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As a regional Reserve Bank, we work within the Federal Reserve System to foster the stability, integrity, and efficiency of the nation's monetary, financial, and payments systems. In doing so, we inspire trust and confidence in the U.S. financial system.

## **Vision**

To be an innovative policy and services leader for America's economy.





Jeffrey M. Lacker, President

## Message from the President

In last year's *Annual Report*, I began this column by noting that for "many Americans, 2007 was a difficult year." Unfortunately, 2008 was even more difficult. The U.S. economy spent the entire year in recession and by the fourth quarter, economic activity was falling dramatically. In fact, we now find ourselves in the most severe contraction in more than a generation.

At first, the recession appeared to be fairly mild. Over the first eight months of 2008, about 700,000 jobs were lost. But in September, the downturn intensified. In the final four months of the year, we lost 1.9 million jobs, including more than 500,000 in December alone. And if you look at other measures of economic performance, almost all appear similarly dismal.

The Federal Reserve responded aggressively to the slowdown, cutting the target for the federal funds rate to a range of 0 to 0.25 percent in December. In addition, the Fed initiated a number of credit programs aimed at providing liquidity to selected sectors of the economy. While I have raised questions about many of the latter policies — in my opinion, it would be preferable if the Federal Reserve expanded the monetary base by purchasing Treasury securities rather than creating targeted credit programs — they have had the effect of providing an additional monetary stimulus at a time when that is needed. Eventually, however, the Fed will need to find a way to effectively "unwind" those programs, an issue discussed in the essay of this year's *Annual Report*.

In general, I am hopeful that we will see the economy begin to grow again in late 2009. We already have seen a few encouraging signs. For instance, retail sales of goods and services to consumers have increased recently, and there are indications that many housing markets may be bottoming out. Having said that, it bears emphasizing that uncertainty about the

economic outlook is particularly acute right now, and while there are signs consistent with the emergence of stronger performance by the end of 2009, we are likely to see some negative economic reports in the meantime.

Which brings me to this question: What caused the financial crisis of 2008? It's too early to know for certain. Indeed, financial economists will spend many years examining this episode. But it is possible to offer informed thoughts on the question. Some commentators have argued that the crisis was a result of fundamental defects with the market system. Before we jump to such conclusions, however, it's worthwhile to understand the environment in which financial market participants operated.

*“As we strive to fully understand the financial boom and bust we have just been through, I believe we should pay particular attention to the distortions that fundamentally altered the incentives faced by firms and individuals.”*

The financial sector was not unregulated prior to the crisis. Indeed, there were substantial regulations on the books, some necessary and wise, and some more questionable. More importantly, in my view, there was an enormous federal financial safety net that protected market participants from bearing the full brunt of potential losses, thus undermining the incentives of creditors to monitor the risks taken on by institutions that were viewed as “too big to fail.” The safety net, of course, has grown even larger since the onset of the crisis. In my view, this has been a mistake. Instead of expanding the safety net — which, as I have argued, contributed significantly to the crisis — we should work instead to place tighter and more transparent limits around it. Capitalism is a system of both profit *and* loss, and market participants should not be shielded from the

losses they may incur because of poor business strategies or excessive risk-taking.

Anyone who questions government intervention risks being called a Pollyanna, an unskeptical believer in free markets and an apologist for financial fat cats. Let me be clear: I do not believe that markets are perfect, and I do believe that some government actions are essential to the health and well-being of our market economy. But the outcomes that result from market interactions can be difficult to improve upon, and government policies can at times cause more harm than good. As we strive to fully understand the financial boom and bust we have just been through, I believe we should pay particular attention to the distortions

that fundamentally altered the incentives faced by firms and individuals. Unfortunately, such distortions have been all too present in the financial sector. Limiting the distortions induced by the financial safety net should be front and center in any efforts to improve the effectiveness of the financial system.



**Jeffrey M. Lacker**  
President



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# The Financial Crisis: Toward an Explanation and Policy Response

By Aaron Steelman and John A. Weinberg

The financial market events since August 2007 — and especially those after September 2008 — have raised a number of important issues. Some commentators have argued that these events demonstrate fundamental flaws in the market system, flaws that can be corrected only by large-scale intervention. The causes of the financial market turmoil are far from settled and may not be fully known for some time. This essay will offer one perspective. We will argue that, although there is some evidence of market failure, the current crisis does not represent a wholesale failure of financial markets. Instead, we will argue that the crisis stems from the difficulty of responding to large shocks, the roots of which are multifaceted, including past policy errors. While there are ways in which financial regulation can be improved, there is also a strong case to be made that the functioning of market discipline can be improved by constraining some forms of government intervention, especially those that dampen incentives by protecting private creditors from loss.

It will be useful to think of the essay as divided into the following components. First, what has happened in the financial markets. Second, why those events took place. Third, possible market imperfections that could produce turmoil in the financial markets and an assessment of the role they have played in this case. And, fourth, how policymakers should respond in these difficult and uncertain times. Again, it is important to note that the thesis offered is only tentative. Financial economists, no doubt, will examine this period for many years to come and debate the merits of competing explanations. In doing so, they will refine those ideas and come closer to a comprehensive understanding of what has occurred. This research, hopefully, will be more than an academic exercise. It should provide insights to financial market participants and policymakers so that similar events do not arise in the future.



**Summer 2007:**

*Markets first respond on a large scale to concerns that mortgage-backed securities might significantly underperform expectations*



**August 10, 2007:**

*Federal Reserve announces that it "will provide reserves as necessary" amidst strains in money and credit markets*

## What Happened: A Brief Timeline

In the first half of 2007, as the extent of declining home prices became apparent, banks and other financial market participants started to reassess the value of mortgages and mortgage-backed securities that they owned, especially those in the subprime segment of the housing market. In early August 2007, the American Home Mortgage Investment Corporation filed for Chapter 11 bankruptcy protection, prompting concern among financial market participants. At its August 10, 2007, meeting, the Federal Open Market Committee (FOMC) stated that in "current circumstances, depository institutions may experience unusual funding needs because of dislocations in money and credit markets. As always, the discount window is available as a source of funding." The following month, the FOMC lowered the federal funds rate 50 basis points to 4.75 percent, the first in a series of rate cuts that would ultimately bring the target to a range of 0 to 0.25 percent in December 2008.

The autumn of 2007 saw increasing strains in a number of market segments, including asset-backed commercial paper, and banks also began to exhibit a reluctance to lend to one another for terms much longer than overnight. This reluctance was reflected in a dramatic rise in the London Interbank Offered Rate (LIBOR) at most maturities greater than overnight. LIBOR is a measure of the rates at which international banks make dollar loans to one another. Since that initial disruption, financial markets have remained in a state of high volatility, with many interest rate spreads at historically high levels.

In response to this turbulence, the Fed and the federal government have taken a series of dramatic steps. As 2007 came to a close, the Federal Reserve Board announced the creation

of a Term Auction Facility (TAF), in which fixed amounts of term funds are auctioned to depository institutions against any collateral eligible for discount window loans. So while the TAF substituted an auction mechanism for the usual fixed interest rate, this facility can be seen essentially as an extension of more conventional discount window lending. In March 2008, the New York Fed provided term financing to facilitate the purchase of Bear Stearns by JPMorgan Chase through the creation of a facility that took a set of risky assets off the company's balance sheet. That month, the Board also announced the creation of the Term Securities Lending Facility (TSLF), swapping Treasury securities on its balance sheet for less liquid private securities held in the private sector, and the Primary Dealer Credit Facility (PDCF). These actions, particularly the latter, represented a significant expansion of the federal financial safety net by making available a greater amount of central bank credit, at prices unavailable in the market, to institutions (the primary dealers) beyond those banks that typically borrow at the discount window.<sup>1</sup>

Throughout the summer of 2008, the stability of the housing finance government-sponsored enterprises, Fannie Mae and Freddie Mac, came under increasing scrutiny. While their core businesses have historically been in the securitization of less risky, "conforming" mortgages, they had in recent years accumulated significant balance sheet holdings of less traditional mortgage assets. In September, both companies were placed in conservatorship by the newly created Federal Housing Finance Agency.

In the fall of 2008, financial markets worldwide experienced another round of heightened volatility and historic changes for many of the largest financial institutions.





*September 18, 2007:  
FOMC lowers target  
federal funds rate 50  
basis points to 4.75  
percent, the first of a  
series of rate cuts*

Lehman Brothers filed for Chapter 11 bankruptcy protection; investment banking companies Goldman Sachs and Morgan Stanley successfully submitted applications to become bank holding companies; Bank of America purchased Merrill Lynch; Wells Fargo acquired Wachovia; PNC Financial Services Group purchased National City Corporation; and the American International Group received significant financial assistance from the Federal Reserve and the Treasury Department.

On the policy front, the Federal Reserve announced the creation of several new lending facilities — including the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF), the Commercial Paper Funding Facility (CPFF), the Money Market Investor Funding Facility (MMIFF), and the Term Asset-Backed Securities Loan Facility (TALF), the last of which became operational in March 2009. The TALF was designed to support the issuance of asset-backed securities collateralized by student loans, auto loans, credit card loans, and loans guaranteed by the Small Business Administration, while also expanding the TAF and the TSLF. The creation of these programs resulted in a tremendous expansion of the Federal Reserve's balance sheet. Furthermore, Congress passed the Troubled Asset Relief Program (TARP) to be administered by the Treasury Department. And in February 2009, the President signed the American Recovery and Reinvestment Act, a fiscal stimulus program of roughly \$789 billion.<sup>2</sup>

### **Why the Crisis?**

The proximate cause of the financial distress since 2007 has been the decline in the housing market, which imposed substantial losses on financial institutions and led to disruptions throughout the credit markets. These disrup-

tions have spread to the real economy, leaving the United States in the midst of a significant recession and prompting many of the measures described earlier.

What caused the boom in the housing market and its subsequent decline? Again, the answers are not obvious and various explanations will need to be vetted by economists over time. While multiple factors likely contributed to the cycle, some of which we will discuss below, a key factor involves the risk-taking incentives facing market participants.

First, there were what could be called “fundamental” factors. From roughly 1995 to 2005, the U.S. economy experienced a significant increase in productivity growth and thus real household income. Insofar as households saw these conditions as likely to continue, they increased demand for housing and thus housing prices. Indeed, housing investment and prices continued to rise through the 2001 recession, unlike most postwar business cycles. Those gains in productivity and household income began to weaken in 2005 — and with it, consumers' ability to repay their loans. Another plausible explanation involves technological advances in retail credit delivery. As financial institutions were able to more efficiently gather information about potential borrowers, they were able to more carefully craft loans to a wider segment of the population. In retrospect, some of those decisions may have been suspect — but, again, insofar as lenders believed economic conditions would continue on the trajectory they were then following, there was good reason for financial institutions to expand lending to people who in the past may not have received mortgages. One might argue that both borrowers and lenders “overshot” or behaved irrationally. But, given the information available to them at the time, their

behavior seems less like mania and more like the actions of reasonable, foresighted actors, who happened to make an error in judgment about future trends in economic conditions.

In addition to what we may consider explanations based on economic fundamentals, there were also a series of public policy decisions that probably fueled the housing boom to levels inconsistent with market conditions. First, the Federal Reserve pursued an accommodative monetary policy following the terrorist attacks of 2001. This was especially true in 2003 and 2004 when the target for the federal funds rate was held between 1 percent and 2 percent, as the economy began to rebound from the earlier,

brief recession. Such policy created an environment in which credit grew quite freely.<sup>3</sup> Others have argued that beyond the effects of monetary policy, long-term interest rates were held down by a “global savings glut.”<sup>4</sup> This may have heightened investors’ interest in “reaching for yield” by taking on greater risks.

Moreover, in an effort to expand access to housing credit, especially for people at the lower end of the income distribution, Fannie Mae and Freddie Mac increased their purchases of sub-prime securities.<sup>5</sup> Many of the underlying loans in these securities proved problematic and, as noted earlier, contributed to Fannie and Freddie being placed under federal conservatorship.

Why have problems in the housing market caused substantial turmoil throughout the banking sector, leading many institutions to become more cautious about their current lending actions and investors to be cautious in their dealings with banks? There are at least three possible explanations, all having to do with uncertainty.





*March 11, 2008:  
Fed creates Term  
Securities Lending  
Facility (TSLF), which  
trades banks' illiquid  
assets, including  
mortgage-backed  
securities, for  
liquid Treasury  
securities*



*March 16, 2008:  
Fed creates Primary  
Dealer Credit Facility  
(PDCF), allowing it  
to lend to primary  
dealers for the  
first time*

First, there is uncertainty about the aggregate magnitude of the losses financial institutions are likely to suffer. Many of the mortgages they issued are of relatively recent vintage, so how those borrowers — and, in turn, the lenders — will fare is unclear. Also, the extent of mortgage defaults and foreclosures will depend on the size of the decline in house prices — an ongoing process as of this writing.

Second, financial market participants are unsure about the distribution of those losses. Mortgage risks were spread widely, through securitization and use of the insurance capabilities provided by credit derivative contracts. Thus, institutions are concerned about how their counterparties' mortgage-related losses will affect their own viability.

Third, there is policy uncertainty. After the onset of the crisis, the Federal Reserve and the Treasury took several actions to help stabilize the financial sector. However, these actions appeared to evolve on a case-by-case basis. Some institutions received support, while others did not, making it more difficult for market participants to discern the governing principles and to make predictions about future policy moves. These institutions were already facing an uncertain economic environment, which contributed to relatively sparse lending opportunities. Coupled with an uncertain public policy environment, it is not surprising that many have been hesitant to lend and that many have had trouble raising private capital.

Any narrative of this boom-and-bust cycle must take into account the risk-taking incentives of financial market participants. And, here, the role of the federal financial safety net is important. Many financial transactions take place under some form of government protection. Some protections are explicit — such as the guarantee offered to bank depositors.

Arguably, such protection has reduced depositors' incentive to scrutinize the riskiness of their banks' lending practices and may have contributed to the crisis experienced by thrifts in the 1980s. In addition, it seems likely that market participants view the safety net to include more than simply those explicit guarantees. That is to say, many market participants may believe that there are implicit guarantees, which also affect their risk-taking behavior.<sup>6</sup> For instance, there has long been a widely held notion that some financial institutions are simply “too big to fail.” Such institutions are perceived to be essential to the functioning of domestic and often of international financial markets. As a result, these institutions and their creditors may assume that, should they encounter difficulties due to unwise lending practices, the public sector will respond to maintain their solvency.<sup>7</sup>

Such public-sector action might take several forms. It could involve direct lending to troubled firms by the Federal Reserve or the Treasury Department. Or it could take a less direct form, such as that which occurred in the case of Long-Term Capital Management (LTCM). The Federal Reserve helped to orchestrate a recapitalization of LTCM by its creditors. Had LTCM's creditors not taken action to keep the firm from bankruptcy, it is unclear how the Fed would have responded. But market participants might have reasonably assumed — given the Fed's interest in seeing LTCM survive — that explicit federal assistance would have been forthcoming. Further, the Fed's involvement signaled a concern about the possible systemic consequences of losses incurred by the large institutions that were exposed to LTCM.<sup>8</sup>

Given the presence of the federal financial safety net — both its explicit and implicit guarantees — what options do policymakers

face? Some might argue that the moral hazard problems associated with a large federal financial safety net cannot be avoided, especially in rich, advanced countries. As a result, we must more stringently regulate those firms that may avail themselves to such protection to ensure that they are acting prudently and, hence, to protect the taxpayer. Indeed, one may be skeptical — or remain relatively agnostic — about the inevitability or desirability of the federal financial safety net, yet still argue that, given its presence, the current regulatory regime may need to remain intact or be strengthened.<sup>9</sup>

Such arguments are reasonable. However, additional regulation of financial markets would likely hamper innovation in that industry. An alternative approach is to seek to reduce the scope of explicit safety net protection — as

well as creditors' expectations of implicit protection of firms deemed too big to fail.<sup>10</sup> The presence of the federal financial safety net was not the sole cause of questionable risk-taking by financial institutions.<sup>11</sup> But it likely altered those institutions' behavior and, hence, contributed to the current turmoil. Any future attempt to redesign financial regulation should be undertaken with an assessment of the safety net, including the desirability and feasibility of scaling back implicit protections. Attempting to restructure the regulatory landscape without taking into account the effects of the safety net is like "putting the cart before the horse."<sup>12</sup>





*March 14-24, 2008:  
Fed announces it  
will provide term  
financing for  
JPMorgan Chase to  
purchase Bear Stearns  
by taking risky securi-  
ties off Bear's balance  
sheet via the PDCF*



*September 7, 2008:  
Federal Housing  
Finance Agency  
(FHFA) places Fannie  
Mae and Freddie  
Mac in government  
conservatorship  
following increasing  
scrutiny over  
their soundness*

In summary, the boom and subsequent decline in the housing market had numerous causes. In hindsight, private lenders and borrowers may have made some imprudent decisions. But they were acting on what they believed to be sound information about the current state of the economy and the path of future growth.

Also, the Federal Reserve kept interest rates low for a long period, which may have encouraged additional lending that exacerbated the crisis. In addition, the government-sponsored enterprises greatly expanded their portfolios, boosting the market for loans that have proved difficult for many borrowers to repay. Finally, the presence of the federal financial safety net likely encouraged institutions to take risks that they otherwise would have foregone.

The decline in the housing market has sent shocks throughout the banking industry and related financial institutions. Already, the Federal Reserve, the Treasury Department, and Congress have taken considerable actions to stem the financial crisis. Later, we will comment on those programs and consider how the Federal Reserve, in particular, should try to implement an “exit strategy” that will ultimately lead to the winding down of current lending facilities and to renewed focus on price stability.

### **Rationales for Public-Sector Credit in Financial Crises**

Much of the public policy response to turmoil in financial markets over the last two years has taken the form of expanded lending by the Fed and central banks in other countries. The extension of credit to financial institutions has long been one of the tools available to a central bank for managing the supply of money — specifically, bank reserves — to the economy. Indeed, discount window lending by the 12

Reserve Banks was the primary means for affecting the money supply at the time the Fed was created. Over time, open market operations, in which the Fed buys and sells securities in transactions with market participants, have become the main tool for managing the money supply. Lending became a relatively little-used tool, mainly accessed by banks with occasional unexpected flows into or out of their Fed reserve accounts late in the day. If such banks were to seek funding in the market, they would likely have to pay above-normal rates for a short-term (overnight) loan. In this way, the discount window became a tool for dampening day-to-day fluctuations in the federal funds rate. In 2006, average weekly lending by the Reserve Banks through the discount window was \$59 million.

Since the outset of the widespread market disruptions in the summer of 2007, the Fed has changed the terms of its lending to banks and created new lending facilities. In the first three quarters of 2008, weekly Fed lending averaged \$132.2 billion, and in the fourth quarter of the year, that figure rose to \$847.8 billion.

In some cases, lending in response to a crisis can be seen as an extension of the use of central bank credit as a tool for managing the money supply. But for much of the current crisis, the Fed has not used its lending in this way. Even though lending rose sharply, the Fed's overall balance sheet, and therefore its supply of money to the economy, remained roughly unchanged until September 2008. Until that time, the Fed was “sterilizing,” or offsetting, its lending growth with open market operations. This suggests that, at least initially, the aim of expanded Fed credit was not growth in the overall supply of money or liquidity to markets but rather the direction of money or liquidity to particular market segments deemed to be in

the greatest need of support.

The use of sterilized lending in order to direct funding to institutions or markets is based on the belief that, at times, financial markets cannot properly function in directing funds to where they are needed the most.<sup>13</sup> Like any argument about the need for or consequences of public-sector intervention in markets, this is a statement of economic theory. In discussions of the Fed's actions in the last two years, two theoretical concepts have stood out as reasons why markets might fail to effectively allocate funds among market participants — coordination problems and “firesale” prices.

The classic example of a coordination problem in a financial market is a bank run. When depositors have the right to take their funds out of the bank on demand, and when the bank uses these highly liquid liabilities to fund longer-term, illiquid assets, then the bank is fragile in the sense that a sudden demand by many depositors for their money could force the bank to liquidate some of its longer-term assets inefficiently. This fragility makes the bank subject to a run in which depositors demand their funds because they think other depositors are doing the same. In such a case, all depositors might be better off if they could coordinate their decisions and leave their money in the bank, saving the bank from the costs of inefficient liquidations. The inability to coordinate means that bank runs could conceivably cause even a solvent bank to fail.<sup>14</sup>

The key characteristic that makes runs possible is the maturity mismatch on a bank's balance sheet — funding long-term assets with short-term liabilities. In recent years, this feature has not been limited to traditional, commercial banking. The securitization of mortgages and other assets has brought with it a number of other types of this maturity transformation —

asset-backed commercial paper, auction-rate securities, and the funding of investment banks' holdings of securities through overnight repurchase agreements. Most of these nonbank arrangements have come under stress at some point during the ongoing market turbulence.

The fragility that makes runs possible, however, is itself the result of choices made by market participants. The willingness to create a fragile balance sheet structure should depend on market participants' beliefs about what would happen in the event of a run-like event. And part of these beliefs should involve people's expectations about public-sector actions in the event of a run. In particular, the likelihood of assistance in the form of government or central bank lending reduces the prospective private costs of a run and, on the margin, increases the incentive to engage in maturity transformation. This is an essential part of the moral hazard problem resulting from the federal financial safety net.<sup>15</sup>

Another important ingredient of the theory of runs is that the early liquidation of long-term assets is costly. If a bank is forced to sell an asset to meet its depositors' demands for funds, there must be a real loss compared to holding the asset to maturity. If all assets could be sold at a price equal to the expected, discounted present value of the ultimate returns, then depositors' demands could be met without loss, which in turn eliminates a depositor's incentive to run. In traditional banking, the possibility of a run comes from the notion that the bank would have to sell loans, for which the originating bank has an advantage in monitoring borrowers' performance and ensuring repayment. But in the recent episode, assets at the heart of maturity transformation increasingly have been asset-backed securities, for which there may be no particular advantage to the



*September 15, 2008:  
Lehman Brothers  
files for Chapter 11  
bankruptcy protection*

institution holding securities on its balance sheet. Indeed, such securities were envisioned as a way of making loans more “tradeable” by pooling together many loans into a security.

Through much of this episode of financial volatility, many commentators have argued that the prices observed on many types of assets, especially those related to housing, represent deviations from fundamental market value. The available prices are seen as firesale prices — lower than fundamental value because many institutions have been or may be forced to sell their assets in attempts to repair their balance sheets. For such low prices to persist, there must be no patient market participants with the financial resources and knowledge necessary to profit from buying assets at artificially low prices. This suggests that either the fundamental shocks affecting financial markets were so pervasive as to compromise essentially all participants’ financial positions or there is some incompleteness or segmentation that prevents those with financial resources from taking advantage of arbitrage opportunities.<sup>16</sup>

Theories of market imperfections that give rise to financial market disruptions in which prices deviate persistently from fundamentals might imply that targeted public-sector credit can improve the functioning of the market. But matching conditions observed in actual markets to conditions in these theories is a difficult judgment. Much of what we have observed is also consistent with a market in which significant fundamental shocks have greatly increased the uncertainty facing market participants. If policymakers have no better information than market participants about fundamental values as compared to market prices, then the ability of targeted public-sector intervention to improve market conditions is limited.



*October 3, 2008:  
President Bush  
signs into law the  
Emergency Economic  
Stabilization Act of  
2008, establishing  
the \$700 billion  
Troubled Asset Relief  
Program (TARP)*



*November 25, 2008:  
Fed announces  
creation of the  
Term Asset-Backed  
Securities Loan  
Facility (TALF),  
supporting the  
issuance of asset-  
backed securities.  
Becomes operational  
in March 2009*

## Past, Current, and Future Public Policy Responses

It is understandable that the Federal Reserve, the Treasury Department, and Congress were eager to act as the financial system began to face what many feared to be systemic risks. However, problems in the financial system have persisted in spite of these efforts and some of those resulting policies could create challenges of their own over time.

The most fundamental issue, of course, is moral hazard. How will current federal intervention affect the behavior of banks and investors in the future? That is, will the support that has been provided encourage financial institutions to engage in behavior that they otherwise would have eschewed? Basic economic theory suggests so: The more something is subsidized, the more that is likely to be provided. In this case, the “something” is leveraged risk-taking, leading to potentially imprudent lending. How large this effect will be is ultimately an empirical question. But it is important to note that even if all of the new lending facilities were eliminated as the economy and financial system recover, moral hazard will still be a problem. Market participants know that federal support was readily forthcoming during the current turmoil — and most now would reasonably expect that such support will be there when the next turmoil occurs. Changing these expectations will be a long and hard process. In short, the Fed will need to regain credibility for not bailing out insolvent institutions — and as we know from our experience with monetary policy in the 1970s, such efforts to gain credibility can be long and difficult.<sup>17</sup>

The current situation, with a vastly expanded financial safety net, presents long-term challenges with respect to private-sector risk-taking and risk-management incentives. Even in the

Private  
sector  
expectations

Great  
Credit  
Desert

Uncertain boundaries

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*November 25, 2008:  
Fed announces  
program to purchase  
direct obligations  
of Fannie Mae and  
Freddie Mac, and  
mortgage-backed  
securities backed  
by them.  
Purchases begin  
January 5, 2009*



*December 11, 2008:  
The Business Cycle  
Dating Committee  
of the National  
Bureau of Economic  
Research announces  
that the recession  
began in  
December 2007*



*December 16, 2008:  
FOMC votes to  
establish a range for  
the fed funds rate of  
0 to 0.25 percent*

near term, the task of scaling back the safety net toward its pre-crisis status raises many difficult questions. For instance, the extent to which the new lending facilities should be either eliminated or moved to the Treasury Department is a matter of debate. But, as a matter of governance and central bank independence, there is a strong argument that those facilities which target specific industries or credit markets should be handled first. The provision of subsidized credit — especially on a sustained basis — is a fiscal policy action. Depending on one’s perspective, this may or may not be a desirable policy goal, but it is arguably not one that should be pursued by the central bank. Placing the administration and funding of such programs under the direction of the Treasury Department puts those programs more directly under congressional authority.

The conflation of the roles of the Federal Reserve and the Treasury Department during the current crisis could threaten the Fed’s independence. The Federal Reserve’s principal policy goal is to conduct monetary policy in pursuit of price stability and sustainable macroeconomic growth. That goal is much harder to pursue in a world where the Fed is also operating a number of lending facilities. In the near term, inflation does not appear to be a problem, certainly not relative to continued weakness in the real economy. But when the economy recovers, the Fed must have the flexibility to restrain monetary growth and prevent rising inflation. And the Fed’s ability to exercise this vigilance will be enhanced if it can separate its credit policy activities from its management of the money supply.

Expansion of Fed credit expands the monetary base by adding to reserves held by the banking system with the Fed. Indeed, from the beginning of September of 2008 through the end of the year, total reserves held at the Fed

grew from close to \$10 billion to about \$785 billion. Other things equal, an expansion of the monetary base is stimulative. Such stimulus is generally warranted in a period of economic contraction. But when the economy recovers, the Fed will need to have the flexibility to remove the monetary stimulus brought about by an expanded base.

Fundamentally, the Fed must determine how it wishes to act as a lender of last resort. The Fed could benefit from heeding the advice of two classical economists, Henry Thornton and Walter Bagehot, who considered how the Bank of England could act effectively as the lender of last resort. The Thornton-Bagehot framework stressed six key points:

- Protecting the aggregate money stock, not individual institutions
- Letting insolvent institutions fail
- Accommodating only sound institutions
- Charging penalty rates
- Requiring good collateral
- Preannouncing these conditions well in advance of any crisis so that the market would know what to expect.<sup>18</sup>

Current Federal Reserve credit policy has deviated from most if not all of these principles. Before the crisis, the Fed’s lender of last resort activity functioned as a standing facility with fixed terms. Through the crisis, the Fed’s approach has evolved and changed in numerous directions, including the direction of credit to particular market segments and institutions. Beyond winding down its many new lending vehicles, the Fed will need to make it clear to all market participants which principles it will follow during future crises. Reductions in the Fed’s credit activities — even in the near term — do not need to result in monetary contraction, as those programs can be replaced by asset purchases.

This last point also applies to actions taken beyond those of the Federal Reserve. Public policies by all agencies must be well articulated and time consistent so that market actors can make rational plans regarding their financial and other business affairs. Arguably, such policy uncertainty did much to prolong the Great Depression in the United States.<sup>19</sup> In addition, policymakers should be wary about the potential productivity-dampening effects of ill-considered fiscal and regulatory policies. There is some evidence that such policies slowed productivity in the United States during the 1930s<sup>20</sup> and in Japan during the 1990s.<sup>21</sup> While, as noted earlier, the Federal Reserve should not be directly involved in appropriating funds, it is not beyond its bounds to offer thoughts on the relative efficiency of such programs pursued by the legislative and executive bodies.

## Conclusion

The United States — and, indeed, the whole world — has experienced a significant financial and economic crisis since late 2007, and especially since September of 2008. The causes of that crisis are multifaceted and will require much future research. However, policymakers must act in real time on the best information available. It is not surprising that policymakers have taken a very active approach to the current crisis; after all, the costs of inaction were perceived to be quite large. The effects of those actions, just like the causes of the crisis, will no doubt continue to be the subject of much study and commentary for some time.

This episode has brought a number of particular questions to the forefront, questions that will be at the center of ongoing efforts to strengthen our financial system. Among those are questions regarding the possible sources of incentives for financial market participants

to take excessive risks. One candidate discussed earlier involves the incentive effects of the federal financial safety net. The significance of this potential contributor to risk-taking lies in its implications for how we think about the role of Fed credit in ensuring financial stability. While the liberal provision of credit can cushion the effects of a crisis, expectation of such credit availability can dampen incentives to take actions that may limit the likelihood of a crisis. This tradeoff lies at the heart of any effort to design a set of policies that achieves a balance between the roles of government and market forces in disciplining the incentives of participants in our financial system.

*The authors are, respectively, director of publications, and senior vice president and director of research at the Federal Reserve Bank of Richmond. They would like to thank Bob Hetzel, Jeff Lacker, Ned Prescott, and John Walter for helpful comments and suggestions. The views expressed are those of the authors and not necessarily those of the Federal Reserve System.*

## Endnotes

- <sup>1</sup> The term “bank” is used broadly to refer to all depository institutions — including banks, thrifts, and credit unions — with routine access to the discount window.
- <sup>2</sup> For a comprehensive timeline of the financial crisis, see the Federal Reserve Bank of St. Louis’ Web site, “The Financial Crisis: A Timeline of Events and Policy Actions,” at <http://www.stlouisfed.org/timeline/default.cfm>.
- <sup>3</sup> Taylor (2008).
- <sup>4</sup> Bernanke (2005).
- <sup>5</sup> Meltzer (2009).
- <sup>6</sup> Walter and Weinberg (2002).
- <sup>7</sup> Such protection does not extend to the financial sector only. Other industries, such as the airline and automobile industries, have also received government assistance in the past decade.
- <sup>8</sup> Haubrich (2007).
- <sup>9</sup> Edward (1999).
- <sup>10</sup> Stern and Feldman (2004) argue that too-big-to-fail protection imposes net costs on society and that the problem has grown in severity over time.
- <sup>11</sup> For instance, Diamond and Rajan (2009) argue that, over short periods of time, even vigilant creditors may have difficulty monitoring whether financial managers are engaged in excessive risk-taking, especially in the case of new products.
- <sup>12</sup> Kareken (1983) used this analogy in the slightly different context of banking deregulation in the 1980s.
- <sup>13</sup> Goodfriend and King (1988) argue that with well-functioning markets to redistribute funds, open market operations are sufficient to provide liquidity to markets.
- <sup>14</sup> Diamond and Dybvig (1983).
- <sup>15</sup> Lacker (2008). See also Ennis and Keister (2007).
- <sup>16</sup> Allen and Gale (1998) describe the phenomenon of “cash in the market pricing” in a financial crisis.
- <sup>17</sup> Goodfriend and Lacker (1999) discuss how central banks could build a reputation for limiting their lending commitments, just as central banks acquired credibility for maintaining price stability.
- <sup>18</sup> Humphrey (1989).
- <sup>19</sup> Higgs (1997).
- <sup>20</sup> Cole and Ohanian (2004).
- <sup>21</sup> Hayashi and Prescott (2002) and Hoshi and Kashyap (2004).

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Sally Green, First Vice President

## Message from Management

What an extraordinary year! When the economy is humming along, financial markets and financial institutions are healthy and growing, and the payments system is functioning efficiently and reliably, you don't see the Federal Reserve featured daily in the news media. We prefer that. Instead, in 2008 you saw us often on the front page and on the airwaves.

Institutions like the Federal Reserve sometimes are perceived as being bureaucratic — anchored in contentment and bound by habit. While we honor our history and rely on proven practices, our focus is on the future. Our vision in the Fifth District is to be an innovative policy and services leader for America's economy. We take our public service responsibility to heart and continually seek, through the work we do, to earn the confidence of those we serve. This is especially true in times when much is at stake.

It often seems that people would like the Fed to wave a magic wand and instantly fix the economy and financial markets! But we cannot do that. Economic and financial activity reflects a set of decisions made by a multitude of individuals, corporations, and government entities in a free market system. As one of the actors in this drama, the Federal Reserve plays a very important role through our monetary policy, supervision of financial institutions, payments system, and community outreach activities. The events during late 2007 and throughout 2008 called us to step up to these roles as never before.

In the public eye, the Fed is often personified by the Chairman of the Board of Governors — for many years Chairman Greenspan and more recently Chairman Bernanke. Behind these very capable leaders are many other competent individuals, both at the Board of Governors and at the 12 Reserve Banks. Our strength at times like these is in our ability to bring broad expertise

and a variety of views to the policy table. We would argue that one of the most important ingredients in performing our roles effectively, and in earning your confidence, is the ability of our staff to understand emerging developments and to provide alternative solutions.

In 2008 a team of economists in the Fifth District analyzed the conditions underlying first a growing economy and rising inflation, and then a weakening economy and lower inflation. This team spent untold hours performing research on topics such as the economic impact of the Troubled Asset Relief Program (TARP) and advising our president, Jeff Lacker, on alternative monetary policy actions. As a member of

and analyzed information and participated in policy discussions related to acquisitions and various types of government support for these institutions. A testament to the breadth and depth of our expertise, the Board of Governors, the New York Fed, and the U.S. Treasury called upon members of our staff to assist with issues in financial institutions outside the District and in the implementation of the TARP.

As noted in the lead essay in this *Annual Report*, in 2008 the Fed expanded its lending beyond traditional boundaries to new types of institutions and under new terms. In the Fifth District, the number of loans made through our discount window increased more than tenfold.

*“We would argue that one of the most important ingredients in performing our roles effectively, and in earning your confidence, is the ability of our staff to understand emerging developments and to provide alternative solutions.”*

the Federal Open Market Committee, he participated in the discussions that lowered the fed funds rate from 4 percent to a range of 0 to 0.25 percent and dramatically expanded the monetary base to deal with the recession. Economists and Bank leaders were also called upon to speak at numerous events in the District as local communities and constituents sought to understand changing economic conditions.

The Fifth District has an unusually robust and diverse banking community. Over the past five years we have built Supervision teams with expertise in credit, market, operational, and liquidity risk management. In 2008 the staff worked around the clock as our largest financial institutions acquired other institutions, with new types of risks, and as the health of some of our community financial institutions deteriorated. The Supervision teams gathered

To meet the increased demand and ensure thorough scrutiny of pledged collateral, several Supervision staff members were temporarily reassigned to our lending function. Also, since many financial institutions that we do not formally supervise can borrow from us, we significantly increased the breadth and depth of our financial institution surveillance program.

The payments system underpins economic activity in the United States. Although the Fed transfers almost \$4.8 trillion daily among financial institutions, this behind-the-scenes role is rarely in the public eye. We are committed to provide to the financial institutions that serve consumers and corporations: Fedwire and securities transfers; payroll and other forms of electronic payments; and check currency and coin services that are timely and completely reliable. In 2008 in the Fifth District, our staff

led important initiatives in each of these service areas and contributed to the evolution toward a more fully electronic U.S. payments system.

In addition to the three “core” roles noted above, we reach out within our Fifth District communities to learn, share our research and expertise, and bring value, particularly in the areas of community development and economic education. This year’s “Bank in the Community” section in the *Annual Report* provides a snapshot of our leadership during 2008, both at the national level and within the District, related to the significant home ownership and mortgage foreclosure challenges in the current environment.

The full effect of all the actions we have taken in 2007, 2008, and 2009 is not yet known. In the end, public confidence in the Fed will rest on the ways in which we engage our constituents and contribute to positive outcomes for the economy, the financial system, the payments system, and our communities. In the meantime, we are a deeply committed group of professionals who understand the importance of our public service mission and who are working hard for America’s economy.

A handwritten signature in blue ink that reads "Sally Green". The signature is written in a cursive, flowing style.

**Sally Green**  
First Vice President

## Thank You

We sincerely thank all the members of the 2008 boards of directors for their guidance and leadership. We are equally grateful to our advisory groups for their support throughout the past year. Each individual and the partnerships formed helped us to better serve the Fifth District communities and organizations.

We express special thanks to the members of our boards of directors whose terms ended in 2008:

**Hunter R. Hollar** and **Thomas J. Mackell, Jr.**, from our Richmond Board

**Cynthia Collins Allner** from our Baltimore Board

We also extend a warm welcome to our new members, whose terms began in 2009:

**Kelly S. King** and **Linda D. Rabbitt** from our Richmond Board

**Jenny G. Morgan** from our Baltimore Board



Angelyque Campbell, Community Affairs, speaks at an event on foreclosure, one of the Richmond Fed's efforts to educate District communities on the foreclosure crisis.

## The Bank in the Community Foreclosure prevention in the Fifth District

The end of 2008 marked a full year spent in a housing-led recession and financial crisis, which resulted in a record-setting number of mortgage delinquencies and foreclosures. The impact on the overall economy and certain regions in particular has been profound, putting the Fed's relationships with local communities into the spotlight.

The nationwide housing boom that followed the 2001 recession brought about a dramatic increase in mortgage lending throughout the country, particularly in subprime markets. According to the Mortgage Bankers Association, the share of all mortgages classified as "sub-prime" grew from slightly more than 4 percent in the beginning of 2003 for both the Fifth District and the nation as a whole, to more than 14 percent nationally and nearly 11.5 percent for the District at its peak in the middle of 2007.

We now know that several factors led to an extension of mortgages to borrowers who would perhaps otherwise not have received them. Mortgage underwriting standards weakened under the assumption that the housing market boom would continue. Substantial innovations in financial markets, combined with weak incentives for mortgage originators to ensure the viability of mortgages, supported a widespread proliferation of subprime lending. While many of the mortgages extended during this time may have remained sound in an environment of continually rising house prices, homeowners' ability or willingness to stay current on many of them was compromised with the fall in house prices.

When house prices started declining, many homeowners quickly found themselves "under-water," meaning they owed more on their mortgages than their homes were worth. Refinancing was not an option for many because they had little equity in their homes,

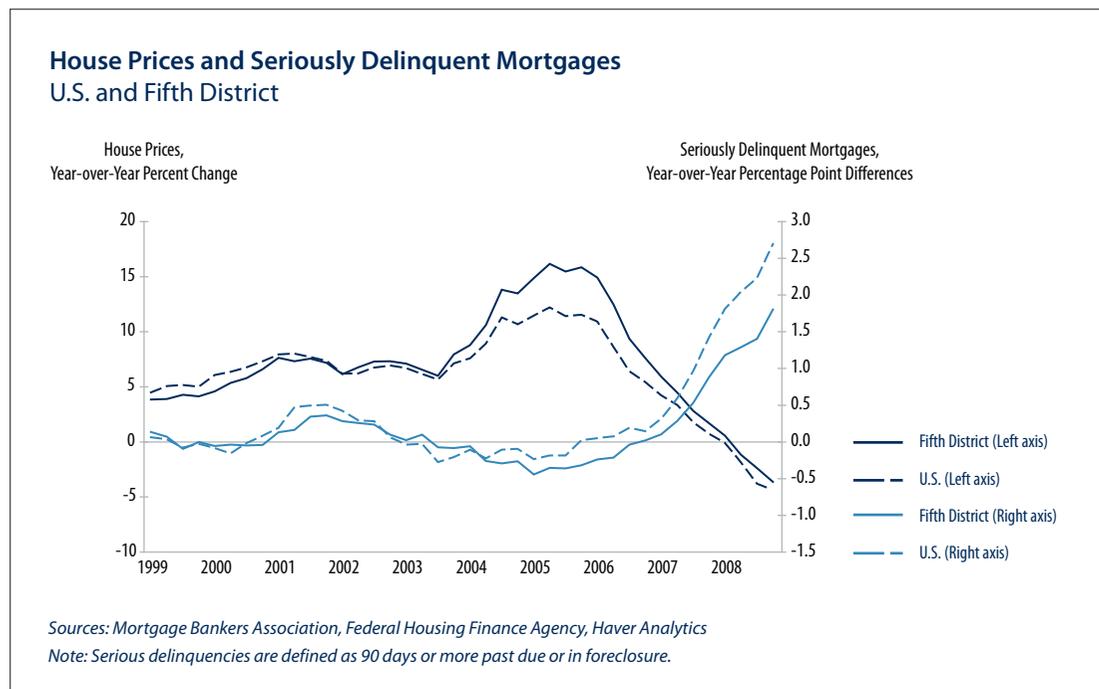
and lenders were less willing to refinance what turned out to be risky mortgages. As shown in the figure below, the declining growth in house prices coincided with a severe spike in delinquencies and foreclosures. House prices nationally dropped more than 4.6 percent from their peak in the second quarter of 2007 through the end of 2008, and in the District fell more than 3.5 percent over the same time period. The share of mortgages nationally that were “seriously delinquent” (90 days or more past due or in foreclosure) multiplied more than two-and-a-half times from the middle of 2007 to the end of 2008, with Fifth District serious delinquencies growing nearly as much.

Because of the severity of the foreclosure problem, the Federal Reserve Board of Governors and regional Reserve Banks joined together to create the Homeownership and Mortgage Initiatives (HMI), a comprehensive national strategy to provide a response to the foreclosure crisis. The HMI leverages the Federal Reserve

System’s substantial knowledge and expertise related to mortgage markets to help policymakers, community groups, and the public deal with the problem.

A focal point of the HMI effort has been to develop a strong base of research and knowledge about the foreclosure crisis, its causes, and its potential spillover effects. One critical aspect of the System’s research efforts has been to identify foreclosure “hot spots” throughout the country, since housing markets can differ drastically within state and even county lines. The Fed has worked extensively to acquire and compile foreclosure and delinquency data to create detailed maps and analyses of regions in the country affected by foreclosures.

Armed with this information, the regional Reserve Banks, including the Federal Reserve Bank of Richmond, have disseminated research and analysis through several strategic avenues. By partnering with community development practitioners, housing counselors, nonprofit



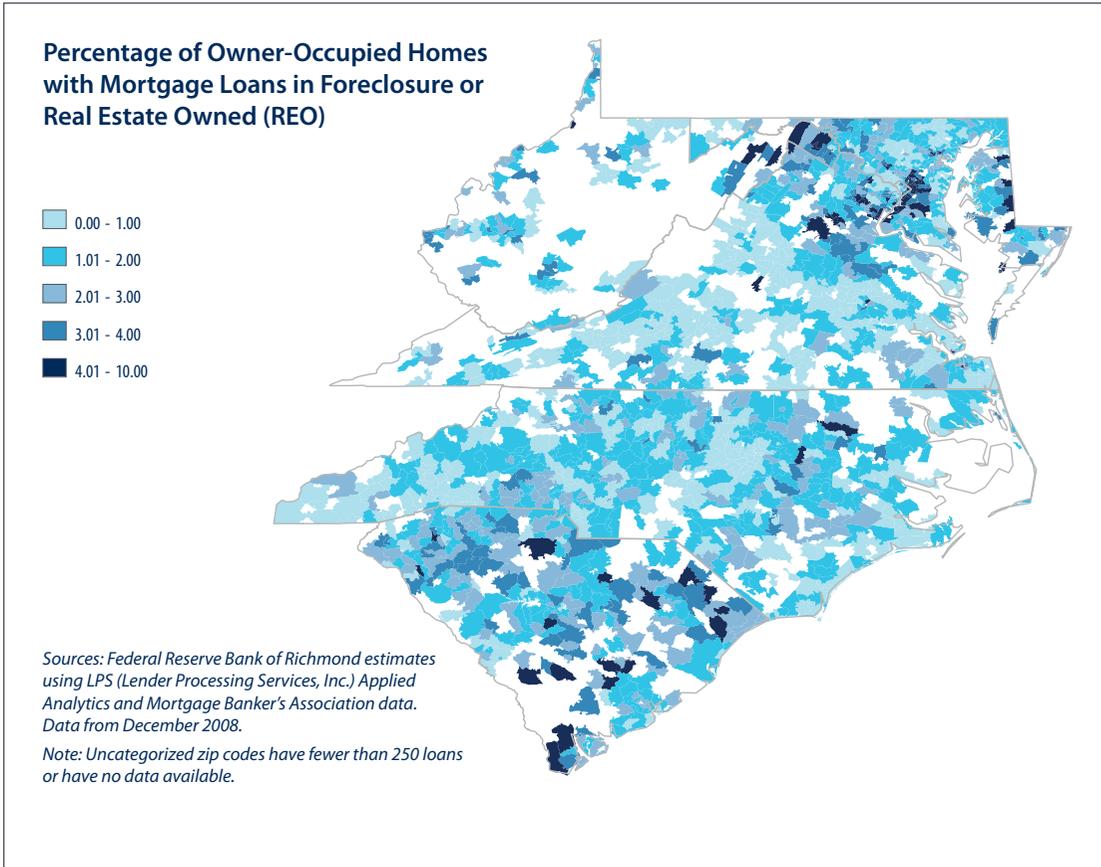
organizations, and local governments, the Richmond Fed hopes to help communities with large numbers of delinquencies to prevent them from going into foreclosure, and in instances where foreclosure cannot be prevented, to help mitigate the costs and spillover effects.

In one key effort in 2008, the Federal Reserve Bank of Richmond partnered with several Fifth District universities to hold a series of forums on “The Widespread Impacts of Mortgage Foreclosures: From Credit Markets to Local Communities.” The forums helped attendees connect broader stories about the economic crisis in the media with the effects of foreclosure evident in local communities. Presentations covered real estate conditions, the widespread impacts of mortgage foreclosures in credit markets and local communities, the role of mortgage services, financial spillovers from

the housing market shakeout, and the Federal Reserve’s response to the housing market downturn. The forums were open to the public, were held in communities that have experienced particularly high rates of delinquencies and foreclosures, and were widely attended.

### Local Problems and Local Solutions

The structure of the Federal Reserve System has allowed the regional Reserve Banks to collaborate, with each tailoring its foreclosure mitigation efforts to the needs of the local communities. In the Fifth District, Richmond Fed staff from the Community Affairs, Research, and Banking Supervision & Regulation departments worked together to track local developments and convene with regional stakeholders to share information and explore ways to mitigate foreclosures and their spillover effects.



The Fifth District's economy has, in this recession, generally followed the downward economic trend of the nation, but less severely. Fortunately, the District has never, on balance, seen the same run-up in subprime lending as other hard-hit areas in the country, so the decline in the housing market and the resulting economic struggles have been smaller in magnitude.

Regardless, there are areas within the District that have been heavily affected by the housing market fallout. The accompanying map displays the percentage of all owner-occupied homes with mortgages that are in foreclosure or are "real estate owned" within the Fifth District as of December 2008. Some of these areas, such as much of South Carolina, have high foreclosure rates spread over relatively small populations. On the other hand, two heavily populated counties just outside of Washington, D.C. — Prince William in Virginia and Prince George's in Maryland — are among the hardest hit within the Fifth District and thus have been the focus of recent efforts by the Richmond Fed's Community Affairs and Research departments.

The Federal Reserve Bank of Richmond targeted these communities because of their high incidence of delinquency and foreclosure activity spurred by region-specific conditions. In Prince George's County, the story is largely one of an above-average concentration of subprime lending. By the middle of 2008, the county reported a high number of delinquencies that had not yet progressed to foreclosure, in part because of a moratorium on foreclosures in the state of Maryland. Now that the moratorium has expired, foreclosures have started to rise as well.

In contrast, Prince William County (and the hard-hit neighboring cities of Manassas and Manassas Park) is an area that experienced



Steve Sanderford (left) and Mike Riddle, both of Banking Supervision & Regulation, participate in the forum at Longwood University in Farmville, Va., which helped local regions address spikes in foreclosure.

large increases in housing construction during the boom years. Its Spanish-speaking population was disproportionately affected by the housing downturn, since it relied heavily on the construction industry for employment — the same industry that suffered when housing prices stopped rising, causing residents to flee in search of other opportunities. Overbuilding, the economic downturn, and the rise in gas prices left the Virginia county exposed to delinquencies and foreclosures.

Because numbers don't tell the whole foreclosure story, conducting field work in these affected areas and establishing ongoing relationships with local governments and community development practitioners have helped to qualify the data gathered by Fed researchers about the impact of mortgage delinquency. This will allow prevention resources to be applied to where they are needed most.

For example, in Prince George's and Prince William counties, as well as other communities, the Richmond Fed has sponsored training programs for housing counselors who were formally trained only to get people into homes

— not to help them stay there or find an alternative if avoiding foreclosure was not an option. Prince William County had more than 7,000 properties in foreclosure when Bank staff first visited in the middle of 2008, with only one housing counselor present in the region. Through training seminars sponsored by the Richmond Fed in conjunction with NeighborWorks America, a nonprofit group, Prince William County now has 10 housing counselors trained in foreclosure prevention who are working with affected households to keep them in their homes.

The efforts in Prince William and Prince George’s counties show how understanding the regional economic environment is key to identifying how resources should be applied within a region. Further, through these efforts, the Richmond Fed has been able to help assess how likely the crisis is to spill over into neighboring areas, where preventative measures can then be taken.

### **The Landscape for 2009**

The future of the economy is uncertain, but most economists expect housing market strains to persist through much of 2009. The Federal Reserve has expressed its continuing commitment to taking necessary action to avert ongoing economic weakness through monetary policy and other credit mechanisms. In addition, the Fifth District will continue outreach efforts in 2009 to address delinquencies and foreclosures. A number of additional university forums and other outreach events are planned, as well as more training sessions for housing counselors to specialize in foreclosure prevention. Importantly, the relationships established with local communities will include an ongoing discussion of how to assist areas overwhelmed by delin-

quencies and foreclosures.

As one of its final delinquency and foreclosure mitigation efforts of 2008, the Federal Reserve System hosted a research conference on housing and mortgage markets in Washington, D.C., on December 4th and 5th. The Richmond Fed provided important leadership for this event. The agenda included discussions on current research on the mortgage markets, options for loan workouts, and the efficacy of efforts to reduce preventable foreclosures, as well as assessing the spillover effects from foreclosures. Federal Reserve Chairman Ben Bernanke delivered the keynote address and concluded his remarks by reinforcing the Fed’s ongoing commitment to reducing preventable foreclosures by actively engaging the community. “Because housing and mortgage markets are tightly interlinked with the rest of the economy, actions to strengthen financial markets and the broader economy are important ways to address housing issues,” he said. “By the same token, steps that stabilize the housing market will help stabilize the economy as well.”

#### **Fifth District Online Foreclosure Resources**

##### **Conferences and Events**

[http://www.richmondfed.org/conferences\\_and\\_events/community\\_development](http://www.richmondfed.org/conferences_and_events/community_development)

##### **Foreclosure Resource Center**

[http://www.richmondfed.org/community\\_development/foreclosure\\_resource\\_center](http://www.richmondfed.org/community_development/foreclosure_resource_center)

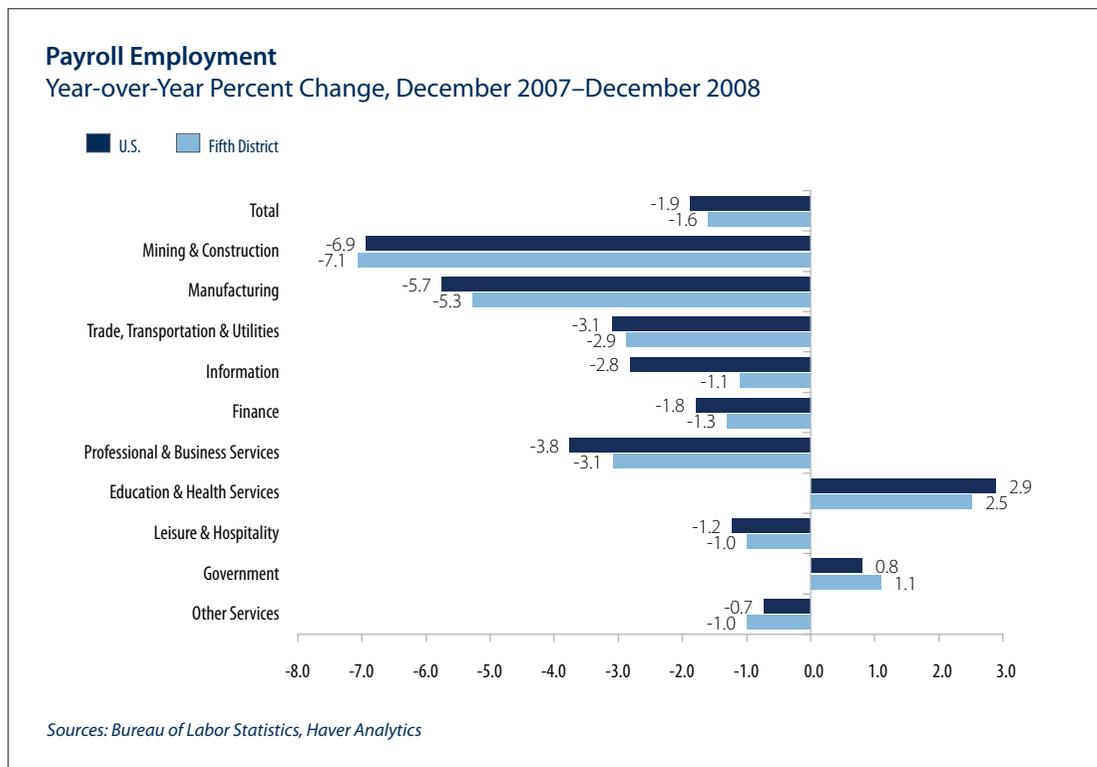
# Fifth District Economic Report

The Fifth District economy weakened in 2008 as the housing market malaise deepened and infected all sectors and jurisdictions of the District. The economic uncertainty that gripped the nation in 2008 did not spare the Fifth District. Credit conditions tightened, hiring activity declined steadily, and the increased cost of energy and food in the first half of the year hurt the bottom lines of District households and firms. Furthermore, the deterioration in housing conditions that had been concentrated in the northern regions of our District (District of Columbia, Maryland, and Virginia) spread to the Carolinas. Nonetheless, the Fifth District continued to outperform the nation on a number of key measures.

## Labor Market Conditions

The Fifth District economy shed 287,600 jobs (2.1 percent) in 2008 after five years of payroll expansion. The District job market fared slightly better than the national market, where employment declined 2.2 percent in 2008.

Hiring activity in the District’s goods-producing sector was particularly downbeat as those industries shed 161,600 jobs over the year, more than three times the losses in 2007. Builders alone cut over 81,000 jobs as employment in the construction industry contracted 9.6 percent — its worst performance in more than 10 years. Employment reports from the service sector were also grim as firms shed 125,600 jobs in 2008, with the trade, transportation, and utilities industry alone cutting 102,600 workers.



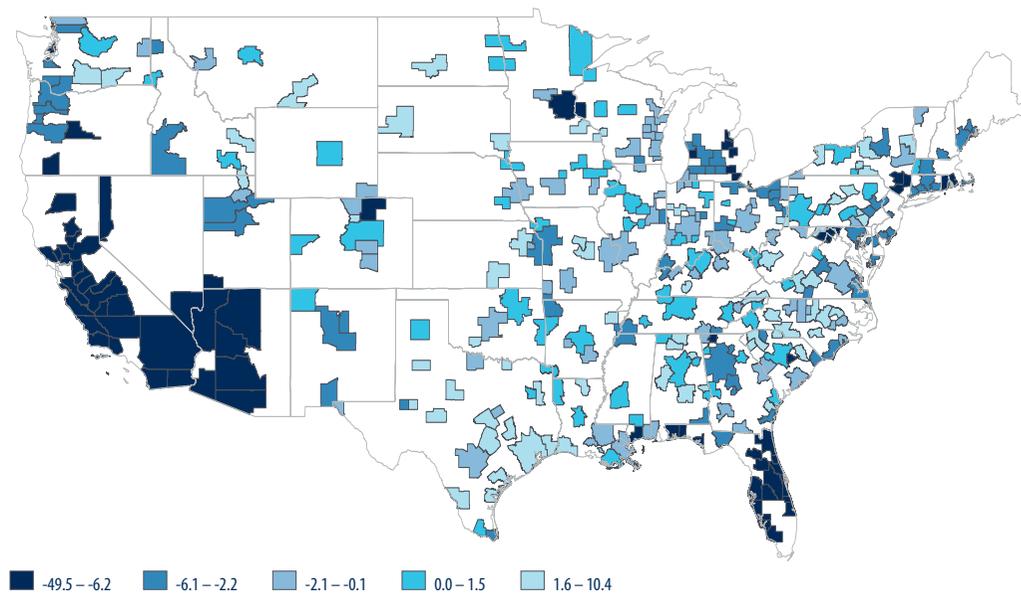
All service-sector industries outside of education and health services, and government posted employment declines over the year.

Employment also contracted across District jurisdictions in 2008. North Carolina and South Carolina shed 3.0 percent and 3.3 percent of their workforces, respectively, as firms cut workers in each month of the last two quarters. Employment in Maryland and Virginia contracted 1.7 percent and 1.5 percent, respectively, for the first annual contraction in either state since 2001. Only the District of Columbia added jobs (6,400) over the year. The deeper losses in the Carolinas were due partly to the larger drops in goods-producing and trade-oriented employment in those states. In North Carolina, the construction industry, the manufacturing industry and the trade, transportation, and utilities industry accounted for 71.9 percent of total job

losses. In South Carolina, the three industries accounted for 58.4 percent of job losses. In addition, North Carolina's professional and business services industry struggled as firms cut 29,500 jobs (5.8 percent) in 2008.

Metro-level labor markets weakened considerably as employers in the Fifth District's major metropolitan areas shed 154,700 jobs in 2008. Only three metro areas in the District posted payroll gains over the year — Durham, N.C.; Charleston, W.Va; and Morgantown, W.Va. Meanwhile, six metro areas lost over 10,000 jobs in 2008: Charlotte, N.C. (31,900); Baltimore, Md. (24,900); Richmond, Va. (16,500); Greensboro-High Point, N.C. (15,900); Raleigh, N.C. (11,100); and Virginia Beach, Va. (10,400).

**Change in U.S. Home Prices by MSA**  
Percent Change 4Q:07 - 4Q:08



Source: Federal Housing Finance Agency

## Housing Market Conditions

The slowdown in national and Fifth District housing markets that began in 2007 worsened in 2008. Mortgage delinquency and home foreclosure rates continued to rise across Fifth District jurisdictions as existing home sales, house prices, and new residential construction levels fell. In particular, housing conditions in North Carolina and South Carolina — where markets had posted sales and price gains well after the northern parts of the District began to soften — started weakening in the spring and early summer.

One of the big stories of 2008 was the rise in delinquency and foreclosure rates across the nation, particularly in the subprime mortgage market. Although the percentage of total mortgage loans to subprime borrowers remained lower in the Fifth District than in the nation, and the foreclosure rate in the District was below the national mark throughout 2008, delinquency rates rose across District jurisdictions.

Fifth District house prices fell 3.7 percent in 2008, as measured by the Federal Housing Finance Agency's House Price Index. The District house price depreciation was less severe than the national depreciation of 4.5 percent, reflecting the 1.1 percent and 0.3 percent average house price growth in North Carolina and South Carolina, respectively. Although house prices in the Carolinas began to fall in the third quarter of 2008 (for the first time since the early 1980s), prices grew over the year. Without the appreciation in the Carolinas and the roughly stagnant prices in West Virginia, the Fifth District house price decline would have been steeper than that of the nation, with 6.0 percent depreciation in the District of Columbia, 7.7 percent depreciation in Maryland, and 4.6 percent depreciation in Virginia.

Much of the housing downturn in Maryland and Virginia was fueled by the softening of the Washington, D.C., metro area market, where house prices fell 12.1 percent in 2008. Other metro areas in Maryland and Virginia also saw falling house prices, although none dropped as sharply as those in the D.C. metro area.

In certain housing measures, the Fifth District began to look a bit weaker than the nation in 2008. Residential permit levels fell 51.4 percent in the Fifth District compared to 46.5 percent in the nation as a whole. Furthermore, existing home sales in the Fifth District fell 21.9 percent over the year, while sales in the United States fell 5.9 percent.

## Household Conditions

Considering labor and housing market conditions, it is not surprising that the economic circumstances of District households deteriorated in 2008. At 6.6 percent, the District unemployment rate ended 2008 below the national 7.2 percent mark, although joblessness grew on par with the national year-over-year increase of 2.3 percentage points.

Joblessness soared in Fifth District jurisdictions in 2008. The largest increase was in North Carolina, where unemployment jumped 3.1 percentage points to end the year at 8.1 percent. The highest unemployment rate was 8.8 percent in South Carolina — 3.0 percentage points above the mark at the end of 2007. Meanwhile, the District of Columbia rate climbed to 8.2 percent from 5.8 percent, Maryland unemployment rose to 5.4 percent from 3.6 percent, and Virginia jumped to 5.0 percent from 3.3 percent.

On a more positive note, households were buoyed by growth in real personal income that spread across Fifth District jurisdictions.

Personal income growth surpassed the national rate of 0.5 percent in every jurisdiction over the year, leaving the District with a combined real personal income growth of 1.0 percent.

### **Business Conditions**

District businesses struggled in 2008 with declining demand, tightening credit conditions, and general economic uncertainty. In addition, the rising cost of energy in the first part of the year strained firms' profit margins.

The general decline in the manufacturing industry was buoyed a bit in the beginning of 2008 by growing export activity fueled by a weak dollar and strong overseas demand. Over the year, however, the globalization of the economic malaise and the weakening of the dollar reduced international demand for U.S. goods, and exports began to decline. The Federal Reserve Bank of Richmond's survey readings on manufacturing activity fell to record lows in the second half of the year.

Another big story of 2008 was the tightening of credit conditions that was evident across the nation and the Fifth District. More stringent mortgage loan requirements continued — and deepened — in 2008, but the problems in the banking sector translated into increased difficulty obtaining credit for non-mortgage loans as well. Therefore, in addition to weaker demand and general economic uncertainty, the difficulty obtaining credit and the increased cost of borrowing curtailed activity and negatively impacted capital expenditures in 2008 and planned expenditures for 2009. This has been particularly true for manufacturing and construction firms. Even when credit has been extended, uncertainty about the future has made firms more reluctant to incur debt; in other words, evidence suggests that the supply

of and demand for credit has fallen. Throughout 2008, commercial developers noted delays and cancellations of construction projects.

The service sector also contracted over the year. The Richmond Fed survey index of retail revenues was in negative territory throughout 2008, as sales of big-ticket items — such as automobiles and furniture — declined steadily. Shopper traffic also dwindled as consumers suffered from rising food and energy costs in the beginning of 2008, and heightened economic uncertainty in the second half of the year. District retailers reported lackluster holiday sales. Meanwhile, although services firms generally outperformed retailers, even services firms' revenues deteriorated steadily over 2008, with the index hitting a near-record low in the last month of the year.

### **Looking Ahead**

The Fifth District's economy softened along with the nation's in 2008, and remained weak as it headed into 2009. It seems likely that housing markets in the northern parts of the District will begin to stabilize toward the middle-to-end of 2009, which should relieve households, strengthen firms, and bolster labor market conditions. The slowdown in lending and planned capital expenditures could affect firms for years to come, but some positive economic developments are expected in the Fifth District — led by the more service-oriented urban areas — toward the end of 2009.

*The data presented and discussed are accurate as of March 24, 2009.*

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# Boards of Directors, Advisory Groups, and Officers

## **Federal Reserve Bank of Richmond Board of Directors**

Our Richmond Board oversees the management of the Bank and its Fifth District offices, provides timely business and economic information, participates in the formulation of national monetary and credit policies, and serves as a link between the Federal Reserve System and the private sector. The Board also has the responsibility of appointing the Bank's president and first vice president, with approval from the Federal Reserve Board of Governors. Six directors are elected by banks in the Fifth District that are members of the Federal Reserve System, and three are appointed by the Board of Governors.

The Bank's board of directors annually appoints our District representative to the Federal Advisory Council, which consists of one member from each of the 12 Federal Reserve Districts. The Council meets four times a year with the Board of Governors to consult on business conditions and issues related to the banking industry.

## **Baltimore and Charlotte Office Boards of Directors**

Our Baltimore and Charlotte Offices have separate boards that oversee operations at their respective locations and, like our Richmond Board, contribute to policymaking and provide timely business and economic information about the District. Four directors on each of these boards are appointed by the Richmond directors, and three are appointed by the Board of Governors.

## **Small Business and Agriculture Advisory Council**

Established in 1985, the Small Business and Agriculture Advisory Council advises the Bank president and other senior officers on the impact that monetary, banking, and fiscal policies have on the District's small business and agricultural sectors. The Council's 12 members are appointed by the Bank president.

## **Community Development Advisory Council**

Created in 1998 to enhance communication between the Bank and the public concerning community development issues, our Community Development Advisory Council advises the Bank president and other senior officers on community development concerns and related policy matters. The Council's eight members are appointed by the Bank president.

## **Operations Advisory Committee**

The Operations Advisory Committee was established by the Bank in 1978 to serve as a forum for communication with financial institutions about the Federal Reserve's financial services and to help the Bank respond to the changing needs of our banking constituency. Committee members are appointed by the Bank's first vice president.

*Listings as of December 31, 2008*

# Federal Reserve Bank of Richmond Board of Directors



CHAIRMAN  
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Warrenton, Virginia



DEPUTY CHAIRMAN

**Lemuel E. Lewis**  
*President*  
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Suffolk, Virginia

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*President and Chief Executive Officer*  
Community Affordable Housing  
Equity Corp.  
Raleigh, North Carolina

**Robert H. Gilliam, Jr.**  
*President and Chief Executive Officer*  
The First National Bank of Altavista  
Altavista, Virginia

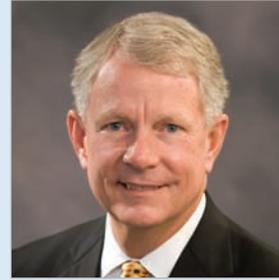


**Patrick C. Graney, III**  
*President*  
Petroleum Products, Inc.  
Belle, West Virginia



**Hunter R. Hollar**  
*President and Chief Executive Officer*  
Sandy Spring Bancorp  
Sandy Spring Bank  
Olney, Maryland

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*Senior Vice President and Chief  
Information Officer*  
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Richmond, Virginia



**Dwight V. Neese**  
*Director, President, and Chief  
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Provident Community Bancshares, Inc.  
Rock Hill, South Carolina



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FEDERAL ADVISORY COUNCIL REPRESENTATIVE

**Kenneth D. Lewis**  
*Chairman, Chief Executive Officer,  
and President*  
Bank of America Corp.  
Charlotte, North Carolina

## Baltimore Office Board of Directors



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**Cynthia Collins Allner**  
*Principal*

Miles & Stockbridge P.C.  
Baltimore, Maryland



**Biana J. Arentz**  
*President and Chief Executive Officer*  
Hemingway's Inc.  
Stevensville, Maryland

**Ronald Blackwell**  
*Chief Economist*  
AFL-CIO  
Washington, D.C.

**James T. Brady**  
*Managing Director—Mid-Atlantic*  
Ballantrae International, Ltd.  
Ijamsville, Maryland



**William B. Grant**  
*Chairman and Chief Executive Officer*  
First United Corp. and  
First United Bank & Trust  
Oakland, Maryland

**Michael L. Middleton**  
*Chairman and President*  
Community Bank of Tri-County  
Waldorf, Maryland

**William R. Roberts**  
*President—Verizon Maryland/D.C.*  
Verizon Maryland Inc.  
Baltimore, Maryland

# Charlotte Office Board of Directors



CHAIRMAN

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*Dean*

College of Business and Behavioral Science  
Clemson University  
Clemson, South Carolina



**Linda L. Dolny**  
*President*  
PML Associates, Inc.  
Greenwood, South Carolina

**Michael C. Miller**  
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FNB United Corp. and CommunityONE  
Bank, N.A.  
Asheboro, North Carolina



**Barry L. Slider**  
*President and CEO*  
First South Bancorp, Inc.  
and First South Bank  
Spartanburg, South Carolina



**James H. Speed, Jr.**  
*President and Chief Executive Officer*  
North Carolina Mutual Life  
Insurance Company  
Durham, North Carolina



**David J. Zimmerman**  
*President*  
Southern Shows, Inc.  
Charlotte, North Carolina

# Small Business and Agriculture Advisory Council



Seated left to right: B. Lang; F. Darby; S. Cowart; W. Ditman; and J. Tabb Standing left to right: C. Nyholm; D. Arnold; R. Bryant; R. Warren; and M. Clark

**CHAIRMAN**

**Jane Tabb**  
*Secretary*

Lyle C. Tabb & Sons, Inc.  
Kearneysville, West Virginia

**David Arnold**  
*President*

Class VI River Runners, Inc.  
Lansing, West Virginia

**Ronnie L. Bryant**  
*President and Chief Executive Officer*  
Charlotte Regional Partnership  
Charlotte, North Carolina

**Martha Anne Clark**  
*Owner*  
Clark's Elioak Farm  
Ellicott City, Maryland

**S. Lake Cowart, Jr.**  
*Vice President*

Cowart Seafood Corp.  
Lottsburg, Virginia

**F. Guy Darby, Jr.**  
*Owner/President*

F. Guy Darby & Son Farm  
Darby Oil Inc.  
Chester, South Carolina

**William W. Ditman**  
*Chairman Emeritus*  
Willow Construction, LLC  
Easton, Maryland

**Barbara B. Lang**  
*President and Chief Executive Officer*  
DC Chamber of Commerce  
Washington, D.C.

**Connie G. Nyholm**  
*Co-Owner/Managing Partner*  
VIRginia International Raceway  
Alton, Virginia

**R. Gerald Warren**  
*President*  
Warren Farming Co., Inc.  
Warren Swine Farms  
Newton Grove, North Carolina

# Community Development Advisory Council



Seated left to right: D. Swinton; J. Henderson; and P. Ponne Standing left to right: M. Stegman; T. Somanath; S. Walden; E. Stein; B. Mazyck; and P. Caldwell

## CHAIRMAN

**Jane N. Henderson**  
*President*

Virginia Community Capital, Inc.  
Christiansburg, Virginia

**Phyllis R. Caldwell**  
*President*

Washington Area Women's Foundation  
Washington, D.C.

**Bernie Mazyck**  
*President and Chief Executive Officer*

South Carolina Association of Community  
Development Corporations (SCACDC)  
Charleston, South Carolina

**Peter J. Ponne**  
*Senior Vice President and Manager*  
SunTrust CDC, Mid-Atlantic Region  
SunTrust Bank  
Baltimore, Maryland

**T.K. Somanath**  
*Executive Director*  
Better Housing Coalition  
Richmond, Virginia

**Michael Stegman**  
*Director of Policy*  
The John D. and Catherine T. MacArthur  
Foundation  
Chicago, Illinois

**Eric Stein**  
*President*  
Center for Community Self-Help  
Durham, North Carolina

**David H. Swinton**  
*President*  
Benedict College  
Columbia, South Carolina

**Sharon Walden**  
*Executive Director*  
Stop Abusive Family Environments  
(S.A.F.E.)  
Welch, West Virginia

# Operations Advisory Committee



Seated left to right: R. Mielke; R. Reardon; and J. Lovern Standing left to right: L. Clark; E. Lilly; M. Patterson; D. Willis; and G. Sink

**CHAIRMAN**

**Martin W. Patterson**  
*Senior Vice President*  
 Banking Operations  
 SunTrust Banks  
 Richmond, Virginia

**Linda J. Adams**  
*Director*  
 Enterprise Banking and  
 Payments Services  
 Capital One  
 Glen Allen, Virginia

**Tanya A. Butts**  
*Executive Vice President,  
 Chief Operations and Technology Officer*  
 The South Financial Group  
 Lexington, South Carolina

**Cynthia B. Cervenka**  
*President and Chief Executive Officer*  
 Damascus Community Bank  
 Damascus, Maryland

**R. Lee Clark**  
*Executive Vice President*  
 Operations  
 TowneBank  
 Suffolk, Virginia

**Daniel O. Cook, Jr.**  
*Executive Vice President and  
 Chief Operating Officer*  
 Arthur State Bank  
 Union, South Carolina

**Tim Dillow**  
*Senior Vice President*  
 Branch Banking and Trust  
 Wilson, North Carolina

**Debra E. Droppleman**  
*Chief Financial Officer*  
 Fairmont Federal Credit Union  
 Fairmont, West Virginia

**Kenneth L. Greear**  
*Executive Vice President*  
 United Bank  
 Charleston, West Virginia

**Marie B. LaQuerre**  
*Senior Vice President*  
 Business Executive  
 Bank of America  
 Charlotte, North Carolina

**E. Stephen Lilly**  
*Senior Vice President and  
 Chief Operating Officer*  
 First Community Bancshares, Inc.  
 Bluefield, Virginia

**Joan Lovern**  
*Vice President*  
 Virginia Bank & Trust Co.  
 Danville, Virginia

**Gerald McQuaid**  
*Senior Vice President*  
 Division Executive, Bank Operations  
 Chevy Chase Bank, FSB  
 Laurel, Maryland

**Rita B. Mielke**  
*Vice President and Chief  
 Operating Officer*  
 The Centreville National Bank  
 of Maryland  
 Centreville, Maryland



Seated left to right: N. Robinson; T. Butts; and K. Greear Standing left to right: D. Cook; P. Slaby; S. Perry; and K. Richey

**Gerry Felton**

*Director*

Bank Operations Services  
RBC Centura Bank  
Rocky Mount, North Carolina

**Patricia Muldoon**

*Senior Vice President and  
Chief Operating Officer*

Citizens National Bank of Berkeley Springs  
Berkeley Springs, West Virginia

**Stephen B. Perry**

*Senior Operations Officer and Cashier*

Virginia National Bank  
Charlottesville, Virginia

**Melissa Quirk**

*Executive Vice President*

The Columbia Bank  
Columbia, Maryland

**Ralph Reardon**

*Senior Vice President and  
Chief Financial Officer*

Coastal Federal Credit Union  
Raleigh, North Carolina

**Rick Rhoads**

*Senior Vice President*

E-Services  
State Employees' Credit Union  
Raleigh, North Carolina

**Kenneth L. Richey**

*Director*

Corporate Cash Management  
Synovus Financial Corporation  
Columbia, South Carolina

**Norman K. Robinson**

*President*

EastPay  
Richmond, Virginia

**John Russ**

*President and Chief Executive Officer*

Community FirstBank of Charleston  
Charleston, South Carolina

**D. Gerald Sink**

*Senior Vice President*

NewBridge Bank  
Lexington, North Carolina

**Paul A. Slaby**

*Senior Vice President Finance*

Aberdeen Proving Ground  
Federal Credit Union  
Edgewood, Maryland

**Karla Strosnider**

*Senior Vice President  
Operations*

Centra Bank, Inc.  
Morgantown, West Virginia

**William Swords**

*Senior Vice President*

Wachovia Corporation  
Atlanta, Georgia

**David Willis**

*Vice President*

Debit Card and Funds Services  
Navy Federal Credit Union  
Vienna, Virginia

**Thomas Wilson**

*Senior Vice President and  
Chief Financial Officer*

Industrial Bank of Washington  
Washington, D.C.

# Management Committee



Seated left to right:  
J. McAfee; J. Weinberg; and C. MacSwain

Standing left to right:  
R. Wetzel; J. Clatterbuck; M. Alfriend;  
S. Green; J. Kane; J. Lacker;  
D. Beck; M. Shuler; and V. Brugh

**Jeffrey M. Lacker**  
*President*

**Sally Green**  
*First Vice President*

**Malcolm C. Alfriend**  
*Senior Vice President*

**David E. Beck**  
*Senior Vice President  
Baltimore Office*

**Victor M. Brugh, II**  
*Medical Director*

**Janice E. Clatterbuck**  
*Senior Vice President*

**Jeffrey S. Kane**  
*Senior Vice President  
Charlotte Office*

**Claudia N. MacSwain**  
*Senior Vice President  
and Chief Financial Officer*

**James McAfee**  
*Senior Vice President  
and General Counsel*

**Marsha S. Shuler**  
*Senior Vice President*

**John A. Weinberg**  
*Senior Vice President  
and Director of Research*

**Robert E. Wetzel, Jr.**  
*Senior Vice President  
and General Auditor*

# Officers

## OFFICERS CONTINUED

**James M. Barnes**  
*Vice President*

**Roland Costa**  
*Vice President*

**Alan H. Crooker**  
*Vice President*

**Tammy H. Cummings**  
*Vice President*

**Constance B. Frudden**  
*Vice President*

**A. Linwood Gill, III**  
*Vice President*

**Howard S. Goldfine**  
*Vice President*

**Mattison W. Harris**  
*Vice President*

**Andreas L. Hornstein**  
*Vice President*

**Eugene W. Johnson, Jr.**  
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**Malissa M. Ladd**  
*Vice President*

**P. A. L. Nunley**  
*Deputy General Counsel*

**Lisa T. Oliva**  
*Vice President*

**Edward S. Prescott**  
*Vice President*

**Howard S. Whitehead**  
*Vice President*

**Michael L. Wilder**  
*Vice President and Controller*

**Hattie R. C. Barley**  
*Assistant Vice President*

**Jessica B. Brooks**  
*Assistant Vice President*

**Granville Burruss**  
*Assistant Vice President*

**John B. Carter, Jr.**  
*Assistant Vice President*

**Todd E. Dixon**  
*Assistant Vice President*

**Adam M. Drimer**  
*Assistant Vice President*

**Daniel E. Elder**  
*Assistant Vice President*

**Joan T. Garton**  
*Assistant Vice President*

**Anne C. Gossweiler**  
*Assistant Vice President*

**Cathy I. Howdysell**  
*Assistant Vice President*

**Gregory A. Johnson**  
*Assistant Vice President*

**Mary S. Johnson**  
*Assistant Vice President*

**James W. Lucas**  
*Assistant Vice President*

**Steve V. Malone**  
*Assistant Vice President*

**Page W. Marchetti**  
*Assistant Vice President and Secretary*

**Jonathan P. Martin**  
*Assistant Vice President*

**Andrew S. McAllister**  
*Assistant Vice President*

**William R. McCorvey, Jr.**  
*Assistant General Counsel*

**Dennis G. McDonald**  
*Assistant Vice President*

**Diane H. McDorman**  
*Assistant Vice President*

**Robert J. Minter**  
*Assistant Vice President*

**Susan Q. Moore**  
*Assistant Vice President*

**Barbara J. Moss**  
*Assistant Vice President*

**Edward B. Norfleet**  
*Assistant Vice President*

**Kelly W. Phillips**  
*Assistant Vice President*

**Arlene S. Saunders**  
*Assistant Vice President*

**Rebecca J. Snider**  
*Assistant Vice President*

**Jeffrey K. Thomas**  
*Assistant Vice President*

**Sandra L. Tormoen**  
*Assistant Vice President*

**Lauren E. Ware**  
*Assistant Vice President*

**Karen J. Williams**  
*Assistant Vice President*

**H. Julie Yoo**  
*Assistant Vice President*

## BALTIMORE OFFICE

**Steven T. Bareford**  
*Assistant Vice President*

**Karen L. Brooks**  
*Assistant Vice President*

**Amy L. Eschman**  
*Assistant Vice President*

## CHARLOTTE OFFICE

**R. William Ahern**  
*Vice President*

**Jennifer J. Burns**  
*Vice President*

**Stacy L. Coleman**  
*Vice President*

**Terry J. Wright**  
*Vice President*

**Christopher S. Cook**  
*Assistant Vice President*

**T. Stuart Desch**  
*Assistant Vice President*

**Ronald B. Holton**  
*Assistant Vice President*

**Richard J. Kuhn**  
*Assistant Vice President*

**Adam S. Pilsbury**  
*Assistant Vice President*

**Kelly J. Stewart**  
*Assistant Vice President*

**Richard F. Westerkamp, Jr.**  
*Assistant Vice President*

**Lisa A. White**  
*Assistant Vice President*

*Listings as of December 31, 2008*



# Financial Statements

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In 2008, the Board of Governors engaged Deloitte & Touche LLP (D&T) for the audits of the individual and combined financial statements of the Reserve Banks. Fees for D&T's services are estimated to be \$10.2 million. Approximately \$2.7 million of the estimated total fees were for the audits of the limited liability companies (LLCs) that are associated with recent Federal Reserve actions to address the financial crisis, and are consolidated in the financial statements of the Federal Reserve Bank of New York.<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 2008, 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 Assertion

April 2, 2009

### To the Board of Directors:

The management of the Federal Reserve Bank of Richmond ("FRB Richmond") is responsible for the preparation and fair presentation of the Statement of Financial Condition, Statements of Income and Comprehensive Income, and Statement of Changes in Capital as of December 31, 2008 (the "Financial Statements"). The Financial Statements have been prepared in conformity with the accounting principles, policies, and practices established by the Board of Governors of the Federal Reserve System and as set forth in the Financial Accounting Manual for the Federal Reserve Banks ("Manual"), and as such, include amounts, some of which are based on 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 Manual and include all disclosures necessary for such fair presentation.

The management of the FRB Richmond 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 Manual. 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 FRB Richmond 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 FRB Richmond maintained effective internal control over financial reporting as it relates to the Financial Statements.

### Federal Reserve Bank of Richmond



**Jeffrey M. Lacker**  
President



**Sally Green**  
First Vice President



**Claudia N. MacSwain**  
Senior Vice President and  
Chief Financial Officer

# Report of Independent Auditors

## To the Board of Governors of the Federal Reserve System and the Board of Directors of the Federal Reserve Bank of Richmond:

We have audited the accompanying statements of condition of the Federal Reserve Bank of Richmond (“FRB Richmond”) as of December 31, 2008 and 2007 and the related statements of income and comprehensive income and 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 FRB Richmond as of December 31, 2008, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. FRB Richmond’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 Assertion*. Our responsibility is to express an opinion on these financial statements and an opinion on FRB Richmond’s internal control over financial reporting based on our audits.

We conducted our audits in accordance with the 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.

FRB Richmond’s internal control over financial reporting is a process designed by, or under the supervision of, FRB Richmond’s principal executive and principal financial officers, or persons performing similar functions, and effected by FRB Richmond’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. FRB Richmond’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 FRB Richmond; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with the

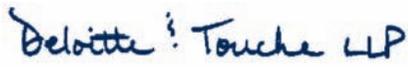
(continued)

accounting principles established by the Board of Governors of the Federal Reserve System, and that receipts and expenditures of FRB Richmond are being made only in accordance with authorizations of management and directors of FRB Richmond; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of FRB Richmond'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, FRB Richmond 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, the financial statements referred to above present fairly, in all material respects, the financial position of FRB Richmond as of December 31, 2008 and 2007, and the results of its operations for the years then ended, on the basis of accounting described in Note 4. Also, in our opinion, FRB Richmond maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on the criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.



Deloitte & Touche LLP

April 2, 2009



## Statements of Condition (in millions)

As of December 31,	2008	2007
<b>Assets</b>		
Gold certificates	\$ 891	\$ 869
Special drawing rights certificates	147	147
Coin	233	134
Items in process of collection	41	154
Loans to depository institutions	75,582	905
System Open Market Account:		
Securities purchased under agreements to resell	7,254	4,029
U.S. government, Federal agency, and government-sponsored enterprise securities, net	45,538	64,603
Investments denominated in foreign currencies	6,717	6,120
Central bank liquidity swaps	149,945	6,505
Bank premises and equipment, net	332	287
Prepaid interest on Federal Reserve notes due from U.S. Treasury	70	—
Accrued interest receivable	925	559
Other assets	92	101
<b>Total assets</b>	<b>\$ 287,767</b>	<b>\$ 84,413</b>
<b>Liabilities and Capital</b>		
Federal Reserve notes outstanding, net	\$ 69,220	\$ 66,785
System Open Market Account:		
Securities sold under agreements to repurchase	8,012	3,811
Deposits:		
Depository institutions	34,056	1,780
Other deposits	90	64
Deferred credit items	172	111
Interest on Federal Reserve notes due to U.S. Treasury	—	450
Interdistrict settlement account	163,991	1,177
Accrued benefit costs	201	189
Other liabilities	65	54
<b>Total liabilities</b>	<b>275,807</b>	<b>74,421</b>
Capital paid-in	5,980	4,996
Surplus (including accumulated other comprehensive loss of \$47 and \$50 million at December 31, 2008 and 2007, respectively)	5,980	4,996
<b>Total capital</b>	<b>11,960</b>	<b>9,992</b>
<b>Total liabilities and capital</b>	<b>\$ 287,767</b>	<b>\$ 84,413</b>

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

## Statements of Income and Comprehensive Income (in millions)

For the year ended December 31,	2008	2007
<b>Interest Income</b>		
Loans to depository institutions	\$ 389	\$ 3
System Open Market Account:		
Securities purchased under agreements to resell	170	122
U.S. government, Federal agency, and government-sponsored enterprise securities	2,286	3,314
Investments denominated in foreign currencies	168	146
Central bank liquidity swaps	\$ 976	\$ 8
<b>Total interest income</b>	<b>3,989</b>	<b>3,593</b>
<b>Interest Expense</b>		
System Open Market Account:		
Securities sold under agreements to repurchase	66	144
Depository institutions deposits	133	—
<b>Total interest expense</b>	<b>199</b>	<b>144</b>
<b>Net interest income</b>	<b>3,790</b>	<b>3,449</b>
<b>Non-interest Income</b>		
System Open Market Account:		
U.S. government, Federal agency, and government-sponsored enterprise securities gains, net	332	—
Foreign currency gains, net	341	501
Compensation received for services provided	48	56
Reimbursable services to government agencies	31	29
Other income	75	15
<b>Total non-interest income</b>	<b>827</b>	<b>601</b>
<b>Operating Expenses</b>		
Salaries and other benefits	295	287
Occupancy expense	39	35
Equipment expense	55	56
Assessments by the Board of Governors	140	129
Other credits	(132)	(83)
<b>Total operating expenses</b>	<b>397</b>	<b>424</b>
<b>Net income prior to distribution</b>	<b>4,220</b>	<b>3,626</b>
Change in funded status of benefit plans	3	23
<b>Comprehensive income prior to distribution</b>	<b>\$ 4,223</b>	<b>\$ 3,649</b>
<b>Distribution of Comprehensive Income</b>		
Dividends paid to member banks	\$ 318	\$ 263
Transferred to surplus and change in accumulated other comprehensive loss	984	903
Payments to U.S. Treasury as interest on Federal Reserve notes	2,921	2,483
<b>Total distribution</b>	<b>\$ 4,223</b>	<b>\$ 3,649</b>

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

## Statements of Changes in Capital (in millions)

For the years ended December 31, 2008 and December 31, 2007	Capital Paid-In	Net Income Retained	Surplus		Total Capital
			Accumulated Other Comprehensive Loss	Total Surplus	
Balance at January 1, 2007 (81.8 million shares)	\$ 4,093	\$ 4,166	\$ (73)	\$ 4,093	\$ 8,186
Net change in capital stock issued (18.1 million shares)	903	—	—	—	903
Transferred to surplus and change in accumulated other comprehensive loss	—	880	23	903	903
Balance at December 31, 2007 (99.9 million shares)	\$ 4,996	\$ 5,046	\$ (50)	\$ 4,996	\$ 9,992
Net change in capital stock issued (19.7 million shares)	984	—	—	—	984
Transferred to surplus and change in accumulated other comprehensive loss	—	981	3	984	984
<b>Balance at December 31, 2008 (119.6 million shares)</b>	<b>\$ 5,980</b>	<b>\$ 6,027</b>	<b>\$ (47)</b>	<b>\$ 5,980</b>	<b>\$ 11,960</b>

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

# Notes to Financial Statements

## 1. Structure

The Federal Reserve Bank of Richmond (“Bank”) is part of the Federal Reserve System (“System”) and is one of the twelve Reserve Banks (“Reserve Banks”) created by Congress under the Federal Reserve Act of 1913 (“Federal Reserve Act”), which established the central bank of the United States. The Reserve Banks are chartered by the federal government and possess a unique set of governmental, corporate, and central bank characteristics. The Bank serves the Fifth Federal Reserve District, which includes Maryland, North Carolina, South Carolina, Virginia, District of Columbia, and portions of West Virginia.

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 in the System. Member banks are divided into three classes according to size. Member banks in each class elect one director representing member banks and one representing the public. In any election of directors, each member bank receives one vote, regardless of the number of shares of Reserve Bank stock it holds.

The System also consists, in part, of the Board of Governors 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, in-

cluding 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. Functions include participation in formulating and conducting monetary policy; participation in the payments system, including large-dollar transfers of funds, automated clearinghouse (“ACH”) operations, and check collection; distribution of coin and currency; performance of fiscal agency functions for the U.S. Treasury, certain federal agencies, and other entities; serving as the federal government’s bank; provision of short-term loans to depository institutions; provision of loans to individuals, partnerships, and corporations in unusual and exigent circumstances; service to the consumer and the community by providing educational materials and information regarding consumer laws; and supervision of 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 FOMC, in the conduct of monetary policy, establishes policy regarding domestic open market operations, oversees these operations, and annually issues authorizations and directives to the FRBNY to execute transactions. The FRBNY is authorized and directed by the FOMC to conduct operations in domestic markets, including the direct purchase and sale of securities of the U.S. government, Federal agencies, and government-sponsored enterprises (“GSEs”), the purchase of these securities under agreements to resell, the sale of these securities under agreements to

repurchase, and the lending of these securities. The FRBNY executes these transactions at the direction of the FOMC and holds the resulting securities and agreements in the portfolio known as the System Open Market Account (“SOMA”).

In addition to authorizing and directing operations in the domestic securities market, the FOMC authorizes and directs the FRBNY to execute operations in foreign markets in order to counter disorderly conditions in exchange markets or to meet other needs specified by the FOMC in carrying out the System’s central bank responsibilities. The FRBNY is authorized by the FOMC to hold balances of, and to execute spot and forward foreign exchange and securities contracts for, fourteen foreign currencies and to invest such foreign currency holdings, ensuring adequate liquidity is maintained. The FRBNY is also authorized and directed by the FOMC to maintain reciprocal currency arrangements with fourteen central banks and to “warehouse” foreign currencies for the U.S. Treasury and Exchange Stabilization Fund (“ESF”) through the Reserve Banks.

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 providing the service and the other 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 reimburse the other Reserve Banks for services provided to them.

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 Standard Cash Automation, Currency Technology

Office, Enterprise-wide Security Projects, Enterprise Security Operations Coordination, the Payroll Central Business Administration Function, Daylight Overdraft Reporting and Pricing, and the National Procurement Office. Costs are, however, redistributed to the other Reserve Banks for computing and support services the Bank provides for the System. The Bank’s total reimbursement for these services was \$301 million and \$296 million for the years ended December 31, 2008 and 2007, respectively, and is included in “Other credits” on the Statements of Income and Comprehensive Income.

### **3. Recent Financial Stability Activities**

The Federal Reserve has implemented a number of programs designed to support the liquidity of financial institutions and to foster improved conditions in financial markets. These new programs, which are set forth below, have resulted in significant changes to the Bank’s financial statements.

#### ***Expanded Open Market Operations and Support for Mortgage Related Securities***

The Single-Tranche Open Market Operation Program, created on March 7, 2008, allows primary dealers to initiate a series of term repurchase transactions that are expected to accumulate up to \$100 billion in total. Under the provisions of the program, these transactions are conducted as 28-day term repurchase agreements for which primary dealers pledge U.S. Treasury and agency securities and agency Mortgage-Backed Securities (“MBS”) as collateral. The FRBNY can elect to increase the size of the term repurchase program if conditions warrant. The repurchase transactions are reported as “System Open Market Account: Securities purchased under agreements to resell” in the Statements of Condition.

The GSE and Agency Securities and MBS Purchase Program was announced on November 25, 2008. The primary goal of the program is to provide support to the mortgage and housing mar-

kets and to foster improved conditions in financial markets. Under this program, the FRBNY will purchase the direct obligations of housing-related GSEs and MBS backed by the Federal National Mortgage Association (“Fannie Mae”), the Federal Home Loan Mortgage Corporation (“Freddie Mac”), and the Government National Mortgage Association (“Ginnie Mae”). Purchases of the direct obligations of housing-related GSEs began in November 2008 and purchases of GSE and agency MBS began in January 2009. There were no purchases of GSE and agency MBS during the period ended December 31, 2008. The program was initially authorized to purchase up to \$100 billion in GSE direct obligations and up to \$500 billion in GSE and agency MBS. In March 2009, the FOMC authorized FRBNY to purchase up to an additional \$750 billion of GSE and agency MBS and up to an additional \$100 billion of GSE direct obligations.

The FRBNY holds the resulting securities and agreements in the SOMA portfolio and the activities of both programs are allocated to the other Reserve Banks.

### ***Central Bank Liquidity Swaps***

The FOMC authorized the FRBNY to establish temporary reciprocal currency swap arrangements (central bank liquidity swaps) with the European Central Bank and the Swiss National Bank on December 12, 2007, to help provide liquidity in U.S. dollars to overseas markets. Subsequently, the FOMC authorized reciprocal currency swap arrangements with additional foreign central banks. Such arrangements are now authorized with the following central banks: the Reserve Bank of Australia, the Banco Central do Brasil, the Bank of Canada, Danmarks Nationalbank, the Bank of England, the European Central Bank, the Bank of Japan, the Bank of Korea, the Banco de Mexico, the Reserve Bank of New Zealand, Norges Bank, the Monetary Authority of Singapore, Sveriges Riksbank, and the Swiss National Bank.

The activity related to the program is allocated to the other Reserve Banks. The maximum amount of borrowing permissible under the swap arrangements varies by central bank. The central bank liquidity swap arrangements are authorized through October 30, 2009.

### ***Lending to Depository Institutions***

The temporary Term Auction Facility (“TAF”) program was created on December 12, 2007. The goal of the TAF is to help promote the efficient dissemination of liquidity, which is achieved by the Reserve Banks injecting term funds through a broader range of counterparties and against a broader range of collateral than open market operations. Under the TAF program, Reserve Banks auction term funds to depository institutions against a wide variety of collateral. All depository institutions that are judged to be in generally sound financial condition by their Reserve Bank and that are eligible to borrow under the primary credit program are eligible to participate in TAF auctions. All advances must be fully collateralized. The loans are reported as “Loans to depository institutions” in the Statements of Condition.

### ***Lending to Primary Dealers***

The Term Securities Lending Facility (“TSLF”) was created on March 11, 2008, to promote the liquidity in the financing markets for U.S. Treasuries and other collateral. Under the TSLF, the FRBNY will lend up to an aggregate amount of \$200 billion of U.S. Treasury securities to primary dealers secured for a term of 28 days. Securities loans are collateralized by a pledge of other securities, including federal agency debt, federal agency residential mortgage-backed securities, and non-agency AAA/Aaa-rated private-label residential mortgage-backed securities, and are awarded to primary dealers through a competitive single-price auction. The TSLF is authorized through October 30, 2009. The fees related to these securities lending

transactions are reported as a component of “Non-interest income (loss): Other income” in the Statements of Income and Comprehensive Income.

The Term Securities Lending Facility Options Program (“TOP”), created on July 30, 2008, offers primary dealers the option to draw upon short-term, fixed-rate TSLF loans in exchange for eligible collateral. The options are awarded through a competitive auction. The program is intended to enhance the effectiveness of the TSLF by ensuring additional securities liquidity during periods of heightened collateral market pressures, such as around quarter-end dates. TOP auction dates are determined by the FRBNY, and the program authorization ends concurrently with the TSLF.

#### ***Other Lending Facilities***

The Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (“AMLF”), created on September 19, 2008, is a lending facility that provides funding to U.S. depository institutions and bank holding companies to finance the purchase of high-quality asset-backed commercial paper (“ABCP”) from money market mutual funds under certain conditions. The program is intended to assist money market mutual funds that hold such paper to meet the demands for investor redemptions and to foster liquidity in the ABCP market and money markets more generally. The Federal Reserve Bank of Boston (“FRBB”) administers the AMLF and is authorized to extend these loans to eligible borrowers on behalf of the other Reserve Banks. All loans extended under the AMLF are recorded as assets by the FRBB and, if the borrowing institution settles to a depository account in the Fifth Reserve District, the funds are credited to the institution’s depository account and settled between the Banks through the inter-district settlement account. The credit risk related to the AMLF is assumed by the FRBB. The FRBB is authorized to finance the purchase of commercial paper through October 30, 2009.

## **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* (“Financial Accounting Manual” or “FAM”), which is issued by the Board of Governors. All of 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.

Differences exist between the accounting principles and practices in the FAM and generally accepted accounting principles in the United States (“GAAP”), primarily due to the unique nature of the Bank’s powers and responsibilities as part of the nation’s central bank. The primary difference is the presentation of all SOMA securities holdings at amortized cost rather than using the fair value presentation required by GAAP. U.S. government, Federal agency, and GSE securities, and investments denominated in foreign currencies comprising the SOMA are recorded at cost, on a settlement-date basis, and are adjusted for amortization of premiums or accretion of discounts on a straight-line basis. Amortized cost more appropriately reflects the Bank’s securities holdings given the System’s unique responsibility to conduct monetary policy. Although the application of current market prices to the securities holdings may result in values substantially above or below their carrying values, these unrealized changes in value would have no direct 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 prior to 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 any gains or losses resulting from the sale of such securities and currencies are incidental to the open market operations and do not motivate decisions related to policy or open market activities.

In addition, the Bank has elected not to present a Statement of Cash Flows because the liquidity and cash position of the Bank are not a primary concern given the 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.

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. Certain amounts relating to the prior year have been reclassified to conform to the current-year presentation. Unique accounts and significant accounting policies are explained below.

#### ***a. Gold and Special Drawing Rights Certificates***

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

Payment for the gold certificates by the Reserve Banks is made by crediting equivalent amounts in

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

SDR certificates are issued by the International Monetary Fund (the "Fund") to its members in proportion to each member's quota in the Fund 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 U.S. Treasury is authorized to issue SDR certificates somewhat like gold certificates to the Reserve Banks. When SDR certificates are issued to the Reserve Banks, equivalent amounts in dollars are credited to the account established for the U.S. Treasury, and the Reserve Banks' SDR certificate accounts are increased. The Reserve Banks are required to purchase SDR certificates, at the direction of the U.S. Treasury, for the purpose of financing SDR acquisitions or for financing exchange stabilization operations. At the time SDR transactions occur, the Board of Governors allocates SDR certificate transactions among the Reserve Banks based upon each Reserve Bank's Federal Reserve notes outstanding at the end of the preceding year. There were no SDR transactions in 2008 or 2007.

#### ***b. Loans to Depository Institutions***

Loans are reported at their outstanding principal balances net of commitment fees. Interest

income is recognized on an accrual basis. Loan commitment fees are generally deferred and amortized on a straight-line basis over the commitment period, which is not materially different from the interest method.

Outstanding loans are evaluated to determine whether an allowance for loan losses is required. The Bank has developed procedures for assessing the adequacy of the allowance for loan losses that reflect the assessment of credit risk considering all available information. This assessment includes monitoring information obtained from banking supervisors, borrowers, and other sources to assess the credit condition of the borrowers.

Loans are considered to be impaired when it is probable that the Bank will not receive principal and interest due in accordance with the contractual terms of the loan agreement. The amount of the impairment is the difference between the recorded amount of the loan and the amount expected to be collected, after consideration of the fair value of the collateral. Recognition of interest income is discontinued for any loans that are considered to be impaired. Cash payments made by borrowers on impaired loans are applied to principal until the balance is reduced to zero; subsequent payments are recorded as recoveries of amounts previously charged off and then to interest income.

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

The FRBNY may engage in tri-party purchases of securities under agreements to resell ("tri-party agreements"). Tri-party agreements are conducted with two commercial custodial banks that manage the clearing and settlement of collateral. Collateral is held in excess of the contract amount. Acceptable collateral under tri-party agreements primarily includes U.S. government securities;

pass-through mortgage securities of Fannie Mae, Freddie Mac, and Ginnie Mae; STRIP securities of the U.S. government; and "stripped" securities of other government agencies. The tri-party agreements are accounted for as financing transactions and the associated interest income is accrued over the life of the agreement.

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

U.S. government securities held in the SOMA are lent to U.S. government securities dealers to facilitate the effective functioning of the domestic securities market. Overnight securities lending transactions are fully collateralized by other U.S. government securities. Term securities lending transactions are fully collateralized with investment-grade debt securities, collateral eligible for tri-party repurchase agreements arranged by the Open Market Trading Desk, or both. The collateral taken in both overnight and term securities lending transactions is in excess of the fair value of the securities loaned. The FRBNY charges the primary dealer a fee for borrowing securities, and these fees are reported as a component of "Other 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.

### ***d. U.S. Government, Federal Agency, and Government-Sponsored Enterprise Securities; Investments Denominated in Foreign Currencies; and Warehousing Agreements***

Interest income on U.S. government, Federal agency, and GSE securities and investments denominated in foreign currencies comprising the SOMA is accrued on a straight-line basis. Gains and losses resulting from sales of securities are determined by specific issue based on average cost. Foreign-currency-denominated assets are revalued daily at current foreign currency market exchange rates in order to report these assets in U.S. dollars. Realized and unrealized gains and losses on investments denominated in foreign currencies are reported as “Foreign currency (losses) gains, net” in the Statements of Income and Comprehensive Income.

Activity related to U.S. government, Federal agency, and GSE securities, 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 interdistrict settlement account that occurs in April of each year. The settlement also equalizes Reserve Bank gold certificate holdings to Federal Reserve notes outstanding in each District. Activity related to investments denominated in foreign currencies, 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 agrees to exchange, at the request of the U.S. Treasury, U.S. dollars for foreign currencies held by the U.S. Treasury or ESF over a limited period of time. The purpose of the warehousing facility is to supplement the U.S. dollar resources of the U.S. Treasury and ESF for financing purchases of foreign currencies and related international operations.

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.

#### ***e. Central Bank Liquidity Swaps***

At the initiation of each central bank liquidity swap transaction, the foreign central bank transfers a specified amount of its currency to 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. The foreign currency amounts that the FRBNY acquires are reported as “Central bank liquidity swaps” on the Statements of Condition. Because the swap transaction will be unwound at the same exchange rate that was 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 pays interest to the FRBNY based on the foreign currency amounts held by the FRBNY. The FRBNY recognizes interest income during the term of the swap agreement and reports the interest income as a component of “Interest income: Central bank liquidity swaps” in the Statements of Income and Comprehensive Income.

Activity related to these swap transactions, including the related interest income, 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. Similar to other investments denominated in foreign currencies, the foreign currency holdings associated with these central bank liquidity swaps are revalued at current foreign currency market

exchange rates. Because the swap arrangement will be unwound at the same exchange rate that was used in the initial transaction, the obligation to return the foreign currency is also revalued at current foreign currency market exchange rates and is recorded in a currency exchange valuation account by the FRBNY. This revaluation method eliminates the effects of the changes in the market exchange rate. As of December 31, 2008, the FRBNY began allocating the currency exchange valuation account to the Bank and, as a result, the reported amount of central bank liquidity swaps reflects the Bank's allocated portion at the contract exchange rate.

#### ***f. 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.

#### ***g. 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 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 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.

#### ***h. Federal Reserve Notes***

Federal Reserve notes are the circulating currency of the United States. These notes are issued through the various Federal Reserve agents (the chairman of the board of directors of each Reserve Bank and their designees) to the Reserve Banks upon deposit with such agents of specified classes of collateral security, typically U.S. government securities. These notes are identified as issued to a specific Reserve Bank. The Federal Reserve Act provides that the collateral security tendered by the Reserve Bank to the Federal Reserve agent must be at least equal to the sum of the notes applied for by such Reserve Bank.

Assets eligible to be pledged as collateral security include all of the Bank's assets. 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 pledged for securities sold under agreements to repurchase is deducted.

The Board of Governors may, at any time, call upon a Reserve Bank for additional security to adequately collateralize the 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. At December 31, 2008 and 2007, all Federal Reserve notes issued to the Reserve Banks were fully collateralized.

"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 \$11,552 million and \$13,767 million at December 31, 2008 and 2007, respectively.

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

"Items in process of collection" in the Statements of Condition 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, and 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.

#### ***j. Capital Paid-in***

The Federal Reserve Act requires that each member bank subscribe to the capital stock of the Reserve Bank in an amount equal to 6 percent of the

capital and surplus of the member bank. These shares are nonvoting with a par value of \$100 and may not be transferred or hypothecated. As a member bank's capital and surplus changes, its holdings of Reserve Bank stock must be adjusted. Currently, only one-half of the subscription is paid-in and the remainder is subject to call. 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 reflect 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.

#### ***k. 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. This amount is intended to provide additional capital and reduce the possibility that the Reserve Banks will be required to call on member banks for additional capital.

Accumulated other comprehensive income is reported as a component of surplus in the Statements of Condition and the Statements of Changes in Capital. The balance of accumulated other comprehensive income is comprised of expenses, gains, and losses related to other postretirement benefit plans that, under accounting standards, are included in other comprehensive income, but excluded from net income. Additional information regarding the classifications of accumulated other comprehensive income is provided in Notes 12 and 13.

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

The Board of Governors requires the Reserve Banks to transfer excess earnings to the U.S. 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 U.S. Treasury as interest on Federal Reserve notes” in the Statements of Income and Comprehensive Income and is reported as a liability, or as an asset if overpaid during the year, in the Statements of Condition. Weekly payments to the U.S. Treasury may vary significantly.

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

In the event of a decrease in capital paid-in, the excess surplus, after equating capital paid-in and surplus at December 31, is distributed to the U.S. Treasury in the following year.

### ***m. Interest on Depository Institution Deposits***

Beginning October 9, 2008, the Reserve Banks began paying interest to depository institutions on qualifying balances held at the Banks. Authorization for payment of interest on these balances was granted by Title II of the Financial Services Regulatory Relief Act of 2006, which had an effective date of 2011. Section 128 of the Emergency Economic Stabilization Act of 2008, enacted on October 3, 2008, made that authority immediately effective. The interest rates paid on required reserve balances and excess balances are based on an FOMC-established target range for the effective federal funds rate.

### ***n. Income and Costs Related to U.S. Treasury Services***

The Bank is required by the Federal Reserve Act

to serve as fiscal agent and depository of the United States. By statute, the Department of the Treasury has appropriations to pay for these services. During the years ended December 31, 2008 and 2007, the Bank was reimbursed for all services provided to the Department of the Treasury as its fiscal agent.

### ***o. Compensation Received for Services Provided***

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. Similarly, the FRBNY manages the Reserve Banks’ provision of Fedwire funds and securities transfer services, and recognizes total System revenue for these services on its Statements of Income and Comprehensive Income. The FRBA and FRBNY compensate the other Reserve Banks for the costs incurred to provide these services. The Bank reports this compensation as “Compensation received for services provided” in the Statements of Income and Comprehensive Income.

### ***p. Assessments by the Board of Governors***

The Board of Governors assesses the Reserve Banks to fund its operations based on each Reserve Bank’s capital and surplus balances as of December 31 of the prior year. The Board of Governors also assesses each Reserve Bank for the expenses incurred for the U.S. Treasury to prepare 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.

### ***q. Taxes***

The Reserve Banks are exempt from federal, state, and local taxes, except for taxes on real property

and, in some states, sales taxes on construction-related materials. The Bank's real property taxes were \$2 million for each of the years ended December 31, 2008 and 2007, and are reported as a component of "Occupancy expense."

### ***r. 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. The costs associated with the impairment of certain of the Bank's assets are discussed in Note 9. 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.

### ***s. Recently Issued Accounting Standards***

In September 2006, FASB issued SFAS No. 157, "Fair Value Measurements" ("SFAS 157"), which established a single authoritative definition of fair value and a framework for measuring fair value, and expands the required disclosures for assets and liabilities measured at fair value. SFAS 157 was effective for fiscal years beginning after November 15, 2007, with early adoption permitted. The Bank adopted SFAS 157 effective January 1, 2008. The

provisions of this standard have no material effect on the Bank's financial statements.

In February 2007, FASB issued SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities, including an amendment of FASB Statement No. 115" ("SFAS 159"), which provides companies with an irrevocable option to elect fair value as the measurement for selected financial assets, financial liabilities, unrecognized firm commitments and written loan commitments that are not subject to fair value under other accounting standards. There is a one-time election available to apply this standard to existing financial instruments as of January 1, 2008; otherwise, the fair value option will be available for financial instruments on their initial transaction date. SFAS 159 reduces the accounting complexity for financial instruments and the volatility in earnings caused by measuring related assets and liabilities differently, and it eliminates the operational complexities of applying hedge accounting. The Bank adopted SFAS 159 effective January 1, 2008. The provisions of this standard have no material effect on the Bank's financial statements.

In February 2008, FASB issued FASB Staff Position ("FSP") FAS 140-3, "Accounting for Transfers of Financial Assets and Repurchase Financing Transactions." FSP FAS 140-3 requires that an initial transfer of a financial asset and a repurchase financing that was entered into contemporaneously with, or in contemplation of, the initial transfer be evaluated together as a linked transaction under SFAS 140 "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities," unless certain criteria are met. FSP FAS 140-3 is effective for the Bank's financial statements for the year beginning on January 1, 2009 and earlier adoption is not permitted. The provisions of this standard will not have a material effect on the Bank's financial statements.

## 5. Loans

The loan amounts outstanding to depository institutions at December 31 were as follows (in millions):

	2008	2007
Primary, secondary, and seasonal credit	\$ 452	\$ 130
TAF	75,130	775
<b>Total loans to depository institutions</b>	<b>\$ 75,582</b>	<b>\$ 905</b>

### *Loans to Depository Institutions*

The Bank offers primary, secondary, and seasonal credit to eligible borrowers. Each program has its own interest rate. Interest is accrued using the applicable interest rate established at least every fourteen days by the board of directors of the Bank, subject to review and determination by the Board of Governors. Primary and secondary credits are extended on a short-term basis, typically overnight, whereas seasonal credit may be extended for a period 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, U.S. Treasury securities, Federal agency securities, GSE obligations, foreign sovereign debt obligations, municipal or corporate obligations, 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 deemed appropriate by the Bank, which is typically fair value or face value reduced by a margin.

Depository institutions that are eligible to borrow under the Bank's primary credit program are also eligible to participate in the temporary TAF program. Under the TAF program, the Reserve Banks conduct auctions for a fixed amount of funds, with the interest rate determined by the

auction process, subject to a minimum bid rate. TAF loans are extended on a short-term basis, with terms of either 28 or 84 days. All advances under the TAF must be fully collateralized. Assets eligible to collateralize TAF loans include the complete list noted above for loans to depository institutions. Similar to the process used for primary, secondary, and seasonal credit, a lending value is assigned to each asset accepted as collateral for TAF loans.

Loans to depository institutions are monitored on a daily basis 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 may convert the loan to a secondary credit loan.

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.

The maturity distribution of loans outstanding at December 31, 2008, was as follows (in millions):

	Primary, secondary, and seasonal credit	TAF
Within 15 days	\$ 202	\$ 41,980
16 days to 90 days	250	33,150
<b>Total loans</b>	<b>\$ 452</b>	<b>\$ 75,130</b>

### *Allowance for Loan Losses*

At December 31, 2008 and 2007, no loans were considered to be impaired and the Bank determined that no allowance for loan losses was required.

## 6. U.S. Government, Federal Agency, and Government-Sponsored Enterprise 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 9.068 percent and 8.664 percent at December 31, 2008 and 2007, respectively.

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

	2008	2007
U.S. government securities:		
Bills	\$ 1,671	\$ 19,740
Notes	30,357	34,811
Bonds	11,128	9,617
Federal agency and GSE securities	1,787	—
<b>Total par value</b>	<b>44,943</b>	<b>64,168</b>
Unamortized premiums	730	692
Unaccreted discounts	(135)	(257)
<b>Total allocated to the Bank</b>	<b>\$ 45,538</b>	<b>\$ 64,603</b>

At December 31, 2008 and 2007, the fair value of the U.S. government, Federal agency, and GSE securities allocated to the Bank, excluding accrued interest, was \$51,363 million and \$67,333 million, respectively, as determined by reference to quoted prices for identical securities.

The total of the U.S. government, Federal agency, and GSE securities, net, held in the SOMA was \$502,189 million and \$745,629 million at December 31, 2008 and 2007, respectively. At December 31, 2008 and 2007, the fair value of the U.S. government, Federal agency, and GSE securities held in the SOMA, excluding accrued interest, was \$566,427 million and \$777,141 million, respectively, as determined by reference to quoted prices for identical securities.

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 central bank, to meet their financial obligations and responsibilities and do not represent a risk to the Reserve Banks, their shareholders, or the public. The fair value is presented solely for informational purposes.

Financial information related to securities purchased under agreements to resell and securities sold under agreements to repurchase for the years ended December 31, 2008 and 2007, were as follows (in millions):

	Securities purchased under agreements to resell		Securities sold under agreements to repurchase	
	2008	2007	2008	2007
Allocated to the Bank:				
Contract amount outstanding, end of year	\$ 7,254	\$ 4,029	\$ 8,012	\$ 3,811
Weighted average amount outstanding, during the year	8,799	3,039	5,936	3,019
Maximum month-end balance outstanding, during the year	10,791	4,462	8,937	3,811
Securities pledged, end of year	—	—	7,154	3,816
System total:				
Contract amount outstanding, end of year	\$ 80,000	\$ 46,500	\$ 88,352	\$ 43,985
Weighted average amount outstanding, during the year	97,037	35,073	65,461	34,846
Maximum month-end balance outstanding, during the year	119,000	51,500	98,559	43,985
Securities pledged, end of year	—	—	78,896	44,048

The contract amounts for securities purchased under agreements to resell and securities sold under agreements to repurchase approximate fair value.

The maturity distribution of U.S. government, Federal agency, and GSE securities bought outright, securities purchased under agreements to resell, and securities sold under agreements to repurchase that were allocated to the Bank at December 31, 2008 is shown in the *Maturity Distribution* table at the bottom of page 66.

At December 31, 2008 and 2007, U.S. government securities with par values of \$180,765 million and \$16,649 million, respectively, were loaned from the SOMA, of which \$16,391 million and \$1,443 million, respectively, were allocated to the Bank.

## 7. Investments Denominated in Foreign Currencies

The FRBNY, on behalf of the Reserve Banks, holds foreign currency deposits with foreign central banks and with the Bank for International Settlements and invests in foreign government debt instruments. These investments are guaranteed as to principal and interest by the issuing foreign governments.

The Bank's allocated share of investments denominated in foreign currencies was approximately 27.079 percent and 26.710 percent at December 31, 2008 and 2007, respectively.

The Bank's allocated share of investments denom-

inated in foreign currencies, including accrued interest, valued at foreign currency market exchange rates at December 31, was as follows (in millions):

	2008	2007
Euro:		
Foreign currency deposits	\$ 1,507	\$ 1,917
Securities purchased under agreements to resell	1,104	681
Government debt instruments	1,248	1,246
Japanese yen:		
Foreign currency deposits	943	751
Government debt instruments	1,915	1,525
<b>Total allocated to the Bank</b>	<b>\$ 6,717</b>	<b>\$ 6,120</b>

At December 31, 2008 and 2007, the fair value of investments denominated in foreign currencies, including accrued interest, allocated to the Bank was \$6,775 million and \$6,115 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 U.S. government, Federal agency, and GSE securities discussed in Note 6, unrealized gains or losses have no effect on the ability of a Reserve Bank, as central bank, to meet its financial obligations and responsibilities.

<i>Maturity Distribution</i> (in millions)	U.S. government securities (Par value)	Federal agency and GSE securities (Par value)	Subtotal: U.S. government, Federal agency, and GSE securities (Par value)	Securities purchased under agreements to resell (Contract amount)	Securities sold under agreements to repurchase (Contract amount)
Within 15 days	\$ 1,735	\$ 41	\$ 1,776	\$ 3,627	\$ 8,012
16 days to 90 days	1,901	298	2,199	3,627	—
91 days to 1 year	5,743	88	5,831	—	—
Over 1 year to 5 years	15,717	1,030	16,747	—	—
Over 5 years to 10 years	8,826	330	9,156	—	—
Over 10 years	9,234	—	9,234	—	—
<b>Total allocated to the Bank</b>	<b>\$ 43,156</b>	<b>\$ 1,787</b>	<b>\$ 44,943</b>	<b>\$ 7,254</b>	<b>\$ 8,012</b>

Total System investments denominated in foreign currencies were \$24,804 million and \$22,914 million at December 31, 2008 and 2007, respectively. At December 31, 2008 and 2007, the fair value of the total System investments denominated in foreign currencies, including accrued interest, was \$25,021 million and \$22,892 million, respectively.

The maturity distribution of investments denominated in foreign currencies that were allocated to the Bank at December 31, 2008, was as follows (in millions):

	Euro	Japanese Yen	Total
Within 15 days	\$ 2,056	\$ 943	\$ 2,999
16 days to 90 days	317	170	487
91 days to 1 year	474	538	1,012
Over 1 year to 5 years	1,012	1,207	2,219
<b>Total allocated to the Bank</b>	<b>\$ 3,859</b>	<b>\$ 2,858</b>	<b>\$ 6,717</b>

At December 31, 2008 and 2007, the authorized warehousing facility was \$5 billion, with no balance outstanding.

In connection with its foreign currency activities, the FRBNY may enter into transactions that contain varying degrees of off-balance-sheet market risk that result from their future settlement and counter-party credit risk. The FRBNY controls these risks by obtaining credit approvals, establishing transaction limits, and performing daily monitoring procedures.

## 8. Central Bank Liquidity Swaps

Central bank liquidity swap arrangements are contractual agreements between two parties, the FRBNY and an authorized foreign central bank, whereby the parties agree to exchange their currencies up to a prearranged maximum amount and for an agreed-upon period of time. At the end of that period of time, the currencies are returned at the original contractual exchange rate and the foreign central bank pays interest to the

Federal Reserve at an agreed-upon rate. These arrangements give the authorized foreign central bank temporary access to U.S. dollars. Drawings under the swap arrangements are initiated by the foreign central bank and must be agreed to by the Federal Reserve.

The Bank's allocated share of central bank liquidity swaps was approximately 27.079 percent and 26.710 percent at December 31, 2008 and 2007, respectively.

At December 31, 2008 and 2007, the total System amount of foreign currency held under central bank liquidity swaps was \$553,728 million and \$24,353 million, respectively, of which \$149,945 million and \$6,505 million, respectively, was allocated to the Bank.

The maturity distribution of central bank liquidity swaps that were allocated to the Bank at December 31 was as follows (in millions):

	2008			2007
	Within 15 days	16 days to 90 days	Total	16 days to 90 days
Australian dollar	\$ 2,708	\$ 3,474	\$ 6,182	\$ —
Danish krone	—	4,062	4,062	—
Euro	40,881	38,015	78,896	5,418
Japanese yen	12,969	20,261	33,230	—
Korean won	—	2,803	2,803	—
Norwegian krone	596	1,632	2,228	—
Swedish krona	2,708	4,062	6,770	—
Swiss franc	5,205	1,612	6,817	1,087
U.K. pound	32	8,925	8,957	—
<b>Total</b>	<b>\$65,099</b>	<b>\$84,846</b>	<b>\$149,945</b>	<b>\$ 6,505</b>

## 9. Bank Premises, Equipment, and Software

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

	2008	2007
Bank premises and equipment:		
Land	\$ 38	\$ 35
Buildings	162	150
Building machinery and equipment	66	58
Construction in progress	63	31
Furniture and equipment	280	293
<b>Subtotal</b>	<b>609</b>	<b>567</b>
Accumulated depreciation	(277)	(280)
<b>Bank premises and equipment, net</b>	<b>\$ 332</b>	<b>\$ 287</b>
<b>Depreciation expense, for the years ended December 31</b>	<b>\$ 44</b>	<b>\$ 44</b>

Bank premises and equipment at December 31 included the following amounts for capitalized leases (in millions):

	2008	2007
Leased premises and equipment under capital leases	\$ 21	\$ 20
Accumulated depreciation	(13)	(10)
<b>Leased premises and equipment under capital leases, net</b>	<b>\$ 8</b>	<b>\$ 10</b>
<b>Depreciation expense related to leased premises and equipment under capital leases</b>	<b>\$ 4</b>	<b>\$ 4</b>

The Bank leases space to outside tenants with remaining lease terms ranging from 2 to 9 years. Rental income from such leases was \$1 million for each of the years ended December 31, 2008 and 2007, and is reported as a component of "Other income." Future minimum lease payments that the Bank will receive under noncancelable lease agreements in existence at December 31, 2008, are as follows (in thousands):

2009	\$	971
2010		1,027
2011		1,003
2012		579
2013		507
Thereafter		2,056
<b>Total</b>	<b>\$</b>	<b>6,143</b>

The Bank has capitalized software assets, net of amortization, of \$24 million and \$35 million at December 31, 2008 and 2007, respectively. Amortization expense was \$19 million for each of the years ended December 31, 2008 and 2007. Capitalized software assets are reported as a component of "Other assets" and the related amortization is reported as a component of "Other expenses."

Assets impaired as a result of the Bank's restructuring plan, as discussed in Note 14, include check equipment and check software. Asset impairment losses of \$3 million for the period ending December 31, 2007 were determined using fair values based on quoted fair values or other valuation techniques and are reported as a component of "Other expenses." The Bank had no impairment losses in 2008.

## 10. Commitments and Contingencies

In the normal course of its operation, the Bank enters into contractual commitments, normally with fixed expiration dates or termination provisions, at specific rates and for specific purposes.

At December 31, 2008, the Bank was obligated under noncancelable leases for premises and equipment with remaining terms of approximately one year.

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 and rental charges to other entities within the System, was approximately \$1 million for each of the years ended

December 31, 2008 and 2007.

Future minimum rental payments under non-cancelable operating leases and capital leases, net of sublease rentals, with terms of one year or more, at December 31, 2008 were not material.

At December 31, 2008, there were no material unrecorded unconditional purchase commitments or long-term obligations in excess of one year.

At December 31, 2008 and 2007, respectively, the Bank had commitments of approximately \$7 million and \$51 million, for the construction of an employee parking deck at the Richmond Office and security enhancements throughout the District. Expected payments related to these commitments are \$7 million for the year ending December 31, 2009.

Under the Insurance Agreement of the Federal Reserve Banks, each of the Reserve Banks has agreed to bear, on a per incident basis, a pro rata share of losses in excess of one percent of the capital paid-in of the claiming Reserve Bank, up to 50 percent of the total capital paid-in of all Reserve Banks. Losses are borne in the ratio 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, 2008 or 2007.

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.

## **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. Substan-

tially all of the Bank's employees participate in the Retirement Plan for Employees of the Federal Reserve System ("System Plan"). Employees at certain compensation levels participate in the Benefit Equalization Retirement Plan ("BEP") and certain Reserve Bank officers participate in the Supplemental Employee Retirement Plan ("SERP").

The System Plan provides retirement benefits to employees of the Federal Reserve Banks, the Board of Governors, and the Office of Employee Benefits of the Federal Reserve Employee Benefits System. The FRBNY, on behalf of the System, recognizes the net asset or net liability and costs associated with the System Plan in its financial statements. Costs associated with the System Plan are not reimbursed by other participating employers.

The Bank's projected benefit obligation, funded status, and net pension expenses for the BEP and the SERP at December 31, 2008 and 2007, and for the years then ended, were not material.

### ***Thrift Plan***

Employees of the Bank may also participate in the defined contribution Thrift Plan for Employees of the Federal Reserve System ("Thrift Plan"). The Bank matches employee contributions based on a specified formula. For the years ended December 31, 2008 and 2007, the Bank matched 80 percent on the first 6 percent of employee contributions for employees with less than five years of service and 100 percent on the first 6 percent of employee contributions for employees with five or more years of service. The Bank's Thrift Plan contributions totaled \$10 million and \$9 million for the years ended December 31, 2008 and 2007, respectively, and are reported as a component of "Salaries and other benefits" in the Statements of Income and Comprehensive Income. Beginning in 2009, the Bank will match 100 percent of the first 6 percent of employee contributions from the date of hire and provide an

automatic employer contribution of 1 percent of eligible pay.

## 12. Postretirement Benefits Other Than Pensions and Postemployment Benefits

### *Postretirement Benefits Other Than*

#### *Pensions*

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

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

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

	2008	2007
Accumulated postretirement benefit obligation at January 1	\$ 170.3	\$ 175.1
Service cost-benefits earned during the period	6.8	7.5
Interest cost on accumulated benefit obligation	10.8	10.3
Net actuarial loss (gain)	1.0	(14.0)
Curtailment gain	(0.6)	(1.0)
Contributions by plan participants	1.5	1.3
Benefits paid	(8.3)	(8.4)
Medicare Part D subsidies	0.5	0.5
Plan amendments	—	(1.0)
<b>Accumulated postretirement benefit obligation at December 31</b>	<b>\$ 182.0</b>	<b>\$ 170.3</b>

At December 31, 2008 and 2007, the weighted-average discount rate assumptions used in developing the postretirement benefit obligation were 6.00 percent and 6.25 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):

	2008	2007
Fair value of plan assets at January 1	\$ —	\$ —
Contributions by the employer	6.3	6.6
Contributions by plan participants	1.5	1.3
Benefits paid	(8.3)	(8.4)
Medicare Part D subsidies	0.5	0.5
<b>Fair value of plan assets at December 31</b>	<b>\$ —</b>	<b>\$ —</b>
<b>Unfunded obligation and accrued postretirement benefit cost</b>	<b>\$ 182.0</b>	<b>\$ 170.3</b>
Amounts included in accumulated other comprehensive loss are shown below:		
Prior service cost	\$ 4.3	\$ 5.2
Net actuarial loss	(51.8)	(56.0)
Deferred curtailment gain	0.4	0.6
<b>Total accumulated other comprehensive loss</b>	<b>\$ (47.1)</b>	<b>\$ (50.2)</b>

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:

	2008	2007
Health care cost trend rate assumed for next year	7.50 %	8.00 %
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	2014	2013

Assumed health care cost trend rates have a significant effect on the amounts reported for health care plans. A one percentage point change in assumed health care cost trend rates would have the following effects for the year ended December 31, 2008 (in millions):

	1% Point Increase	1% Point Decrease
Effect on aggregate of service and interest cost components of net periodic postretirement benefit costs	\$ 2.9	\$ (2.3)
Effect on accumulated postretirement benefit obligation	23.8	(19.7)

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

	2008	2007
Service cost-benefits earned during the period	\$ 6.8	\$ 7.5
Interest cost on accumulated benefit obligation	10.8	10.3
Amortization of prior service cost	(1.4)	(1.4)
Amortization of net actuarial loss	5.2	7.9
<b>Total periodic expense</b>	<b>21.4</b>	<b>24.3</b>
Curtailment gain	(0.2)	—
<b>Net periodic postretirement benefit expense</b>	<b>21.2</b>	<b>24.3</b>
Estimated amounts that will be amortized from accumulated other comprehensive loss into net periodic postretirement benefit expense in 2009 are shown below:		
Prior service cost	\$ (1.5)	
Net actuarial loss	4.1	
<b>Total</b>	<b>\$ 2.6</b>	

Net postretirement benefit costs are actuarially determined using a January 1 measurement date. At January 1, 2008 and 2007, the weighted-average discount rate assumptions used to determine net periodic postretirement benefit costs were 6.25 percent and 5.75 percent, respectively.

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

A net curtailment gain was recognized in net

income in the year ended December 31, 2008 related to employees who terminated employment during 2008. A deferred curtailment gain was recorded in 2007 as a component of accumulated other comprehensive loss; the gain will be recognized in net income in the future when the related employees terminate employment.

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 established a prescription drug benefit under Medicare ("Medicare Part D") and a federal subsidy to sponsors of retiree health care benefit plans that provide benefits that are at least actuarially equivalent to Medicare Part D. The benefits provided 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 \$0.4 million and \$0.8 million in the years ended December 31, 2008 and 2007, respectively. Expected receipts in 2009, related to benefits paid in the years ended December 31, 2008 and 2007 are \$0.2 million.

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

	Without Subsidy	With Subsidy
2009	\$ 9.1	\$ 8.4
2010	10.0	9.3
2011	10.8	10.1
2012	11.5	10.7
2013	12.1	11.2
2014-2018	70.7	64.4
<b>Total</b>	<b>\$ 124.2</b>	<b>\$ 114.1</b>

### Postemployment Benefits

The Bank offers benefits to former or inactive employees. Postemployment benefit costs are actuarially determined using a December 31 measurement date and include the cost of medical and dental insurance, survivor income, and disability benefits. The accrued postemployment benefit costs recognized by the Bank at December 31, 2008 and 2007 were \$16 million for each of the years. This cost is included as a component of "Accrued benefit costs" in the Statements of Condition. Net periodic postemployment benefit expense included in 2008 and 2007 operating expenses were \$2 million and \$4 million, respectively, and are recorded as a component of "Salaries and other 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 postretirement benefits other than pensions
Balance at January 1, 2007	\$ (73)
Change in funded status of benefit plans:	
Net actuarial gain arising during the year	15
Deferred curtailment gain	1
Amortization of prior service cost	(1)
Amortization of net actuarial loss	8
Change in funded status of benefit plans—other comprehensive loss	23
<b>Balance at December 31, 2007</b>	<b>\$ (50)</b>

(continued in next column)

Change in funded status of benefit plans:	
Prior service costs arising during the year	1
Net actuarial loss arising during the year	(1)
Amortization of prior service cost	(2)
Amortization of net actuarial loss	5
Change in funded status of benefit plans—other comprehensive loss	3
<b>Balance at December 31, 2008</b>	<b>\$ (47)</b>

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

### 14. Business Restructuring Charges 2008 Restructuring Plans

In 2008, 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 will involve consolidation of operations into two regional Reserve Bank processing sites in Cleveland and Atlanta.

#### 2007 Restructuring Plans

In 2007, the Reserve Banks announced a restructuring initiative to align the check processing infrastructure and operations with declining check processing volumes. Additional announcements in 2007 included restructuring plans associated with the U.S. Treasury's Collections and Cash Management Modernization (CCMM) initiative.

#### 2006 and Prior Restructuring Costs

The Bank incurred various restructuring charges prior to 2007 related to the restructuring of savings bonds operations.

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

	<b>Restructuring Plans</b>			
	<b>2006 &amp; prior</b>	<b>2007</b>	<b>2008</b>	<b>Total</b>
<i>Information related to restructuring plans as of December 31, 2008:</i>				
Total expected costs related to restructuring activity	\$ 0.9	\$ 7.2	\$ 2.3	\$ 10.4
Estimated future costs related to restructuring activity	—	0.5	0.1	0.6
Expected completion date	2005	2010	2009	
<i>Reconciliation of liability balances:</i>				
Balance at January 1, 2007	\$ 0.1	\$ —	\$ —	\$ 0.1
Employee separation costs	—	5.8	—	5.8
Adjustments	(0.1)	—	—	(0.1)
Balance at December 31, 2007	\$ —	\$ 5.8	\$ —	\$ 5.8
Employee separation costs	—	1.2	2.3	3.5
Adjustments	—	(0.4)	—	(0.4)
Payments	—	(1.7)	(0.2)	(1.9)
<b>Balance at December 31, 2008</b>	<b>\$ —</b>	<b>\$ 4.9</b>	<b>\$ 2.1</b>	<b>\$ 7.0</b>

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 other benefits" in the State-

ments 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.

Restructuring costs associated with the impairment of certain Bank assets, including software, buildings, leasehold improvements, furniture, and equipment, are discussed in Note 9. Costs associated with enhanced pension benefits for all Reserve Banks are recorded on the books of the FRBNY as discussed in Note 11.

## 15. Subsequent Events

In February 2009, the System announced the extension through October 30, 2009, of liquidity programs that were previously scheduled to expire on April 30, 2009. The extension pertains to the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility and the Term Securities Lending Facility. In addition, the temporary reciprocal currency arrangements (swap lines) between the Federal Reserve and other central banks were extended to October 30, 2009.

The Bank, the U.S. Treasury, and the Federal Deposit Insurance Corporation jointly announced on January 15, 2009 that the U.S. government would provide financial support to Bank of America Corporation ("Bank of America"). The arrangement provides funding support for possible future principal losses relating to a designated pool of up to \$118 billion of financial instruments. The Bank's commitment under the arrangement is to provide a non-recourse loan to Bank of America if and when qualifying losses of \$18 billion have been recorded in the pool. Interest and fees would be with recourse to Bank of America. This arrangement extends for a maximum of ten years for residential assets and five years for non-residential assets. As the details of the arrangement have not been finalized, the Bank has not determined the accounting treatment for this transaction.



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