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CRISIS AND PANIC

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September 15, 2008—the date of the bankruptcy of Lehman Brothers and the takeover of Merrill Lynch, followed within 24 hours by the rescue of AIG—marked the beginning of the worst market disruption in postwar American history and an extraordinary rush to the safest possible investments. Creditors and investors suspected that many other large financial institutions were on the edge of failure, and the Lehman bankruptcy seemed to prove that at least some of them would not have access to the federal government's safety net.

John Mack, CEO of Morgan Stanley during the crisis, told the FCIC, "In the immediate wake of Lehman's failure on September 15, Morgan Stanley and similar institutions experienced a classic 'run on the bank,' as investors lost confidence in financial institutions and the entire investment banking business model came under siege."[1]

"The markets were very bad, the volatility, the illiquidity, some things couldn't trade at all, I mean completely locked, the markets were in terrible shape," JP Morgan CEO Jamie Dimon recalled to the FCIC. He thought the country could face 20% unemployment. "We could have survived it in my opinion, but it would have been terrible. I would have stopped lending, marketing, investing . . . and probably laid off 20,000 people. And I would have done it in three weeks. You get companies starting to take actions like that, that's what a Great Depression is."[2]

Treasury Secretary Timothy Geithner told the FCIC, "You had people starting to take their deposits out of very, very strong banks, long way removed in distance and risk and business from the guys on Wall Street that were at the epicenter of the problem. And that is a good measure, classic measure of incipient panic."[3] In an interview in December 2009, Geithner said that "none of [the biggest banks] would have survived a situation in which we had let that fire try to burn itself out."[4]

Fed Chairman Ben Bernanke told the FCIC, "As a scholar of the Great Depression, I honestly believe that September and October of 2008 was the worst financial crisis in global history, including the Great Depression. If you look at the firms that came under pressure in that period . . . only one . . . was not at serious risk of failure. . . . So out of maybe the 13, 13 of the most important financial institutions in the United States, 12 were at risk of failure within a period of a week or two."[5]

As it had on the weekend of Bear's demise, the Federal Reserve announced new measures on Sunday, September 14, to make more cash available to investment banks and other firms. Yet again, it lowered its standards regarding the quality of the collateral that investment banks and other primary dealers could use while borrowing under the two programs to support repo lending, the Primary Dealer Credit Facility (PDCF) and the Term Securities Lending Facility (TSLF).[6] And, providing a temporary exception to its rules, it allowed the investment banks and other financial companies to borrow cash from their insured depository affiliates. The investment banks drew liberally on the Fed's lending programs. By the end of September, Morgan Stanley was getting by on $96.1 billion of Fed-provided life support; Goldman was receiving $31.5 billion.[7]

But the new measures did not quell the market panic. Among the first to be directly affected were the money market funds and other institutions that held Lehman's $4 billion in unsecured commercial paper and made loans to the company through the tri-party repo market. Investors pulled out of funds with known exposure to that jeopardy, including the Reserve Management Company's Reserve Primary Fund and Wachovia's Evergreen Investments.

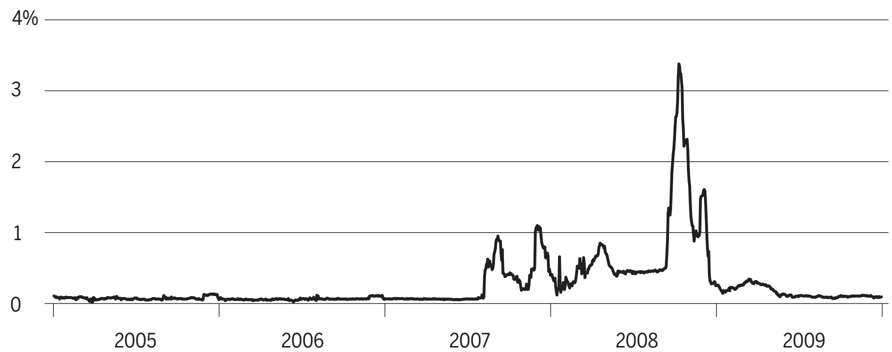
Other parties with direct connections to Lehman included the hedge funds, investment banks, and investors who were on the other side of Lehman's more than 900,000 over-the-counter derivatives contracts. For example, Deutsche Bank, JP Morgan, and UBS together had more than 150,000 outstanding trades with Lehman as of May 2008. The Lehman bankruptcy caused immediate problems for these OTC derivatives counterparties. They had the right under U.S. bankruptcy law to terminate their derivatives contracts with Lehman upon its bankruptcy, and to the extent that Lehman owed them money on the contracts they could seize any Lehman collateral that they held. However, any additional amount owed to them had to be claimed in the bankruptcy proceeding. If they had posted collateral with Lehman, they would have to make a claim for the return of that collateral, and disputes over valuation of the contracts would still have to be resolved. These proceedings would delay payment and most likely result in losses. Moreover, any hedges that rested on these contracts were now gone, increasing risk.[8]

Investors also pulled out of funds that did not have direct Lehman exposure. The managers of these funds, in turn, pulled $165 billion out of the commercial paper market in September and shifted billions of dollars of repo loans to safer collateral, putting further pressure on investment banks and other finance companies that de-

Cost of Interbank Lending

As concerns about the health of bank counterparties spread, lending banks demanded higher interest rates to compensate for the risk. The one-month LIBOR-OIS spread measures the part of the interest rates banks paid other banks that is due to this credit risk. Strains in the interbank lending markets appeared just after the crisis began in 2007 and then peaked during the fall of 2008.

IN PERCENT, DAILY



NOTE: Chart shows the spread between the one-month London Interbank Offered Rate (LIBOR) and the overnight index swap rate (OIS), both closely watched interest rates.
SOURCE: Bloomberg

Figure 20.1

pended on those markets.[9] "When the commercial paper market died, the biggest corporations in America thought they were finished," Harvey Miller, the bankruptcy attorney for the Lehman estate, told the FCIC.[10]

Investors and uninsured depositors yanked tens of billions of dollars out of banks whose real estate exposures might be debilitating (Washington Mutual, Wachovia) in favor of those whose real estate exposures appeared manageable (Wells Fargo, JP Morgan). Hedge funds withdrew tens of billions of dollars of assets held in custody at the remaining investment banks (Goldman Sachs, Morgan Stanley, and even Merrill Lynch, as the just-announced Bank of America acquisition wouldn't close for another three and a half months) in favor of large commercial banks with prime brokerage businesses (JP Morgan, Credit Suisse, Deutsche Bank), because the commercial banks had more diverse sources of liquidity than the investment banks as well as large bases of insured deposits. JP Morgan and BNY Mellon, the tri-party repo clearing banks, clamped down on their intraday exposures, demanding more collateral than ever from the remaining investment banks and other primary dealers. Many banks refused to lend to one another; the cost of interbank lending rose to unprecedented levels (see figure 20.1).

On Monday, September 15, the Dow Jones Industrial Average fell more than 500 points, or 4%, the largest single-day point drop since the 9/11 terrorist attacks. These drops would be exceeded on September 29—the day that the House of Representatives initially voted against the $700 billion Troubled Asset Relief Program (TARP) proposal to provide extraordinary support to financial markets and firms—when the Dow Jones fell 7% and financial stocks fell 16%. For the month, the S&P 500 would lose $889 billion of its value, a decline of 9%—the worst month since September 2002.

And specific institutions would take direct hits.

MONEY MARKET FUNDS: "DEALERS WEREN'T EVEN PICKING UP THEIR PHONES"

When Lehman declared bankruptcy, the Reserve Primary Fund had $785 million invested in Lehman's commercial paper. The Primary Fund was the world's first money market mutual fund, established in 1971 by Reserve Management Company. The fund had traditionally invested in conservative assets such as government securities and bank certificates of deposit and had for years enjoyed Moody's and S&P's highest ratings for safety and liquidity.

In March 2006, the fund had advised investors that it had "slightly underperformed" its rivals, owing to a "more conservative and risk averse manner" of investing—"for example, the Reserve Funds do not invest in commercial paper."[11] But immediately after publishing this statement, it quietly but dramatically changed that strategy. Within 18 months, commercial paper grew from zero to one-half of Reserve Primary's assets. The higher yields attracted new investors and the Reserve Primary Fund was the fastest-growing money market fund complex in the United States in 2006, 2007, and 2008—doubling in the first eight months of 2008 alone.[12]

Earlier in 2008, Primary Fund's managers had loaned Bear Stearns money in the repo market up to two days before Bear's near-collapse, pulling its money only after Bear CEO Alan Schwartz appeared on CNBC in the company's final days, Primary Fund Portfolio Manager Michael Luciano told the FCIC. But after the government-assisted rescue of Bear, Luciano, like many other professional investors, said he assumed that the federal government would similarly save the day if Lehman or one of the other investment banks, which were much larger and posed greater apparent systemic risks, ran into trouble. These firms, Luciano said, were too big to fail.[13]

On September 15, when Lehman declared bankruptcy, the Primary Fund's Lehman holdings amounted to 1.2% of the fund's total assets of $62.4 billion. That morning, the fund was flooded with redemption requests totaling $10.8 billion. State Street, the fund's custodian bank, initially helped the fund meet those requests, largely through an existing overdraft facility, but stopped doing so at 10:10 A.M. With no means to borrow, Primary Fund representatives reportedly described State Street's action as "the kiss of death" for the Primary Fund.[14] Despite public assurances from the fund's investment advisors, Bruce Bent Sr. and Bruce Bent II, that the fund was committed to maintaining a $1.00 net asset value, investors requested an additional $29 billion later on Monday and Tuesday, September 16.[15]

Meanwhile, on Monday, the fund's board had determined that the Lehman paper was worth 80 cents on the dollar. That appraisal had quickly proved optimistic. After the market closed Tuesday, Reserve Management publicly announced that the value of its Lehman paper was zero, "effective 4:00PM New York time today." As a result, the fund broke the buck.[16] Four days later, the fund sought SEC permission to officially suspend redemptions.

Other funds suffering similar losses were propped up by their sponsors. On Monday, Wachovia's asset management unit, Evergreen Investments, announced that it would support three Evergreen mutual funds that held about $540 million in Lehman paper. On Wednesday, BNY Mellon announced support for various funds that held Lehman paper, including the $22 billion Institutional Cash Reserves fund and four of its trademark Dreyfus funds. BNY Mellon would take an after-tax charge of $425 million because of this decision. Over the next two years, 62 money market funds—36 based in the United States, 26 in Europe[17]—would receive such assistance to keep their funds from breaking the buck.

After the Primary Fund broke the buck, the run took an ominous turn: it even slammed money market funds with no direct Lehman exposure. This lack of exposure was generally known, since the SEC requires these funds to report details on their investments at least quarterly. Investors pulled out simply because they feared that their fellow investors would run first. "It was overwhelmingly clear that we were staring into the abyss—that there wasn't a bottom to this—as the outflows picked up steam on Wednesday and Thursday," Fed economist Patrick McCabe told the FCIC. "The overwhelming sense was that this was a catastrophe that we were watching unfold."[18]

"We were really cognizant of the fact that there weren't backstops in the system that were resilient at that time," the Fed's Michael Palumbo said. "Liquidity crises, by their nature, invoke rapid, emergent episodes—that's what they are. By their nature, they spread very quickly."[19]

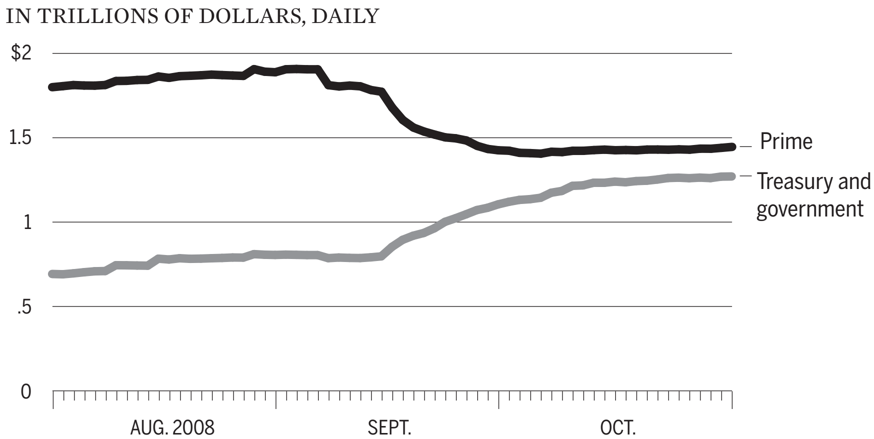
An early and significant casualty was Putnam Investments' $12 billion Prime Money Market Fund, which was hit on Wednesday with a wave of redemption requests. The fund, unable to liquidate assets quickly enough, halted redemptions. One week later, it was sold to Federated Investors.

Within a week, investors in prime money market funds—funds that invested in highly rated securities—withdrew $349 billion; within three weeks, they withdrew another $85 billion. That money was mostly headed for other funds that bought only Treasuries and agency securities; indeed, it was more money than those funds could invest, and they had to turn people away[20] (see figure 20.2). As a result of the unprecedented demand for Treasuries, the yield on four-week Treasuries fell close to 0%, levels not seen since World War II.

Money market mutual funds needing cash to honor redemptions sold their now illiquid investments. Unfortunately, there was little market to speak of. "We heard

Investments in Money Market Funds

In a flight to safety, investors shifted from prime money market funds to money market funds investing in Treasury and agency securities.



SOURCE: Crane Data

Figure 20.2

anecdotally that the dealers weren't even picking up their phones. The funds had to get rid of their paper; they didn't have anyone to give it to," McCabe said.[21]

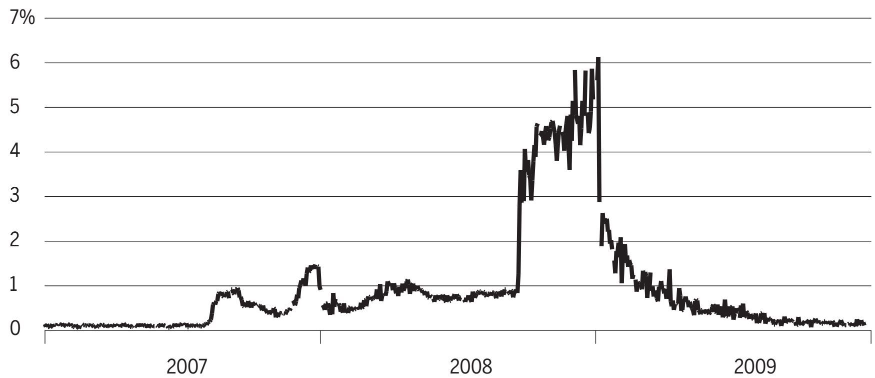
And holding unsecured commercial paper from any large financial institution was now simply out of the question: fund managers wanted no part of the next Lehman. An FCIC survey of the largest money market funds found that many were unwilling to purchase commercial paper from financial firms during the week after Lehman. Of the respondents, the five with the most drastic reduction in financial commercial paper cut their holdings by half, from $58 billion to $29 billion.[22] This led to unprecedented increases in the rates on commercial paper, creating problems for borrowers, particularly for financial companies, such as GE Capital, CIT, and American Express, as well as for nonfinancial corporations that used commercial paper to pay their immediate expenses such as payroll and inventories. The cost of commercial paper borrowing spiked in mid-September, dramatically surpassing the previous highs in 2007 (see figure 20.3).

"You had a broad-based run on commercial paper markets," Geithner told the FCIC. "And so you faced the prospect of some of the largest companies in the world and the United States losing the capacity to fund and access those commercial paper markets."[23] Three decades of easy borrowing for those with top-rated credit in a very liquid market had disappeared almost overnight. The panic threatened to disrupt the payments system through which financial institutions transfer trillions of dollars in

Cost of Short-Term Borrowing

During the crisis, the cost of borrowing for lower-rated nonfinancial firms spiked.

IN PERCENT, DAILY



NOTE: Shown is the spread between the rate paid by second-tier rated nonfinancial companies (A2/P2) that borrowed by issuing 30-day commercial paper and the rate paid on similar paper by the best-rated companies.

SOURCE: Federal Reserve Board of Governors

Figure 20.3

cash and assets every day and upon which consumers rely—for example, to use their credit cards and debit cards. "At that point, you don't need to map out which particular mechanism—it's not relevant anymore—it's become systemic and endemic and it needs to be stopped," Palumbo said.[24]

The government responded with two new lending programs on Friday, September 19. Treasury would guarantee the $1 net asset value of eligible money market funds, for a fee paid by the funds.[25] And the Fed would provide loans to banks to purchase high-quality-asset-backed commercial paper from money market funds.[26] In its first two weeks, this program loaned banks $150 billion, although usage declined over the ensuing months. The two programs immediately slowed the run on money market funds.

With the financial sector in disarray, the SEC imposed a temporary ban on short-selling on the stocks of about 800 banks, insurance companies, and securities firms. This action, taken on September 18, followed an earlier temporary ban put in place over the summer on naked short-selling—that is, shorting a stock without arranging to deliver it to the buyer—of 19 financial stocks in order to protect them from "unlawful manipulation."

Meanwhile, Treasury Secretary Henry Paulson and other senior officials had decided they needed a more systematic approach to dealing with troubled firms and troubled markets. Paulson started seeking authority from Congress for TARP. "One thing that was constant about the crisis is that we were always behind. It was always morphing and manifesting itself in ways we didn't expect," Neel Kashkari, then assistant secretary of the treasury, told the FCIC. "So we knew we'd get one shot at this authority and it was important that we provided ourselves maximum firepower and maximum flexibility. We specifically designed the authority to allow us basically to do whatever we needed to do." Kashkari "spent the next two weeks basically living on Capitol Hill."[27] As discussed below, the program was a tough sell.

MORGAN STANLEY: "NOW WE'RE THE NEXT IN LINE"

Investors scrutinized the two remaining large, independent investment banks after the failure of Lehman and the announced acquisition of Merrill. Especially Morgan Stanley. On Monday, September 15, the annual cost of protecting $10 million in Morgan Stanley debt through credit default swaps jumped to $682,000—from $363,000 on Friday—about double the cost for Goldman. "As soon as we come in on Monday, we're in the eye of the storm with Merrill gone and Lehman gone," John Mack, then Morgan Stanley's CEO, said to the FCIC. He later added, "Now we're the next in line."[28]

Morgan Stanley officials had some reason for confidence. On the previous Friday, the company's liquidity pool was more than $130 billion—Goldman's was $120 billion[29]—and, like Goldman, it had passed the regulators' liquidity stress tests months earlier. But the early market indicators were mixed. David Wong, Morgan Stanley's treasurer, heard early from his London office that several European banks were not accepting Morgan Stanley as a counterparty on derivatives trades.[30] He called those banks and they agreed to keep their trades with Morgan Stanley, at least for the time being. But Wong well knew that rumors about derivatives counterparties fleeing through novations had contributed to the demise of Bear and Lehman. Repo lenders, primarily money market funds, likewise did not panic immediately. On Monday, only a few of them requested slightly more collateral.[31]

But the relative stability was fleeting. Morgan Stanley immediately became the target of a hedge fund run. Before the financial crisis, it had typically been prime brokers like Morgan Stanley who were worried about their exposures to hedge fund clients. Now the roles were reversed. The Lehman episode had revealed that because prime brokers were able to reuse clients' assets to raise cash for their own activities, clients' assets could be frozen or lost in bankruptcy proceedings.[32]

To protect themselves, hedge funds pulled billions of dollars in cash and other assets out of Morgan Stanley, Merrill, and Goldman in favor of prime brokers in bank holding companies, such as JP Morgan; big foreign banks, such as Deutsche Bank and Credit Suisse; and custodian banks, such as BNY Mellon and Northern Trust, which they believed were safer and more transparent. Fund managers told the FCIC that some prime brokers took aggressive measures to prevent hedge fund customers from demanding their assets. For example, "Most [hedge funds] request cash movement from [prime brokers] primarily through a fax," the hedge fund manager Jonathan Wood told the FCIC. "What tends to happen in very stressful times is those faxes tend to get lost. I'm not sure that's just coincidental . . . that was collateral for whatever lending [prime brokers] had against you and they didn't want to give it [away]."[33]

Soon, hedge funds would suffer unprecedented runs by their own investors. According to an FCIC survey of hedge funds that survived, investor redemption requests averaged 20% of client funds in the fourth quarter of 2008.[34] This pummeled the markets. Money invested in hedge funds totaled $2.2 trillion, globally, at the end of 2007,[35] but because of leverage, their market impact was several times larger. Widespread redemptions forced hedge funds to sell extraordinary amounts of assets, further depressing market prices. Many hedge funds would halt redemptions or collapse.

On Monday, hedge funds requested about $10 billion from Morgan Stanley.[36] Then, on Tuesday morning, Morgan Stanley announced a profit of $1.4 billion for the three months ended August 31, 2008, about the same as that period a year earlier. Mack had decided to release the good news a day early, but this move had backfired. "One hedge fund manager said to me after the fact . . . that he thought preannouncing earnings a day early was a sign of weakness. So I guess it was, because people certainly continued to short our stock or sell our stock—I don't know if they were shorting it but they were certainly selling it," Mack told the FCIC.[37] Wong said, "We were managing our funding . . . but really there were other things that were happening as a result of the Lehman bankruptcy that were beginning to affect, really ripple through and affect some of our clients, our more sophisticated clients."[38]

The hedge fund run became a $32 billion torrent on Wednesday,[39] the day after AIG was bailed out and the day that "many of our sophisticated clients started to liquefy," as Wong put it.[40] Many of the hedge funds now sought to exercise their contractual capability to borrow more from Morgan Stanley's prime brokerage without needing to post collateral. Morgan Stanley borrowed $13 billion from the Fed's PDCF on Tuesday, $27 billion on Wednesday, and $35.3 billion on Friday.

These developments triggered the event that Fed policymakers had worried about over the summer: an increase in collateral calls by the two tri-party repo clearing banks, JP Morgan and BNY Mellon. As had happened during the Bear episode, the two clearing banks became concerned about their intraday exposures to Morgan Stanley, Merrill, and Goldman. On Sunday of the Lehman weekend, the Fed had lowered the bar on the collateral that it would take for overnight lending through the PDCF. But the PDCF was not designed to take the place of the intraday funding provided by JP Morgan and BNY Mellon, and neither of them wanted to accept for their intraday loans the lower-quality collateral that the Fed was accepting for its overnight loans. They would not make those loans to the three investment banks without requiring bigger haircuts, which translated into requests for more collateral.

"Big intraday issues at the clearing banks," the SEC's Matt Eichner informed New York Fed colleagues in an early Wednesday email. "They don't want exposure and are asking for cash/securities. . . . Lots of desk level noise around [Morgan Stanley] and [Merrill Lynch] and taking the name. Not pretty."[41]

"Taking the name" is Wall Street parlance for accepting a counterparty on a trade. On Thursday, BNY Mellon requested $3 billion in collateral from Morgan Stanley.

And New York Fed officials reported that JP Morgan was "thinking" about requesting $2.8 billion on top of a $2.2 billion on deposit.[42] According to a Fed examiner at Citigroup, a banker from that firm had said that "Morgan [Stanley] is the 'deer in the headlights' and having significant stress in Europe. It's looking like Lehman did a few weeks ago."[43]

Commercial paper markets also seized up for Morgan Stanley. From Friday, September 12, to the end of September, the amount of the firm's outstanding commercial paper had fallen nearly 40%, and it had rolled over only $20 million. By comparison, on average Morgan Stanley rolled over about $240 million every day in the last two weeks of August.[44]

On Saturday, Morgan Stanley executives briefed the New York Fed on the situation. By this time, the firm had a total of $35.3 billion in PDCF funding and $32.5 billion in TSLF funding from the Fed.[45] Morgan Stanley's liquidity pool had dropped from $130 billion to $55 billion in one week. Repo lenders had pulled out $31 billion and hedge funds had taken $86 billion out of Morgan Stanley's prime brokerage. That run had vastly exceeded the company's most severe scenario in stress tests administered only one month earlier.[46]

During the week, Goldman Sachs had encountered a similar run. Its liquidity pool had fallen from about $120 billion on the previous Friday to $57 billion on Thursday. At the end of the week, its Fed borrowing totaled $5 billion from the PDCF and $13.5 billion from the TSLF. Lloyd Blankfein, Goldman's CEO, told the FCIC,

> We had tremendous liquidity through the period. But there were systemic events going on, and we were very nervous. If you are asking me what would have happened but for the considerable government intervention, I would say we were in—it was a more nervous position than we would have wanted [to be] in. We never anticipated the government help. We weren't relying on those mechanisms. . . . I felt good about it, but we were going to bed every night with more risk than any responsible manager should want to have, either for our business or for the system as a whole—risk, not certainty.[47]

Bernanke told the FCIC that the Fed believed the run on Goldman that week could lead to its failure: "[Like JP Morgan,] Goldman Sachs I would say also protected themselves quite well on the whole. They had a lot of capital, a lot of liquidity. But being in the investment banking category rather than the commercial banking category, when that huge funding crisis hit all the investment banks, even Goldman Sachs, we thought there was a real chance that they would go under."[48] Although it did not keep pace with Morgan Stanley's use of the Fed's facilities, Goldman Sachs would continue to access the Fed's facilities, increasing its PDCF borrowing to a high of $24 billion in October and its TSLF borrowing to a high of $43.5 billion in December.

On Sunday, September 21, both Morgan Stanley and Goldman Sachs applied to the Fed to become bank holding companies. "In my 30-year history, [Goldman and

Morgan Stanley] had consistently opposed Federal Reserve supervision—[but after Lehman,] those franchises saw that they were next unless they did something drastic. That drastic thing was to become bank holding companies," Tom Baxter, the New York Fed's general counsel, told the FCIC.[49] The Fed, in tandem with the Department of Justice, approved the two applications with extraordinary speed, waiving the standard five-day antitrust waiting period.[50] Morgan Stanley instantly converted its $39 billion industrial loan company into a national bank, subject to supervision by the Office of the Comptroller of the Currency (OCC), and Goldman converted its $26 billion industrial loan company into a state-chartered bank that was a member of the Federal Reserve System, subject to supervision by the Fed and New York State. The Fed would begin to supervise the two new bank holding companies.

The two companies gained the immediate benefit of emergency access to the discount window for terms of up to 90 days.[51] But, more important, "I think the biggest benefit is it would show you that you're important to the system and the Fed would not make you a holding company if they thought in a very short period of time you'd be out of business," Mack told the FCIC. "It sends a signal that these two firms are going to survive."[52]

In a show of confidence, Warren Buffett invested $5 billion in Goldman Sachs, and Mitsubishi UFJ invested $9 billion in Morgan Stanley. Mack said he had been waiting all weekend for confirmation of Mitsubishi's investment when, late Sunday afternoon, he received a call from Bernanke, Geithner, and Paulson. "Basically they said they wanted me to sell the firm," Mack told the FCIC. Less than an hour later, Mitsubishi called to confirm its investment and the regulators backed off.[53]

Despite the weekend announcements, however, the run on Morgan Stanley continued. "Over the course of a week, a decreasing number of people [were] willing to do new repos," Wong said. "They just couldn't lend anymore."[54]

By the end of September, Morgan Stanley's liquidity pool would be $55 billion.[55] But Morgan Stanley's liquidity depended critically on borrowing from two Fed programs, $60 billion from the PDCF and $36 billion from the TSLF. Goldman Sachs's liquidity pool had recovered to about $80 billion, backed by $16.5 billion from the PDCF and $15 billion from the TSLF.

OVER-THE-COUNTER DERIVATIVES: "A GRINDING HALT"

Trading in the over-the-counter derivatives markets had been declining as investors grew more concerned about counterparty risk and as hedge funds and other market participants reduced their positions or exited. Activity in many of these markets slowed to a crawl; in some cases, there was no market at all—no trades whatsoever. A sharp and unprecedented contraction of the market occurred.[56]

"The OTC derivatives markets came to a grinding halt, jeopardizing the viability of every participant regardless of their direct exposure to subprime mortgage-backed securities," the hedge fund manager Michael Masters told the FCIC.[57] "Furthermore, when the OTC derivatives markets collapsed, participants reacted by liquidating their positions in other assets those swaps were designed to hedge." This market was unregulated and largely opaque, with no public reporting requirements and little or no price discovery. With the Lehman bankruptcy, participants in the market became concerned about the exposures and creditworthiness of their counterparties and the value of their contracts. That uncertainly caused an abrupt retreat from the market.

Badly hit was the market for derivatives based on nonprime mortgages. Firms had come to rely on the prices of derivatives contracts reflected in the ABX indices to value their nonprime mortgage assets. The ABX.HE.BBB- 06-2, whose decline in 2007 had been an early bellwether for the market crisis, had been trading around 5 cents on the dollar since May. But trading on this index had become so thin, falling from an average of about 70 transactions per week from January 2007 to September 2008 to fewer than 3 transactions per week in October 2008, that index values weren't informative.[58] So, what was a valid price for these assets? Price discovery was a guessing game, even more than it had been under normal market conditions.

The contraction of the OTC derivatives market had implications beyond the valuation of mortgage securities. Derivatives had been used to manage all manner of risk—the risk that currency exchange rates would fluctuate, the risk that interest rates would change, the risk that asset prices would move. Efficiently managing these risks in derivatives markets required liquidity so that positions could be adjusted daily and at little cost. But in the fall of 2008, everyone wanted to reduce exposure to everyone else. There was a rush for the exits as participants worked to get out of existing trades. And because everyone was worried about the risk inherent in the next trade, there often was no next trade—and volume fell further. The result was a vicious circle of justifiable caution and inaction.

Meanwhile, in the absence of a liquid derivatives market and efficient price discovery, every firm's risk management became more expensive and difficult. The usual hedging mechanisms were impaired. An investor that wanted to trade at a loss to get out of a losing position might not find a buyer, and those that needed hedges would find them more expensive or unavailable.

Several measures revealed the lack of liquidity in derivatives markets. First, the number of outstanding contracts in a broad range of OTC derivatives sharply declined. Since its deregulation by federal statute in December 2000, this market had increased more than sevenfold. From June 30, 2008 to the end of the year, however, outstanding notional amounts of OTC derivatives fell by more than 10%. This decline defied historical precedent. It was the first significant contraction in the market over a six-month period since the Bank for International Settlements began keeping statistics in 1998.[59] Moreover, it occurred during a period of great volatility in the financial markets. At such a time, firms usually turn to the derivatives market to hedge their increased risks—but now they fled the market.

The lack of liquidity in derivatives markets was also signaled by the higher prices charged by OTC derivatives dealers to enter into contracts. Dealers bear additional risks when markets are illiquid, and they pass the cost of those risks on to market participants. The cost is evident in the increased "bid-ask spread"—the difference between the price at which dealers were willing to buy contracts (the bid price) and the price at which they were willing to sell them (the ask price). As markets became less liquid during the crisis, dealers worried that they might be saddled with unwanted exposure. As a result, they began charging more to sell contracts (raising their ask price), and the spread rose. In addition, they offered less to buy contracts (lowered their bid price), because they feared involvement with uncreditworthy counterparties. The increase in the spread in these contracts meant that the cost to a firm of hedging its exposure to the potential default of a loan or of another firm also increased. The cost of risk management rose just when the risks themselves had risen.

Meanwhile, outstanding credit derivatives contracted by 48% between December 2007, when they reached their height of $58.2 trillion in notional amount, and the latest figures as of June 2010, when they had fallen to $30.3 trillion.[60]

In sum, the sharp contraction in the OTC derivatives market in the fall of 2008 greatly diminished the ability of institutions to enter or unwind their contracts or to effectively hedge their business risks at a time when uncertainty in the financial system made risk management a top priority.

WASHINGTON MUTUAL: "IT'S YOURS"

In the eight days after Lehman's bankruptcy, depositors pulled $16.7 billion out of Washington Mutual, which now faced imminent collapse. WaMu had been the subject of concern for some time because of its poor mortgage-underwriting standards and its exposures to payment-option adjustable-rate mortgages (ARMs). Moody's had downgraded WaMu's senior unsecured debt to Baa3, the lowest-tier investment-grade rating, in July, and then to junk status on September 11, citing "WAMU's reduced financial flexibility, deteriorating asset quality, and expected franchise erosion."[61]

The Office of Thrift Supervision (OTS) determined that the thrift likely could not "pay its obligations and meet its operating liquidity needs."[62] The government seized the bank on Thursday, September 25, 2008, appointing the Federal Deposit Insurance Corporation as receiver; many unsecured creditors suffered losses. With assets of $307 billion as of June 30, 2008, WaMu thus became the largest insured depository institution in U.S. history to fail—bigger than IndyMac, bigger than any bank or thrift failure in the 1980s and 1990s. JP Morgan paid $1.9 billion to acquire WaMu's banking operations from the FDIC on the same day; on the next day, WaMu's parent company (now minus the thrift) filed for Chapter 11 bankruptcy protection.

FDIC officials told the FCIC that they had known in advance of WaMu's troubles and thus had time to arrange the transaction with JP Morgan. JP Morgan CEO Jamie Dimon said that his bank was already examining WaMu's assets for purchase when FDIC Chairman Sheila Bair called him and asked, "Would you be prepared to bid on WaMu?" "I said yes we would," Dimon told the FCIC. "She called me up literally the next day and said—'It's yours.' . . . I thought there was another bidder, by the way, the whole time, otherwise I would have bid a dollar—not [$1.9 billion], but we wanted to win."[63]

The FDIC insurance fund came out of the WaMu bankruptcy whole. So did the uninsured depositors, and (of course) the insured depositors. But the FDIC never contemplated using FDIC funds to protect unsecured creditors, which it could have done by invoking the "systemic risk exception" under the FDIC Improvement Act of

1991. (Recall that FDICIA required that failing banks be dismantled at the least cost to the FDIC unless the FDIC, the Fed, and Treasury agree that a particular company's collapse poses a risk to the entire financial system; it had not been tested in 17 years.) Losses among those creditors created panic among the unsecured creditors of other struggling banks, particularly Wachovia—with serious consequences. Nevertheless, FDIC Chairman Bair stood behind the decision. "I absolutely do think that was the right decision," she told the FCIC. "WaMu was not a well-run institution." She characterized the resolution of WaMu as "successful."[64]

The FDIC's decision would be hotly debated. Fed General Counsel Scott Alvarez told the FCIC that he agreed with Bair that "there should not have been intervention in WaMu."[65] But Treasury officials felt differently: "We were saying that's great, we can all be tough, and we can be so tough that we plunge the financial system into the Great Depression," Treasury's Neel Kashkari told the FCIC. "And so, I think, in my judgment that was a mistake. . . . [A]t that time, the economy was in such a perilous state, it was like playing with fire."[66]

WACHOVIA: "AT THE FRONT END OF THE DOMINOES AS OTHER DOMINOES FELL"

Wachovia, having bought Golden West, was the largest holder of payment-option ARMs, the same product that had helped bring down WaMu and Countrywide. Concerns about Wachovia—then the fourth-largest bank holding company—had also been escalating for some time. On September 9, the Merrill analyst Ed Najarian downgraded the company's stock to "underperform," pointing to weakness in its option ARM and commercial loan portfolios. On September 11, Wachovia executives met Fed officials to ask for an exemption from rules that limited holding companies' use of insured deposits to meet their liquidity needs. The Fed did not accede; staff believed that Wachovia's cash position was strong and that the requested relief was a "want" rather than a "need."[67]

But they changed their minds after the Lehman bankruptcy, immediately launching daily conference calls to discuss liquidity with Wachovia management. Depositor outflows increased. On September 19, the Fed supported the company's request to use insured deposits to provide liquidity to the holding company. On September 20, a Saturday, Wells Fargo Chairman Richard M. Kovacevich told Robert Steel, Wachovia's CEO and recently a Treasury undersecretary, that Wells might be interested in acquiring the besieged bank, and the two agreed to speak later in the week. The same day, Fed Governor Kevin Warsh suggested that Steel also talk to Goldman. As a former vice chairman of Goldman, Steel could easily approach the firm, but the ensuing conversations were short; Goldman was not interested.[68]

Throughout the following week, it became increasingly clear that Wachovia needed to merge with a stronger financial institution. Then, WaMu's failure on September 25 "raised creditor concern about the health of Wachovia," the Fed's Alvarez told the FCIC. "The day after the failure of WaMu, Wachovia Bank depositors accelerated the withdrawal of significant amounts from their accounts," Alvarez said. "In addition, wholesale funds providers withdrew liquidity support from Wachovia. It appeared likely that Wachovia would soon become unable to fund its operations."[69] Steel said, "As the day progressed, some liquidity pressure intensified as financial institutions began declining to conduct normal financing transactions with Wachovia."[70]

David Wilson, the Office of the Comptroller of the Currency's lead examiner at Wachovia, agreed. "The whole world changed" for Wachovia after WaMu's failure, he said.[71] The FDIC's Bair had a slightly different view. WaMu's failure "was practically a nonevent," she told the FCIC. "It was below the fold if it was even on the front page . . . barely a blip given everything else that was going on."[72]

The run on Wachovia Bank, the country's fourth-largest commercial bank, was a "silent run" by uninsured depositors and unsecured creditors sitting in front of their computers, rather than by depositors standing in lines outside bank doors.[73] By noon on Friday, September 26, creditors were refusing to roll over the bank's short-term funding, including commercial paper and brokered certificates of deposit.[74] The FDIC's John Corston testified that Wachovia lost $5.7 billion of deposits and $1.1 billion of commercial paper and repos that day.[75]

By the end of the day on Friday, Wachovia told the Fed that worried creditors had asked it to repay roughly half of its long-term debt—$50 billion to $60 billion.[76] Wachovia "did not have to pay all these funds from a contractual basis (they had not matured), but would have difficulty [borrowing from these lenders] going forward given the reluctance to repay early," Richard Westerkamp, the Richmond Fed's lead examiner at Wachovia, told the FCIC.[77]

In one day, the value of Wachovia's 10-year bonds fell from 73 cents to 29 cents on the dollar, and the cost of buying protection on $10 million of Wachovia debt jumped from $571,000 to almost $1,400,000 annually. Wachovia's stock fell 27%, wiping out $8 billion in market value. Comptroller of the Currency John Dugan, whose agency regulated Wachovia's commercial bank subsidiary, sent FDIC Chairman Bair a short and alarming email stating that Wachovia's liquidity was unstable.[78] "Wachovia was at the front end of the dominoes as other dominoes fell," Steel told the FCIC.[79]

Government officials were not prepared to let Wachovia open for business on Monday, September 29, without a deal in place.[80] "Markets were already under considerable strain after the events involving Lehman Brothers, AIG, and WaMu," the Fed's Alvarez told the FCIC. "There were fears that the failure of Wachovia would lead investors to doubt the financial strength of other organizations in similar situations, making it harder for those institutions to raise capital."[81]

Wells Fargo had already expressed interest in buying Wachovia; by Friday, Citigroup had as well. Wachovia entered into confidentiality agreements with both companies on Friday and the two suitors immediately began their due diligence investigations.[82]

The key question was whether the FDIC would provide assistance in an acquisition. Though Citigroup never considered making a bid that did not presuppose such assistance, Wells Fargo was initially interested in purchasing all of Wachovia without it.[83] FDIC assistance would require the first-ever application of the systemic risk exception under FDICIA. Over the weekend, federal officials hurriedly considered the systemic risks if the FDIC did not intervene and if creditors and uninsured depositors suffered losses.

The signs for the bank were discouraging. Given the recent withdrawals, the FDIC and OCC predicted in an internal analysis that Wachovia could face up to $115 billion of additional cash outflows the following week—including, most prominently, $42 billion of further deposit outflows, as well as $12 billion from corporate deposit accounts and $30 billion from retail brokerage customers. Yet Wachovia had only $17 billion in cash and cash equivalents. While the FDIC and OCC estimated that the company could use its collateral to raise another $86 billion through the Fed's discount window, the repo market, and the Federal Home Loan Banks, even those efforts would bring the amount on hand to only $103 billion to cover the potential $115 billion outflow.[84]

During the weekend, the Fed argued that Wachovia should be saved, with FDIC assistance if necessary. Its analysis focused on the firm's counterparties and other "interdependencies" with large market participants, and stated that asset sales by mutual funds could cause short-term funding markets to "virtually shut down."[85] According to supporting analysis by the Richmond Fed, mutual funds held $66 billion of Wachovia debt, which Richmond Fed staff concluded represented "significant systemic consequences"; and investment banks, "already weak and exposed to low levels of confidence," owned $39 billion of Wachovia's $191 billion debt and deposits. These firms were in danger of becoming "even more reliant on Federal Reserve support programs, such as PDCF, to support operations in the event of a Wachovia[-led] disruption."[86]

In addition, Fed staff argued that a Wachovia failure would cause banks to "become even less willing to lend to businesses and households. . . . [T]hese effects would contribute to weaker economic performance, higher unemployment, and reduced wealth."[87] Secretary Paulson had recused himself from the decision because of his ties to Steel, but other members of Treasury had "vigorously advocated" saving Wachovia.[88] White House Chief of Staff Josh Bolten called Bair on Sunday to express support for the systemic risk exception.[89]

At about 6:00 P.M. on Sunday, September 28, Wells's Kovacevich told Steel that he wanted more time to review Wachovia's assets, particularly its commercial real estate holdings, and could not make a bid before Monday if there were to be no FDIC assistance. So Wells and Citigroup came to the table with proposals predicated on such assistance. Wells offered to cover the first $2 billion of losses on a pool of $127 billion worth of assets as well as 80% of subsequent losses, if they grew large enough, capping the FDIC's losses at $20 billion. Citigroup wanted the FDIC to cover losses on a different, and larger, pool of $312 billion worth of assets, but proposed to cover the first $30 billion of losses and an additional $4 billion a year for three years, while giving the FDIC $12 billion in Wachovia preferred stock and stock warrants (rights to buy stock at a predetermined price) as compensation; the FDIC would cover any additional losses above $42 billion.[90]

FDIC staff expected Wachovia's losses to be between $35 billion and $52 billion. On the basis of that analysis and the particulars of the offers, they estimated that the

Wells proposal would cost the FDIC between $5.6 billion and $7.2 billion, whereas the Citigroup proposal would cost the FDIC nothing. Late Sunday, Wachovia submitted its own proposal, under which the FDIC would provide assistance directly to the bank so that it could survive as a stand-alone entity.[91]

But the FDIC still hadn't decided to support the systemic risk exception. Its board—which included the heads of the OCC and OTS—met at 6:00 A.M. on Monday, September 29, to decide Wachovia's fate before the markets opened.[92] FDIC Associate Director Miguel Browne hewed closely to the analysis prepared by the Richmond Fed: Wachovia's failure carried the risk of knocking down too many dominoes in lines stretching in too many directions whose fall would hurt too many people, including American taxpayers. He also raised concerns about potential global implications and reduced confidence in the dollar. Bair remained reluctant to intervene in private financial markets but ultimately agreed. "Well, I think this is, you know . . . one option of a lot of not-very-good options," she said at the meeting. "I have acquiesced in that decision based on the input of my colleagues, and the fact the statute gives multiple decision makers a say in this process. I'm not completely comfortable with it but we need to move forward with something, clearly, because this institution is in a tenuous situation."[93]

To win the approval of Bair and John Reich (the OTS director who served on the FDIC board), Treasury ultimately agreed to take the unusual step of funding all government losses from the proposed transaction.[94] Without this express commitment from Treasury, the FDIC would have been the first to bear losses out of its Deposit Insurance Fund, which then held about $34.6 billion; normally, help would have come from Treasury only after that fund was depleted.[95] According to the minutes of the meeting, Bair thought it was "especially important" that Treasury agree to fund losses, given that "it has vigorously advocated the transaction."[96]

After just 30 minutes, the FDIC board voted to support government assistance. The resolution also identified the winning bidder: Citigroup. "It was the fog of war," Bair told the FCIC. "The system was highly unstable. Who was going to take the chance that Wachovia would have a depository run on Monday?"[97]

Wachovia's board quickly voted to accept Citigroup's bid. Wachovia, Citigroup, and the FDIC signed an agreement in principle and Wachovia and Citigroup executed an exclusivity agreement that prohibited Wachovia from, among other things, negotiating with other potential acquirers.[98]

In the midst of the market turmoil, the Federal Open Market Committee met at the end of September 2008, at about the time of the announced Citigroup acquisition of Wachovia and the invocation of the systemic risk exception. "The planned merger of two very large institutions led to some concern among FOMC participants that bigger and bigger firms were being created that would be 'too big to fail,'" according a letter from Chairman Bernanke to the FCIC. He added that he "shared this concern, and voiced my hope that TARP would create options other than mergers for managing problems at large institutions and that subsequently, through the process of regulatory reform, we might develop good resolution mechanisms and decisively address the issues of financial concentration and too big to fail."[99]

Citigroup and Wachovia immediately began working on the deal—even as Wachovia's stock fell 81.6% to $1.84 on September 29, the day that TARP was initially rejected by lawmakers. They faced tremendous pressure from the regulators and the markets to conclude the transaction before the following Monday, but the deal was complicated: Citigroup was not acquiring the holding company, just the bank, and Citigroup wanted to change some of the original terms. Then came a surprise: on Thursday morning, October 2, Wells Fargo returned to the table and made a competing bid to buy all of Wachovia for $7 a share—seven times Citigroup's bid, with no government assistance.

There was a great deal of speculation over the timing of Wells Fargo's new proposal, particularly given IRS Notice 2008-83. This administrative ruling, issued just two days earlier, allowed an acquiring company to write off the losses of an acquired company immediately, rather than spreading them over time. Wells told the SEC that the IRS ruling permitted the bank to reduce taxable income by $3 billion in the first year following the acquisition rather than by $1 billion per year for three years. However, Wells said this "was itself not a major factor" in its decision to bid for Wachovia without direct government assistance.[100] Former Wells chairman Kovacevich told the FCIC that Wells's revised bid reflected additional due diligence, the point he had made to Wachovia CEO Steel at the time.[101] But the FDIC's Bair said Kovacevich told her at the time that the tax change had been a factor leading to Wells's revised bid.[102]

On Thursday, October 2, three days after accepting Citigroup's federally assisted offer, Wachovia's board convened an emergency 11:00 P.M. session to discuss Wells's revised bid. The Wachovia board voted unanimously in favor.

At about 3:00 A.M. Friday, Wachovia's Steel, its General Counsel Jane Sherburne, and FDIC Chairman Bair called Citigroup CEO Vikram Pandit to inform him that Wachovia had signed a definitive merger agreement with Wells. Steel read from prepared notes. Pandit was stunned. "He was disappointed. That's an understatement," Steel told the FCIC.[103] Pandit thought Citigroup and Wachovia already had a deal. After Steel and Sherburne dropped off the phone call, Pandit asked Bair if Citigroup could keep its original loss-sharing agreement to purchase Wachovia if it matched Wells's offer of $7 a share. Bair said no, reasoning that the FDIC was not going to stand in the way of a private deal. Nor was it the role of the agency to help Citigroup in a bidding war. She also told the FCIC that she had concerns about Citigroup's own viability if it acquired Wachovia for that price. "In reality, we didn't know how unstable Citigroup was at that point," Chairman Bair said. "Here we were selling a troubled institution . . . with a troubled mortgage portfolio to another troubled institution. . . . I think if that deal had gone through, Citigroup would have had to have been bailed out again."[104]

Later Friday morning, Wachovia announced the deal with Wells with the blessing of the FDIC. "This agreement won't require even a penny from the FDIC," Kovacevich said in the press release. Steel added that the "deal enables us to keep Wachovia intact and preserve the value of an integrated company, without government support."[105]

On Monday, October 6, Citigroup filed suit to enjoin Wells Fargo's acquisition of

Wachovia, but without success. The Wells Fargo deal would close at midnight on December 31, for $7 per share.

IRS Notice 2008-83 was repealed in 2009. The Treasury's inspector general, who later conducted an investigation of the circumstances of its issuance, reported that the purpose of the notice was to encourage strong banks to acquire weak banks by removing limitations on the use of tax losses. The inspector general concluded that there was a legitimate argument that the notice may have been an improper change of the tax code by Treasury; the Constitution allows Congress alone to change the tax code. A congressional report estimated that repealing the notice saved about $7 billion of tax revenues over 10 years.[106] However, the Wells controller, Richard Levy, told the FCIC that to date Wells has not recognized any benefits from the notice, because it has not yet had taxable income to offset.[107]

TARP: "COMPREHENSIVE APPROACH"

Ten days after the Lehman bankruptcy, the Fed had provided nearly $300 billion to investment banks and commercial banks through the PDCF and TSLF lending facilities, in an attempt to quell the storms in the repo markets, and the Fed and Treasury had announced unprecedented programs to support money market funds. By the end of September, the Fed's balance sheet had grown 67% to $1.5 trillion.

But the Fed was running out of options. In the end, it could only make collateralized loans to provide liquidity support. It could not replenish financial institutions' capital, which was quickly dissolving. Uncertainty about future losses on bad assets made it difficult for investors to determine which institutions could survive, even with all the Fed's new backstops. In short, the financial system was slipping away from its lender of last resort.

On Thursday, September 18, the Fed and Treasury proposed what Secretary Paulson called a "comprehensive approach" to stem the mounting crisis in the financial system by purchasing the toxic mortgage-related assets that were weighing down many banks' balance sheets.[108] In the early hours of Saturday, September 20, as Goldman Sachs and Morgan Stanley were preparing to become bank holding companies, Treasury sent Congress a draft proposal of the legislation for TARP. The modest length of that document—just three pages—belied its historical significance. It would give Treasury the authority to spend as much as $700 billion to purchase toxic assets from financial institutions.

The initial reaction was not promising. For example, Senate Banking Committee Chairman Christopher Dodd said on Tuesday, "This proposal is stunning and unprecedented in its scope—and lack of detail, I might add." "There are very few details in this legislation," Ranking Member Richard Shelby said. "Rather than establishing a comprehensive, workable plan for resolving this crisis, I believe this legislation merely codifies Treasury's ad hoc approach."[109]

Paulson told a Senate committee on Tuesday, "Of course, we all believe that the very best thing we can do is make sure that the capital markets are open and that lenders are continuing to lend. And so that is what this overall program does, it deals with that."[110] Bernanke told the Joint Economic Committee Wednesday: "I think that this is the most significant financial crisis in the post-War period for the United States, and it has in fact a global reach. . . . I think it is extraordinarily important to understand that, as we have seen in many previous examples of different countries and different times, choking up of credit is like taking the lifeblood away from the economy."[111] He told the House Financial Services Committee on the same day, "People are saying, 'Wall Street, what does it have to do with me?' That is the way they are thinking about it. Unfortunately, it has a lot to do with them. It will affect their company, it will affect their job, it will affect their economy. That affects their own lives, affects their ability to borrow and to save and to save for retirement and so on."[112] By the evening of Sunday, September 28, as bankers and regulators hammered out Wachovia's rescue, congressional negotiators had agreed on the outlines of a deal.

Senator Mel Martinez, a former HUD secretary and then a member of the Banking Committee, told the FCIC about a meeting with Paulson and Bernanke that Sunday:

> I just remember thinking, you know, Armageddon. The thing that was the most frightening about it is that even with them asking for extraordinary powers, that they were not at all assured that they could prevent the kind of financial disaster that I think really was greater than the Great Depression. . . . And obviously to a person like myself I think you think, "Wow, if these guys that are in the middle of it and hold the titles that they hold believe this to be as dark as they're painting it, it must be pretty darned dark."[113]

Nevertheless, on Monday, September 29, just hours after Citigroup had announced its proposed government-assisted acquisition of Wachovia, the House rejected TARP by a vote of 228 to 205. The markets' response was immediate: the Dow Jones Industrial Average quickly plunged 778 points, or almost 7%.

To broaden the bill's appeal, TARP's supporters made changes, including a temporary increase in the cap on FDIC's deposit insurance coverage from $100,000 to $250,000 per customer account.[114] On Wednesday evening, the Senate voted in favor by a margin of 74 to 25. On Friday, October 3, the House agreed, 263 to 171, and President George W. Bush signed the law, which had grown to 169 pages. TARP's stated goal was to restore liquidity and confidence in financial markets by providing "authority for the Federal Government to purchase and insure certain types of troubled assets for the purposes of providing stability to and preventing disruption in the economy and financial system and protecting taxpayers."[115] To provide oversight for the $700 billion program, the legislation established the Congressional Oversight Panel and the Office of the Special Inspector General for the Troubled Asset Relief Program (SIGTARP).

But the markets continued to deteriorate. On Monday, October 6, the Dow closed below 10,000 for the first time in four years; by the end of the week it was down almost 1,900 points, or 18%, below its peak in October 2007. The spread between the interest rate at which banks lend to one another and interest rates on Treasuries—a closely watched indicator of market confidence—hit an all-time high. And the dollar value of outstanding commercial paper issued by both financial and nonfinancial companies had fallen by $264 billion in the month between Lehman's failure and TARP's enactment. Even firms that had survived the previous disruptions in the commercial paper markets were now feeling the strain. In response, on October 7, the Fed created yet another emergency program, the Commercial Paper Funding Facility, to purchase secured and unsecured commercial paper directly from eligible issuers.[116] This program, which allowed firms to roll over their debt, would be widely used by financial and nonfinancial firms. The three financial firms that made the greatest use of the program were foreign institutions: UBS (which borrowed a cumulative $72 billion over time), Dexia ($53 billion), and Barclays ($38 billion). Other financial firms included GE Capital ($16 billion), Prudential Funding ($2.4 billion), and Toyota Motor Credit Corporation ($3.6 billion). Nonfinancial firms that participated included Verizon ($1.5 billion), Harley-Davidson ($2.3 billion), McDonald's, ($203 million) and Georgia Transmission ($109 million).[117]

Treasury was already rethinking TARP. The best way to structure the program was not obvious. Which toxic assets would qualify? How would the government determine fair prices in an illiquid market? Would firms holding these assets agree to sell them at a fair price if doing so would require them to realize losses? How could the government avoid overpaying? Such problems would take time to solve, and Treasury wanted to bring stability to the deteriorating markets as quickly as possible.

The key concern for markets and regulators was that they weren't sure they understood the extent of toxic assets on the balance sheets of financial institutions—so they couldn't be sure which banks were really solvent. The quickest reassurance, then, would be to simply recapitalize the financial sector. The change was allowed under the TARP legislation, which stated that Treasury, in consultation with the Fed, could purchase financial instruments, including stock, if they deemed such purchases necessary to promote financial market stability. However, the new proposal would pose a host of new problems. By injecting capital in these firms, the government would become a major shareholder in the private financial sector.

On Sunday, October 12, after agreeing to the terms of the capital injections, Paulson, Bernanke, Bair, Dugan, and Geithner selected a small group of major financial institutions to which they would immediately offer capital: the four largest commercial bank holding companies (Bank of America, Citigroup, JP Morgan, and Wells), the three remaining large investment banks (Goldman and Morgan Stanley, which were now bank holding companies, and Merrill, which Bank of America had agreed to acquire), and two important clearing and settlement banks (BNY Mellon and State Street). Together, these nine institutions held more than $11 trillion in assets, or about 75% of all assets in U.S. banks.

Paulson summoned the firms' chief executives to Washington on Columbus Day, October 13.[118] Along with Bernanke, Bair, Dugan, and Geithner, Paulson explained that Treasury had set aside $250 billion from TARP to purchase equity in financial institutions under the newly formed Capital Purchase Program (CPP). Specifically, Treasury would purchase senior preferred stock that would pay a 5% dividend for the first five years; the rate would rise to 9% thereafter to encourage the companies to pay the government back. Firms would also have to issue stock warrants to Treasury and agree to abide by certain standards for executive compensation and corporate governance.

The regulators had already decided to allocate half of these funds to the nine firms assembled that day: $25 billion each to Citigroup, JP Morgan, and Wells; $15 billion to Bank of America; $10 billion each to Merrill, Morgan Stanley, and Goldman; $3 billion to BNY Mellon; and $2 billion to State Street.

"We didn't want it to look or be like a nationalization" of the banking sector, Paulson told the FCIC. For that reason, the capital injections took the form of nonvoting stock, and the terms were intended to be attractive.[119] Paulson emphasized the importance of the banks' participation to provide confidence to the system. He told the CEOs: "If you don't take [the capital] and sometime later your regulator tells you that you are undercapitalized . . . you may not like the terms if you have to come back to me."[120] All nine firms took the deal. "They made a coherent, I thought, a cogent argument about responding to this crisis, which, remember, was getting dramatically worse. It wasn't leading to a run on some of the banks but it was getting worse in the marketplace," JP Morgan's Dimon told the FCIC.[121]

To further reassure markets that it would not allow the largest financial institutions to fail, the government also announced two new FDIC programs the next day. The first temporarily guaranteed certain senior debt for all FDIC-insured institutions and some holding companies. This program was used broadly. For example, Goldman Sachs had $26 billion in debt backed by the FDIC outstanding in January 2009, and $21 billion at the end of 2009, according to public filings; Morgan Stanley had $16 billion at the end of 2008 and $24 billion at the end of 2009. GE Capital, one of the heaviest users of the program, had $35 billion of FDIC-backed debt outstanding at the end of 2008 and $60 billion at the end of 2009. Citigroup had $32 billion of FDIC guaranteed debt outstanding at the end of 2008 and $65 billion at the end of 2009; JPMorgan Chase had $21 billion outstanding at the end of 2008 and $41 billion at the end of 2009.

The second provided deposit insurance to certain non-interest-bearing deposits, like checking accounts, at all insured depository institution.[122] Because of the risk to taxpayers, the measures required the Fed, the FDIC, and Treasury to declare a systemic risk exception under FDICIA, as they had done two weeks earlier to facilitate Citigroup's bid for Wachovia.

Later in the week, Treasury opened TARP to qualifying "healthy" and "viable" banks, thrifts, and holding companies, under the same terms that the first nine firms had received.[123] The appropriate federal regulator—the Fed, FDIC, OCC, or OTS—would review applications and pass them to Treasury for final approval. The program was intended not only to restore confidence in the banking system but also to provide banks with sufficient capital to fulfill their "responsibilities in the areas of lending, dividend and compensation policies, and foreclosure mitigation."[124]

"The whole reason for designing the program was so many banks would take it, would have the capital, and that would lead to lending. That was the whole purpose," Paulson told the FCIC. However, there were no specific requirements for those banks to make loans to businesses and households. "Right after we announced it we had critics start saying, 'You've got to force them to lend,'" Paulson said. Although he said he couldn't see how to do this, he did concede that the program could have been more effective in this regard.[125] The enabling legislation did have provisions affecting the compensation of senior executives and participating firms' ability to pay dividends to shareholders. Over time, these provisions would become more stringent, and the following year, in compliance with another measure in the act that created TARP, Treasury would create the Office of the Special Master for TARP Executive Compensation to review the appropriateness of compensation packages among TARP recipients.

Treasury invested about $188 billion in financial institutions under TARP's Capital Purchase Program by the end of 2008; ultimately, it would invest $205 billion in 707 financial institutions.[126]

In the ensuing months, Treasury would provide much of TARP's remaining $450 billion to specific financial institutions, including AIG ($40 billion plus a $30 billion lending facility), Citigroup ($20 billion plus loss guarantees), and Bank of America ($20 billion). On December 19, it established the Automotive Industry Financing Program, under which it ultimately invested $81 billion of TARP funds to make investments in and loans to automobile manufacturers and auto finance companies, specifically General Motors, GMAC, Chrysler, and Chrysler Financial.[127] On January 12, 2009, President Bush notified Congress that he intended not to access the second half of the $700 billion in TARP funds, so that he might "'ensure that such funds are available early' for the new administration."[128]

As of September 2010—two years after TARP's creation—Treasury had allocated $395 billion of the $700 billion authorized. Of that amount, $204 billion had been repaid, $185 billion remained outstanding, and $3.9 billion in losses had been incurred.[129] About $55 billion of the outstanding funds were in the Capital Purchase Program. Treasury still held large stakes in GM (61% of common stock), Ally Financial (formerly known as GMAC; 56%), and Chrysler (9%). Moreover, $47.5 billion of TARP funds remained invested in AIG in addition to $49.7 billion of loans from the New York Fed and a $26 billion non-TARP equity investment by the New York Fed in two of AIG's foreign insurance companies.[130] By December 2010, all nine companies invited to the initial Columbus Day meeting had fully repaid the government.[131]

Of course, TARP was only one of more than two dozen emergency programs totaling trillions of dollars put in place during the crisis to stabilize the financial system and to rescue specific firms. Indeed, TARP was not even the largest.[132] Many of these programs are discussed in this and previous chapters. For just some examples: The Fed's TSLF and PDCF programs peaked at $483 billion and $156 billion, respectively. Its money market funding peaked at $350 billion in January 2009, and its Commercial Paper Funding Facility peaked at $365 billion, also in January 2009.[133] When it was introduced, the FDIC's program to guarantee senior debt for all FDIC-insured institutions stood ready to backstop as much as $939 billion in bank debt. The Fed's largest program, announced in November 2008, purchased $1.25 trillion in agency mortgage–backed securities.[134]

AIG: "WE NEEDED TO STOP THE SUCKING CHEST WOUND IN THIS PATIENT"

AIG would be the first TARP recipient that was not part of the Capital Purchase Program. It still had two big holes to fill, despite the $85 billion loan from the New York Fed. Its securities-lending business was underwater despite payments in September and October of $24 billion that the Fed loan had enabled; and it still needed $27 billion to pay credit default swap (CDS) counterparties, despite earlier payments of $35 billion.

On November 10, the government announced that it was restructuring the New York Fed loan and, in the process, Treasury would purchase $40 billion in AIG preferred stock. As was done in the Capital Purchase Program, in return for the equity provided, Treasury received stock warrants from AIG and imposed restrictions on dividends and executive compensation.

That day, the New York Fed created two off-balance-sheet entities to hold AIG's bad assets associated with securities lending (Maiden Lane II) and CDS (Maiden Lane III). Over the next month, the New York Fed loaned Maiden Lane II $19.8 billion so that it could purchase mortgage-backed securities from AIG's life insurance company subsidiaries. This enabled those subsidiaries to pay back their securities-lending counterparties, bringing to $43.7 billion the total payments AIG would make with government help. These payments are listed in figure 20.4.[135]

Maiden Lane III was created with a $24.3 billion loan from the New York Fed and an AIG investment of $5 billion, supported by the Treasury investment. That money went to buy CDOs from 16 of AIG Financial Products' CDS counterparties. The CDOs had a face value of $62.1 billion, which AIG Financial Products had guaranteed through its CDS.[136] Because AIG had already posted $35 billion in collateral to its counterparties, Maiden Lane III paid $27.1 billion to those counterparties, providing them with the full face amount of the CDOs in return for the cancellation of their rights under the CDS.[137] A condition of this transaction was that AIG waive its legal claims against those counterparties. These payments are listed in figure 20.4.

Goldman Sachs received $14 billion in payments from Maiden Lane III related to the CDS it had purchased from AIG. During the FCIC's January 13, 2010, hearing, Goldman CEO Lloyd Blankfein testified that Goldman Sachs would not have lost any money if AIG had failed, because his firm had purchased credit protection to cover the difference between the amount of collateral it demanded from AIG and the amount of collateral paid by AIG.[138] Documents submitted to the FCIC by Goldman after the hearing do show that the firm owned $2.4 billion of credit protection in the form of CDS on AIG, although much of that protection came from financially unstable companies, including Citibank ($402.3 million), which itself had to be propped up by the government, and Lehman ($174.8 million), which was bankrupt by the

Payments to AIG Counterparties

Payments to AIG Securities Lending Counterparties

IN BILLIONS OF DOLLARS
Sept. 18 to Dec. 12, 2008

Barclays	$7.0
Deutsche Bank	6.4
BNP Paribas	4.9
Goldman Sachs	4.8
Bank of America	4.5
HSBC	3.3
Citigroup	2.3
Dresdner Kleinwort	2.2
Merrill Lynch	1.9
UBS	1.7
ING	1.5
Morgan Stanley	1.0
Société Générale	0.9
AIG International	0.6
Credit Suisse	0.4
Paloma Securities	0.2
Citadel	0.2
TOTAL	**$43.7**

Of this total, $19.5 billion came from Maiden Lane II, $17.2 billion came from the Federal Reserve Bank of New York, and $7 billion came from AIG.

Payments to AIG Credit Default Swap Counterparties

IN BILLIONS OF DOLLARS
As of Nov. 17, 2008

	Maiden Lane III payment	Collateral payments from AIG
Société Générale	$6.9	$9.6
Goldman Sachs	5.6	8.4
Merrill Lynch	3.1	3.1
Deutsche Bank	2.8	5.7
UBS	2.5	1.3
Calyon	1.2	3.1
Deutsche Zentral-Genossenschaftsbank	1.0	0.8
Bank of Montreal	0.9	0.5
Wachovia	0.8	0.2
Barclays	0.6	0.9
Bank of America	0.5	0.3
Royal Bank of Scotland	0.5	0.6
Dresdner Bank AG	0.4	0.0
Rabobank	0.3	0.3
Landesbank Baden-Wuerttemberg	0.1	0.0
HSBC Bank USA	0.0	0.2
TOTAL	**$27.1**	**$35.0**

NOTE: Amounts may not add due to rounding.
SOURCE: Special Inspector General for TARP

Figure 20.4

time AIG was rescued.[139] In an FCIC hearing, Goldman CFO David Viniar said that those counterparties had posted collateral.[140]

Goldman also argued that the $14 billion of CDS protection that it purchased from AIG was part of Goldman's "matched book," meaning that Goldman sold $14 billion in offsetting protection to its own clients; it provided information to the FCIC indicating that the $14 billion received from Maiden Lane III was entirely paid to its clients.[141] Without the federal assistance, Goldman would have had to find the $14 billion some other way.

Goldman also produced documents to the FCIC that showed it received $3.4 billion from AIG related to credit default swaps on CDOs that were not part of Maiden Lane III. Of that $3.4 billion, $1.9 billion was received after, and thus made possible by, the federal bailout of AIG. And most—$2.9 billion—of the total was for proprietary trades (that is, trades made solely for Goldman's benefit rather than on behalf of a client) largely relating to Goldman's Abacus CDOs. Thus, unlike the $14 billion received from AIG on trades in which Goldman owed the money to its own counterparties, this $2.9 billion was retained by Goldman.[142]

That AIG's counterparties did not incur any losses on their investments—because AIG, once it was backed by the government, paid claims to CDS counterparties at 100% of face value—has been widely criticized. In November 2009, SIGTARP faulted the New York Fed for failing to obtain concessions. The inspector general said that seven of the top eight counterparties had insisted on 100% coverage and that the New York Fed had agreed because efforts to obtain concessions from all counterparties had little hope of success.[143]

SIGTARP was highly critical of the New York Fed's negotiations. From the outset, it found, the New York Fed was poorly prepared to assist AIG. To prevent AIG's failure, the New York Fed had hastily agreed to the $85 billion bailout on substantially the same terms that a private-sector group had contemplated.[144] SIGTARP blamed the Fed's own negotiating strategy for the outcome, which it described as the transfer of "billions of dollars of cash from the Government to AIG's counterparties, even though senior policy makers contend that assistance to AIG's counterparties was not a relevant consideration."[145]

In June 2010, TARP's Congressional Oversight Panel criticized the AIG bailout for having a "poisonous" effect on capital markets. The report said the government's failure to require "shared sacrifice" among AIG's creditors effectively altered the relationship between the government and the markets, signaling an implicit "too big to fail" guarantee for certain firms. The report said the New York Fed should have insisted on concessions from counterparties.[146]

Treasury and Fed officials countered that concessions would have led to an instant ratings downgrade and precipitated a run on AIG.[147] New York Fed officials told the FCIC that they had very little bargaining power with counterparties who were protected by the terms of their CDS contracts. And, after providing a $85 billion loan, the government could not let AIG fail. "Counterparties said 'we got the collateral, the contractual rights, you've been rescued by the Fed, Uncle Sam's behind you, why would we let you out of a contract you agreed to?" New York Fed General Counsel Tom Baxter told the FCIC. "And then the question was, should we use our regulatory power to leverage counterparties. From my view, that would have been completely inappropriate, an abuse of power, and not something we were willing to even contemplate."[148]

Sarah Dahlgren, who was in charge of the Maiden Lane III transaction at the New York Fed, said the government could not have threatened bankruptcy. "There was a financial meltdown," she told the FCIC. "The credibility of the United States government was on the line."[149] SIGTARP acknowledged that the New York Fed "felt ethically restrained from threatening an AIG bankruptcy because it had no actual plans to carry out such a threat" and that it was "uncomfortable interfering with the sanctity of the counterparties' contractual rights with AIG," which were "certainly valid concerns."[150]

Geithner has said he was confident that full reimbursement was "absolutely" the right decision. "We did it in a way that I believe was not just least cost to the taxpayer, best deal for the taxpayer, but helped avoid much, much more damage than would have happened without that."[151]

New York Fed officials told the FCIC that threats to AIG's survival continued after the $85 billion loan on September 16.[152] "If you don't fix the [securities] lending or the CDOs, [AIG would] blow through the $85 billion. So we needed to stop the sucking chest wound in this patient," Dahlgren said. "It wasn't just AIG—it was the financial markets. . . . It kept getting worse and worse and worse."[153]

Baxter told the FCIC that Maiden Lane III stopped the "hemorrhage" from AIG Financial Products, which was paying collateral to counterparties by drawing on the $85 billion government loan. In addition, because Maiden Lane III received the CDOs underlying the CDS, "as value comes back in those CDOs, that's value that is going to be first used to pay off the Fed loan; . . . the likely outcome of Maiden Lane III is that we're going to be paid in full," he said.[154]

In total, the Fed and Treasury had made available over $180 billion in assistance to AIG to prevent its failure.[155] As of September 30, 2010, the total outstanding assistance has been reduced to $124.8 billion, primarily through the sale of AIG business units.[156]

CITIGROUP: "LET THE WORLD KNOW THAT WE WILL NOT PULL A LEHMAN"

The failed bid for Wachovia reflected badly on Citigroup. Its stock fell 18% on October 3, 2008, the day Wachovia announced that it preferred Wells's offer, and another 43% within a week. "Having agreed to do the deal was a recognition on our part that we needed it," Edward "Ned" Kelly III, vice chairman of Citigroup, told the FCIC. "And if we needed it and didn't get it, what did that imply for the strength of the firm going forward?"[157]

Roger Cole, then head of banking supervision at the Federal Reserve Board, saw the failed acquisition as a turning point, the moment "when Citi really came under the microscope." "It was regarded [by the market] as an indication of bad management at Citi that they lost the deal, and had it taken away from them by a smarter, more astute Wells Fargo team," Cole told the FCIC. "And then here's an organization that doesn't have the core funding [insured deposits] that we were assuming that they would get by that deal."[158]

Citigroup's stock rose 18% the day after the Columbus Day announcement that it would receive government capital, but the optimism did not last. Two days later, Citigroup announced a $2.8 billion net loss for the third quarter, concentrated in subprime and Alt-A mortgages, commercial real estate investments, and structured investment vehicle (SIV) write-downs. The bank's stock fell 17% in the following week and, by November 12, hit single digits for the first time since 1996.

The market's unease was heightened by press speculation that the company's board had lost confidence in senior management, Kelly said.[159] On November 19, the company announced that the value of the SIVs had fallen by $1.1 billion in the month since it had released third-quarter earnings. Citigroup was therefore going to bring the remaining $17.4 billion in off-balance-sheet SIV assets onto its books. Investors clipped almost another 24% off the value of the stock, its largest single-day drop since the October 1987 stock market crash. Two days later, the stock closed at $3.77. Credit defaults swaps on Citigroup reached a steep $500,000 annually to protect $10 million in Citigroup debt against default.[160] According to Kelly, these developments threatened to make perceptions become a reality for the bank: "[Investors] look at those spreads and say, 'Is this some place I really want to put my money?' And that's not just in terms of wholesale funding, that's people who also have deposits with us at various points."[161]

The firm's various regulators watched the stock price, the daily liquidity, and the CDS spreads with alarm. On Friday, November 21, the United Kingdom's Financial Services Authority (FSA) imposed a $6.4 billion cash "lockup" to protect Citigroup's London-based broker-dealer. FDIC examiners knew that this action would be "very damaging" to the bank's liquidity and worried that the FSA or other foreign regulators might impose additional cash requirements in the following week.[162] By the close of business Friday, there was widespread concern that if the U.S. government failed to act, Citigroup might not survive; its liquidity problems had reached "crisis proportions." Among regulators at the FDIC and the Fed, there was no debate.[163] Fed Chairman Bernanke told the FCIC, "We were looking at this firm [in the fall of 2008] and saying, 'Citigroup is not a very strong firm, but it's only one firm and the others are okay,' but not recognizing that that's sort of like saying, 'Well, four out of your five heart ventricles are fine, and the fifth one is lousy.' They're all interconnected, they all connect to each other; and, therefore, the failure of one brings the others down."[164]

The FDIC's Arthur Murton emailed his colleague Michael Krimminger on November 22: "Given that the immediate risk is liquidity, the way to address that is by letting counterparties know that they will be protected both at the bank and holding company level. . . . [T]he main point is to let the world know that we will not pull a Lehman." Krimminger, special adviser to the FDIC chairman, agreed: "At this stage, it is probably appropriate to be clear and direct that the US government will not allow Citi to fail to meet its obligations."[165]

Citigroup's own calculations suggested that a drop in deposits of just 7.2% would wipe out its cash surplus. If the trend of recent withdrawals continued, the company could expect a 2% outflow of deposits per day. Unless Citigroup received a large and immediate injection of funds, its coffers would be empty before the weekend. Meanwhile, Citigroup executives remained convinced that the company was sound and that the market was simply panicking. CEO Pandit argued, "This was not a fundamental situation, it was not about the capital we had, not about the funding we had at that time, but with the stock price where it was . . . perception becomes reality."[166] All that was needed, Citigroup contended, was for the government to expand access to existing liquidity facilities. "People were questioning what everything was worth at the time. . . . [T]here was a flight not just to quality and safety, but almost a flight to certainty," Kelly, then Pandit's adviser, told the FCIC.[167]

The FDIC dismissed Citigroup's request that the government simply expand its access to existing liquidity programs, concluding that any "incremental liquidity" could be quickly eliminated as depositors rushed out the door. Officials also believed the company did not have sufficient high-quality collateral to borrow more under the Fed's mostly collateral-based liquidity programs. In addition to the $25 billion from TARP, Citigroup was already getting by on substantial government support. As of November 21, it had $24.3 billion outstanding under the Fed's collateralized liquidity programs and $200 million under the Fed's Commercial Paper Funding Facility. And it had borrowed $84 billion from the Federal Home Loan Banks. In December, Citigroup would have a total of $32 billion in senior debt guaranteed by the FDIC under the debt guarantee program.

On Sunday, November 23, FDIC staff recommended to its board that a third systemic risk exception be made under FDICIA.[168] As they had done previously, regulators decided that a proposed resolution had to be announced over the weekend to buttress investor confidence before markets opened Monday. The failure of Citigroup "would significantly undermine business and household confidence," according to FDIC staff.[169] Regulators were also concerned that the economic effects of a Citigroup failure would undermine the impact of the recently implemented Capital Purchase Program under TARP.[170]

Treasury agreed to provide Citigroup with an additional $20 billion in TARP funds in exchange for preferred stock with an 8% dividend.[171] This injection of cash brought the company's TARP tab to $45 billion. The bank also received $19.5 billion in capital benefits related to its issuance of preferred stock and the government's guarantee of certain assets.[172] Under the guarantee, Citigroup and the government would identify a $306 billion pool of assets around which a protective "ring fence" would be placed. In effect, this was a loss-sharing agreement between Citigroup and the federal government. "There was not a huge amount of science in coming to that [$306 billion] number," Citigroup's Kelly told the FCIC. He said the deal was structured to "give the market comfort that the catastrophic risk has been taken off the table."[173] When its terms were finalized in January 2009, the guaranteed pool, which contained mainly loans and residential and commercial mortgage–backed securities, was adjusted downward to $301 billion.

Citigroup assumed responsibility for the first $39.5 billion in losses on the ring-fenced assets. The federal government would assume responsibility for 90% of all losses above that amount. Should these losses actually materialize, Treasury would absorb the first $5 billion using TARP funds, the FDIC would absorb the next $10 billion from the Deposit Insurance Fund (for which it had needed to approve the systemic risk exception), and the Fed would absorb the balance. In return, Citigroup agreed to grant the government $7 billion in preferred stock, as well as warrants that gave the government the option to purchase additional shares.[174] After analyzing the quality of the protected assets, FDIC staff projected that the Deposit Insurance Fund would not incur any losses.[175]

Once again, the FDIC Board met late on a Sunday to determine the fate of a struggling institution. Brief dissent on the 10 P.M. conference call came from OTS Director John Reich, who questioned why similar relief had not been extended to OTS-supervised thrifts that failed earlier. "There isn't any doubt in my mind that this is a systemic situation," he said. But he added,

> In hindsight, I think there have been some systemic situations prior to this one that were not classified as such. The failure of IndyMac pointed the focus to the next weakest institution, which was WaMu, and its failure pointed to Wachovia, and now we're looking at Citi and I wonder who's next. I hope that all of the regulators, all of us, including Treasury and the Fed, are looking at these situations in a balanced manner, and I fear there has been some selective creativity exercised in the determination of what is systemic and what's not and what's possible for the government to do and what's not.[176]

The FDIC Board approved the proposal unanimously. The announcement beat the opening bell, and the markets responded positively: Citigroup's stock price soared almost 58%, closing at $5.95. The ring fence would stay in place until December 2009, at which time Citigroup terminated the government guarantee in tandem with repaying $20 billion in TARP funds. In December 2010, Treasury announced the sale of its final shares of Citigroup's common stock.[177]

BANK OF AMERICA: "A SHOTGUN WEDDING"

With Citigroup stabilized, the markets would quickly shift focus to the next domino: Bank of America, which had swallowed Countrywide earlier in the year and, on September 15, had announced it was going to take on Merrill Lynch as well. The merger would create the world's largest brokerage and reinforce Bank of America's position as the country's largest depository institution. Given the share prices of the two companies at the time, the transaction was valued at $50 billion.

But the deal was not set to close until the first quarter of the following year. In the interim, the companies continued to operate as independent entities, pending shareholder and regulatory approval. For that reason, Merrill CEO John Thain and Bank of America CEO Ken Lewis had represented their companies separately at the Columbus Day meeting at Treasury. Treasury would invest the full $25 billion in Bank of America only after the Merrill acquisition was complete.

In October, Merrill Lynch reported a net loss for the third quarter of $5.1 billion. In its October 16 earnings press release, Merrill Lynch described write-downs related to its CDO positions and other real estate–related securities and assets affected by the "severe market dislocations." Thain told investors on the conference call that Merrill's strategy was to clean house. It now held less than $1 billion in asset-backed-security

CDOs and no Alt-A positions at all. "We're down to $295 million in subprime on our trading books," Thain said. "We cut our non-U.S. mortgage business positions in half."[178]

The Fed approved the merger on November 26, noting that both Bank of America and Merrill were well capitalized and would remain so after the merger, and that Bank of America "has sufficient financial resources to effect the proposal."[179] Shareholders of both companies approved the acquisition on December 5.

But then Bank of America executives began to have second thoughts, Lewis told the FCIC. In mid-November, Merrill Lynch's after-tax losses for the fourth quarter had been projected to reach about $5 billion; the projection grew to about $7 billion by December 3, $9 billion by December 9, and $12 billion by December 14.[180] Lewis said he learned only on December 14 that Merrill's losses had "accelerated pretty dramatically."[181] Lewis attributed the losses to a "much, much, higher deterioration of the assets we identified than we had expected going into the fourth quarter."[182]

In a January conference call, Lewis and CFO Joe Price told investors that the bank had not been aware of the extent of Merrill's fourth-quarter losses at the time of the shareholder vote. "It wasn't an issue of not identifying the assets," Ken Lewis said. "It was that we did not expect the significant deterioration, which happened in mid- to late December that we saw."[183] Merrill's Thain contests that version of events. He told the FCIC that Merrill provided daily profit and loss reports to Bank of America and that bank executives should have known about losses as they occurred.[184] The SEC later brought an enforcement action against Bank of America, charging the company with failing to disclose about $9.5 billion of known and expected Merrill Lynch losses before the December 5 shareholder vote. According to the SEC's complaint, these insufficient disclosures deprived shareholders of material information that was critical to their ability to fairly evaluate the merger. In February 2010, Bank of America would pay $150 million to settle the SEC's action.[185]

On December 17, Lewis called Treasury Secretary Paulson to inform him that Bank of America was considering invoking the material adverse change (MAC) clause of the merger agreement, which would allow the company to exit or renegotiate the terms of the acquisition. "The severity of the losses were high enough that we should at least consider a MAC," Lewis told the FCIC. "The acceleration, we thought, was beyond what should be happening. And then secondly, you had a major hole being created in the capital base with the losses—that dramatically reduced [Merrill Lynch's] equity."[186]

That afternoon, Lewis flew from North Carolina to Washington to meet at the Fed with Paulson and Fed Chairman Bernanke. The two asked Lewis to "stand down" on invoking the clause while they considered the situation.[187]

Paulson and Bernanke concluded that an attempt by Bank of America to invoke the MAC clause "was not a legally reasonable option." They believed that Bank of America would be ultimately unsuccessful in the legal action, and that the attendant litigation would likely result in Bank of America still being contractually bound to acquire a considerably weaker Merrill Lynch. Moreover, Bernanke thought the market would lose faith in Bank of America's management, given that review, preparation, and due diligence had been ongoing for "3 months." The two officials also believed that invoking the clause would lead to a broader systemic crisis that would result in further deterioration at the two companies.[188]

Neither Merrill nor its CEO, John Thain, was informed of these deliberations at Bank of America. Lewis told the FCIC that he didn't contact Merrill Lynch about the situation because he didn't want to create an "adversarial relationship" if it could be avoided.[189] When Thain later found out that Bank of America had contemplated putting the MAC clause into effect, he was skeptical about its chances of success: "One of the things we negotiated very heavily was the Material Adverse Change clause. [It] specifically excluded market moves . . . [and] pretty much nothing happened to Merrill in the fourth quarter other than the market move."[190]

On Sunday, December 21, Paulson informed Lewis that invoking the clause would demonstrate a "colossal loss of judgment" by the company. Paulson reminded Lewis that the Fed, as its regulator, had the legal authority to replace Bank of America's management and board if they embarked on a "destructive" strategy that had "no reasonable legal basis."[191] Bernanke later told his general counsel: "Though we did not order Lewis to go forward, we did indicate that we believed that going forward [with the clause] would be detrimental to the health (safety and soundness) of his company." Congressman Edolphus Towns of New York would later refer to the Bank of America and Merrill Lynch merger as "a shotgun wedding."[192]

Regulators began to discuss a rescue package similar to the one for Citigroup, including preferred shares and an asset pool similar to Citigroup's ring fence. The staff's analysis was essentially the same as it had been for Citigroup. Meanwhile, Lewis decided to "deescalate" the situation, explaining that when the secretary of the treasury and the chairman of the Fed say that invoking the MAC would cause systemic risk, "then it obviously gives you pause."[193] At a board meeting on December 22, Lewis told his board that the Fed and Treasury believed that a failed acquisition would pose systemic risk and would lead to removal of management and the board at the insistence of the government, and that the government would provide assistance "to protect [Bank of America] against the adverse impact of certain Merrill Lynch assets," although such assistance could not be provided in time for the merger's close on January 1, 2009.[194]

The board decided not to exercise the MAC and to proceed as planned, with the understanding that the government's assistance would be "fully documented" by the time fourth-quarter earnings were announced in mid-January.[195] "Obviously if [the MAC clause] actually would cause systemic risk to the financial system, then that's not good for Bank of America," Lewis told the FCIC. "Which is finally the conclusion that I came to and the board came to."[196]

The merger was completed on January 1, 2009, with no hint of government assistance. By the time the acquisition became official, the purchase price of $50 billion announced in September had fallen to $19 billion, thanks to the decline in the stock prices of the two companies over the preceding three months. On January 9, Bank of America received the $10 billion in capital from TARP that had been allocated to Merrill Lynch, adding to the $15 billion it had received in October.[197]

In addition to those TARP investments, at the end of 2008 Bank of America and Merrill Lynch had borrowed $88 billion under the Fed's collateralized programs ($60 billion through the Term Auction Facility and $28 billion through the PDCF and TSLF) and $15 billion under the Fed's Commercial Paper Funding Facility. (During the previous fall, Bank of America's legacy securities arm had borrowed as much as $17 billion under TSLF and as much as $11 billion under PDCF.) Also at the end of 2008, the bank had issued $31.7 billion in senior debt guaranteed by the FDIC under the debt guarantee program.[198] And it had borrowed $92 billion from the Federal Home Loan Banks. Yet despite Bank of America's recourse to these many supports, the regulators worried that it would experience liquidity problems if the fourth-quarter earnings were weak.[199]

The regulators wanted to be ready to announce the details of government support in conjunction with Bank of America's disclosure of its fourth-quarter performance. They had been working on the details of that assistance since late December,[200] and had reason to be cautious: for example, 67% of Bank of America's repo and securities-lending funding, a total of $384 billion, was rolled over every night, and Merrill "legacy" businesses also funded $144 billion overnight. A one-notch downgrade in the new Bank of America's credit rating would contractually obligate the posting of $10 billion in additional collateral; a two-notch downgrade would require another $3 billion. Although the company remained adequately capitalized from a regulatory standpoint, its tangible common equity was low and, given the stressed market conditions, was likely to fall under 2%.[201] Low levels of tangible common equity—the most basic measure of capital—worried the market, which seemed to think that in the midst of the crisis, regulatory measures of capital were not informative.

On January 15, the Federal Reserve and the FDIC, after "intense" discussions, agreed on the terms:[202] Treasury would use TARP funds to purchase $20 billion of Bank of America preferred stock with an 8% dividend. The bank and the three pertinent government agencies—Treasury, the Fed, and the FDIC—designated an asset pool of $118 billion, primarily from the former Merrill Lynch portfolio, whose losses the four entities would share. The pool was analogous to Citigroup's ring fence. In this case, Bank of America would be responsible for the first $10 billion in losses on the pool, and the government would cover 90% of any additional losses. Should the government losses materialize, Treasury would cover 75%, up to a limit of $7.5 billion, and the FDIC 25%, up to a limit of $2.5 billion. Ninety percent of any additional losses would be covered by the Fed.[203]

The FDIC Board had a conference call at 10 P.M. on Thursday, January 15, and voted for the fourth time, unanimously, to approve a systemic risk exception under FDICIA.[204]

The next morning, January 16, Bank of America disclosed that Merrill Lynch had recorded a $15.3 billion net loss on real estate-related write-downs and charges. It also announced the $20 billion TARP capital investment and $118 billion ring fence that the government had provided. Despite the government's support, Bank of America's stock closed down almost 14% from the day before.

Over the next several months Bank of America worked with its regulators to identify the assets that would be included in the asset pool. Then, on May 6, Bank of America asked to exit the ring fence deal, explaining that the company had determined that losses would not exceed the $10 billion that Bank of America was required to cover in its first-loss position. Although the company was eventually allowed to terminate the deal, it was compelled to compensate the government for the benefits it had received from the market's perception that the government would insure its assets. On September 21, Bank of America agreed to pay a $425 million termination fee: $276 million to Treasury, $57 million to the Fed, and $92 million to the FDIC.

COMMISSION CONCLUSIONS ON CHAPTER 20

The Commission concludes that, as massive losses spread throughout the financial system in the fall of 2008, many institutions failed, or would have failed but for government bailouts. As panic gripped the market, credit markets seized up, trading ground to a halt, and the stock market plunged. Lack of transparency contributed greatly to the crisis: the exposures of financial institutions to risky mortgage assets and other potential losses were unknown to market participants, and indeed many firms did not know their own exposures.

The scale and nature of the over-the-counter (OTC) derivatives market created significant systemic risk throughout the financial system and helped fuel the panic in the fall of 2008: millions of contracts in this opaque and deregulated market created interconnections among a vast web of financial institutions through counterparty credit risk, thus exposing the system to a contagion of spreading losses and defaults. Enormous positions concentrated in the hands of systemically significant institutions that were major OTC derivatives dealers added to uncertainty in the market. The "bank runs" on these institutions included runs on their derivatives operations through novations, collateral demands, and refusals to act as counterparties.

A series of actions, inactions, and misjudgments left the country with stark and painful alternatives—either risk the total collapse of our financial system or spend trillions of taxpayer dollars to stabilize the system and prevent catastrophic damage to the economy. In the process, the government rescued a number of financial institutions deemed "too big to fail"—so large and interconnected with other financial institutions or so important in one or more financial markets that their failure would have caused losses and failures to spread to other institutions. The government also provided substantial financial assistance to nonfinancial corporations. As a result of the rescues and consolidation of financial institutions through failures and mergers during the crisis, the U.S. financial sector is now more concentrated than ever in the hands of a few very large, systemically significant institutions. This concentration places greater responsibility on regulators for effective oversight of these institutions.