0	0.0	0	0.0	0	0.0
Total	59	100.0	35	100.0	24	100.0

17. Please characterize the demand for residential mortgages to purchase homes in the last three months compared with demand in the preceding three months. Apart from normal seasonal variation, this loan demand in the last three months was:

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Substantially stronger	0	0.0	0	0.0	0	0.0
Moderately stronger	18	31.0	14	41.2	4	16.7
About the same	32	55.2	17	50.0	15	62.5
Moderately weaker	8	13.8	3	8.8	5	20.8
Substantially weaker	0	0.0	0	0.0	0	0.0
Total	58	100.0	34	100.0	24	100.0

18. Please characterize the demand for home equity lines of credit in the last three months compared with demand in the preceding three months. Apart from normal seasonal variation, this loan demand in the last three months was:

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Substantially stronger	1	1.9	0	0.0	1	4.8
Moderately stronger	8	14.8	7	21.2	1	4.8
About the same	36	66.7	20	60.6	16	76.2
Moderately weaker	9	16.7	6	18.2	3	14.3
Substantially weaker	0	0.0	0	0.0	0	0.0
Total	54	100.0	33	100.0	21	100.0

19. Please characterize the demand for consumer installment loans in the last three months compared with demand in the preceding three months. Apart from normal seasonal variation, this loan demand in the last three months was:

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Substantially stronger	0	0.0	0	0.0	0	0.0
Moderately stronger	19	33.3	11	33.3	8	33.3
About the same	33	57.9	19	57.6	14	58.3
Moderately weaker	5	8.8	3	9.1	2	8.3
Substantially weaker	0	0.0	0	0.0	0	0.0
Total	57	100.0	33	100.0	24	100.0

NOTE: Questions 20 to 27 refer to certain balance sheet items at your bank.

20. At year end, what was the approximate percentage distribution of the total dollar volume of commercial and industrial loans currently on your bank's books among the following categories: loans without stated maturities (i.e., demand loans), floating-rate loans with stated maturities, fixed-rate loans with stated maturities excluding overnight loans, and overnight loans? (Percentages should add to 100.)

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Mean pct	Banks	Mean pct	Banks	Mean pct
Loans without stated maturities	35	9.7	20	9.1	15	12.1
Floating-rate loans with stated maturities	46	63.0	25	65.0	21	55.0
Fixed-rate loans with stated maturities excluding overnight loans	45	20.8	25	20.7	20	21.5
Overnight loans	27	4.6	16	3.0	11	11.4
Total	47	100.0	26	100.0	21	100.0

\*Weighted by the volume of commercial and industrial loans outstanding as of December 29, 1993 (reported separately).

21. How long on average do commercial and industrial loans without a stated maturity date (i.e., demand loans) stay on your bank's books before being repaid or renegotiated?

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
1-10 days	4	8.9	2	8.0	2	10.0
11-30 days	3	6.7	3	12.0	0	0.0
31-60 days	1	2.2	1	4.0	0	0.0
61-90 days	4	8.9	3	12.0	1	5.0
91-180 days	2	4.4	0	0.0	2	10.0
181 days to one year	14	31.1	8	32.0	6	30.0
More than one year	17	37.8	8	32.0	9	45.0
Total	45	100.0	25	100.0	20	100.0

22. Of your bank's holdings of tax-exempt securities issued by states and political subdivisions in the United States at year end, approximately what percent was accounted for by: (Percentages should add to 100.)

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Mean pct	Banks	Mean pct	Banks	Mean pct
Tax-exempt securities acquired before August 7, 1986 (80 percent of whose funding costs therefore are deductible from your bank's taxable income under the terms of the Tax Reform Act of 1986)	46	46.6	27	46.9	19	45.7
"Bank qualified" instruments, that is, tax-exempt obligations acquired after August 7, 1986 of issuers whose total annual issuance amounts to less than \$10 million (80 percent of whose funding costs also are deductible from your bank's taxable income under the terms of the Tax Reform Act of 1986)	37	40.3	23	39.0	14	44.4
Other tax-exempt instruments	20	13.0	13	14.1	7	9.9
Total	50	100.0	30	100.0	20	100.0

\*Weighted by the volume of tax-exempt securities held as of December 29, 1993 (reported separately).



23. During 1993, holdings of tax-exempt securities at banks nationwide began to expand, following over six years of contraction. Over the second half of 1993, did holdings of tax-exempt securities at your bank

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Expand	12	21.8	7	21.9	5	21.7
Remain essentially unchanged or contract	43	78.2	25	78.1	18	78.3
Total	55	100.0	32	100.0	23	100.0

24.a. If your bank's holdings of these securities expanded, did the strength primarily reflect (Please rank.)

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Mean	Banks	Mean	Banks	Mean
A cessation or slowing in runoffs of instruments acquired before August 7, 1986	2	1.5	1	2.0	1	1.0
Increased holdings of "bank qualified" instruments	8	1.0	4	1.0	4	1.0
Increased holdings of other tax-exempt instruments	3	1.0	3	1.0	0	0.0
Total	12		7		5	

24.b. If your bank's holdings of "bank qualified" or other tax-exempt securities expanded, to what do you attribute the increase? (Please rank.)

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Mean	Banks	Mean	Banks	Mean
An increase in the yields available on tax-exempt securities relative to comparable taxable securities	6	1.5	4	1.3	2	2.0
The increased attractiveness of these securities resulting from higher profits at your bank	3	1.0	1	1.0	2	1.0
The increased attractiveness of these securities resulting from the exhaustion of your bank's net operating loss carryforwards	2	2.5	1	3.0	1	2.0
Other	4	1.8	3	2.0	1	1.0
Total	10		6		4	

25. Credit extended to nonbank brokers and dealers in securities expanded rapidly in the second half of last year at banks nationwide, mainly in the form of reverse repurchase agreements but also as loans for purchasing and carrying securities. Please indicate the growth of these types of credit at your bank in the second half of 1993 compared to the first half.

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Pct	Banks	Pct	Banks	Pct
Faster in the second half than in the first half	19	35.8	17	53.1	2	9.5
The same or slower in the second half than in the first half	34	64.2	15	46.9	19	90.5
Total	53	100.0	32	100.0	21	100.0

26. If your bank's credit outstanding to nonbank brokers and dealers advanced more strongly in the second half of last year, which of the following were important reasons? (Please rank.)

	All Respondents		\$10.0 and over		Under \$10.0	
	Banks	Mean	Banks	Mean	Banks	Mean
Increased demand for such credit stemming from increased financing needs of dealers	13	1.2	12	1.2	1	1.0
Actions taken by your bank to ease terms and otherwise increase the availability of credit to brokers and dealers	5	2.6	4	2.8	1	2.0
A shift by brokers and dealers away from other sources of credit and to your bank for reasons other than changes in the cost and availability of this credit from your bank	3	2.3	2	2.0	1	3.0
Other	7	1.0	6	1.0	1	1.0
Total	18		16		2	

27. If your bank benefitted from a shifting of borrowing by brokers and dealers to your bank and away from competing sources of financing, what were the major sources from which they shifted? (Please rank.)

	All Respondents		\$10.0 and over	
	Banks	Mean	Banks	Mean
Money center banks	0	0.0	0	0.0
Regional banks	0	0.0	0	0.0
Branches and agencies of foreign banks	1	1.0	1	1.0
Commercial paper issued by broker/dealers	0	0.0	0	0.0
Money market mutual funds	0	0.0	0	0.0
Pension funds	0	0.0	0	0.0
Other nonbank financial corporations	0	0.0	0	0.0
Nonfinancial corporations	0	0.0	0	0.0
State and local governments	0	0.0	0	0.0
Other(s)	0	0.0	0	0.0
Total	1		1	

Table 2

**SENIOR LOAN OFFICER OPINION SURVEY ON BANK LENDING PRACTICES  
AT SELECTED BRANCHES AND AGENCIES OF FOREIGN BANKS IN THE UNITED STATES  
(Status of policy as of January 1994)**

(Number of banks and percent of banks answering question)  
(By volume of total domestic assets, in \$ billions, as of September 30, 1993<sup>1</sup>)

NOTE: Questions 1 through 5 of this survey deal with changes in your bank's lending policies over the last three months. If lending policies at your bank have not changed in the last three months, they should be marked "unchanged" even if, for example, these policies remain restrictive relative to longer-term norms. By the same token, if your bank's lending policies have been eased in the last three months, they should be marked as "easier" even if, for example, they nevertheless remain restrictive relative to longer-term norms.

1. In the last three months, how have your bank's credit standards for approving applications for C&I loans or credit lines--other than those to be used to finance mergers and acquisitions--changed? (Please report changes in enforcement of existing standards as changes in standards.)

	All Respondents	
	Banks	Pct
Tightened considerably	0	0.0
Tightened somewhat	0	0.0
Basically unchanged	14	77.8
Eased somewhat	4	22.2
Eased considerably	0	0.0
<b>Total</b>	<b>18</b>	<b>100.0</b>

2. With respect to applications for C&I loans or credit lines--other than those to be used to finance mergers and acquisitions--that your bank currently is willing to approve, please indicate how terms have changed in the last three months with respect to:

a. maximum size of credit lines

	All Respondents	
	Banks	Pct
Decreased considerably	0	0.0
Decreased somewhat	0	0.0
Basically unchanged	16	88.9
Increased somewhat	2	11.1
Increased considerably	0	0.0
<b>Total</b>	<b>18</b>	<b>100.0</b>

1. As of September 30, 1993, respondents had combined assets of \$84.9 billion, compared to \$481.8 billion for all foreign-related banking institutions in the United States.

Note: In questions 3a, 3b, 14a, 14b, 16, and 17 "mean" refers to average rank, with 1 most important, 2 next most important and so on.

## b. costs of credit lines

	All Respondents	
	Banks	Pct
Increased considerably	0	0.0
Increased somewhat	0	0.0
Basically unchanged	12	66.7
Decreased somewhat	6	33.3
Decreased considerably	0	0.0
Total	18	100.0

## c. spreads of loan rates over base rates

	All Respondents	
	Banks	Pct
Increased considerably	0	0.0
Increased somewhat	0	0.0
Basically unchanged	11	61.1
Decreased somewhat	7	38.9
Decreased considerably	0	0.0
Total	18	100.0

## d. loan covenants

	All Respondents	
	Banks	Pct
Tightened considerably	0	0.0
Tightened somewhat	0	0.0
Basically unchanged	18	100.0
Eased somewhat	0	0.0
Eased considerably	0	0.0
Total	18	100.0

## e. collateralization requirements

	All Respondents	
	Banks	Pct
Tightened considerably	0	0.0
Tightened somewhat	0	0.0
Basically unchanged	18	100.0
Eased somewhat	0	0.0
Eased considerably	0	0.0
Total	18	100.0

3.a. If your bank tightened either its lending standards or loan terms over the last three months (as described in questions 1 and 2), what were the main reasons? (Please rank.)

(No response.)

3.b. If your bank eased either its lending standards or loan terms over the last three months (as described in questions 1 and 2), what were the main reasons? (Please rank.)

	All Respondents	
	Banks	Mean
An improvement in your parent bank's capital position	1	1.0
An expected improvement in your parent bank's capital position owing to an improvement in the quality of its loan portfolio or other factors	2	1.5
A more favorable economic outlook	3	1.7
A lessening of industry specific problems	2	3.0
Other	6	2.0
Total	7	

4. In the last three months, how have your bank's credit standards changed for approving applications for construction and land development loans? (Please report changes in enforcement of existing standards as changes in standards.)

	All Respondents	
	Banks	Pct
Tightened considerably	0	0.0
Tightened somewhat	0	0.0
Basically unchanged	15	88.2
Eased somewhat	2	11.8
Eased considerably	0	0.0
Total	17	100.0

5. Apart from construction and land development loans, in the last three months, how have your bank's credit standards changed for approving applications for nonfarm nonresidential real estate loans used to finance: (Please report changes in enforcement of existing standards as changes in standards.)

a. commercial office buildings

	All Respondents	
	Banks	Pct
Tightened considerably	0	0.0
Tightened somewhat	0	0.0
Basically unchanged	17	100.0
Eased somewhat	0	0.0
Eased considerably	0	0.0
Total	17	100.0

## b. industrial structures

	All Respondents	
	Banks	Pct
Tightened considerably	0	0.0
Tightened somewhat	0	0.0
Basically unchanged	17	100.0
Eased somewhat	0	0.0
Eased considerably	0	0.0
Total	17	100.0

## c. other nonfarm nonresidential properties

	All Respondents	
	Banks	Pct
Tightened considerably	0	0.0
Tightened somewhat	0	0.0
Basically unchanged	16	94.1
Eased somewhat	1	5.9
Eased considerably	0	0.0
Total	17	100.0

NOTE: Questions 6 through 8 deal with changes in your customer's demand for credit over the last three months.

6. Please characterize the demand for business loans in the last three months compared with demand in the preceding three months. Apart from normal seasonal variation, this loan demand in the last three months was:

	All Respondents	
	Banks	Pct
Substantially stronger	0	0.0
Moderately stronger	4	22.2
About the same	12	66.7
Moderately weaker	2	11.1
Substantially weaker	0	0.0
Total	18	100.0

7.a. If loan demand strengthened in the last three months, please indicate all primary reasons that apply.

	All Respondents	
	Banks	Pct
Customer inventory financing needs increased	3	100.0
Customer investment in plant or equipment increased	3	100.0
Customer financing at other banks decreased	1	33.3
Customer financing at nonbank financial institutions or in capital markets decreased	1	33.3
Other	0	0.0
Total	3	100.0

7.b. If loan demand weakened in the last three months, please indicate all primary reasons that apply.

	All Respondents	
	Banks	Pct
Customer inventory financing needs decreased	0	0.0
Customer investment in plant or equipment decreased	0	0.0
Customer financing at other banks increased	0	0.0
Customer financing at nonbank financial institutions or in capital markets increased	2	100.0
Other	0	0.0
Total	2	100.0

8. Please characterize the demand for lines of credit, as opposed to business loans, from commercial and industrial firms in the last three months compared with demand in the preceding three months. Apart from normal seasonal variation, demand for lines of credit in the last three months was:

	All Respondents	
	Banks	Pct
Substantially stronger	0	0.0
Moderately stronger	2	11.1
About the same	15	83.3
Moderately weaker	1	5.6
Substantially weaker	0	0.0
Total	18	100.0

NOTE: Question 9 refers to net borrowing by your bank from your parent bank, its non-U.S. offices, and your own IBF. In aggregate, branches and agencies of foreign banks have significantly increased such borrowing since mid-1991.

9.a. Since mid-1991 how has the share of your bank's total liabilities accounted for by aggregate net borrowing from your parent bank, its non-U.S. offices, or your own IBF changed?

	All Respondents	
	Banks	Pct
Increased	12	66.7
Basically unchanged or decreased	6	33.3
Total	18	100.0

9.b. If such borrowing has increased, please indicate the primary reasons for the increase.

(7 of the respondents provided answers.)

NOTE: Questions 10 to 17 refer to certain balance sheet items at your bank.

10. At year end, what was the approximate percentage distribution of the total dollar volume of commercial and industrial loans currently on your bank's books among the following categories: loans without stated maturities (i.e., demand loans), floating-rate loans with stated maturities, fixed-rate loans with stated maturities excluding overnight loans, and overnight loans? (Percentages should add to 100.)

	All Respondents	
	Banks	Mean pct
Loans without stated maturities	6	3.2
Floating-rate loans with stated maturities	18	51.6
Fixed-rate loans with stated maturities excluding overnight loans	18	41.8
Overnight loans	10	5.4
Total	18	100.0

\*Weighted by the volume of commercial and industrial loans outstanding as of December 29, 1993 (reported separately).

11. How long on average do commercial and industrial loans without a stated maturity date (i.e., demand loans) stay on your bank's books before being repaid or renegotiated?

	All Respondents	
	Banks	Pct
1-10 days	1	16.7
11-30 days	1	16.7
31-60 days	2	33.3
61-90 days	0	0.0
91-180 days	0	0.0
181 days to one year	0	0.0
More than one year	2	33.3
Total	6	100.0

12. Of your bank's holdings of tax-exempt securities issued by states and political subdivisions in the United States at year end, approximately what percent was accounted for by: (Percentages should add to 100.)

	All Respondents	
	Banks	Mean pct
Tax-exempt securities acquired before August 7, 1986 (80 percent of whose funding costs therefore are deductible from your bank's taxable income under the terms of the Tax Reform Act of 1986)	1	100.0
*"Bank qualified" instruments, that is, tax-exempt obligations acquired after August 7, 1986 of issuers whose total annual issuance amounts to less than \$10 million (80 percent of whose funding costs also are deductible from your bank's taxable income under the terms of the Tax Reform Act of 1986)	0	0.0
Other tax-exempt instruments	0	0.0
Total	1	100.0



13. During 1993, holdings of tax-exempt securities at banks nationwide began to expand, following over six years of contraction. Over the second half of 1993, did holdings of tax-exempt securities at your bank

	All Respondents	
	Banks	Pct
Expand	0	0.0
Remain essentially unchanged or contract	5	100.0
Total	5	100.0

14.a. If your bank's holdings of these securities expanded, did the strength primarily reflect (Please rank.)

(No response.)

14.b. If your bank's holdings of "bank qualified" or other tax-exempt securities expanded, to what do you attribute the increase? (Please rank.)

(No response.)

15. Credit extended to nonbank brokers and dealers in securities expanded rapidly in the second half of last year at banks nationwide, mainly in the form of reverse repurchase agreements but also as loans for purchasing and carrying securities. Please indicate the growth of these types of credit at your bank in the second half of 1993 compared to the first half.

	All Respondents	
	Banks	Pct
Faster in the second half than in the first half	1	10.0
The same or slower in the second half than in the first half	9	90.0
Total	10	100.0

16. If your bank's credit outstanding to nonbank brokers and dealers advanced more strongly in the second half of last year, which of the following were important reasons? (Please rank.)

	All Respondents	
	Banks	Mean
Increased demand for such credit stemming from increased financing needs of dealers	1	1.0
Actions taken by your bank to ease terms and otherwise increase the availability of credit to brokers and dealers	0	0.0
A shift by brokers and dealers away from other sources of credit and to your bank for reasons other than changes in the cost and availability of this credit from your bank	0	0.0
Other	0	0.0
Total	1	

17. If your bank benefitted from a shifting of borrowing by brokers and dealers to your bank and away from competing sources of financing, what were the major sources from which they shifted? (Please rank.)

(No response.)

**CREDIT AVAILABILITY**  
**for**  
**SMALL BUSINESSES AND SMALL FARMS**

**Submitted by**  
**The Board of Governors of the**  
**Federal Reserve System**  
**December 31, 1993**

CREDIT AVAILABILITY FOR SMALL BUSINESSES AND SMALL FARMS

Section 477 of the Federal Deposit Insurance Corporation Improvement Act requires that the Federal Reserve collect and publish annually information on the availability of credit to small businesses and small farms. The charts in this report provide detailed data on credit flows and terms of business loans at depository institutions, including information on small farm and business loans. The data are from Reports of Condition and Income (Call Reports), Federal Reserve surveys of banks, Census Bureau and private sector surveys of businesses, and the flow of funds accounts. Where available, information on other sources of finance for small businesses and farms also is shown. The text summarizes trends in the cost and flow of credit to small businesses and small farms during 1993 as reflected in these charts.<sup>1</sup>

On balance, total business debt grew slowly in 1993 with borrowers focusing on balance sheet restructuring, and lenders pursuing cautious policies while strengthening loan portfolios and capital positions. A strong stock market during the year induced heavy equity issuance by nonfinancial firms, including record volumes of initial public offerings. Corporate borrowers also issued substantial volumes of new bonds, with proceeds in many cases used to refinance higher-yield debt and to pay down bank loans. Such paydowns by big companies were a major source of weakness in commercial and industrial loans at banks. Although the availability of credit for

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1. The Federal Reserve also is conducting a survey of small businesses, including minority-owned small businesses. Data from this survey, which will be available late next year, should provide the basis for broader analyses of credit availability to small businesses across a spectrum of industries, locations, ownership, and size categories.

small businesses appears to have eased a bit, based on surveys of bank lending terms, banks still were cautious and maintained interest rates on small business loans at high spreads over market interest rates. Nonetheless, credit did not appear to be an important factor constraining small businesses, many of which were not eager to take on additional debt in light of uncertain prospects for sales and profit growth. Demand for credit by small farms also remained low, despite growing farm incomes and improved returns to this sector. Commercial banks continued to expand their portfolios of farm loans this year, and survey data suggest that credit for small farms was amply available at rate spreads comparable to those on larger loans.

#### CREDIT AVAILABILITY FOR SMALL BUSINESSES

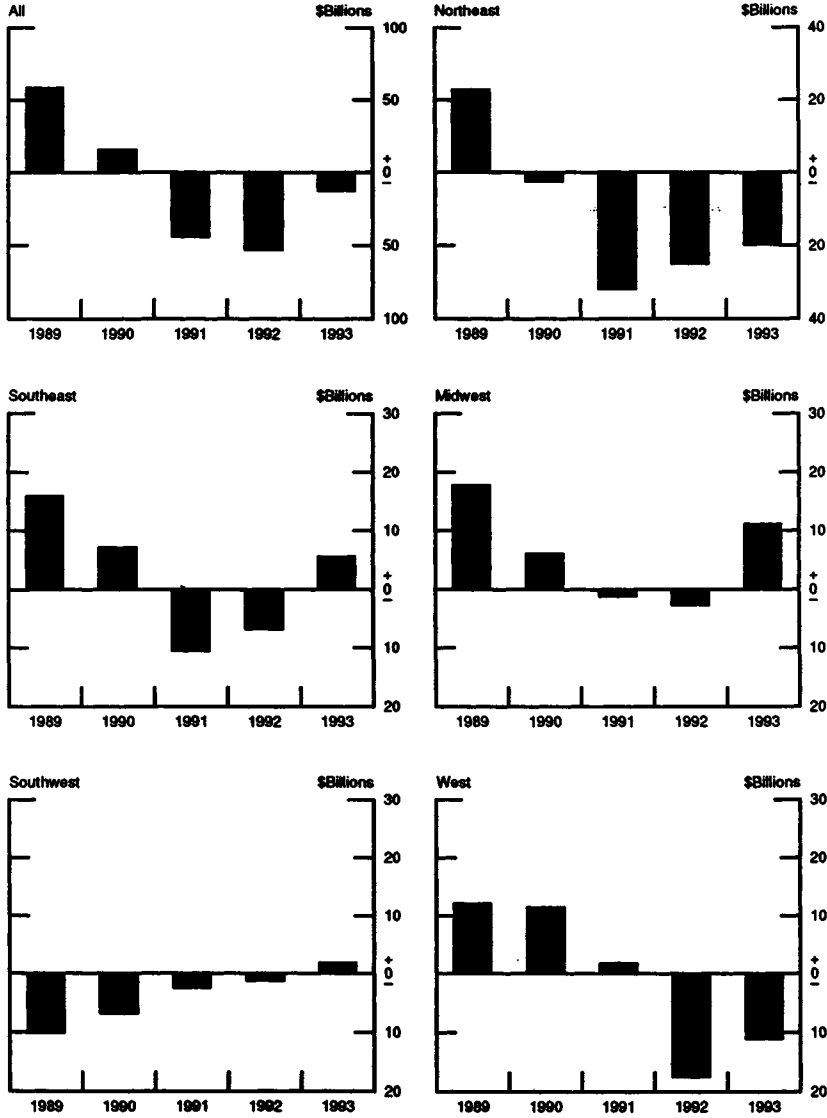
Depository Credit Flows. Data from the 1989 National Survey of Small Business Financing (NSSBF) suggest that small businesses, in the aggregate, obtain almost half their external debt financing from commercial banks. Thus, it is appropriate when assessing credit availability for small firms to focus first on credit extended by banks.

Recent changes in total business loans at banks are shown in Chart 1 for the United States as a whole and for major geographic regions.<sup>2</sup> The data in the chart highlight the weakness in aggregate business lending by commercial banks since 1989. As shown in Chart 1, outstanding business loans at banks fell more than \$12

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2. Business loans in Chart 1 include commercial and industrial loans; nonfarm, nonresidential loans secured by real estate; and construction and land development loans. These components are shown separately in Chart 2. Many small businesses also rely on bank credit in the form of personal or home equity loans; personal loans used for business purposes, however, are impossible to distinguish from personal loans for other purposes in the bank reports and hence are not included.

**Chart 1**  
**U.S. Commercial Banks**  
**Change in Business Loans by Region\***  
 (September to September)



Source: Call Reports

\*Business loans include commercial and industrial loans; nonfarm, nonresidential loans secured by real estate; and construction and land development loans.

billion, or about 1.5 percent, in the year ending September 30, 1993. This drop followed a cumulative decline of nearly \$100 billion in the two previous years. Chart 2 breaks out the change in business loans into its major components. As indicated in the last column of the chart, the contraction this year reflects a further sizable drop in construction and land development loans; such loans outstanding totaled about \$68 billion at the end of September 1993, down from \$87 billion a year earlier and more than \$135 billion outstanding in late 1989. Banks, especially in New England and the far West, have continued to reduce their portfolios of construction loans, as such loans are repaid or written off and not replaced, in response to the sharp deterioration in real estate values since the late 1980s. Although there have been some reports of a reemergence of lending for real estate development, the magnitude of these efforts likely remains small and scattered.

In addition to the fall in construction loans, commercial and industrial (C&I) loans contracted more than \$6 billion over this period. The weakness in C&I loans also was most pronounced at banks in the Northeast and the West. In contrast, business loans in the Southeast, Southwest, and Midwest together increased slightly more than 4 percent, a moderate pace overall and a marked improvement over the previous two years.

The aggregate contraction in business loans reflects a number of factors affecting the supply of and the demand for bank credit. On the demand side, many corporations have moved away from bank credit in the process of restructuring their balance sheets. As interest rates on corporate bonds dropped to their lowest levels in two decades and stock prices reached new highs (Chart 3), the capital markets appeared to offer large firms attractive financing alternatives. Record

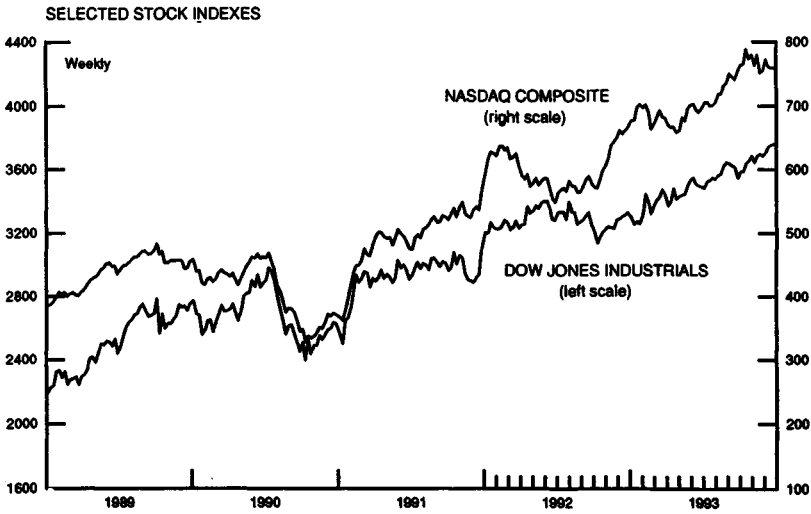
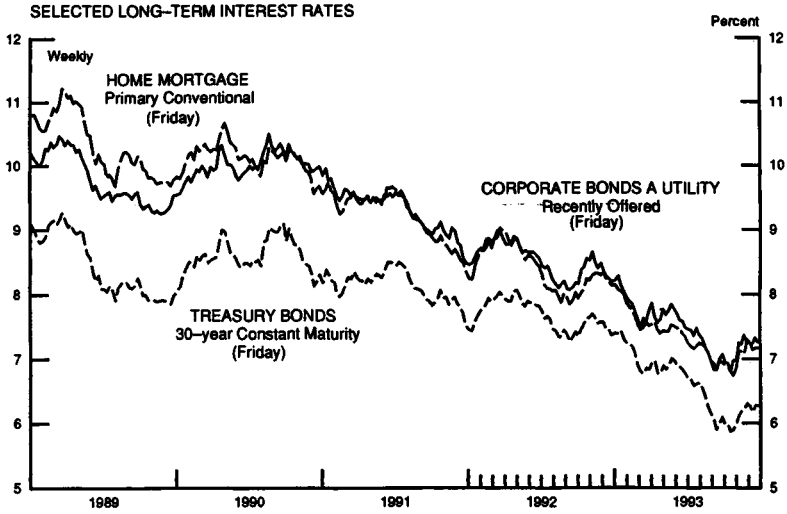
Chart 2

## Business Loans At U.S. Commercial Banks

Region	Number of banks	Type of Loan			
		Total business	Commercial and industrial	Nonfarm, nonresidential real estate	Construction and land development
<b>Amount outstanding, September 30, 1993</b>					
(Billions of dollars)					
Total U.S.	11,101	761.0	428.9	263.9	68.2
Northeast	724	195.8	119.4	61.4	15.0
Southeast	1,958	157.0	75.9	63.8	17.3
Midwest	6,554	245.8	149.3	78.8	17.7
Southwest	1,141	39.5	25.2	11.2	3.1
West	724	122.8	59.2	48.6	15.0
<b>Change from year earlier</b>					
(Billions of dollars)					
Total U.S.	11,101	-12.5	-6.4	12.9	-19.0
Northeast	724	-19.8	-12.9	0.4	-7.3
Southeast	1,958	5.5	3.8	4.0	-2.3
Midwest	6,554	11.1	5.2	6.8	-0.9
Southwest	1,141	1.8	1.2	0.3	0.3
West	724	-11.0	-3.7	1.5	-8.8

Source: Call Reports

**Chart 3**  
**Interest Rates and Stock Prices**





volumes of new stocks and bonds were issued during the year, with proceeds in many cases used to retire old debt and to repay bank loans. Many large firms viewed fixed-rate bonds as a cheaper and more flexible source of credit than bank loans which frequently carry restrictive covenants. As indicated in Chart 4, manufacturing corporations reduced their bank debt by \$9 billion in the year ending September 30, 1993. Most of this decline occurred at larger companies, those with assets of \$25 million or more; indeed, the largest manufacturers, those with assets of \$1 billion or more, paid down \$4-1/2 billion in bank loans. These large firms at the same time increased their outstanding long-term debt by \$14 billion (not shown). Although very large manufacturers rely on bank loans for only 16 percent of their external credit needs, they have a notable effect on bank loan flows because of their size. Smaller manufacturers, those with less than \$25 million in assets, also restricted their use of bank credit but much less dramatically than the large firms.

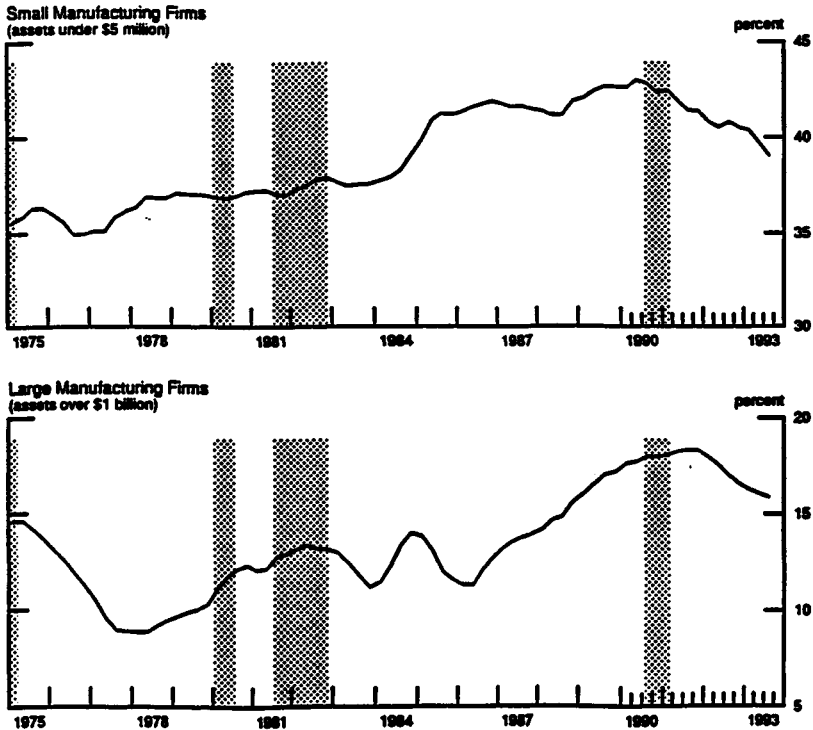
Viewed in longer-run perspective (lower panels of chart 4), the recent reduction in the share of bank debt at large manufacturing firms does not appear unusually sharp. The decline in the share at very small (less than \$5 million in total assets) manufacturers was been somewhat steeper, especially over the past year. This decline reflects a modest reduction in bank credit accompanied by a greater increase in their nonbank, long-term debt. As with the large firms, many small manufacturers likely found markets and institutional investors more receptive to their security placements.

June Call Report Data: Small Business Loans. Data collected for the first time on the June 1993 Call Reports provide an approximate measure of the amount of bank lending to small businesses across all industries, not just in manufacturing. Chart 5 shows the

Chart 4

Bank Debt Of Manufacturing Corporations			
Asset size of firm	Amount outstanding, September 1993	Change from year earlier	Percent of total debt of firms <sup>1</sup>
--- Billions of dollars ---			
Less than \$5 million	17.3	-1.0	39.0
\$5 to \$25 million	25.1	.1	45.7
\$25 million to \$1 billion	101.6	-3.5	41.7
\$1 billion or more	107.8	-4.6	15.6
All manufacturers	251.8	-9.0	24.4

Bank Loans as a Percent of Total Debt  
(4-quarter moving averages)



1. Total debt includes trade debt and excludes advances by U.S. government, accrued income taxes, other accrued expenses, capitalized leases, and minority interests in consolidated domestic corporations.  
Source: U.S. Bureau of the Census, *Quarterly Financial Report for Manufacturing, Mining, and Trade Corporations*, Third Quarter, 1993

amount of credit extended to businesses by size of the loan or by size of the total credit commitment for loans made under a line of credit or commitment. (The upper panel shows commercial and industrial loans, and the lower panel shows loans secured by nonfarm, nonresidential real estate.) Although the relationship between loan size and business size is not precise, evidence suggests that there is a strong positive correlation. For example, in the 1989 NSSBF, 80 percent of loans to businesses with less than \$1 million in annual sales were under \$100,000. In contrast, only 15 percent of loans to firms with sales of \$10 million or more fell in this small size category. It is reasonable to assume that most of the loans of \$100,000 or less, shown in Chart 5, are loans to small businesses. In addition, many loans between \$100,000 and \$1 million are to small businesses.<sup>3</sup>

The data in Chart 5 indicate that commercial banks with total assets of less than \$100 million primarily make small business loans. In addition, close to half the dollar volume of business loans at the banks with assets of \$100 to \$300 million are in amounts of \$100,000 or less and about 86 percent of these loans are under \$1

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3. In this regard, it is important to note that the term "small business" is not well-defined, and quite different definitions may be appropriate depending on the context. A firm with \$50 to \$100 million in annual sales generally would be too small to issue bonds and equity in public securities markets and likely would find it difficult to place its issues privately. From the perspective of a commercial bank, a business with less than \$10 million in annual sales likely would be considered small, while companies with sales of \$50 to \$100 million would be "middle market". For assessing credit flows to low income areas, firms with \$1 million in annual sales may be more appropriate. Data from the 1989 National Survey of Small Business Finance indicate that about three-fourths of small businesses have less than \$1 million in annual sales and fewer than twenty employees.

Chart 5

**Business Loans At U.S. Commercial Banks**  
Amount Outstanding as of June 30, 1993

Original amount of loan or line of credit or commitment (Thousands of dollars)	Asset size of bank (Millions of dollars)					All banks
	<\$100	\$100 to \$300	\$300 to \$1,000	\$1,000 to \$5,000	>\$5,000	
	<b>Commercial and industrial loans</b>					
	(Billions of dollars)					
\$100 or less	21.8	17.7	10.7	9.6	17.6	77.4
Greater than \$100 thru \$250	3.2	4.5	4.3	5.5	8.6	26.1
Greater than \$250 thru \$1,000	3.7	7.6	9.0	12.9	22.2	55.4
Greater than \$1,000	0.9	4.4	12.2	45.0	213.1	275.6
Total C&I loans	29.6	34.2	36.2	73.0	261.5	434.5
	<b>Loans secured by nonfarm, nonresidential properties</b>					
	(Billions of dollars)					
\$100 or less	15.7	14.4	6.8	4.4	5.0	46.2
Greater than \$100 thru \$250	3.8	5.3	4.4	5.1	7.2	25.8
Greater than \$250 thru \$1,000	6.4	11.8	11.7	14.2	21.6	65.7
Greater than \$1,000	1.3	5.5	12.7	28.8	74.8	123.2
Total nonfarm, nonres. loans	27.2	37.0	35.6	52.5	108.6	260.9

Source: Call Reports

million.<sup>4</sup> Banks in these two size groups compose roughly 90 percent of all domestic commercial banks; however, their C&I and nonfarm, nonresidential real estate loans account for less than 20 percent of the total of such loans at all domestic banks. Although far fewer in number, larger banks provide 80 percent of total business loans and more than 40 percent of small (\$100,000 or less) business loans in the chart.

The loan-size data offer insights into the amount of loans outstanding to small businesses, but because they have been reported for only one date this year, they cannot shed light on net credit flows during the year. Some information can be gleaned, however, by looking at the growth pattern of business loans at those institutions that lend almost exclusively to smaller businesses. On the June Call Report, about 6,400 banks indicated that virtually all of their business loans were in amounts, or under lines, of less than \$100,000. Chart 6 indicates that these banks had outstanding about \$73 billion in business loans at the end of September, an increase of more than 6 percent from the year before. Thus, while aggregate business loans were running off in 1993, this subset of banks maintained and increased their lending to small customers. A word of caution is warranted: the numbers in Chart 6 should not be interpreted as the total amount of bank lending to small businesses because they do not include loans at banks that have a mix of large and small customers. As noted earlier, large banks account for a sizable share of small

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4. There are legal limits on the amount of credit that a bank can extend to a single borrower; national banks, for example, are prohibited from extending to one borrower unsecured credit in excess of 10 percent of its "unimpaired" capital. Thus, a bank with a portfolio of \$100 million and a capital-to-loan ratio of .05 could not lend more than \$500,000 ( $0.1 \times 0.05 \times \$100$  million) to a single customer. This limits the potential for small banks to accommodate large business customers.

Chart 6

<b>Business Loans At U.S. Commercial Banks With Mostly Small Loans<sup>1</sup></b>					
Region	Number of banks	Type of Loan			
		Total business	Commercial and industrial	Nonfarm, nonresidential real estate	Construction and land development
<b>Amount outstanding, September 30, 1993</b>					
<b>(Billions of dollars)</b>					
Total U.S.	6,389	73.1	34.3	31.6	7.2
Northeast	233	4.6	1.9	2.5	0.2
Southeast	1,031	19.5	7.9	9.2	2.4
Midwest	4,186	36.0	18.2	14.9	2.9
Southwest	733	7.2	3.4	3.1	0.7
West	206	5.8	2.9	1.9	1.0
<b>Change from year earlier</b>					
<b>(Billions of dollars)</b>					
Total U.S.	6,389	4.4	0.8	2.8	0.8
Northeast	233	-0.4	-0.4	0.0	0.0
Southeast	1,031	1.5	0.4	0.9	0.2
Midwest	4,186	2.1	0.5	1.4	0.2
Southwest	733	0.4	0.0	0.2	0.2
West	206	0.8	0.3	0.3	0.2

1. Banks are those that reported on the June 30, 1993, Call Report that virtually all their business loans were in amounts of, or under lines of credit or commitment of, less than \$100,000.

Source: Call Reports

loans and it is not possible to determine from only one Call Report if their outstanding small business loans increased or decreased over the year. The data in Chart 6, nonetheless, are consistent with other evidence suggesting that much of the recent weakness in bank commercial and industrial loans reflects paydowns of loans at large institutions, likely associated with portfolio restructuring by mid-sized and large corporate borrowers.

Terms of Lending. Conceptually, to determine whether weakness in business loans reflects lack of demand by borrowers or a contracting supply by lenders, one would look at the prices and terms applied to loan transactions. If bank lending rates are low relative to the bank's cost of funds or to competing sources of credit, and if other loan terms are easy, sluggish loan growth is more likely to reflect weak borrower demand. In contrast, high costs of bank loans, and tight collateral and other lending terms, suggest that suppliers may be restraining growth. In either event, interpretation of pricing information must take into account other factors that affect credit terms, especially adjustments for risk. Generally, aggregate loan flows reflect a combination of supply and demand pressures, and there are no simple, risk-adjusted, price and credit measures that distinguish unambiguously the source of these pressures. Survey data, however, provide some evidence on recent changes in bank willingness to lend and on demands for bank credit. As noted below, such surveys, coupled with information on bank loan rates, paint a picture of a credit environment for business borrowers that is more hospitable in 1993, but one in which both borrowers and lenders remain cautious about expanding debt use.

The Federal Reserve's periodic Senior Loan Officer Opinion Survey on Bank Lending Practices poses a number of questions to large

banks about changes in their lending standards, loan terms, and loan demand for large, medium and small businesses. Recent surveys indicate that most of these banks stopped tightening their lending terms and standards for commercial and industrial loans in mid-1992; during 1993, virtually none of the respondent banks reported any tightening, and an increasing number reported some easing. In the November 1993 survey, about a quarter of the domestic bank respondents reported reductions in the price of credit and credit lines for small businesses and somewhat fewer reported easing other terms, including loan covenants, credit line size, and collateral requirements. Indices of the net percentage of respondent banks that reported tightening fell to zero for firms of all sizes last year and have moved down further in 1993 (Chart 7).<sup>5</sup> Nonetheless, the survey does not reveal an appreciable unwinding of the firm standards the banks adopted in earlier years. The tightening of lending standards for commercial real estate loans reported in 1990 and 1991 also appears to have ended (Chart 8); except for a few reports of easing, however, the survey provides little evidence that the appreciable earlier firming in commercial real estate standards has reversed.

The Senior Loan Officer Opinion Survey is somewhat mixed with regard to the demand for business loans in 1993. Although between 15 and 25 percent of bank respondents noted some pickup in demand by large companies in the May, August, and November surveys, an almost equal share reported lower loan demand, which they attributed in many cases to the shift by large businesses from banks to capital markets. Twenty-five to thirty percent of the banks reporting in these months indicated that demand by mid-sized and small firms was stronger, while

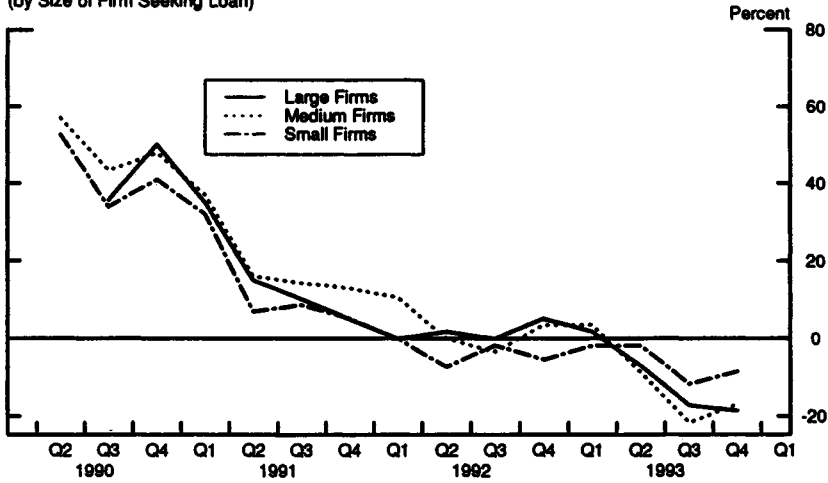
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5. The net percentage is the percentage of respondents that reported tightening standards over the three months prior to the survey date less the percentage that reported easing standards.

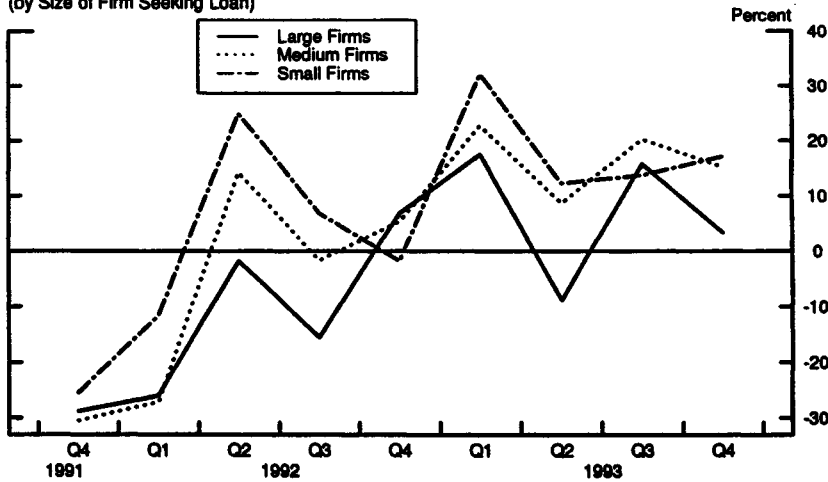


### Chart 7 Senior Loan Officer Opinion Survey Commercial and Industrial Loans

Net Percentage of Domestic Respondents Tightening Standards  
(by Size of Firm Seeking Loan)



Net Percentage of Domestic Respondents Reporting Stronger Demand  
(by Size of Firm Seeking Loan)



## Chart 8

### Senior Loan Officer Opinion Survey

Commercial Banks Reporting Changes in Credit Standards  
in the Three Months Prior to the Survey Month  
(Percent of total respondents)<sup>1</sup>

Survey month	Commercial Real Estate Loans						Construction and Land Development Loans	
	Office buildings		Industrial structures		Other		Tightened	Eased
	Tightened	Eased	Tightened	Eased	Tightened	Eased		
1990 August	74	0	63	0	66	0	75	0
October	60	0	59	0	61	0	66	0
1991 January	48	0	45	0	46	0	47	0
August	28	0	26	0	28	0	29	2
October	20	0	10	0	14	0	15	0
1992 January	14	2	3	2	7	2	11	0
May	10	0	12	2	11	0	11	2
August	5	0	0	2	7	0	11	4
November	5	0	2	2	5	0	5	2
1993 January	7	0	2	2	2	0	2	2
May	9	2	7	5	7	5	5	7
August	5	2	5	9	5	7	3	5
November	5	2	3	9	4	12	2	7

1. The percentage of responses in the "basically unchanged" category is not shown. For simplicity of presentation, the percentages that "tightened somewhat" and "tightened considerably" have been combined, as have the percentages that "eased somewhat" and "eased considerably."

Source: Federal Reserve Board, "Senior Loan Officer Opinion Survey on Bank Lending Practices," mimeo, various issues

about half this number thought it was weaker. At the same time, sample surveys taken by the National Federation of Independent Business (NFIB) indicated little or no pickup in credit use among its members, mostly small and mid-sized businesses.<sup>6</sup> The percentage of NFIB firms who identified themselves as regular borrowers dropped below one-third in July to a record low for the twenty-year history of the survey, and edged up only slightly in October (Chart 9). Concerns about credit availability remained well down on the list of problems cited by NFIB firms, with only 8 percent of respondents indicating that credit was harder to obtain and only 2 percent citing financing difficulties as their most important problem. The average interest rate on short-term loans reported by NFIB borrowers fell to 8.3 percent during the year, but ticked up slightly to 8.5 percent in the October survey. Interest rates, however, were not cited by respondents as a reason for pessimism; rather they expressed concerns about general business conditions and the outlook for sales growth.

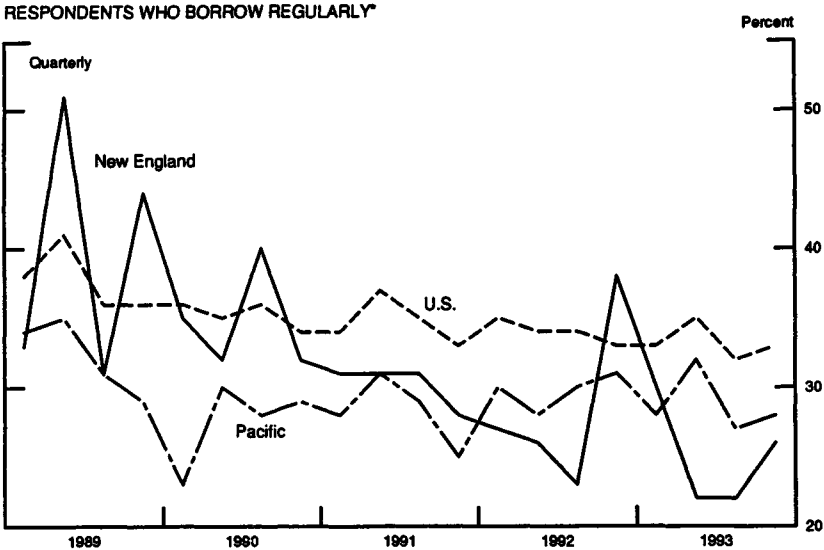
Interest rates on shorter-term small business loans are typically tied to the prime rate.<sup>7</sup> Thus, the five percentage point decline in the prime rate since 1989 has greatly reduced the cost of borrowing for many firms. Still, the prime rate remains unusually high relative to market interest rates, as indicated by the nearly 300 basis point spread of the prime over the federal funds rate (Chart 10). Data from the Federal Reserve's Survey of Terms of Bank Lending to Business further suggest that, while banks have been fairly

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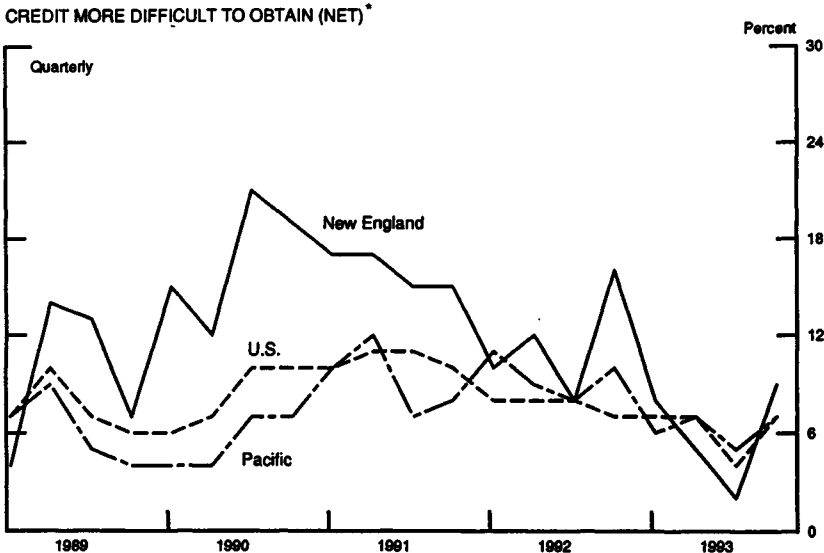
6. William C. Dunkelberg, National Federation of Independent Business, 1993 Quarterly Economic Surveys. The NFIB conducts quarterly surveys in the first month of each quarter. The October 1993 survey covered about 2,100 businesses.

7. In a recent Federal Reserve survey, about a quarter of the volume of newly extended small loans carried fixed interest rates, while close to 70 percent were variable-rate prime-based loans. The remaining few were variable-rate loans that were tied to market rates other than the prime.

**Chart 9**  
**Loan Availability**  
**NFIB Quarterly Survey Results**



\*Number of firms that indicate they borrow at least once every three months, expressed as a percent of all survey respondents.



†Of borrowers who sought credit in the past three months, the proportion that reported more difficulty in obtaining credit less the proportion that reported more ease in obtaining credit.

Source: National Federation of Independent Business

aggressive in lowering interest spreads on large loans, they have not reduced such spreads for their smaller borrowers. For example, as shown in Chart 10, average yields on floating-rate loans made under commitments of \$20 million or more have narrowed from 75 to near 10 basis points over prime since 1991. In contrast, for loans of less than \$100,000 not made under commitment, the average spread over prime has fluctuated narrowly around 175 basis points this year, slightly above its average over the previous two years. Private loan rates include some premia to compensate lenders for risk, and the reluctance of banks to lower their rates may reflect concern that, despite the improving economic environment, new loans entail more risk as credit standards and nonprice terms are eased.

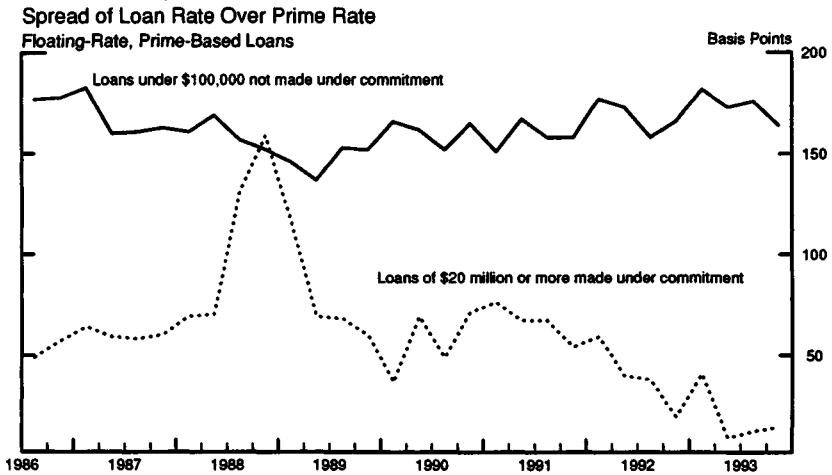
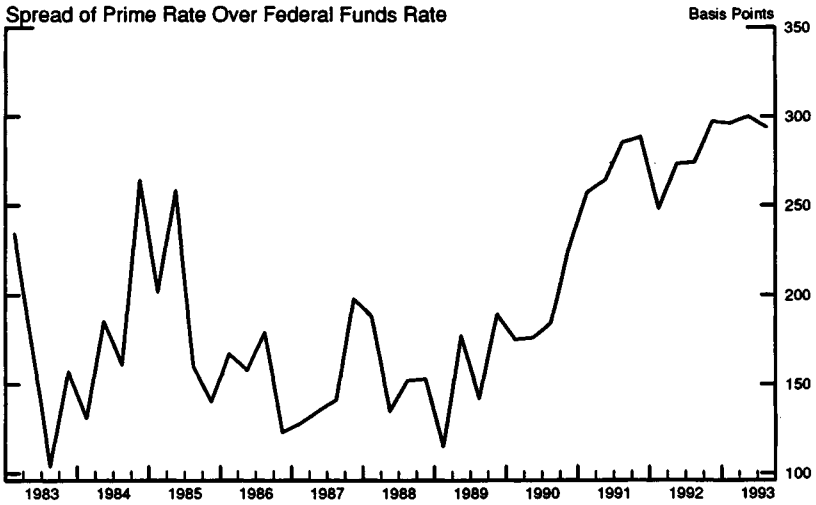
Taken together, the evidence from the bank and private sector surveys suggests that banks have eased credit standards and costs measurably for large businesses, perhaps spurred by the increased competition for these customers from the capital markets and other private sources. Indeed, despite the banks' more accommodative postures, large companies have continued to pay down bank debt while issuing bonds and equity in substantial volume. While some banks have begun to ease terms and standards for small businesses as well, they have not aggressively lowered lending rates to small firms.<sup>8</sup> Small businesses, however, have not cited current levels of interest rates as a major deterrent to borrowing; those that view credit as hard to obtain still are more likely to refer to difficulty in meeting lending

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8. A few large banks have announced programs specifically aimed at attracting smaller business customers. These efforts might include: training branch managers to screen and process small business loans; setting up divisions that specialize in small business lending; and working with state and local programs to promote small business lending. There are no data to assess the overall impact of such programs. Some may increase the total flow of credit to small businesses; others may mostly shift flows among lenders.

Chart 10

Yield Spreads at Commercial Banks



Source: Federal Reserve Board, Quarterly Survey of Terms of Bank Lending

standards or collateral and documentation requirements than to high interest rates. Moreover, many small businesses appear reluctant to expand their debt owing to continued uncertainty about their own business prospects and the economy in general.

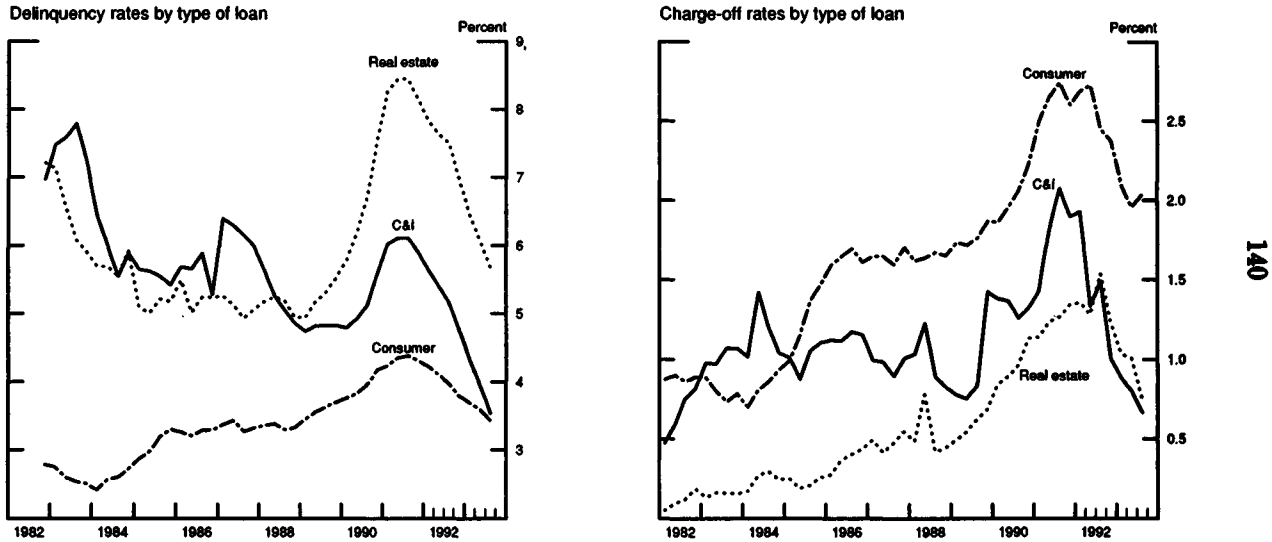
Information on the financial condition of large commercial banks suggests that the trend toward loosening credit standards should continue. As indicated in Chart 11, delinquency rates and charge-off rates for all types of loans--consumer, real estate, and commercial and industrial--have fallen markedly from their 1991 peaks; for C&I loans, delinquency rates in the third quarter of 1993 were at their lowest level in the ten-year history of the bank series. Moreover, bank profits remain near record levels this year, and the capital positions of most banks have moved well above minimum ranges.

Nonbank Credit Sources. As noted above, bank loans account for perhaps half the credit extended to small businesses. In addition, small firms rely on credit from nonbank depository institutions and finance companies, on trade credit and on loans from family and friends. Figures from the Federal Reserve's flow of funds accounts provide a breakdown of the major sources of market and trade credit for nonfinancial businesses generally and the differences between corporate and noncorporate borrowers (Chart 12).

The nonfarm, noncorporate business sector in the upper panel of Chart 12 comprises partnerships, sole proprietorships, tax-exempt cooperatives, and individuals who receive rental income on nonresidential structures. The average size of businesses in this sector is appreciably smaller than of those in the corporate

Chart 11

Delinquency and Charge-Off Rates at Large Banks  
(Seasonally adjusted)



Note: Data are from FFIEC's quarterly Reports of Condition and Income for banks with at least \$300 million in assets, and for all banks with foreign offices. Delinquent loans include those past due 30 days or more and still accruing interest, as well as those on nonaccrual status. Delinquency rates are averages of the beginning and end of each quarter. Charge-off rates are annualized, net of recoveries, divided by average outstanding loans. Delinquency rate series began 1982 Q4, charge-off rate series began 1982 Q1.



Chart 12

<b>Credit Market Debt Of Noncorporate Businesses</b> (Billions of dollars outstanding at period end)						
	Selected years					1993 Q3
	1980	1985	1990	1991	1992	
1. Total market debt	449	909	1219	1192	1155	1132
2. Mortgages	293	667	876	868	832	817
3. Bank loans <sup>1</sup>	75	99	126	112	108	105
4. Other loans <sup>2</sup>	81	143	217	212	215	210
Memo:						
5. Trade debt	36	57	82	78	85	93

1. Includes only bank loans extended without real estate as collateral.

2. Includes loans from finance companies and all other nonmortgage loans that are not extended by banks.

Source: Federal Reserve Board, Flow of Funds Accounts

<b>Credit Market Debt Of Nonfinancial Corporations</b> (Billions of dollars outstanding at period end)						
	Selected years					1993 Q3
	1980	1985	1990	1991	1992	
1. Total market debt	877	1505	2375	2362	2406	2434
2. Bonds <sup>1</sup>	412	705	1123	1201	1268	1316
2. Mortgages	131	114	209	209	184	177
3. Bank loans <sup>2</sup>	230	424	555	531	519	509
4. Other loans <sup>3</sup>	104	262	488	421	435	432
Memo:						
5. Trade debt	348	486	659	663	699	710

1. Includes industrial revenue and corporate bond issues.

2. Includes only bank loans extended without real estate as collateral.

3. Includes commercial paper, loans from finance companies, and all other nonmortgage loans that are not extended by banks.

Source: Federal Reserve Board, Flow of Funds Accounts

sector.<sup>9</sup> Mortgage debt, about two-thirds of which is provided by banks and nonbank savings institutions, composes the bulk of credit used by noncorporate businesses. Commercial and industrial loans from banks provide about 10 percent of the market credit used by these businesses. Savings associations also make a small amount of commercial and industrial loans and mortgage loans secured by nonfarm, nonresidential real estate (Chart 13). Such loans are included, respectively, in "other loans" and in "mortgages" in Chart 12. For 1993, the flow of funds data show very little change in the volume of commercial and industrial loans to noncorporate businesses, while commercial mortgages continued to contract. The banking data imply that most of the mortgage contraction was in construction and land development loans which continued to be written down at large and small banks.

The bulk of "other loans" to noncorporate businesses is from finance companies, many of which specialize in equipment loans or leasing and in financing auto dealer inventories. Lending by finance companies remained relatively flat in 1992 and 1993 (Chart 14). To the extent that weak loan growth at banks may have reflected unusually tight lending standards, business borrowers would be expected to turn to alternative sources such as finance companies for credit. While some firms likely have done so, the lack of growth in aggregate finance company loans appears to confirm that demands for shorter-term credit by businesses generally have been weak.

For nonfinancial corporations, Chart 12 shows a somewhat different debt pattern. Total borrowing by these firms edged up in

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9. Thus, sales or business receipts of corporations filing income tax returns in 1990 averaged \$2.7 million; those of partnerships averaged \$311,000; and those of sole proprietorships averaged \$49,000. Virtually all sole proprietorships and 96 percent of partnerships had sales receipts of less than \$1 million.

## Chart 13

**Business Loans At Savings Associations\***  
 Amount Outstanding as of June 30, 1993

Original amount of loan or line of credit or commitment (Thousands of dollars)	Asset size of institution (Millions of dollars)			All
	<\$300	\$300-\$1,000	>\$1,000	
<b>Commercial and industrial loans</b>				
(Amount, billions of dollars)				
\$100 or less	.6	.6	.9	2.1
Greater than \$100 thru \$250	.2	.2	.4	.8
Greater than \$250 thru \$1,000	.2	.3	1.0	1.5
Greater than \$1,000	.2	.4	1.6	2.2
Total C&I loans	1.2	1.5	3.9	6.6
<b>Loans secured by nonfarm, nonresidential properties</b>				
(Amount, billions of dollars)				
\$100 or less	2.1	1.1	.8	4.0
Greater than \$100 thru \$250	1.2	1.2	1.2	3.6
Greater than \$250 thru \$1,000	2.7	3.4	8.2	14.3
Greater than \$1,000	1.3	3.2	16.7	21.2
Total nonfarm, nonres. loans	7.3	8.9	26.9	43.1

\*Data are from 1,835 savings associations regulated by the Office of Thrift Supervision.

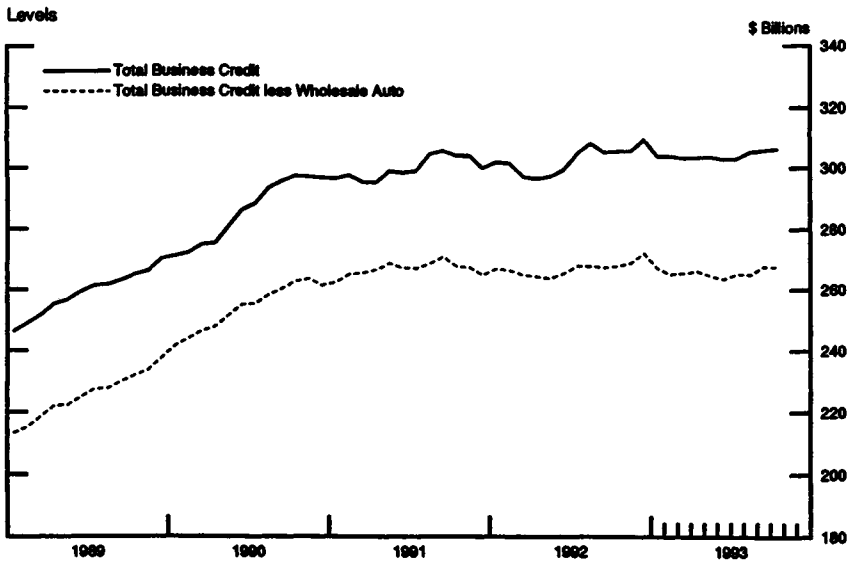
Chart 14

**Business Credit Growth at Finance Companies**  
(Annual growth, September to September, percent)

	1991	1992	1993	Memo: Level, Sept. 1993 (Billions of dollars)
1. Total financing	3.4	-.1	.2	301.6
2. Equipment	7.6	2.0	1.0	152.6
3. Motor vehicles	1.3	3.0	1.4	95.1
4. Other business	-2.8	-9.7	-3.9	53.8

Note: Includes pools of securitized assets.  
Source: Federal Reserve Board

**Business Credit of Finance Companies**  
(Seasonally adjusted)



1993, owing almost entirely to an increase in bond debt. Commercial and industrial loans, in contrast, fell, as did commercial mortgage debt. In the aggregate, corporations lengthened the maturity structure of their liabilities, paid down bank loans, and refinanced high-cost debt in 1993. Moreover, corporations took advantage of a strong stock market to issue appreciable amounts of new equity this year (not shown), further enabling them to build capital and reduce debt burdens.

Equity Finance. Concerns are frequently expressed about the availability of financing for new or start-up small businesses. The risks associated with lending to a business that has no established credit record or operating experience are such that most depository institutions are unwilling to extend credit without substantial collateral, guarantees, or capital. Equity provided by informal "angel" investors and by venture capital firms may fill the capital void for some new or young firms that have potential for strong growth.

Data on financing provided by angel investors are not collected routinely, but estimates from one source suggest that about \$10 billion was provided to more than 30,000 firms in 1992.<sup>10</sup> Such investments typically are made to firms in the very early stages of development and precede financing that might come from venture capital funds. Estimates of the volume of funds raised and disbursed by private venture capital funds are shown in Chart 15.<sup>11</sup> Most of these funds are limited partnerships that raise money for investments in the early expansion stages of a business. In 1992, forty-one funds

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10. Estimates of William E. Wetzel, Director of the Center for Venture Research, Whittemore School of Business and Economics, University of New Hampshire.

11. Data on venture capital funds are from Venture Capital Journal.

Chart 15

Venture Capital Funds				
	New money raised	Disbursements	Funds raising new money	Companies financed
	----- Billions of dollars -----		----- Number -----	
1983	3.46	2.52	89	1236
1984	3.30	2.73	101	1410
1985	2.33	2.67	77	1388
1986	3.32	3.22	77	1512
1987	4.18	3.97	110	1740
1988	2.95	3.85	84	1530
1989	2.40	3.38	na	1465
1990	1.85	2.30	na	1176
1991	1.27	1.36	30	792
1992	2.55	2.54	41	1093
1993 H1	1.29	na	29	na

na - Not available  
Source: Venture Capital Journal

Public Gross Domestic Nonfinancial Equity Issuance (Billions of dollars, annual rates)					
	1990	1991	1992	1993	
				H1	H2*
1. Total IPOs	4.0	11.9	15.0	15.2	22.6
2. Small company IPOs	3.2	6.0	9.3	12.3	17.8
3. Other IPOs <sup>1</sup>	.8	5.9	5.7	2.9	4.8
Memo:					
4. Total equity issuance	12.4	44.5	48.4	54.8	64.1

\* Data through November at an annual rate.  
1. Reverse LBOs, spin-offs, divestitures and carve-outs.  
Source: Federal Reserve Board

raised about \$2.5 billion and disbursed roughly this amount among 1,093 small companies. Of total disbursements, about \$600 million went to companies in the early stage of development. New money raised in the first half of 1993 totaled \$1.3 billion, a pace roughly in line with the previous year. Typically in the past ten years, between 1,000 and 1,500 new or growing firms annually have received equity financing from venture capital funds:

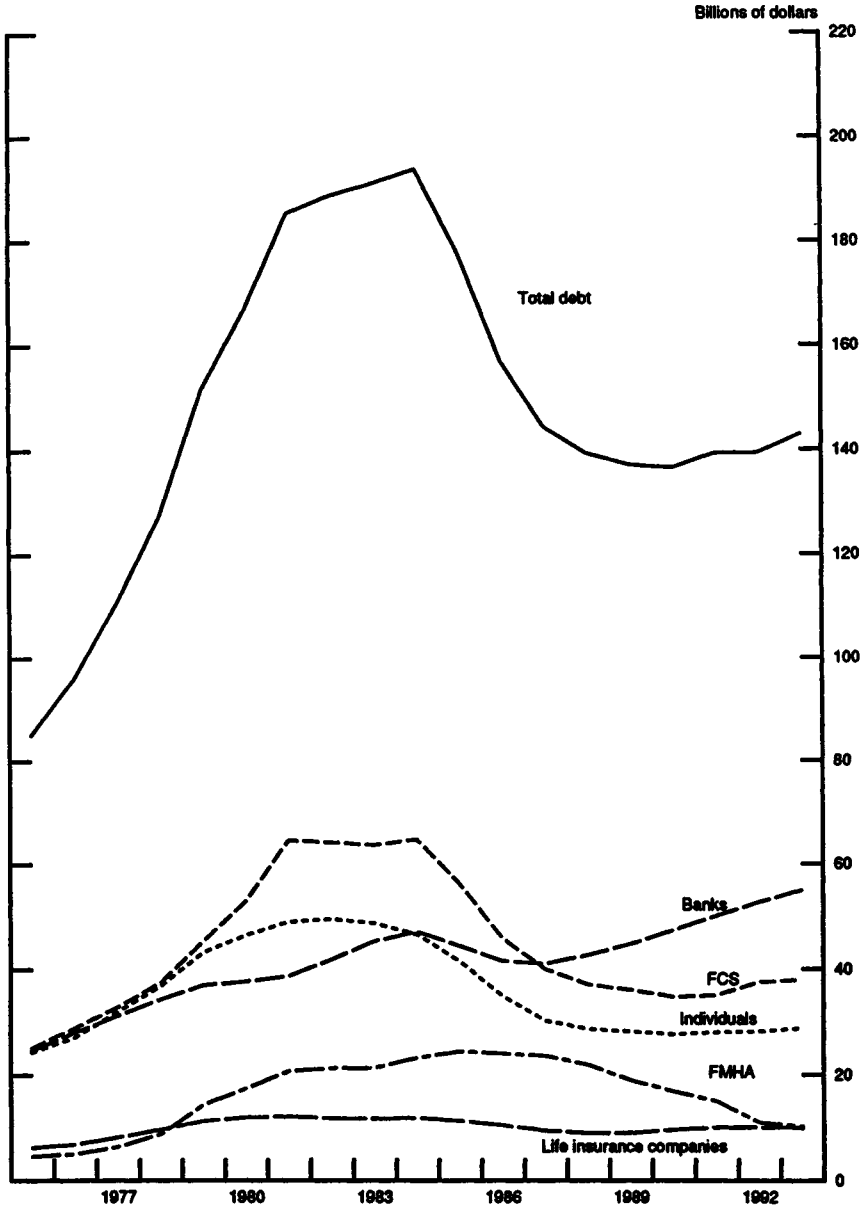
Many successful venture-backed companies are likely to merge or be acquired by large businesses at a later stage of their development. Others, however, may eventually go public through an initial public offering (IPO) of stock. In the first half of 1993, about 71 venture-backed companies issued IPOs; this is near the robust pace of 1992 when 151 venture companies issued IPOs for the year as a whole. The average asset valuation for these 151 firms was just over \$100 million. Most IPOs of venture-backed businesses are in the range of \$20 to \$100 million.

In addition to venture-backed companies, other expanding small businesses found equity markets highly receptive to IPOs in 1993. As indicated in the lower panel of Chart 15, small companies thus far in 1993 have issued nearly \$15 billion of IPOs at an annual rate, well above the last three years and an extremely heavy volume by historical standards.

#### CREDIT AVAILABILITY FOR SMALL FARMS

Growth of Farm Debt. The farm sector receives substantial amounts of credit from a number of sources, including commercial banks, the Farm Credit System (FCS), the Farmers Home Administration (FmHA), life insurance companies, and merchants and dealers. Total farm debt edged up slightly through the first three quarters of 1993

**Chart 16**  
**Outstanding Farm Debt by Lender Type**





(Chart 16). The volume of farm loans at commercial banks continued to grow at near the 5 percent annual pace seen since about 1988. Although lending by the Farm Credit System has edged up slightly in recent years, loan volume has remained far below the level seen in the early 1980s before the onset of debt problems associated with the deterioration in farm financial conditions in the early and mid-1980s. The loan portfolio of the FmHA has continued to shrink as the agency has dealt with its troubled farm debt and as it has shifted its focus from direct lending toward loan guarantees.

New Data from the June Call Report. Small commercial banks--those with assets totaling less than \$100 million--held \$10.6 billion of loans secured by farm real estate, roughly half of the \$20.6 billion outstanding at all U.S. banks (Chart 17). Of this volume of farm real estate loans outstanding at small banks, more than 80 percent represented loans that were originally in amounts of less than \$100,000. By contrast, large banks, with more than \$5 billion in assets, held few farm real estate loans, and most of these were greater than \$500,000 in size.

The distribution of farm production loans--those farm loans that are not secured by agricultural real estate--has a pattern similar to that of farm real estate loans. Small banks held a bit more than half of the total volume of these loans, and most were in amounts of less than \$100,000. Large banks held a fairly small share of such loans, and most were larger than \$500,000.

The differences in size of farm loans between large and small banks reflect, in part, regional differences: small banks predominate in the Midwest, where farms generally are of moderate size, whereas large banks tend to dominate agricultural lending in the West, where

Chart 17

Farm Real Estate and Production Loans Outstanding, by Size of Loan and Asset Size of Bank, June 30, 1993

Original amount of loan or line of credit or commitment (Thousands of dollars)	Asset Size of Bank (Millions of dollars)				
	All Banks	Less than \$100	\$100 - \$499	\$500 - \$4,999	Greater than \$5,000
		Loans secured by farm real estate (Amount, billions of dollars)			
\$100 or less	13.23	8.56	3.58	0.79	0.30
\$101- \$250	2.93	1.27	1.00	0.41	0.25
\$251-\$500	1.82	0.59	0.63	0.33	0.26
Greater than \$500	2.61	0.21	0.49	0.64	1.27
Total	20.60	10.64	5.70	2.17	2.09
		Farm production loans (Amount, billions of dollars)			
\$100 or less	23.38	15.89	5.25	1.54	0.70
\$101- \$250	3.41	1.51	0.92	0.54	0.44
\$251-\$500	2.25	0.77	0.61	0.41	0.45
Greater than \$500	6.34	0.41	0.60	1.60	3.73
Total	35.38	18.58	7.38	4.09	5.33

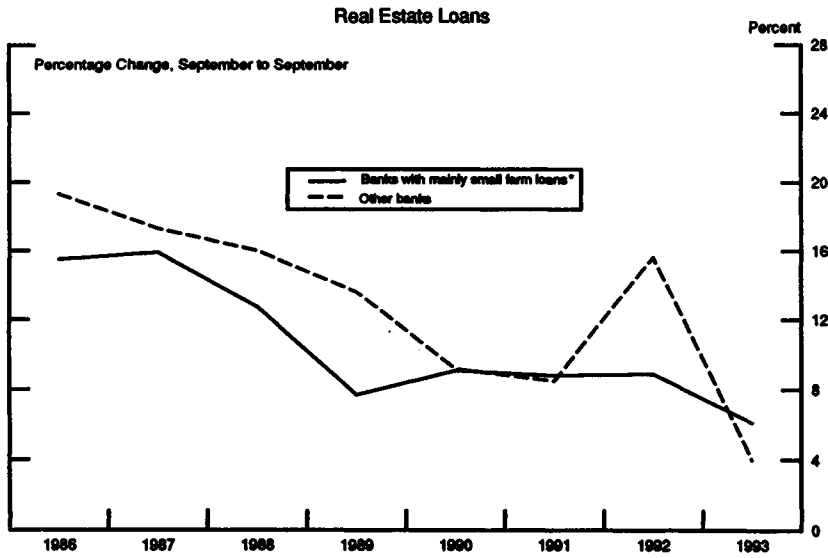
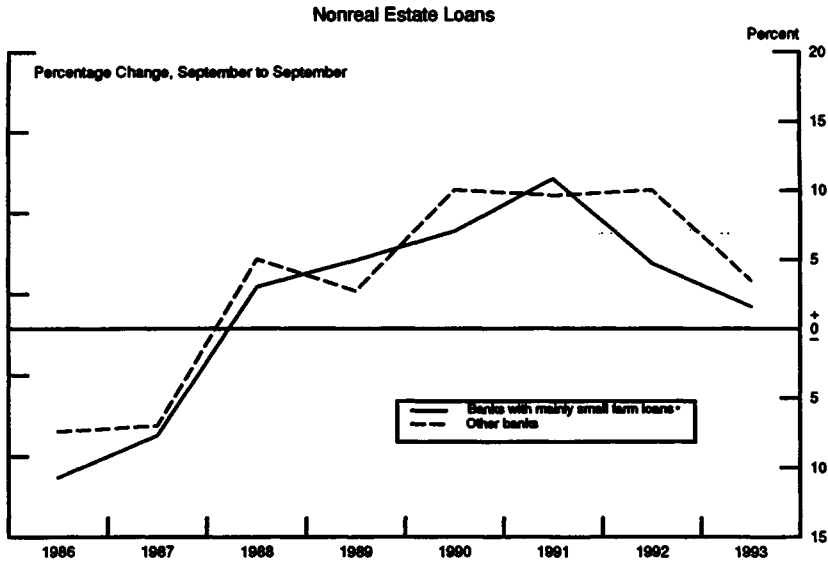
farms typically are much larger. Nonetheless, it is important to keep in mind that the vast majority of farm loans are less than \$100,000.

Growth in the volume of farm loans at banks with mostly small farm loans has been similar to that at other banks (Chart 18). For both sets of institutions, the volume of farm loans other than for real estate began to expand in about 1988, when the farm economy was making a rapid recovery. Also, as mentioned earlier, the FCS was shedding loan volume rapidly in 1987 and 1988, and many former FCS borrowers who were worried about the health of the FCS reportedly refinanced loans with debt from other lenders, including commercial banks. In recent years, the growth of farm non-real estate debt at both groups of banks has slowed to about a 3 percent annual pace.

The volume of loans secured by farm real estate grew rapidly at all banks in the latter 1980s. Some of this growth likely came as bankers, worried about farm financial conditions, sought real estate collateral for loans that previously might have been unsecured. Indeed, the volume of loans secured by farm real estate expanded very rapidly in the mid-1980s as the volume of farm production loans declined. Subsequently, the rate of growth slowed fairly steadily through the autumn of 1993.

Terms of Banks Lending to Farmers. During the first full week of the second month of each quarter, the Federal Reserve System conducts a survey of farm loans of \$1,000 or more that were made by commercial banks. The data for individual loans include a number of price and nonprice terms and the amount. While the data include no information regarding the financial condition of the borrower-- information important in the assessment of the availability of credit--some general observations may be drawn. In addition, given the new Call Report data on small farm loans, the survey panel can be

**Chart 18**  
**Growth of Farm Loans at Commercial Banks**



\*Banks that reported on the June 1993 Call Report that substantially all their farm loans were small.

divided into banks specializing in small farm loans and other banks, and the terms of loans made at each type of bank can be compared.

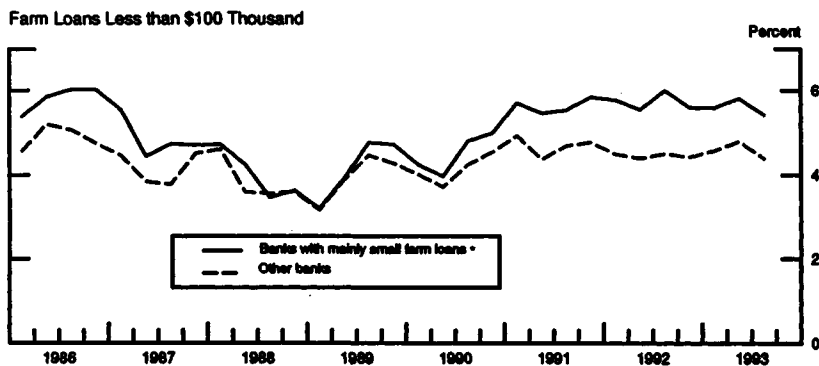
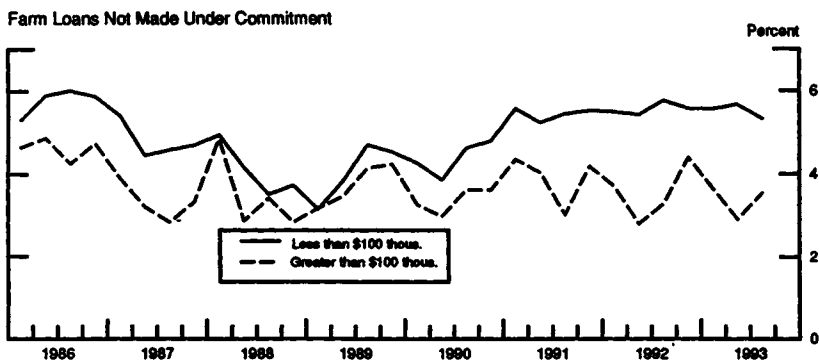
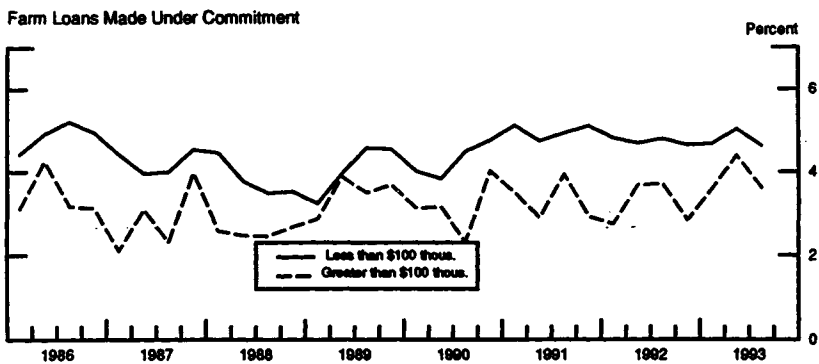
For farm loans of less than \$100,000 that were made under a prior commitment, rates of interest have continued to be around 4-1/2 percentage points above the one-year Treasury yield in 1993, while the spread for larger loans was about 1 percentage point less (Chart 19). For small loans not made under a commitment, the spread has been about 5-1/2 percentage points during the same period, about 1/2 percentage point greater than otherwise-similar, larger loans. The general magnitude of these spreads has persisted since 1990. The survey data indicate that a growing proportion of farm loans are made under a prior commitment.

Over the past two or three years, the spread on small loans at banks that identified themselves on the June 1993 Call Report as making mostly small farm loans generally has drifted up relative to the spread on small loans at other banks. The current size of the spread is 1 percentage point, toward the upper end of the range seen since the mid 1980s.

Reserve Bank Surveys. Several Federal Reserve Banks conduct quarterly surveys of farm credit conditions at commercial banks. The size of the surveys varies considerably--ranging from about 400 banks in the Chicago and Kansas City Districts to about 30 banks in the Richmond District. In addition, the wording of questions often differs slightly between surveys. Nevertheless, many of the questions related to the availability of agricultural credit are similar and shed light on differences among the regions.

The most recent readings from these surveys indicate that few banks tightened collateral requirements last year in each Federal Reserve District that posed this question (Chart 20). Indeed, the

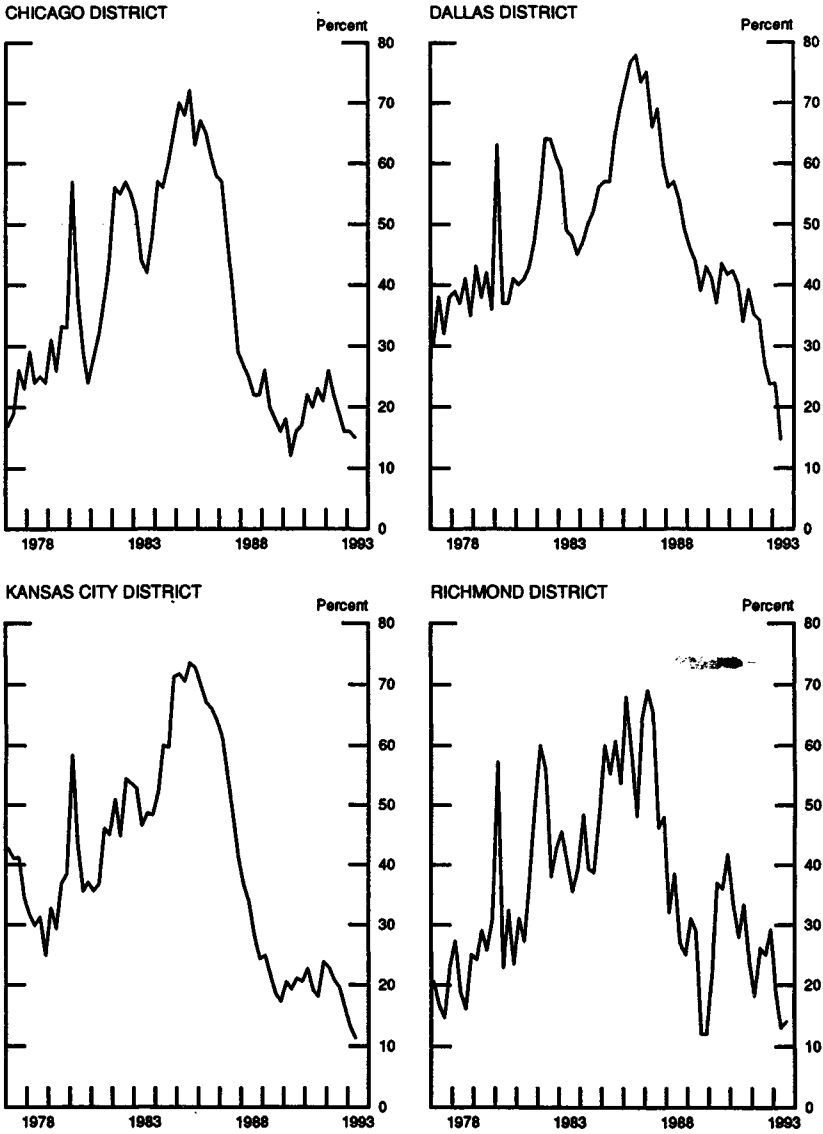
**Chart 19**  
**Rates of Interest on Farm Loans**  
 (Spread over 1 Yr. Treasuries)



Source: Survey of Terms of Bank Lending to Farmers

\*Survey respondents that reported on the June 1993 Call Report that substantially all their farm loans were small.

**Chart 20**  
**Percentage of Banks Reporting that the Amount of Collateral Required on Farm Loans was Higher Than One Year Ago**



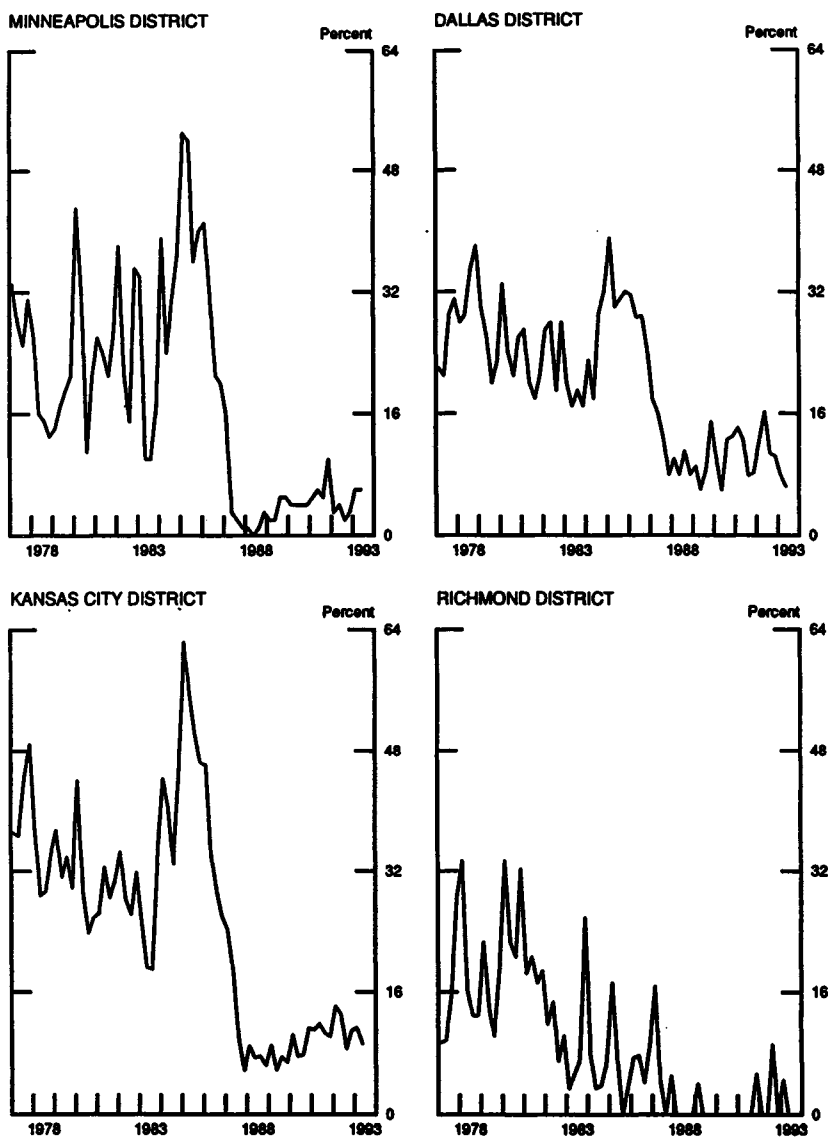
proportion of banks that reported higher collateral requirements fell during 1993 in all these Districts, some to the lowest levels seen since the 1970s.

Another indicator of the willingness of banks to lend to farmers is the proportion that referred a loan to a nonbank credit agency such as the FmHA or FCS (Chart 21). Since 1988, banks reporting this statistic seem to have become less likely to send potential customers to alternative institutional sources of agricultural credit. Along with the decline in the number of banks that reported more stringent collateral requirements, this apparent drop in referrals seems consistent with the notion that banks generally are making credit available to farm borrowers.

Summary. In recent years, farm incomes and returns have remained fairly high by historical standards. Nonetheless, farmers show little interest in taking on new debt, and values of farm real estate have remained flat. In general, the new data from bank Call Reports do not highlight any stark differences in the expansion of farm debt between banks that make mainly small farm loans and other banks; both have been increasing substantially their portfolio of farm loans in recent years. Furthermore, survey data indicate that spreads on large and small farm loans have been holding steady in recent years at both types of banks. Taken together, these data suggest that ample credit is available from banks at terms that are similar to those offered when the availability of credit was not a major concern.



**Chart 21**  
**Percentage of Banks Reporting that Referrals to**  
**Nonbank Credit Agencies were Higher Than One Year Ago**





BOARD OF GOVERNORS  
OF THE  
FEDERAL RESERVE SYSTEM  
WASHINGTON, D. C. 20551

ALAN GREENSPAN  
CHAIRMAN

April 1, 1994

The Honorable Stephen L. Neal  
Committee on Banking, Finance and  
Urban Affairs  
House of Representatives  
Washington, D.C. 20515

Dear Congressman:

At the recent Humphrey-Hawkins hearing, you requested that I provide examples of how important the Federal Reserve's direct involvement in bank supervision and regulation has been to the management and resolution of episodes of financial market stress.

In my recent testimony before the Senate Banking Committee on regulatory consolidation, I detailed a number of examples of how intimate knowledge of financial markets, gained by the Federal Reserve's hands-on regulatory and supervisory responsibilities, has enabled us to respond quickly and effectively to problems that emerged in financial markets. The relevant pages from my testimony are enclosed.

I hope this information is helpful.

Sincerely,

A handwritten signature in black ink, appearing to be "Alan Greenspan", with a horizontal line extending to the right from the end of the signature.

Enclosure

**EXCERPTS FROM STATEMENT OF ALAN GREENSPAN  
BEFORE  
COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS  
MARCH 2, 1994**

Removing the Federal Reserve from supervision and regulation would greatly reduce its ability to forestall financial crises and to manage a crisis once it occurs. In a crisis, the Fed, to be sure, could always flood the market with liquidity through open market operations and discount window loans; at times it has stood ready to do so, and it does not need supervision and regulation responsibilities to exercise that power. But while often a necessary response to a crisis, such an approach may be costly, destabilizing, and distortive to economic incentives, as well as being insufficient. Supervision and regulation responsibilities give the Fed insight and the authority to use less blunt and more precisely calibrated techniques to manage such crises and, more importantly, to avoid them. The use of such techniques requires both the clout that comes with supervision and regulation *and* the understanding of the linkages among supervision and regulation, prudential standards, risk taking, relationships among banks and other financial market participants, and macrostability.

**Crisis Management**

Our financial system—market oriented and characterized by innovation and rapid change—imparts significant benefits to our economy. But one of the consequences of such a dynamic system is that it is subject to episodes of stress. Recent examples include a series of international debt crises, a major stock market crash, the collapse of the most important player in the junk bond market, the virtual

collapse of the S&L industry, and extensive losses at many banking institutions. In such situations the Federal Reserve provides liquidity, if necessary, and monitors continuously the condition of depository institutions to contain the secondary consequences of the problem. The objectives of the central bank in crisis management are to contain financial losses and prevent a contagious loss of confidence so that difficulties at one institution do not spread more widely to others. The focus of its concern is *not* to avoid the failure of entities that have made poor decisions or have had bad luck, but rather to see that such failures—or threats of failures—do not have broad and serious impacts on financial markets and the national, and indeed the global, economy.

The types of financial crises that arise from time to time are rarely predictable and almost always different. The Fed's ability to respond expeditiously to any particular incident depends on the experience and expertise that it has accumulated over the years about the specifics of our system and its authority to act on that knowledge. In responding to a crisis or heading off potential crises, the Federal Reserve continuously relates its supervisor-based knowledge of how individual banks work with its understanding of the financial system and the economy as a whole.

This does not necessitate comprehensive information on each individual banking institution, but it does require that the Fed know in depth how institutions of various sizes and other characteristics are likely to behave and what resources are available to them in the event of severe financial stress. It currently gains this insight by having a broad sample of banks subject to its supervision and through its authority over bank holding companies.

The Federal Reserve employs its accumulated experience and expertise in large measure to work with other regulators here and abroad and with private parties to build strong institutional structures resilient to the inevitable strains that hit financial systems. For example, in consultation with the other agencies, the Fed uses its comprehensive economic knowledge to ensure that the economic consequences of proposed rules are considered. In addition, the Fed's leadership with G-10 central banks has led to higher and more consistent capital standards and vastly improved criteria for payment system management.

The Fed plays the key role when systemic breakdown threatens. Such episodes invariably create fear and uncertainty in the financial markets. Fear of counterparty risk escalates, and the threat of paralysis in financial markets and the breakdown of payment and credit arrangements that underpin them become all too real. It is important that a regulatory authority fully familiar with the dynamic international economic and financial forces in play be available to counsel and urge rational responses—and, as a last resort, provide liquidity. If regulatory authority is vested in a single agency and little in the central bank, our nation's ability to forestall or to respond efficiently and effectively to a crisis would surely be impaired.

Perhaps a few examples of Federal Reserve involvement in past crisis management would help illustrate and clarify these points.

In early 1990, the parent of the leading dealer in junk bonds, Drexel Burnham, failed, with potential significant impacts on financial markets. The Fed's concern was not for the failure of a particular securities firm, but rather the impact that failure might have on other financial institutions and on the functioning of capital markets essential to economic growth and job creation.

From the central bank's perspective, the greatest threat was potential gridlock in the system of paying for, and delivering, securities. Orderly liquidation of Drexel's substantial holdings, especially of mortgage-backed securities, was nearly stymied by the fears of market participants who became exceedingly reluctant to deliver securities or make payments to Drexel or finance its securities position. This caution, while entirely understandable, could have brought the liquidation process to a standstill. Had this occurred, capital markets would have been disrupted and the financial system would have become more vulnerable in the future to the slightest whiff of problems at any major market player.

The key to preventing gridlock was the cooperation of clearing banks, through whose books most of the payments and securities flowed, and who are the back-up source of credit to the securities markets. Because of its ongoing supervisory relationships and knowledge of the payment system's infrastructure, the Federal Reserve Bank of New York had the access, contacts, and in-depth knowledge of these institutions that enabled it to address this complex problem. The Fed understood the potential problems of Drexel's counterparties and clearing banks and had established close working relationships with key personnel. The Fed was able to use its knowledge and relationships to work with the banks and securities firms to identify developing problems, and fashion procedures that enabled securities to be transferred and credit to be extended to facilitate an orderly winding down of Drexel without adverse effects on innocent bystanders or adding to the overall fragility of the financial markets.

Another example of Federal Reserve involvement in crisis management is the record stock market break of October 19, 1987, a drop paralleled by similar price declines in all major stock markets of the world. These events represented a serious threat to the stability of the global financial system. Formulating and carrying out

actions to maintain the integrity of the banking system, and thus limit the damage inflicted by the drop in stock prices, required a variety of skills and powers. Particularly crucial were the Federal Reserve's knowledge of financial markets, its contacts with foreign central banks and with U.S. securities and commodities regulators, and its experience with supervising and regulating banking institutions and the payment system, all working hand-in-hand with its monetary policy.

Perhaps most visibly, early on October 20, the Federal Reserve issued a statement indicating that it stood ready to provide liquidity to the economy and financial markets. In support of that policy, the Federal Reserve conspicuously and aggressively added reserves to the banking system on a daily basis through the end of the month. These actions were taken as a central bank and could have been taken without supervisory and regulatory authority.

However, the Fed's actions went far beyond the provision of reserves. The System took a number of other steps that drew on its expertise in the operation of markets and the payment system and in assessing the financial strength of important participants. These included increased surveillance of the U.S. government securities market, and more frequent contact with participants and regulators at the Treasury and elsewhere. But a focal point of these actions was the banking system. Drawing on its supervisory experience, the Fed immediately assessed the funding and risk characteristics of major banking organizations to help identify any emerging problems. Federal Reserve examiners on-site in major banking institutions obtained information rapidly on potentially significant lending losses and emerging liquidity pressures. Examiners were also sent into firms directly affected by an options dealer that had suffered large losses. To detect the development of any bank runs, the Federal Reserve monitored currency shipments to all depository institutions. Frequent contact

with counterparts in other major financial centers kept both the Fed and foreign authorities informed about developments in markets and at international banks and other financial firms.

The credit relationships between banks and securities firms received particular attention. To obtain information about securities credit, the Federal Reserve, through its examiners, was in frequent contact with both banks and securities firms regarding the liquidity and funding of broker/dealers. Securities dealers' need for credit was expected to rise, but with substantial losses likely from the large drop in stock prices both firms and their customers would have less collateral to secure borrowing. In its discussions, the Fed recognized that banks needed to make sound credit judgments in the circumstances, but it also stressed the systemic problems that would develop if the credit needs of solvent, but illiquid, firms were not met.

Problems in the futures and options markets, in particular, illustrated the relationship between the banks and the securities firms, as concern grew that gridlock was being approached in the settlement systems of the Chicago exchanges after large margin calls on October 19 and 20. At the time, margin calls were collected through four settlement banks in Chicago. Clearinghouse members were unable to fund their accounts at the settlement banks in time to meet the margin calls. Owing to the unusual size of the margin calls to certain large clearing members, the settlement banks were unwilling to confirm those members' payments to the clearinghouse until they could verify that funds had been received to cover the payments from the New York banks at which the relevant clearing firms maintained their principal banking and credit relationships. At the same time, the New York bankers were already concerned about rumors regarding the creditworthiness of their customers and had little time to fully understand the exposures that the securities firms had across other lines of activity



such as foreign exchange, risk arbitrage, and block trading. Telephone calls placed by officials of the Federal Reserve Bank of New York to senior management of the major New York City banks helped to assure a continuing supply of credit to the clearinghouse members, which enabled those members to make the necessary margin payments.

While it is difficult to determine how the situation would have evolved in the absence of these actions, it seems reasonable that the risk of even more disruptive developments would have increased. The Federal Reserve's ability to reach judgments about what actions were necessary depended critically on both its supervisory and its economic knowledge of financial markets, banking institutions, and payment systems and the Fed's credibility with market participants accumulated through many years of operating in the markets and supervising banks.

The collapse of state chartered, privately insured thrift systems in the states of Ohio and Maryland in the mid-1980s were other incidents in which the Federal Reserve drew heavily on its supervisory resources and experience in carrying out its crisis management responsibilities. When the largest of 71 privately insured institutions in Ohio was reported to have suffered heavy losses due to fraudulent securities transactions, depositor runs were triggered at the affected institution and confidence in the viability of the insurance fund was undermined. These developments led to runs at many other institutions insured by the fund. Within two weeks, the Governor of Ohio had closed all of these institutions, and a law was then enacted that permitted their reopening only if they were able to obtain federal deposit insurance.

Maryland's problems followed within months, as the collapse of the Ohio system raised concerns about the ability of the private insurer of 101 state-chartered savings institutions in Maryland to cover losses if they were to arise. Those concerns

received confirmation when the two largest of these institutions were found to be insolvent due to fraud and other abusive practices. Once again, depositor runs at the insolvent institutions and at other institutions insured by the fund forced the closing of all, with their reopening conditioned on their being found eligible to access the Federal Reserve's discount window. Additionally, the state promptly enacted legislation that required these institutions to obtain federal insurance, be merged with an insured institution, or to be liquidated.

Responding to requests for assistance from the governors of each of these states, the Federal Reserve assembled examiners from throughout the System—with a sizable contingent of examiners from the OCC and FDIC joining in the case of Maryland—to help resolve the crises. Under the Federal Reserve's general direction, examiners entered virtually all affected institutions in both states to evaluate assets that might serve as collateral for discount window loans, to monitor deposit outflows and currency drains from the institutions, and to assess their financial condition. Simultaneously, the Federal Reserve took steps to ensure that currency was strategically placed in selected areas of each state to permit quick delivery to institutions experiencing heavy cash withdrawals. Because of these efforts, the System was able to extend discount window loans expeditiously when institutions encountered serious liquidity problems, to process checks, ACH payments and the wire transfers of the institutions prudently and effectively, and to meet all requests for currency.

The Federal Reserve also served as advisor to state authorities and a facilitator of discussions with major depositories that sought to find solutions to these problem situations. In short, the Federal Reserve's broad mandate for economic stability, coupled with its operational experience in markets and supervision, played an instrumental role in resolving each crisis in as orderly a manner as possible, and

effectively contained the potential for spillover effects on federally insured depositories and other financial institutions.

A final example is the Mexican debt crisis of 1982, which marked the beginning of a generalized debt problem in the less developed countries in the 1980s that threatened the world's financial system and economic growth. The Federal Reserve recognized the potential for problems because of both its expertise and its intimate role in banking supervision. Bank and bank holding company supervisory reports and the judgment of Federal Reserve examiners provided vital information regarding the fact that exposures to countries that were susceptible to payments difficulties were well in excess of the capital of many banks. Not just the largest U.S. banks, but also many smaller banks were significantly involved; in total, more than 150 U.S. banks had exposure to Mexico. When the Latin American debt crisis broke publicly in 1982 with a potential default by Mexico on more than \$50 billion in claims held by international commercial banks, the Fed was positioned to act quickly to organize the international provision of liquidity support while a more permanent solution was worked out. The Fed could respond quickly and comprehensively because of the practical knowledge gained from hands-on examination of banks, its deep involvement in the country-risk examination process, and its extensive contacts with foreign central banks.

After the initial phase of the debt crisis, tension developed between two seemingly conflicting considerations. On the one hand, the financial strength of the banking system needed to be protected and restored in light of the potential losses by banks on their exposures to developing countries. On the other hand, if at least conditional access by developing countries to funding from hundreds of U.S. and foreign banks were not maintained, those countries would not have been able to work

out their problems in an orderly fashion. The collapse of those countries' ability to renegotiate their debts would have increased the likelihood of widespread bank failures in the United States and around the world, threatened the stability of the global financial and trading system, and worsened the already tenuous growth prospects of the industrial countries.

The Federal Reserve, by virtue of its combined responsibilities for oversight of the financial and the dollar payment systems on the one hand, and maintenance of macroeconomic stability on the other, was in a unique position to recognize these complex interactions and incorporate these considerations effectively in its supervisory actions. Through its active involvement in the daily supervisory process of a broad cross-section of U.S. banks, the Fed had the perspective and the knowledge to ensure that general supervisory policies, which often were initiated to deal with other concerns, did not impair overall efforts to resolve the LDC debt problem. Working with the Treasury and foreign central banks, the Federal Reserve understood that over an appropriate time horizon considerations of financial prudence and macroeconomic stability were not, in fact, conflicting but rather required the same patient responses. Indeed, the Fed took the lead in coordinating a response by the U.S. bank supervisory agencies that avoided overreaction to the Mexican crisis. In particular, U.S. commercial banks were not penalized for their participation in a constructive solution to the systemic threat posed by that crisis.

This last experience illustrates a point anticipated earlier. An agency with the sole or primary goal of prudential supervision and regulation, and without responsibility for the economic consequences of its own actions, will of necessity tend to focus almost entirely on a narrow view of safety and soundness. It will be severely criticized by the Congress and others if a bank fails on its watch; it will not receive credit

for avoiding other failures in unusual circumstances by being flexible. It will not have the market experts—the economists and other specialists who spend their careers understanding evolving institutions and instruments and how they react during adversity and crisis. It is the combining of the Fed's supervisory knowledge with that of these other experts *and* its broad macroeconomic responsibilities that facilitates—indeed, requires—the balancing of the prudential supervision of banks against the broader economic implications that surround a crisis.

### **Monetary Policy**

While crises arise only sporadically, the Federal Reserve is involved in monetary policy on an ongoing basis. In this area, too, the Fed's role in supervision and regulation provides an important perspective to the policy process. Monetary policy works through financial markets to affect the economy, and depository institutions remain a key element in those markets. Indeed, banks and thrifts are more important in this regard than might be suggested by a simple arithmetic calculation of their share of total credit flows. While securities markets of different types handle the lion's share of credit flows these days, banks are the backup source of liquidity to many of the securities firms and large borrowers participating in these markets. Moreover, banks at all times are the most important source of credit to most small- and intermediate-sized firms that do not have ready access to securities markets. These firms are the catalyst for U.S. economic growth and the prime source of new employment opportunities for our citizens. The Federal Reserve must make its monetary policy with a view to how banks are responding to the economic environment.

Factors affecting banks, quite apart from monetary policy, can have major implications for their behavior and for the economy. Important among these factors are

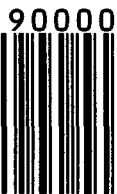




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