

# Legal, Political, and Institutional Constraints on the Financial Crisis Policy Response<sup>†</sup>

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**A**s the financial crisis manifested itself and peaked in 2007 and 2008, the response of US policymakers and regulators was shaped in important ways by legal and political constraints. Policymakers lacked certain legal authorities that would have been useful for addressing the crisis, notably to use public capital to stabilize the banking sector or to deal with the failure of large financial firms such as insurance companies and investment banks that were outside the scope of bank regulators' authority to resolve deposit-taking commercial banks. US policymakers had long been aware that new legal authorities might be useful and even necessary, but political constraints meant that such changes could only be enacted after a financial market crisis actually threatened the economy. Analyzing the response to the crisis and considering improvements to future efforts thus requires understanding the political and legal constraints that narrowed the available options or affected the timing of actions taken.

Legal constraints were keenly felt at the US Department of the Treasury, where I served as a senior official from December 2006 to January 2009. Treasury had virtually no emergency economic authority at the onset of the crisis in 2007, with the exception of the Treasury's Exchange Stabilization Fund, which was intended for use in exchange rate interventions. Even while options such as the capital injections ultimately undertaken through the Troubled Asset Relief Program (the TARP) were being developed at the Treasury in spring 2008, policymakers felt that it was possible

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to propose the necessary changes in the law to authorize the response only when the Secretary of the Treasury and the Chairman of the Federal Reserve could tell Congress that action was necessary to avoid an economic collapse. This constraint explains why, as the systemic risks of the financial crisis became apparent, the initial policy response largely fell to the Federal Reserve, which had the authority to act under emergency circumstances.

The story of the financial crisis response can be told through the lens of evolving legal and political constraints. In late 2007 and early 2008, while policymakers recognized weaknesses in the system, they believed that conventional monetary and fiscal responses such as Fed lending and a modest fiscal stimulus would suffice to buoy the US economy while the imbalances that had built up during the housing bubble were resolved (indeed, Broda and Parker 2014 show that the early 2008 stimulus increased consumption). By the time of the Bear Stearns bailout in March 2008, the usual methods were clearly perceived to be inadequate, and the Fed was making discretionary choices to invoke authority reserved for “unusual and exigent” circumstances to respond to the potential collapse of a nonbank financial firm. In September 2008, the Fed’s ability to use this discretionary authority had reached its limits, and the imminent risk of financial crisis led to the Troubled Asset Relief Program, which authorized public money to be used to purchase troubled assets such as subprime mortgage-backed securities from banks or to inject capital into the banking system by purchasing shares of preferred stock in banks. The advent of the TARP capital injections facilitated a program of guarantees by the Federal Deposit Insurance Corporation to support bank funding, undertaken with existing legal authority but in an extraordinary way. Together, these actions reassured market participants that the US financial sector would not collapse and marked the beginning of the stabilization from the crisis.

There will inevitably be another financial crisis, and the response will be shaped by both the lessons learned from recent history and the statutory and political changes in the wake of the crisis. The paper thus concludes by discussing changes in constraints since the crisis, with a focus on two developments: 1) the political reality that there will not in the near future be another wide-ranging grant of fiscal authority as was given with the Troubled Asset Relief Program, and 2) the new legal authorities provided in the Wall Street Reform and Consumer Protection Act of 2010, commonly known as the Dodd–Frank law.

### **August–September 2007: The Initial Policy Response**

By August 2007, policymakers at the Fed and Treasury recognized (belatedly, critics might say) that impending credit losses from poor lending during the run-up to the housing bubble were not just problems for individual firms or investors but posed a broader threat to the financial system and economy.

The initial response to the manifestation of the crisis in August 2007 relied on conventional tools of monetary policy and moderate regulatory discretion. For

example, the Fed made clear in August 2007 that the discount window was available for banks in need, and followed in September with a modest cut in the federal funds interest rate. Treasury officials encouraged efforts by private market participants to avoid fire sales of assets, and shepherded voluntary efforts by mortgage lenders to avoid foreclosures in instances in which the cost of a mortgage modification was less than that of a foreclosure. In Swagel (2009), I discuss these efforts.

With the benefit of hindsight, these policy changes look underwhelming. But at the time, policymakers did not see the need for the extraordinary steps that were eventually taken to respond to the crisis, even setting aside the several legal and political constraints to action that were widely understood to exist. The Treasury could not have gotten the authority to undertake capital injections into private banks in August 2007 even if policymakers had thought this was necessary, and the Fed would have faced a political backlash had it tried under its emergency authority to put into place lending programs for investment banks before Bear Stearns faced failure. Still in late 2007, policymakers did not believe extraordinary action was required, which implies that these legal and political constraints did not bind.

For example, Treasury officials long had been urging financial firms to consider their capital positions, but only the independent bank regulators—notably the Federal Reserve and the Office of the Comptroller of the Currency—had the authority to require banks to fund themselves with more capital rather than by borrowing, or to require that they change their behavior in ways like reducing dividend payments to build capital. Indeed, Timothy Geithner (2014), who as President of the New York Fed was the primary federal regulator for Citigroup, a firm that eventually required extraordinary assistance to survive the crisis, expressed regret in his memoir at not doing more with regard to bank capital. In fairness, given the scope of losses from bad lending and the depth of the subsequent panic, it is not clear that moderate additional amounts of capital would have allowed Citigroup or other firms to avoid the turmoil of 2008. Still, more capital would have helped. Moreover, the Federal Reserve at this time did not regulate the then-investment banks and so could not have required Bear Stearns, Lehman Brothers, Merrill Lynch, Goldman Sachs, or Morgan Stanley to raise more capital—though the US Securities and Exchange Commission could have required this step.

Similarly, the Federal Reserve and the Office of the Comptroller of the Currency (OCC) did not supervise the American International Group (AIG), the insurance company that would require a mammoth bailout. Both regulators did, however, have authority over some of AIG's counterparties in the credit default swaps and securities lending transactions that led to the bailout. With better information and greater foresight, the Fed or OCC might have intervened to limit the accumulation of risk at AIG from the other side (though even here, the Fed and OCC did not supervise investment banks such as Goldman Sachs that were also involved with the AIG transactions).

The failure to respond more strongly to the budding financial crisis in late 2007 reflects many factors, but among them is that policymakers did not fully appreciate the depth of what was to come. Through 2007 and even up to the end of the

summer of 2008, mainstream economic forecasts such as from the Congressional Budget Office were for little or no growth in late 2008 and early 2009, but then for a recovery as difficulties in housing and credit markets subsided. Perhaps contributing to the lack of action by financial regulators during the run-up to the crisis is the political reality that it is difficult to rein in financial activity when markets are in an upswing.

## **The Collapse of Bear Stearns**

The response to the collapse of Bear Stearns in March 2008 constituted the first bailout of the financial crisis. Bear Stearns had come to rely on raising short-term liquidity through mechanisms such as repurchase agreements. According to the Securities and Exchange Commission, the firm was meeting its capital requirements in early 2008 (Cox 2008). However, mounting concerns regarding its exposure to real estate-related losses led many investors to stop renewing short-term funding—the functional equivalent of a bank run, as explained in this journal by Brunnermeier (2009). Thus, regulators thought that Bear was solvent, and yet the firm faced collapse within days.

Bear Stearns was not a commercial bank, and so the usual policy responses for a bank facing either liquidity problems or outright failure were not available. As an investment bank, Bear Stearns had neither stable deposit funding backed by Federal Deposit Insurance Corporation (FDIC) deposit insurance nor access to the Fed's discount window for emergency lending support. In addition, if Bear Stearns went broke it would not be resolved like a bank through the time-tested FDIC process discussed by Bovenzi (2015), but instead would go through a standard commercial bankruptcy. Many government policymakers feared that if such a bankruptcy proceeded, Bear's operations would implode as its short-term funding disappeared or through an exodus of clients while the bankruptcy proceeded. In the eyes of policymakers, Bear Stearns was so interconnected with other institutions that its failure could have had systemic consequences as failures on one end of transactions rippled through the financial system. Whether this fear was correct remains a subject of debate. But this belief and the constraint of inadequate legal authority to deal with a failing nonbank financial firm, combined with the sheer rapidity of Bear's collapse, fostered a blunt Fed intervention to facilitate the acquisition of Bear Stearns by JP Morgan Chase.

The Fed turned to its emergency authority under Section 13(3) of the Federal Reserve Act, which at the time said that in “unusual and exigent circumstances,” the Federal Reserve could lend to “any individual, partnership, or corporation” so long as the loan was made against adequate collateral in the judgment of the Fed. Note that the requirement was not that the Fed could not actually take losses, but only that the Fed would not expect to take a loss. (As noted below, use of the Fed's emergency lending would later be constrained by the passage of the 2010 Dodd–Frank law.) JP Morgan was willing to buy Bear Stearns, but did not want the

transaction to include certain illiquid assets with a notional value of \$30 billion. The Fed's solution was to provide financing on these illiquid Bear Stearns assets, with JP Morgan exposed to the first \$1 billion of losses.<sup>1</sup> Shareholders of Bear Stearns took large losses, but the bailout ensured that holders of Bear Stearns commercial paper and other obligations were made whole.

The Treasury Department did not have the legal authority to commit taxpayer funds to an intervention—this was granted only in October 2008 with the enactment of the Emergency Economic Stabilization Act that created the Troubled Asset Relief Program. Instead, the Treasury could only provide the Fed with a letter from the Secretary of the Treasury to the Chairman of the Federal Reserve noting that any losses suffered by the Fed would eventually mean smaller transfers of profits from the Fed to the Treasury—that is, the letter offered political cover by acknowledging that the Fed and Treasury were both part of the public balance sheet. In the end, the Fed's loan for the Bear Stearns assets was repaid in full with a \$765 million gain from interest payments and increases in the value of the underlying assets. The Fed's action did not require Congressional approval, and the firm's rapid collapse and use of nonrecourse lending to a special purpose vehicle meant that, initially, the transaction was poorly understood in Washington. The backlash against bailouts, however, would build.

Following the collapse of Bear Stearns in March 2008, the Fed put in place the Primary Dealer Credit Facility (PDCF), through which the Fed for the first time since the Great Depression stood ready to lend to the broker-dealer units of investment banks. Though other investment banks such as Lehman Brothers and Merrill Lynch were viewed as vulnerable to large mortgage-related losses, the PDCF was widely seen as ensuring that these firms would not face the sort of funding run that doomed Bear Stearns. In spring 2008, policymakers believed that there would be time instead for these firms to raise additional capital or sell themselves off to stronger institutions while a gradual improvement of the economy would help to stabilize the housing market and asset values with it.

Given the need to rely on the Fed's emergency authority for Bear Stearns, a natural question is whether the Bush administration should have approached Congress in spring 2008 to obtain additional legal power. In March and April 2008, policies discussed inside the Treasury included the possibility of large-scale government purchases of illiquid assets or public capital injections into banks in the event of a broader market crisis. But until such a crisis actually arose, the belief was that lawmakers from both parties would be loath to grant discretionary power to executive branch officials to intervene in private firms and put taxpayer money at risk.

<sup>1</sup> The actual transaction involved a \$29 billion Fed loan to a limited liability corporation established by the New York Fed that was combined with \$1 billion from JP Morgan to purchase the assets. The corporation was named Maiden Lane LLC; it was named after the street behind the New York Fed main building. If the value of the assets turned out to be less than \$30 billion, JP Morgan was exposed to the first \$1 billion in losses, after which the Fed took any further losses. In making this loan, the Fed thus asserted that the assets would eventually be worth at least \$29 billion. This assumption turned out to be correct, though it was a tenuous assumption at the time.

Indeed, many members of Congress would object to proposals that could be seen as encouraging bailouts by making them more possible.

Others proposed that changes to the bankruptcy code could prove useful for dealing with the crisis, like an idea from Zingales (2008) that the power to convert bondholders into equity shareholders could “immediately make banks solid, by providing a large equity buffer.” However, changing the legal constraint preventing such an approach ran into the political constraint. Changes to the bankruptcy code had been enacted with considerable controversy in 2005 after at least seven years of Congressional efforts. Further such changes were simply not possible in a timeframe relevant to dealing with the financial crisis.

### **The Collapse of Lehman Brothers: Constraints on the Fed and Treasury**

The bankruptcy of Lehman Brothers in September 2008 marked the onset of a broad financial panic, leading to questions of why the Federal Reserve did not invoke Section 13(3) to save Lehman. After all, the Fed had made loans for Bear Stearns previously and would make another set of loans within two days of Lehman’s failure to prevent the collapse of AIG. The difference between the three situations is that the Fed saw Lehman as insolvent, not only that it was holding illiquid assets, and thus the Fed believed it lacked the legal authority to lend to the firm. This argument raises several questions.

Was the Fed correct in its assessment of Lehman’s financial situation? Of course, it was difficult for anyone to determine the valuation of Lehman’s assets and liabilities in the fall of 2008, at a time of severe credit market strains under which assets comprised of subprime mortgages were characterized by low liquidity and possibly fire-sale prices. Claims that Lehman’s assets might have been worth enough to make the firm solvent or nearly so, such as in Stewart and Eavis (2014), are based on six-year-old recollections and do not match documentary evidence and contemporary accounts. At the time, policymakers and market participants widely believed that Lehman was insolvent, and not merely illiquid, with the firm suffering a capital hole of several tens of billions of dollars (for example, according to Paulson 2010; Geithner 2014). The Fed thus hewed to the law.

Should the Fed have loaned to Lehman Brothers even though central bank officials believed that the firm was insolvent? After all, the law left the evaluation of collateral quality up to the Fed itself and did not provide a mechanism for a third party to object. The law did not prohibit the Fed from taking losses but only from making loans on which it expected to make losses—a vital distinction. This question begins with a recognition that the Fed faced legal constraints and asks whether it should in some cases disregard those constraints. This question might be especially relevant if Fed officials suspected that Lehman’s failure would spark a panic and play a role in transforming an economic slowdown into the Great Recession. At the time, however, the Fed and the Treasury did not expect this outcome. While

it was widely recognized that Lehman's failure would be challenging for markets because the firm was widely connected to other market participants through derivative contracts and repurchase agreements and because Lehman's failure would call into question the viability of other firms with illiquid assets, the Lehman bankruptcy led to financial panic through two unexpected channels.

First, the Reserve Primary Fund, a large money market fund, had taken a large position in Lehman commercial paper, and the Lehman bankruptcy meant that the fund was forced to "break the buck" by declaring that it could not return investors' money at par. The result was a flight from money market mutual funds as a group. In turn, firms that relied on funding through short-term commercial paper found that it was difficult for them to obtain routine liquidity, because money market mutual funds, which were typically large purchasers of commercial paper, were selling their existing paper to meet redemptions and not buying new issues. The panic in money market funds thus constituted a spillover from the financial sector to the real economy—from Wall Street to Main Street. The Securities and Exchange Commission regulates money market funds, and in principle, could have been aware that the Reserve Fund's exposure to Lehman securities put it at risk, but Lehman paper remained highly rated in the days ahead of the firm's bankruptcy and thus within the scope of allowable assets for money market funds.

Second, the Lehman bankruptcy meant that the assets of many Lehman clients were tied up in London as a result of the UK bankruptcy system, which unlike that in the United States, did not distinguish between the firm's resources and those of its clients for which Lehman was a custodian. This especially affected investment firms such as hedge funds, which in turn sold other assets to generate cash, leading to further downward pressure on asset prices. US policymakers were not prepared for this feature of the British legal system; indeed, the investors whose funds were trapped apparently did not anticipate their dilemma, either.

The panic in money market funds and impact on commercial paper markets was at that time viewed as a grave danger, and Treasury and the Fed both responded by finding ways to use their existing discretionary power. The US Department of the Treasury (2008) used the \$50 billion Exchange Stabilization Fund—originally established back in the 1930s to address issues affecting the exchange rate of the US dollar—to set up an insurance program to insure depositors in money market funds. A measure of the panic during that week is that even money market mutual funds that only purchased US government securities bought the Treasury insurance, despite the fact that the federal balance sheet standing behind the insurance was no different than the one standing behind the Treasury securities to be insured. Use of the Exchange Stabilization Fund for this purpose was plausibly legal—after all, a panicked flight from US dollar-denominated securities could be seen as posing a threat to the exchange value of the dollar—but its use in this way was without precedent. Use of the Exchange Stabilization Fund had not been contemplated for dealing with Bear Stearns earlier that year—the rapidity of Bear's collapse and the Fed's response precluded this discussion. In the week following Lehman's collapse when every option was considered, it was clear to

Treasury officials that there would be only one opportunity to use the Exchange Stabilization Fund during the financial crisis because the size of the fund was modest relative to the trillions of dollars that were ultimately guaranteed. This cannon could fire only a single shot. Indeed, Congress was to restrict future use of the Exchange Stabilization Fund as part of the post-crisis reforms, and also limited unexpected uses of government authorities, such as actions by the Federal Deposit Insurance Commission discussed below.

The Fed responded to the related problems in money market funds and commercial paper by developing emergency liquidity programs aimed at these particular markets—steps allowed under the 13(3) emergency authority but extraordinary in that the Fed was offering loans to support an asset class rather than for particular firms. The Money Market Investor Funding Facility provided liquidity to money market mutual funds so that they could avoid fire sales of assets to satisfy the flood of redemptions, and the Commercial Paper Funding Facility effectively served as a buyer of last resort for the new issuance of commercial paper. Together, these programs from the Treasury and Fed were to stanch the redemptions from money market funds. But these programs could only be put in place when the crisis had flared to the point that they were critical—and not beforehand.

While the problems in money markets and commercial paper abated, the panic begun in the week following Lehman's failure continued. Nonetheless, a continuing panic does not suffice to prove that the Fed should have bailed out the firm's funders—this claim requires foresight of the channel through which Lehman's failure affected the economy.

Behind the scenes, top officials from the Treasury and Fed went to extraordinary lengths in seeking to arrange a private solution for Lehman. We will never know for sure because the decision did not have to be taken, but it is possible that the Fed might have been willing to provide some public financing for a transaction if there was a buyer for Lehman that included private capital to absorb potential losses ahead of taxpayers. In the end, and in contrast to the situation with Bear Stearns, no firm was prepared both to absorb at least some of Lehman's losses (perhaps bolstered by Federal Reserve lending) and also actually to continue Lehman's operations. A possible acquisition by the UK firm Barclays would have required a vote by its shareholders at a minimum. It is not clear that British regulators would have allowed the deal in the first place, but they certainly did not allow for the decision to be made rapidly as would be needed for a Fed-assisted transaction.

Having the Fed decide to break its own rules and lend directly to Lehman, despite a lack of sufficient collateral, was not a workable solution. An investment bank dependent on short-term funding implodes rapidly once confidence is lost, and lending by the Fed to Lehman in the absence of a definite plan to sell the firm and have it backed by private capital would probably not have reassured the firm's private sector providers of funding. The end result would have meant that funding from Lehman's private creditors would be replaced by loans from the Fed, leaving American taxpayers exposed to the firm's losses. Moreover, Fed lending to Lehman further would have



made market participants expect similar treatment for other teetering firms such as Merrill Lynch (which instead sold itself to Bank of America).

## **AIG**

The Federal Reserve provided some \$85 billion in loans to avert the failure of AIG on September 16, 2008, less than two days after not providing support when Lehman Brothers filed for bankruptcy early in the morning on September 15. AIG faced collateral calls from the counterparties to its credit default swaps and securities lending operations. AIG was already pressed to come up with cash and could not meet the additional collateral obligations that followed a September 15 downgrade in its credit rating by Standard & Poor's.

The decision to rescue AIG was driven by two factors. First, the Fed believed that loans to AIG would be adequately secured by a claim against the firm's well-capitalized and profitable global operating subsidiaries. The Fed's judgment that the loan to AIG was made against adequate collateral seems to have been borne out, with the insurer returning to profitability and paying back the government investment with a taxpayer profit. (Taxpayers became involved when Treasury took on the exposure after using resources from the Troubled Asset Relief Program to replace the Fed's lending.)<sup>2</sup> Second, as the world's largest insurance company, AIG was considerably more interconnected with other firms than Lehman, and had substantial consumer- and business-oriented operations so that its failure would have immediate impacts on the real economy.

Legal constraints shaped the way in which the AIG rescue was carried out. The structure of the deal meant that AIG did not declare bankruptcy but instead received loans from the Federal Reserve under a number of onerous conditions. Specifically, the Fed received a one-time fee of 2 percent on its \$85 billion loan commitment, an 8.5 percent interest rate on the \$85 billion amount, an additional interest rate at the three-month LIBOR yield for cash actually drawn by the company, and rights to 79.9 percent ownership of AIG common stock. AIG presumably accepted the terms at the time because the outcome was better for shareholders and other firm stakeholders than the alternative of bankruptcy. However, these terms are the subject of ongoing litigation as of early 2015.

This intervention by the Fed meant that AIG counterparties such as banks and other counterparties to AIG credit default swaps did not face losses. Shareholders suffered, as was appropriate, but AIG bondholders and others did not. A number of observers have asserted that the Fed should have done more to ensure that at

<sup>2</sup> In this issue, McDonald and Paulson suggest that AIG was perhaps not in fact solvent, and thus that the Fed's decision to lend was based on a mistake in judgment. Placing an accurate valuation on assets and liabilities in September 2008, and distinguishing insolvency from illiquidity, can often involve controversial decisions. As noted above, the key for the Fed was that it believed at the time that its loans to AIG were secured.

least some of the costs and risks of supporting AIG were borne by private investors. Here, legal constraints bound heavily, because no legal authority existed to impose such losses on the counterparties of AIG as a condition of receiving a loan from the Federal Reserve. Indeed, financial regulators in France had forbidden French banks from agreeing to concessions on their claims against AIG. The liabilities of the AIG financial products division were collateralized by the overall AIG balance sheet, so that a refusal by any counterparty to accept a loss would have meant a collapse of the entire firm. Regulators of AIG insurance units across the United States and around the world would have had a fiduciary obligation to grab assets to satisfy policyholders in their local jurisdictions. Counterparties that had already hedged their exposure might actually have ended up worse off had they agreed to concessions than in the event of an AIG default, which meant that they had no incentive to agree to a voluntary haircut. AIG's rapidly deteriorating cash position meant that there was insufficient time to negotiate with its counterparties en masse.<sup>3</sup> The choice was thus to support the firm as a whole or to let it collapse, with the attendant risk of broad negative implications.

Important elements of the Dodd–Frank financial reform legislation in 2010 (officially, the Wall Street Reform and Consumer Protection Act) were put in place in reaction to the constraints highlighted by the Lehman and AIG situations: notably, government officials now have the ability to commit taxpayer funds to prevent the collapse of a systemically important firm that is not a bank, and not just the ability but the obligation to impose losses on equity owners and other counterparties such as bondholders to ensure that the public resources are paid back in full. In future crises, these changes mean that private investors rather than taxpayers will take on the risk and bear the consequences of firms' failures.

## **TARP and Constraints on Bank Interventions**

The Troubled Asset Relief Program (TARP) was proposed on September 18, 2008—the same week as the Lehman collapse and the AIG bailout—and passed into law as part of the Emergency Economic Stabilization Act on October 3, 2008. The TARP provided authority for the Treasury to purchase or guarantee up to \$700 billion of troubled assets; in Swagel (2009), I provide details on the development, proposal, and features of the TARP.

<sup>3</sup> One possibility raised by some commentators to sidestep these constraints was for government officials to pressure particular institutions: for example, the Fed and Treasury could have leaned on, say, Goldman Sachs, Merrill Lynch, Bank of America, Citigroup, and Wachovia to accept less than the full amount they were owed by AIG—with those firms specified because they were American institutions that received billions of dollars of collateral posted by AIG (for discussion, see Walsh 2009). Such an action would have treated singled-out firms unequally with others not singled out—including foreign firms with more at stake than these American ones. Fed and Treasury officials brushed off this possibility, making clear both during and after the bailout that there was no alternative in their view but to support AIG as a whole, even with the frustrating implication that all counterparties would be made whole.

The TARP as originally envisioned by Treasury Secretary Paulson was to purchase illiquid mortgage-backed securities to relieve strains in credit markets and provide clarity regarding firms' balance sheets by restarting a process of price discovery for illiquid securities. Implementing the asset purchases involved technical hurdles, including the need to develop a mechanism by which the government would buy the securities and to ensure that the details of the law were followed regarding who could sell to the government.<sup>4</sup> The plan in late September (with work on reverse auctions to purchase assets having begun even before enactment of the legislation) was that small asset purchases could get under way as a proof of concept at the end of 2008 or early 2009. It would take longer for the approach to buy a sizable amount of assets, but there could still be a positive impact sooner than this if the advent of the TARP helped to boost asset values and coax hesitant investors back into the market. Indeed, the mention of the TARP proposal had precipitated a stock market rally.

While the intent of the TARP when it was proposed was to purchase illiquid assets, its switch in focus to capital injections was driven by events and political realities. By the time the TARP was enacted in early October 2008, two more large banks had failed (WAMU and Wachovia). Confidence in the financial system continued to wane, as indicated by measures such as the spread between the low yields on Treasury securities and elevated interest rates for banks to borrow from one another. It became clear to policymakers that a more rapid approach was needed to shore up confidence in the financial system. The switch from asset purchases to capital injections fit within the TARP's legislative language, because shares of banks that originated loans represented troubled assets related to mortgages. Indeed, some members of Congress had urged the Treasury from the start to carry out capital injections rather than asset purchases.

Capital injections could be put in place faster than asset purchases. In addition, each dollar of TARP capacity used for capital injections provided for a greater increase in the loss-absorbing capacity of US banks than a dollar used for asset purchases or guarantees. This is because under the Emergency Economic Stabilization Act of 2008, the purchase or guarantee of an asset such as a mortgage-backed security counted in the same amount against the \$700 billion allocated by Congress as the provision of an equal amount of capital directly to financial institutions through the purchase of equity positions. Asset purchases would help cleanse bank balance sheets of illiquid mortgages and contribute to price discovery but would raise firms' net worth only if Treasury intentionally overpaid for assets (which was not the plan) or if asset prices rose following the TARP purchases (a possibility if the implementation of the reverse auctions lifted confidence and thereby improved asset prices).

The Capital Purchase Program (CPP) was announced in a meeting with the chief executive officers of nine large American banks at the Treasury Department

<sup>4</sup>For example, sellers of assets were required to provide the Treasury with warrants on the firm itself, and obey strictures relating to executive compensation.

on October 13—the Columbus Day holiday. The eight institutions ultimately receiving capital injections (after Bank of America’s acquisition of Merrill Lynch) together accounted for more than half of both the assets and deposits of the US banking system. The existence of these mega-firms, while giving rise to concerns over institutions that were too big to fail, also made it possible to strengthen a broad swathe of the banking system rapidly. Each firm received public capital equal to 3 percent of its risk-weighted assets, for a total of about \$125 billion. The remaining thousands of US banks together would be eligible for another \$125 billion in capital.

The use of a broad capital injection, rather than capital provided only to the institutions that needed it most, was driven by policymakers’ desire to signal their confidence in the banking system as a whole while providing the resources necessary to reinforce this confidence with loss-bearing capacity. The terms of the capital injections were thus made relatively attractive to ensure broad participation, with banks paying only a 5 percent yield on preferred shares for five years, after which the yield would increase to 9 percent for banks that had not by that time repaid the Treasury. These terms reflected both a legal constraint and a policy purpose: the constraint that it was not possible to require a healthy financial institution to accept a TARP investment, and the policy purpose of encouraging broad participation that would reassure market participants about the overall health of the US financial system. The US approach was in contrast with capital injections in the United Kingdom, which were made on more onerous financial terms, such that relatively strong banks declined to participate.

In 2009, TARP funds were again set to be used to shore up the financial system, serving as the source of public capital backstopping the so-called “stress tests,” in which bank balance sheets were evaluated to see whether they could withstand an additional period of financial stress. Banks that lacked the appropriate capital as determined by the stress test would be given a chance to raise additional capital from the private sector after which they would be required by their regulator to accept it from the TARP (on onerous terms meant to induce private capital-raising). Such a mandate was possible for regulators because banks failing the stress tests could be deemed as operating in an unsafe condition. The availability of TARP capital was essential to making the stress tests credible in that public capital was available to be forced on firms that could not (or would not) raise their own in response to the results of the stress test.

Institutional and legal constraints further affected Treasury decisions to provide additional assistance to Citigroup and Bank of America in 2008 and 2009 beyond the initial capital investment of \$25 billion for each institution. These two banks (and perhaps others) appeared to be insolvent at points during the crisis, and were to require extraordinary assistance from the TARP, and yet the government propped them up rather than invoking the usual bank resolution authority of the Federal Deposit Insurance Commission. These decisions reflected several factors. First, there was the concern that a government takeover of Citigroup would lead to a renewed flight from other still-fragile banks. Second, while the Federal Deposit Insurance

Corporation had the legal authority to take over each firm's commercial bank, there was little confidence across the government in the agency's ability to run a mega-bank. Taking over a large bank was easier said than actually done—at least before the new powers granted in the Dodd–Frank law. In the end, the shareholders of Citigroup had their ownership stakes substantially diluted by the government investment (including through the conversion of the Treasury preferred stock holdings into common stock), but the firm did not fail. Meanwhile, bondholders and other counterparties avoided losses entirely, which was in some ways less than fully desirable, but did have the positive effect of limiting further financial contagion.

At the same Columbus Day meeting at which the capital injections were announced, the Federal Deposit Insurance Commission introduced the Temporary Liquidity Guarantee Program (TLGP), under which it would insure senior debt issued by banks. The FDIC further extended its deposit insurance to provide an unlimited backstop on business transactional checking accounts that were previously uninsured. The TLGP program was undertaken using the FDIC's emergency authority, which allowed the FDIC to put taxpayer money behind a bank to avoid serious adverse systemic economic or financial effects without the usual requirement to act in a manner that ensured the least cost for taxpayers. Use of this authority required approval by the boards of the FDIC and the Federal Reserve, and the Treasury Secretary was required to consult with the President—all as part of an effort to ensure that the authority was not used lightly. Introduced in the Federal Deposit Insurance Corporation Improvement Act of 1991, the systemic risk exception had not been used until earlier in September 2008, when the FDIC sought to use it as part of the transaction by which Citigroup was to buy the failing Wachovia bank (in the end, Wells Fargo instead purchased Wachovia without government assistance). The Dodd–Frank legislation was later to prohibit a repeat of the TLGP without explicit Congressional approval.

Veronesi and Zingales (2010) calculate that the guarantees from the Federal Deposit Insurance Corporation account for most of the benefits in terms of stabilization of the financial system. This raises the question of whether the TARP capital injections could have been avoided in favor of just the FDIC guarantees along with the expansions of Fed liquidity, such as for commercial paper and eventually securitized assets under the Term Asset-Backed Securities Loan Facility (TALF), and the Fed purchases of Treasury and mortgage-backed securities under its quantitative easing policies. After all, the FDIC and Fed actions were undertaken with existing emergency powers and did not require Congressional action. Indeed, one can argue that the TARP legislative process itself may have contributed to increased uncertainty in late September 2008 that could have been avoided by limiting action to the Fed and FDIC.

However, this scenario of proceeding without something like the TARP program was infeasible. The guarantees from the Temporary Liquidity Guarantee Program of the Federal Deposit Insurance Corporation would never have been put in place without the existence of the TARP program. While all sources of taxpayer funds are on the same balance sheet, the FDIC in practice acts as if this is not the

case, seeking to protect its deposit insurance fund to avoid having to utilize the statutory authority to borrow from the Treasury.<sup>5</sup> Without the advent of the TARP and its use for capital injections, the FDIC would have feared that its expanded bank guarantees would create too high a risk of needing to borrow from the Treasury, and thus the FDIC have not agreed to put in place the TLGP.

Another suggestion is that the capital injections should have been put into place sooner—that such action had been part of other financial rescues and the Treasury should have learned this lesson from other nations such as Sweden. The difficulty is that the Emergency Economic Stabilization Act legislation that allowed the eventual capital injections would not have been enacted if the proposal presented to Congress were for the US government to purchase \$700 billion stakes in private banks. This was a hard political constraint. The legal constraints preventing the TARP capital injections—the response that was ultimately essential to resolving the crisis—could only be addressed when the crisis had become serious enough that political constraints dropped aside. And this was the case only when the use of pre-existing emergency authority by the Fed and FDIC was not enough to arrest the mounting financial sector panic.

## **Conclusion: Implications for the Next Crisis**

What constraints will policymakers and regulators face when the next financial crisis arrives? It seems safe to conclude, based on political considerations, that there will not soon be another Troubled Asset Relief Program, with its broad grant of authority for the government to put taxpayer money into the financial system. Attacks on the bank bailouts in particular have become a staple of political campaigns. Moreover, some emergency actions taken during the crisis are no longer available to policymakers as a result of provisions in the 2010 Dodd–Frank financial reform bill. The Treasury is no longer permitted to use the Exchange Stabilization Fund to guarantee money markets. The Federal Deposit Insurance Corporation must now obtain Congressional approval to provide broad debt guarantees. The Federal Reserve can no longer make emergency loans to individual nonbank institutions but must instead devise broad-based programs.

At the same time, the Dodd–Frank law provided important new powers for government regulators to respond to a future financial crisis. Title II of the Dodd–Frank law creates a nonbank resolution authority under which the government can put taxpayer funds into a failing institution to prevent a collapse. Government officials are required to recoup taxpayer funds by imposing losses on shareholders, bondholders, or other counterparties of the failing firm, and

<sup>5</sup> The desire of the FDIC to avoid borrowing from the Treasury could be seen in the September 2009 action to have banks pre-pay for future deposit insurance premiums as a way of adding resources to the insurance fund (Labaton 2009), even though this imposed a drag on bank resources at the same time as banks were being urged to expand their lending to support the recovery.

ultimately through assessments on other financial sector participants if needed. The Federal Deposit Insurance Corporation is still developing the tools for such an intervention. However, the broad approach is similar to that taken with AIG, in which taxpayer funds go to the parent company and stabilize the firm as a whole. Bovenzi, Guynn, and Jackson (2013) discuss this Title II authority, including the relationship with the bankruptcy code.

Other legal and institutional changes also address weaknesses highlighted by the financial crisis. The Financial Stability Oversight Council (FSOC) was put in place by the Dodd–Frank legislation to avoid the situation with AIG, in which risks developed in a lightly regulated part of the financial system. The FSOC is meant to give all regulators, but especially the Fed, the affirmative duty to pay attention to risks anywhere in the financial system, while the Office of Financial Research established under Dodd–Frank is meant to contribute to this effort as well. These institutional innovations so far do not appear to have had much effect, though it is too soon to know the eventual outcome.

Banks in the wake of the financial crisis are funded with considerably more capital than previously, and are required to ensure that they have stable access to increased sources of liquidity. Many derivative transactions are required to take place on exchanges and through clearinghouses, providing financial regulators with greater ability to assess risks that were previously opaque. A Consumer Financial Protection Bureau was created to address problems highlighted by the crisis, including a lack of clarity or disclosure in financial products.

Given these new legal authorities, it seems clear that the policy response to a future crisis would face different constraints and thus would unfold in a different way. It could be that the increased and altered ability of government officials to intervene during a time of crisis leads to unexpected negative consequences. Bondholders in the last crisis assumed that some banks were too big to fail—and they were right—and thus counted on an intervention that made them whole. With the Title II resolution authority, however, the government can seize a large troubled firm and impose losses on bondholders while maintaining the firm’s operations to avoid a broader financial market fallout. In the future then, it could be that systemically important firms subject to the Title II resolution authority will find that their funding dries up rapidly in the face of difficulties, as bondholders and sources of liquidity pull away to avoid the losses. In other words, the ability of policymakers to seize a large financial firm could cause such firms to lose their funding more quickly, thereby making this kind of intervention more likely. It will be hard to know until the next crisis.

In the meantime, I prefer to think of the glass as half full. Political constraints meant that the essential step of the TARP was proposed only when the financial crisis was severe enough to make possible Congressional action to avoid economic meltdown. While there will not be another TARP, the post-crisis reforms have given policymakers certain essential authorities that did not exist in 2007 to 2009—the ability to stabilize a troubled but systemically important firm while imposing losses on private market participants. Indeed, the understanding that such losses are

required in the future should affect markets today; potential lenders to large banks will likely reassess the returns they require knowing that by law they must take losses in a future crisis rather than receiving a bailout. In sum, an understanding of the political and legal constraints that affected the policy response in 2007 to 2009 has the potential to make the future response yet more effective and the next crisis less damaging.

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