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Cumulative or Discrete Numbers: How Should *Bloomberg* Measure the Bailout?

From summer 2007 to June 2009, US financial markets flirted with disaster. The housing market had collapsed and, because many major financial institutions were heavily invested in mortgages, they lost hundreds of billions of dollars. The economy went into recession in December 2007 and contracted a full 5.1 percent in 18 months. Millions lost their jobs; other millions lost their homes. At the height of the crisis, experts and ordinary citizens alike wondered whether the nation's banking system would survive.

The US Federal Reserve System, the nation's central bank, stepped in with a variety of programs to stabilize the banks. While the public knew that the "Fed," as it was called, was taking action, the agency released few details about individual transactions. At *Bloomberg News*, investigative reporter Mark Pittman became convinced that banks were using Fed loans to disguise financial weakness. In May 2008, he filed a Freedom of Information Act (FOIA) request with the Fed to learn how much it had loaned each bank, and on what terms.[1] When after six months the Fed failed to respond, Bloomberg L.P. (the parent company) in November 2008 filed a lawsuit to obtain detailed records about its massive lending activities.

Over the next two years, the two parties fought a legal battle. Bloomberg won at both the district and appeals court levels, but the Fed or its proxy continued to appeal the decision until, in March 2011, the Supreme Court refused to hear the case. The lower court ruling—favorable to Bloomberg—stood. The Fed had already released a portion of the requested documents in December 2010. In March 2011, it released the rest—29,000 pages of PDFs.[2] The second tranche included key details about the amounts the Fed had lent through its so----called "discount window" to Morgan Stanley, Citigroup, Bank of America and other financial institutions from August 2007 to April 2010.

[1] FOIA requires federal agencies to make government documents, with some exceptions, available to the public and the press.
[2] PDFs are electronically locked documents that cannot be altered without considerable effort, and which are difficult for software programs to parse for data.

This case was written by Lisa Armstrong and edited by Kirsten Lundberg, Director, for the Case Consortium @ Columbis and the Graduate School of Journalism. (11/2013)

A team of *Bloomberg* editors and reporters had to sift through the data (Pittman had died in November 2009). The process was technologically complex, intellectually overwhelming and a logistical nightmare. They had to make sense first of the acronyms and jumbled numbers in the Excel spreadsheets that the Fed released in 2010; then "scrape" data off the March 2011 PDFs. But by summer 2011, the reporters had extracted a treasure trove of stories from the vast wealth of information the Fed provided.

In spring 2011, differences arose about how to add up the numbers. Numbers pose a consistent conundrum for business journalists; their interpretation can put a story on the front page, or bury it deep in the business section. At the same time, business reporters—like all beat journalists—are dependent to some degree on maintaining good relations with the institutions they cover. Unjustified sensationalism can come back to haunt them the next time they need a reliable source inside the financial world.

Veteran reporter Bob Ivry argued that it was only fair, and reflected the ongoing gravity of the situation, to report the cumulative borrowings of each bank over the months of the financial crisis. Especially for headline and lede paragraphs, he wanted to see a large number that would attract wide attention to a story of vital public interest. Ivry's colleagues, however, argued that the cumulative number was deceptive if in fact a bank had merely borrowed and repaid the same sum repeatedly over those same months.

The question was: what would be the most accurate calculation? There would be multiple stories based on the Fed data; they had to agree on a consistent approach to the numbers. How could *Bloomberg* best tell the story of how the Fed—unbeknownst to the public or Congress—had floated some of the nation's largest and most influential banks? In July, as *Bloomberg* prepared a series based on the Fed documents, Ivry once again raised the issue: cumulative or discrete numbers?

Brief Histories

Bloomberg News was well positioned to take on an institution as powerful as the Federal Reserve. It had started in 1990 with a team of six people, and by 2011 employed over 2,300 in 146 bureaus around the world. Michael Bloomberg created the news organization to provide context to data provided by "The Bloomberg," a terminal that he developed in 1982 to provide investors with real----time financial market data. As of 2011, virtually every leading bank, brokerage firm, insurance company, financial regulator and corporation subscribed to The Bloomberg.[3]

[3] For information on The Bloomberg, see http://www.bloomberg.com/professional/

Bloomberg hired as his first, and as of 2011 only, editor----in----chief *Wall Street Journal* reporter Matthew Winkler.[4] By 2011, *Bloomberg News* was publishing more than 5,000 original stories on an average day, syndicated to over 450 newspapers worldwide. *Bloomberg News* had twice been a finalist for a Pulitzer Prize and had received over 500 awards, including the Roy W. Howard for Public Service, George Polk, Gerald Loeb, Overseas Press Club, and Sidney Hillman.[5] Of potential conflicts of interest, Michael Bloomberg said:

> You grit your teeth and you go with the news side. The editorial independence of a news organization is sacrosanct. The fact of the matter is, the customers are going to deal with you regardless. If they pull away, they'll go to our competitors, who are also in the news business, and the same thing will happen there, and they'll come back to us.[6]

The Fed. The Federal Reserve System was the central bank of the United States. Congress created it in December 1913 to stabilize the nation's financial system after a number of panics. The Fed's major responsibility was to set monetary policy in order to maintain high employment, stable prices and moderate long----term interest rates. It helped operate the nation's payment system, set rules for banks, and supervised their operations.

Since the Fed's creation, it had used a tool called the discount window to lend reserve funds to banks during times of financial stress. These were typically short----term loans—usually overnight—and had to be secured by collateral with a value at least equal to the amount of the loan. Banks could borrow money at a discounted rate to ensure that they could nightly meet the reserve requirement—the amount of money the Fed required banks to have on hand to conduct business. Says the Fed:

> The Discount Window functions as a safety valve in relieving pressures in reserve markets; extensions of credit can help relieve liquidity strains in a depository institution and in the banking system as a whole. The Window also helps ensure the basic stability of the payment system more generally by supplying liquidity during times of systemic stress.[7]

[4] Dale Krieger, "What Makes Mike Bloomberg So Smart," *Johns Hopkins Magazine*, November 1996. See: http://www.jhu.edu/jhumag/1196web/bloombrg.html

[5] Bloomberg Press Room, Bloomberg.com

[6] Krieger, "What Makes Mike Bloomberg So Smart."

[7] For more information on the Federal Reserve Discount Window, see: http://www.frbdiscountwindow.org/discountwindowbook.cfm?hdrID=14&dtlID=43 - introduction

Banks used the window when necessary, but tried to keep it quiet, mindful that it was a lender of last resort; using it could signal to shareholders, depositors and financial markets that the borrower was experiencing difficulties.

The Great Crash

In the summer of 2007, US financial markets found themselves in crisis. For decades, housing prices had increased steadily, making homeowners seem wealthy. Many took money out of their houses in the form of home equity loans—and spent the proceeds. Interest rates were low, and homeowners were confident they could repay the loans.

At the same time, banks and investment companies discovered they could bundle mortgages into investment vehicles.[8] An insatiable appetite for bundled mortgages led to aggressive mortgage marketing; mortgage companies dropped many of the standard income and asset requirements for mortgage borrowers. While the new borrowers of so----called "subprime" mortgages paid higher interest rates than standard creditworthy customers, mortgage rates were at historic lows in the mid----2000s, so the higher rates were not especially discouraging. Millions of borrowers with limited or no assets were able to buy property, essentially entirely on credit. With home prices on what many assumed was an unstoppable upward trajectory, this seemed a plausible strategy.

In late 2007 and 2008, what was belatedly recognized as a housing bubble burst, and real estate prices went into free fall. Millions of homeowners who had bought at the height of the market found the value of their houses falling below the mortgage; without the house itself as collateral, they could not refinance, could not sell, and many could no longer afford to pay their mortgages. Banks and investors in the bundled mortgage instruments lost millions. The international financial system teetered. Says Ivry:

> All these defaults turned into mayhem for the financial system, because what Wall Street had done was take all these subprime loans, bundle them together and sell pieces off to investors all over the world. The theory was that the risk would be distributed, but in reality what happened was the disease wasn't lessened by the amount of people that had it, it was made worse.[9]

The first public signs of trouble appeared in June 2007, when two Bear Stearns hedge funds with large holdings of subprime mortgages suffered over $9 billion in losses, and were

[8] Many have written books on what only gradually emerged as the irresponsible, and widespread, bundling of topquality mortgages with those practically given away to willing buyers, dubbed subprime mortgages. For a clearly written, approachable account, see Michael Lewis, *The Big Short, Inside the Doomsday Machine* (New York: W.W. Norton & Company), 2010.

[9] Armstrong interview with Bob Ivry in New York City on April 17, 2013. All further quotes from Ivry, unless otherwise attributed, are from this interview.

forced into bankruptcy. At first, officials at the Fed remained sanguine; Bear Stearns was just one institution. "We are prepared to use the tools that we have to address a short----term financial crisis, should one occur," said Federal Reserve Chairman Ben Bernanke after a Fed meeting in early August 2007. "I think the odds are that the market will stabilize."[10] But over the next few days, stocks plunged as additional financial institutions reported losses tied to subprime mortgage loans. Financial institutions, concerned that mortgage----backed collateral for loans would be worthless, were afraid to lend money to each other. The system threatened to seize up.

The Fed quickly took preventive measures to ensure that banks would have enough cash. In mid----August 2007, it injected $38 billion into the US banking system to give banks the capital necessary to conduct their daily business. In September 2007, it cut the discount rate, the rate it charged banks for temporary loans; and then cut it again in December. It also created new bank lending programs, including a Term Auction Facility in December 2007 (an alternative to the discount window) and a Primary Dealer Credit Facility in March 2008.

Even as it took proactive measures, the Fed tried to calm what threatened to become a panic. In January 2008, Bernanke assured the public that the market troubles would blow over. "The Federal Reserve is not currently forecasting a recession," he said in a speech.[11] A few days later, he reiterated: "[The US economy] has a strong labor force, excellent productivity and technology, and a deep and liquid financial market that is in the process of repairing itself. So I think we need to keep in mind also that the economy does have inherent strengths and that those will certainly surface over a period of time."[12] However, as the crisis deepened, the Fed in March 2008 changed its discount window policy, allowing banks to borrow money through the window for up to 90 days, instead of overnight—a major change.

Skeptical Media

Bloomberg reporter Mark Pittman was among those in the business press skeptical about the Fed's assurances. Pittman, a reporter in his early 50s, had entered journalism out of college, covering cops and crime at the *Coffeyville Journal* in Kansas. After brief stints at other papers, he brought that experience to finance reporting when he joined *Bloomberg News* in 1997. "You end up with a big BS detector as a cops reporter because the cops lie to you, the victims lie to you, the people helping the victims lie to you," Pittman said in 2009. "And

[10] Annalyn Kurtz, "Federal Reserve was Blind to Crisis in 2007," *CNN Money*, January 18, 2013. See: http://money.cnn.com/2013/01/18/news/economy/federal-reserve-transcripts/index.html

[11] "Bernanke: Fed Ready to Cut Interest Rates Again," *Associated Press*, January 10, 2008. See: http://www.nbcnews.com/id/22592939/ns/business-stocks_and_economy/t/bernanke-fed-ready-cut-interest-ratesagain/

[12] "U.S. Economy is Fundamentally Strong, President Says," *IIP Digital*, US Department of State, January 18, 2008. See: http://iipdigital.usembassy.gov/st/english/article/2008/01/20080118125026dmslahrellek0.1241724.html

you've got to sort through, and there will be a story that seems a certain way and it just won't be—and you know it. That's what this is about."[13]

His specialty became credit markets, corporate finance and the Federal Reserve. Pittman had started writing about the financial implosion early. In June 2007, he chronicled how the ratings agencies were concealing risk on $200 billion worth of questionable mortgage bonds by failing to cut the bonds' credit ratings.[14] At the time, the story attracted sharp criticism from other journalists (later retracted when the charge proved true). In December 2007, he contributed to a series on subprime mortgages, postulating that if only five percent of US mortgage borrowers missed monthly payments, it could lead to a global freeze in lending.[15] The story was part of a series that won a Gerald Loeb award (the apogee for financial journalism) for News Services in 2008.[16]

But the more he researched the situation, the less Pittman understood how the Fed was operating behind the scenes. He was astonished by the astronomical amount of money—some $2 trillion in taxpayer money by spring 2008—that the Fed had lent to banks. While the cumulative number was public, the Fed had not specified which institutions had borrowed money through its emergency lending programs; it also had not made public what collateral, if any, the banks had offered for the loans.

In May 2008, *Bloomberg* filed a Freedom of Information Act request asking the Fed for details about four lending programs—the Discount Window, the Primary Dealer Credit Facility, the Term Securities Lending Facility, and the Term Auction Facility—including the borrowers' names and the amounts borrowed. "Mark Pittman said all right, you've got this program. I want to know who borrowed, how much, when, and what, and his favorite—what collateral did [the banks] put up?" recalls Ivry, Pittman's colleague.

Response. The Fed proved reluctant to give *Bloomberg News* the information Pittman had requested. It argued that if it identified banks that had taken emergency loans through the discount window, it could cause a run on those institutions, undermine the loan programs and potentially hurt the economy.[17] It was, explains Ivry, a question of stigma:

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[13] Dean Starkman, "The Pittman Way," *Columbia Journalism Review*, November 30, 2009. See: http://www.cjr.org/the_audit/what_ill_remember_about_mark_p.php?page=all

[14] Mark Pittman, "S&P, Moody's Mask $200 Billion of Subprime Bond Risk," *Bloomberg*, June 29, 2007. See: http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aIzzx2vC10KI

[15] Mark Pittman, Subprime Securities Market Began as 'Group of 5' over Chinese," *Bloomberg*, December 17, 2007. Pittman wrote, presciently: "The tools also magnified losses so much that a small number of defaulting subprime borrowers could devastate securities held by banks and pension funds globally, freeze corporate lending, and bring the world's credit markets to a standstill."
See: http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aA6YC1xKUoek

[16] The other *Bloomberg* reporters recognized were Bob Ivry and Kathleen Howley.

[17] Larry Neumeister and Jeannine Aversa, "Fed Must Release Data on Loans to Firms, Court Says," *Associated Press Financial Wire*, March 19, 2010.

> Stigma's big in this story. If a bank goes to the discount window and says, I need a loan, and people find out that that the bank went to the discount window, they're going to think that the bank's in trouble. And the depositors are going to start pulling their money. The creditors, the folks who have bought their bonds or lent them money will say, pay me back. And a lot of the counterparties in trades will say, we don't want to trade with you anymore. And it'll be a kind of a modern day run on the bank.

But in September 2008, the crisis claimed its first major financial sector victim. On September 15, 2008, Lehman Brothers Holdings Inc., a global financial services company, declared bankruptcy. It was the largest bankruptcy in history.[18] For the next several weeks, the world held its breath while the Federal Reserve, the US Treasury and other governments worldwide scrambled to keep financial machinery running via targeted infusions of capital.

One of the largest interventions came from the US. In October 2008, the government intervened to prevent what many were coming to fear would be the collapse of the US banking system. On October 3, President George W. Bush signed into law the Troubled Asset Relief Program, or TARP, as part of a broader Emergency Economic Stabilization Act. TARP allowed the US Treasury to purchase or insure as much as $700 billion of bad assets owned by financial institutions.[19]

Fizzled scoop. TARP got a lot of media and public attention. But Pittman remained interested in the larger picture of total government spending. So in November 2008, he and Ivry decided to "try to figure out how much money the government and the Federal Reserve were committing to rescue the banking system," recalls Ivry.[20] For two intense weeks, they placed calls to every agency they could think of, including the Treasury, the Federal Reserve, the Federal Deposit Insurance Corporation (FDIC) and the Department of Housing and Urban Development (HUD). They added up all the numbers they could verify, from public and private sources. The result took them aback.

On Monday, November 24, 2008, they published their findings: the US government had pledged $7.7 trillion in taxpayer dollars to support banks.[21] "The number we came up with was staggering," recalls Ivry. It made the TARP numbers look small. On October 27, the Fed alone had committed to buy up to $2.4 trillion of commercial paper (which companies use to pay bills). Overall, the Fed had pledged $4.74 trillion—61 percent of the total $7.76 trillion. These were not empty promises: Federal Reserve lending for the week of November

[18] For a comprehensive summary of the financial crisis, see the January 2011 report by the Financial Crisis Inquiry Commission: http://fcic.law.stanford.edu/report

[19] Baird Webel, "Troubled Asset Relief Program (TARP): Implementation and Status," *Congressional Research Service*, October 19, 2012. See: http://www.fas.org/sgp/crs/misc/R41427.pdf

[20] Email from Ivry to author, September 1, 2013.

[21] Mark Pittman and Bob Ivry, "U.S. Pledges Top $7.7 Trillion to Ease Frozen Credit," *Bloomberg*, November 24, 2008. See: http://www.bloomberg.com/apps/news?sid=an3k2rZMNgDw&pid=newsarchive

17 had been 1,900 times the weekly average for the three years pre----crisis. Yet the story, says Ivry, "landed with a thud."

> It was as if the numbers were too high, too unbelievable. When we weren't ignored, we were vilified. Pittman and I were being irresponsible, people said. Didn't we know there was a crisis going on? Anything we did to slow the money train could have dire consequences for the world financial system, our critics said.[22]

But Ivry and Pittman were convinced that "this was the biggest story—not *financial* story, but *story*—of our careers," notes Ivry. They felt the public—and Congress—should know how much its government was willing to spend to keep the banks solvent.

Suing the Fed

Meanwhile, Pittman still had not received any formal response from the Fed. "We got answers back which were kinda like, 'We have your request. We''re thinking about it,'" Pittman said in 2009. "And then, the next thing would be, 'We have your request and we found, you know, 500 documents that apply to it.' And then, the next thing that would come was like, 'But you can''t have any of 'em.'"[23]

In early November, Investigations Executive Editor Amanda Bennett asked Pittman for an update on the FOIA. Told that the Fed remained silent, Bennett pulled aside an in----house lawyer, Charles Glasser, and asked how *Bloomberg* should proceed. Glasser suggested a legal suit, to force the Fed to respond and release the information. "I said 'let's do that,'" recalls Bennett. "I grabbed Mark and Charles, and we barged into [Editor----in----chief] Matt Winkler's office and I said, 'Matt, we're going to sue the Fed,' and Matt goes 'Yes!'"[24] Winkler informed *Bloomberg* President Daniel L. Doctoroff and Chairman Peter T. Grauer of the decision; the company retained the outside law firm of Willkie Farr & Gallagher.[25] Bennett felt good about the decision. She says:

> It's kind of cool, this is what we do—we break open data, and if people are trying to keep information from us, we'll try to get it through whatever means. It's in the DNA of journalists in general and *Bloomberg* in particular. We want to find out stuff that is useful to people, and knowing [which banks] got what was an important thing to know.

[22] Ibid. Also the following quote.
[23] Dan Rather Reports, AXS TV, September 22, 2009.
[24] Armstrong telephone interview with Amanda Bennett on June 24, 2013. All further quotes from Bennett, unless otherwise attributed, are from this interview.
[25] Alan Feuer, Battle over the bailout, *New York Times*, February 12, 2010. See: http://www.nytimes.com/2010/02/14/nyregion/14fed.html

On November 7, 2008, Bloomberg L.P. filed a "complaint for declaratory and injunctive relief" against the Board of Governors of the Federal Reserve System, in the US District Court for the Southern District of New York. The court document stated in part:

> The government documents that Bloomberg seeks are central to understanding and assessing the government's response to the most cataclysmic financial crisis in America since the Great Depression. The effect of that crisis on the American public has been and will continue to be devastating… In response to the crisis, the Fed has vastly expanded its lending programs to private financial institutions. To obtain access to this public money and to safeguard taxpayers' interests, borrowers are required to post collateral… While the taxpayers are the ultimate counterparty for the collateral, they have not been given any information regarding the kind of collateral received, how it was valued, or by whom. To discharge its obligation as the eyes and ears of the public, Bloomberg sought access to this information under FOIA. To date, the Fed has failed to produce the requested documents, or even formally to respond to Bloomberg's request.[26]

The lawsuit also noted that during the week ending August 8, 2007, before the Fed added the new lending facilities for banks, the Fed's average lending through the discount window was about $1 million. By October 2008, the Fed's outstanding loans on any given day had reached an average $400 billion.

In March 2009, one Fed spokesman gave an explanation of why it could not make public information on specific loans. Christopher R. Burke, vice president of the New York Fed's markets group, said that if the borrowing became public, that "could lead market participants to inaccurately speculate that the primary dealer was having difficulty finding term funding against its collateral in the open market and that the dealer itself must therefore be in financial trouble."[27] It was the stigma argument.

As it awaited a court ruling, *Bloomberg News* published a series of stories about the lawsuit, and other news organizations, including *Fox News* and the *Associated Press*, either filed their own suits or filed briefs supporting Bloomberg L.P.[28] Pittman thought they would win the lawsuit, but Ivry was surprised when, in August 2009, Manhattan Chief US District Judge Loretta Preska ruled in favor of *Bloomberg*. "Pittman had always been more optimistic than me. You know, he's from Kansas, he was a ranch hand, and he played football," says Ivry. "I never thought that this would win. I mean, you have the Federal Reserve, and they could

[26] For the full court document, see: http://www.cjr.org/docs/Complaint_-_Fed_FOIA.PDF

[27] Bob Ivry, "Fed Gave Banks Crisis Gains on $80 Billion Secretive Loans as Low as 0.01%," *Bloomberg News*, May 26, 2011. See: http://www.bloomberg.com/news/2011-05-26/fed-gave-banks-crisis-gains-on-secretive-loans-aslow-as-0-01-.html

[28] Neumeister, Aversa, "Fed Must Release Data on Loans to Firms, Court Says."

just go like that (I just flicked dandruff off my shoulder). We were dandruff to them. They're the Federal Reserve."

But the *Bloomberg* team knew a celebration would be premature. In September 2009, the Fed appealed the judge's decision, and was joined in that appeal by the Clearing House Association, an organization of the 10 largest banks in the US, including Bank of America, Citibank, Wells Fargo and JPMorgan Chase. Pittman did not live to see the outcome of the appeal, as he died in November 2009 from a heart----related illness. Ivry took up the fight after Pittman, continuing to write articles about the case, and the crisis. "Pittman and I were best friends," says Ivry. "He and I worked on everything together. He just happened to be, in my opinion, the best financial journalist in the country. And I was lucky to have him as a teacher."

There were signs that Bloomberg L.P. might prevail. In February 2010, Chair Bernanke said the Fed would support legislation to identify companies that used the Fed's special lending facilities. Then a month later, the Second Circuit Court of Appeals ruled in Bloomberg's favor. The Fed conceded the issue, but the Clearing House Association appealed on its own account and, in October 2010, asked the Supreme Court to hear the case. Ivry says:

> We won on appeal. We won on an appeal of an appeal. And then it goes to the Supreme Court... But something interesting happened just before it went to the Supreme Court, and that was the Fed decided not to pursue it… Clearing House was the party in the suit. It was Bloomberg, L.P. versus the Board of Governors of the Federal Reserve, but the Federal Reserve was no longer part of the suit. It was the biggest banks that said, we don't want you to know how much money we borrowed.

Dodd----Frank. Meanwhile, as the crisis continued to play out, the Obama administration in June 2009 had proposed a "sweeping overhaul of the United States financial regulatory system" to ensure that the country never again courted a financial meltdown. After intensive lobbying and negotiation, President Obama in July 2010 signed the Dodd----Frank Wall Street Reform and Consumer Protection Act, named for Senator Chris Dodd (D----CT) and Congressman Barney Frank (D----MA), chair of the House Financial Services Committee.[29] It included a Financial Stability Oversight Council, designed to identify and address systemic risk, and a supporting Office of Financial Research to keep tabs on how markets were doing and to give an early warning signal if it saw trouble ahead.[30]

The Dodd----Frank Act obliged the Fed to make public information about loans made through its emergency lending facilities. But Bernanke argued that information on the special lending facilities should be released only "after an appropriate delay" to discourage

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[29] For the full text of the act, see: http://www.sec.gov/about/laws/wallstreetreform-cpa.pdf

[30] Mark Koba, "Dodd-Frank? More Like Dud-Frank for Lots of Folks," *CNBC*, June 4, 2013. See: http://www.cnbc.com/id/100784177

stigma. What's more, Dodd----Frank did not include discount window borrowings. That was because, technically, the discount window—in existence since 1913—was not an emergency lending program. Dodd---Frank did stipulate that the Fed release information about discount window lending after a two-year lag.

The Data Dump

Dodd----Frank brought *Bloomberg News* a portion of what it wanted. On December 1, 2010, the Fed released information on lending through five of its emergency programs from August 2007 to April 2010. The five were: the Asset----Backed Commercial Paper Money Market Mutual Fund Liquidity Facility; the Commercial Paper Funding Facility; the Primary Dealer Credit Facility; the Term Auction Facility; and the Term Securities Lending Facility.[31] The 18 databases it made public included more than 21,000 transactions by banks that had borrowed through the emergency lending programs. A press release noted that discount window information would be published after a two----year lag.

For weeks before, *Bloomberg* had been gearing up for the data release. Editor John Voskuhl assembled a group of qualified reporters to sift through and make sense of it. Voskuhl, an editor for Projects and Investigations, drew on several Bloomberg teams: finance, which covered banks; the economy team, which covered the Fed; and the corporate finance team, which wrote about debt. Eventually, six editors and some two dozen reporters reviewed the records, looking for anomalies or newsworthy material. Ivry, with his deep knowledge of the lawsuit against the Fed, was asked to write many of the stories. Recalls Voskuhl:

> We had a lot of expert reporters who were familiar with these issues, who were familiar with the liquidity programs, familiar with the discount window, who knew their way around news sources at the banks, news sources at the Fed, and could quickly look at this stuff and make sense out of it.

Since all news organizations got the data simultaneously, Voskuhl wanted to make sure that *Bloomberg News* outshone the competition, especially since they were the ones who had filed the original FOIA and brought the lawsuit. "We knew we had to be prepared on that day to basically swamp the competition," says Voskuhl. "We had to give it more attention, more thought, more planning and more coordination than any other news agency would."[32]

Washington, DC----based *Bloomberg* reporter Scott Lanman picked up a CD----ROM with the data at the Fed's PR office, and took it to *Bloomberg*'s Washington bureau,

[31] Phil Kuntz, "Fed Data From 29,000 Pages Show Banks' Bailout: Methodology," *Bloomberg News*, August 22, 2011. See: http://www.bloomberg.com/news/2011-08-21/fed-data-from-29-000-pages-show-banks-borrowingsmethodology.html

[32] Armstrong telephone interview with John Voskuhl on May 13, 2013. All further quotes from Voskuhl, unless otherwise attributed, are from this interview.

where he put the information on a shared drive so that data specialists in *Bloomberg's* Princeton, New Jersey, office and reporters and editors in New York and Boston would have access to the data. Their first take on the data was that it would take weeks to process in detail. As Editor Voskuhl recalls:

> We saw that the Fed had set this up so that it was going to be very difficult to see just how extensively any particular bank or company was using its lending at the time. We quickly realized that we had to write our initial batch of stories just about the most frequent borrowers, and what were their typical borrowing amounts.

Bloomberg in short order published 13 stories based on the data. "Fed Emergency Borrowers Ranged From GE to McDonald's," for example, listed some of the borrowers who had received what the Fed identified as $3.3 trillion in emergency aid.[33] Another story reviewed data about the collateral pledged by recipients of $885 billion in loans.[34] A third examined Fed lending not just to US banks, but to many European banks as well.

But these stories did not get down to the nitty gritty. To figure out what was buried in the spreadsheets, Voskuhl enlisted Bradley Keoun, a finance reporter who had covered Citigroup. In mid----December, Keoun asked Phil Kuntz, *Bloomberg News'* resident data expert, to help out. "The essence of the exchange is basically he said, 'I hear you know how to do Excel," remembers Kuntz. "Can you help me out with something? I have a little Excel problem.' I said, 'Okay, I'll help you out.'"[35] That "little Excel problem" turned into a months----long project for both of them.

Visualizing Data

It was hard to make sense of the data the Fed provided in the Excel spreadsheets. First of all, they were heavily redacted. Second, because banks were listed using a variety of names and acronyms, it was a challenge to add up numbers and pinpoint how much each bank had borrowed. Also, banks had borrowed from the Fed via different lending programs; thus transactions by the same bank were disclosed in different places in the spreadsheets. So it was difficult to tally the total that any given bank had outstanding from all programs on any given day. Notes Voskuhl:

> [The raw data] didn't give you a very clear picture of just how active a borrower any particular bank was. We thought this was key to know because obviously, if you're going to the Fed, which is

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[33] Craig Torres and Scott Lanman, "Fed Emergency Borrowers Ranged from GE to McDonald's," *Bloomberg News*, December 1, 2010. See: http://www.bloomberg.com/news/2010-12-01/fed-crisis-borrowers-ranged-from-bank-ofamerica-to-mcdonald-s.html

[34] Caroline Salas and Matthew Leising, **"**Fed Withholds Collateral Data for $885 Billion in Financial-Crisis Loans," *Bloomberg News,* December 2, 2010. See: http://www.bloomberg.com/news/2010-12-01/taxpayer-risk-impossibleto-know-for-some-fed-financial-crisis-programs.html

[35] Armstrong interview with Phil Kuntz in New York, NY, on May 8, 2013. All further quotes from Kuntz, unless otherwise attributed, are from this interview.

> supposed to be the lender of last resort, and you're doing it more than any other bank, it indicates a kind of neediness for funds that you can't get anywhere else. And we knew soon after we got that initial batch of data that we wanted to come up with a more sophisticated way to look at it.

The group brought in Editor----at----large Robert Friedman, who worked chiefly on long----term projects. "They said they needed more capacity to do a deep analysis of these numbers and what it meant about US banks," recalls Friedman.[36] Under the supervision of Friedman and Finance Managing Editor Otis Bilodeau, Kuntz and Keoun started to develop a master Excel file. At the end of December, the digital architecture was ready and the team began to enter all the Fed data into the new database. "The purpose," says Keoun, "was to produce a day----by----day account of each bank's outstanding borrowings."[37] The team focused on the biggest banks first—Goldman Sachs, Morgan Stanley, Citigroup—because they suspected that these institutions had received the bulk of the Fed loans.

New tool. As the Excel file grew, Keoun and Kuntz had an idea. What if *Bloomberg* could create an interactive tool that would allow readers to see for themselves not only what individual banks had borrowed, but what each bank leader was saying about the health of the bank at the time? "Brad and I had the suspicion that these bankers, these CEOs, in the midst of the crisis, were saying everything's fine," recalls Kuntz.

> They were saying that at a time when they thought the details of their borrowing from the Fed would always be secret. Having a timeline allowed you to say, okay, two days before you hit this peak right here, where the bank's a billion and a half dollars in hock to the Fed, the CEO was saying, 'We have a rock solid balance sheet.'

A colorful and meticulously----documented *display*, adds Keoun, "would make it impossible for viewers not to comprehend the massive scale of banks' secret borrowings, both on an individual and collective basis."[38]

Editor Bilodeau was enthusiastic, but the project would be expensive, and would require staff and funding for a period of months. In late January, the three prepared a presentation for Editor----in----chief Winkler. "I remember that Matt was absolutely 100 percent behind the project," says Keoun. "At that point, I knew that this was going to be a great thing, because it had backing from the very top." David Yanofsky was brought in as graphics expert and to build the tool that could present the data visually.

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[36] Lundberg interview with Robert Friedman in New York, NY, on October 1, 2013. All further quotes from Friedman, unless otherwise attributed, are from this interview.
[37] From an email exchange between the authors and Keoun, September 26, 2013.
[38] Ibid.

The group agreed that the data visualization tool (or online graphical analyzer) would accompany a series of stories about peak lending by the biggest banks; Friedman would edit the series. As to when they could publish, the earlier, the better. But it would take time. *Bloomberg* was not prepared to name individual financial institutions until it had combed carefully through the data and could ensure that any specific numbers were ironclad. Says Executive Editor Bennett:

> When you are doing something like this there are so many moving pieces that the chances of making mistakes are high. We did think about the competition and knew we had to move forward quickly, but we needed to go into the Zen zone and focus on getting it right. The key thing is that if you make a mistake, somebody is going to find it, and once you lose credibility on one piece, you lose credibility on the whole thing.

Total or Individual?

With time, the disparate pieces of information contained in the Fed data—filtered through the spreadsheet and entered into the graphical analyzer—combined to reveal significant new facts about the pace, level and scale of borrowing by banks, both individually and in total. At different times and in a variety of conversations, Editors Friedman, Voskuhl and Bilodeau plus reporters Ivry, Kuntz, and Keoun debated how best to present the new information. The data visualization tool would document day----by----day and peak borrowing by individual banks across all seven lending programs. But what about the accompanying stories? What would be their emphasis? Kuntz says:

> What everybody was doing when they got the data was just basically adding up all the loans that were given. Brad [Keoun] and I decided very early on that the number that really mattered was not how much a bank borrowed in aggregate, but how much they owed every day during the crisis. If you borrow a million dollars a day and pay that million dollars back every day [and do that] for a month, some people would say you'd borrowed $30 million. I think that's ridiculous. That's just a rolling line of credit. You've only borrowed a million dollars. You've been in debt to the tune of a million dollars for 30 days, but that doesn't mean you've borrowed $30 million.

Ivry disagreed. He wanted to present the cumulative number. He thought the data visualization tool was a great idea, and acknowledged that of course any story would include individual bank borrowing numbers. But he hoped that the headline, at least, would take advantage of the magnitude of the aggregate number to attract public attention to the grim story about how close to collapse several banks had come. At first, Editor Friedman agreed. "I wanted to go with the bigger number!" he says.

> Because bigger numbers are sexier. Trillions are better than billions. That's just the instinct. But it's important to think about numbers. I have in my career spent a lot of time thinking about the use of numbers and how they're misused or used correctly… Numbers are not always your friends. They have to be beaten into shape.

But Keoun, using an argument similar to Kuntz's, persuaded Friedman that daily outstanding balances were more accurate. Others agreed. Ivry found himself alone in his view. There the matter rested.

Discount window data. By March 2011, *Bloomberg* was close to publishing a preliminary series of stories about individual banks and their borrowing records. They continued, however, to hope for the discount window information, which would complete the picture and make it more accurate. On March 21, 2011, the Supreme Court rejected the October 2010 appeal from the Clearing House Association and refused to hear the case. That left intact the March 2010 federal court decision, which gave the Fed five days to release the data that *Bloomberg* had requested nearly three years earlier. The order, noted Ivry and colleague Greg Stohr in a piece for *Bloomberg News*, "marks the first time a court has forced the Fed to reveal the names of banks that borrowed from its oldest lending program, the 98----year----old discount window."[39] After the decision, *Bloomberg* Editor----in----chief Winkler said in a statement:

> The Federal Reserve forgot that it is the central bank for the people of the United States and not a private academy where decisions of great importance may be withheld from public scrutiny. As only Congress has the constitutional power to coin money, Congress delegates that power to the Fed and the Fed must be accountable to Congress, especially in disclosing what it does with the people's money.[40]

Kuntz says they *decided* to hold off publishing the stories in development in order to include the discount window data. But there was a catch: the Fed had released the initial December 2010 information in Excel spreadsheets, which made it relatively easy to manipulate the data. When it finally released 29,346 pages of discount window data on March 31, they were in PDF format. What's more, the Fed provided data for the duration of the financial crisis, from August 2007 through April 2010. Recalls Ivry:

> We couldn't add up the numbers. We couldn't sort them. We couldn't crunch them. We couldn't separate what we wanted. We

[39] Greg Stohr and Bob Ivry, "Fed Will Release Bank Loan Data as Top Court Rejects Appeal," *Bloomberg News*, March 21, 2010. See: http://www.bloomberg.com/news/2011-03-21/fed-must-release-bank-loan-data-as-highcourt-rejects-appeal.html

[40] *Bloomberg* press release, March 21, 2011.

> couldn't say Goldman Sachs did this. In PDF form, they were basically worthless to us.

So Kuntz, as before, sent the PDFs to *Bloomberg's* data office in Princeton. The data team scanned the documents, and within a day managed to scrape the data off them using character recognition software. But as with the original files, recalls Kuntz, "that presented us with a whole other level of inscrutable bank names, inscrutable subsidiaries, and inscrutable data that we then had to fold into what I had already built in the spreadsheet to again add those totals to the totals that we already had." He adds:

> I was thinking, when is this going to end? I thought that constantly. I mean, I knew we had a good story and it was a no brainer that we had to wait and get the discount window stuff in there because it would be, like, why are we telling people everything but the discount window, which is one of the biggest indicators of a bank's poor health?

Many of the team's early stories were about the release itself. On April 2, for example, Ivry's reported on the FOIA process and the document release, and concluded that making the information public had not in fact compromised the reputation of the banks involved.[41]

Cumulative used. At least two stories raised anew the question of cumulative versus discrete numbers, and Ivry's view that aggregate numbers carried a unique punch prevailed. In the March 21 story about the impending discount window release, Ivry and and Stohr noted that the new data "would give taxpayers insight into the Fed's unprecedented $3.5 trillion effort to stem the 2008 financial panic."[42] Then on April 1, Ivry and another colleague published a story about Fed lending to Arab Banking Corp., then 29 percent owned by the Central Bank of Libya (under the rule of strongman Muammar Quaddafi).[43] The article reported that Arab Bank had "aggregate borrowings… of $35 billion." It contrasted that number with the bank's largest single outstanding loan amount of $1.2 billion, in July 2009.

Ivry filed another article on May 26 that was typical of the kind of coverage Kuntz's evolving master spreadsheet and the Fed data releases were able to generate. The story described lending under Single Tranche Open Market Operations (STOMO), an $80----billion program "whose details weren't revealed to shareholders, members of Congress or the

[41] Bob Ivry, "Revealing Fed's Secrets Fails to Produce Harm That Banks Cited," *Bloomberg News*, April 2, 2011.

[42] Stohr and Ivry, "Fed Will Release Bank Loan Data." The $3.5 trillion was higher than the December 2010 $3.3 trillion estimate, presumably partly as a result of the discount window data.

[43] Donal Griffin and Bob Ivry, "Libya-owned Arab Banking Corp. Drew at Least $5 Billion from Fed in Crisis," Bloomberg News, April 1, 2011. See: http://www.bloomberg.com/news/2011-03-31/libya-owned-arab-bankingcorp-drew-at-least-5-billion-from-fed-in-crisis.html

public."[44] The Fed charged interest on STOMO loans as low as 0.01 percent, although its main lending facility interest rate stood at 0.5 percent.

The existence of STOMO had come as a surprise to the *Bloomberg* team, which affectionately dubbed it St. Omo. As it turned out, they were not alone. Congress had overlooked the program when, under Dodd----Frank, it required the Fed to publish emergency lending data. In preparing the May 26 story, Ivry phoned Congressman Frank, co----sponsor of the Dodd----Frank act and former chair of the House Financial Services Committee, to ask about it. "I said, 'Representative Frank, have you ever heard of Single Tranche Open Market Operations?'" recalls Ivry.

> 'Nope, never heard of it.' 'Did you know that it was used as an emergency lending facility for 21 banks?' 'Nope.' That was my lead quote when I wrote about it. Not even the chairman knew. So you see, I mean, who knows what else is there?

Parsing the Numbers

Meanwhile, the team continued to parse, catalogue and analyze the discount window data along with that released in December. Only by May was the master spreadsheet close to done. Populating the data visualization tool with data from the spreadsheet was also proving very time---consuming. Says Friedman:

> Building the database was really difficult, time----consuming, and you don't want to make mistakes. The Fed numbers were released by different programs and different borrowers. So Citigroup might have had 75 different units that were borrowing money. And some might not even have been called Citigroup. So we had to go through every single borrower, entity, attach it to the banking group it was part of, and then do that for all seven programs. It was a monster.

Friedman and the team adopted Keoun and Kuntz's early hope: that the data visualization would allow readers to compare sums the largest borrowers had out on any given day with what the banks were saying publicly at the time about their stability. So Friedman assigned *Bloomberg* reporters worldwide to research bank executives' contemporary comments about their institutions' financial health, and write them up in what the team called blurbs. Adding the blurbs to the online charts took yet more time. Recalls Keoun: "It was a very significant project to take Phil's massive spreadsheet (which took a long time to get right and fact----check), to work with our in----house data visualization people to develop the interactive graphical tool and load in the data, and finally to add in the blurbs for each bank."

[44] Bob Ivry, "Fed Gave Banks Crisis Gains on $80 Billion Secretive Loans as Low as 0.01%," *Bloomberg News*, May 26, 2011.

As the data became clear, however, Friedman and his team were finally able to start mapping out the stories to accompany publication of the interactive data analysis tool. By July 2011, well----substantiated and startling numbers had emerged. The team calculated that the largest amount the Fed had loaned on a single day was $1.2 trillion on December 5, 2008. This represented total lending that day to all banks under all seven of the programs on which the Fed had provided details. That was more than 25 times the previous lending peak of $46 billion on September 12, 2001—the day after the terrorist attacks on New York and Washington, DC. The numbers revealed for the first time the extent to which the world's largest banks depended on the Fed to stay afloat, even as they issued public statements of fiscal strength.

The team had also identified the days of peak lending for individual banks. Some of the most avid customers of Fed emergency lending programs were the nation's largest banks—several of which had publicly asserted their fiscal health while taking billions from the Fed to maintain the required capital reserves. Morgan Stanley, for example, was the largest single----day borrower. On September 29, 2008, shortly after the Lehman collapse, it had needed $107.3 billion—almost three times the firm's total profits over the preceding decade. On that same day, Morgan Stanley had issued a press release about a $9 billion investment from a Japanese company—but said nothing about the Fed loan.

Citigroup hit its daily lending peak of $99.5 billion in January 2009; Bank of America borrowed its maximum $91.4 billion in March 2009.[45] The *Bloomberg* reporters also planned to include in the story details about the questionable collateral the Fed had accepted against the emergency program loans, and the favorable interest rates it made available to banks while individual homeowners were facing eviction and foreclosure. Typically, interest rates for last---resort bank lending were above----market; this was often reversed during the crisis.

Ivry's view. But as Ivry reviewed the new material generated by the database, he was more convinced than ever that it was both accurate and responsible to report aggregate bank borrowing as well as the peaks. Ivry wanted to total the amount that each bank had borrowed over the course of the crisis, even if it had taken out a loan overnight and repaid it the next day. "I thought, well, you count it as $5 billion if they borrow a billion dollars every day for five days. It's the same as borrowing $5 billion," says Ivry.

To help readers keep both forest and trees in focus, he pushed for highlighting the $3.5 trillion number the Fed itself had made public—and *Bloomberg* had published—in December 2010 and March 2011. It was a nearly unimaginable number and one that dwarfed the $700 billion authorized under TARP. "How much would it take for people

[45] Bradley Keoun and Phil Kuntz, "Wall Street Aristocracy Got $1.2 Trillion in Secret Loans," *Bloomberg News*, August 22, 2011. See: http://www.bloomberg.com/news/2011-08-21/wall-street-aristocracy-got-1-2-trillion-in-feds-secret-loans.html

to notice," he asked. "Our number—the aggregate number—was three times [the $1.2 trillion peak]. Maybe, just maybe, that would."

The resulting headline would be attention----grabbing and accurate. It could even be judged conservative: on July 21, the Government Accountability Office (GAO) published a report that, using a different methodology, calculated overall Fed lending during the crisis at $16 trillion.[46] "We had to figure out what is going to be useful for readers, and what is going to be accurate and fair to the banks," he adds.

> I thought, this is an outrage. We're talking about trillions of dollars… We worked on this thing for three years. Nobody's paying attention to us. Let's have that big number, as long as it's correct.

Ivry also remembered the jarring silence that had greeted the November 2008 story he and Pittman wrote about government pledges to banks. This 2011 story was no longer about promises—but about money actually spent. Ivry felt it was even more important than the 2008 story. Most banks, he was convinced, had been close to insolvency in the fall of 2008, even as their CEOs maintained that all was well. In his view, government funding in 2008----09 had allowed them to conceal fundamental weaknesses. Yet their survival allowed the banks in 2011 to argue that efforts to regulate them would be "punishing success"; that breaking them up would render them uncompetitive in the global market.

Ivry felt the public should be able to judge for itself how well the banks had coped, and whether they needed regulation or not. The bigger number, he was convinced, would attract the kind of attention to the story that it deserved. He says:

> If the truth were known—if somehow we got more people to see and understand what we'd uncovered—the lie that they are competent, competitive institutions would hold no water and Wall Street would not be dominating Washington.

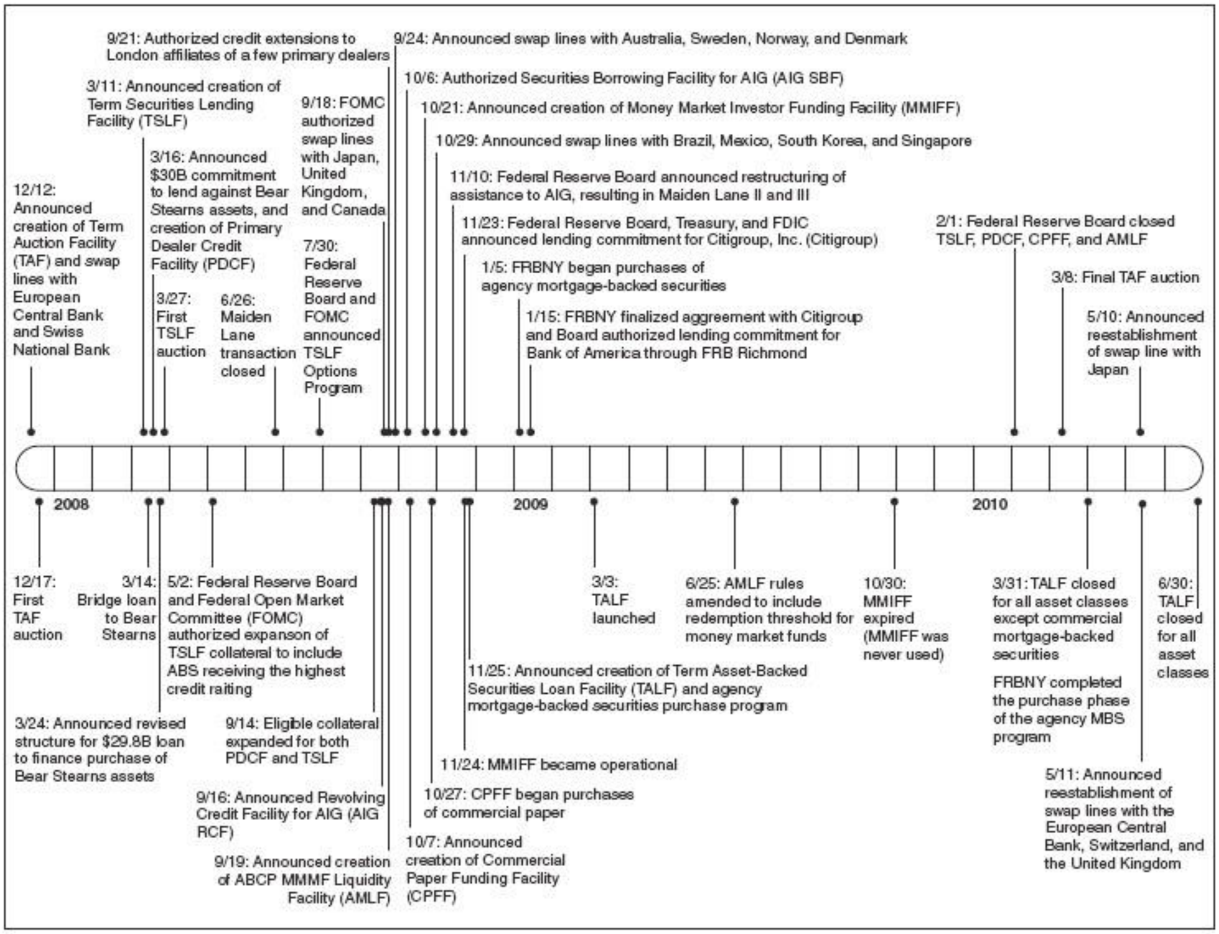
Ivry would not be writing any of the stories for the August series edited by Friedman. But he cared about the numbers issue and continued to press his case. He felt strongly that *Bloomberg* would be sacrificing an important opportunity for major public and policy impact if it failed to go with the larger, aggregate number.

[46] Government Accountability Office, *Federal Reserve System; Opportunities Exist to Strengthen Policies and Processes for Managing Emergency Assistance*, GAO-11-696, July 2011, Table 8, p.131. See: http://www.gao.gov/new.items/d11696.pdf. Also see Senator Bernie Sanders' (Independent-VT) website, *The Fed Audit,* July 21, 2013: http://www.sanders.senate.gov/newsroom/press-releases/the-fed-audit

Appendix 1

Timeline of Federal Reserve Emergency Actions, December 2007----June 2010

Figure 1: Timeline of Federal Reserve Emergency Actions, December 2007–June 2010



Source: Federal Reserve System documents and press releases.

Source: Government Accountability Office, *Federal Reserve System; Opportunities Exist to Strengthen Policies and Processes for Managing Emergency Assistance*, GAO----11----696, July 2011, Figure 1, p. 16. See: http://www.gao.gov/new.items/d11696.pdf