

2010 Federal Reserve Bank of Chicago Annual Report

# MONETARY POLICY

Tools for Non-Traditional Times



## TABLE OF CONTENTS

|  |    |
|--|----|
| Letter from the President                        | 1  |
| The Economy and Monetary Policy in 2010          | 2  |
| Chicago Fed Highlights of 2010                   | 4  |
| About the Essay                                  | 6  |
| Monetary Policy: Tools for Non-Traditional Times | 7  |
| Directors  | 14 |
| Management Committee                             | 18 |
| Executive Officers                               | 19 |
| Advisory Councils                                | 20 |
| Executive Changes                                | 21 |
| Operations Volumes                               | 22 |
| Financial Reports                                | 23 |



LETTER FROM

# THE PRESIDENT

As the first decade of the new century ends, we continue to devote our attention to the very important mission of fostering a strong economy and promoting financial stability. The economic events of 2010, outlined on the next two pages, presented significant challenges and demonstrated a continued need for a high rate of policy accommodation.

Many significant events also impacted the work of Federal Reserve in 2010, including the passage of the Dodd–Frank Wall Street Reform and Consumer Protection Act, which gives us a variety of new responsibilities. After the bill was passed in July, we embraced these new responsibilities enthusiastically and moving forward will continue our efforts to review our operations and develop the infrastructure needed to carry them out.

Success in this type of environment depends on the full commitment of a diverse group of people with a wide range of expertise. Fortunately, the Federal Reserve Bank of Chicago has exactly that. I'd like to thank our directors in both Chicago and Detroit for their counsel throughout the year. Their assistance and guidance is deeply appreciated. A special note of gratitude goes to Detroit board member Michael M. Magee, Jr., who completed his service in 2010. I would also like to thank our staff members for their hard work and continued dedication to serving the public interest. Many of their accomplishments are highlighted on pages 4 and 5.

Finally, the essay starting on page 6 is particularly appropriate given the current monetary policy environment, which features a federal funds rate at a level between zero and 0.25%. In the essay I discuss some different approaches to policy to consider when economic conditions warrant this type of exceptionally low rate.

I hope you find it informative and thought-provoking.



Charles L. Evans  
President and Chief Executive Officer  
March 22, 2011



## THE ECONOMY AND MONETARY POLICY IN 2010\*

The U.S. economy continued to rebound in 2010 from the recession. Real gross domestic product (GDP) grew 2.8% last year, albeit at an uneven pace: Higher growth rates were seen in the beginning and end of the year, while growth slowed somewhat during the spring and summer months. As we begin 2011, the recovery continues to strengthen. This is encouraging, but to close the existing large resource gaps within a reasonable period will require a marked and sustained pick-up in growth.

Over the course of 2010 and early 2011, the unemployment rate fell by a percentage point to 8.9% in February. While this decline is welcome, unemployment remains well above the 5% to 6% range that encompasses most economists' estimates of its natural rate. Furthermore, with most forecasts for growth only moderately above the economy's potential, it is likely to take some time for unemployment to decline to a level consistent with the employment side of our mandate.

Looking at the price stability side of our mandate, inflation in 2010 remained well below our unofficial target of 2%. The Personal Consumption Expenditures (PCE) price index ended the year only 1.1% higher than in the fourth quarter of 2009. Core PCE inflation, which excludes volatile food and energy prices, was up 0.8% compared with the fourth quarter of 2009, an historical low. While commodity prices have increased, long-run inflation expectations remain anchored and resource slack should continue to exert offsetting downward pressure on prices for some time.

### THE ECONOMY

After finishing 2009 with an impressive 5.0% annual rate of growth, real GDP increased at an annual rate of 3.7% in the first quarter of 2010. As we moved through the year, businesses completed their inventory adjustments, the fiscal stimulus began to wane, and concerns about spillovers from events in Europe appeared to induce more cautious behavior by households and businesses. Growth slowed to an average pace of about 2% in the second and third quarters, but picked up later in the year, as a robust increase in consumer spending and a surge in net exports led to an annualized growth rate of 3.1% in the fourth quarter.

A large portion of the increase in consumer spending late last year came from purchases of durable goods — in particular vehicle sales. Sales for nondurables also picked up toward the end of the year, led by strong holiday retail sales, while service outlays rose at a modest pace. In contrast, the housing market

remained weak. Residential investment was volatile over the year, but with annual growth that was once again negative. Most measures of house prices moved sideways or were down a bit further over the year, and housing starts and permits remained near their historically low levels.

Business investment improved in 2010. Purchases of new equipment and software increased 16.9% from the fourth quarter of 2009 as firms replaced aging equipment and the demand for their products and services expanded. However, businesses were reluctant to construct new facilities: Investment in nonresidential structures fell sharply in 2010, though the decline was not as great as during 2009. There have since been some tentative signs of improvement in commercial real estate conditions with some tick-down in vacancy rates and improved availability of financing.

Amid these signs of recovery, the labor market remains a source of concern. Progress has certainly been made: Initial claims for unemployment insurance have returned to June 2008 levels. However, while layoffs have subsided, hiring has not been robust. The economy added 940,000 jobs in 2010, an average of around 78,000 per month and not nearly enough to make up for the 8.75 million jobs lost during the recession and immediately after.

Looking ahead, the forecasts released following the January 25–26, 2011 meeting of the Federal Open Market Committee (FOMC) showed that most FOMC participants believed real GDP would rise in the 3.5% to 4% range in 2011, the unemployment rate would end the year a bit under 9%, and core PCE inflation would be in the range of 1% to 1.25%. Most FOMC participants also thought that by the fourth quarter of 2013, the unemployment rate would still be above its long-run level and that inflation would still be below the 2% pace that most view as being consistent with our mandate.

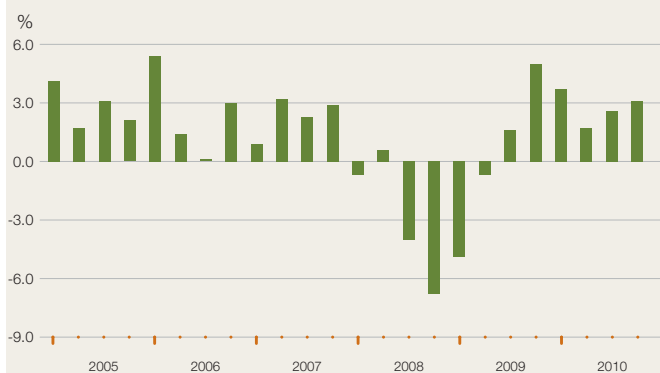
### MONETARY POLICY

With a considerable amount of slack left in the economy, the FOMC left its traditional policy instrument, the federal funds rate, unchanged at a level between zero and 0.25% in 2010. Early in the year, when growth was strong and inflation was no longer declining, the FOMC devoted considerable effort to developing the necessary tools to begin to exit from its stance of large policy accommodation when it became appropriate to do so. These included facilities for reverse repurchase agreements and term deposits, paying interest on reserves, and potential sales of securities.



### Economic Growth

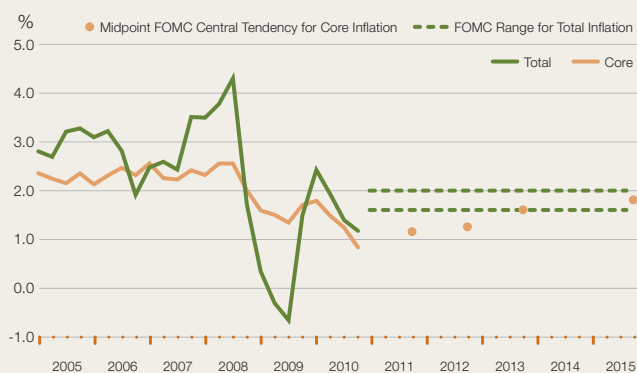
Annualized quarterly Real Gross Domestic Product growth



Real gross domestic product (GDP) grew over 2010, but at an uneven rate, finishing the year 2.8% higher than in the fourth quarter of 2009.

### Inflation

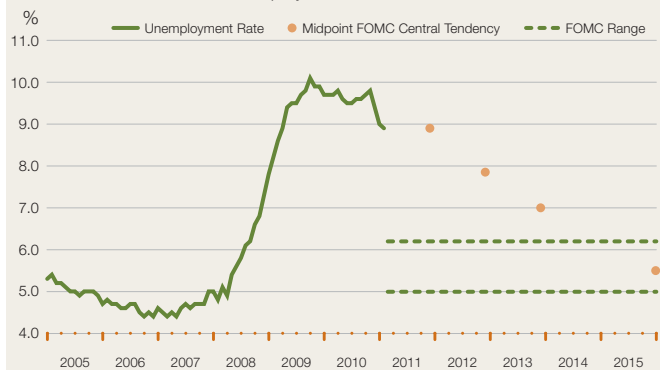
Year-Over-Year Personal Consumption Expenditures (PCE) Inflation



As of the January 25-26, 2011 meeting, the FOMC expected inflation to remain below its mandate-consistent range until 2013.

### Unemployment

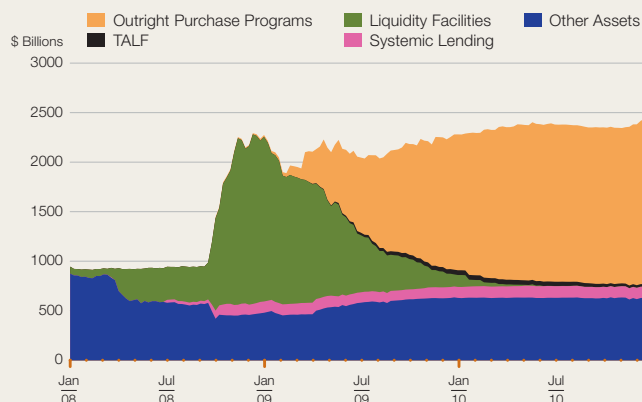
Percent of labor force unemployed



As of the January 25-26, 2011 meeting, the FOMC expected that it will likely be some time before the unemployment rate enters a range consistent with the maximum employment mandate of the Fed.

### Non-traditional Monetary Policy

The Federal Reserve's assets



Additional large-scale asset purchases and reinvestment of principal repayments of earlier purchases led the overall size of the Federal Reserve's balance sheet to approach \$2.5 trillion by the end of 2010.

As growth slowed and inflation once again began to decline in the summer of 2010, the FOMC began to focus again on more accommodative monetary policies. The Committee continually reaffirmed its judgment that economic conditions were expected to warrant exceptionally low levels of the federal funds rate for an extended period. Furthermore, in August, the FOMC began reinvesting principal repayments from earlier long-term security purchases. The aim of this initiative was to avoid the mechanical tightening of policy that would have resulted from a shrinking of the size of security holdings on the Fed's balance sheet. Following this action, in November, plans were announced to add further accommodation through the purchase of an additional \$600 billion in long-term Treasuries by June 2011. So far, we have purchased around \$450 billion of this amount.

Such long-term security purchases appear to have put downward pressure on long-term real interest rates, in part by

lowering the odds that market participants were placing on inflation falling substantially further. With regard to financial conditions in the private sector, credit conditions for large firms stayed on the path to recovery as bond spreads narrowed. Equity markets have seen a drastic reduction in volatility, and prices in these markets rose considerably over 2010. There have also recently been signs that bank lending is beginning to thaw. Still, credit conditions remain tight for some classes of borrowers.

**Source for all charts:** Haver Analytics. The Inflation and Unemployment charts also include information from the minutes of the January 25–26, 2011 FOMC meeting.

\*This essay reflects information available as of March 25, 2011.

CHICAGO FED

# HIGHLIGHTS OF 2010

The Chicago Fed contributed to financial stability, an efficient payment system and the creation of effective national monetary policy. We anticipated and responded to rapidly changing financial markets and banking industry practices.



*Research and analysis conducted at the Chicago Fed in 2010 contributed to the deliberations of the members (above) of the Federal Open Market Committee, which formulates national monetary policy.*

## CONDUCTING RESEARCH

- 20 policy papers were accepted in top-tiered journals.
- Staff members researched many critical issues related to the emerging recovery and key economic and financial market developments.
- Labor market dynamics and the functioning of monetary policy when the Federal Funds rate is near zero garnered special research attention.
- Other efforts included development of a dynamic stochastic general equilibrium

model of the macroeconomy and an arbitrage-free model of the term structure of interest rates. This helped shape President Charles Evans' thinking on monetary policy, including his discussion of the possible value of price-level targeting.

## KEEPING BANKS SAFE

- Chicago Fed supervisors helped develop and implement enhanced national supervision standards for the largest, most complex financial institutions.
- Bank supervisors confronted a challenging environment characterized by a large

number of troubled institutions and a continued downturn in the commercial real estate sector.

- Staff members tailored bank exams to the risk of the individual institution, and key control points were identified to ensure consistently among exams.
- Supervisors exceeded all targets for conducting exams and delivered accurate and timely supervisory reports.

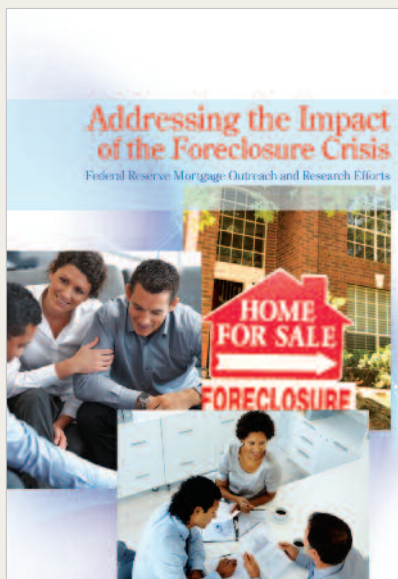
## PROMOTING FINANCIAL STABILITY

- Staff contributed significantly to the development, testing and implementation





Staff contributed significantly in 2010 to the development, testing and implementation of the Term Deposit Facility, one of the special monetary policy tools created in response to the financial crisis.



The Chicago Fed helped lead a national Federal Reserve System effort in 2010 to respond to the foreclosure crisis. For more information, go to [www.chicagofed.org](http://www.chicagofed.org).



Money Smart Weeks throughout the Midwest continued to bring consumers together with organizations and individuals who provide financial education. For more information, go to <http://www.chicagofed.org/webpages/education/msw/index.cfm>.

of the Term Deposit Facility, one of the special monetary policy tools created in response to the financial crisis.

- The Chicago Fed helped coordinate the successful closure of 28 distressed depository institutions in the Seventh Federal Reserve District.
- Financial market researchers analyzed a variety of risk management and stability issues associated with payments, clearing and settlement systems.

#### KEEPING PAYMENTS SECURE

- Headquartered in the Seventh District, the Customer Relations and Support Office (CRSO) continued its leadership role as the connection to the customer within the Federal Reserve. The CRSO manages the national electronic payments delivery network (FedLine), provides access to customer set-up and support to more than 100,000 users, and leads national strategies related to sales and marketing.

- Cash-processing staff members maintained a strong control environment amid new controls and procedures and upgraded high-speed processing equipment. The number of cash bundles per hour improved significantly.
- Seventh District electronic check-processing activities were successfully shifted in July to the Federal Reserve Bank of Atlanta.
- The check-processing office just south of Chicago's Midway Airport closed in August.

#### FOSTERING PARTNERSHIPS

- The Chicago Fed helped lead a national Federal Reserve System effort to help policymakers, community organizations, financial institutions and government agencies respond to the foreclosure crisis by conducting research initiatives, convening experts on a variety of foreclosure issues, and communicating information about a range of related topics.

- In an effort to improve the flow of credit to small businesses, the Chicago Fed contributed to a Federal Reserve System initiative to inform policymakers on issues that restrict the flow of credit and opportunities to small businesses.
- Money Smart Weeks in all Seventh District states continued to bring together consumers with organizations and individuals who provide financial education. More than 2,000 partner organizations throughout the Midwest offered financial education to thousands of consumers, including 60,000 Chicago Public School students.
- A wide variety of research and policy conferences were held on topics related to the welfare of the overall economy.

## ABOUT THE ESSAY

After suffering the worst recession since the Great Depression, by early 2010 the U.S. economy appeared to be well into recovery mode. The focus of U.S. monetary policymakers began to turn to strategies to ensure an effective exit from the exceptional degree of monetary policy accommodation we had put in place to help the economy recover. This accommodation was unprecedented: The federal funds rate had been lowered to its zero lower-bound and we had on our balance sheet about \$1.75 trillion of long-term assets that we had purchased to further stimulate the economy.

This focus changed as we moved through the year. The expansion did not achieve the kind of self-sustaining momentum that we were looking for. Instead, growth softened as the impulses from fiscal stimulus and post-recession inventory rebuilding ran their course and the European debt crisis created a renewed sense of caution among households and businesses. Unemployment remained stubbornly high, and inflation moved down to a level well below that consistent with our price stability mandate.

Like the outlook, my thinking about the economic situation evolved through the year. By last summer, I had come to the conclusion that the economy was most likely mired in a liquidity trap, in which the zero lower-bound constraint on our policy rate was preventing real interest rates from falling low enough to allow desired saving and investment to reach equilibrium. As a result, resource gaps remained very large and were not likely to fall quickly.

This led me to give serious consideration to the results of the research literature on optimal monetary policy at the zero lower-bound. I found that papers such as Krugman (1998) and Eggertson and Woodford (2003) made a strong case that when the zero bound became binding, policymakers should adopt alternative policies.<sup>1</sup> As discussed in the essay, these policies achieve lower real interest rates, and thus greater monetary policy accommodation, through a commitment to keep short-term policy rates low so as to achieve a somewhat higher future rate of inflation. As Eggertson and Woodford show, these theoretically optimal policies take the form of a commitment to eventually achieving a rising target for the price level and, thus, guarantee higher future inflation.

By the fall, I had begun to advocate the conditional price-level targeting policies that were suggested by the research literature. I recognized that such policies presented formidable communication challenges and ran counter to the conservative culture of central banking. However, I argued that they follow quite logically from analysis of the kind of models that underlie most of modern central banking practice.

The Federal Open Market Committee (FOMC) did not adopt price-level targeting. But we did begin a second round of large-scale asset purchases, another non-standard policy aimed at providing additional monetary accommodation when policy rates are at the zero bound. I supported this program because, in addition to its potential direct influence on longer-term interest rates, it added credibility to our commitment to maintain the federal funds rate at extraordinarily low levels for an extended period of time. This commitment, which has been in the FOMC's policy statement since March 2009, is certainly in the spirit of the recommendations of the modern literature on monetary policy in a liquidity trap environment.

For many years, economists thought liquidity traps were theoretical curiosities without much relevance to modern economies. The experience of Japan in the 1990s began to change that thinking, and we now see that even the modern U.S. economy can find itself in a liquidity trap with unemployment much too high and inflation much too low. As such, non-traditional tools for monetary policy to use when constrained by the zero lower bound are worthy of further consideration and analysis. This essay provides an overview of such tools. It is written from the perspective of the economic and policy environment as of early 2011. Analysis of these tools is ongoing, and new insights or changes in economic conditions undoubtedly will influence the implementation of such policies going forward.<sup>2</sup>

Charles L. Evans  
President and Chief Executive Officer





# MONETARY POLICY

## Tools for Non-Traditional Times

By Charles L. Evans  
President and Chief Executive Officer

Early 2011 found the U.S. economy well into the second year of recovery from the worst recession of the post-World War II era. This recovery, however, has been disappointing. The Federal Reserve finds itself short of obtaining the goals of its dual mandate from Congress, which is to effectively promote conditions that foster both maximum employment and price stability.

Despite a year and a half of economic growth, the level of real GDP in the fourth quarter of 2010 had only just recovered to its pre-recession peak, and it was still in the neighborhood of 6–7 percent below the level that would have prevailed had the recession not occurred and had the economy grown at trend. As of February 2011, nonfarm payrolls were nearly 5-1/2 percent below their earlier peak; and the unemployment rate, at 8.9 percent, was well above the 4-3/4 to 5 percent rate that had prevailed before the recession. Even allowing for structural factors that may be impinging on output and labor markets, we clearly are falling short of the maximum sustainable employment leg of the Federal Reserve's policy mandate. The associated large and persistent resource gaps have been a principal factor in the decline in the underlying trend in inflation from about 2-1/2 percent in mid-2008 to just above 3/4 percent in early 2011.<sup>3</sup> This is well below the 2 percent rate that I and the majority of Federal Open Market Committee (FOMC) participants consider to be consistent with the price stability component of our dual mandate.

In large part, these facts reflect the severity of the financial crisis and the resulting recession. There was substantial damage to repair — to the flow of credit through financial markets; to the loss of wealth to households; and to the balance sheets of

financial and nonfinancial businesses. Such repair takes time. But the failure of the economy to obtain a more solid footing this long after the shock of the financial crisis has been compounded by another problem: We have found ourselves in a liquidity trap.

### LIQUIDITY TRAP

In a normally functioning market economy, interest rates move to adjust the supply of saving to the demand for investment. If desired saving is high relative to desired investment, interest rates tend to fall. The fall in rates reduces the returns to saving while at the same time lowering the cost of borrowing to finance spending. The movement in rates thus encourages consumers and businesses to increase investment and other spending and to reduce saving. The process continues until saving and investment are in balance.

A liquidity trap arises when the supply of saving outstrips the demand for investment, but interest rates cannot fall further to rebalance them. This is the predicament that we found ourselves in beginning in 2009 and that still prevailed in early 2011.

Short-term nominal interest rates — importantly, the federal funds rate, the Federal Reserve's principal policy tool — were essentially at zero. The fed funds rate is the interest rate on

overnight loans between banks. The funds rate cannot fall below zero — there is no incentive for a bank to lend a dollar today on the fed funds market if it is going to receive back less than a dollar tomorrow; holding cash would provide a higher return.<sup>4</sup>

At the same time, there was an ample supply of saving and a scarcity of demand for borrowing. Even after more than a year of recovery, business executives were being very cautious in their outlook and in their spending plans. They appeared content to post strong profits generated by large-scale cost-cutting, rather than growing their top-line revenues by expanding capital investment and hiring. Financial markets had improved and were receptive to strong bond issuance by businesses. But very conservative attitudes reigned, and many firms held on to a good deal of the cash generated by profits. Very few were planning to grow their work force over the near term. They pointed to weak demand conditions to explain their reluctance to expand their operations.

Households were similarly cautious in their spending. Given the millions of jobs lost during the recession, the job insecurity faced by those employed, and trillions of dollars in lost wealth, consumers displayed significant risk aversion. In order to repair balance sheets, households substantially increased the share of their income that they save, even though that saving earned very little return.

These high rates of saving and low levels of spending had repercussions for other markets. Importantly, they contributed to the large gaps in output and employment from their longer-run trends and the associated decline in inflation to a rate well below our price stability mandate.

Economic conditions improved in late 2010 and early 2011. Growth has picked up and suggests a more self-sustaining, though still moderate, economic expansion. Indeed, the outlook for growth is not strong enough to close resource gaps for some time, even if, as assumed by markets, short-term interest rates remain near zero well into 2012. So the discussion of liquidity traps and policies aimed at combating them is still relevant today.

## POLICIES AT THE ZERO BOUND

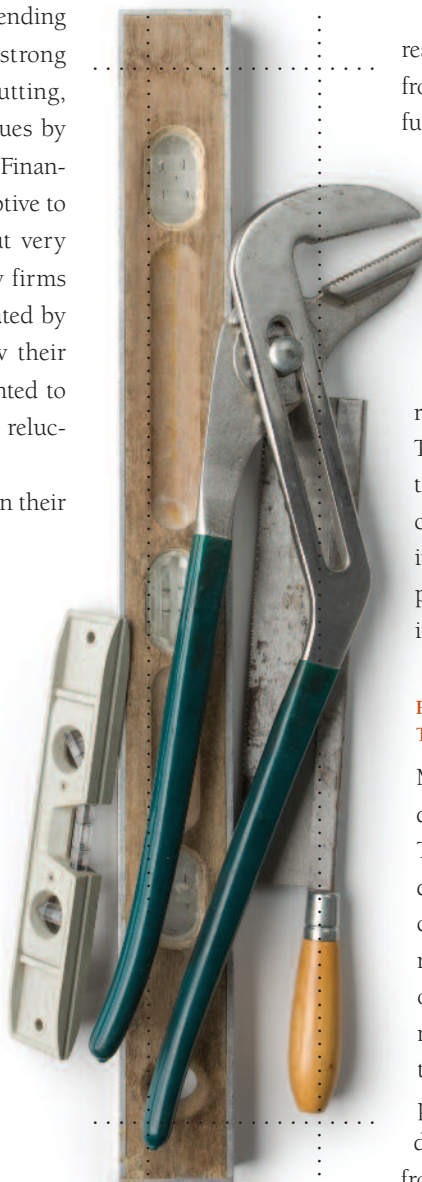
Decisions on borrowing and lending are importantly influenced by real interest rates. The real interest rate equals the nominal rate less the expectation for inflation over the life of the asset. It therefore reflects the purchasing power of the interest payments that change hands between borrower and lender.<sup>5</sup> Lower real rates stimulate spending; higher ones increase saving.

In normal times, the Federal Reserve would react to major shortfalls in employment and inflation from our policy mandates by lowering the federal funds rate with the aim of lowering short-term real rates. With the funds rate at zero, we cannot do so today. However, this does not mean we have no tools to increase monetary accommodation. According to current thinking about liquidity traps, the best policy response when further reductions in short-term nominal rates are not feasible is to implement policies aimed at lowering real interest rates through other channels. To do so, the central bank must employ unconventional policy tools. These tools fall into two general categories: policies that focus on lowering nominal interest rates at medium and longer maturities; and policies aimed at lowering real interest rates by increasing inflation expectations.

## POLICIES THAT LOWER MEDIUM- AND LONGER-TERM NOMINAL INTEREST RATES.

Most household and business borrowing generates debt with maturities measured in years, not months. The medium- and long-term interest rates on this debt are related to short-term rates through what is called the term structure. This means that interest rates on longer-maturity assets reflect the average of the sequence of yields on shorter-term assets that markets expect will prevail over the life of the long-term asset. They also reflect an additional risk premium to compensate the holders of longer-term debt for the possibility that interest rates will deviate from current expectations sometime over the life of the asset. Today, even though longer-term rates are quite low, they are not near zero. This is because markets expect short-term rates to rise eventually and because bond holders need to be compensated for uncertainty over the path of future rates.

One way to keep medium- and long-term rates low is to convince markets that short-term rates will be low for an extended period. The FOMC's policy statement has been saying this since





March 2009. Markets have now built a long period of low rates into their expectations — for example, as of March 2011, futures markets do not expect the federal funds rate to begin rising until sometime in the spring of 2012 and then anticipate it will then increase only about 100 basis points over the following year.

Additionally, policy can operate directly in markets for longer-duration securities. The Federal Reserve has done so through large-scale asset purchases (LSAPs). In the first wave in 2008 and 2009, we purchased nearly \$1.5 trillion of GSE (government-sponsored enterprise) debt and mortgage-backed securities and \$300 billion of long-term Treasury debt. Now, we are in the process of making a second wave of Treasury purchases, currently planned to total \$600 billion. Most purchases in both waves were of securities with maturities in the range of two to ten years.

LSAPs can reduce long-term interest rates in several ways. First, the Fed's purchases reduce the overall amount of long-term debt left on the market. Long-term assets contain a price discount (an interest rate term premium) to compensate bond holders for bearing the risk of future interest rate fluctuations (duration risk). The Fed's purchases lower the aggregate amount of duration risk by removing some of the long-term debt in the market. This lowers the premium necessary to get the marginal investor to hold additional duration risk. That is, it lowers long-term interest rates by reducing the term premium.

In addition, some economic agents want to hold assets with particular maturities and risk characteristics and are willing to pay a premium for them. When the Fed purchases such securities, it can drive up the price — or lower the interest rates — on these assets. As investors then seek to rebalance their portfolios with assets similar to those purchased by the Fed, the rates on those loans and securities fall as well, stimulating new issuance and increased borrowing in those markets.

Finally, LSAPs are an important tool signaling our ongoing commitment to keeping short-term rates low for an extended period. Because long-term interest rates reflect the expected path of future short-term rates, our purchases signal that we believe these rates will be lower, on average, than might have

been expected before we entered the market. And because our traditional policy tool, the federal funds rate, anchors very short-term interest rates, we are also relaying a signal about our anticipated policy stance.

#### POLICIES THAT BUOY INFLATION EXPECTATIONS

Another way to lower real interest rates is by raising expected inflation while maintaining low nominal rates. All else being equal, when inflation increases, the cash (or any other asset with a payout not linked to inflation) that you hold on to today will be able to purchase fewer goods and services tomorrow. This increases the incentive to spend today.

The first strategy for buoying inflation expectations is for the Federal Reserve to announce an explicit goal for inflation that is higher than today's inflation rate. The Federal Reserve currently does not have an explicit inflation target (See box #1 on page 10.) That said, most participants in the FOMC have indicated that their long-term objective is for inflation to be around 2 percent. Last year, inflation fell below this implicit target. Early in 2010, core PCE inflation was 1-3/4 percent; by the turn of the year it had fallen to about 3/4 percent.

Over the same period, total PCE inflation dropped from about 2-1/2 percent to just over 1 percent. Financial market measures of medium- and long-term inflation expectations also fell noticeably over the spring and early summer; indeed, markets appeared to price in palpable odds of very low inflation or even outright deflation. These lower actual and expected inflation rates made real interest rates higher, and spending lower, than they otherwise would have been.

An explicit target could more firmly anchor inflation expectations, that is, make people think actual inflation will return more quickly to the stated target. If current inflation were too low, this would lower real interest rates and increase spending.

Although the Fed has not adopted an explicit target, since September 2010 our policy statements and other communications have indicated that the Committee thought inflation was running below rates that are consistent with price stability. As of late March 2011, increases in food and energy prices have boosted the most recent readings of total consumer inflation, and core



## SELECTED CENTRAL BANKS' INFLATION GUIDELINES

Central banks in nearly all major economies in the world have an explicit numerical target for inflation that policy aims to achieve. Some smaller countries have an explicit policy target stated in terms of stabilizing their exchange rate. Generally speaking, meeting this inflation target is the only stated mandate for monetary policy; however, most of these countries also are required to consider macroeconomic stability when setting the path to obtain their inflation goal.

Today, the United States and Japan are the only major countries in the world without an explicit numerical target for inflation. That said, the Federal Reserve publishes ranges and central tendencies for what each FOMC participant believes inflation will converge to in the long run under appropriate policy and in the absence of further shocks to the economy. And the Bank of Japan polls its board members on their “understanding” of the rate of inflation that is consistent with price stability and has published information about the resulting ranges.

Many countries adopted numerical targets as a way to help reduce inflationary expectations and facilitate the transition from high or moderately high inflation rates to low and stable ones. Today, the United States and Japan find themselves in the opposite situation — with inflation rates that are stubbornly running too low. The question we face is whether adoption of explicit targets could help buoy inflation expectations and bring inflation back up to rates policymakers feel are consistent with price stability.

Below are some examples of the numerical inflation targets for several major central banks. This list starts with New Zealand, which led the way in adopting a numerical target in 1990.

### 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.”

1990

### 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, “although specific occasions may arise in which a somewhat shorter or longer time horizon might be appropriate.” Core inflation is used as a shorter-term operational guide for policy.

1991

### 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.”

1992

### 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.”

1998



measures have ticked up a bit as well. Market-based measures of expectations for total inflation have risen back to the range they were in early 2010. However, many medium-term forecasts still have inflation below the 2 percent mark. So, all else being equal, returning expectations more quickly to 2 percent could translate into a decline in real short-term rates that would be of further help to the economy in exiting the liquidity trap.

The second tool for raising inflation expectations is price-level targeting. (See box #2 on page 12.) Under this approach, the central bank strives to hit a particular price-level path within a reasonable period. For example, if the rate of change in prices along the path is 2 percent and inflation has been running below 2 percent for some time, the actual price level will be well below the target path. Monetary policy would then strive to “catch-up” and bring the price level back to the target. This means that inflation would be higher than the inflation target for a time until the path is regained. If inflation expectations matched the projected rates needed to regain the price-level path, real interest rates would fall accordingly. Once the path is achieved, monetary policy would return to its usual focus on a 2 percent inflation target over the medium term.

I consider price-level targeting a policy option that is only appropriate for the unusual situation of a liquidity trap. In more usual times, the Fed would address lower-than-desirable levels of employment and inflation by adjusting the federal funds rate. However, as discussed earlier, we are currently constrained from doing so by the zero bound.

Note that both policies aimed at buoying inflation expectations run counter to the old engrained thinking that higher inflation is bad. But, in an environment with below-target inflation, creating expectations of appropriately higher inflation in the short term is consistent with our price stability objective. Core inflation has been running below our informal objective for two years. By bringing it back to 2 percent, we are recognizing that policy can fail in either direction: by letting inflation remain below our implicit target, as well as by letting it rise above the target.

## COMMUNICATIONS

No matter what policy we are undertaking, it is essential that we at the Fed communicate our intentions clearly, provide a measurable goal by which to evaluate our progress, and sustain our commitment to achieving that goal.

Ambiguity in our message can undermine our ability to achieve our goals. We can make our existing tools more effective by explicitly stating our objectives and the likely course of future policy that would achieve them. Importantly, both the inflation rate and price-level targeting policies facilitate communication.

In the current situation, these policies elaborate on what it means for the FOMC to say rates will be low for an “extended period” — they will be low until inflation is more clearly headed back to rates consistent with our policy mandate.

More generally, it is vitally important for our policy actions to be judged relative to the mission that Congress has laid out for us in the Federal Reserve Act. Accountability is a critical obligation for any central bank that requires substantial independence to be effective. Accordingly, it is of the utmost importance that we continually evaluate our policy record against our objectives and communicate our actions and the results. I believe our communication would be enhanced in terms of both clarity and effectiveness if we established an explicit numerical inflation objective. Knowing our target, the public and markets could make reliable inferences about the future path of monetary policy. Moreover, a credible inflation target would give the Fed more flexibility in its near-term policies and help us achieve our goals sooner and with less risk of unintended consequences.

Senior Vice President and Senior Research Advisor  
Spencer Krane contributed to the development of this essay

<sup>1</sup> Eggertsson, Gauti B., and Michael Woodford, 2003, “The Zero Bound on Interest Rates and Optimal Monetary Policy,” *Brookings Papers on Economic Activity*, Vol. 34, No. 1, pp. 139–211.

Krugman, Paul R., 1998, “It’s Baaack: Japan’s Slump and the Return of the Liquidity Trap,” *Brookings Papers on Economic Activity*, Vol. 29, No. 2, pp. 137–187.

<sup>2</sup> The essay draws heavily on speeches I gave last fall and winter at the Federal Reserve Bank of Boston’s 55th Economic Conference, The Bank of France’s conference on the Future of Monetary Policy, and the American Economic Association’s Annual Meetings.

<sup>3</sup> The underlying trend in inflation is measured here by our preferred benchmark, the 12-month change in the price index for personal consumption expenditures excluding food and energy. For our long-run policy goal, the Federal Reserve concentrates on the price index for all total personal consumption expenditures. However, food and energy prices are very volatile—both up and down. Being free of this volatility makes the core measure a better indicator of underlying broad inflation trends and therefore a better guide to where inflation is heading.

<sup>4</sup> In some special cases, interest rates can fall below zero. Examples have been seen with certain Treasury issues because some market participants needed the securities to fulfill particular contract obligations. The costs of failing to meet those obligations would have been greater than the funds lost through a negative interest rate.

<sup>5</sup> Consider a loan of \$100 today that pays back \$110 a year from now. The \$110 tomorrow will be able to purchase fewer goods and services than \$110 would today if the prices of those items goes up. So in terms of goods and services, the return to the lender is 10 percent (\$10/\$100) less the increase in the prices of those items.

## SIMPLE EXAMPLE OF A PRICE-LEVEL TARGET: A $P^*$ PATH

At times, there may be justification for targeting a higher price-level path in an effective, disciplined, and limited fashion. There are four components to a price-level targeting policy:

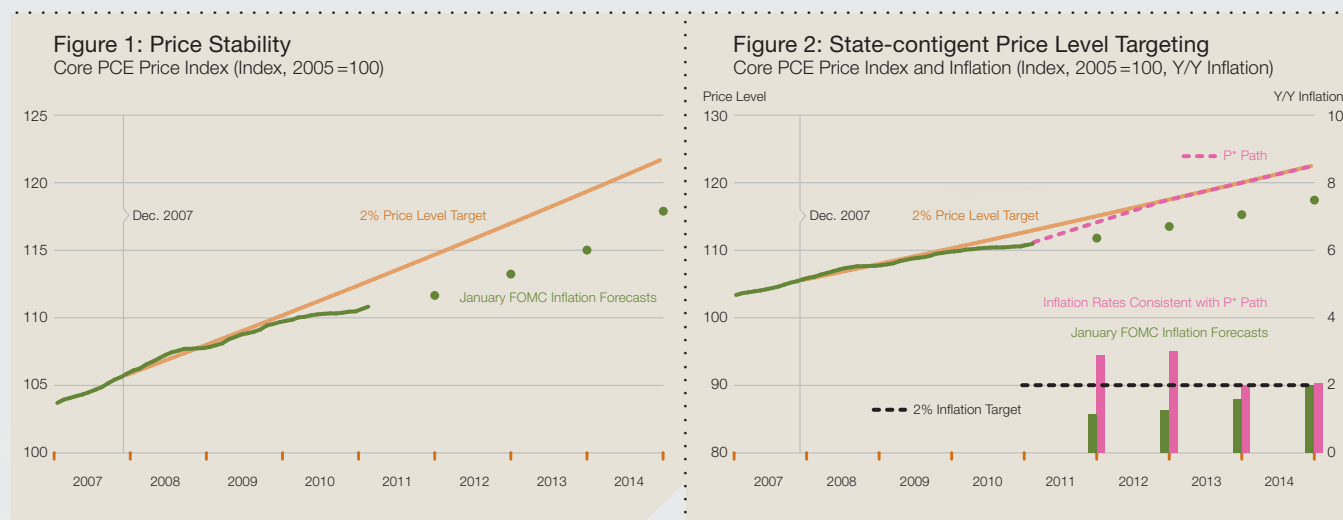
### 1. THE ANNOUNCEMENT OF A STATE-CONTINGENT ENTRY INTO THE $P^*$ POLICY.

To justify undertaking this policy, the central bank must be missing on both components of its dual mandate by large margins. These situations would be rare: Liquidity traps with double-digit unemployment and inflation rates below 1 percent occur perhaps twice a century or even less often.

### 2. THE SELECTION OF THE PARAMETERS FOR THE PRICE-LEVEL PATH—

#### THE INITIAL DATE WHEN THE INDEX TARGET PATH BEGINS AND THE RATE AT WHICH THAT PATH RISES.

Given the delay in recognizing and understanding the implications of the liquidity trap, the index target path likely would begin at some date in the past. In the current situation, I would prefer to start with December 2007, in part because this date represents the peak of the business cycle identified by the National Bureau of Economic Research (NBER). With regard to how the  $P^*$  path rises, I suggest 2 percent for the average inflation rate; this rate corresponds to most FOMC participants' long-run forecast endpoints for PCE inflation. With this definition, the difference between the actual price level and the  $P^*$  path is the “inflation deficit” to date. (See Figure 1 below.)



Source: Haver Analytics. Information is also included from the minutes of the January 25–26, 2011 FOMC meeting.



### 3. REGULAR PUBLIC COMMUNICATION THAT THE INTENTION OF THE FOMC'S POLICY ACTIONS IS TO ACHIEVE THIS PATH WITHIN A REASONABLE PERIOD.

At a minimal level, this could simply be a disciplined guarantee regarding how long policy rates will be held at zero. Other accommodative policies could be used to further build the public's confidence that the Fed is pursuing this price-level path. This communication would include many operational details. For example, even before reaching the  $P^*$  path, a substantial closing of the gap would set the stage for adjustments in operational policy, such as altering the size of the Fed's balance sheet, taking reserve-draining actions along the way, and increasing the rate of interest on excess reserves (IOER), among others.

### 4. TERMS FOR THE FINAL, STATE-CONTINGENT EXIT FROM THE $P^*$ POLICY.

Determining with a high degree of confidence that the price-level path has been achieved would be critical. Presumably, this would require spending a few months at the price-level path. Once there is confidence that the price-level path has been achieved, the forward-looking monetary policy strategy would return to focusing on 2 percent inflation over the medium term. Future policy misses on either side of 2 percent would be used to inform current analyses of inflation pressures and improve future projections and policy responses.

### WHAT MIGHT THE PRICE-LEVEL TARGET APPROACH LOOK LIKE?

Figure 2 shows the implied inflation rates for a 2 percent  $P^*$  path, where the current price gap is closed by the end of 2012 and we return to 2 percent inflation in 2013. (Of course, ensuring commitment to the policy exit is presumably crucial for achieving 2 percent in 2013.) The inflation rates in this example are relatively modest: 2.8 percent core inflation in 2011 and 2.9 percent in 2012. For a policymaker with a symmetric loss function around 2 percent, 2.9 percent is about the same loss as 1 percent — in other words, it is about a 1 percentage point policy miss regardless of whether the result is above or below the target. If short-term interest rates remain near zero during this adjustment, real interest rates would be between  $-2$  and  $-3$  percent.

In this scenario at the end of 2012, if resource slack remains substantial and inflationary pressures are returning toward 2 percent over the medium term on account of credible policy commitment, then a standard Taylor-rule prescription may still call for a relatively low federal funds rate. And the size and composition of the Fed's balance sheet might also be consistent with accommodation. How much? The ultimate decisions for monetary policy would continue to focus on our dual mandate responsibilities, but inflation would be nearer our goal of price stability and aggregate demand would be stronger.









# BOARD OF DIRECTORS

FEDERAL RESERVE BANK OF CHICAGO

## CHAIRMAN

**William C. Foote**

Chairman and Chief Executive Officer  
USG Corporation  
Chicago, Illinois

## DEPUTY CHAIRMAN

**Thomas J. Wilson**

Chairman, President and Chief Executive Officer  
The Allstate Corporation  
Northbrook, Illinois

## Anthony K. Anderson\*

Vice Chair and  
Midwest Managing Partner  
Ernst & Young  
Chicago, Illinois

## Stephen J. Goodenow

President and Chief Executive Officer  
Bank Midwest  
Spirit Lake, Iowa

## Mark C. Hewitt

President and Chief Executive Officer  
Clear Lake Bank & Trust Company  
Clear Lake, Iowa

## Jeffrey A. Joerres

Chairman and Chief Executive Officer  
Manpower Inc.  
Milwaukee, Wisconsin

## Terry Mazany

President and Chief Executive Officer  
The Chicago Community Trust  
Chicago, Illinois

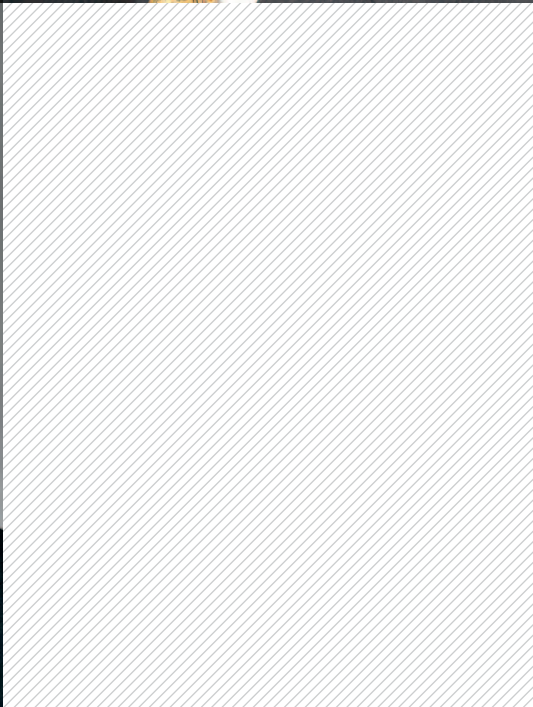
## Ann D. Murtlow

President and Chief Executive Officer  
Indianapolis Power & Light Company  
Indianapolis, Indiana  
Vice President  
AES Corporation

## Frederick H. Waddell

Chairman, President and  
Chief Executive Officer  
Northern Trust Corporation and  
The Northern Trust Company  
Chicago, Illinois

\*Anthony Anderson served on the Board until March of 2010.





# BOARD OF DIRECTORS

## DETROIT BRANCH

### CHAIRMAN

#### Timothy M. Manganello

Chairman and Chief Executive Officer  
BorgWarner, Inc.  
Auburn Hills, Michigan

#### Carl T. Camden

President and Chief Executive Officer  
Kelly Services, Inc.  
Troy, Michigan

#### Sheilah P. Clay

President and Chief Executive Officer  
Neighborhood Service Organization  
Detroit, Michigan

#### Mark T. Gaffney

President  
Michigan AFL-CIO  
Lansing, Michigan

#### Michael M. Magee, Jr.

President and Chief Executive Officer  
Independent Bank Corporation  
Ionia, Michigan

#### Lou Anna K. Simon

President  
Michigan State University  
East Lansing, Michigan

#### Brian C. Walker

President and Chief Executive Officer  
Herman Miller, Inc.  
Zeeland, Michigan

#### One new director joined the Detroit Branch Board in 2011

#### Nancy M. Schlichting

President and Chief Executive Officer of  
the Henry Ford Health System in Detroit,  
Michigan, replaced Michael M. Magee, Jr.



*The Chicago Fed Management Committee with Federal Reserve Chairman Ben Bernanke. From left to right: Valerie Van Meter, Margaret Koenigs, Daniel Sullivan, Gordon Werkema, Ben Bernanke, Charles Evans, David Marshall, William Barouski, Robert Wiley, Elizabeth Knospe and Catharine Lemieux.*

## FEDERAL RESERVE BANK OF CHICAGO

# MANAGEMENT COMMITTEE

### **Charles L. Evans**

President and  
Chief Executive Officer

### **Gordon Werkema**

First Vice President and  
Chief Operating Officer

### **William A. Barouski**

Executive Vice President  
Customer Relations and  
Support Office (CRSO) and  
Information Technology

### **Elizabeth A. Knospe**

Senior Vice President and  
General Counsel  
Legal, Board of Directors,  
Risk Management, Business  
Continuity, Human Resources,  
and Internal Communications

### **Margaret K. Koenigs**

Senior Vice President and  
General Auditor  
Internal Audit

### **Catharine M. Lemieux**

Executive Vice President  
Supervision and Regulation

### **David A. Marshall**

Senior Vice President and  
Associate Director of Research  
Financial Markets

### **Daniel G. Sullivan**

Executive Vice President and  
Director of Research  
Economic Research  
and Programs

### **Valerie J. Van Meter**

Senior Vice President,  
EEO Officer and Director of OMWI  
Central Bank Services, Finance, and  
Office of Diversity and Inclusion

### **Robert G. Wiley**

Senior Vice President and  
Branch Manager  
District Operations, Administrative  
Services, Law Enforcement,  
and Detroit Branch



# EXECUTIVE OFFICERS

**Charles L. Evans**  
President and  
Chief Executive Officer

**Gordon Werkema**  
First Vice President and  
Chief Operating Officer

## ECONOMIC RESEARCH AND PROGRAMS

**Daniel G. Sullivan**  
Executive Vice President and  
Director of Research

**Spencer D. Krane**  
Senior Vice President and  
Senior Research Advisor

**David A. Marshall**  
Senior Vice President, Associate  
Director of Research and Director  
of Financial Markets Group

**Regional Economics**  
**William A. Testa**  
Vice President and  
Director of Regional Research

**Macroeconomic Policy Research**  
**Jonas D.M. Fisher**  
Vice President and Director of  
Macroeconomic Research

**Microeconomic Policy Research**  
**Daniel R. Aaronson**  
Vice President and Director of  
Microeconomic Research

**Financial Markets Group**  
**Douglas D. Evanoff**  
Vice President and  
Senior Research Advisor

**Edward J. Nosal**  
Vice President and  
Senior Research Advisor

**Anna L. Paulson**  
Vice President and  
Director of Financial Research

**Richard D. Porter**  
Vice President and  
Senior Research Advisor

**Community Development  
and Policy Studies**  
**Alicia Williams**  
Vice President

**Public Affairs**  
**G. Douglas Tillett**  
Vice President

## SUPERVISION AND REGULATION

**Catharine M. Lemieux**  
Executive Vice President

**Community Bank**  
**Mark H. Kawa**  
Vice President

**Large and Foreign Banks**  
**Steven M. Durfey**  
Senior Vice President

**Large Specialized Institutions**  
**James Nelson**  
Senior Vice President

**Risk Specialists**  
**Carl R. Tannenbaum**  
Senior Vice President

**Regional Banking, Small Thrifts  
and Technology Group**  
**Douglas J. Kasl**  
Vice President

**Applications, Enforcement,  
QM, and Talent**  
**Pamela S. Rieger**  
Vice President

**Compliance**  
**Julie Williams**  
Vice President

## CUSTOMER RELATIONS AND SUPPORT OFFICE (CRSO)

**Gordon Werkema**  
Product Director

**William A. Barouski**  
Executive Vice President and  
Product Manager

**Electronic Access**  
**Ellen J. Bromagen**  
Senior Vice President

**Todd Aadland**  
Vice President

**National Sales and Marketing**  
**Sean Rodriguez**  
Senior Vice President

**Shonda Clay**  
Vice President and  
Regional Sales Director

**Michael J. Hoppe**  
Vice President and  
National Account Manager

**Laura J. Hughes**  
Vice President

**Steven E. Jung**  
Vice President

**Ted Kurdes**  
Vice President

## DISTRICT OPERATIONS, ADMINISTRATIVE SERVICES, LAW ENFORCEMENT AND DETROIT BRANCH

**Robert G. Wiley**  
Senior Vice President and  
Branch Manager

**District Cash**  
**Donna M. Dziak**  
Vice President

**Mary H. Sherburne**  
Vice President, Chicago Cash

## CENTRAL BANK SERVICES, FINANCE, AND OFFICE OF DIVERSITY AND INCLUSION

**Valerie J. Van Meter**  
Senior Vice President, EEO Officer,  
and Director of OMWI

**Jeffery S. Anderson**  
Vice President

**Jerome E. Julian**  
Vice President

**Jeffrey Marcus**  
Vice President and  
Corporate Controller

## INFORMATION TECHNOLOGY

**William A. Barouski**  
Executive Vice President

**Daniel F. Reimann**  
Vice President

## LEGAL, BOARD OF DIRECTORS, RISK MANAGEMENT, BUSINESS CONTINUITY, HUMAN RESOURCES AND INTERNAL COMMUNICATIONS

**Elizabeth A. Knospe**  
Senior Vice President and  
General Counsel

**Katherine Hilton Schrepfer**  
Vice President, Associate  
General Counsel, Ethics Officer  
and District Board Secretary

**Matt LaRocco**  
Vice President  
Human Resources and Internal  
Communications

**Yurii Skorin**  
Vice President and  
Associate General Counsel

**Anna M. Voytovich**  
Vice President and  
Associate General Counsel

## INTERNAL AUDIT

**Margaret K. Koenigs**  
Senior Vice President and  
General Auditor



*From left to right: Donald Snider, G. Curtis Lansbery, John Howard, William Beckett, Siva Yam, John Hardin, Jr., Jeffrey Armstrong, Joseph Massa, Jack Evans, David Newby, Cathy McClelland, Gary Sipiorski and David Terrell. Not pictured are Michael Carrigan, Dennis Gannon, and Clarence Nixon, Jr.*

## FEDERAL RESERVE BANK OF CHICAGO ADVISORY COUNCIL

### SEVENTH DISTRICT ADVISORY COUNCIL ON AGRICULTURE, SMALL BUSINESS AND LABOR

#### Illinois

**Michael T. Carrigan**  
President  
AFL-CIO of Illinois  
Springfield

**Dennis Gannon**  
President  
Chicago Federation of Labor,  
AFL-CIO  
Chicago

**John L. Howard**  
Senior VP & General Counsel  
W.W. Grainger, Inc.  
Lake Forest

**G. Curtis Lansbery**  
President  
North American Tool Corp.  
South Beloit

**Siva Yam**  
President  
United States of America-China  
Chamber of Commerce  
Chicago

#### Indiana

**John D. Hardin, Jr.**  
Owner  
Hardin Farms  
Danville

**David Terrell**  
Executive Director  
Indiana Office of Community  
and Rural Affairs  
Indianapolis

#### Iowa

**Jack B. Evans**  
President  
The Hall-Perrine Foundation  
Cedar Rapids

**Joseph R. Massa**  
General Manager  
Riverside Casino and Golf Resort  
Riverside

#### Michigan

**Jeffrey D. Armstrong**  
Dean and Professor of College of  
Agriculture and Natural Resources  
Michigan State University  
East Lansing

**Cathy McClelland**  
President & CEO  
McClelland & Associates  
Southfield

**Clarence Nixon, Jr.**  
President & CEO  
CNC Group, LLC  
Farmington Hills

**Donald Snider**  
President & CEO  
Walden Foods  
Ann Arbor

#### Wisconsin

**William P. Beckett**  
President & CEO  
Chrysalis Packaging & Assembly  
Corporation (CHRYSPAC)  
Milwaukee

**David Newby**  
President  
Wisconsin State AFL-CIO  
Milwaukee

**Gary Sipiorski**  
Dairy Development Manager  
Vita Plus Corporation  
Madison



# 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 banks of various sizes.

The Chicago board consists of nine members. Seventh District 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 Chicago board designates one of the Board of Governors appointees as chair of the Detroit Board. Reserve Bank and Branch directors may serve three-year terms, with a maximum of two full terms.

Director appointments and elections at the Chicago Reserve Bank and its Detroit Branch effective in 2010 were:

**William C. Foote** was re-appointed to a three-year term as a Chicago director and appointed to a one-year term as Chicago board chairman.

**Thomas J. Wilson** was appointed to a one-year term as Chicago board deputy chairman.

**Jeffrey A. Joerres** was appointed to a two-year term as a Chicago director.

**Terry Mazany** was elected to a three-year term as a Chicago director.

**Stephen J. Goodenow** was elected to a three-year term as a Chicago director.

**Lou Anna K. Simon** was appointed to a three-year term as a Detroit Branch director.

**Sheilah P. Clay** was appointed to a three-year term as a Detroit Branch director.

**Mark T. Gaffney** was appointed to a two-year term as a Detroit Branch director.

**Timothy M. Manganello** was re-appointed to a one-year term as Detroit Branch board chairman.

At the end of 2010, the following appointments and elections for 2011 were announced:

**William C. Foote** was re-appointed to a one-year term as Chicago board chairman.

**Thomas J. Wilson** was re-appointed to a three-year term as a Chicago director and re-appointed to a one-year term as Chicago board deputy chairman.

**Ann D. Murtlow** was re-elected to a three-year term as a Chicago director.

**Mark C. Hewitt** was re-elected to a three-year term as a Chicago director.

**Nancy M. Schlichting** was appointed to a three-year term as a Detroit Branch director.

**Carl T. Camden** was re-appointed to a three-year term as a Detroit Branch director.

**Timothy M. Manganello** was re-appointed to a one-year term as Detroit Branch board chairman.

## FEDERAL ADVISORY COUNCIL REPRESENTATIVE

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.

**David W. Nelms**, Chairman and Chief Executive Officer of Discover Financial Services, Riverwoods, Illinois, served a one-year term in 2010 as the Federal Advisory Council representative for the Seventh Federal Reserve District. He was selected to serve a second one-year term in 2011.

## EXECUTIVE CHANGES

The Bank's Board of Directors acted on the following promotions during 2010:

**Catharine M. Lemieux** to Executive Vice President, Supervision and Regulation.

**Daniel G. Sullivan** to Executive Vice President, Economic Research and Programs.

**James Nelson** to Senior Vice President, Supervision and Regulation.

**Carl R. Tannenbaum** to Senior Vice President, Supervision and Regulation.

**Steven M. Durfey** to Senior Vice President, Supervision and Regulation.

**Ted Kurdes** to Vice President, Customer Relations and Support Office (CRSO).

**Julie Williams** to Vice President, Supervision and Regulation.

**Matt LaRocco** to Vice President, Human Resources and Internal Communications.

The following senior vice president and vice presidents retired during 2010:

**Barbara D. Benson**, Senior Vice President, People, Strategy, and Finance (29 years of service).

**A. Raymond Bacon**, Vice President, Supervision and Regulation (37 years of service).

**Kimberly A. Clark**, Vice President, District Check (27 years of service).

# OPERATIONS VOLUMES

|   | DOLLAR AMOUNT |               | NUMBER OF ITEMS |               |
|---|---------------|---------------|-----------------|---------------|
|   | 2010          | 2009          | 2010            | 2009          |
| <b>CHECK AND ELECTRONIC PAYMENTS</b>    |               |               |                 |               |
| Checks, NOWs, & Share Drafts Processed  | —             | 89.5 Billion  | —               | 35.9 Million  |
| Legacy Images Captured                  | —             | —             | —               | 9.8 Million   |
| Check 21 Images Presented               | —             | —             | 799.1 Million   | 713.7 Million |
| Check 21 IRD* Printed                   | —             | —             | 54.9 Million    | 185.2 Million |
| Check 21 Items Received                 | 1.1 Trillion  | 1.3 Trillion  | 963.6 Million   | 1.1 Billion   |
| <b>CASH OPERATIONS</b>                  |               |               |                 |               |
| Currency Counted                        | 41.5 Billion  | 41.5 Billion  | 3.1 Billion     | 3.0 Billion   |
| Unfit Currency Destroyed                | 4.4 Billion   | 5.2 Billion   | 474.0 Million   | 486.5 Million |
| Coin Bags Paid and Received             | 1.8 Billion   | 1.8 Billion   | 3.5 Million     | 3.6 Million   |
| Number of Notes Paid and Received       | 105.1 Billion | 102.9 Billion | 7.1 Billion     | 7.4 Billion   |
| <b>LOANS TO DEPOSITORY INSTITUTIONS</b> |               |               |                 |               |
| Total Loans Made During Year            | 7.0 Billion   | 115.9 Billion | 1.2 Thousand    | 3.2 Thousand  |

\*Image Replacement Documents



## FINANCIAL REPORTS CONTENTS

|   |    |
|---|----|
| Auditor Independence  | 24 |
| Management's Report on Internal Control<br>Over Financial Reporting | 25 |
| Independent Auditors' Report  | 26 |
| Abbreviations   | 28 |
| Statements of Condition   | 29 |
| Statements of Income<br>and Comprehensive Income                    | 30 |
| Statements of Changes in Capital                                    | 31 |
| Notes to Financial Statements                                       | 32 |

## AUDITOR INDEPENDENCE



In 2010, the Board of Governors engaged Deloitte & Touche LLP (D&T) for the audits of the individual and combined financial statements of the Reserve Banks and the consolidated financial statements of the limited liability companies (LLCs) that are associated with Federal Reserve actions to address the financial crisis and are consolidated in the financial statements of the Federal Reserve Bank of New York. Fees for D&T's services are estimated to be \$8.0 million, of which approximately \$1.6 million were for the audits of the LLCs.<sup>1</sup> To ensure auditor independence, the Board of Governors requires that D&T be independent in all matters relating to the audit. Specifically, D&T 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 Reserve Banks, or in any other way impairing its audit independence. In 2010, the Bank did not engage D&T for any non-audit services.

<sup>1</sup>Each LLC will reimburse the Board of Governors for the fees related to the audit of its financial statements from the entity's available net assets.



# MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

March 22, 2011

To the Board of Directors

The management of the Federal Reserve Bank of Chicago (FRBC) is responsible for the preparation and fair presentation of the Statements of Condition as of December 31, 2010 and 2009, and the Statements of Income and Comprehensive Income, and Statements of Changes in Capital for the years then ended (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 as set forth in the *Financial Accounting Manual for Federal Reserve Banks* (FAM), and, as such, include some amounts that are based on management judgments and estimates. 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 FAM and include all disclosures necessary for such fair presentation.

The management of the FRBC is responsible for establishing and maintaining effective internal control over financial reporting as it relates to the Financial Statements. Such internal control is designed to provide reasonable assurance to management and to the Board of Directors regarding the preparation of the Financial Statements in accordance with the FAM. Internal control contains self-monitoring mechanisms, including, but not limited to, divisions of responsibility and a code of conduct. Once identified, any material deficiencies in internal control are reported to management and appropriate corrective measures are implemented.

Even effective internal control, 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. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The management of the FRBC assessed its internal control over financial reporting 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. Based on this assessment, we believe that the FRBC maintained effective internal control over financial reporting as it relates to the Financial Statements.

Federal Reserve Bank of Chicago



by Charles L. Evans  
President



by Gordon Werkema  
First Vice President



by Jeffrey Marcus  
Vice President and Controller

# INDEPENDENT AUDITORS' REPORT



**Deloitte & Touche LLP**  
 111 S. Wacker Drive  
 Chicago, IL 60606-4301  
 USA  
 Tel: +1 312 486 1000  
 Fax: +1 312 486 1486  
[www.deloitte.com](http://www.deloitte.com)

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 (“FRB Chicago”) as of December 31, 2010 and 2009 and the related Statements of Income and Comprehensive Income, and of Changes in Capital for the years then ended, which have been prepared in conformity with accounting principles established by the Board of Governors of the Federal Reserve System. We also have audited the internal control over financial reporting of the FRB Chicago as of December 31, 2010, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The FRB Chicago’s management is responsible for these Financial Statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on these Financial Statements and an opinion on the FRB Chicago’s internal control over financial reporting based on our audits.

We conducted our audits in accordance with generally accepted auditing standards as established by the Auditing Standards Board (United States) and in accordance with the auditing standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the Financial Statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the Financial Statements included examining, on a test basis, evidence supporting the amounts and disclosures in the Financial Statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

The FRB Chicago’s internal control over financial reporting is a process designed by, or under the supervision of, the FRB Chicago’s principal executive and principal financial officers, or persons performing similar functions, and effected by the FRB Chicago’s board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of Financial Statements for external purposes in accordance with the accounting principles established by the Board of Governors of the Federal Reserve System. The FRB Chicago’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the FRB Chicago; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of Financial Statements in accordance with the accounting principles established by the Board of Governors of the Federal Reserve System, and that receipts and expenditures of the FRB Chicago are being made only in accordance with authorizations of management and directors of the FRB Chicago; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the FRB Chicago’s assets that could have a material effect on the Financial Statements.



Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As described in Note 4 to the Financial Statements, the FRB Chicago has prepared these Financial Statements in conformity with accounting principles established by the Board of Governors of the Federal Reserve System, as set forth in the *Financial Accounting Manual for Federal Reserve Banks*, which is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America. The effects on such Financial Statements of the differences between the accounting principles established by the Board of Governors of the Federal Reserve System and accounting principles generally accepted in the United States of America are also described in Note 4.

In our opinion, such Financial Statements present fairly, in all material respects, the financial position of the FRB Chicago as of December 31, 2010 and 2009, and the results of its operations for the years then ended, on the basis of accounting described in Note 4. Also, in our opinion, the FRB Chicago maintained, in all material respects, effective internal control over financial reporting as of December 31, 2010, based on the criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

DELOITTE & TOUCHE LLP

March 22, 2011

# FINANCIAL STATEMENTS

## Abbreviations:

|                |   |
|----------------|---|
| ACH            | Automated clearinghouse   |
| AMLF           | Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility |
| ASC            | Accounting Standards Codification   |
| Bureau         | Bureau of Consumer Financial Protection                                   |
| Dodd-Frank Act | The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010     |
| FAM            | <i>Financial Accounting Manual for Federal Reserve Banks</i>              |
| FASB           | Financial Accounting Standards Board                                      |
| FOMC           | Federal Open Market Committee   |
| FRBA           | Federal Reserve Bank of Atlanta   |
| FRBNY          | Federal Reserve Bank of New York  |
| GAAP           | Accounting principles generally accepted in the United States of America  |
| GSE            | Government-sponsored enterprise   |
| IMF            | International Monetary Fund   |
| MBS            | Mortgage-backed securities  |
| OEB            | Office of Employee Benefits of the Federal Reserve System                 |
| OFR            | Office of Financial Research  |
| SDR            | Special drawing rights  |
| SOMA           | System Open Market Account  |
| STRIP          | Separate Trading of Registered Interest and Principal of Securities       |
| TAF            | Term Auction Facility   |
| TBA            | To be announced   |
| TDF            | Term Deposit Facility   |
| TIPS           | Treasury Inflation-Protected Securities                                   |
| TSLF           | Term Securities Lending Facility  |
| TOP            | Term Securities Lending Facility Options Program                          |



# FINANCIAL STATEMENTS

| FEDERAL RESERVE BANK OF CHICAGO<br>STATEMENTS OF CONDITION<br>As of December 31, 2010 and December 31, 2009 (in millions)             |           | 2010           | 2009              |
|---|-----------|----------------|-------------------|
| <b>ASSETS</b>   |           |                |                   |
| Gold certificates   | \$        | 887            | \$ 911            |
| Special drawing rights certificates   |           | 424            | 424               |
| Coin  |           | 336            | 301               |
| Items in process of collection  |           | 40             | 30                |
| Loans:  |           |                |                   |
| Depository institutions   |           | 79             | 2,393             |
| System Open Market Account:   |           |                |                   |
| Treasury securities, net  |           | 80,434         | 87,215            |
| Government-sponsored enterprise debt securities, net  |           | 11,532         | 18,110            |
| Federal agency and government-sponsored enterprise mortgage-backed securities, net  |           | 75,740         | 99,438            |
| Foreign currency denominated assets, net  |           | 629            | 844               |
| Central bank liquidity swaps  |           | 2              | 343               |
| Other investments   |           | -              | 1                 |
| Accrued interest receivable   |           | 1,073          | 1,365             |
| Bank premises and equipment, net  |           | 240            | 236               |
| Other assets  |           | 22             | 22                |
| <b>Total assets</b>   | <b>\$</b> | <b>171,438</b> | <b>\$ 211,633</b> |
| <b>LIABILITIES AND CAPITAL</b>  |           |                |                   |
| Federal Reserve notes outstanding, net  | \$        | 73,925         | \$ 73,201         |
| System Open Market Account:   |           |                |                   |
| Securities sold under agreements to repurchase  |           | 4,501          | 8,411             |
| Other liabilities   |           | -              | 65                |
| Deposits:   |           |                |                   |
| Depository institutions   |           | 59,416         | 52,624            |
| Other deposits  |           | 27             | 33                |
| Interest payable to depository institutions   |           | 6              | 4                 |
| Accrued benefit costs   |           | 152            | 143               |
| Deferred credit items   |           | 151            | 179               |
| Accrued interest on Federal Reserve notes   |           | 118            | 204               |
| Interdistrict settlement account  |           | 31,780         | 75,510            |
| Other liabilities   |           | 18             | 21                |
| <b>Total liabilities</b>  |           | <b>170,094</b> | <b>210,395</b>    |
| <b>Capital paid-in</b>  |           | <b>672</b>     | <b>619</b>        |
| Surplus (including accumulated other comprehensive loss of \$41 million and \$38 million at December 31, 2010 and 2009, respectively) |           | 672            | 619               |
| <b>Total capital</b>  |           | <b>1,344</b>   | <b>1,238</b>      |
| <b>Total liabilities and capital</b>  | <b>\$</b> | <b>171,438</b> | <b>\$ 211,633</b> |

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

# FINANCIAL STATEMENTS

| FEDERAL RESERVE BANK OF CHICAGO  |                 |                 |
|--|-----------------|-----------------|
| STATEMENTS OF INCOME AND COMPREHENSIVE INCOME  |                 |                 |
| For the years ended December 31, 2010 and December 31, 2009 (in millions)                |                 |                 |
|  | 2010            | 2009            |
| <b>INTEREST INCOME</b>   |                 |                 |
| Loans:   |                 |                 |
| Depository institutions  | \$ 1            | \$ 19           |
| System Open Market Account:  |                 |                 |
| Securities purchased under agreements to resell  | -               | 1               |
| Treasury securities, net   | 2,234           | 2,381           |
| Government-sponsored enterprise debt securities, net                                     | 299             | 217             |
| Federal agency and government-sponsored enterprise mortgage-backed securities, net       | 3,807           | 2,180           |
| Foreign currency denominated assets, net   | 6               | 10              |
| Central bank liquidity swaps   | -               | 78              |
| <b>Total interest income</b>   | <b>6,347</b>    | <b>4,886</b>    |
| <b>INTEREST EXPENSE</b>  |                 |                 |
| System Open Market Account:  |                 |                 |
| Securities sold under agreements to repurchase   | 8               | 10              |
| Deposits:  |                 |                 |
| Depository institutions  | 110             | 69              |
| <b>Total interest expense</b>  | <b>118</b>      | <b>79</b>       |
| <b>Net interest income</b>   | <b>6,229</b>    | <b>4,807</b>    |
| <b>NON-INTEREST INCOME (LOSS)</b>  |                 |                 |
| System Open Market Account:  |                 |                 |
| Federal agency and government-sponsored enterprise mortgage-backed securities gains, net | 71              | 101             |
| Foreign currency gains (losses), net   | 13              | (3)             |
| Income from services   | 72              | 70              |
| Compensation received for service costs provided   | 25              | 35              |
| Reimbursable services to government agencies   | 4               | 5               |
| Other income   | 9               | 18              |
| <b>Total non-interest income</b>   | <b>194</b>      | <b>226</b>      |
| <b>OPERATING EXPENSES</b>  |                 |                 |
| Salaries and benefits  | 165             | 161             |
| Occupancy  | 28              | 23              |
| Equipment  | 11              | 11              |
| Compensation paid for service costs incurred   | 9               | 11              |
| Assessments:   |                 |                 |
| Board of Governors operating expenses and currency costs                                 | 69              | 60              |
| Bureau of Consumer Financial Protection and Office of Financial Research                 | 1               | -               |
| Other  | 72              | 77              |
| <b>Total operating expenses</b>  | <b>355</b>      | <b>343</b>      |
| <b>Net income prior to distribution</b>  | <b>6,068</b>    | <b>4,690</b>    |
| Change in funded status of benefit plans   | (3)             | (7)             |
| <b>Comprehensive income prior to distribution</b>  | <b>\$ 6,065</b> | <b>\$ 4,683</b> |
| Distribution of comprehensive income:  |                 |                 |
| Dividends paid to member banks   | \$ 38           | \$ 44           |
| Transferred to (from) surplus and change in accumulated other comprehensive loss         | 53              | (84)            |
| Payments to Treasury as interest on Federal Reserve notes                                | 5,974           | 4,723           |
| <b>Total distribution</b>  | <b>\$ 6,065</b> | <b>\$ 4,683</b> |

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



# FINANCIAL STATEMENTS

## FEDERAL RESERVE BANK OF CHICAGO

### STATEMENTS OF CHANGES IN CAPITAL

For the years ended December 31, 2010 and December 31, 2009 (in millions, except share data)

|  | Surplus         |                     |                                      |               |               |
|--|-----------------|---------------------|--------------------------------------|---------------|---------------|
|  | Capital paid-in | Net income retained | Accumulated other comprehensive loss | Total surplus | Total capital |
| <b>Balance at January 1, 2009</b><br>(14,069,189 shares)                       | \$ 703          | \$ 734              | \$ (31)                              | \$ 703        | \$ 1,406      |
| Net change in capital stock redeemed<br>(1,679,308 shares)                     | (84)            | —                   | —                                    | —             | (84)          |
| Transferred from surplus and change in<br>accumulated other comprehensive loss | —               | (77)                | (7)                                  | (84)          | (84)          |
| <b>Balance at December 31, 2009</b><br>(12,389,881 shares)                     | \$ 619          | \$ 657              | \$ (38)                              | \$ 619        | \$ 1,238      |
| Net change in capital stock issued<br>(1,049,943 shares)                       | 53              | —                   | —                                    | —             | 53            |
| Transferred to surplus and change in<br>accumulated other comprehensive loss   | —               | 56                  | (3)                                  | 53            | 53            |
| <b>Balance at December 31, 2010</b><br>(13,439,824 shares)                     | \$ 672          | \$ 713              | \$ (41)                              | \$ 672        | \$ 1,344      |

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

# FEDERAL RESERVE BANK OF CHICAGO

## NOTES TO FINANCIAL STATEMENTS

### 1. Structure

The Federal Reserve Bank of Chicago (Bank) is part of the Federal Reserve System (System) and is one of the 12 Federal 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 serves 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 is 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 of the Federal Reserve System (Board of Governors) to represent the public, 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. 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.

In addition to the 12 Reserve Banks, the System also consists, in part, of the 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 Reserve Banks perform a variety of services and operations. These functions include participating in formulating and conducting monetary policy; participating in the payment system, including large-dollar transfers of funds, automated clearinghouse (ACH) operations, and check collection; distributing coin and currency; performing fiscal agency functions for the U.S. Department of the Treasury (Treasury), certain Federal agencies, and other entities; serving as the federal government's bank; providing short-term loans to depository institutions; providing loans to individuals, partnerships, and corporations in unusual and exigent circumstances; serving consumers and communities by providing educational materials and information regarding financial consumer protection rights and laws and information on community development programs and activities; and supervising bank holding companies, state member banks, and U.S. offices of foreign banking organizations. Certain services are provided to foreign and international monetary authorities, primarily by the FRBNY.

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act), which was signed into law and became effective on July 21, 2010, changed the scope of some services performed by the Reserve Banks. Among other things, the Dodd-Frank Act establishes a Bureau of Consumer Financial Protection (Bureau) as an independent bureau within the Federal Reserve System that will have supervisory authority over some institutions previously supervised by the Reserve Banks under delegated authority from the Board of Governors in connection with those institutions' compliance with consumer protection statutes; limits the Reserve Banks' authority to provide loans in unusual and exigent circumstances to lending programs or facilities with broad-based eligibility; and vests the Board of Governors with all supervisory and rule-writing authority for savings and loan holding companies.

The FOMC, in conducting monetary policy, establishes policy regarding domestic open market operations, oversees these operations, and issues authorizations and directives to the FRBNY to execute transactions. The FOMC authorizes and directs the FRBNY to conduct operations in domestic markets, including the direct purchase and sale of Treasury securities, Federal agency and government-sponsored enterprise (GSE) debt securities, Federal agency and GSE mortgage-backed securities (MBS), the purchase of these securities under agreements to resell, and the sale of these securities under agreements to repurchase. The FRBNY holds the resulting securities and agreements in a portfolio known as the System Open Market Account (SOMA). The FRBNY is authorized to lend the Treasury securities and Federal agency and GSE debt securities that are held in the SOMA.



## NOTES TO FINANCIAL STATEMENTS

In addition to authorizing and directing operations in the domestic securities market, the FOMC authorizes the FRBNY to conduct operations in foreign markets in order to counter disorderly conditions in exchange markets or to meet other needs specified by the FOMC to carry out the System's central bank responsibilities. Specifically, the FOMC authorizes and directs the FRBNY to hold balances of, and to execute spot and forward foreign exchange and securities contracts for, 14 foreign currencies and to invest such foreign currency holdings, while maintaining adequate liquidity. The FRBNY is authorized and directed by the FOMC to maintain reciprocal currency arrangements with the Bank of Canada and the Bank of Mexico and to "warehouse" foreign currencies for the Treasury and the Exchange Stabilization Fund.

Although the Reserve Banks are separate legal entities, they collaborate in the delivery of certain services to achieve greater efficiency and effectiveness. This collaboration takes the form of centralized operations and product or function 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 Banks. In some cases, costs incurred by a Reserve Bank for services provided to other Reserve Banks are not shared; in other cases, the Reserve Banks are reimbursed for costs incurred in providing services to other Reserve Banks. Major services provided by the Bank on behalf of the System and for which the costs were not reimbursed by the other Reserve Banks include national business development and customer support.

### 3. Financial Stability Activities

The Reserve Banks have implemented the following programs that support the liquidity of financial institutions and foster improved conditions in financial markets.

#### *Large-Scale Asset Purchase Programs*

The FOMC authorized and directed the FRBNY to purchase \$300 billion of longer-term Treasury securities to help improve conditions in private credit markets. The FRBNY began the purchases of these Treasury securities in March 2009 and completed them in October 2009. On August 10, 2010, the FOMC announced that the Federal Reserve will maintain the level of domestic securities holdings in the SOMA portfolio by reinvesting principal payments from GSE debt securities and Federal agency and GSE MBS in longer-term Treasury securities. On November 3, 2010, the FOMC announced its intention to expand the SOMA portfolio holdings of longer-term Treasury securities by an additional \$600 billion by June 2011. The FOMC will regularly review the pace of these securities purchases and the overall size of the asset purchase program and will adjust the program as needed to best foster maximum employment and price stability.

The FOMC authorized and directed the FRBNY to purchase GSE debt securities and Federal agency and GSE MBS, with a goal to provide support to mortgage and housing markets and to foster improved conditions in financial markets more generally. The FRBNY was authorized to purchase up to \$175 billion in fixed-rate, non-callable GSE debt securities and \$1.25 trillion in fixed-rate Federal agency and GSE MBS. Purchases of GSE debt securities began in November 2008, and purchases of Federal agency and GSE MBS began in January 2009. The FRBNY completed the purchases of GSE debt securities and Federal agency and GSE MBS in March 2010. The settlement of all Federal agency and GSE MBS transactions was completed by August 2010.

#### *Central Bank Liquidity Swaps*

The FOMC authorized and directed the FRBNY to establish central bank liquidity swap arrangements, which could be structured as either U.S. dollar liquidity or foreign currency liquidity swap arrangements. U.S. dollar liquidity swap arrangements were authorized with 14 foreign central banks to provide liquidity in U.S. dollars to overseas markets. The authorization for these swap arrangements expired on February 1, 2010. In May 2010, U.S. dollar liquidity swap arrangements were reestablished with the Bank of Canada, the Bank of England, the European Central Bank, the Bank of Japan, and the Swiss National Bank; these arrangements will expire on August 1, 2011.

Foreign currency liquidity swap arrangements provided the Reserve Banks with the capacity to offer foreign currency liquidity to U.S. depository institutions. The authorization for these swap arrangements expired on February 1, 2010.

## NOTES TO FINANCIAL STATEMENTS

### *Lending to Depository Institutions*

The Term Auction Facility (TAF) promoted the efficient dissemination of liquidity by providing term funds to depository institutions. The last TAF auction was conducted on March 8, 2010, and the related loans matured on April 8, 2010.

### *Lending to Primary Dealers*

The Term Securities Lending Facility (TSLF) promoted liquidity in the financing markets for Treasury securities. Under the TSLF, the FRBNY could lend up to an aggregate amount of \$200 billion of Treasury securities held in the SOMA to primary dealers on a secured basis for a term of 28 days. The authorization for the TSLF expired on February 1, 2010.

The Term Securities Lending Facility Options Program (TOP) offered primary dealers the opportunity to purchase an option to draw upon short-term, fixed-rate TSLF loans in exchange for eligible collateral. The program was suspended effective with the maturity of the June 2009 TOP options, and authorization for the program expired on February 1, 2010.

### *Other Lending Facilities*

The Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF) provided funding to depository institutions and bank holding companies to finance the purchase of eligible high-quality asset-backed commercial paper (ABCP) from money market mutual funds. The Federal Reserve Bank of Boston administered the AMLF and was authorized to extend these loans to eligible borrowers on behalf of the other Reserve Banks. The authorization for the AMLF expired on February 1, 2010.

## **4. Significant Accounting Policies**

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

Limited differences exist between the accounting principles and practices in the FAM and accounting principles generally accepted in the United States (GAAP), due to the unique nature of the Bank's powers and responsibilities as part of the nation's central bank and given the System's unique responsibility to conduct monetary policy. The primary differences are the presentation of all SOMA securities holdings at amortized cost and the recording of such securities on a settlement-date basis. The cost basis of Treasury securities, GSE debt securities, and foreign government debt instruments is adjusted for amortization of premiums or accretion of discounts on a straight-line basis, rather than using the interest method required by GAAP. Amortized cost, rather than the fair value presentation, more appropriately reflects the Bank's securities holdings given the System's unique responsibility to conduct monetary policy. Accounting for these securities on a settlement-date basis, rather than the trade-date basis required by GAAP, more appropriately reflects the timing of the transaction's effect on the quantity of reserves in the banking system. Although the application of fair value measurements to the securities holdings may result in values substantially greater or less than their carrying values, these unrealized changes in value have no direct effect 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 before maturity. Decisions regarding securities and foreign currency transactions, including their purchase and sale, are motivated by monetary policy objectives rather than profit. Accordingly, fair values, earnings, and gains or losses resulting from the sale of such securities and currencies are incidental to open market operations and do not motivate decisions related to policy or open market activities.

In addition, the Bank does not present a Statement of Cash Flows as required by GAAP because the liquidity and cash position of the Bank are not a primary concern given the Reserve Banks' unique powers and responsibilities. Other information regarding the Bank's activities is provided in, or may be derived from, the Statements of Condition, Income and Comprehensive Income, and Changes in Capital. There are no other significant differences between the policies outlined in the FAM and GAAP.



## NOTES TO FINANCIAL STATEMENTS

Preparing the financial statements in conformity with the FAM requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, the 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. Consolidation*

The Dodd-Frank Act established the Bureau as an independent bureau within the Federal Reserve System, and section 1017 of the Dodd-Frank Act provides that the financial statements of the Bureau are not to be consolidated with those of the Board of Governors or the Federal Reserve System. Section 152 of the Dodd-Frank Act established the Office of Financial Research (OFR) within the Treasury. The Board of Governors funds the Bureau and OFR through assessments on the Reserve Banks as required by the Dodd-Frank Act. The Reserve Banks reviewed the law and evaluated the design of and their relationships to the Bureau and the OFR and determined that neither should be consolidated in the Reserve Banks' combined financial statements.

*b. Gold and Special Drawing Rights Certificates*

The Secretary of the Treasury is authorized to issue gold and special drawing rights (SDR) certificates to the Reserve Banks. Upon authorization, the Reserve Banks acquire gold certificates by crediting equivalent amounts in dollars to the account established for the Treasury. The gold certificates held by the Reserve Banks are required to be backed by the gold owned by the Treasury. The Treasury may reacquire the gold certificates at any time and the Reserve Banks must deliver them to the Treasury. At such time, the Treasury's account is charged, and the Reserve Banks' gold certificate accounts are reduced. The value of gold for purposes of backing the gold certificates is set by law at \$42 2/9 per fine troy ounce. The Board of Governors allocates the gold certificates among the Reserve Banks once a year based on the average Federal Reserve notes outstanding at each Reserve Bank.

SDR certificates are issued by the International Monetary Fund (IMF) to its members in proportion to each member's quota in the IMF at the time of issuance. SDR certificates serve as a supplement to international monetary reserves and may be transferred from one national monetary authority to another. Under the law providing for U.S. participation in the SDR system, the Secretary of the Treasury is authorized to issue SDR certificates to the Reserve Banks. When SDR certificates are issued to the Reserve Banks, equivalent amounts in U.S. dollars are credited to the account established for the Treasury and the Reserve Banks' SDR certificate accounts are increased. The Reserve Banks are required to purchase SDR certificates, at the direction of the 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 the Reserve Banks based upon each Reserve Bank's Federal Reserve notes outstanding at the end of the preceding year. SDRs are recorded by the Bank at original cost. In 2009, the Treasury issued \$3 billion in SDR certificates to the Reserve Banks, of which \$212 million was allocated to the Bank. There were no SDR transactions in 2010.

*c. Coin*

The amount reported as coin in the Statements of Condition represents the face value of all United States coin held by the Bank. The Bank buys coin at face value from the U.S. Mint in order to fill depository institution orders.

*d. Loans*

Loans to depository institutions are reported at their outstanding principal balances, and interest income is recognized on an accrual basis.

Loans are impaired when current information and events indicate that it is probable that the Bank will not receive the principal and interest that is due in accordance with the contractual terms of the loan agreement. Impaired loans are evaluated to determine whether an allowance for loan loss is required. The Bank has developed procedures for assessing the adequacy of any allowance for loan losses using all available information to identify incurred losses. This assessment includes monitoring information obtained from banking supervisors, borrowers, and other sources to assess the credit condition of the borrowers and, as appropriate, evaluating collateral values. Generally, the Bank would discontinue recognizing interest income on impaired loans until the borrower's repayment

## NOTES TO FINANCIAL STATEMENTS

performance demonstrates principal and interest would be received in accordance with the terms of the loan agreement. If the Bank discontinues recording interest on an impaired loan, cash payments are first applied to principal until the loan balance is reduced to zero; subsequent payments are applied as recoveries of amounts previously deemed uncollectible, if any, and then as interest income.

*e. Securities Purchased Under Agreements to Resell, Securities Sold Under Agreements to Repurchase, and Securities Lending*

The FRBNY may engage in purchases of securities with primary dealers under agreements to resell (repurchase transactions). These repurchase transactions are settled through a tri-party arrangement. In a tri-party arrangement, two commercial custodial banks manage the collateral clearing, settlement, pricing, and pledging, and provide cash and securities custodial services for and on behalf of the Bank and counterparty. The collateral pledged must exceed the principal amount of the transaction by a margin determined by the FRBNY for each class and maturity of acceptable collateral. Collateral designated by the FRBNY as acceptable under repurchase transactions primarily includes Treasury securities (including TIPS and STRIP Treasury securities); direct obligations of several Federal agency and GSE-related agencies, including Fannie Mae and Freddie Mac; and pass-through MBS of Fannie Mae, Freddie Mac, and Ginnie Mae. The repurchase transactions are accounted for as financing transactions with the associated interest income recognized over the life of the transaction. Repurchase transactions are reported at their contractual amount as “System Open Market Account: Securities purchased under agreements to resell,” and the related accrued interest receivable is reported as a component of “Accrued interest receivable” in the Statements of Condition.

The FRBNY may engage in sales of securities under agreements to repurchase (reverse repurchase transactions) with primary dealers and, beginning August 2010, with selected money market funds, as an open market operation. These reverse repurchase transactions may be executed through a tri-party arrangement, similar to repurchase transactions. Reverse repurchase transactions may also be executed with foreign official and international account holders as part of a service offering. Reverse repurchase agreements are collateralized by a pledge of an amount of Treasury securities, GSE debt securities, and Federal agency and GSE MBS that are held in the SOMA. Reverse repurchase transactions are accounted for as financing transactions, and the associated interest expense is recognized over the life of the transaction. These transactions are reported at their contractual amounts as “System Open Market Account: Securities sold under agreements to repurchase” and the related accrued interest payable is reported as a component of “Other liabilities” in the Statements of Condition.

Treasury securities and GSE debt securities held in the SOMA may be lent to primary dealers to facilitate the effective functioning of the domestic securities markets. Overnight securities lending transactions are fully collateralized by Treasury securities that have fair values in excess of the securities lent. The FRBNY charges the primary dealer a fee for borrowing securities, and these fees are reported as a component of “Other income” in the Statements of Income and Comprehensive Income.

Activity related to securities purchased under agreements to resell, securities sold under agreements to repurchase, and securities lending is allocated to each of the Reserve Banks on a percentage basis derived from an annual settlement of the interdistrict settlement account that occurs in April each year.

*f. Treasury Securities; Government-Sponsored Enterprise Debt Securities; Federal Agency and Government-Sponsored Enterprise Mortgage-Backed Securities; Foreign Currency Denominated Assets; and Warehousing Agreements*

Interest income on Treasury securities, GSE debt securities, and foreign currency denominated assets comprising the SOMA is accrued on a straight-line basis. Interest income on Federal agency and GSE MBS is accrued using the interest method and includes amortization of premiums, accretion of discounts, and gains or losses associated with principal paydowns. Premiums and discounts related to Federal agency and GSE MBS are amortized over the term of the security to stated maturity, and the amortization of premiums and accretion of discounts are accelerated when principal payments are received. Paydown gains and losses represent the difference between the principal amount paid and the amortized cost basis of the related security. Gains and losses resulting from sales of securities are determined by specific issue based on average cost. Treasury securities, GSE debt securities, and Federal agency and GSE MBS are reported net of premiums and discounts on the Statements of Condition and interest income on those securities is reported net of the amortization of premiums and accretion of discounts on the Statements of Income and Comprehensive Income.

## NOTES TO FINANCIAL STATEMENTS

In addition to outright purchases of Federal agency and GSE MBS that are held in the SOMA, the FRBNY entered into dollar roll transactions (dollar rolls), which primarily involve an initial transaction to purchase or sell “to be announced” (TBA) MBS for delivery in the current month combined with a simultaneous agreement to sell or purchase TBA MBS on a specified future date. The FRBNY also executed a limited number of TBA MBS coupon swap transactions, which involve a simultaneous sale of a TBA MBS and purchase of another TBA MBS of a different coupon rate. The FRBNY’s participation in the dollar roll and coupon swap markets furthers the MBS purchase program goal of providing support to the mortgage and housing markets and fostering improved conditions in financial markets more generally. The FRBNY accounts for outstanding commitments under dollar roll and coupon swaps on a settlement-date basis. Based on the terms of the FRBNY dollar roll and coupon swap transactions, transfers of MBS upon settlement of the initial TBA MBS transactions are accounted for as purchases or sales in accordance with FASB ASC Topic 860 (ASC 860), *Transfers and Servicing*, and the related outstanding commitments are accounted for as sales or purchases upon settlement. Net gains (losses) resulting from dollar roll and coupon swap transactions are reported as “Non-interest income: System Open Market Account: Federal agency and government-sponsored enterprise mortgage-backed securities gains, net” in the Statements of Income and Comprehensive Income.

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 foreign currency denominated assets are reported as “Foreign currency gains (losses), net” in the Statements of Income and Comprehensive Income.

Activity related to Treasury securities, GSE debt securities, and Federal agency and GSE MBS, including the premiums, discounts, and realized gains and losses, is allocated to each Reserve Bank on a percentage basis derived from an annual settlement of the inter-district settlement account that occurs in April of each year. Activity related to foreign currency denominated assets, including the premiums, discounts, and realized and unrealized gains and losses, 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.

Warehousing is an arrangement under which the FOMC has approved the exchange, at the request of the Treasury, of U.S. dollars for foreign currencies held by the Treasury over a limited period of time. The purpose of the warehousing facility is to supplement the U.S. dollar resources of the Treasury for financing purchases of foreign currencies and related international operations. Warehousing agreements are designated as held-for-trading purposes and are valued daily at current market exchange rates. Activity related to these agreements 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.

#### *g. Central Bank Liquidity Swaps*

Central bank liquidity swaps, which are transacted between the FRBNY and a foreign central bank, can be structured as either U.S. dollar liquidity or foreign currency liquidity swap arrangements.

Central bank liquidity swaps activity, including the related income and expense, 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. The foreign currency amounts associated with these central bank liquidity swap arrangements are revalued at current foreign currency market exchange rates.

#### *U.S. dollar liquidity swaps*

At the initiation of each U.S. dollar liquidity swap transaction, the foreign central bank transfers a specified amount of its currency to a restricted account for the FRBNY in exchange for U.S. dollars at the prevailing market exchange rate. Concurrent with this transaction, the FRBNY and the foreign central bank agree to a second transaction that obligates the foreign central bank to return the U.S. dollars and the FRBNY to return the foreign currency on a specified future date at the same exchange rate as the initial transaction. The Bank’s allocated portion of the foreign currency amounts that the FRBNY acquires is reported as “Central bank liquidity swaps” on the Statements of Condition. Because the swap transaction will be unwound at the same U.S. dollar amount and exchange rate that were used in the initial transaction, the recorded value of the foreign currency amounts is not affected by changes in the market exchange rate.

The foreign central bank compensates the FRBNY based on the foreign currency amounts it holds for the FRBNY. The FRBNY recognizes compensation during the term of the swap transaction and reports it as “Interest income: Central bank liquidity swaps” in the Statements of Income and Comprehensive Income.



## NOTES TO FINANCIAL STATEMENTS

### *Foreign currency liquidity swaps*

The structure of foreign currency liquidity swap transactions involves the transfer by the FRBNY, at the prevailing market exchange rate, of a specified amount of U.S. dollars to an account for the foreign central bank in exchange for its currency. The foreign currency amount received would be reported as a liability by the Bank.

### *h. Interdistrict Settlement Account*

At the close of business each day, each Reserve Bank aggregates the payments due to or from other Reserve Banks. These payments result from transactions between the Reserve Banks and transactions that involve depository institution accounts held by other Reserve Banks, such as Fedwire funds and securities transfers and check and ACH transactions. The cumulative net amount due to or from the other Reserve Banks is reflected in the “Interdistrict settlement account” in the Statements of Condition.

### *i. 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 the estimated useful lives of the assets, which range from two to fifty years. Major alterations, renovations, and improvements are capitalized at cost as additions to the asset accounts and are depreciated over the remaining useful life of the asset or, if appropriate, over the unique useful life of the alteration, renovation, or improvement. Maintenance, repairs, and minor replacements are charged to operating expense in the year incurred.

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

Capitalized assets, including software, buildings, leasehold improvements, furniture, and equipment, are impaired and an adjustment is recorded when events or changes in circumstances indicate that the carrying amount of assets or asset groups is not recoverable and significantly exceeds the assets’ fair value.

### *j. Federal Reserve Notes*

Federal Reserve notes are the circulating currency of the United States. These notes, which are identified as issued to a specific Reserve Bank, must be fully collateralized. All of the Bank’s assets are eligible to be pledged as collateral. The collateral value is equal to the book value of the collateral tendered with the exception of securities, for which the collateral value is equal to the par value of the securities tendered. The par value of securities sold under agreements to repurchase is deducted from the eligible collateral value.

The Board of Governors may, at any time, call upon a Reserve Bank for additional security to adequately collateralize outstanding 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 issued to 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, Federal Reserve notes are obligations of the United States government.

“Federal Reserve notes outstanding, net” in the Statements of Condition represents the Bank’s Federal Reserve notes outstanding, reduced by the Bank’s currency holdings of \$12,147 million and \$12,092 million at December 31, 2010 and 2009, respectively.

At December 31, 2010 and 2009, all Federal Reserve notes issued to the Reserve Banks were fully collateralized. At December 31, 2010, all gold certificates, all special drawing right certificates, and \$925 billion of domestic securities held in the SOMA were pledged as collateral. At December 31, 2010, no investments denominated in foreign currencies were pledged as collateral.

### *k. Deposits*

#### *Depository Institutions*

Depository institutions deposits represent the reserve and service-related balances in the accounts that depository institutions hold at the Bank. The interest rates paid on required reserve balances and excess balances are determined by the Board of Governors,

## NOTES TO FINANCIAL STATEMENTS

based on an FOMC-established target range for the federal funds rate. Interest payable is reported as “Interest payable to depository institutions” on the Statements of Condition.

The Term Deposit Facility (TDF) consists of deposits with specific maturities held by eligible institutions at the Reserve Banks. The Reserve Banks pay interest on these deposits at interest rates determined by auction. Interest payable is reported as “Interest payable to depository institutions” on the Statements of Condition. There were no deposits held by the Bank under the TDF at December 31, 2010.

#### *Other*

Other deposits include foreign central bank and foreign government deposits held at the FRBNY that are allocated to the Bank.

#### *l. Items in Process of Collection and Deferred Credit Items*

“Items in process of collection” primarily represents amounts attributable to checks that have been deposited for collection and that, as of the balance sheet date, have not yet been presented to the paying bank. “Deferred credit items” are the counterpart liability to items in process of collection. The amounts in this account arise from deferring credit for deposited items until the amounts are collected. The balances in both accounts can vary significantly.

#### *m. 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. A member bank is liable for Reserve Bank liabilities up to twice the par value of stock subscribed by it.

By law, each Reserve 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. To meet the Federal Reserve Act requirement that annual dividends be deducted from net earnings, dividends are presented as a distribution of comprehensive income in the Statements of Income and Comprehensive Income.

#### *n. Surplus*

The Board of Governors requires the Reserve Banks to maintain a surplus equal to the amount of capital paid-in as of December 31 of each year. Accumulated other comprehensive income is reported as a component of “Surplus” in the Statements of Condition and the Statements of Changes in Capital. Additional information regarding the classifications of accumulated other comprehensive income is provided in Notes 12 and 13.

#### *o. Interest on Federal Reserve Notes*

The Board of Governors requires the Reserve Banks to transfer excess earnings to the Treasury as interest on Federal Reserve notes after providing for the costs of operations, payment of dividends, and reservation of an amount necessary to equate surplus with capital paid-in. This amount is reported as “Payments to Treasury as interest on Federal Reserve notes” in the Statements of Income and Comprehensive Income. The amount due to the Treasury is reported as “Accrued interest on Federal Reserve notes” in the Statements of Condition.

If earnings during the year are not sufficient to provide for the costs of operations, payment of dividends, and equating surplus and capital paid-in, payments to the Treasury are suspended. A deferred asset is recorded that represents the amount of net earnings a Reserve Bank will need to realize before remittances to Treasury resume. This deferred asset is periodically reviewed for impairment.

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 Treasury in the following year.

#### *p. Income and Costs Related to Treasury Services*

When directed by the Secretary of the Treasury, the Bank is required by the Federal Reserve Act to serve as fiscal agent and depository of the United States Government. By statute, the Treasury has appropriations to pay for these services. During the years ended December 31, 2010 and 2009, the Bank was reimbursed for all services provided to the Treasury as its fiscal agent.

## NOTES TO FINANCIAL STATEMENTS

*q. Compensation Received for Service Costs Provided and Compensation Paid for Service Costs Incurred*

The Federal Reserve Bank of Atlanta (FRBA) has overall responsibility for managing the Reserve Banks' provision of check and ACH services to depository institutions and, as a result, recognizes total System revenue for these services on its Statements of Income and Comprehensive Income. The FRBNY manages the Reserve Banks' provision of Fedwire funds and securities services and recognizes total System revenue for these services on its Consolidated Statements of Income and Comprehensive Income. Similarly, the Bank has overall responsibility for managing the Reserve Banks' provision of electronic access services to depository institutions and, as a result, recognizes total System revenue for these services on its Statements of Income and Comprehensive Income. The FRBA, the FRBNY, and the Bank compensate the applicable Reserve Banks for the costs incurred to provide these services. Compensation received by the Bank for providing check, ACH, and Fedwire funds and securities services is reported as "Compensation received for service costs provided" in the Statements of Income and Comprehensive Income. Compensation paid by the Bank for electronic access services is reported as "Compensation paid for service costs incurred" in the Statements of Income and Comprehensive Income.

*r. Assessments*

The Board of Governors assesses the Reserve Banks to fund its operations and the operations of the Bureau and, for a two-year period, OFR. These assessments are allocated to each Reserve Bank based on each Reserve Bank's capital and surplus balances as of December 31 of the prior year for the Board of Governor's operations and as of the most recent quarter for the Bureau and OFR operations. The Board of Governors also assesses each Reserve Bank for the expenses incurred by the Treasury to produce 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 prior year.

During the period prior to the Bureau transfer date of July 21, 2011, there is no fixed limit on the funding that can be provided to the Bureau and that is assessed to the Reserve Banks; the Board of Governors must provide the amount estimated by the Secretary of the Treasury needed to carry out the authorities granted to the Bureau under the Dodd-Frank Act and other federal law. After the transfer date, the Dodd-Frank Act requires the Board of Governors to fund the Bureau in an amount not to exceed a fixed percentage of the total operating expenses of the Federal Reserve System as reported in the Board of Governors' 2009 annual report. The fixed percentage of total operating expenses of the System is 10% for 2011, 11% for 2012, and 12% for 2013. After 2013, the amount will be adjusted in accordance with the provisions of the Dodd-Frank Act.

The Board of Governors assesses the Reserve Banks to fund the operations of the OFR for the two-year period following enactment of the Dodd-Frank Act; thereafter, the OFR will be funded by fees assessed on certain bank holding companies.

*s. 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 \$1 million for the years ended December 31, 2010 and 2009, respectively, and are reported as a component of "Operating expenses: Occupancy" in the Statements of Income and Comprehensive Income. During the year ended December 31, 2009, the Bank received refunds in the amount of \$2 million related to taxes on real property.

*t. Restructuring Charges*

The Reserve Banks recognize restructuring charges for exit or disposal costs incurred as part of the closure of business activities in a particular location, the relocation of business activities from one location to another, or a fundamental reorganization that affects the nature of operations. Restructuring charges may include costs associated with employee separations, contract terminations, and asset impairments. Expenses are recognized in the period in which the Bank commits to a formalized restructuring plan or executes the specific actions contemplated in the plan and all criteria for financial statement recognition have been met.

Note 14 describes the Bank's restructuring initiatives and provides information about the costs and liabilities associated with employee separations and contract terminations. Costs and liabilities associated with enhanced pension benefits in connection with the restructuring activities for all of the Reserve Banks are recorded on the books of the FRBNY. Costs and liabilities associated with enhanced postretirement benefits are discussed in Note 12.

The Bank had no significant restructuring activities in 2010 and 2009.



## NOTES TO FINANCIAL STATEMENTS

*u. Recently Issued Accounting Standards*

In June 2009, FASB issued Statement of Financial Accounting Standards 166, *Accounting for Transfers of Financial Assets – an amendment to FASB Statement No. 140*, (codified in ASC 860). The new standard revises the criteria for recognizing transfers of financial assets as sales and clarifies that the transferor must consider all arrangements when determining if the transferor has surrendered control. The adoption of this accounting guidance was effective for the Bank for the year beginning on January 1, 2010, and did not have a material effect on the Bank's financial statements.

In July 2010, the FASB issued Accounting Standards Update 2010-20, *Receivables* (Topic 310), which requires additional disclosures about the allowance for credit losses and the credit quality of loan portfolios. The additional disclosures include a rollforward of the allowance for credit losses on a disaggregated basis and more information, by type of receivable, on credit quality indicators, including the amount of certain past due receivables and troubled debt restructurings and significant purchases and sales. The adoption of this accounting guidance is effective for the Bank on December 31, 2011, and is not expected to have a material effect on the Bank's financial statements.

**5. Loans**

The remaining maturity distribution of loans outstanding at December 31, 2010, and total loans outstanding at December 31, 2009, were as follows (in millions):

|   | 2010           |       | 2009     |
|---|----------------|-------|----------|
|   | Within 15 days | Total | Total    |
| Primary, secondary, and seasonal credit | \$ 79          | \$ 79 | \$ 459   |
| TAF                                     | -              | -     | 1,934    |
| Loans to depository institutions        | \$ 79          | \$ 79 | \$ 2,393 |

*Loans to Depository Institutions*

The Bank offers primary, secondary, and seasonal credit to eligible borrowers, and each program has its own interest rate. Interest is accrued using the applicable interest rate established at least every 14 days by the Bank's board of directors, subject to review and determination by the Board of Governors. Primary and secondary credit are extended on a short-term basis, typically overnight, whereas seasonal credit may be extended for a period of up to nine months.

Primary, secondary, and seasonal credit lending is collateralized to the satisfaction of the Bank to reduce credit risk. Assets eligible to collateralize these loans include consumer, business, and real estate loans; Treasury securities; GSE debt securities; foreign sovereign debt; municipal, corporate, and state and local government obligations; asset-backed securities; corporate bonds; commercial paper; and bank-issued assets, such as certificates of deposit, bank notes, and deposit notes. Collateral is assigned a lending value that is deemed appropriate by the Bank, which is typically fair value reduced by a margin.

Depository institutions that are eligible to borrow under the Bank's primary credit program were eligible to participate in the TAF program. Under the TAF program, the Reserve Banks conducted auctions for a fixed amount of funds, with the interest rate determined by the auction process, subject to a minimum bid rate. TAF loans were extended on a short-term basis, with terms ranging from 28 to 84 days. All advances under the TAF program were collateralized to the satisfaction of the Bank. All TAF loan principal and accrued interest was fully repaid.

Loans to depository institutions are monitored daily to ensure that borrowers continue to meet eligibility requirements for these programs. The financial condition of borrowers is monitored by the Bank and, if a borrower no longer qualifies for these programs, the Bank will generally request full repayment of the outstanding loan or, for primary or seasonal credit lending, may convert the loan to a secondary credit loan.

## NOTES TO FINANCIAL STATEMENTS

Collateral levels are reviewed daily against outstanding obligations and borrowers that no longer have sufficient collateral to support outstanding loans are required to provide additional collateral or to make partial or full repayment.

At December 31, 2010 and 2009, the Bank did not have any impaired loans to depository institutions, and no allowance for loan losses was required.

**6. Treasury Securities; Government-Sponsored Enterprise Debt Securities; Federal Agency and Government-Sponsored Enterprise Mortgage-Backed Securities; Securities Purchased Under Agreements to Resell; 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 7.539 percent and 10.821 percent at December 31, 2010 and 2009, respectively.

The Bank's allocated share of Treasury securities, GSE debt securities, and Federal agency and GSE MBS, excluding accrued interest, held in the SOMA at December 31 was as follows (in millions):

| 2010                       |           |                      |                      |                      |            |
|----------------------------|-----------|----------------------|----------------------|----------------------|------------|
|                            | Par       | Unamortized premiums | Unaccreted discounts | Total amortized cost | Fair value |
| Bills                      | \$ 1,389  | \$ -                 | \$ -                 | \$ 1,389             | \$ 1,389   |
| Notes                      | 58,295    | 1,060                | (58)                 | 59,297               | 60,663     |
| Bonds                      | 17,323    | 2,468                | (43)                 | 19,748               | 21,844     |
| Total Treasury securities  | \$ 77,007 | \$ 3,528             | \$ (101)             | \$ 80,434            | \$ 83,896  |
| GSE debt securities        | \$ 11,117 | \$ 417               | \$ (2)               | \$ 11,532            | \$ 11,819  |
| Federal agency and GSE MBS | \$ 74,794 | \$ 1,063             | \$ (117)             | \$ 75,740            | \$ 77,347  |

| 2009                       |           |                      |                      |                      |            |
|----------------------------|-----------|----------------------|----------------------|----------------------|------------|
|                            | Par       | Unamortized premiums | Unaccreted discounts | Total amortized cost | Fair value |
| Bills                      | \$ 1,993  | \$ -                 | \$ -                 | \$ 1,993             | \$ 1,993   |
| Notes                      | 61,499    | 708                  | (107)                | 62,100               | 63,091     |
| Bonds                      | 20,543    | 2,647                | (68)                 | 23,122               | 24,966     |
| Total Treasury securities  | \$ 84,035 | \$ 3,355             | \$ (175)             | \$ 87,215            | \$ 90,050  |
| GSE debt securities        | \$ 17,301 | \$ 812               | \$ (3)               | \$ 18,110            | \$ 18,119  |
| Federal agency and GSE MBS | \$ 98,296 | \$ 1,310             | \$ (168)             | \$ 99,438            | \$ 98,936  |

The total of the Treasury securities, GSE debt securities, and Federal agency and GSE MBS, net, excluding accrued interest, held in the SOMA at December 31 was as follows (in millions):

| 2010                       |                | 2009       |            |
|----------------------------|----------------|------------|------------|
|                            | Amortized cost |            | Fair value |
| Bills                      | \$ 18,422      | \$ 18,423  | \$ 18,423  |
| Notes                      | 786,575        | 573,877    | 583,040    |
| Bonds                      | 261,955        | 213,672    | 230,717    |
| Total Treasury securities  | \$ 1,066,952   | \$ 805,972 | \$ 832,180 |
| GSE debt securities        | \$ 152,972     | \$ 167,362 | \$ 167,444 |
| Federal agency and GSE MBS | \$ 1,004,695   | \$ 918,927 | \$ 914,290 |

## NOTES TO FINANCIAL STATEMENTS

The fair value amounts in the above tables are presented solely for informational purposes. Although the fair value of security holdings can be substantially greater than or less than the recorded value at any point in time, these unrealized gains or losses have no effect on the ability of the Reserve Banks, as the central bank, to meet their financial obligations and responsibilities. The fair value of Federal agency and GSE MBS was determined using a model-based approach that considers observable inputs for similar securities; fair value for all other SOMA security holdings was determined by reference to quoted prices for identical securities.

The fair value of the fixed-rate Treasury securities, GSE debt securities, and Federal agency and GSE MBS in the SOMA's holdings is subject to market risk, arising from movements in market variables, such as interest rates and securities prices. The fair value of Federal agency and GSE MBS is also affected by the rate of prepayments of mortgage loans underlying the securities.

The following table provides additional information on the amortized cost and fair values of the Federal agency and GSE MBS portfolio at December 31, 2010 and 2009 (in millions):

| Distribution of MBS holdings<br>by coupon rate | 2010           |              | 2009           |            |
|--|----------------|--------------|----------------|------------|
|  | Amortized cost | Fair value   | Amortized cost | Fair value |
| Allocated to the Bank:                         |                |              |                |            |
| 3.5%   | \$ 26          | \$ 27        | \$ 39          | \$ 39      |
| 4.0%   | 12,640         | 12,695       | 18,409         | 17,935     |
| 4.5%   | 37,518         | 38,356       | 47,002         | 46,709     |
| 5.0%   | 17,446         | 17,908       | 21,146         | 21,254     |
| 5.5%   | 7,020          | 7,228        | 11,187         | 11,317     |
| 6.0%   | 973            | 1,008        | 1,375          | 1,396      |
| 6.5%   | 117            | 125          | 280            | 86         |
| Total  | \$ 75,740      | \$ 77,347    | \$ 99,438      | \$ 98,936  |
| SOMA:  |                |              |                |            |
| 3.5%   | \$ 341         | \$ 352       | \$ 363         | \$ 365     |
| 4.0%   | 167,675        | 168,403      | 170,119        | 165,740    |
| 4.5%   | 497,672        | 508,798      | 434,352        | 431,646    |
| 5.0%   | 231,420        | 237,545      | 195,418        | 196,411    |
| 5.5%   | 93,119         | 95,873       | 103,379        | 104,583    |
| 6.0%   | 12,910         | 13,376       | 12,710         | 12,901     |
| 6.5%   | 1,558          | 1,656        | 2,586          | 2,644      |
| Total  | \$ 1,004,695   | \$ 1,026,003 | \$ 918,927     | \$ 914,290 |

Financial information related to securities purchased under agreements to resell and securities sold under agreements to repurchase for the years ended December 31, was as follows (in millions):

|   | Securities purchased under<br>agreements to resell |        | Securities sold under<br>agreements to repurchase |           |
|---|--|--------|---|-----------|
|   | 2010   | 2009   | 2010  | 2009      |
| Allocated to the Bank:                            |  |        |   |           |
| Contract amount outstanding, end of year          | \$ -   | \$ -   | \$ 4,501  | \$ 8,411  |
| Average daily amount outstanding, during the year | -  | 319    | 4,955   | 6,922     |
| Maximum balance outstanding, during the year      | -  | 7,061  | 8,411   | 8,411     |
| Securities pledged (par value), end of year       | -  | -      | 3,290   | 8,425     |
| SOMA:   |  |        |   |           |
| Contract amount outstanding, end of year          | \$ -   | \$ -   | \$ 59,703   | \$ 77,732 |
| Average daily amount outstanding, during the year | -  | 3,616  | 58,476  | 67,837    |
| Maximum balance outstanding, during the year      | -  | 80,000 | 77,732  | 89,525    |
| Securities pledged (par value), end of year       | -  | -      | 43,642  | 77,860    |



## NOTES TO FINANCIAL STATEMENTS

The contract amounts for securities purchased under agreements to resell and securities sold under agreements to repurchase approximate fair value. The FRBNY executes transactions for the purchase of securities under agreements to resell primarily to temporarily add reserve balances to the banking system. Conversely, transactions to sell securities under agreements to repurchase are executed primarily to temporarily drain reserve balances from the banking system.

The remaining maturity distribution of Treasury securities, GSE debt securities, Federal agency and GSE MBS bought outright, and securities sold under agreements to repurchase that were allocated to the Bank at December 31, 2010 was as follows (in millions):

|  | Within<br>15 days | 16 days to<br>90 days | 91 days to<br>1 year | Over 1 year<br>to 5 years | Over 5 year<br>to 10 years | Over 10<br>years | Total     |
|--|-------------------|-----------------------|----------------------|---------------------------|----------------------------|------------------|-----------|
| Treasury securities<br>(par value)                                     | \$ 739            | \$ 1,871              | \$ 4,090             | \$ 33,139                 | \$ 25,176                  | \$ 11,992        | \$ 77,007 |
| GSE debt securities<br>(par value)                                     | 85                | 1,043                 | 2,149                | 5,356                     | 2,307                      | 177              | 11,117    |
| Federal agency and GSE<br>MBS (par value)                              | -                 | -                     | -                    | 2                         | 2                          | 74,790           | 74,794    |
| Securities sold under<br>agreements to repurchase<br>(contract amount) | 4,501             | -                     | -                    | -                         | -                          | -                | 4,501     |

Federal agency and GSE MBS are reported at stated maturity in the table above. The estimated weighted average life of these securities at December 31, 2010, which differs from the stated maturity primarily because the weighted average life factors in prepayment assumptions, is approximately 4.2 years.

The par value of Treasury and GSE debt securities that were loaned from the SOMA at December 31, was as follows (in millions):

|                     | Allocated to the Bank |          | SOMA      |           |
|---------------------|-----------------------|----------|-----------|-----------|
|                     | 2010                  | 2009     | 2010      | 2009      |
| Treasury securities | \$ 1,665              | \$ 2,219 | \$ 22,081 | \$ 20,502 |
| GSE debt securities | 121                   | 120      | 1,610     | 1,108     |

Other investments consist of cash and short-term investments related to the Federal agency and GSE MBS portfolio. Other liabilities, which are related to purchases of Federal agency and GSE MBS, arise from the failure of a seller to deliver securities to the FRBNY on the settlement date. Although the Bank has ownership of and records its investments in the MBS as of the contractual settlement date, it is not obligated to make payment until the securities are delivered, and the amount reported as other liabilities represents the Bank's obligation to pay for the securities when delivered. The amount of other investments and other liabilities allocated to the Bank and held in the SOMA at December 31, was as follows (in millions):

|                   | Allocated to the Bank |      | SOMA |      |
|-------------------|-----------------------|------|------|------|
|                   | 2010                  | 2009 | 2010 | 2009 |
| Other investments | \$ -                  | \$ 1 | \$ - | \$ 5 |
| Other liabilities | -                     | 65   | -    | 601  |

The FRBNY enters into commitments to buy Treasury and GSE debt securities and records the related securities on a settlement-date basis. There were no commitments to buy Treasury and GSE debt securities as of December 31, 2010.

The FRBNY enters into commitments to buy Federal agency and GSE MBS and records the related MBS on a settlement-date basis. There were no commitments to buy or sell Federal agency or GSE MBS as of December 31, 2010.

## NOTES TO FINANCIAL STATEMENTS

During the years ended December 31, 2010 and 2009, the Reserve Banks recorded net gains from dollar roll and coupon swap related transactions of \$782 million and \$879 million, respectively, of which \$71 million and \$101 million, respectively, was allocated to the Bank. These net gains are reported as “Non-interest income: Federal agency and government-sponsored enterprise mortgage-backed securities gains, net” in the Statements of Income and Comprehensive Income.

## 7. Foreign Currency Denominated Assets

The FRBNY holds foreign currency deposits with foreign central banks and the Bank for International Settlements and invests in foreign government debt instruments. These foreign government debt instruments are guaranteed as to principal and interest by the issuing foreign governments. In addition, the FRBNY enters into transactions to purchase Euro-denominated government debt securities under agreements to resell for which the accepted collateral is the debt instruments issued by the governments of Belgium, France, Germany, Italy, the Netherlands, and Spain.

The Bank’s allocated share of foreign currency denominated assets was approximately 2.416 percent and 3.338 percent at December 31, 2010 and 2009, respectively.

The Bank’s allocated share of foreign currency denominated assets, including accrued interest, valued at amortized cost and foreign currency market exchange rates at December 31, was as follows (in millions):

|   | 2010   | 2009   |
|---|--------|--------|
| Euro:   |        |        |
| Foreign currency deposits                       | \$ 170 | \$ 247 |
| Securities purchased under agreements to resell | 60     | 86     |
| Government debt instruments                     | 111    | 165    |
| Japanese yen:                                   |        |        |
| Foreign currency deposits                       | 94     | 114    |
| Government debt instruments                     | 194    | 232    |
| Total allocated to the Bank                     | \$ 629 | \$ 844 |

At December 31, 2010 and 2009, the fair value of foreign currency denominated assets, including accrued interest, allocated to the Bank was \$633 million and \$850 million, respectively. The fair value of government debt instruments was determined by reference to quoted prices for identical securities. The cost basis of foreign currency deposits and securities purchased under agreements to resell, adjusted for accrued interest, approximates fair value. Similar to the Treasury securities, GSE debt securities, and Federal agency and GSE MBS discussed in Note 6, unrealized gains or losses have no effect on the ability of a Reserve Bank, as the central bank, to meet its financial obligations and responsibilities. The fair value is presented solely for informational purposes.

Total Reserve Bank foreign currency denominated assets were \$26,049 million and \$25,272 million at December 31, 2010 and 2009, respectively. At December 31, 2010 and 2009, the fair value of the total Reserve Bank foreign currency denominated assets, including accrued interest, was \$26,213 million and \$25,480 million, respectively.

The remaining maturity distribution of foreign currency denominated assets that were allocated to the Bank at December 31, 2010, was as follows (in millions):

|                             | Within<br>15 days | 16 days<br>to 90 days | 91 day<br>to 1 years | Over 1 year<br>to 5 years | Total allocated<br>to the Bank |
|-----------------------------|-------------------|-----------------------|----------------------|---------------------------|--------------------------------|
| Euro                        | \$ 131            | \$ 72                 | \$ 49                | \$ 89                     | \$ 341                         |
| Japanese yen                | 99                | 14                    | 59                   | 116                       | 288                            |
| Total allocated to the Bank | \$ 230            | \$ 86                 | \$ 108               | \$ 205                    | \$ 629                         |

## NOTES TO FINANCIAL STATEMENTS

At December 31, 2010 and 2009, the authorized warehousing facility was \$5 billion, with no balance outstanding.

There were no transactions related to the authorized reciprocal currency arrangements with the Bank of Canada and the Bank of Mexico during the years ended December 31, 2010 and 2009.

There were no foreign exchange contracts outstanding as of December 31, 2010.

The FRBNY enters into commitments to buy foreign government debt instruments and records the related securities on a settlement-date basis. As of December 31, 2010, there were \$209 million of outstanding commitments to purchase Euro-denominated government debt instruments, of which \$5 million was allocated to the Bank. These securities settled on January 4, 2011, and replaced Euro-denominated government debt instruments held in the SOMA that matured on that date.

In connection with its foreign currency activities, the FRBNY may enter into transactions that are subject to varying degrees of off-balance-sheet market risk and counterparty credit risk that result from their future settlement. The FRBNY controls these risks by obtaining credit approvals, establishing transaction limits, receiving collateral in some cases, and performing daily monitoring procedures.

## 8. Central Bank Liquidity Swaps

### *U.S. Dollar Liquidity Swaps*

The Bank's allocated share of U.S. dollar liquidity swaps was approximately 2.416 percent and 3.338 percent at December 31, 2010 and 2009, respectively.

The total foreign currency held under U.S. dollar liquidity swaps in the SOMA at December 31, 2010 and 2009, was \$75 million and \$10,272 million, respectively, of which \$2 million and \$343 million, respectively, was allocated to the Bank. All of the U.S. dollar liquidity swaps outstanding at December 31, 2010 were transacted with the European Central Bank and had remaining maturity distributions of less than 15 days.

### *Foreign Currency Liquidity Swaps*

There were no transactions related to the foreign currency liquidity swaps during the years ended December 31, 2010 and 2009.

## 9. Bank Premises, Equipment, and Software

Bank premises and equipment at December 31 were as follows (in millions):

|  | 2010   | 2009   |
|--|--------|--------|
| Bank premises and equipment:                             |        |        |
| Land and land improvements                               | \$ 17  | \$ 17  |
| Buildings  | 261    | 249    |
| Building machinery and equipment                         | 36     | 34     |
| Construction in progress                                 | 9      | 10     |
| Furniture and equipment                                  | 65     | 60     |
| Subtotal   | 388    | 370    |
| Accumulated depreciation                                 | (148)  | (134)  |
| Bank premises and equipment, net                         | \$ 240 | \$ 236 |
| Depreciation expense,<br>for the years ended December 31 | \$ 18  | \$ 16  |

The Bank leases space to outside tenants with remaining lease terms ranging from one to ten years. Rental income from such leases was \$7 million and \$6 million for the years ended December 31, 2010 and 2009, respectively, and is reported as a component



## NOTES TO FINANCIAL STATEMENTS

of “Other income” in the Statements of Income and Comprehensive Income. Future minimum lease payments that the Bank will receive under noncancelable lease agreements in existence at December 31, 2010 are as follows (in millions):

|            |    |    |
|------------|----|----|
| 2011       | \$ | 5  |
| 2012       |    | 4  |
| 2013       |    | 4  |
| 2014       |    | 6  |
| 2015       |    | 4  |
| Thereafter |    | 14 |
| Total      | \$ | 37 |

The Bank had capitalized software assets, net of amortization, of \$3 million and \$2 million at December 31, 2010 and 2009, respectively. Amortization expense was \$1 million for each of the years ended December 31, 2010 and 2009. Capitalized software assets are reported as a component of “Other assets” in the Statements of Condition and the related amortization is reported as a component of “Operating expenses: Other” in the Statements of Income and Comprehensive Income.

#### 10. Commitments and Contingencies

Conducting its operations, the Bank enters into contractual commitments, normally with fixed expiration dates or termination provisions, at specific rates and for specific purposes.

At December 31, 2010, the Bank was obligated under noncancelable leases for premises and equipment with remaining terms ranging from one to approximately two 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 \$1 million for each of the years ended December 31, 2010 and 2009.

Future minimum rental payments under noncancelable operating leases, net of sublease rentals, with remaining terms of one year or more, at December 31, 2010, are as follows (in thousands):

|                                |                  |     |
|--------------------------------|------------------|-----|
|                                | Operating leases |     |
| 2011                           | \$               | 437 |
| 2012                           |                  | 315 |
| Future minimum rental payments | \$               | 752 |

At December 31, 2010, there were no material unrecorded unconditional purchase commitments or obligations in excess of one year.

Under the Insurance Agreement of the Federal Reserve Banks, each of the Reserve Banks has agreed to bear, on a per incident basis, a share of certain losses in excess of 1 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 of a Reserve Bank’s capital paid-in 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 the agreement at December 31, 2010 or 2009.

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.

## NOTES TO FINANCIAL STATEMENTS

**11. 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 employees of the Reserve Banks, Board of Governors, and Office of Employee Benefits of the Federal Reserve System (OEB) participate in the Retirement Plan for Employees of the Federal Reserve System (System Plan). In addition, employees at certain compensation levels participate in the Benefit Equalization Retirement Plan and certain Reserve Bank officers participate in the Supplemental Retirement Plan for Select Officers of the Federal Reserve Bank. In addition, under the Dodd-Frank Act, employees of the Bureau can elect to participate in the System Plan. There were no Bureau participants in the System Plan as of December 31, 2010.

The System Plan provides retirement benefits to employees of the Federal Reserve Banks, Board of Governors, and OEB and in the future will provide retirement benefits to certain employees of the Bureau. The FRBNY, on behalf of the System, recognizes the net asset or net liability and costs associated with the System Plan in its consolidated financial statements. During the years ended December 31, 2010 and 2009, costs associated with the System Plan were not reimbursed by other participating employers.

*Thrift Plan*

Employees of the Bank participate in the defined contribution Thrift Plan for Employees of the Federal Reserve System (Thrift Plan). The Bank matches employee contributions based on a specified formula. Effective April 1, 2009, the Bank matches 100 percent of the first 6 percent of employee contributions from the date of hire and provides an automatic employer contribution of 1 percent of eligible pay. For the first three months of the year ended December 31, 2009, the Bank matched 80 percent of the first 6 percent of employee contributions for employees with less than five years of service and 100 percent of the first 6 percent of employee contributions for employees with five or more years of service. The Bank's Thrift Plan contributions totaled \$7 million and \$6 million for the years ended December 31, 2010 and 2009, respectively, and are reported as a component of "Salaries and benefits" in the Statements of Income and Comprehensive Income.

**12. Postretirement Benefits Other Than Retirement Plans and Postemployment Benefits***Postretirement Benefits Other Than Retirement Plans*

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 the beginning and ending balances of the benefit obligation (in millions):

|  | 2010     | 2009     |
|--|----------|----------|
| Accumulated postretirement benefit obligation at January 1   | \$ 126.0 | \$ 114.6 |
| Service cost benefits earned during the period               | 3.2      | 2.9      |
| Interest cost on accumulated benefit obligation              | 7.1      | 7.0      |
| Net actuarial loss   | 4.9      | 10.4     |
| Special termination benefits loss                            | 0.3      | 0.4      |
| Contributions by plan participants                           | 2.0      | 1.8      |
| Benefits paid  | (10.2)   | (9.2)    |
| Medicare Part D subsidies                                    | 0.6      | 0.6      |
| Plan amendments  | -        | (2.5)    |
| Accumulated postretirement benefit obligation at December 31 | \$ 133.9 | \$ 126.0 |

## NOTES TO FINANCIAL STATEMENTS

At December 31, 2010 and 2009, the weighted-average discount rate assumptions used in developing the postretirement benefit obligation were 5.25 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):

|   | 2010      | 2009      |
|---|-----------|-----------|
| Fair value of plan assets at January 1                                    | \$ -      | \$ -      |
| Contributions by the employer   | 7.6       | 6.8       |
| Contributions by plan participants  | 2.0       | 1.8       |
| Benefits paid   | (10.2)    | (9.2)     |
| Medicare Part D subsidies   | 0.6       | 0.6       |
| Fair value of plan assets at December 31                                  | \$ -      | \$ -      |
| Unfunded obligation and accrued postretirement benefit cost               | \$ 133.9  | \$ 126.0  |
| Amounts included in accumulated other comprehensive loss are shown below: |           |           |
| Prior service cost  | \$ 2.6    | \$ 4.8    |
| Net actuarial loss  | (43.5)    | (42.6)    |
| Deferred curtailment gain   | -         | 0.1       |
| Total accumulated other comprehensive loss                                | \$ (40.9) | \$ (37.7) |

Accrued postretirement benefit costs are reported as a component of "Accrued benefit costs" in the Statements of Condition. For measurement purposes, the assumed health care cost trend rates at December 31 are as follows:

|   | 2010  | 2009  |
|---|-------|-------|
| Health care cost trend rate assumed for next year                                 | 8.00% | 7.50% |
| Rate to which the cost trend rate is assumed to decline (the ultimate trend rate) | 5.00% | 5.00% |
| Year that the rate reaches the ultimate trend rate                                | 2017  | 2015  |

Assumed health care cost trend rates have a significant effect on the amounts reported for health care plans. A 1 percentage point change in assumed health care cost trend rates would have the following effects for the year ended December 31, 2010 (in millions):

|  | 1 percentage point increase | 1 percentage point decrease |
|--|-----------------------------|-----------------------------|
| Effect on aggregate of service and interest cost components of net periodic postretirement benefit costs | \$ 1.6                      | \$ (1.3)                    |
| Effect on accumulated postretirement benefit obligation  | 15.3                        | (12.8)                      |



## NOTES TO FINANCIAL STATEMENTS

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

|   | 2010    | 2009    |
|---|---------|---------|
| Service cost-benefits earned during the period  | \$ 3.2  | \$ 2.8  |
| Interest cost on accumulated benefit obligation | 7.1     | 7.0     |
| Amortization of prior service cost              | (2.2)   | (1.9)   |
| Amortization of net actuarial loss              | 3.9     | 3.9     |
| Total periodic expense                          | 12.0    | 11.8    |
| Curtailment loss                                | -       | (1.2)   |
| Special termination benefits loss               | 0.3     | 0.4     |
| Net periodic postretirement benefit expense     | \$ 12.3 | \$ 11.0 |

Estimated amounts that will be amortized from accumulated other comprehensive loss into net periodic postretirement benefit expense in 2011 are shown below:

|                    |          |
|--------------------|----------|
| Prior service cost | \$ (0.8) |
| Net actuarial loss | 3.7      |
| Total              | \$ 2.9   |

Net postretirement benefit costs are actuarially determined using a January 1 measurement date. At January 1, 2010 and 2009, the weighted-average discount rate assumptions used to determine net periodic postretirement benefit costs were 5.75 percent and 6.00 percent, respectively.

Net periodic postretirement benefit expense is reported as a component of “Salaries and benefits” in the Statements of Income and Comprehensive Income.

The recognition of special termination benefit losses is primarily the result of enhanced retirement benefits provided to employees during the restructuring described in Note 14. A curtailment gain associated with restructuring programs that are described in Note 14 was recognized in net income in the year ended December 31, 2009, related to employees who terminated employment during 2009. A deferred curtailment gain was recorded in 2007 as a component of accumulated other comprehensive loss; the gain is recognized in net income in 2009.

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 under 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 are reflected in actuarial loss in the accumulated postretirement benefit obligation and net periodic postretirement benefit expense.

Federal Medicare Part D subsidy receipts were \$0.6 million and \$0.8 million in the years ended December 31, 2010 and 2009, respectively. Expected receipts in 2011, related to benefits paid in the years ended December 31, 2010 and 2009, are \$0.2 million.

## NOTES TO FINANCIAL STATEMENTS

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

|             | Without subsidy | With subsidy |
|-------------|-----------------|--------------|
| 2011        | \$ 8.4          | \$ 7.8       |
| 2012        | 8.8             | 8.1          |
| 2013        | 9.2             | 8.4          |
| 2014        | 9.4             | 8.5          |
| 2015        | 9.5             | 8.5          |
| 2016 - 2020 | 49.8            | 43.8         |
| Total       | \$ 95.1         | \$ 85.1      |

### Postemployment Benefits

The Bank offers benefits to former or inactive employees. Postemployment benefit costs are actuarially determined and include the cost of medical and dental insurance, survivor income, disability benefits, and self-insured workers' compensation expenses. The accrued postemployment benefit costs recognized by the Bank at December 31, 2010 and 2009, were \$13 million and \$14 million, respectively. This cost is included as a component of "Accrued benefit costs" in the Statements of Condition. Net periodic postemployment benefit expense included in 2010 and 2009 operating expenses were \$235 thousand and \$5 million, respectively, and are recorded as a component of "Salaries and benefits" in the Statements of Income and Comprehensive Income.

### 13. Accumulated Other Comprehensive Income and Other Comprehensive Income

Following is a reconciliation of beginning and ending balances of accumulated other comprehensive loss (in millions):

|  | Amount related to<br>postretirement benefits<br>other than<br>retirement plans |
|--|--|
| Balance at January 1, 2009   | \$ (30.6)  |
| Change in funded status of benefit plans:                              |  |
| Prior service costs arising during the year                            | 2.5  |
| Net actuarial loss arising during the year                             | (10.3)   |
| Amortization of prior service cost                                     | (2.0)  |
| Amortization of net actuarial loss                                     | 3.9  |
| Amortization of deferred curtailment gain                              | (1.2)  |
| Change in funded status of benefit plans -<br>other comprehensive loss | (7.1)  |
| Balance at December 31, 2009   | \$ (37.7)  |
| Change in funded status of benefit plans:                              |  |
| Net actuarial loss arising during the year                             | (4.9)  |
| Amortization of prior service cost                                     | (2.2)  |
| Amortization of net actuarial loss                                     | 3.9  |
| Change in funded status of benefit plans -<br>other comprehensive loss | (3.2)  |
| Balance at December 31, 2010   | \$ (40.9)  |

Additional detail regarding the classification of accumulated other comprehensive loss is included in Note 12.

## NOTES TO FINANCIAL STATEMENTS

**14. Business Restructuring Charges**

The Bank had no business restructuring charges in 2010 or 2009.

Before 2009, the Reserve Banks announced the acceleration of their check restructuring initiatives to align the check processing infrastructure and operations with declining check processing volumes. The new infrastructure consolidated operations into two regional Reserve Bank processing sites; one in Cleveland, for paper check processing, and one in Atlanta, for electronic check processing.

Following is a summary of financial information related to the restructuring plans (in thousands):

|  | 2007<br>restructuring plans |
|--|-----------------------------|
| <i>Information related to restructuring plans</i>        |                             |
| <i>as of December 31, 2010:</i>                          |                             |
| Total expected costs related to restructuring activity   | \$ 5,318                    |
| Estimated future costs related to restructuring activity | -                           |
| Expected completion date                                 | 2008                        |
| <i>Reconciliation of liability balances:</i>             |                             |
| Balance at January 1, 2009                               | \$ 4,493                    |
| Adjustments  | (228)                       |
| Payments   | (3,066)                     |
| Balance at December 31, 2009                             | \$ 1,199                    |
| Employee separation costs                                | 32                          |
| Adjustments  | 89                          |
| Payments   | (883)                       |
| Balance at December 31, 2010                             | \$ 437                      |

Employee separation costs are primarily severance costs for identified staff reductions associated with the announced restructuring plans. Separation costs that are provided under terms of ongoing benefit arrangements are recorded based on the accumulated benefit earned by the employee. Separation costs that are provided under the terms of one-time benefit arrangements are generally measured based on the expected benefit as of the termination date and recorded ratably over the period to termination. Restructuring costs related to employee separations are reported as a component of “Salaries and benefits” in the Statements of Income and Comprehensive Income.

Adjustments to the accrued liability are primarily due to changes in the estimated restructuring costs and are shown as a component of the appropriate expense category in the Statements of Income and Comprehensive Income.

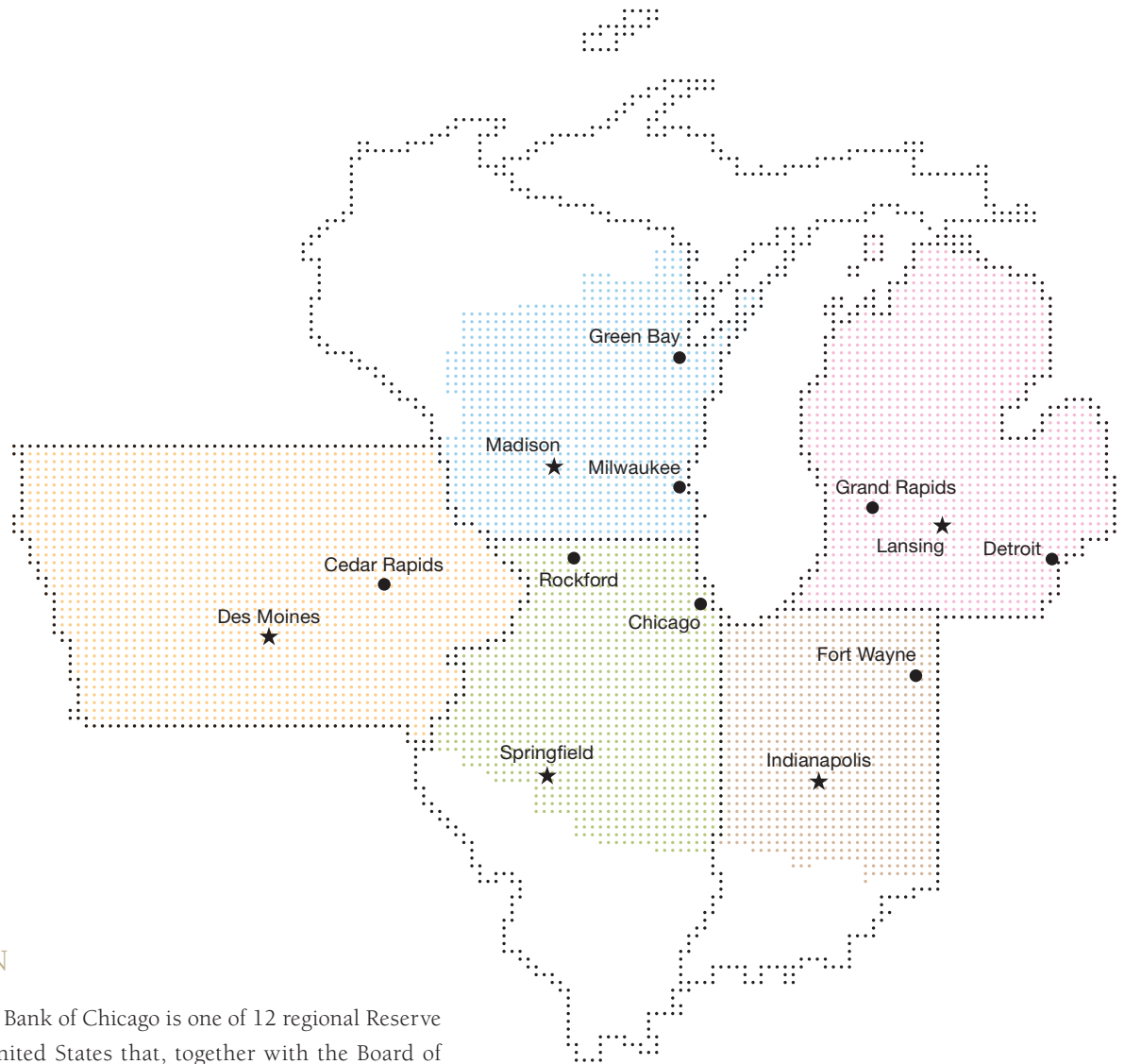
Costs associated with enhanced pension benefits for all Reserve Banks are recorded on the books of the FRBNY as discussed in Note 11. Costs associated with enhanced postretirement benefits are disclosed in Note 12.

**15. Subsequent Events**

There were no subsequent events that require adjustments to or disclosures in the financial statements as of December 31, 2010. Subsequent events were evaluated through March 22, 2011, which is the date that the Bank issued the financial statements.



## THE SEVENTH FEDERAL RESERVE DISTRICT



### 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 and branch in Detroit, the Federal Reserve Bank of Chicago serves the Seventh Federal Reserve District, which includes most of Illinois, Indiana, Michigan and Wisconsin, plus all of Iowa.

### OUR VISION

We serve the public interest by fostering a strong economy and promoting financial stability. We accomplish this with talented and innovative people working within a collaborative and inclusive culture.

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