REFLECTIONS on MONETARY POLICY

FLEXIBILITY, TRANSPARENCY AND INFLATION GUIDELINES

FEDERAL RESERVE BANK OF CHICAGO 2005 ANNUAL REPORT

CONTENTS

MESSAGE FROM THE PRESIDENT

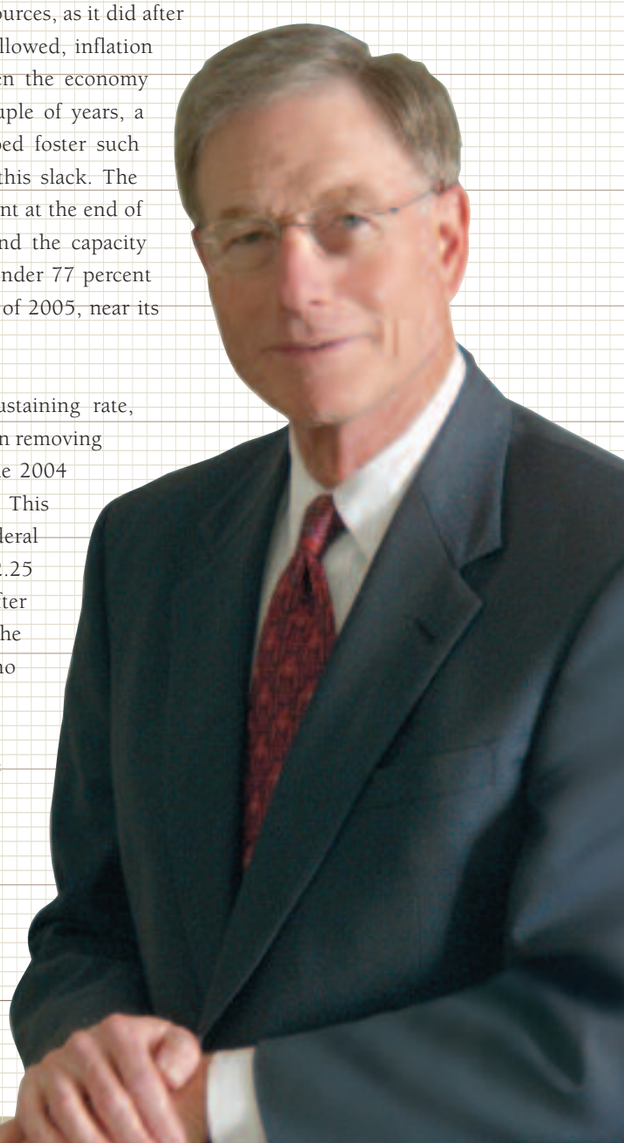
During the first three quarters of 2005, the U.S. economy grew at a rate about equal to or slightly above its potential growth rate — the rate that can be sustained over the long run without creating inflation pressures. Real GDP growth in the fourth quarter of 2005, however, dropped to an annual rate of below 2 percent. This appears to have been largely due to transitory factors, and various indicators point to a recovery in growth in early 2006.

When the economy has an abundance of slack resources, as it did after the 2001 recession and the slow recovery that followed, inflation pressures can remain relatively muted even when the economy grows faster than its potential. Over the last couple of years, a highly accommodative monetary policy has helped foster such economic growth, which has removed much of this slack. The unemployment rate has fallen from almost 6 percent at the end of 2003 to under 5 percent at the end of 2005, and the capacity utilization rate in manufacturing has risen from under 77 percent at the end of 2003 to over 80 percent at the end of 2005, near its 30-year average.

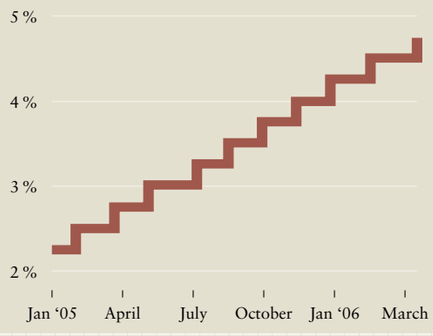
With the economy growing at a robust, self-sustaining rate, the Federal Open Market Committee (FOMC) began removing policy accommodation at a measured pace in June 2004 to prevent inflation pressures from developing. This continued throughout 2005, with the target federal funds rate (see chart on next page) rising from 2.25 percent at the beginning of 2005 to 4.75 percent after the FOMC meeting in late March of this year, the first one led by new chairman Ben Bernanke, who replaced Alan Greenspan.

Still, inflation remains a concern, with the price index for personal consumption expenditures, excluding food and energy, increasing by 2.2 percent in 2004 and 1.9 percent in 2005, compared with an increase of 1.3 percent in 2003. This rate of inflation is near the upper end of the range

Michael H. Moskow



Target for Fed Funds Rate in 2005 and 2006



The target Federal Funds rate rose from 2.25 percent at the beginning of 2005 to 4.75 percent after the FOMC meeting in late March of this year.

Source: *Federal Reserve System*

that I feel is consistent with price stability. Furthermore, with few slack resources in the economy, an extended period of strong activity could generate additional inflation pressures.

Soaring energy prices are also an inflation threat. Spot crude oil prices jumped over 30 percent in 2004, and strong worldwide demand, continued geopolitical risks, and the terrible devastation caused by Hurricane Katrina contributed to a 40 percent increase in oil prices in 2005. Natural gas and refined oil product prices also rose sharply in 2005. Like other costs related to production, higher energy prices can pass through to the prices of other goods and services.

Finally, there is a concern that if people see a string of higher inflation numbers, they may begin to expect permanently higher inflation. Though inflation expectations are currently contained, one of the goals of monetary policy is to keep these expectations in check.

Some have suggested that explicit numerical inflation guidelines can aid the Fed in keeping inflation expectations well anchored at a low level. In this year's annual report, we examine the issue of inflation targets in more detail and pose some questions that need to be answered before I feel we can make a final determination on this issue.

2005 Results and Recognition of our Employees and Directors

The hard work and dedication of our employees and the leadership and counsel of our directors in 2005 contributed to another successful year at the Chicago Fed. A list of some of our many accomplishments last year follows on the next page.

Two individuals completed their service as directors last year and merit separate mention: Connie E. Evans from the Chicago board and Edsel B. Ford II from the Detroit board. Both Connie and Edsel served on their respective boards since 2000, and Edsel served as chairman of the Detroit Branch board for the last two years. I am personally grateful to both for their valuable perspective and guidance. On a related note, Valerie B. Jarrett, managing director and executive vice president of the Habitat Company, joined the Chicago board this year, and Timothy M. Manganello, chairman and CEO of BorgWarner, Inc., joined the Detroit board.

I would also like to recognize Alan Greenspan, whom I have known for over 35 years, for his more than 18 years of outstanding service as chairman of the Federal Reserve Board and the FOMC. His contributions will be missed, but I have high regard for his successor, Ben Bernanke. And Chairman Bernanke is taking over a very strong institution. The quality of the people at the Fed and the collegial nature of this organization will continue to contribute to our success in 2006.

Michael H. Moskow
President and Chief Executive Officer
April 1, 2006

CHICAGO FED HIGHLIGHTS OF 2005

One of the Bank's 2005 highlights was the December opening of the new Detroit Branch building.

Economic Research and Programs

Chicago Fed economists conducted research in support of the monetary policy responsibilities of the Bank's President and Board of Directors, including special presentations on inflation expectations, the Delphi bankruptcy and housing prices.

- The department held 29 conferences throughout the District, and 22 Economic Research papers were accepted for publication in refereed journals.
- The Inflation Research Center sponsored important initiatives, among them a new measure of core inflationary pressures and a new approach to short-term inflation forecasting. The Center also organized a conference on price stability.

Financial Institution Supervision and Regulation

Supervision and Regulation improved core supervisory functions through enhanced risk analysis, staff development and operational processes.

- The department conducted more than 1100 examinations, inspections and off-site reviews. It strengthened its risk-assessment process, putting more focus on improving its analysis of the root causes of institutional risk.
- Supervision and Regulation employees spoke at conferences for the Institute of Internal Auditors, the American Bankers Association and the Bank Administration Institute. The department also organized a conference bringing together community bank CEOs from around the five-state region.

Financial Services

Seventh District cash and check processing performed well during the year.

- Seventh District check revenue goals were exceeded by 15% based upon volumes and increased usage of Check 21 image products.
- The Detroit Branch maintained strong performance while shifting its check-processing operations to Cleveland as part of the ongoing effort to consolidate and streamline Federal Reserve financial services.
- With the cooperation of the Secret Service, the U.S. Coast Guard and three other law enforcement agencies, the Detroit Branch moved more than $1 billion into its new state-of-the-art facility (see photo above left).
- The Midway Facility implemented a quality management program to help improve efficiency. Special attention was paid to managing float and developing Check 21 expertise.
- The Des Moines office sustained high productivity all year and scored well on performance and cost measures. In a key indicator of quality control, the internal error rate was among the lowest for check processing in the Federal Reserve System.

Customer Relations and Support Office (CRSO)

The national office at the Chicago Fed that provides support to Federal Reserve customers nationwide made progress in converting customers to FedLine Advantage, a new electronic access solution.

- More than 3,000 institutions were conducting transactions daily via FedLine Advantage by year-end.

Other Activities

- Money Smart Weeks held in Chicago and Detroit featured more than 700 events that provided financial education to more than 25,000 area consumers.
- Record attendance by Federal Reserve executives around the U.S. highlighted the System's annual leadership conference, which was developed and hosted by the Chicago Fed. The Bank also sponsored similar leadership training for other management staff.

REFLECTIONS ON MONETARY POLICY

FLEXIBILITY, TRANSPARENCY AND INFLATION GUIDELINES

By Michael H. Moskow
President and Chief Executive Officer
Federal Reserve Bank of Chicago

Monetary policy has come a long way in the past quarter century. Price stability has always been part of the Federal Reserve's policy mandate, and one of our major accomplishments of the last 25 years is that we have actually achieved this goal.

We have learned a lot about monetary policy during the last 25 years — and we're still learning. We have gained important insights about the tactics of monetary policy as we moved from an environment of moderate inflation to one of price stability. In particular, we have learned a good deal about the benefits of maintaining appropriate flexibility when implementing policy. We also have learned about the importance of communications and transparency in that implementation — notably their role in reducing the uncertainty that households and business owners face when making economic decisions such as how much to spend, save and invest, or what prices to charge for their products.

Some argue that the best way for central banks to increase transparency and reduce this uncertainty is by adopting explicit numerical targets for inflation. However, there are a number of outstanding questions that should be addressed before a central bank decides to move to a regime of explicit numerical guidelines. Importantly, central banks usually think about these questions only in terms of achieving a target for inflation. But the Federal Reserve has two goals: It is charged with the dual mandate of fostering maximum sustainable growth as well as price stability.

Economists have thought a lot about these questions in recent years. In my opinion, they have not yet come up with adequate answers. So these questions continue to challenge a wide range of experts: academic researchers who study monetary theory, economists who advise businesses and households on how monetary policy may affect their investment decisions, and central bankers who try to formulate effective monetary policy in a constantly changing — and inherently uncertain — economic system.

The Tactics of Monetary Policy During the Transition to Price Stability

When thinking about the interaction between inflation and monetary policy, it's useful to remember University of Chicago economist Milton Friedman's important observation: Inflation is always and everywhere a monetary phenomenon. I learned this lesson the hard way in the early 1970s when working at the Council of Economic Advisers and at the Council on Wage and Price Stability. Overly expansive monetary and fiscal policies had contributed to a rise in inflation from near 1 percent in the early 1960s to more than 6 percent in early 1970. These rates were unacceptably high, and wage and price controls were implemented in 1971 to deal with the problem.

These controls did more harm than good. They did not break inflationary expectations, and inflation rates spiked back up when the controls were lifted. Furthermore, the distortions to relative wages and prices caused by these policies — and by other controls and guidelines that followed — resulted in the misallocation of productive resources in the economy.

Today, many of those involved in implementing wage and price controls have vowed to fight fiercely any future efforts to reinstate them. But that certainly was not doctrine back then. For example, in the 1970s, Federal Reserve Chairman Arthur Burns thought that monetary policy should not take sole responsibility for bringing down inflation. He believed some kind of wage and price review authority was a necessary additional element of anti-inflationary policy. The experiences of the 1970s, however, stress that anti-inflationary efforts outside of the realm of monetary policy are far less important for lowering inflation than reversing the accommodative policies pursued by the Fed.

Much hard-fought progress against high inflation had occurred by the time of my arrival at the Chicago Fed in September 1994. At that time, the Federal Open Market Committee (FOMC) was embarking on a pre-emptive strike against emerging price pressures in order to prevent inflation from rising. These policy moves were successful. Subsequently, a series of events resulted in the achievement of price stability.

The history of this 11-year period highlights the importance of flexibility in the implementation of monetary policy. Part of this flexibility is the willingness to debate and discuss new ideas. A good example is the

THE EVOLUTION OF FEDERAL OPEN MARKET COMMITTEE COMMUNICATIONS*

1994

FEBRUARY First Press Release After a Federal Open Market Committee (FOMC) Meeting.

"Chairman Greenspan announced today that the Federal Open Market Committee decided to increase slightly the degree of pressure on reserve positions. This action is expected to be associated with a small increase in the short-term money market interest rates. The decision was taken…in order to sustain and enhance the economic expansion…."

1995

JULY First Explicit Mention of the Target for the Federal Funds Rate.

"Chairman Alan Greenspan announced today that the Federal Open Market Committee decided to decrease slightly the degree of pressure on reserve positions….Today's action will be reflected in a 25 basis point decline in the federal funds rate from about 6 percent to about 5-3/4 percent."

1999

MAY Begin Releasing an Announcement Following Each Meeting Even if There is No Change in the Policy Rate. Announcements Now Include A Description of Economic Conditions. A "Tilt" is Added to Indicate Likely Direction of Next Policy Move.

"While the FOMC did not take action today to alter the stance for monetary policy, the Committee was concerned about the potential for a buildup in inflationary imbalances that could undermine the favorable performance of the economy and therefore adopted a directive that is tilted towards the possibility of a firming in the stance of monetary policy. Trend increases in costs and core prices have generally remained quite subdued. But domestic financial markets have recovered and foreign economic prospects have improved since the easing of monetary policy last fall…."

2000

FEBRUARY "Tilt" Replaced with Balance of Risks to Policy Goals.

"…Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes the risks are weighted mainly toward conditions that may generate heightened inflation pressures in the foreseeable future…."

2004

DECEMBER Decision to Expedite Release of Minutes.

"…the Committee unanimously decided to expedite the release of its minutes. Beginning with this meeting, the minutes of regularly scheduled meetings will be released three weeks after the date of the policy decision. The first set of expedited minutes will be released at 2 p.m. EST on January 4, 2005."

**Excerpts from press releases following selected FOMC Meetings.*

Financial markets pay close attention to wording in the statements released after meetings of the Federal Open Market Committee.

SENDING a SIGNAL

FRBC 2005 Annual Report ■ Reflections on Monetary Policy

tactical discussion in 1995 and 1996 about opportunistic disinflation. This was a discussion about whether policymakers should deliberately move to lower inflation or whether they should wait for the reductions that typically occur when the economy softens somewhat. In other words, should the effort to reduce inflation involve daily skirmishes or less regular battles when the opportunity arises?

Interestingly, opportunism won out in a different way. The opportunistic arguments in the mid-1990s largely were based on the idea that inevitable slowdowns in aggregate demand could be exploited to lower inflation. In fact, the productivity acceleration during the second half of the 1990s allowed for lower inflation without reductions in aggregate demand or economic activity — inflation came down at the same time that unemployment was falling. But because productivity growth had been persistently slow for the previous 20 years, few people considered the possibility of a productivity resurgence at the time of the opportunistic-versus-deliberative policy debate.

The next episode that is important to highlight occurred in 2003. Following its May 2003 meeting, the FOMC acknowledged a relatively new risk to the economy: the possibility of an unwelcome fall in the inflation rate. For a central bank that had worked steadily for 25 years to reduce inflation, this sure was something new. But it highlighted the fact that with the achievement of price stability, monetary policy had to be based on flexible thinking; it had to acknowledge that inflation could be either too high or too low. And policy had to be conducted in recognition of that fact.

These episodes are well-known to business and monetary economists who have studied the path that the U.S. economy has followed to reach the neighborhood of price stability. Interestingly, it is a peculiarly American path.

While other central banks pursued a numerical inflation objective, the U.S. achieved price stability without having an explicit numerical target. Of course, it wasn't that important to have a numerical definition of price stability when actual inflation exceeded price stability by everyone's measure. At the time, Chairman Alan Greenspan offered a useful, though non-explicit, definition: It's when businesses and households are not taking inflation into account in their economic decisions. So as long as the plans of households and businesses still accounted for inflation, it seemed clear that price stability had not yet been reached.

Furthermore, while other countries have suffered sluggish growth to achieve lower inflation, the U.S. did not. This is because our disinflationary monetary policy could be implemented against the backdrop of a step-up in productivity growth and because monetary policy did not adhere to a rigid mechanical rule, but adapted to the incoming evidence on inflation and output.

This flexibility has been an important hallmark of monetary policy tactics over the past 20 years. This has caused heartburn among academics and others who worry about excessive discretion and advocate a more rigid, rules-based policy. Instead, the Greenspan Fed generally has responded adeptly to changing economic conditions and financial risks that threatened macroeconomic performance, and has done so without abandoning the discipline of its dual mandate to pursue maximum sustainable growth and price stability.

The Fed's reaction to financial risk is another hallmark of flexible policy. This actually is an old prescription for central bankers that Walter Bagehot (the founding editor of *The Economist*) gave in the 19th century: Provide liquidity to solvent financial institutions during financial market crises. Such action was clearly evident during the stock market crash of 1987, the extended monetary accommodation in the face of financial headwinds of the early 1990s, the Russian default in 1998, and the period after the 9/11 terrorist attacks.

In some instances, the injection of liquidity ran counter to the inflation risks that the FOMC perceived just before the crisis. But as events bore out, such flexible monetary policy responses did not jeopardize the pursuit of the nation's long-run goal of price stability. That is because an important element in this "disciplined approach to flexibility" is that long-run policy goals generally have been clearly articulated and are understood by the public.

The Importance of Communications and Transparency

Another relevant topic is the importance of communications and transparency in the implementation of monetary policy. The changes that have occurred in this area are little short of extraordinary. Remember when central bankers deliberately avoided announcing their decisions? Over the past decade, we have seen a move from central bank secrecy to central bank transparency, a change that reflects a growing appreciation of the enhanced policy credibility and reduced economic uncertainty that accompany public understanding of the goals and rationales underlying monetary policy decisions.

It was not until 1994 that the Fed decided to announce policy changes immediately following FOMC meetings (See page 6). The first one went like this: "The Federal Open Market Committee decided to increase slightly the degree of pressure on reserves. The action is expected to be associated with a small increase in money market rates." The key word was "slightly," and there was no explicit mention of the federal funds rate. The next step in the evolution of the policy communication was the explicit mention of the target federal funds rate. Then came the announcement of a "tilt" to indicate the likely direction of the next policy move, then the judgment of the balance of risks to the policy objectives, then discussion of two-sided inflation risks, and, finally, the accelerated release of the minutes of FOMC meetings. In addition, media coverage of all FOMC participants' speeches has exploded, and the Internet makes these readily available to everyone in real time. So, even though there is no rigid numerical rule, the public has a much better idea of the systematic ways in which the committee makes judgments regarding economic developments and translates these into monetary policy decisions.

Although transparency requires careful execution of communications strategies, its benefits seem obvious: the well-anchored inflationary expectations and reduced uncertainty mentioned earlier. When the public and financial markets have a clear understanding of Federal Reserve goals and the methods used to achieve these goals, uncertainty is reduced, and consumers and businesses can better plan for future activities. One way this is revealed is in borrowing costs: Policy transparency can lower the risk premia imbedded in interest rates because it reduces the uncertainty over how future rates may vary due to changes in inflation, economic activity, and monetary policy.

Appropriately, there will always be risks for entrepreneurs in search of returns, but central banks should not add to those risks by unnecessarily increasing uncertainty regarding monetary policy. At the same time, though, they should not lead markets to think that the path for policy is more certain than it actually is. Finally, when policy is transparent, a central bank can respond to economic events and financial crises that involve liquidity shortages without creating undue risk — the bank can make it clear to markets that it is responding to a short-run problem and not lessening its commitment to price stability.

Questions Regarding Explicit Numerical Guidelines

An important question facing central bankers involves determining the best way to be transparent and communicate policy. Some say explicit numerical guidelines are the ultimate form of transparency and communication, arguing that these guidelines are the best way for a central bank to anchor inflationary expectations and reduce the uncertainty over the future path for policy and interest rates. This leads to a third important topic: the questions that remain to be addressed regarding the advantages and disadvantages of explicit numerical regimes.

SELECTED CENTRAL BANKS' INFLATION GUIDELINES

1990 1991

RESERVE BANK OF NEW ZEALAND Policy designed to keep future All Groups Consumer Price Index inflation outcomes between 1 and 3 percent on average over the "medium term." When conducting policy, the Bank is directed to "seek to avoid unnecessary instability in output, interest rates, and the exchange rate."

BANK OF CANADA An "inflation-control target range" for the 12-month change in total CPI inflation of 1 to 3 percent, with policy aimed at the 2 percent midpoint. Also, policy is directed to move inflation to the 2 percent midpoint over the next 6 to 8 quarters. Core inflation is used as a shorter-term operational guide for policy.

1992

BANK OF ENGLAND A target of 2 percent measured by the 12-month change in the total CPI, with policy designed to bring inflation to target "in a reasonable period of time without creating undue instability in the economy."

1998

EUROPEAN CENTRAL BANK Target defined in terms of the year-on-year increase in the Harmonized Index of Consumer Prices, with policy designed "to maintain inflation below, but close to, 2 percent over the medium term." Furthermore, "…without prejudice to the objective of price stability, the ECB shall support the general economic policies in the Community with a view to contributing to the achievement of….a high level of employment and sustainable non-inflationary growth."

The European Central Bank is one of numerous central banks that has an explicit numerical guideline for inflation.

GUIDELINES for INFLATION

FRBC 2005 Annual Report Reflections on Monetary Policy

It's pretty much accepted now by economists that monetary policy cannot permanently alter the unemployment rate or growth rate of the economy. This is often referred to as the vertical, or expectations-augmented, long-run Phillips curve and the natural rate hypothesis of Milton Friedman and Edmund Phelps. According to this hypothesis, attempts by monetary policy to push unemployment below its natural, or equilibrium, rate eventually will lead to pressures on resources and rising inflation and inflationary expectations. The unemployment rate will need to return to its equilibrium level in order to stabilize inflation.

Now it wasn't so long ago that the Humphrey-Hawkins Act placed explicit guidelines on the achievement of both low inflation and maximum employment. The law was enacted in 1978 when the natural rate hypothesis was more controversial. The Humphrey-Hawkins Act set the following targets for unemployment and inflation within five years of the act's passage: the unemployment rate would be below 3 percent for those older than 19 and below 4 percent for those 16 years old and up; and CPI inflation would be under 4 percent. And the law also stated that by 1988 the inflation rate was to be zero percent.

Well, the unemployment rate didn't drop to 4 percent by 1983, and the inflation rate wasn't down to zero by 1988. Fortunately, though some would have liked it, the Fed was not held in contempt of Congress.

Of course, no one on the FOMC is suggesting that numerical targets for unemployment be reinstated. But FOMC members have expressed a variety of views on numerical inflation measures. Some have suggested an explicit inflation guideline. But no one has proposed full-blown inflation targeting in which we would commit to set policy with the sole aim of achieving a particular numerical inflation rate within some predetermined time period.

As an aside, the open discussion the FOMC has had on explicit inflation guidelines has been very healthy. Such debates are a strength of the Federal Reserve and foster much learning. So no matter what the final decision, our discussion of inflation guidelines will help formulate more informed — and better — monetary policy.

In any event, some form of an explicit numerical guideline may be embraced some day. But there are many issues that need to be studied and questions that need to be answered before making this decision.

The first problem is deciding what the number should be. As noted earlier, former Chairman Greenspan offered a non-explicit definition of price stability: when households and business owners are not taking inflation into account in their economic decisions. This is a useful definition, but it does not easily translate into a particular number for an inflation guideline.

Indeed, as recent history shows, deciding on a number for policy to aim for — let alone if it represents price stability or not — has been the subject of a good deal of debate. There was little debate in the late 1980s. Inflation was around 4-1/2 percent and looked to be heading up — to most, the inflation outlook clearly was too high. However, there was a debate in 1994. Core CPI inflation then was a relatively low 2.8 percent, and according to the minutes and transcripts, inflation was generally heading higher than most FOMC participants wanted. But that view was not universal. Many commentators thought an inflation rate of 3 percent was satisfactory and the Fed should not try to reduce it.[1] Today, though, it's doubtful many people would find 3 percent to be an acceptable point estimate for an inflation guideline. Of course, as I noted earlier when describing policy during 2003, it is possible for inflation to be too low. Importantly, the zero bound on nominal interest rates means that if inflation were too low, the Fed could be limited in its ability to lower short-term real interest rates and thus would have to turn to alternative and largely untested methods if it found it necessary to respond to unfavorable shocks to the economy.

A related question involves a seemingly simple issue: Which index should be selected for the inflation guideline? There are many measures of inflation: the Consumer Price Index, the Personal Consumption Expenditures Index, and the GDP price index, to name only a few.[2]

When inflation rates are high, it typically doesn't matter which index is selected for the guideline, because all measures of inflation will be high and above the guideline. But when inflation is in the range of price stability, the choice of the index could matter. Indeed, seemingly small differences in the composition of consumption baskets and other measurement methods in principle mean that different indexes could conceivably send mixed signals to policymakers about the appropriate direction policy should take.

There are other issues with regard to the choice of the guideline index. The Fed thinks that the price index for personal consumption expenditures, excluding food and energy, is the best measure of underlying trends in consumer inflation. But does that mean it's the best index for a guideline? For example, the total CPI is used in many private contracts as well as the inflation adjustments in many tax and transfer programs. So should there be a guideline for the CPI as well? Also, in a period of rapidly rising energy costs — such as the present — will the public have confidence in an inflation guideline that excludes energy prices? Would such a guideline achieve its claimed advantages of anchoring expectations and reducing risk premia?

Another set of issues centers on the best way to specify the numerical guideline to anchor inflation expectations. Should it be a single hard number or should it be a range of inflation outcomes? And once that has been decided, what is the time frame for achieving and maintaining the numerical values? The problem is to come up with something practical, yet still informative.

The advantage of a single number is that it's precise, so that there is no question how far one is from the guideline. However, actual inflation will inevitably fluctuate, and it's extremely unlikely that inflation at any point in time will be precisely at the guideline. To get around this problem, a range of acceptable inflation outcomes could be specified. It's more feasible to achieve inflation rates within a range. Of course, there is the issue of how wide the range should be. A very wide range would be uninformative and therefore not a useful starting point.

Under both systems, however, there are difficulties in communicating policy. In the first instance, it's communicating what kinds of small deviations from the single number policymakers would be willing to ignore. In the second case, it's communicating what kinds of deviations within the range would require a reaction by policymakers. We don't want to leave the public with the impression that there necessarily is a "zone of indifference" about inflation whenever it's in the guideline range. In either case, the difficult communications task would be to explain the role of economic conditions in determining why sometimes the FOMC acts, and other times it doesn't.

Furthermore, the policy prescription needs to include a time period for evaluating the inflation outcome against the inflation guideline. Empirical evidence indicates that monetary policy does not affect the trajectory of inflation before one year, or more likely, two years. So it's impractical to specify too short of a time period to reach the guideline. In contrast, suppose a very long time period is specified, say 10 to 20 years. It's doubtful that households and business owners would find this very useful for their financial planning. Obviously, the answer lies somewhere in between. Many central banks that have guidelines refer to the time frame with the qualitative phrase of "over the medium term." It is difficult to say precisely what this means. Is it three years, or five, or 10? And is it even a constant time period?

The time-frame decision becomes even more complicated when one considers another important issue: the Fed's dual mandate.

How does our growth mandate interact with a numerical guideline for inflation? As seen with the Humphrey-Hawkins Act, achieving explicit fixed guidelines for unemployment or real GDP growth is not workable in practice. Theoretically, the equilibrium, or natural, rate of unemployment and the trend in potential GDP growth change over time with demographics, productivity trends, and other factors. For example, a decline in the trend in productivity of the labor force would reduce the potential growth

RESEARCH on INFLATION

CENTER FOCUSES ON ISSUES RELATED TO PRICE STABILITY

The Inflation Research Center (IRC) at the Federal Reserve Bank of Chicago analyzes issues related to the Fed's mandate of maintaining stable prices to help foster maximum sustainable economic growth.

Economists in the IRC use the latest statistical methodology and economic theory in research projects aimed at helping policymakers, including Chicago Fed President Michael Moskow, address practical problems they face formulating national monetary policy on the Federal Open Market Committee. The IRC also encourages policy-relevant research and fosters the dissemination of research findings through the academic and policy-making communities.

"The IRC fosters basic and applied research on monetary policy," said senior economist and economic adviser Jonas Fisher, who manages the Center's activities. "The center's economists develop tools for practical policy-making."

The IRC has focused on applying developments in time-series statistics to better measure inflationary pressures. The Chicago Fed National Activity Index (CFNAI) is a good example. The CFNAI is a monthly index that provides a summary measure of economic growth and an assessment of emerging price pressures. The index was developed and produced under the direction of the IRC and is based on recent academic research on inflation forecasting.

In addition to developing tools for inflation forecasting, IRC economists examine the determinants of real economic activity, productivity growth, inflationary expectations, and the design of optimal fiscal and monetary policy. The ultimate goal of this research is to gain a better understanding of the forces generating inflationary or deflationary pressures.

ONGOING AND NEW INITIATIVES

Numerous other efforts are underway, including:

- Developing a new model-based statistical measure of core inflationary impulses.
- Investigating how long-run relationships implied by economic theory can improve short-and medium-run forecasts of inflation and other economic variables.
- Examining the use of disaggregated price data to understand the process of price formation at the firm level.

The IRC also carried out a number of outreach efforts in 2005. Well-known experts on inflation and macroeconomic modeling visited the center to present their research and provide feedback on current and potential IRC projects. IRC economists also organized a conference on price stability in November attended by more than 80 leading academic macroeconomists and policymakers. The IRC has a Web site (*http://www.chicagofed.org/economic_research_and_data/inflation_research.cfm*) featuring working papers, research articles, and information about IRC conferences, data, and visitors.

The Federal Reserve Bank of Chicago's Inflation Research Center analyzes issues related to maintaining low and stable consumer price inflation.

rate of GDP — and trying to boost output growth higher would only generate inflationary pressures. Furthermore, there are many issues regarding the measurement of these concepts. In any event, monetary policy cannot alter the natural rate, and any influence on potential output from the risk premia channel is at most secondary. As those in Europe are learning, reductions in high rates of structural unemployment require regulatory changes and increased competition. Paradigm changes are needed to remove structural impediments to growth and employment.

But even if it is accepted by economists that it does not make sense to set explicit fixed numerical targets for real growth and unemployment, the dual mandate still puts equal weight on price stability and maximum employment. In the academic literature on inflation targeting, a central bank that places substantial weight on both targets is referred to as a "flexible inflation targeter."

As of yet, in my opinion, the proposals for flexible inflation targeting require further elaboration before they can be of practical use to policymakers. Suppose for the sake of argument that the natural rate of unemployment and the level of potential real GDP were known. The key question in formulating explicit guidelines in the context of the dual mandate has two parts: "How fast should we plan to close the deviation in inflation from price stability?" and "How fast should we close the deviation between the unemployment rate and the natural rate?"

The answer is complicated because it involves the interaction between the time frame for closing any gap between actual output and its maximum sustainable level and the time frame for bringing inflation in line with price stability. This is because policy dilemmas may arise. Suppose inflation is one percentage point above its guideline. If output is above potential, then there is no policy dilemma, because a contractionary policy aimed at both slowing output growth and reducing inflation would make progress on both objectives. But if output is below potential, there is a conflict in achieving both objectives. The inflation gap points to raising rates, while the output gap suggests lowering them. Flexibility means that the central bank must balance the two deviations; therefore, it would take longer to close either gap in the second case than in the first. And the larger the policy dilemma, the longer it would take to close the gaps.

This discussion highlights the serious, and unanswered, question of how to specify formally such variable time periods in a policy environment with explicit numerical guidelines. Even if this problem is solved, other issues then come into play. As a legal matter, would the Fed need Congressional approval to adopt flexible targeting? And in light of the dual mandate, would this eventually lead to adding numerical unemployment guidelines that — like those in the Humphrey-Hawkins legislation — would prove to be incompatible with the natural rate hypothesis? Finally, how do you best explain flexible targeting to the public? It seems that whenever a number is mentioned, the media focuses entirely on the number and forgets all of the caveats.

This brings me to a final question. Suppose a central bank successfully adopted a formal inflation guideline that respects a dual mandate by flexibly adjusting the time horizons for achieving both its guidelines. Would this policy look any different from current Fed policy? Some academics who study inflation-targeting central banks say no.[3] They say that, effectively, the Federal Reserve does engage in flexible inflation targeting. This is a bit puzzling since there are no announced explicit guidelines. Still, financial markets and the public do not seem to be overly bothered by the lack of an explicit number for future inflationary expectations, and at the present time, inflationary expectations are well anchored. Our actual policy appears to have successfully obtained one of the most important benefits ascribed to a regime based on formal guidelines.

Then what is it that distinguishes current policy from simple discretionary ones that have the potential to produce large run-ups in inflation, like those in the 1970s? It's that central bankers now know that even without rigid rules or numerical guidelines, their actual approach to policy must be aimed at keeping inflation expectations anchored at a low level. They see this as a prerequisite to achieving maximum sustainable growth over the long run. Central bankers also know that anchoring inflationary expectations sometimes requires pre-emptive policy tightening before the actual inflation numbers start to rise — moves that might prove unpopular with the public, but are necessary to keep inflation in check.

A lot of questions have been raised in this essay concerning inflation guidelines and flexible targeting. There is not a pressing need to make an immediate decision on guidelines one way or the other. However, the topic is one of the most important issues currently on the table regarding the appropriate strategies for conducting monetary policy. There clearly are many issues regarding guidelines and targeting for researchers, business economists, and policymakers to study and debate. And this debate is going to be a healthy process. No matter what answers surface, more will be learned about the best ways to conduct monetary policy in our complicated and ever-changing economy.

Looking ahead, Ben Bernanke, the new chairman of the Federal Reserve, has been a proponent of more explicit inflation guidelines, and the FOMC clearly will be discussing the issue further. These discussions will take place with full consideration given to formulating such guidelines in the context of maintaining policy flexibility and respecting the Federal Reserve's dual mandate. As Chairman Bernanke said in his confirmation hearings:

"I view the explicit statement of a long-run inflation objective as fully consistent with the Federal Reserve's current policy approach, including its appropriate emphasis on the role of judgment and flexibility in policymaking. Most important, this step would in no way reduce the importance of maximum employment as a policy goal. Indeed, a key justification for this action is its potential to contribute to stronger and more stable employment growth by further stabilizing inflation and inflation expectations. In any case, I assure this Committee that, if I am confirmed, I will take no precipitate steps in the direction of quantifying the definition of long-run price stability. This matter requires further study at the Federal Reserve as well as extensive discussion and consultation. I would propose further action only if a consensus can be developed that taking such a step would further enhance the ability of the FOMC to satisfy its dual mandate of achieving both stable prices and maximum sustainable employment."

Of course, whatever the outcome of this discussion, the FOMC's decisions regarding inflation guidelines will not be the final say on what constitutes the appropriate tactics for conducting monetary policy. Paradigms will continue to shift, and new personalities will arrive on the scene. And central bankers will continue to grapple with the best ways to implement monetary policy and convey to the public how we aim to achieve the fundamental long-run goals of price stability and maximum sustainable growth. Indeed, some people have complained that when Alan Greenspan retired after his extremely successful chairmanship of the Fed, he didn't write down his secret for running outstanding monetary policy — "He didn't leave a playbook." But that's fine — the most important legacies of the Greenspan era may be the lessons that central bankers teach themselves as they reflect on the conduct of monetary policy over the past 18 years.

■ ■ ■ ■ ■

The views presented here are those of Federal Reserve Bank of Chicago President Michael Moskow and not necessarily those of the Federal Open Market Committee or the Federal Reserve System. Major portions of this essay are based on a speech presented September 26, 2005, by the author to the National Association for Business Economics. Economic Research Senior Vice President Charles Evans and Vice President Spencer Krane contributed to development of the speech and this essay.

[1] *A sophisticated expression of this view was offered by George A. Akerlof, William T. Dickens, and George L. Perry, "The Macroeconomics of Low Inflation," Brookings Papers on Economic Activity, no. 1 (1996). It is based on the hypothesis that even though real wages determine purchasing power, workers have an extra aversion to seeing real wages lowered through a reduction in nominal wages. This results in nominal wages being sticky on the downside. These authors calibrate a model in which an inflation rate of 3 percent allows most realignments of real wages to occur without reducing nominal wages.*

[2] *Most central banks that have targets use a consumer or retail index, and this has some grounding in economic theory since it is ultimately the well-being of consumers that matters for utility theory. For example, good business decisions among intermediate goods producers ultimately benefit consumers through their effect on final products and returns to investors who are also consumers.*

[3] *See, for example, Marvin Goodfriend, "Inflation Targeting in the United States," NBER Working Paper no. 9981, September 2003.*

BOARD OF DIRECTORS FEDERAL RESERVE BANK of CHICAGO

Chairman
W. James Farrell
Chairman
Illinois Tool Works
Glenview, Illinois

Deputy Chairman
Miles D. White
Chairman and
Chief Executive Officer
Abbott Laboratories
Abbott Park, Illinois

John A. Canning, Jr.
Chairman and
Chief Executive Officer
Madison Dearborn
Partners, Inc.
Chicago, Illinois

Connie E. Evans
President and
Chief Executive Officer
WSEP Ventures
Chicago, Illinois

Mark T. Gaffney
President
Michigan State AFL-CIO
Lansing, Michigan

Michael L. Kubacki
Chairman, President and
Chief Executive Officer
Lake City Bank and
Lakeland Financial Corp.
Warsaw, Indiana

Mindy C. Meads
Former President and
Chief Executive Officer
Lands' End, Inc.
Dodgeville, Wisconsin

William A. Osborn
Chairman and
Chief Executive Officer
Northern Trust Corp. and
The Northern Trust Co.
Chicago, Illinois

Jeff Plagge
President and
Chief Executive Officer
The First National Bank
of Waverly
Waverly, Iowa

One director joined the Chicago Board in 2006:

The new director is Valerie B. Jarrett, Managing Director and Executive Vice President of The Habitat Company in Chicago, Illinois. She replaced Connie E. Evans, who completed six years of service.

BOARD OF DIRECTORS DETROIT BRANCH

Chairman
Edsel B. Ford II
Director
Ford Motor Company
Dearborn, Michigan

Ralph W. Babb, Jr.
Chairman, President and
Chief Executive Officer
Comerica, Inc.
Detroit, Michigan

Roger A. Cregg
Executive Vice President
and Chief Financial Officer
Pulte Homes, Inc.
Bloomfield Hills, Michigan

Linda S. Likely
Director of Housing and
Community Development
Kent County Community
Development Department
and Housing Commission
Grand Rapids, Michigan

Michael M. Magee, Jr.
President and
Chief Executive Officer
Independent Bank Corp.
Ionia, Michigan

Irvin D. Reid
President
Wayne State University
Detroit, Michigan

Tommi A. White
Chief Operating Officer
Compuware Corporation
Detroit, Michigan

One director joined the Detroit Branch Board in 2006:

The new director is Timothy M. Manganello, Chairman and Chief Executive Officer of BorgWarner, Inc. in Auburn Hills, Michigan. He replaced Edsel B. Ford, who completed six years of service, two as Branch board chairman.

MANAGEMENT COMMITTEE FEDERAL RESERVE BANK of CHICAGO

Michael H. Moskow
President and
Chief Executive Officer

Gordon Werkema
First Vice President and
Chief Operating Officer

William A. Barouski
Senior Vice President
Customer Relations and
Support Office (CRSO)

Barbara D. Benson
Senior Vice President
Strategy, Finance and
People Practices

Charles L. Evans
Senior Vice President
and Director of Research

Glenn C. Hansen
Senior Vice President
Detroit Branch,
Cash Operations and
Corporate Communications

Elizabeth A. Knospe
Senior Vice President,
General Counsel,
and Secretary
Legal Relations, Office
of the Directors and
Enterprise Risk Management

Margaret K. Koenigs
Vice President
and General Auditor

Catharine Lemieux
Senior Vice President
Supervision and Regulation

Angela D. Robinson
Senior Vice President
and EEO Officer
Information Technology,
Administration, Statistical
and Financial Reports

Robert G. Wiley
Senior Vice President
Financial Services Group

As of December 31, 2005

EXECUTIVE OFFICERS

Michael H. Moskow
President and
Chief Executive Officer

Gordon Werkema
First Vice President and
Chief Operating Officer

Central Bank Activities

Economic Research and Programs

Charles L. Evans
Senior Vice President and
Director of Research

Regional Economics

William A. Testa
Vice President
and Economic Advisor

Banking and Financial Markets

Douglas D. Evanoff
Vice President
and Economic Advisor

Macroeconomic Policy Research

David Marshall
Vice President
and Economic Advisor

Spencer D. Krane
Vice President
and Economic Advisor

Microeconomic Policy Research

Daniel G. Sullivan
Vice President
and Economic Advisor

Payments Studies

Richard D. Porter
Vice President

Consumer and Community Affairs

Alicia Williams
Vice President

Supervision and Regulation

Catharine Lemieux
Senior Vice President

Operations

Douglas J. Kasl
Vice President

Institutions

Mark H. Kawa
Vice President

Risk Specialists

Richard C. Cahill
Vice President

Services to Depository Institutions

Customer Relations and Support Office (CRSO)

William A. Barouski
Senior Vice President

Fedline Services

Ira R. Zilist
Vice President
and Program Director

Financial Planning and Controls, Budget, Forecasting, Revenue Management

Ellen J. Bromagen
Vice President
and Program Director

National Marketing and Communications

Laura J. Hughes
Vice President
and Program Director

National Sales

Sean Rodriguez
Vice President
and Program Director

Michael J. Hoppe
Vice President
and National
Account Manager

Financial Services Group

Robert G. Wiley
Senior Vice President

Brian Egan
Vice President
(Dedicated to the Retail
Payments Office)

Cynthia L. Rasche
Vice President
(Dedicated to the Retail
Payments Office)

Midway Operations

Mary H. Sherburne
Vice President,
Midway Site Manager

Detroit Branch Operations, Cash Operations and Corporate Communications

Glenn C. Hansen
Senior Vice President

Cash Operations

Jerome D. Nicolas
Vice President

Corporate Communications

G. Douglas Tillett
Vice President

Information Technology, Administration, Statistical and Financial Reports

Angela D. Robinson
Senior Vice President
and EEO Officer

Administrative Services

Kristi L. Zimmermann
Vice President

Statistics

Valerie J. Van Meter
Vice President

People Practices, Strategic Planning, Loans and Reserves, Finance

Barbara D. Benson
Senior Vice President

Budget Reporting

Jeffrey S. Anderson
Vice President

Accounting, Loans and Reserves

Gerard J. Nick
Vice President

Legal Relations & Financial Systems Risk Management

Elizabeth A. Knospe
Senior Vice President,
General Counsel, and
Secretary

Yurii Skorin
Vice President
and Associate General
Counsel

Anna M. Voytovich
Vice President
and Associate General
Counsel

Office of the General Auditor

Margaret K. Koenigs
Vice President
and General Auditor

As of December 31, 2005

FRBC 2005 Annual Report

ADVISORY COUNCILS

Federal Advisory Council Seventh District Representative

Dennis J. Kuester
Marshall & Ilsley Corporation
Milwaukee, Wisconsin

Seventh District Advisory Council

Thomas Kendall Brown
Ford Motor Company
Dearborn, Michigan

Carl T. Camden
Kelly Services, Inc.
Troy, Michigan

Richard L. Clarke
Healthcare Financial Management Association
Westchester, Illinois

Erroll B. Davis, Jr.
Alliant Energy
Madison, Wisconsin

Darcy L. Evon
Illinois Institute of Technology
Chicago, Illinois

Christopher P. LaMothe
Ascendanci Ventures, LLC
Indianapolis, Indiana

Bret R. Maxwell
MK Capital
Chicago, Illinois

Leslie Smith Miller
Iowa State Savings Bank
Knoxville, Iowa

David Newby
Wisconsin State AFL-CIO
Milwaukee, Wisconsin

Matthew Paull
McDonald's Corporation
Oak Brook, Illinois

Robert G. Potter
United Food and Commercial Workers Local 951
Grand Rapids, Michigan

Quintin E. Primo III
Capri Capital
Chicago, Illinois

Donald J. Schneider
Schneider National, Inc.
Green Bay, Wisconsin

Leland Strom
Strom Farm
Elgin, Illinois

Jim Theisen
Theisen Home Farm Auto
Dubuque, Iowa

Jean Wojtowicz
Cambridge Capital Management Corp.
Indianapolis, Indiana

Money Smart Advisory Councils

The Federal Reserve Bank of Chicago and its Detroit Branch coordinate Money Smart Advisory Councils in both Chicago and Detroit. They are made up of representatives of community, financial, government and educational organizations working together to promote financial literacy. Each council sponsors an annual Money Smart Week, which features a variety of activities for consumers that promote financial education. For a list of council members, please visit our Web site at chicagofed.org and go to "Advisory Councils" in the "About the Fed" section.

EXECUTIVE CHANGES

Directors

Members of the Federal Reserve Bank of Chicago's boards of directors are selected to represent a cross section of the Seventh District economy, including consumers, industry, agriculture, the service sector, labor and commercial banks of various sizes.

The Chicago board consists of nine members. Member banks elect three bankers and three non-bankers. The Board of Governors appoints three additional non-bankers and designates the Reserve Bank chair and deputy chair from among its three appointees.

The Detroit Branch has a seven-member board of directors. The Board of Governors appoints three non-bankers, and the Chicago Reserve Bank board appoints four additional directors. The Branch board selects its own chair each year, with the approval of the Chicago board. All Reserve Bank and Branch directors serve three-year terms, with a two-term maximum.

Director appointments and elections at the Chicago Reserve Bank and its Detroit Branch effective in 2005 were:

W. James Farrell re-appointed to a second one-year term as board chairman.

Miles D. White re-appointed to a second three-year term as a director through 2007 and a second one-year term as deputy chairman

Mindy C. Meads elected a director through 2007

Jeff Plagge elected a director through 2007

Michael M. Magee, Jr. appointed a Branch director through 2007

Edsel B. Ford II re-appointed to a second one-year term as Detroit Branch board chairman through 2005

Irvin D. Reid re-appointed to serve a second three-year term as a Branch director through 2007

At the end of 2005 the following appointments and elections to terms beginning in 2006 were announced:

Miles White was appointed to a one-year term as Chicago Board chairman

John Canning was re-appointed to a three-year term as Chicago director and appointed to a one-year term as Chicago board deputy chairman

Roger Cregg appointed to a one-year term as Detroit Branch chairman

Bill Osborn re-elected to serve another year as Chicago director

Linda Likely re-appointed to serve a three-year term as Detroit Branch director

Tommi White re-appointed to serve a second three-year term as Detroit Branch director

Valerie B. Jarrett was elected to a three-year term as a Chicago director

Timothy M. Manganello was appointed to a three-year term as a Detroit Branch director

Advisory Councils

The Federal Advisory Council, which meets quarterly to discuss business and financial conditions with the Board of Governors in Washington, D.C., is composed of one person from each of the 12 Federal Reserve Districts.

Each year the Chicago Reserve Bank's board of directors selects a representative to this group. Dennis J. Kuester, president and chief executive officer, Marshall & Ilsley Corporation, Milwaukee, Wisconsin, was selected to be the 2006 representative.

The Seventh District Advisory Council members meet twice a year to provide their views on current business conditions to Chicago Fed President Michael Moskow and other senior officials of the Bank. Input from Council members on regional economic conditions helps contribute to the Federal Reserve System's formulation of national monetary policy.

Executive Officers

The Bank's board of directors acted on the following vice president promotion during 2005:

Cynthia L. Rasche to Vice President, Retail Payments Office

The following executive officer retired during 2005:

David Ritter, Vice President, Technology Group, after 23 years of service

OPERATIONS VOLUMES

	Dollar Amount		Number of Items	
	2005	2004	2005	2004
Check and Electronic Payments				
Checks, NOWs and Share Drafts Processed	1.5 Trillion	1.7 Trillion	1.4 Billion	2.0 Billion
Fine Sort and Packaged Checks Handled	851.0 Million	10.3 Billion	1.4 Million	15.1 Million
Images Captured	—	—	116.2 Million	92.3 Million
Check 21 Items Received	215.9 Billion	—	32.1 Million	—
Cash Operations				
Currency Received and Counted	52.7 Billion	53.2 Billion	3.7 Billion	3.7 Billion
Unfit Currency Destroyed	5.6 Billion	6.5 Billion	583.1 Million	602.3 Million
Coin Bags Paid and Received	1.8 Billion	1.7 Billion	4.3 Million	4.0 Million
Number of Notes Paid and Received	128.7 Billion	132.7 Billion	8.5 Billion	8.5 Billion
Loans to Depository Institutions				
Total Loans Made During Year	1.4 Billion	1.5 Billion	1.4 Thousand	1.3 Thousand

FRBC 2005 Annual Report

AUDITOR INDEPENDENCE

The firm engaged by the Board of Governors for the audits of the individual and combined financial statements of the Reserve Banks for 2005 was PricewaterhouseCoopers LLP (PwC). Fees for these services totaled $4.6 million. To ensure auditor independence, the Board of Governors requires that PwC be independent in all matters relating to the audit. Specifically, PwC may not perform services for the Reserve Banks or others that would place it in a position of auditing its own work, making management decisions on behalf of the Reserve Banks, or in any other way impairing its audit independence. In 2005, the Bank did not engage PwC for any material advisory services.

2005 FINANCIAL REPORTS

Management Assertion
March 2, 2006
To the Board of Directors of the Federal Reserve Bank of Chicago

The management of the Federal Reserve Bank of Chicago ("FRBC") is responsible for the preparation and fair presentation of the Statement of Financial Condition, Statement of Income, and Statement of Changes in Capital as of December 31, 2005 (the "Financial Statements"). The Financial Statements have been prepared in conformity with the accounting principles, policies, and practices established by the Board of Governors of the Federal Reserve System and as set forth in the Financial Accounting Manual for the Federal Reserve Banks ("Manual"), and as such, include amounts, some of which are based on judgments and estimates of management. To our knowledge, the Financial Statements are, in all material respects, fairly presented in conformity with the accounting principles, policies, and practices documented in the Manual and include all disclosures necessary for such fair presentation.

The management of the FRBC is responsible for maintaining an effective process of internal controls over financial reporting including the safeguarding of assets as they relate to the Financial Statements. Such internal controls are designed to provide reasonable assurance to management and to the Board of Directors regarding the preparation of reliable Financial Statements. This process of internal controls contains self-monitoring mechanisms, including, but not limited to, divisions of responsibility and a code of conduct. Once identified, any material deficiencies in the process of internal controls are reported to management, and appropriate corrective measures are implemented.

Even an effective process of internal controls, no matter how well designed, has inherent limitations, including the possibility of human error, and therefore can provide only reasonable assurance with respect to the preparation of reliable financial statements.

The management of the FRBC assessed its process of internal controls over financial reporting including the safeguarding of assets reflected in the Financial Statements, based upon the criteria established in the "Internal Control – Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, we believe that the FRBC maintained an effective process of internal controls over financial reporting including the safeguarding of assets as they relate to the Financial Statements.

Federal Reserve Bank of Chicago

Michael Moskow
President

Gordon Werkema
First Vice President

Gerard J. Nick
Vice President and Controller

PricewaterhouseCoopers LLP
One North Wacker
Chicago, IL 60606
Telephone (312) 298-2000
Facsimile (312) 298-2001

Report of Independent Accountants
To the Board of Directors of The Federal Reserve Bank of Chicago

We have examined management's assertion, included in the accompanying Management Assertion, that the Federal Reserve Bank of Chicago ("FRBC") maintained effective internal control over financial reporting and the safeguarding of assets as of December 31, 2005, based on criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. FRBC's management is responsible for maintaining effective internal control over financial reporting and safeguarding of assets. Our responsibility is to express an opinion on management's assertion based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants and, accordingly, included obtaining an understanding of internal control over financial reporting, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our examination provides a reasonable basis for our opinion.

Because of inherent limitations in any internal control, misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of internal control over financial reporting to future periods are subject to the risk that the internal control may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, management's assertion that FRBC maintained effective internal control over financial reporting and over the safeguarding of assets as of December 31, 2005 is fairly stated, in all material respects, based on criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

This report is intended solely for the information and use of management and the Board of Directors and Audit Committee of FRBC, and any organization with legally defined oversight responsibilities and is not intended to be and should not be used by anyone other than these specified parties.

March 8, 2006

PricewaterhouseCoopers LLP
One North Wacker
Chicago, IL 60606
Telephone (312) 298-2000
Facsimile (312) 298-2001

Report of Independent Auditors
To the Board of Governors of The Federal Reserve System and the Board of Directors of The Federal Reserve Bank of Chicago

We have audited the accompanying statements of condition of the Federal Reserve Bank of Chicago (the "Bank") as of December 31, 2005 and 2004, and the related statements of income and changes in capital for the years then ended, which have been prepared in conformity with the accounting principles, policies, and practices established by the Board of Governors of the Federal Reserve System. These financial statements are the responsibility of the Bank's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As described in Note 3, these financial statements were prepared in conformity with the accounting principles, policies, and practices established by the Board of Governors of the Federal Reserve System. These principles, policies, and practices, which were designed to meet the specialized accounting and reporting needs of the Federal Reserve System, are set forth in the *Financial Accounting Manual for Federal Reserve Banks* and constitute a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Bank as of December 31, 2005 and 2004, and results of its operations for the years then ended, on the basis of accounting described in Note 3.

March 8, 2006

2005 FINANCIAL STATEMENTS

Statements of Condition, in Millions. As of December 31,	**2005**	**2004**
Assets		
Gold certificates	$ 928	$ 924
Special drawing rights certificates	212	212
Coin	76	111
Items in process of collection	414	559
Loans to depository institutions	26	14
U.S. government securities, net	67,559	65,359
Investments denominated in foreign currencies	1,228	2,232
Accrued interest receivable	525	458
Interdistrict settlement account	1,908	225
Bank premises and equipment, net	245	186
Other assets	32	40
Total Assets	**$ 73,153**	**$ 70,320**
Liabilities and Capital		
Liabilities:		
Federal Reserve notes outstanding, net	$ 66,524	$ 63,471
Securities sold under agreements to repurchase	2,747	2,773
Deposits:		
Depository institutions	1,590	1,762
Other deposits	4	4
Deferred credit items	349	421
Interest on Federal Reserve notes due U.S. Treasury	71	244
Accrued benefit costs	80	83
Other liabilities	36	36
Total Liabilities	**71,401**	**68,794**
Capital:		
Capital paid-in	876	763
Surplus	876	763
Total Capital	**1,752**	**1,526**
Total Liabilities and Capital	**$ 73,153**	**$ 70,320**

The accompanying notes are an integral part of these financial statements.

Statements of Income, in Millions. For the years ended December 31,	**2005**	**2004**
Interest Income:		
Interest on U.S. government securities	$ 2,532	$ 2,041
Interest on investments denominated in foreign currencies	19	28
Interest on loans to depository institutions	2	1
Total Interest Income	2,553	2,070
Interest Expense:		
Interest expense on securities sold under agreements to repurchase	73	28
Net Interest Income	2,480	2,042
Other Operating (Loss) Income:		
Income from services	49	114
Compensation received for check services provided	54	–
Reimbursable services to government agencies	5	7
Foreign currency (losses) gains, net	(193)	129
Other income	11	7
Total Other Operating (Loss) Income	(74)	257
Operating Expenses:		
Salaries and other benefits	136	143
Occupancy expense	20	21
Equipment expense	11	16
Assessments by Board of Governors	70	76
Other expenses	87	83
Total Operating Expenses	324	339
Net Income Prior to Distribution	$ 2,082	$ 1,960
Distribution of Net Income:		
Dividends paid to member banks	$ 50	$ 57
Transferred to (from) surplus	113	(161)
Payments to U.S. Treasury as interest on Federal Reserve notes	1,919	2,064
Total Distribution	$ 2,082	$ 1,960

The accompanying notes are an integral part of these financial statements.

Statements of Changes in Capital, in Millions. For the years ended December 31, 2005 and December 31, 2004	**Capital Paid-in**	**Surplus**	**Total Capital**
Balance at January 1, 2004 (18.5 million shares)	$ 924	$ 924	$ 1,848
Transferred from surplus	–	(161)	(161)
Net change in capital stock redeemed (3.2 million shares)	(161)	–	(161)
Balance at December 31, 2004 (15.3 million shares)	$ 763	$ 763	$ 1,526
Transferred to surplus	–	113	113
Net change in capital stock issued (2.2 million shares)	113	–	113
Balance at December 31, 2005 (17.5 million shares)	$ 876	$ 876	$ 1,752

The accompanying notes are an integral part of these financial statements.

NOTES TO FINANCIAL STATEMENTS

1. Structure

The Federal Reserve Bank of Chicago ("Bank") is part of the Federal Reserve System ("System") and one of the twelve Reserve Banks ("Reserve Banks") created by Congress under the Federal Reserve Act of 1913 ("Federal Reserve Act"), which established the central bank of the United States. The Reserve Banks are chartered by the federal government and possess a unique set of governmental, corporate, and central bank characteristics. The Bank and its branch in Detroit, Michigan serve the Seventh Federal Reserve District, which includes Iowa, and portions of Michigan, Illinois, Wisconsin and Indiana.

In accordance with the Federal Reserve Act, supervision and control of the Bank are exercised by a Board of Directors. The Federal Reserve Act specifies the composition of the Board of Directors for each of the Reserve Banks. Each board is composed of nine members serving three-year terms: three directors, including those designated as Chairman and Deputy Chairman, are appointed by the Board of Governors, and six directors are elected by member banks. Banks that are members of the System include all national banks and any state-chartered banks that apply and are approved for membership in the System. Member banks are divided into three classes according to size. Member banks in each class elect one director representing member banks and one representing the public. In any election of directors, each member bank receives one vote, regardless of the number of shares of Reserve Bank stock it holds.

The System also consists, in part, of the Board of Governors of the Federal Reserve System ("Board of Governors") and the Federal Open Market Committee ("FOMC"). The Board of Governors, an independent federal agency, is charged by the Federal Reserve Act with a number of specific duties, including general supervision over the Reserve Banks. The FOMC is composed of members of the Board of Governors, the president of the Federal Reserve Bank of New York ("FRBNY"), and on a rotating basis four other Reserve Bank presidents.

2. Operations and Services

The System performs a variety of services and operations. Functions include formulating and conducting monetary policy; participating actively in the payments system including large-dollar transfers of funds, automated clearinghouse ("ACH") operations, and check processing; distributing coin and currency; performing fiscal agency functions for the U.S. Treasury and certain federal agencies; serving as the federal government's bank; providing short-term loans to depository institutions; serving the consumer and the community by providing educational materials and information regarding consumer laws; supervising bank holding companies, state member banks, and U.S. offices of foreign banking organizations; and administering other regulations of the Board of Governors. The System also provides certain services to foreign central banks, governments, and international official institutions.

The FOMC, in the conduct of monetary policy, establishes policy regarding domestic open market operations, oversees these operations, and annually issues authorizations and directives to the FRBNY for its execution of transactions. FRBNY is authorized to conduct operations in domestic markets, including direct purchase and sale of U. S. government securities, the purchase of securities under agreements to resell, the sale of securities under agreements to repurchase, and the lending of U.S. government securities. FRBNY executes these open market transactions and holds the resulting securities, with the exception of securities purchased under agreements to resell, in the portfolio known as the System Open Market Account ("SOMA").

In addition to authorizing and directing operations in the domestic securities market, the FOMC authorizes and directs FRBNY to execute operations in foreign markets for major currencies in order to counter disorderly conditions in exchange markets or to meet other needs specified by the FOMC in carrying out the System's central bank responsibilities. The FRBNY is authorized by the FOMC to hold balances of, and to execute spot and forward foreign exchange ("F/X") and securities contracts for nine foreign currencies and to invest such foreign currency holdings ensuring adequate liquidity is maintained. In addition, FRBNY is authorized to maintain reciprocal currency arrangements ("F/X swaps") with two central banks, and "warehouse" foreign currencies for the U.S. Treasury and Exchange Stabilization Fund ("ESF") through the Reserve Banks. In connection with its foreign currency activities, FRBNY may enter into contracts that contain varying degrees of off-balance-sheet market risk, because they represent contractual commitments involving future settlement and counter-party credit risk. The FRBNY controls credit risk by obtaining credit approvals, establishing transaction limits, and performing daily monitoring procedures.

Although Reserve Banks are separate legal entities, in the interests of greater efficiency and effectiveness, they collaborate in the delivery of certain operations and services. The collaboration takes the form of centralized competency centers, operations sites, and product or service offices that have responsibility for the delivery of certain services on behalf of the Reserve Banks. Various operational and management models are used and are supported by service agreements between the Reserve Bank providing the service and the other eleven Reserve Banks. In some cases, costs incurred by a Reserve Bank for services provided to other Reserve Banks are not shared; in other cases, Reserve Banks are billed for services provided to them by another Reserve Bank.

Major services provided on behalf of the System by the Bank, for which the costs were not redistributed to the other Reserve Banks, include national business development and customer support.

Beginning in 2005, the Reserve Banks adopted a new management model for providing check services to depository institutions. Under this new model, the Federal Reserve Bank of Atlanta ("FRBA") has the overall responsibility for managing the Reserve Banks' provision of check services and recognizes total System check revenue on its Statements of Income. FRBA compensates the other eleven Banks for the costs incurred to provide check services. This compensation is reported as "Compensation received for check services provided" in the Statements of Income. If the management model had been in place in 2004, the Bank would have reported $71 million as compensation received for check services provided and $94 million in check revenue would have been reported by FRB Atlanta rather than the Bank.

3. Significant Accounting Policies

Accounting principles for entities with the unique powers and responsibilities of the nation's central bank have not been formulated by the various accounting standard-setting bodies. The Board of Governors has developed specialized accounting principles and practices that it believes are appropriate for the significantly different nature and function of a central bank as compared with the private sector. These accounting principles and practices are documented in the *Financial Accounting Manual for Federal Reserve Banks* ("Financial Accounting Manual"), which is issued by the Board of Governors. All Reserve Banks are required to adopt and apply accounting policies and practices that are consistent with the Financial Accounting Manual and the financial statements have been prepared in accordance with the Financial Accounting Manual.

Differences exist between the accounting principles and practices in the Financial Accounting Manual and those generally accepted in the United States ("GAAP") primarily due to the unique nature of the Bank's powers and responsibilities as part of the nation's central bank. The primary difference is the presentation of all security holdings at amortized cost, rather than using the fair value presentation requirements in accordance with GAAP. Amortized cost more appropriately reflects the Bank's security holdings given its unique responsibility to conduct monetary policy. While the application of current market prices to the securities holdings may result in values substantially above or below their carrying values, these unrealized changes in value would have no direct affect on the quantity of reserves available to the banking system or on the prospects for future Bank earnings or capital. Both the domestic and foreign components of the SOMA portfolio may involve transactions that result in gains or losses when holdings are sold prior to maturity. Decisions regarding security and foreign currency transactions, including their purchase and sale, are motivated by monetary policy objectives rather than profit. Accordingly, market values, earnings, and any gains or losses resulting from the sale of such securities and currencies are incidental to the open market operations and do not motivate its activities or policy decisions.

In addition, the Bank has elected not to present a Statement of Cash Flows because the liquidity and cash position of the Bank are not a primary concern given the Bank's unique powers and responsibilities. A Statement of Cash Flows, therefore, would not provide any additional meaningful information. Other information regarding the Bank's activities is provided in, or may be derived from, the Statements of Condition, Income, and Changes in Capital. There are no other significant differences between the policies outlined in the Financial Accounting Manual and GAAP.

The preparation of the financial statements in conformity with the Financial Accounting Manual requires management to make certain estimates and

assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of income and expenses during the reporting period. Actual results could differ from those estimates. Unique accounts and significant accounting policies are explained below.

a. Gold and Special Drawing Rights Certificates

The Secretary of the U.S. Treasury is authorized to issue gold and special drawing rights ("SDR") certificates to the Reserve Banks.

Payment for the gold certificates by the Reserve Banks is made by crediting equivalent amounts in dollars into the account established for the U.S. Treasury. These gold certificates held by the Reserve Banks are required to be backed by the gold of the U.S. Treasury. The U.S. Treasury may reacquire the gold certificates at any time and the Reserve Banks must deliver them to the U.S. Treasury. At such time, the U.S. Treasury's account is charged, and the Reserve Banks' gold certificate accounts are lowered. The value of gold for purposes of backing the gold certificates is set by law at $42 2/9 a fine troy ounce. The Board of Governors allocates the gold certificates among Reserve Banks once a year based on the average Federal Reserve notes outstanding in each Reserve Bank.

Special drawing rights ("SDRs") are issued by the International Monetary Fund ("Fund") to its members in proportion to each member's quota in the Fund at the time of issuance. SDRs serve as a supplement to international monetary reserves and may be transferred from one national monetary authority to another. Under the law providing for United States participation in the SDR system, the Secretary of the U.S. Treasury is authorized to issue SDR certificates, somewhat like gold certificates, to the Reserve Banks. At such time, equivalent amounts in dollars are credited to the account established for the U.S. Treasury, and the Reserve Banks' SDR certificate accounts are increased. The Reserve Banks are required to purchase SDR certificates, at the direction of the U.S. Treasury, for the purpose of financing SDR acquisitions or for financing exchange stabilization operations. At the time SDR transactions occur, the Board of Governors allocates SDR certificate transactions among Reserve Banks based upon Federal Reserve notes outstanding in each District at the end of the preceding year. There were no SDR transactions in 2005 or 2004.

b. Loans to Depository Institutions

All depository institutions that maintain reservable transaction accounts or nonpersonal time deposits, as defined in regulations issued by the Board of Governors, have borrowing privileges at the discretion of the Reserve Bank. Borrowers execute certain lending agreements and deposit sufficient collateral before credit is extended. Loans are evaluated for collectibility, and currently all are considered collectible and fully collateralized. If loans were ever deemed to be uncollectible, an appropriate reserve would be established. Interest is accrued using the applicable discount rate established at least every fourteen days by the Board of Directors of the Reserve Bank, subject to review by the Board of Governors.

c. U.S. Government Securities and Investments Denominated in Foreign Currencies

U.S. government securities and investments denominated in foreign currencies comprising the SOMA are recorded at cost, on a settlement-date basis, and adjusted for amortization of premiums or accretion of discounts on a straight-line basis. Interest income is accrued on a straight-line basis. Gains and losses resulting from sales of securities are determined by specific issues based on average cost. Foreign-currency-denominated assets are revalued daily at current foreign currency market exchange rates in order to report these assets in U.S. dollars. Realized and unrealized gains and losses on investments denominated in foreign currencies are reported as "Foreign currency gains (losses), net."

Activity related to U.S. government securities, including the related premiums, discounts, and realized and unrealized gains and losses, is allocated to each Reserve Bank on a percentage basis derived from an annual settlement of interdistrict clearings that occurs in April of each year. The settlement equalizes Reserve Bank gold certificate holdings to Federal Reserve notes outstanding in each District. Activity related to investments in foreign-currency-denominated assets is allocated to each Reserve Bank based on the ratio of each Reserve Bank's capital and surplus to aggregate capital and surplus at the preceding December 31.

d. U.S. Government Securities Sold Under Agreements to Repurchase and Securities Lending

Securities sold under agreements to repurchase are accounted for as financing transactions and the associated interest expense is recognized over the life of the transaction. These transactions are carried in the Statements of Condition at their contractual amounts and the related accrued interest is reported as a component of "Other liabilities."

U.S. government securities held in the SOMA are lent to U.S. government securities dealers and to banks participating in U.S. government securities clearing arrangements in order to facilitate the effective functioning of the domestic securities market. Securities-lending transactions are fully collateralized by other U.S. government securities and the collateral taken is in excess of the market value of the securities loaned. The FRBNY charges the dealer or bank a fee for borrowing securities and the fees are reported as a component of "Other income" in the Statements of Income.

Activity related to U.S. government securities sold under agreements to repurchase and securities lending is allocated to each Reserve Bank on a percentage basis derived from the annual settlement of interdistrict clearings. Securities purchased under agreements to resell are allocated to FRBNY and not to the other Banks.

e. Foreign Currency Swaps and Warehousing

F/X swap arrangements are contractual agreements between two parties to exchange specified currencies, at a specified price, on a specified date. The parties agree to exchange their currencies up to a pre-arranged maximum amount and for an agreed-upon period of time (up to twelve months), at an agreed-upon interest rate. These arrangements give the FOMC temporary access to the foreign currencies it may need to intervene to support the dollar and give the counterparty temporary access to dollars it may need to support its own currency. Drawings under the F/X swap arrangements can be initiated by either FRBNY or the counterparty (the drawer) and must be agreed to by the drawee. The F/X swaps are structured so that the party initiating the transaction bears the exchange rate risk upon maturity. FRBNY will generally invest the foreign currency received under an F/X swap in interest-bearing instruments.

Warehousing is an arrangement under which the FOMC agrees to exchange, at the request of the U.S. Treasury, U.S. dollars for foreign currencies held by the U.S. Treasury or ESF over a limited period of time. The purpose of the warehousing facility is to supplement the U.S. dollar resources of the U.S. Treasury and ESF for financing purchases of foreign currencies and related international operations.

Foreign currency swaps and warehousing agreements are revalued daily at current market exchange rates. Activity related to these agreements, with the exception of the unrealized gains and losses resulting from the daily revaluation, is allocated to each Reserve Bank based on the ratio of each Reserve Bank's capital and surplus to aggregate capital and surplus at the preceding December 31. Unrealized gains and losses resulting from the daily revaluation are allocated to FRBNY and not to the other Reserve Banks.

f. Bank Premises, Equipment, and Software

Bank premises and equipment are stated at cost less accumulated depreciation. Depreciation is calculated on a straight-line basis over estimated useful lives of assets ranging from three to fifty years. Major alterations, renovations, and improvements are capitalized at cost as additions to the asset accounts and are amortized over the remaining useful life of the asset. Maintenance, repairs, and minor replacements are charged to operating expense in the year incurred. Capitalized assets including software, building, leasehold improvements, furniture, and equipment are impaired when it is determined that the net realizable value is significantly less than book value and is not recoverable.

Costs incurred for software, either developed internally or acquired for internal use, during the application development stage are capitalized based on the cost of direct services and materials associated with designing, coding, installing, or testing software. Capitalized software costs are amortized on a straight-line basis over the estimated useful lives of the software applications, which range from two to five years.

g. Interdistrict Settlement Account

At the close of business each day, each Reserve Bank assembles the payments due to or from other Reserve Banks as a result of the day's transactions that involve depository institution accounts held by other Districts. Such transactions may include funds settlement, check clearing, and ACH operations. The cumulative net amount due to or from the other Reserve Banks is reflected in the "Interdistrict settlement account" in the Statements of Condition.

h. Federal Reserve Notes

Federal Reserve notes are the circulating currency of the United States. These notes are issued through the various Federal Reserve agents (the Chairman of the Board of Directors of each Reserve Bank) to the

FRBC 2005 Annual Report ■ Notes to Financial Statements

Reserve Banks upon deposit with such agents of certain classes of collateral security, typically U.S. government securities. These notes are identified as issued to a specific Reserve Bank. The Federal Reserve Act provides that the collateral security tendered by the Reserve Bank to the Federal Reserve agent must be equal to the sum of the notes applied for by such Reserve Bank.

Assets eligible to be pledged as collateral security include all Bank assets. The collateral value is equal to the book value of the collateral tendered, with the exception of securities, whose collateral value is equal to the par value of the securities tendered. The par value of securities pledged for securities sold under agreements to repurchase is deducted.

The Board of Governors may, at any time, call upon a Reserve Bank for additional security to adequately collateralize the Federal Reserve notes. To satisfy the obligation to provide sufficient collateral for outstanding Federal Reserve notes, the Reserve Banks have entered into an agreement that provides for certain assets of the Reserve Banks to be jointly pledged as collateral for the Federal Reserve notes of all Reserve Banks. In the event that this collateral is insufficient, the Federal Reserve Act provides that Federal Reserve notes become a first and paramount lien on all the assets of the Reserve Banks. Finally, as obligations of the United States, Federal Reserve notes are backed by the full faith and credit of the United States government.

The "Federal Reserve notes outstanding, net" account represents the Bank's Federal Reserve notes outstanding, reduced by the currency issued to the Bank but not in circulation, of $10,216 million, and $9,046 million at December 31, 2005 and 2004, respectively.

i. Items in Process of Collection and Deferred Credit Items

The balance in the "Items in process of collection" line in the Statements of Condition primarily represents amounts attributable to checks that have been deposited for collection by the payee depository institution and, as of the balance sheet date, have not yet been collected from the payor depository institution. Deferred credit items are the counterpart liability to items in process of collection, and the amounts in this account arise from deferring credit for deposited items until the amounts are collected. The balances in both accounts can fluctuate and vary significantly from day to day.

j. Capital Paid-in

The Federal Reserve Act requires that each member bank subscribe to the capital stock of the Reserve Bank in an amount equal to 6 percent of the capital and surplus of the member bank. These shares are nonvoting with a par value of $100 and may not be transferred or hypothecated. As a member bank's capital and surplus changes, its holdings of Reserve Bank stock must be adjusted. Currently, only one-half of the subscription is paid-in and the remainder is subject to call. By law, each Bank is required to pay each member bank an annual dividend of 6 percent on the paid-in capital stock. This cumulative dividend is paid semiannually. A member bank is liable for Reserve Bank liabilities up to twice the par value of stock subscribed by it.

k. Surplus

The Board of Governors requires Reserve Banks to maintain a surplus equal to the amount of capital paid-in as of December 31. This amount is intended to provide additional capital and reduce the possibility that the Reserve Banks would be required to call on member banks for additional capital. Pursuant to Section 16 of the Federal Reserve Act, Reserve Banks are required by the Board of Governors to transfer to the U.S. Treasury as interest on Federal Reserve notes excess earnings, after providing for the costs of operations, payment of dividends, and reservation of an amount necessary to equate surplus with capital paid-in.

In the event of losses or an increase in capital paid-in at a Reserve Bank, payments to the U.S. Treasury are suspended and earnings are retained until the surplus is equal to the capital paid-in. Weekly payments to the U.S. Treasury may vary significantly.

In the event of a decrease in capital paid-in, the excess surplus, after equating capital paid-in and surplus at December 31, is distributed to the U.S. Treasury in the following year. This amount is reported as a component of "Payments to U.S. Treasury as interest on Federal Reserve notes."

l. Income and Costs related to U.S. Treasury Services

The Bank is required by the Federal Reserve Act to serve as fiscal agent and depository of the United States. By statute, the Department of the Treasury is permitted, but not required, to pay for these services.

m. Assessments by the Board of Governors

The Board of Governors assesses the Reserve Banks to fund its operations based on each Reserve Bank's capital and surplus balances. The Board of Governors also assesses each Reserve Bank for the expenses incurred for the U.S. Treasury to issue and retire Federal Reserve notes based on each Reserve Bank's share of the number of notes comprising the System's net liability for Federal Reserve notes on December 31 of the previous year.

n. Taxes

The Reserve Banks are exempt from federal, state, and local taxes, except for taxes on real property. The Bank's real property taxes were $3 million and $2 million for the years ended December 31, 2005 and 2004, respectively, and are reported as a component of "Occupancy expense."

o. Restructuring Charges

In 2003, the System began the restructuring of several operations, primarily check, cash, and U.S. Treasury services. The restructuring included streamlining the management and support structures, reducing staff, decreasing the number of processing locations, and increasing processing capacity in the remaining locations. These restructuring activities continued in 2004.

Footnote 10 describes the restructuring and provides information about the Bank's costs and liabilities associated with employee separations and contract terminations. The costs associated with the write-down of certain Bank assets are discussed in footnote 6. Costs and liabilities associated with enhanced pension benefits in connection with the restructuring activities for all Reserve Banks are recorded on the books of the FRBNY and those associated with enhanced post-retirement benefits are discussed in footnote 9.

4. U.S. Government Securities, Securities Sold Under Agreements to Repurchase, and Securities Lending

The FRBNY, on behalf of the Reserve Banks, holds securities bought outright in the SOMA. The Bank's allocated share of SOMA balances was approximately 9.005 percent and 9.008 percent at December 31, 2005 and 2004, respectively.

The Bank's allocated share of U.S. Government securities, net, held in the SOMA at December 31, was as follows (in millions):

	2005	2004
Par value:		
U.S. government:		
Bills	$ 24,429	$ 23,688
Notes	34,231	32,503
Bonds	8,360	8,469
Total par value	**$ 67,020**	**$ 64,660**
Unamortized premiums	794	847
Unaccreted discounts	(255)	(148)
Total allocated to Bank	**67,559**	**65,359**

The total of the U.S. government securities, net held in the SOMA was $750,202 million and $725,584 million at December 31, 2005 and 2004, respectively.

At December 31, 2005 and 2004, the total contract amount of securities sold under agreements to repurchase was $30,505 million and $30,783 million, respectively, of which $2,747 million and $2,773 million, were allocated to the Bank. The total par value of the SOMA securities pledged for securities sold under agreements to repurchase at December 31, 2005 and 2004 was $30,559 million and $30,808 million, respectively, of which $2,752 million and $2,775 million was allocated to the Bank.

The maturity distribution of U.S. government securities bought outright and securities sold under agreements to repurchase, that were allocated to the Bank at December 31, 2005, was as follows (in millions):

Maturities of Securities Held	U.S. Gov't Securities (Par value)	Securities Sold Under Agreements to Repurchase (Contract amount)
Within 15 days	$ 3,693	$ 2,747
16 days to 90 days	15,513	–
91 days to 1 year	16,776	–
Over 1 year to 5 years	18,979	–
Over 5 years to 10 years	5,106	–
Over 10 years	6,953	–
Total	$ 67,020	$ 2,747

At December 31, 2005 and 2004, U.S. government securities with par values of $3,776 million and $6,609 million, respectively, were loaned from the SOMA, of which $340 million and $595 million, respectively, were allocated to the Bank.

5. Investments Denominated in Foreign Currencies

The FRBNY, on behalf of the Reserve Banks, holds foreign currency deposits with foreign central banks and the Bank for International Settlements and

invests in foreign government debt instruments. Foreign government debt instruments held include both securities bought outright and securities purchased under agreements to resell. These investments are guaranteed as to principal and interest by the foreign governments.

The Bank's allocated share of investments denominated in foreign currencies was approximately 6.486 percent and 10.447 percent at December 31, 2005 and 2004, respectively.

The Bank's allocated share of investments denominated in foreign currencies, including accrued interest, valued at current foreign currency market exchange rates at December 31, was as follows (in millions):

	2005	2004
European Union Euro:		
Foreign currency deposits	$ 352	$ 635
Securities purchased under agreements to resell	125	224
Government debt instruments	231	412
Japanese Yen:		
Foreign currency deposits	170	161
Government debt instruments	350	800
Total	**$ 1,228**	**$ 2,232**

Total System investments denominated in foreign currencies were $18,928 million and $21,368 million at December 31, 2005 and 2004, respectively.

The maturity distribution of investments denominated in foreign currencies which were allocated to the Bank at December 31, 2005, was as follows (in millions):

Maturities of Investments Denominated in Foreign Currencies	European Euro	Japanese Yen	Total
Within 15 days	$ 219	$ 170	$ 389
16 days to 90 days	167	44	211
91 days to 1 year	136	65	201
Over 1 year to 5 years	185	241	426
Over 5 years to 10 years	1	–	1
Over 10 years	–	–	–
Total	**$ 708**	**$ 520**	**$ 1,228**

At December 31, 2005 and 2004, there were no material open or outstanding foreign exchange contracts.

At December 31, 2005 and 2004, the warehousing facility was $5,000 million, with no balance outstanding.

6. Bank Premises, Equipment, and Software

A summary of bank premises and equipment at December 31 is as follows (in millions):

	Useful Life Range (in Years)	2005	2004
Bank premises and equipment:			
Land	N/A	$ 12	$ 9
Buildings	1 to 50	223	153
Building machinery and equipment	1 to 20	31	22
Construction in progress	N/A	12	41
Furniture and equipment	1 to 10	67	66
Subtotal		$ 345	$ 291
Accumulated depreciation		(100)	(105)
Bank premises and equipment, net		**$ 245**	**$ 186**
Depreciation expense, for the years ended		**$ 12**	**$ 14**

Bank premises and equipment at December 31 include the following amounts for leases that have been capitalized (in millions):

	2005	2004
Bank premises and equipment	$ 0.6	$ 0.6
Accumulated depreciation	(0.4)	(0.3)
Capitalized leases, net	**$ 0.2**	**$ 0.3**

The Bank leases space to outside tenants with lease terms ranging from one to fifteen years. Rental income from such leases was $4 million and $3 million for the years ended December 31, 2005 and 2004, respectively. Future minimum lease payments under noncancelable agreements in existence at December 31, 2005, were (in millions):

2006	$ 4
2007	3
2008	3
2009	2
2010	2
Thereafter	21
	$ 35

The Bank has capitalized software assets, net of amortization, of $4 million and $6 million at December 31, 2005 and 2004, respectively. Amortization expense was $2 million and $1 million for the years ended December 31, 2005 and 2004, respectively. Capitalized software assets are reported as a component of "Other assets" and related amortization is reported as a component of "Other expenses."

Assets impaired as a result of the Bank's restructuring plan as discussed in footnote 10 include software and equipment. Asset impairment losses of $0.5 million for the period ending December 31, 2004, were determined using fair values based on quoted market values or other valuation techniques and are reported as a component of "Other expenses." The Bank had no impairment losses due to restructuring in 2005.

The Bank recognized impairment losses on the Detroit facility of $2 million and $1 million at December 31, 2005 and 2004, respectively, due to its determination that the carry value exceeded the fair value of the property. The impairment was determined using fair values based on quoted market values or other valuation techniques and are reported as a component of "Other expenses."

As of December 31, 2005 the Detroit facility, valued at $3 million, had been moved to Other Real Estate pending its sale.

The Milwaukee property, which in 2004 was pending sale and carried as Other Real Estate, was sold in 2005.

7. Commitments and Contingencies

At December 31, 2005, the Bank was obligated under noncancelable leases for premises and equipment with terms ranging from one to approximately six years. These leases provide for increased rental payments based upon increases in real estate taxes, operating costs, or selected price indices.

Rental expense under operating leases for certain operating facilities, warehouses, and data processing and office equipment (including taxes, insurance and maintenance when included in rent), net of sublease rentals, was $3 million and $4 million for the years ended December 31, 2005 and 2004, respectively. Certain of the Bank's leases have options to renew.

Future minimum rental payments under noncancelable operating leases and capital leases, net of sublease rentals, with terms of one year or more, at December 31, 2005, were (in thousands):

	Operating	Capital
2006	$ 718	$ 132
2007	414	132
2008	285	22
2009	274	–
2010	279	–
Thereafter	188	–
	$ 2,158	286
Amount representing interest		(27)
Present value of net minimum lease payments		**$ 259**

At December 31, 2005, there were no other material commitments and long-term obligations in excess of one year.

Under the Insurance Agreement of the Federal Reserve Banks, each Reserve Bank has agreed to bear, on a per incident basis, a pro rata share of losses in excess of one percent of the capital paid-in of the claiming Reserve Bank, up to 50 percent of the total capital paid-in of all Reserve Banks. Losses are borne in the ratio that a Reserve Bank's capital paid-in bears to the total capital paid-in of all Reserve Banks at the beginning of the calendar year in which the loss is shared. No claims were outstanding under such agreement at December 31, 2005 or 2004.

The Bank is involved in certain legal actions and claims arising in the ordinary course of business. Although it is difficult to predict the ultimate outcome of these actions, in management's opinion, based on discussions with counsel, the aforementioned litigation and claims will be resolved without material adverse effect on the financial position or results of operations of the Bank.

8. Retirement and Thrift Plans

Retirement Plans

The Bank currently offers three defined benefit retirement plans to its employees, based on length of service and level of compensation. Substantially all of the Bank's employees participate in the Retirement Plan for Employees of the Federal Reserve System ("System Plan"). Employees at certain compensation levels participate in the Benefit Equalization

Retirement Plan ("BEP") and certain Bank officers participate in the Supplemental Employee Retirement Plan ("SERP").

The System Plan is a multi-employer plan with contributions fully funded by participating employers. Participating employers are the Federal Reserve Banks, the Board of Governors of the Federal Reserve System, and the Office of Employee Benefits of the Federal Reserve System. No separate accounting is maintained of assets contributed by the participating employers. The FRBNY acts as a sponsor of the System Plan and the costs associated with the Plan are not redistributed to other participating employers. The Bank's benefit obligation and net pension costs for the BEP and the SERP at December 31, 2005 and 2004, and for the years then ended, are not material.

Thrift Plan

Employees of the Bank may also participate in the defined contribution Thrift Plan for Employees of the Federal Reserve System ("Thrift Plan"). The Bank's Thrift Plan contributions totaled $5 million and $6 million for the years ended December 31, 2005 and 2004, respectively, and are reported as a component of "Salaries and other benefits." The Bank matches employee contributions based on a specified formula. For the years ended December 31, 2005 and 2004, the Bank matched 80 percent on the first 6 percent of employee contributions for employees with less than five years of service and 100 percent on the first 6 percent of employee contributions for employees with five or more years of service.

9. Postretirement Benefits Other Than Pensions and Postemployment Benefits

Postretirement Benefits other than Pensions

In addition to the Bank's retirement plans, employees who have met certain age and length of service requirements are eligible for both medical benefits and life insurance coverage during retirement.

The Bank funds benefits payable under the medical and life insurance plans as due and, accordingly, has no plan assets.

Following is a reconciliation of beginning and ending balances of the benefit obligation (in millions):

	2005	2004
Accumulated postretirement benefit obligation at January 1	$ 97.0	$ 106.5
Service cost-benefits earned during the period	1.5	1.9
Interest cost of accumulated benefit obligation	5.2	5.9
Actuarial loss	0.8	2.3
Curtailment gain	–	(1.2)
Contributions by plan participants	1.4	1.2
Benefits paid	(7.3)	(6.6)
Plan amendments	–	(13.0)
Accumulated postretirement benefit obligation at December 31	**$ 98.6**	**$ 97.0**

At December 31, 2005 and 2004, the weighted-average discount rate assumptions used in developing the postretirement benefit obligation were 5.50 percent and 5.75 percent, respectively.

Discount rates reflect yields available on high quality corporate bonds that would generate the cash flows necessary to pay the plan's benefits when due.

Following is a reconciliation of the beginning and ending balance of the plan assets, the unfunded postretirement benefit obligation, and the accrued postretirement benefit costs (in millions):

	2005	2004
Fair value of plan assets at January 1	$ –	$ –
Actual return on plan assets	–	–
Contributions by the employer	5.9	5.4
Contributions by plan participants	1.4	1.2
Benefits paid	(7.3)	(6.6)
Fair value of plan assets at December 31	**$ –**	**$ –**
Unfunded postretirement benefit obligation	$ 98.6	$ 97.0
Unrecognized net curtailment gain	–	2.2
Unrecognized prior service cost	11.9	14.4
Unrecognized net actuarial loss	(42.0)	(44.1)
Accrued postretirement benefit costs	**$ 68.5**	**$ 69.5**

Accrued postretirement benefit costs are reported as a component of "Accrued benefit costs."

For measurement purposes, the assumed health care cost trend rates at December 31 are as follows:

	2005	2004
Health care cost trend rate assumed for next year	9.00%	9.00%
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	5.00%	4.75%
Year that the rate reaches the ultimate trend rate	2011	2011

Assumed health care cost trend rates have a significant effect on the amounts reported for health care plans. A one percentage point change in assumed health care cost trend rates would have the following effects for the year ended December 31, 2005 (in millions):

	One Percentage Point Increase	One Percentage Point Decrease
Effect on aggregate of service and interest cost components of net periodic postretirement benefit costs	$ 0.9	$ (0.8)
Effect on accumulated postretirement benefit obligation	10.9	(9.2)

The following is a summary of the components of net periodic postretirement benefit costs for the years ended December 31 (in millions):

	2005	2004
Service cost-benefits earned during the period	$ 1.5	$ 1.9
Interest cost of accumulated benefit obligation	5.2	5.9
Amortization of prior service cost	(2.4)	(2.6)
Recognized net actuarial loss	2.8	2.1
Total periodic expense	**$ 7.1**	**$ 7.3**
Curtailment gain	(2.2)	(12.4)
Net periodic postretirement benefit costs (credit)	**$ 4.9**	**$ (5.1)**

Net postretirement benefit costs are actuarially determined using a January 1 measurement date. At January 1, 2005 and 2004, the weighted-average discount rate assumptions used to determine net periodic postretirement benefit costs were 5.75 percent and 6.25 percent, respectively.

Net periodic postretirement benefit costs are reported as a component of "Salaries and other benefits."

A plan amendment that modified the credited service period eligibility requirements created curtailment gains. The recognition of special termination losses is primarily the result of enhanced retirement benefits provided to employees during the restructuring described in footnote 10. Because the special termination loss is less than $50,000, the amount is not displayed in the tables above. The curtailment gain associated with restructuring programs announced in 2003 was recognized when employees left the Bank in 2004. The curtailment gain associated with restructuring programs announced in 2004 that are described in footnote 10 will be offset by unrecognized actuarial losses and prior service gains. As a result, an unrecognized net curtailment gain was recorded in 2005 when the affected employees terminated employment.

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 established a prescription drug benefit under Medicare ("Medicare Part D") and a federal subsidy to sponsors of retiree health care benefit plans that provide benefits that are at least actuarially equivalent to Medicare Part D. The benefits provided by the Bank's plan to certain participants are at least actuarially equivalent to the Medicare Part D prescription drug benefit. The estimated effects of the subsidy, retroactive to January 1, 2004, are reflected in actuarial loss in the accumulated postretirement benefit obligation and net periodic postretirement benefit costs.

Following is a summary of expected benefit payments (in millions):

	Without Subsidy	With Subsidy
2006	$ 6.9	$ 6.3
2007	7.0	6.4
2008	7.1	6.4
2009	7.3	6.6
2010	7.4	6.6
2011-2015	37.7	33.1
Total	$ 73.4	$ 65.4

Postemployment Benefits

The Bank offers benefits to former or inactive employees. Postemployment benefit costs are actuarially determined using a December 31, 2005 measurement date and include the cost of medical and dental insurance, survivor income, and disability benefits. The accrued postemployment benefit costs recognized by the Bank at December 31, 2005 and 2004, were $11 and $12 million, respectively. This cost is included as a component of "Accrued benefit

costs." Net periodic postemployment benefit costs included in 2005 and 2004 operating expenses were $(314) thousand and $1 million, respectively and are recorded as a component of "Salaries and other benefits."

10. Business Restructuring Charges

In 2003, the Bank announced plans for restructuring to streamline operations and reduce costs, including consolidation of check operations and staff reductions in various functions of the Bank. In 2004, additional consolidation and restructuring initiatives were announced in the check operation. These actions resulted in the following business restructuring charges (in millions):

	Total Est. Costs	Accrued Liability 12/31/04	Total Charges	Total Paid	Accrued Liability 12/31/05
Employee separation	$ 6.3	$ 3.8	$ (1.7)	$ 2.0	$ 0.1
Contract termination	0.6	0.6	–	0.6	–
Total	$ 6.9	$ 4.4	$(1.7)	$ 2.6	$ 0.1

There were no charges in 2005. The negative total charges amount is due to unrecognized accrued liabilities adjustments.

Employee separation costs are primarily severance costs related to staff reductions of approximately 334, including 72 staff reductions related to restructuring announced in 2004. These costs are reported as a component of "Salaries and other benefits." Contract termination costs include the charges resulting from terminating existing lease and other contracts and are shown as a component of "Other expenses."

Restructuring costs associated with the write-downs of certain Bank assets, including software, buildings, leasehold improvements, furniture, and equipment are discussed in footnote 6. Costs associated with enhanced pension benefits for all Reserve Banks are recorded on the books of the FRBNY as discussed in footnote 8. Costs associated with enhanced postretirement benefits are disclosed in footnote 9.

OUR MISSION

The Federal Reserve Bank of Chicago is one of 12 regional Reserve Banks across the United States that, together with the Board of Governors in Washington, D.C., serve as the nation's central bank. The role of the Federal Reserve System, since its establishment by an act of Congress passed in 1913, has been to foster a strong economy, supported by a stable financial system.

To this end, the Federal Reserve Bank of Chicago participates in the formulation and implementation of national monetary policy; supervises and regulates state-member banks, bank holding companies and foreign bank branches; and provides financial services to depository institutions and the U.S. government. Through its head office in Chicago, branch in Detroit, regional office in Des Moines, and facility in Bedford Park, Ill., the Federal Reserve Bank of Chicago serves the Seventh Federal Reserve District, which includes major portions of Illinois, Indiana, Michigan and Wisconsin, plus all of Iowa.

OUR VISION

- Further the public interest by fostering a sound economy and stable financial system
- Provide products and services of unmatched value to those we serve
- Set the standard for excellence in the Federal Reserve System
- Work together, value diversity, communicate openly, be creative and fair
- Live by our core values of integrity, respect, responsibility and excellence

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