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RESPONDING to the GLOBAL FINANCIAL CRISIS What We Did and Why We Did It

Bank Capital, Phase 1 Recapitalizing the Banking System

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Note: The views expressed in this draft are strictly those of the author(s).

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Introduction

In September 2008, the financial system was unraveling. Fannie Mae and Freddie Mac entered conservatorship. Lehman Brothers filed for bankruptcy. The Federal Reserve, with the support of Treasury, rescued AIG. A major money market mutual fund “broke the buck,” and credit markets were stalling out. It was clear that the problems had grown too big for the Treasury and Fed to handle without additional authorities and resources. And because it was now clear that we were facing a crisis, for the first time we believed that we could get Congress to act.

For most Americans, and especially for those who believe in the private allocation of capital and investment, it was a giant leap to have the U.S. government inject capital into the banking system. For us, it was anathema to our deeply held policy views. We did not enter government service contemplating such actions, nor were we cavalier in doing so. But the events of September and October of 2008 made the decision the best choice for the stability of the banking system and the country.

What Treasury ultimately did—the rescue of major financial institutions without nationalization—had never been attempted anywhere with such speed and scale. It applied broadly across all types of regulated banking entities—from large, global institutions to regional lenders and community banks—to help them withstand a severe financial shock and continue lending through the depths of the crisis. Its implementation was the result of intense work, analysis and planning over a short period measured in days—not weeks.

In our view, the program largely achieved its mission, with few losses, and rewarded taxpayers with an overall profit for the risks that they took. But the policy quickly became unpopular and controversial—and to this day, it remains the subject of intense debate.

This chapter aims to provide insights into the policy decisions that led to the government investing billions of dollars into the U.S. banking system. These included:

- A gradual shift from a private sector-led response to a government-led solution using funds authorized by the TARP legislation.
- An abrupt change from funding asset purchases to making direct equity investments in financial institutions.
- The design and structuring of the government capital investments
- The pairing of expansive government guarantees with the capital investments to stabilize the system.

I. Setting the Stage

Ever since Henry M. Paulson Jr. was sworn in as Treasury Secretary on July 2006, he focused his staff on preparing for a financial crisis. As chief executive of Goldman Sachs,

he had seen how frothy market conditions had become and worried about a repeat of the type of financial shocks that rippled through global markets nearly a decade earlier. He was also aware that the housing market was deteriorating. But by Paulson's own account, he did not appreciate how far-reaching the problems of the mortgage securitization market could become.²

By the summer of 2007, it was clear that the problems of the housing market were starting to pose a threat to the broader financial system. That fall, financial institutions of all sizes—from big Wall Street banks to relatively small and obscure entities known as structured investment vehicles, or SIVs—began to report that liquidity in critical short-term funding markets was starting to dry up. Paulson was deeply concerned that if the situation deteriorated, borrowing costs would quickly escalate, and cause the most vulnerable firms to sell their assets at a steep discount to raise cash. Once financial institutions slipped into such a downward spiral, it was hard to get out.

He urged financial institutions—privately and publicly—to raise capital and strengthen liquidity, and many of them did. During the second half of 2007, financial institutions raised more than \$83 billion of equity, a more than 20 percent increase from the same period in 2006.³ Bear Stearns, Citigroup, Merrill Lynch and Morgan Stanley each raised billions of dollars from investors in Asia and the Middle East.⁴

These infusions of capital, though, were on burdensome terms, and they did little to reassure the markets. In many ways, the infusions had the opposite effect. Worried that Wall Street was still behind the curve, Paulson privately urged the heads of other large financial institutions to raise additional capital. Most pushed back, maintaining that they were adequately diversified, and wanting to avoid diluting their existing shareholders. They were also concerned that raising capital would stigmatize their institutions and make them look vulnerable. After all, they could see the upheaval in the executive ranks of the banks that did raise money.

Paulson also used Treasury's convening power to urge banks to strengthen their balance sheets in other ways. One initiative was designed to address the dangers of hidden leverage in banks' off-balance-sheet SIVs. Under the proposal, Citigroup, Bank of America and JPMorgan Chase would pool together funds upward of \$75 billion⁵ to form what we called the Master Liquidity Enhancement Conduit, or MLEC, which was better

²Henry M. Paulson Jr., "On the Brink," p. 64.

³Paulson, Henry M. Remarks by Treasury Secretary Henry M. Paulson Jr. on Housing and Capital Markets before the New York Society of Securities Analysts. U.S. Treasury. January 7, 2008.

⁴Bear Stearns was set to raise \$1 billion from CITIC Securities in China, however CITIC pulled out of negotiations after Bear was purchased by JP Morgan in March 2008. Citigroup raised \$7.50 billion from the Abu Dhabi Investment Authority on November 27, 2007, \$6.88 billion from the Government of Singapore Investment Corporation on January 15, 2008, and an additional \$3 billion from the Kuwait Investment Authority on January 15, 2008. Merrill Lynch raised \$2 billion from the Kuwait Investment Authority, and another \$2 billion from the Korean Investment Corporation on January 15, 2008. Merrill Lynch also raised \$4.4 billion from Temasek on December 24, 2007; however, the investment increased to \$5 billion after the Temasek exercised a stock option of \$600 million in Merrill Lynch common stock on February 1, 2008. Morgan Stanley raised \$5.60 billion from the China Investment Corporation on December 19, 2007.

⁵"On the Brink," p. 79.

known as a Super-SIV. For a fee, the Super-SIV would buy assets from traditional SIVs and then hold them until market conditions improved. The plan never got off the ground. There were intense disagreements among the participating banks about pricing as well as broader concerns about the complexity of execution. But it was a model we would revisit again and again throughout the crisis.

Ultimately, Paulson recognized the limitations of the bully pulpit and, most particularly, the limits of addressing a systemic crisis with no legal authorities and government money. And he continued to push his staff to think about developing tools to address the deteriorating financial environment. In February 2008, he asked his staff members to begin working with their colleagues at the Federal Reserve to explore various policy options. They summarized their ideas in a memo that became known as the “Break the Glass” Bank Recapitalization Plan.⁶ There were four main concepts: having the government buy illiquid assets; having the government guarantee or insure mortgages; having the Federal Housing Administration refinance individual mortgages; and, finally, purchasing equity stakes in banks.

All the options shifted the policy focus to the Treasury sponsoring actions to improve bank capital rather than Federal Reserve providing liquidity.⁷ The idea that held the most sway with Paulson was the plan to buy \$500 billion in illiquid mortgage-related assets from banks. By doing so, banks’ balance sheets would be freed up of the bad assets, which would encourage more lending. To oversee the purchased securities, the government would rely on private sector asset managers, and taxpayers would bear the risk and reap any returns. While the memo proposed the emergency fund, the thought of a divided Congress giving a Treasury secretary that authority at that time was unimaginable. There was also concern that if we sought emergency powers and funding from Congress and didn’t receive them, then we might just precipitate the market collapse we were trying to prevent.

Paulson had strong reasons, both philosophical and practical, for favoring this plan. For one, he was opposed to just about any idea that could be characterized as nationalization. When the government acquires ownership of formerly privately held assets, the conditions are created for undesirable government influence or control. He also feared that government ownership of the banks would make it hard for them to re-establish profitability and return to private status.

Yet, when the crisis intensified in September 2008, Paulson returned to the idea of an asset purchase plan. Just by announcing that the government had a big pool of money available for an asset purchase program, he believed that asset prices would increase. That, in turn, would create a virtuous circle where banks could re-mark their assets at higher levels, which would free up capital and increase confidence so that prices would continue to rise.

The Treasury Secretary also believed that discussions of government ownership would frighten, rather than reassure, investors. In just the prior two weeks, Fannie Mae and Freddie Mac had entered conservatorship and AIG had been rescued. In both cases,

⁶ “On the Brink,” p. 131.

⁷ To come.

the government obtained rights to approximately 80 percent of total shares in AIG, substantially diluting shareholders. On September 18, three days after Lehman Brothers' collapse, Treasury sent its proposal to Congress calling for the \$700 billion Troubled Asset Relief Program, asking only for the authority to purchase "mortgage-related assets" from U.S. financial institutions.

In order to motivate Congress to act, Paulson and Federal Reserve Chairman Ben Bernanke had to explain the nature of the crisis and the risk of systemic failure. They also had to explain that a core element of the crisis was the vast number of highly illiquid mortgage related assets, many of which were distressed, that were sitting on banking institution balance sheets, leading to questions of the adequacy of banking capitalization. Publicly, both Paulson and Bernanke championed the idea of setting a price and creating liquidity for these assets to provide some balance sheet relief. While Bernanke provided the academic gravitas, Paulson argued passionately that it was the most effective way to recapitalize the banking system. Recognizing the priority placed on the asset purchase plan, we nevertheless had our doubts about the plan and especially about limiting ourselves solely to asset purchases. So it was important that any legislation give Treasury broad authority.

By late Saturday evening on September 27, Treasury negotiators reached agreement with the leadership of both parties on the \$700 billion TARP legislation. But the following Monday, the House rejected the TARP bill by a margin of 228 to 205. All told, the S&P 500 would drop 8.8 percent, wiping out more than \$1 trillion in value in its worst day since the October 1987 stock market crash.

As Treasury resumed negotiations with Congress, financial conditions continued to deteriorate. Depositors were on edge in the wake of the two biggest bank failures in U.S. history — Washington Mutual and Wachovia. Meanwhile, funding pressure grew so intense that Goldman Sachs and Morgan Stanley, the last of the remaining large Wall Street investment banks, raised billions of dollars in additional capital in order to be granted holding company status and access to the Federal Reserve's discount window.⁸ During this time, Bernanke and the authors of this paper told Paulson that solving the crisis would most likely require capital injections. Paulson agreed and told President George W. Bush that he believed a capital program would probably be necessary.

On Friday, October 3, the House followed the Senate's lead and voted, 263-171, to approve the Emergency Economic Stabilization Act of 2008, giving the Treasury Department the authority and resources to address the crisis.

The final bill permitted the Treasury Secretary to purchase troubled assets that were defined as "residential or commercial mortgages and any securities, obligations, or other instruments that are based on or related to such mortgages." The bill also included a

⁸ To obtain the designation of a bank holding company, both firms needed to show the Fed that they had sufficient financial and managerial resources to meet regulatory and supervisory requirements and to safely and soundly continue operations. Goldman Sachs secured a commitment for a \$5 billion equity investment from Warren Buffet and raised another \$5 billion through a public offering. Morgan Stanley secured a commitment of about \$9 billion of new equity from a large Japanese banking conglomerate, Mitsubishi Financial.

second definition of troubled assets which was “any other financial instrument that the Secretary, after consultation with the Chairman of the Board of Governors of the Federal Reserve System, determines the purchase of which is necessary to promote financial market stability.” This definition provided the federal government broad flexibility to invest directly in banks, or, as Treasury did later that year, even the auto industry.

Paulson wanted to keep his options open on how to respond because of the crisis’s dynamic nature. Before he left for the weekend, he urged the team to figure out how soon Treasury could begin buying the banks’ toxic assets. Then, he asked us as well: “Figure out a way we can put equity into these companies.”

* * * * *

In the days after Congress passed TARP, rather than rallying, the equity markets continued to decline at an alarming rate in the United States and Europe, with seven European nations having to intervene to nationalize failing financial institutions. In a race against time, Treasury and the Fed developed a plan to stabilize the markets. We recognized that we would need to act forcefully—and fast.

We quickly decided that an asset purchase plan could not be executed quickly, nor would it maximize the use of TARP funds. Instead, we decided to pursue a broad-based program to make government investments directly in the banks.

We concluded that even if successful, the auctions might not be large enough or at prices high enough to provide significant benefits. Facing an estimated \$2 trillion of distressed assets on the balance sheets, we were concerned even hundreds of billions of purchases would not deliver the desired benefit. Asset purchases can have a significant direct capital impact only if the purchaser pays a meaningful premium above the bank’s carrying value. It was possible, though uncertain, that limited asset purchases might provide an additional benefit by increasing the value of distressed assets generally and thereby increase equity capital. Another consideration was the question of what would happen if the auctions were successful and established prices that implied losses greater than what investors and creditors estimated.

Designing the auction process had many practical challenges. There was a vast universe of eligible assets, including more than 20,000 mortgage-backed securities—each containing their own pools of underlying mortgages with different vintages, borrower characteristics, credit ratings, and delinquency rates. Treasury was advised that it would most likely take until December before it could run test auctions for even a few hundred million of assets.

Purchasing equity stakes to recapitalize the banks was much more straightforward and had been used previously, though not always to great positive effect. And it certainly had not been executed with the structure or at the scale we proposed. The prospect of government investments in banks offended us from a policy perspective and was politically toxic; however, we needed to address the capitalization of our banking system.

A major virtue of the equity stakes program, however, was that we could standardize it so that it could apply to every type of financial institution. We knew it would be more

effective, too. By immediately injecting capital, banks would have more capital to absorb losses if the economy worsened. They would also have greater capacity to lend and not hunker down and hoard capital. All of this, we hoped, would restore confidence so that over time, private capital would return to the banking system.

Another virtue was that it provided a far bigger impact than simply buying assets. If you purchase assets, then every dollar that you spend can buy only one dollar of assets. On the other hand, if you invest one dollar into a bank, that dollar can create between \$8 and \$12 of lending capacity depending on the overall capital adequacy of the banking institution. So, if you invested hundreds of billions of dollars, you could significantly recapitalize the nation's banks and strengthen their capacity to lend.

II. Designing and Implementing the Capital Purchase Program

After TARP was passed on October 3, we began working with our colleagues at the Fed and FDIC to design the Capital Purchase Program (CPP). Our goal was to develop a plan as quickly as possible because the financial markets were on the brink of a systemic collapse. We unveiled the program to banks on October 13, 10 days after obtaining Congressional approval, and announced it publicly the next day.

As we designed the CPP, we mapped out a strategy that was fundamentally different from every recapitalization plan that had been tried before. Instead of “nationalizing” only failing or weak banks, we would welcome *all* qualifying, healthy institutions. There were some iterations of the program. As an example, the initial version called for a government matching investment for any private capital raised. This concept was quickly dismissed because the public equity markets were essentially closed for even the strongest banking institutions.

We sought to design a program to recapitalize the banks that would be understandable, easy to implement, and broadly accepted to maximize its effect. We had to address a number of issues. First, and importantly, we had no legal authority, even after TARP, to force a bank to accept an investment. To encourage broad participation, our terms had to incentivize rather than punish participation. Making the investment program attractive would ensure it could be implemented quickly. Second, we wanted the program to be widely adopted. The system as a whole was undercapitalized; unless we addressed the shortfall, the crisis could simply spread from relatively weak institutions to relatively strong ones. Third, an attractive program would allow us to avoid stigmatizing any specific financial institution since healthier banks could justify participation as a way of obtaining relatively inexpensive capital. Last, we believed that the preferred investment structure was simple and easy to understand for market participants—both the banks accepting the investment and the market counterparties looking to transact with safe institutions.

A key decision was how much money to deploy. Although Congress authorized a total of \$700 billion for TARP, it released only \$350 billion initially and required a second vote to release the second \$350 billion. Because we wanted to make sure funds

were available in case we faced an unexpected event, we decided that we would allocate \$250 billion to the CPP investments. With \$250 billion as the constraint, we agreed with the Federal Reserve that each eligible and participating institution would be able to issue CPP preferred stock equal to and not less than 1 percent, but no greater than 3 percent of its risk-weighted assets, subject to a maximum of \$25 billion.

We focused on preferred shares for three main reasons. First, there were legitimate concerns about the government becoming a controlling or significant shareholder. Since preferred stock was non-voting, its use allowed us to avoid many of the governance responsibilities that come with significant equity ownership, such as voting on shareholder proposals or taking seats on the board. Second, we also thought preferred stock would be more palatable to healthier banks, which would be reluctant to take the government on as a business partner. Finally, from the government's perspective, preferred shares sat higher in the capital structure. That meant the taxpayer was more likely to get paid back.

The trade-off was that the government preferred shares were seen by investors as lower quality capital than common equity, given their senior position in the capital stack. Many investors were skeptical that the preferred stock would be as effective at absorbing losses as common stock. In our view, however, preferred stock was ultimately contingent common stock. If desired and needed, the preferred shares could be converted into common equity with the government's consent. This is the approach that was used later for both Citigroup and AIG in related programs when preferred investments were exchanged for common stock.

Likewise, we came up with other ways to make these investments attractive, even to healthy institutions. One was allowing banks that accepted government capital to continue paying dividends to their existing shareholders (although they were not allowed to increase their dividends). While the government was criticized widely for making such dividends permissible, we believed that a dividend ban would significantly discourage many institutions from accepting a government investment, and frustrate a central goal in recapitalizing the system.

Another way we made these investments attractive was to set the dividend rate below current market levels. We initially planned for a 5 percent cash dividend rate, with the total effective dividend rate increasing by roughly 1 percent per year based on how long the banks kept the preferred outstanding. Paulson continued to solicit others' input, including that of Warren Buffett, who also favored preferred equity investments with favorable terms. After taking all of this into account, we then revised our initial plan so that the preferred shares would pay a 5 percent dividend in the first five years, and then escalate to 9 percent in the following years. This initial 5 percent dividend rate was attractive, because it was less expensive than the rate banks would have had to pay to issue preferred in the market. And the five-year period before the 9 percent dividend kicked in provided institutions a strong incentive to pay back the government, while giving them a reasonable amount of time to recover from the crisis.

To reward taxpayers if things went as well as we had hoped, and to comply with the TARP law, we attached warrants to the investments. Treasury would receive warrants with a 10-year maturity that could be exercised at any time, with an aggregate market

value equal to 15 percent of the total value of the preferred; the strike price on the warrants equaled the previous 20-day average stock price for each institution on the day of preliminary approval of the investment. This allowed taxpayers to participate in the upside from recovery in the financial system.

Finally, we treaded carefully around the issue of compensation. When Congress approved the TARP legislation, it called on any institution that received government funds to meet “appropriate standards for executive compensation and corporate governance.” The rules put restrictions on senior executive pay packages, including banning excessive severance payments, new golden parachute payments, and contracts that encouraged unnecessary risk-taking. Critics on both the left and right pushed us to draw an even harder line on executive pay and banker compensation. However, we felt that placing additional rules would stigmatize and jeopardize the program if it looked as if the government was controlling compensation. That is what happened when banks were nationalized, and it would have discouraged and limited the broad participation needed to recapitalize the financial system.

There was one other critical issue: the treatment by regulators of the preferred investments. Our preferred shares, as originally conceived, did not actually qualify as Tier 1 capital, the primary metric that regulators used to determine whether an institution was appropriately capitalized. That’s because the dividend payments on our shares were cumulative, allowing the government to collect in the future any dividends not paid by a bank. To count as Tier 1 capital, preferred shares had to be non-cumulative—meaning the bank would not owe any missed dividend payments in arrears. We found this an unacceptable risk to the taxpayer. To fulfill our goal of strengthening the banks’ financial position, the Fed amended its capital rules so that these new investments would qualify as Tier 1 capital. The compromise was that when a financial institution paid back the government investment, it had to replace it with qualifying Tier 1 capital.

The preferred stock was structured as a perpetual instrument without a specified maturity date. Together with cumulative dividends, this enabled the preferred to be treated as Tier 1 capital. Although the step up in dividend rate after the fifth anniversary was designed to incentivize repayment, we did not want banks to rush to repay the preferred investment before confidence increased that the banks were adequately capitalized. To provide additional incentive for repayment, we provided firms an opportunity to reduce the outstanding warrants by 50 percent by raising qualifying private capital before the end of 2009.

Even as we designed the CPP, the rapid succession of market events made some concerned that capital alone might not be sufficient. Timothy F. Geithner, president of the Federal Reserve Bank of New York, was particularly worried. “What you really need is the authority to guarantee their liabilities,” he advised Paulson shortly after the initial TARP bill was voted down. The two needed to work hand-in-hand.

At Treasury, we put in place a temporary guarantee against any losses on more than \$3.4 trillion of money market mutual funds, after investors panicked in the days following the collapse of Lehman Brothers. Meanwhile, several of our European counterparts had recently guaranteed their bank debt, hoping to prevent runs from spreading across the European financial system. Once a government chooses to

guarantee some assets or institutions, it can spark a run on those that are not protected as investors flee to safety.

The Treasury did not have the debt guarantee authority; those powers belonged to the FDIC (under certain circumstances), which had traditionally used them in resolving failed financial institutions. To guarantee all U.S. bank debts, we would need to ask the FDIC to extend its mandate to banks that had not yet failed—and even to bank holding companies and consumer credit companies, which the FDIC did not formally oversee.

Leadership of both the Treasury and the Fed strongly advocated that the FDIC should establish what became known as the Debt Guarantee Program of the Temporary Liquidity Guarantee Program. Paulson argued that the more risk the Treasury and FDIC took on today, the fewer losses we would see in the future. Sheila Bair, chairwoman of the FDIC, was understandably reluctant to take such a significant additional exposure. But after consulting with her colleagues, she returned saying that they could invoke the systemic risk exception in order to establish a program. However, she wanted to be certain the banks would pay a fair price.

And when paired with the CPP bank investment program, it made the broader recapitalization effort far more powerful. The CPP investments strengthened the banks' capital levels, while TLGP made them less susceptible to a run. Together, with their equity capital materially strengthened and the run risk sharply curtailed, you assured the ability of the banks to finance themselves in the private market with debt securities. The FDIC ultimately agreed to guarantee all new U.S. bank debt as of October 14, 2008.

One question about the program was just how many banks would participate. Even though we anticipated opening CPP to all healthy institutions, we didn't have the infrastructure in place to support a broad rollout. Instead, we decided to begin with the largest banks and the most systemically important banks. The thought was that these sophisticated institutions had the resources to retain counsel to identify any and all unintended concepts or problems with the program. Every other institution would be treated identically. We allocated \$125 billion, roughly half of the TARP funds that we had designated for the bank investment program. To minimize political interference, we deferred to the Federal Reserve Bank of New York to designate the first banks and corresponding capital amounts. FRBNY settled on nine systemically important institutions—a group that included the four largest banks: Citigroup, Bank of America, JPMorgan Chase and Wells Fargo; traditional Wall Street banks including Goldman Sachs, Merrill Lynch and Morgan Stanley; and the custodial banks Bank of New York Mellon and State Street. At the time, these banks accounted for 55 percent of U.S. banking assets.⁹ The financial health of those institutions varied. That, however, drove home the point: We were giving all banks government capital so they could more easily absorb losses and continue lending through the downturn—and not distinguishing the weak from the strong.

Meanwhile, we wanted immediate participation. We invited the chief executives of the nine banks to the Treasury Department for a confidential meeting on Columbus Day with their financial regulators to reveal how CPP and TLGP would work. This rather

⁹ Government Accountability Office, "Capital Purchase Program: Revenues Have Exceeded Investments, but Concerns about Outstanding Investments Remain," March 2012, p. 7.

dramatic meeting was driven by pragmatism. It allowed us to explain the deal to all nine banks at once, and then ask for an immediate decision. In fact, we used the offices of nine different senior Treasury officials so that every bank’s chief executive would have his own breakout room to have private discussions with the general counsels and boards. Although quite a bit has been written about the theatrics of the meeting itself, the fact was that our plan worked and every bank participated.

This marked just the start of the CPP bank investment program. With the nine lead banks in the fold, we moved quickly to broaden the program to 707 financial institutions—large and small, publicly traded and privately held, and from 48 states. It would require us to build out a dedicated office, led by a “chief investment officer,” who would work closely with the independent banking regulators to award investments to viable institutions. (For more details on the management of the CPP program, please see the chapter on TARP administration.) After investing the first \$125 billion in the nine largest banks, we invested another \$69 billion by January 16, 2009—or roughly 78 percent of the total amount before the end of the Bush administration. Investing the money quickly was crucial to the success of the program.

We also had to adapt our response to changing market conditions, especially when more losses at Citigroup required a second capital injection (and later, a third injection of common equity through a conversion of preferred stock into common stock). In November 2008, as Citigroup’s losses worsened and the market’s confidence in the company declined further, Citigroup faced the prospect of becoming illiquid within a matter of days. To prevent the failure of a systemically important, international bank, and the potential for a disorderly receivership in the midst of a market crisis, we agreed to provide another \$20 billion of government capital, on top of the \$25 billion Citigroup had previously received at the Columbus Day meeting. We also put together a program that would insure against losses on up to \$306 billion of Citi’s most illiquid assets—an innovative crisis response tool known as a ring-fence guarantee or, more formally, as the Asset Guarantee Program (AGP).¹⁰

Under the Asset Guarantee Program, Citigroup would agree to take the first losses. But after that, Treasury would put up a modest amount of TARP capital as a second loss position, the FDIC took the next set of losses, and the Fed agreed to take on the rest of the downside risk.

Although the asset ring-fence was initially greeted favorably by the market, it ultimately failed to stabilize Citigroup. One reason is that the \$306 billion of insured assets paled in comparison to Citigroup’s \$2 trillion balance sheet. Another is that it was complicated and time-consuming to determine those assets that would be included in the ring-fence. The lack of transparency led many market participants to speculate that the firm was insolvent, contradicting our original intent.

¹⁰ We would take similar actions to stabilize Bank of America ended in January 2009. Shortly before our Administration ended, we agreed to provide another \$20 billion of government capital on top of the \$25 billion investment that was announced on Columbus Day. We agreed to provide an AGP ring-fence guarantee on a pool of troubled assets, although Bank of America exited the program before it was deployed.

III. Assessment and Lessons Learned

LESSON 1: BANK CAPITAL STANDARDS AND SUPERVISION WERE NOT ADEQUATE. Before the crisis, the regulatory capital regime and supervision was inadequate. While most banks were in compliance with regulatory capital standards, the markets did not have confidence in capitalization levels or the supervision provided by regulators. As a consequence of this lack of confidence, a number of well capitalized banks failed or nearly failed during the crisis. Strong capital requirements and more forward-looking supervision (such as capital and liquidity buffers/stress supervision) must be the first line of defense.

LESSON 2: THE CAPITAL PURCHASE PROGRAM WAS A CRITICAL COMPONENT OF OUR CRISIS RESPONSE. From a policy perspective, this program was unique in its scale both in terms of its dollar amounts and the fact that was broad-based—not just focused on distressed institutions. It marked the first time that a recapitalization program centered on assisting healthy financial institutions in the United States, rather than “nationalizing” failed banks. The capital injections were fast, efficient, and effective, and helped avoid potentially scores of failures.

LESSON 3: THE GOVERNMENT RECEIVED PROCEEDS IN EXCESS OF ITS INVESTMENTS. While profit was not the motive for the CPP investments, and should not be the sole or primary basis for evaluating the program, the government received proceeds in excess of the funds it invested. Many observers predicted steep losses, which did not materialize. Through the CPP and other direct bank programs, the government committed \$250 billion and has received total proceeds of \$275 billion from the repayment of preferred stock, dividends and warrant proceeds¹¹. In addition, the banks repaid us far more quickly than we initially anticipated. By December 2009, eight of the nine initial TARP recipients had repaid their government loans; another 696 banks would exit the program by the end of the Obama Administration in 2016. Today, just four small lenders remain. We also put in place strong controls and oversight mechanisms that ensured that every dollar was accounted for and no fraudulent investments were made. The CPP received a clean audit every year. This is important for building public confidence in government’s ability to be a good steward of taxpayer funds.

LESSON 4: THE CAPITAL PURCHASE PROGRAM PROVIDED THE FOUNDATION FOR FUTURE ACTIONS. The CPP did not by itself fully stabilize or recapitalize the financial system. A number of banks were so severely undercapitalized that they would need to raise billions of additional capital from private investors, and, in two cases, return to the government for additional TARP capital from the Targeted Investment Program (TIP) and Asset Guarantee Program (AGP). The CPP, together with the FDIC guarantee, calmed markets and bought some much-needed time during a presidential transition that allowed a broader recovery strategy including fiscal stimulus. In addition, the CPP provided a key and necessary cornerstone to restore the banking

¹¹ https://www.treasury.gov/initiatives/financial-stability/reports/Documents/Monthly_TARP_Update%20-%202009.01.2018.pdf

system—and the broader economy—to normal functioning. The important stress tests carried out by the Federal Reserve in 2009, and subsequent private recapitalizations, would not have been successful without the base of equity provided by the CPP.

LESSON 5: POLITICAL AND PUBLIC SUPPORT WERE LOW. Putting government funds into private institutions is rightfully unpopular in America. The government's investments, while stabilizing the financial system, did help the banks that the public blamed for causing the crisis. Understandably, this violated many people's fundamental sense of fairness. This unintended consequence is something that future policymakers must take into account.

LESSON 6: POLICYMAKERS SHOULD CAREFULLY CONSIDER THE REQUIREMENTS TO USE EMERGENCY AUTHORITIES. Financial institutions are unique in that their business model and viability is tied to the confidence of their customers. No other business enterprise's viability is tied as closely to this perception and thus financial institutions are susceptible to banking runs. These runs, in turn, can turn into systemic threats to the entire economy. This concern is the foundation for FDIC deposit insurance and the Federal Reserve's lender of last resort authority.

Congress must take this into account when crafting policy for bank stability. As discussed in this chapter, capital injections and guarantees were effective in stabilizing a teetering banking system. However, government investments into private enterprises creates significant policy issues. Any decision making must be transparent and subject to scrutiny.

LESSON 7: CLARITY AND COMMUNICATION ARE CRITICAL. To stop a panic, interventions need to be easily understood by market participants and capable of being implemented quickly. You can have great ideas but you need to be able to operationalize them. The best chance for building political and public support is straightforward communication.

LESSON 8: PLAN FOR A CRISIS. The best time to plan for a crisis and evaluate alternatives is before a crisis begins. Once a crisis begins, policy options can be constrained by political or market considerations. Since banking and financial crises have occurred throughout the history of the United States and other countries, advance planning before the next crisis is warranted.