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Use of Systemic Risk Exceptions for Individual Institutions during the Financial Crisis

Introduction

As discussed in chapter 1, “Origins of the Crisis,” September 2008 was a critical month in the financial crisis. Lehman Brothers filed for bankruptcy, Washington Mutual Bank (WaMu) failed, the Federal National Mortgage Association (Fannie Mae) and Federal Home Loan Mortgage Corporation (Freddie Mac) were placed into government conservatorship, and the government provided assistance to American International Group (AIG). Two months earlier, in July, IndyMac, F.S.B., had failed. It was in this context that a systemic risk exception (SRE) allowing the FDIC to assist a large bank that might otherwise fail became an acute possibility. (For information on the increased size and complexity of the largest banks, see the box. For a timeline of major events during the financial crisis of 2008 and 2009, see the timeline immediately following the Overview.)

In deciding whether to invoke SREs for particular depository institutions (instead of allowing them to fail under the least-cost resolution framework¹), the FDIC, the Board of Governors of the Federal Reserve System (FRB), and the Department of the Treasury (Treasury) had to balance sometimes competing goals. These decisions raised questions about how to strike the balance between, on the one hand, stability and containing systemic risk, and, on the other, containing moral hazard and protecting the Deposit Insurance Fund (DIF), which can entail imposing losses on uninsured depositors,

¹ In the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA), Congress required (among other things) that the FDIC resolve failed banks by using the method that would be least costly to the Deposit Insurance Fund (DIF), even if that meant imposing losses on uninsured depositors as well as creditors and shareholders. Congress allowed one exception to the least-cost resolution requirement. “If complying with those [least-cost] requirements would have serious adverse effects on economic conditions or financial stability and if FDIC assistance or other actions would avoid or mitigate those effects,” an SRE could be granted. FDICIA required that the decision to grant an SRE be made by the Secretary of the Treasury in consultation with the President, but only after a written recommendation by a two-thirds majority of both the Board of Directors of the FDIC and the Board of Governors of the Federal Reserve System (FRB). Once an SRE determination was made, the FDIC was authorized to act or assist as necessary to avoid the potential adverse effects of a major bank failure. 12 U.S.C. § 1823(c)(4)(G)(i) (2008).

creditors, and shareholders of failed banks. (Moral hazard arises when someone is willing to take greater risks in the belief that others will bear any negative consequences that may ensue.) As they considered invoking SREs in late 2008 and early 2009, the Treasury, the FDIC, the FRB, and other regulators debated a number of questions: whether to impose losses on bondholders, what supervisory strategies to use for firms that would receive assistance as a result of an SRE, and how the need for any additional SREs (if such a need arose) might affect public confidence in the regulatory system and the financial markets.

This chapter examines the SREs that the Treasury, the FDIC, and the FRB decided on for three individual institutions (Wachovia on September 29, 2008, Citigroup on November 23, 2008, and Bank of America on January 16, 2009²), in each case discussing the problems at the institution, the rationale for recommending an SRE, the structure of government assistance granted under the SRE, and the effects of the SRE.

Banking Industry Consolidation

Before the banking crisis that began in 2008, the largest bank to become insolvent had been Continental Illinois National Bank and Trust Company. In May 1984, when regulators intervened, Continental Illinois was the nation's seventh-largest bank. At the end of 1983, it had \$40.7 billion in assets.

By the end of 2007, the banking industry had consolidated considerably, and the largest banks had become much larger. In the fourth quarter of 1984, the four largest banks held 11.2 percent of total industry assets, whereas in the fourth quarter of 2007, the four largest banks held 39.5 percent of total industry assets; the largest bank in the fourth quarter of 1984 had \$142 billion in assets, while the largest bank in the fourth quarter of 2007 had \$1.7 trillion in assets.^a

The largest banks had also become much more complex. The 1999 Gramm-Leach-Bliley Act allowed banks, securities companies, and insurance companies to affiliate with each other, thereby increasing the interconnections and interdependencies among financial companies. Several of the largest U.S. banks had also increased their global presence (and many large foreign banks had a significant presence in the United States). For example, the four largest banks in 2007 had, in aggregate, more than three times the level of assets held in foreign offices than they had in 1998, and nearly one-third more foreign offices.

^a Assets of these banks include assets held by other banks under the same holding company.

² For Bank of America, an SRE was recommended on January 15, 2009, and an assistance package was announced on January 16, 2009. A formal systemic risk determination, however, was never made.

The Case of Wachovia

The financial turmoil created by the failures of Lehman Brothers and WaMu and fears for the financial system served as the backdrop for the decision by the FDIC, FRB, and the Secretary of the Treasury to invoke an SRE to allow the acquisition of Wachovia—the first ever use of an SRE. (For a timeline of major events related to the Wachovia SRE, see Figure 3.1.) The decision to invoke an SRE for Wachovia set a precedent for the government’s response to the heightening financial crisis.

Figure 3.1. Timeline of Wachovia Events

2008 July September October	July 22, 2008	(Tu) Wachovia announces an \$8.9 billion loss for the 2nd quarter of 2008.
	Sept. 25, 2008	(Th) Washington Mutual Bank fails and JPMorgan Chase acquires its deposits and assets. Two large counterparties refuse to lend to Wachovia overnight.
	Sept. 26, 2008	(F) “Wachovia Weekend” begins.
	Sept. 29, 2008	(M) Systemic risk exception (SRE) is recommended and approved for Citigroup to acquire Wachovia. Citigroup/Wachovia deal is announced.
	Sept. 30, 2008	(Tu) The IRS releases IRS Notice 2008-83, greatly easing the rules for writing off an acquired bank’s losses.
	Oct. 2, 2008	(Th) Wells Fargo reenters the bidding for Wachovia and proposes a new offer that includes a higher share price than Citigroup’s offer and requires no government assistance.
	Oct. 3, 2008	(F) Wells Fargo and Wachovia announce merger agreement.
	Oct. 4, 2008	(Sa) Citigroup pursues legal action against both Wells Fargo and Wachovia.
	Oct. 12, 2008	(Su) The FRB approves Wells Fargo’s acquisition of Wachovia Corporation.

Source: Adapted from the Federal Reserve Bank of St. Louis’s Financial Crisis Timeline.

Problems at Wachovia

Wachovia Corporation (Wachovia), a financial holding company, owned multiple depository subsidiaries and provided a wide range of investment banking, private banking, and asset management services, in part through two broker-dealers. At the end of June 2008, Wachovia was the fourth-largest banking organization in the United States (after Bank of America Corporation, JPMorgan Chase & Co., and Citigroup, Inc.) with slightly over \$800 billion

in holding company assets, of which over \$780 billion were in the company's depository institutions. (Table 3.1 lists the ten U.S. banking organizations with the largest amount of depository institution assets as of June 30, 2008.)

Table 3.1. Top Ten Banking Organizations by Depository Institution Asset Size, June 30, 2008

Name of Holding Company	Depository Institution Totals		
	Assets (\$ Billion)	Deposits (\$ Billion)	Domestic Deposits (\$ Billion)
Bank of America Corporation	1,670.21	882.90	701.49
JPMorgan Chase & Co.	1,454.17	834.16	497.22
Citigroup, Inc.	1,324.86	820.07	265.83
Wachovia Corporation	782.30	475.17	422.00
Wells Fargo & Company	558.45	361.27	293.41
Washington Mutual, Inc.	307.02	188.26	188.26
U.S. Bancorp	248.51	143.30	127.85
The Bank of New York Mellon Corporation	185.99	131.15	55.03
HSBC Holdings PLC	179.75	119.74	83.05
SunTrust Banks, Inc.	173.35	122.21	115.60

In early 2008, the FDIC downgraded its internal outlook rating (Large Insured Depository Institution, or LIDI, rating) for Wachovia Bank (a depository institution subsidiary of Wachovia),³ citing the bank's "mark-to-market valuation adjustments" (see chapter 1), "considerable volume of inventory that could not be readily sold" in its

³ The FDIC downgraded Wachovia's LIDI rating to "C Negative." A "C Negative" LIDI rating indicates that the FDIC considers an institution to have an elevated risk profile that is likely to deteriorate to a "3" CAMELS composite rating within 12 months. See *Systemically Important Institutions and the Issue of "Too Big to Fail," Before the Financial Crisis Inquiry Commission* (Public Hearing on Too Big to Fail: Expectations and Impact of Extraordinary Government Intervention and the Role of Systemic Risk in the Financial Crisis, September 1, 2010) (statement of John H. Corston, Acting Deputy Director, Complex Financial Institution Branch, Division of Supervision and Consumer Protection, FDIC), 3, <https://fcic-static.law.stanford.edu/cdn-media/fcic-testimony/2010-0901-Corston.pdf>. Bank supervisory ratings—CAMELS composite ratings—are on a scale of 1 to 5, with a 1-rating indicating greatest strength in performance and risk management and the lowest level of supervisory concern. At the other end of the scale, a 5-rating indicates the weakest performance, inadequate risk management, and the highest level of supervisory concern. The CAMELS composite rating is derived from an evaluation of the six CAMELS components: Capital adequacy, Asset quality, Management, Earnings, Liquidity, and Sensitivity to market risk. Although the CAMELS composite rating is generally a close reflection of the assigned component ratings, it is not an arithmetic average of the component ratings.

structured finance business, and “increasing required provisions for loan and lease losses.”⁴ The inventory included subprime mortgages, syndicated credits within collateralized loan obligations, and a large volume of commercial real estate (CRE) loans that were acquired or originated for inclusion in commercial mortgage-backed securitizations. In August 2008, after monitoring the bank closely for several months, the Office of the Comptroller of the Currency (OCC, Wachovia Bank’s primary federal regulator) downgraded the institution’s CAMELS rating to a composite “3.”⁵ On September 11, Wachovia requested an exemption from Federal Reserve rule 23A, which restricts most credit and sale transactions between an insured depository institution and its affiliates, to allow the holding company to meet its liquidity needs.⁶ This request was initially denied because Federal Reserve officials believed that Wachovia had a strong cash position, but after the Lehman bankruptcy (on September 15) and an increase in depositor outflows at Wachovia Bank, the request was granted on September 19.⁷ The exemption allowed Wachovia to use funding obtained by its insured depository institution affiliates to help support its liquidity needs.

Together, Wachovia’s subsidiary banks were the nation’s largest holders of payment-option adjustable rate mortgages (ARMs).⁸ (For a brief description of these mortgages, see the box titled “Types of Mortgage Products” in chapter 1.)⁹ On September 25, 2008, the nation’s second-largest holder of payment-option ARMs, Washington Mutual Bank (WaMu), failed, and the next day its holding company, Washington Mutual Inc., filed for Chapter 11 bankruptcy protection.¹⁰ WaMu’s failure was widely attributed to its holdings

⁴ *Systemically Important Institutions*, statement of Corston, 7.

⁵ Ibid.

⁶ See 12 U.S.C. § 371(c)(1) (2008).

⁷ Financial Crisis Inquiry Commission (FCIC), *The Financial Crisis Inquiry Report* (2011), 366, http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_full.pdf.

⁸ Wachovia’s exposure to payment-option ARMs arose primarily from its acquisition of World Savings Bank FSB and World Savings Bank Texas FSB, which together held roughly \$65 billion in payment-option ARMs concentrated in California and Florida (FDIC, “Memorandum to the FDIC Board of Directors Regarding Wachovia Corporation,” September 29, 2008, http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-09-29_Memo_to_the_FDIC_Board_of_Directors.pdf).

⁹ In sum, payment-option ARMs allow borrowers to set their own payment terms on a monthly basis. The borrower can, for example, make a minimum payment lower than the amount needed to cover interest; pay only interest, deferring payment of principal; or make payments calculated to have the loan amortize in 15 or 30 years. In addition, payment-option ARMs have an interest rate and payment that change periodically over the life of the loan based on changes in a specific index (with a typically low initial teaser rate that increases after a short period).

¹⁰ With approximately \$307 billion in assets at failure, WaMu was the largest depository institution failure in the FDIC’s history. FDIC, “Failures and Assistance Transactions—Historical Statistics on Banking,” <https://www5.fdic.gov/hsob/SelectRpt.asp?EntryTyp=30>. Assets at failure are based on assets reported in the institution’s last report of income and condition (Call Report) before failure.

of payment-option ARMs, and its failure added to existing concerns among Wachovia's depositors and creditors, since Wachovia also held large amounts of these assets.¹¹

Wachovia's financial condition was deteriorating rapidly, largely because of losses in its portfolio of payment-option ARMs, a troubled CRE loan portfolio, and its weakened liquidity position.¹² On the evening of Thursday, September 25, two regular Wachovia counterparties refused to lend overnight to the firm.¹³ On Friday, September 26 (the day after WaMu failed), Wachovia's stock price fell sharply, and spreads on credit default swaps on its debt widened markedly, suggesting that the market perceived a significant increase in the risk of Wachovia's defaulting on its debt. During the day on Friday, the bank's liquidity very quickly deteriorated. Depositors accelerated withdrawals at Wachovia Bank, and deposit outflows reached about \$5.7 billion (1.4 percent of the bank's domestic deposits as of June 30, 2008). In addition, \$1.1 billion in Wachovia Corporation's asset-backed commercial paper and repurchase agreements could not be rolled over, and other signs of a severe liquidity crisis became obvious.¹⁴ By the end of the day on September 26, Wachovia informed the OCC that, in the absence of a rescue agreement, Wachovia would be unable to obtain the funds needed to pay creditor claims that would come due the morning of Monday, September 29. Wachovia also identified Citigroup and Wells Fargo as potential buyers.¹⁵

In addition to specific concerns about Wachovia itself, the banking agencies and Treasury were concerned about the effects that a Wachovia failure could have on the financial markets and on investors' confidence in the stock market.

The Decision to Invoke a Systemic Risk Exception

Discussions about a potential acquisition of Wachovia began in earnest on the morning of Saturday, September 27. As of that morning, Citigroup was proposing an acquisition that would require government assistance, and Wells Fargo was considering an acquisition without government assistance.¹⁶ An acquisition requiring FDIC assistance would require an SRE. (By statute, an SRE was required because FDIC assistance would benefit Wachovia Bank's shareholders.) On Sunday morning, however, Wells Fargo rescinded its preliminary offer—which required no government assistance—in favor of a new offer that *would* require government assistance. Wells Fargo's change of position meant that both of the options for a Wachovia acquisition would require an SRE.¹⁷

¹¹ FCIC, *Report*, 366.

¹² FDIC, "Memorandum Regarding Wachovia," 3.

¹³ *Systemically Important Institutions*, statement of Corston, 8.

¹⁴ *Ibid.*, 9.

¹⁵ *Systemically Important Institutions*, statement of Corston, 9; and FDIC, "Memorandum Regarding Wachovia," 8.

¹⁶ FCIC, *Report*, 366.

¹⁷ *Ibid.*, 368.

The Wells Fargo bid required the FDIC to share potential losses on a pool of up to \$127.3 billion in assets, with Wells Fargo assuming the first \$2 billion in losses and remaining losses shared 80 percent by the FDIC and 20 percent by Wells Fargo, with the FDIC's losses capped at \$20 billion. The FDIC estimated that Wells Fargo's bid would cost the DIF between \$5.6 and \$7.2 billion. The Citigroup bid requested that the FDIC share losses on a pool of up to \$312 billion, with Citigroup absorbing the first \$30 billion in losses. In addition to the \$30 billion first-loss position, Citigroup would absorb \$4 billion in losses per year for the first three years (for a total of \$42 billion in losses), and the FDIC would absorb any additional losses. The FDIC estimated that even under the most severe scenario, Citigroup's first-loss position would likely result in no cost to the DIF. Wachovia itself submitted a third proposal—which would also require federal assistance and an SRE—that was intended to help Wachovia's insured depository institution subsidiaries remain open and avoid FDIC receivership.¹⁸ Wachovia's proposal required credit protection from the FDIC for a pool of \$200 billion of loans, with Wachovia covering the first \$25 billion in losses. The FDIC determined that the Citigroup bid represented the least costly alternative for resolving Wachovia.¹⁹

Several considerations led the FRB and the FDIC to recommend an SRE, which had never before been used. Wachovia was large, complex, and deeply interconnected with other financial institutions and markets. It held multiple bank charters and operated significant businesses outside its insured banks, including several retail securities brokerages. Many large financial firms had substantial counterparty exposure to Wachovia, and Wachovia provided back-up liquidity support to many traded instruments.²⁰ Wachovia was also a major participant in the full range of domestic and international clearing and settlement systems.²¹

Under a standard “least cost” resolution, the FDIC would be responsible for resolving the banking subsidiary, but the holding company and other subsidiaries would be resolved under bankruptcy law. In that scenario, shareholders would likely be wiped out and creditors, including commercial paper holders, foreign depositors, subordinated debt holders, and possibly senior note holders, would suffer significant losses,²² in some cases leading directly to losses at other financial institutions. Losses on Wachovia commercial paper held by money market mutual funds, many of which had recently experienced runs and one of which had “broken the buck,” could have led “more money market funds to ‘break the

¹⁸ A receivership is the legal procedure for winding down the affairs of an insolvent bank.

¹⁹ FDIC, “Memorandum Regarding Wachovia,” 8.

²⁰ *Systemically Important Institutions*, statement of Corston, 9.

²¹ U.S. Government Accountability Office (GAO), *Federal Deposit Insurance Act: Regulators’ Use of Systemic Risk Exception Raises Moral Hazard Concerns and Opportunities Exist to Clarify the Provision*, GAO-10-100 (2010), 14, <http://www.gao.gov/products/GAO-10-100>.

²² FDIC, “Memorandum Regarding Wachovia,” 11.

buck,’ accelerating runs on those and other money funds.”²³ The sudden failure of Wachovia could “lead investors to reassess the risk in U.S. commercial banks more broadly.”²⁴ Losses imposed on general creditors and foreign depositors would, the decisionmakers believed, likely be a major shock to many foreign households and businesses and thus indirectly “could imperil this significant source of funding for other U.S. financial institutions.” Further loss of confidence resulting from imposing losses on creditors “might well lead short-term funding markets to virtually cease.” The offers from Citigroup and Wells Fargo, however, both called for assistance that would not impose losses on Wachovia shareholders or creditors.

In the view of the FRB, the FDIC, and the Treasury, the benefits of an SRE outweighed the possible disadvantages. Given the precarious state of the financial markets, the decisionmakers agreed that the losses and indirect effects from a least-cost resolution would have significant adverse effects on economic conditions and the financial markets, worsening the already unstable overall financial environment and disrupting a large proportion of U.S. households and businesses.²⁵ The FRB, the FDIC, and the Treasury also believed that the supply of credit to households and businesses would shrink substantially and that confidence in the current and future states of the U.S. financial system and economy would deteriorate further.

Finally, an SRE was a prerequisite to arranging a successful acquisition of Wachovia, since both of Wachovia’s potential acquirers, Citigroup and Wells Fargo, told federal regulators that they would need federal assistance to acquire Wachovia.

One disadvantage was a possible weakening of overall market discipline if investors were bailed out. Although decisionmakers wanted to know more about the specific debtholders who would benefit from government assistance and how much effect any assistance might have, they lacked this information and could not get it during the short period before they had to decide whether to invoke an SRE.

²³ Ibid., 10. In the event of the insolvency of the issuer of a security, a money market fund must dispose of the issuer’s security as soon as practicable (17 CFR § 270.2a-7(f)). Prime money market mutual fund assets had declined roughly \$350 billion over the two weeks before the Wachovia discussions (Investment Company Institute via Bloomberg). Further, on September 16, the day after Lehman Brothers filed for bankruptcy, the net asset value of the Reserve Primary Fund fell below \$1, or “broke the buck,” because the fund was forced to sell its holdings of Lehman Brothers’ securities. Three days after the Reserve Primary Fund broke the buck, the Treasury announced the Temporary Guarantee Program for Money Market Funds, which was funded by the Exchange Stabilization Fund. For more information related to money market funds and their reliance on commercial paper during the crisis, see Marcin Kacperczyk and Philipp Schnabl, “When Safe Proved Risky: Commercial Paper during the Financial Crisis of 2007–2009,” *Journal of Economic Perspectives* 24, no. 1 (Winter 2010), http://pages.stern.nyu.edu/~sternfin/mkacperc/public_html/commercial.pdf.

²⁴ This and the remaining two quotations in this paragraph are from FDIC, “Memorandum Regarding Wachovia.”

²⁵ FDIC, Transcript, FDIC Closed Board Meeting, September 29, 2008, http://fcic-static.law.stanford.edu/cdn-media/fcic-docs/2008-09-29_FDIC_Board_of_Directors_Meeting_Closed_Session.pdf.

A second disadvantage was the disparate treatment of different size banks that would result. As the crisis had accelerated in 2008, the FDIC had closed nearly a dozen small banks, but regulators would now be keeping a much bigger bank open. Furthermore, the costs, if any, of an exception to the least-cost resolution requirement would eventually be borne by the entire banking industry, including small banks.

Recognizing the risk that a least-cost resolution could amplify the systemic financial crisis that was then underway, the FDIC and other policymakers concluded it was necessary to invoke the SRE and provide assistance that would benefit debt holders and shareholders in addition to insured depositors. On September 29, the FDIC Board and the FRB recommended invoking the SRE for the first time since it was created under FDICIA. After consultation with the President, the Secretary of the Treasury concurred with this recommendation, and financial assistance under the SRE was approved. The FDIC Board, estimating that the Citigroup proposal would result in no loss to the DIF, chose the bid that represented the least costly of the available methods of avoiding the serious adverse systemic effects that would have resulted from Wachovia's failure.

Actions Taken under the Exception

On Monday, September 29, 2008, the FDIC announced that Citigroup would acquire Wachovia's banking operations in an open-bank transaction assisted by the FDIC. All depositors (insured and uninsured) at Wachovia's subsidiary banks would be fully protected, but the FDIC did not expect to suffer any loss, although this expectation was obviously subject to substantial uncertainty. Citigroup would acquire the bulk of Wachovia's assets and liabilities, including its depository institutions, and would assume the senior and subordinated debt of the holding company. Wachovia's holding company would continue to own three investment banking subsidiaries.

The FDIC would agree to share future losses on a pre-identified pool of \$312 billion in loans: Citigroup would agree to absorb up to \$42 billion of future losses on the pool (a \$30 billion first-loss position, and an additional \$4 billion in losses per year for the first three years) and, if losses exceeded this amount, the FDIC would absorb the additional losses. To compensate the FDIC for its risk of loss, Citigroup would give the FDIC \$12 billion in preferred stock and warrants. Although the FDIC projected that the transaction would not result in losses to the FDIC, any losses that did occur would be paid by the FDIC but financed through a line of credit from the Treasury, to be repaid later by the banking industry.

Severe time constraints combined with the difficulty of the negotiations prevented Wachovia and Citigroup from signing a final purchase agreement, but they did sign a short exclusivity agreement. The lack of a formal purchase agreement, in combination with other events, helped open the door for Wells Fargo to reenter the bidding for Wachovia. One of

these other events was a ruling by the Treasury (IRS Notice 2008-83, repealed in 2009) on Tuesday, September 30, that limited the tax consequences of the acquisition.²⁶

Wells Fargo reentered the bidding on the evening of Thursday, October 2, with an offer to acquire all of Wachovia's operations; the new bid did not require any FDIC assistance and offered shareholders a higher price than the Citigroup proposal. Wells Fargo offered to pay an estimated \$7 per share, seven times Citigroup's bid of \$1 per share.²⁷ Before the end of that day, Wachovia's board had approved a merger with Wells Fargo.²⁸ Early the next day, on Friday, October 3, the two banks publicly announced their merger.

The Wells Fargo offer reduced direct risk to the FDIC and probably also helped to reduce market uncertainty that could have been created by the Citigroup agreement, which would have left key "nonbank" parts of Wachovia (the investment banking subsidiaries) in a separate organization (under the Wachovia holding company). The Wells Fargo offer was also a better deal for Wachovia's stockholders.²⁹

On October 12 the FRB announced its approval of the acquisition of the whole of Wachovia by Wells Fargo. On January 1, 2009, Wells Fargo announced that the merger had become effective the previous day, December 31, 2008.

Effects of Invoking the Exception

The successful acquisition of Wachovia negated any need for FDIC assistance, and no assistance was provided under the SRE. As a result of the Wells Fargo acquisition, Wachovia was able both to fund itself and to continue normal operations, and the projected adverse effects of a least-cost resolution of Wachovia were averted. Nevertheless, invoking the SRE set an important precedent by signaling to financial markets that the government was willing to take action to avert systemic problems in the banking industry.

²⁶ "The Treasury's inspector general, who later conducted an investigation into the circumstances of the notice's issuance, reported that the purpose of the notice was to encourage strong banks to acquire weak banks by removing limitations on the use of tax losses." Rich Delmar (Treasury Office of the Inspector General), interview by FCIC, August 25, 2010, <https://fcic.law.stanford.edu/interviews/view/51>; and Rich Delmar, "Memorandum for Inspector General Eric M. Thorson, Inquiry Regarding IRS Notice 2008-83," September 3, 2009, 3, 5, 11–12, <https://www.treasury.gov/about/organizational-structure/ig/Documents/Inquiry%20Regarding%20IRS%20Notice%202008-83.pdf>. Further, the inquiry found "no basis to charge that the timing of the Notice's development, review, and promulgation was driven by a request or plan to affect or assist any particular corporate transaction," 8.

²⁷ FCIC, *Report*, 370.

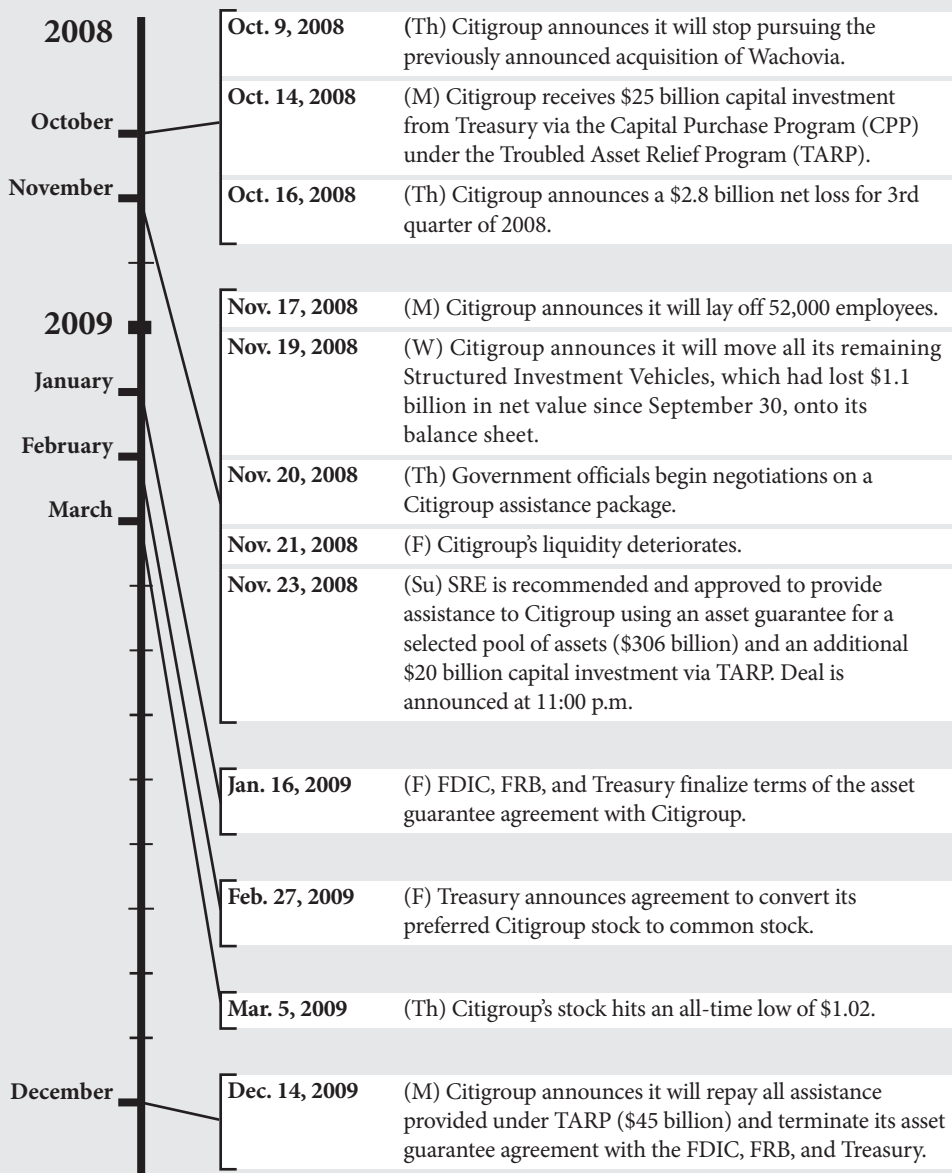
²⁸ *Ibid.*

²⁹ Citigroup initiated legal action against both Wells Fargo and Wachovia on October 4, the day after the announcement. The legal action sought, in part, a restraining order against the merger and punitive damages. See *The Acquisition of Wachovia Corporation by Wells Fargo & Company, Before the Financial Crisis Inquiry Commission* (Public Hearing on Too Big to Fail: Expectations and Impact of Extraordinary Government Intervention and the Role of Systemic Risk in the Financial Crisis, September 1, 2010) (statement of Scott G. Alvarez, General Counsel, Board of Governors of the Federal Reserve System), 8, <https://www.federalreserve.gov/newsevents/testimony/alvarez20100901a.pdf>. On October 9, Citigroup agreed to let the Wachovia/Wells Fargo merger proceed without hindrance and announced that its continuing claims would be limited to seeking compensatory damages.

The Case of Citigroup

The decision to invoke an SRE for Citigroup, whose insured banks were substantially larger than Wachovia's banks, was, in the end, unavoidable. Citigroup's failure would have had serious systemic consequences. (For a timeline of major events related to the Citigroup SRE, see Figure 3.2.)

Figure 3.2. Timeline of Citigroup Events



Source: Adapted from the Federal Reserve Bank of St. Louis's Financial Crisis Timeline.

Problems at Citigroup

Citigroup, Inc. (Citigroup) was one of the largest financial institutions in the world. As of September 30, 2008, Citigroup had total consolidated assets of just over \$2 trillion, with approximately \$1.2 trillion in assets in its lead bank subsidiary, Citibank, N.A. (Citibank). Citigroup owned a total of five insured legal entities and three principal nonbank subsidiaries, and, with operations in over 100 countries, had an extensive international presence.³⁰ The company had “significant amounts of commercial paper and long-term senior and subordinated debt outstanding and was a major participant in numerous domestic and international payment, clearing, and central counterparty arrangements,” as well as a major player in derivatives markets.³¹ Citigroup’s vulnerability lay in its exposure to credit and market losses coupled with its dependence on international operations for funding (including \$554 billion in foreign deposits).³²

In February 2008, in light of the substantial losses Citigroup realized in the third and fourth quarters of 2007, the OCC (Citibank’s primary federal regulator) conducted examinations to review risk management and governance at Citibank. The OCC found that management had incurred “what proved to be untenable risks for the sake of profitability.”³³ The supervisory letter sent to Citibank included specific “Matters Requiring Attention” pertaining to deficiencies in the company’s risk management, governance, and control processes.³⁴ In April 2008, the Federal Reserve Bank of New York (FRBNY) downgraded its RFI/C rating of the parent bank holding company, Citigroup, from a 2 to a 3, reflecting its assessment that the firm’s weaknesses in risk management and financial condition ranged from fair to moderately severe.³⁵

³⁰ FDIC, “Memorandum to the FDIC Board of Directors Regarding Citigroup,” November 23, 2008, 5, http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-11-23%20FDIC%20Board%20of%20Directors%20Memo%20re%20Citi.pdf.

³¹ Special Inspector General for the Troubled Asset Relief Program (SIGTARP), “Extraordinary Financial Assistance Provided to Citigroup, Inc.,” Management Comments from FDIC, SIGTARP-11-002, January 13, 2011, 2, <https://www.sig tarp.gov/Audit%20Reports/Extraordinary%20Financial%20Assistance%20Provided%20to%20Citigroup.%20Inc.pdf>. Derivatives are financial contracts whose prices are derived from performance of an underlying asset, rate, index, or event.

³² FDIC, “Memorandum Regarding Citigroup.”

³³ Office of the Comptroller of the Currency, Supervisory Letter 2008-05 to Vikram Pandit, Chief Executive Officer of Citigroup, Inc., February 14, 2008, http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-02-14_OCC_Letter_from_John_C_Lyons_to_Vikram_Pandit_Serious_Problems_at_Citibank.pdf.

³⁴ Ibid. Matters Requiring Attention (MRAs) are supervisory tools used by the OCC to formally communicate supervisory concerns. MRAs “must receive timely and effective corrective action by bank management and follow-up by examiners.” For updated guidance on the MRA process, see *OCC Bulletin* 2014-52, “Matters Requiring Attention: Updated Guidance,” October 30, 2014, <http://www.occ.gov/news-issuances/bulletins/2014/bulletin-2014-52.html>.

³⁵ Federal Reserve Bank of New York, “Report of Inspection to Board of Directors, Citigroup, Inc.,” April 15, 2008, http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-04-15_FRBNY_Letter_from_John_I

The events of September 2008 roiled financial markets and the entire banking sector, including Citigroup. The Chicago Board Options Exchange's Market Volatility Index, or VIX, reached a historic high on September 29, indicating a sharp rise in market uncertainty.³⁶ Similarly, another common measure of market instability, the "TED Spread" (which measures credit risk as the spread between three-month LIBOR and three-month Treasury bill rates) reached 315 basis points on September 30, the highest level ever reached until then. (Eleven days later, on October 10, it reached its all-time high of 458 basis points.)³⁷

In October 2008, in the midst of this turmoil, Citigroup's troubles intensified. On October 9 the company announced it would stop pursuing the previously announced acquisition of Wachovia.³⁸ Five days later, on October 14, the Treasury announced the establishment of the Capital Purchase Program (CPP) through the Troubled Asset Relief Program (TARP).³⁹ Treasury stated in the announcement that Citigroup would receive a \$25 billion capital investment from the Treasury under the new program. (Eight other large institutions would also receive capital investments.) On October 16, Citigroup reported a net loss of \$2.8 billion for the third quarter of 2008.⁴⁰ The loss was largely attributed to subprime and Alt-A mortgages (see box titled "Types of Mortgage Products" in chapter 1),⁴¹ commercial real estate (CRE) investments, and write-downs of Structured Investment Vehicle (SIV) assets⁴² (see the section titled "Mortgage Securitization" in

[Ruocco to Board of Directors of Citigroup Re Annual report of inspection.pdf](#). The Federal Reserve System assigns supervisory ratings, called "RFI/C ratings," to the bank holding companies it supervises. The ratings acronym stands for Risk management, Financial condition, potential negative Impact of the parent company and nondepository subsidiaries on bank and thrift subsidiaries, and Composite, or the overall rating. Ratings range from 1 (the best) to 5 (the worst). See Federal Reserve Bank of St. Louis, "Federal Reserve Introduces New BHC Rating System," *Central Banker* (Spring 2005), <https://www.stlouisfed.org/Publications/Central-Banker/Spring-2005/Federal-Reserve-Introduces-New-BHC-Rating-System>.

³⁶ The Chicago Board Options Exchange defines the VIX Index as "a key measure of market expectations of near-term volatility conveyed by S&P 500 stock index option prices." VIX is a commonly referenced measure of market volatility and reached its all-time high of 80.86 on November 20, 2008.

³⁷ LIBOR stands for the London interbank offered rate; this rate is set daily and is the interest rate at which banks offer to lend funds to one another in the international interbank market.

³⁸ Citigroup, Inc., "Citi Ends Negotiation with Wells Fargo on Wachovia Transaction," Press Release, October 9, 2008, <http://www.citigroup.com/citi/news/2008/081009g.htm>.

³⁹ U.S. Department of the Treasury, "Treasury Announces TARP Capital Purchase Program Description," Press Release, October 14, 2008, <https://www.treasury.gov/press-center/press-releases/Pages/hp1207.aspx>.

⁴⁰ Citigroup, Inc., Third Quarter 2008 Earnings Review Presentation, October 16, 2008, <http://www.citigroup.com/citi/investor/data/p081016a.pdf?ieNocache=975>.

⁴¹ Alt-A mortgages are made to borrowers with credit ranging from very good to marginal, but they are made under expanded underwriting guidelines that make these loans higher risk and also higher interest.

⁴² SIVs were highly leveraged entities held by banking companies but which, as separate legal entities, were off the banks' balance sheets and were therefore not subject to regulatory capital requirements, even if a SIV's parent holding company was under federal supervision. SIVs were designed to generate cash flows by

chapter 1). Despite Citigroup's receipt of substantial government support through broad-based Treasury, Federal Reserve, and FDIC programs available to financial institutions in September and October,⁴³ the company's stock price continued to decline through mid-November, hitting single digits for the first time since 1996. On November 17, the company announced it would lay off 52,000 employees (in addition to a previously announced layoff of 23,000 employees).⁴⁴ Two days later, Citigroup announced that it would move all its remaining SIVs, which had lost \$1.1 billion in net value from September 30 to November 19, onto its balance sheet, reducing the value of Citigroup's assets.⁴⁵ By the next day, Citigroup's stock had fallen 73 percent just since the beginning of the month. In addition, the VIX index reached a new all-time high, signaling that financial markets were extremely uncertain.

Major lenders were questioning management about the firm's viability, and some even began to cap or reduce lines of credit and ask for additional collateral from Citibank. Regulators saw increasing signs pointing to a run on Citibank, as corporations were beginning to withdraw significant sums, especially in the United States and Europe. Citigroup's liquidity portfolio had decreased from \$33.1 billion on Thursday, November 20, to \$31.4 billion on Friday, November 21.⁴⁶ Citigroup requested expanded lines of credit at existing government liquidity facilities, but regulators did not think any additional liquidity they could provide would be sufficient to enable Citibank to withstand extensive deposit runoff. They also did not think the company had enough high-quality collateral to be able to borrow more under the Federal Reserve's mostly collateral-based liquidity programs.⁴⁷

issuing short- to medium-term debt—including asset-backed commercial paper—at a low interest rate to raise funds that the institution could invest in longer-term assets, such as mortgage-backed securities.

⁴³ Citigroup had received \$25 billion in capital under TARP and was relying on a number of other liquidity programs: as of November 21, Citigroup had \$24.3 billion outstanding under the Federal Reserve's collateralized liquidity programs and \$200 million under its Commercial Paper Funding Facility. Citigroup had also borrowed \$84 billion from the Federal Home Loan Banks (FHLBs), which are government-sponsored enterprises that lend to banks and thrifts on a secured basis. When the securitization market froze, FHLBs increased their lending substantially, becoming "the lender of next to last resort for commercial banks and thrifts—the Fed being the last resort." See FCIC, Report, 274, 381. Citigroup and its subsidiaries also issued \$38 billion in senior debt that was guaranteed by the FDIC under the Temporary Liquidity Guarantee Program. See FDIC, "TLGP Debt Guarantee Program: Issuer Reported Debt Details," https://www.fdic.gov/regulations/resources/tlgp/total_debt.html.

⁴⁴ Eric Dash, "Citigroup Plans to Sell Assets and Cut More Jobs," *New York Times*, November 17, 2008.

⁴⁵ Citigroup, Inc., "Citi Finalizes SIV Wind-Down by Agreeing to Purchase All Remaining Assets," Press Release, November 19, 2008, <http://www.citigroup.com/citi/news/2008/081119a.htm>.

⁴⁶ Mark D. Richardson, e-mail message to Doreen R. Eberley, Daniel E. Frye, et al., subject: "11-21-08 Citi Liquidity call notes," November 21, 2008, http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-11-21%20FDIC%20Richardson%20Email%20re%2011-21-08%20Citi%20Liquidity%20Call%20Notes.pdf.

⁴⁷ FDIC, "Memorandum Regarding Citigroup," 6.

On Friday, November 21, the spreads on credit default swaps written on the company more than doubled. Management at Citibank told regulators that a 7.2 percent deposit runoff would exhaust its cash surplus, and they had prepared stress scenario estimates that showed deposit runoff of approximately 2 percent of total deposits per day.⁴⁸ Regulators projected that if deposit outflows continued, Citibank would be unable to pay its obligations or meet expected deposit outflows by the middle or the latter part of the following week (the week beginning November 24).

The Decision to Invoke the Systemic Risk Exception

By Thursday, November 20, the banking agencies and the Treasury had begun discussing additional assistance in light of both Citigroup's deteriorating condition and the market's negative response to Citigroup's SIV announcement the previous day. Staff from the agencies shared the information they had and worked closely to review available options, but the agencies—and even the bank itself—had trouble producing detailed counterparty information on such short notice.⁴⁹

During the discussions, the Treasury and the banking agencies agreed that the potential failure of Citigroup presented a serious systemic risk, particularly in the wake of the failures of Lehman Brothers and WaMu, the acquisition of Merrill Lynch by Bank of America (discussed below), and Wells Fargo's acquisition of Wachovia. There was no viable acquirer for an institution with the size, complexity, and global operations of Citigroup. The other largest banks, Bank of America, JPMorgan Chase, and Wells Fargo, were not considered as potential acquirers because of their previous acquisitions of (and absorption of losses from) Merrill Lynch, Bear Stearns (in March 2008), and Wachovia, respectively. Further, given Citigroup's size, a merger with any of these three banks would result in an even larger, more systemically important bank. The FDIC Board of Directors held an emergency meeting on Sunday, November 23, to discuss and vote on an SRE recommendation.

As they considered whether to recommend an SRE for Citigroup, members of the FDIC Board weighed several issues, including asset quality, liquidity problems, and management weaknesses at Citigroup, the lack of potential buyers, and the potential effects on the financial system if Citibank were allowed to fail. Board members discussed whether any changes in Citigroup's supervisory ratings or its management should be required under a government assistance agreement and noted the potential need for future assistance for Citigroup or other systemically risky banks. In the end, the FDIC Board of Directors determined that any action taken by the FDIC under a least-cost resolution framework (that is, allowing Citigroup's insured institution subsidiaries to fail and imposing losses on general creditors) would have significant adverse effects on economic conditions and the financial markets because of Citigroup's size and its interconnectedness with other

⁴⁸ Ibid.

⁴⁹ SIGTARP, "Assistance to Citigroup," 14.

financial institutions. FDIC Board members noted that the case was “amply made that the systemic risk determination standard ha[d] been met” and that the potential failure of Citigroup was “obviously a systemic risk situation.”⁵⁰

On November 23, the FDIC Board and the FRB recommended that the Secretary of the Treasury invoke the SRE to allow the FDIC to provide the planned open-bank assistance for Citigroup. The Secretary of the Treasury, having consulted earlier with the President, concurred.

Actions Taken under the Exception

On Sunday, November 23, 2008, at 11 p.m., the Treasury, the FDIC, and the FRB announced an interagency assistance package for Citigroup.⁵¹ The package included a capital injection by the Treasury and loss protection on a pool of Citigroup’s assets by the Treasury, the FDIC, and the Federal Reserve Bank of New York (FRBNY).

To inject needed capital, the Treasury invested an additional \$20 billion in Citigroup in exchange for preferred stock under a new TARP program called the Targeted Investment Program (TIP).

An asset guarantee was provided to Citigroup by the Treasury (under another new TARP program called the Asset Guarantee Program [AGP]) and the FDIC (using the authority granted by the SRE).⁵² The guarantee provided Citigroup with protection against the possibility of unusually large losses on a pool of approximately \$306 billion of loans and securities backed by residential and CRE loans and other assets. Under the initial terms of the guarantee, Citigroup was to be solely responsible for the first \$37 billion in losses, which the government projected to be the expected loss for the assets under guarantee (See Table 3.2.)⁵³ Any additional losses beyond Citigroup’s \$37 billion first-loss position, up to another \$16.66 billion, would be shared between Citigroup and the government, with Citigroup responsible for 10 percent of the losses and the government covering 90 percent (thus increasing Citigroup’s responsibility for potential losses by an additional \$1.66 billion). The Treasury would be responsible for the first \$5 billion in the government’s share of losses, and the FDIC for the next \$10 billion in the government’s share of losses. Ninety percent of any further losses beyond \$53.66 billion (\$37 billion plus \$16.66 billion) would be financed through a nonrecourse loan from the FRBNY, with Citigroup covering the remaining 10 percent.

⁵⁰ FDIC, Transcript, FDIC Closed Board Meeting, November 23, 2008, http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-11-23%20Transcript%20of%20FDIC%20Board%20of%20Directors%20meeting.%20closed%20session.pdf.

⁵¹ U.S. Department of the Treasury, Federal Reserve Board, and Federal Deposit Insurance Corporation, “Joint Statement by Treasury, Federal Reserve, and the FDIC on Citigroup,” Press Release, November 23, 2008, <http://www.federalreserve.gov/newsevents/press/bcreg/20081123a.htm>.

⁵² TARP had more than one component, including the Capital Purchase Program (CPP) discussed above in the section titled “Problems at Citigroup.”

⁵³ SIGTARP, “Assistance to Citigroup,” 19.

Table 3.2. Citigroup Asset Guarantee Loss Positions

	First Loss Position	Second Loss Position		Additional Losses
Citigroup	\$37 billion	10%, up to \$0.55 billion	10%, up to \$1.11 billion	10%
Treasury		90%, up to \$5 billion		
FDIC			90%, up to \$10 billion	
FRBNY				90% (nonrecourse loan)
Subtotal	\$37 billion	\$5.55 billion	\$11.11 billion	
Total		\$53.66 billion		

As compensation for these guarantees, Citigroup issued approximately \$7.0 billion more in perpetual preferred stock paying an 8 percent annual dividend. Based on the relative loss positions and sizes of the guarantees of the two government entities, approximately \$4 billion in stock went to the Treasury and approximately \$3 billion to the FDIC.⁵⁴ In addition to the preferred stock, the Treasury received common stock warrants that represented an aggregate exercise value of 10 percent of the total preferred stock issued to the U.S. government in both the loss share and asset guarantee components of the assistance package (that is, 10 percent of the approximately \$27 billion in preferred stock issued, or \$2.7 billion).⁵⁵ If payments on the government guarantees exceeded the government's compensation, the FDIC would be statutorily mandated to impose a special assessment on the entire banking industry to recoup the cost.⁵⁶

In addition to the direct capital support given to Citigroup, the agreement explicitly stated that the assets in the guaranteed pool would be risk-weighted at 20 percent for the purpose of calculating regulatory capital requirements. This treatment effectively lowered Citigroup's capital requirement by \$16 billion. In addition, issuing preferred shares to the government in compensation for the guarantee meant that Citigroup's capital would increase by \$3.5 billion.⁵⁷

⁵⁴ U.S. Department of the Treasury, Federal Reserve Board, and Federal Deposit Insurance Corporation, "Summary of Terms: Eligible Asset Guarantee (Citigroup)," November 23, 2008, <https://www.fdic.gov/news/news/press/2008/pr08125a.pdf>.

⁵⁵ The warrants gave the Treasury the right to purchase 66,531,728 shares of common stock with a strike price of \$10.61 (the 20-day trailing average price of Citigroup common stock ending on November 21, 2008) and a ten-year maturity. The Treasury had the right to exercise the warrants immediately in whole or in part.

⁵⁶ 12 U.S.C. § 1823(c)(4)(G)(ii) (2008).

⁵⁷ FCIC, *Report*, 626, n.172.

The assistance agreement prohibited Citigroup from paying dividends on common stock in excess of a penny per share per quarter for three years without government consent. In addition, the agreement required Citigroup to submit to an executive compensation plan (including bonuses) that rewarded long-term performance and profitability.⁵⁸ Finally, Citigroup agreed to implement loan modification procedures for the residential mortgages in the asset pool.⁵⁹

Although the assistance agreement was announced on November 23, implementation took several weeks. As provided in the agreement, Citigroup did not actually receive the Treasury's \$20 billion investment until December 31, 2008. Even then, the parties still needed to negotiate and finalize a master agreement and agree on the exact assets to be included in the guaranteed pool. By the time the finalized master agreement was announced on January 16, 2009, the value of the guaranteed pool had been reduced to \$300.8 billion through asset exclusions and substitutions, and Citigroup's first-loss position was increased to \$39.5 billion, reflecting, among other things, additional reserves associated with the assets substituted into the pool. Ten more months passed before the asset pool was made final (on November 17, 2009).⁶⁰

Effects of Invoking the Exception

In the short run, the announcement on November 23, 2008, that the SRE would be invoked and government assistance would follow had the intended effect of stabilizing Citigroup and preventing its failure. Citigroup was able to continue operating, and the announcement encouraged the private sector to continue providing liquidity to the company.⁶¹ Regulators continued to monitor Citigroup's funding and liquidity, including deposit outflows and borrowings.

⁵⁸ Subsequently, similar executive compensation restrictions for all participants in the Capital Purchase Program (CPP) were passed as part of the American Recovery and Reinvestment Act of 2009 (in an amendment to the Emergency Economic Stabilization Act of 2008). See the American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 7001, 123 Stat. 115, 516-520.

⁵⁹ The loan modification procedures were "comparable to those that were being employed at IndyMac Federal Bank" (FDIC, Transcript, November 23, 2008). The loan modification program at IndyMac Federal Bank, launched in August 2008, was "designed to achieve affordable and sustainable mortgage payments for borrowers and increase the value of distressed mortgages by rehabilitating them into performing loans." The modifications would "maximize value" "as well as improve returns to the creditors ... and to investors in those mortgages," and would improve the "mortgage portfolio and servicing by modifying troubled mortgages, where appropriate, into performing mortgages" (FDIC, "FDIC Implements Loan Modification Program for Distressed IndyMac Mortgage Loans," Press Release 67-2008, August 20, 2008, <https://www.fdic.gov/news/news/press/2008/pr08067.html>).

⁶⁰ FDIC, 2008 Annual Report, 100 (2009), <https://www.fdic.gov/about/strategic/report/2008annualreport/arfinal.pdf>.

⁶¹ GAO, *Regulators' Use of Systemic Risk Exception*, 27.

On Monday, November 24, the day after the announcement, Citigroup's stock price rose by nearly 58 percent to close at \$5.95 (up from \$3.77 the previous Friday).⁶² Also on that Monday, in a reversal of the previous trend, the cost of insuring Citigroup's debt fell: its credit default swap spread narrowed by 100 basis points, declining from 460 basis points to 360 basis points. (In early 2009, however, market confidence in Citigroup again dropped,⁶³ and the company's stock price did not recover and stabilize until the spring of 2009, after the company had restructured the capital provided through government assistance.)⁶⁴

On September 11, 2009, Citigroup asked to terminate the asset guarantee agreement and repay the Treasury's \$20 billion TIP investment.⁶⁵ In assessing the request, the banking agencies and Treasury considered Citigroup's soundness (including the result of government mandated stress testing), capital adequacy, and ability to lend. After terms were negotiated, a termination agreement was reached on December 14.⁶⁶

⁶² For reference, in October 2008, Citi's closing stock price ranged from \$11.73 to \$23. The company's stock price would dip to its lowest of the crisis on March 5, 2009, when it closed at \$1.02.

⁶³ Market confidence dipped as the Bank of America assistance package was announced (January 16, 2009), resulting in general uncertainty in the market and uncertainty about Citigroup in particular, which was arguably weaker than Bank of America because Citi had required assistance first. Additionally, on January 16, 2009, Citigroup announced an \$8.29 billion net loss in its fourth quarter 2008 financial results. See Citigroup, Inc., "Citi Reports Fourth Quarter Net Loss of \$8.29 Billion, Loss per Share of \$1.72," Press Release, January 16, 2009, <http://www.citigroup.com/citi/news/2009/090116a.htm>.

⁶⁴ In February 2009, the Treasury agreed to exchange its \$25 billion in preferred stock obtained under the CPP for common stock at an exchange price of \$3.25 per share. This exchange was designed to strengthen Citigroup's tangible common equity ratio—a key capital ratio that gained increasing attention from both regulators and investors during and after the crisis as an indication of bank health. In July 2009, the Treasury and the FDIC exchanged preferred stock obtained under TIP and AGP for trust preferred securities (TruPS) to strengthen some of Citigroup's key capital ratios. See GAO, *Regulators' Use of Systemic Risk Exception*, 26; and SIGTARP, "Assistance to Citigroup," 31.

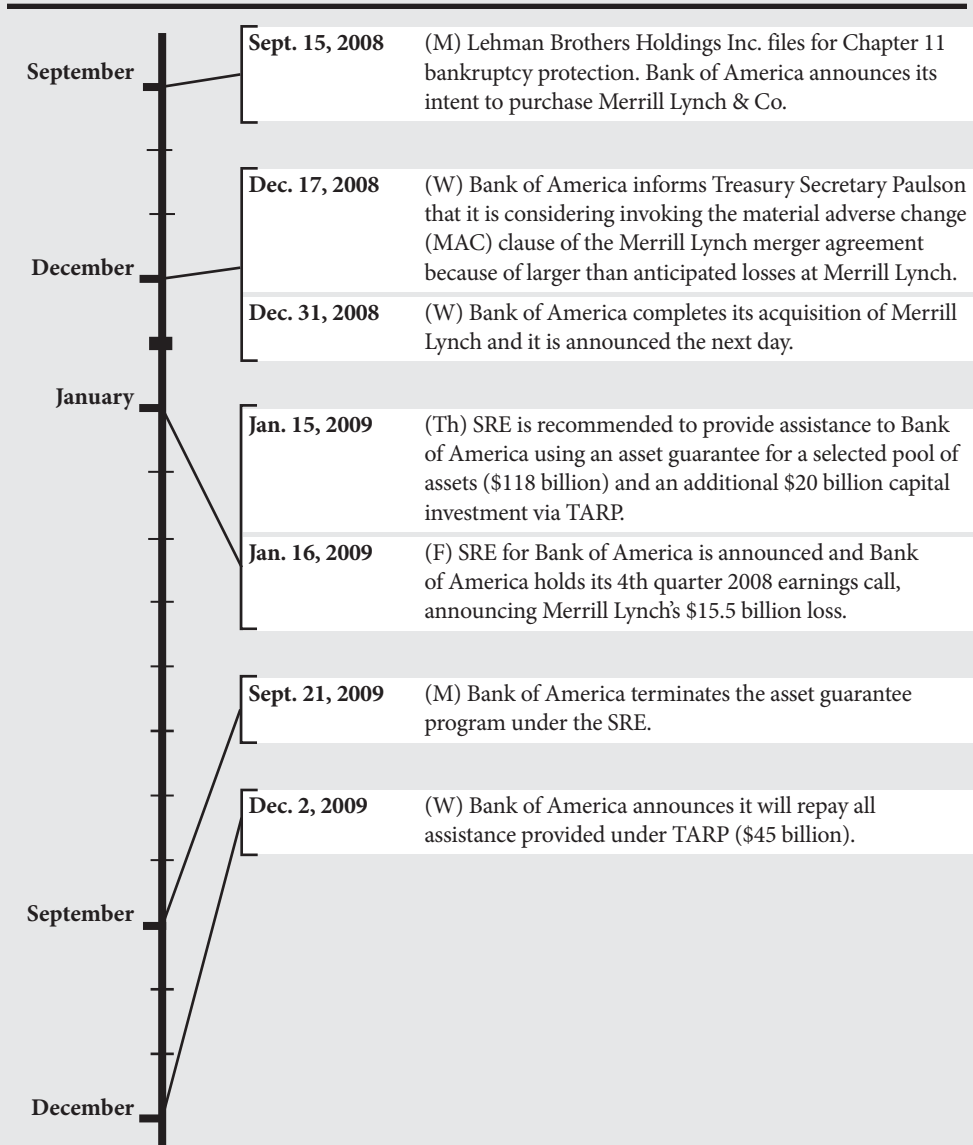
⁶⁵ A number of factors influenced the timing of Citigroup's decision to repay its TIP funds, including other large banks' repayment of TARP funds, Bank of America's repayment of its TIP funds, and restrictions on executive compensation. Five of the nine initial banks participating in the Capital Purchase Program under TARP had been allowed by their regulators to repay CPP investments in full on June 17, 2009. See SIGTARP, "Assistance to Citigroup," 33–35; SIGTARP, "Exiting TARP: Repayments by the Largest Financial Institutions," SIGTARP-11-005, September 29, 2011, 39, https://www.sig tarp.gov/Audit%20Reports/Exiting_TARP_Repayments_by_the_Largest_Financial_Institutions.pdf; and U.S. Treasury Department, Office of Financial Stability, "Troubled Asset Relief Program Transactions Report for Period Ending September 16, 2009," https://www.treasury.gov/initiatives/financial-stability/reports/Documents/transactions-report_09162009.pdf.

⁶⁶ Termination of the agreement left the FDIC with \$2.225 billion (at a liquidation value of \$1,000 per share) of TruPS. In 2013, the FDIC exchanged the TruPS for \$2.42 billion (principal amount) of Citigroup subordinated notes. The exchange resulted in an increase of \$156 million in the DIF's 2013 comprehensive income (after netting out unrealized gains of \$302 million). Subsequently, the FDIC sold the subordinated notes on the institutional fixed-income market for the principal amount of \$2.42 billion. For more detail, see FDIC, *2013 Annual Report*, <https://www.fdic.gov/about/strategic/report/2013annualreport/ar13final.pdf>.

The Case of Bank of America

As the result of Bank of America's announced acquisition of Merrill Lynch, regulators, as well as Bank of America, expected the company to announce larger than anticipated losses for the fourth quarter of 2008. A desire to forestall the potential systemic consequences led to a third SRE recommendation. (For a timeline of major events related to the Bank of America SRE, see Figure 3.3.)

Figure 3.3. Timeline of Bank of America Events



Source: Adapted from the Federal Reserve Bank of St. Louis's Financial Crisis Timeline.

Bank of America's Acquisition of Merrill Lynch

As of September 30, 2008, Bank of America Corporation (Bank of America, or BofA) owned eight insured banks and four significant non-insured subsidiaries. With \$1.4 trillion in total assets, Bank of America's largest bank subsidiary, Bank of America, N.A., was the second-largest bank in the United States. Bank of America, N.A., also held more than 10 percent of the country's total domestic deposits and was the largest holder of insured deposits.⁶⁷

But by the end of 2008, two prominent acquisitions were weighing heavily on the bank's financial performance: the acquisitions of Countrywide Financial and Merrill Lynch. In January 2008, BofA had announced its \$2.5 billion acquisition of subprime mortgage lender Countrywide Financial, a deal that would eventually cost the bank much more once the full extent of Countrywide's mortgage losses became evident.

On September 15, 2008, Bank of America had announced that it would acquire Merrill Lynch. After Lehman Brothers' failure (occurring the same day as the BofA announcement), Merrill Lynch was the weakest of the remaining major investment banks, posting net losses of \$11.8 billion in the first three quarters of 2008. The losses were due partly to losses on mortgage-related securities.⁶⁸ Just three months after the announcement (on December 17, 2008), however, BofA informed the Treasury that it was considering invoking the material adverse change (MAC) clause of the merger agreement because of larger than anticipated losses at Merrill Lynch.⁶⁹ The MAC clause would have allowed Bank of America to renegotiate the terms of the acquisition or cancel it altogether in light of Merrill Lynch's deteriorating condition. The Treasury and the FRB, Bank of America's regulator, were concerned that Bank of America would not be successful in attempting to invoke the MAC clause and that the financial markets would react poorly. They cautioned BofA against invoking the clause. Shortly thereafter, the FDIC was notified that some form of government assistance for BofA might be necessary, and the FDIC worked with the other banking agencies and the Treasury to determine what type of assistance might be required.

Ultimately, Bank of America concluded that there was a serious risk in invoking the MAC clause, and on December 31, 2008, the company completed the purchase of Merrill Lynch, absorbing significant losses as a result (\$15.5 billion in the fourth quarter of

⁶⁷ FDIC, "Memorandum to the FDIC Board of Directors Regarding Bank of America," January 15, 2009, 6, http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2009-01-15%20Memo%20to%20the%20FDIC%20board%20of%20directors%20from%20Mitchell%20Glassman,%20Sandra%20Thompson,%20Arthur%20Murton,%20and%20John%20Thomas%20re%20Bank%20of%20America.pdf.

⁶⁸ Federal Reserve Board, "Report Pursuant to Section 129 of the Emergency Economic Stabilization Act of 2008: Authorization to Provide Residual Financing to Bank of America Corporation Relating to a Designated Asset Pool," 2, January 15, 2009, <https://www.federalreserve.gov/monetarypolicy/files/129bofa.pdf>.

⁶⁹ FCIC, *Report*, 383.

2008).⁷⁰ On January 9, 2009, officials at the FRB and the Treasury approached the FDIC to discuss whether the FDIC would participate in providing government assistance beyond that provided in 2008 through broad-based Treasury, Federal Reserve, and FDIC programs.⁷¹ Bank of America's stock price had declined approximately 70 percent from year-end 2007 to year-end 2008, and the bank was preparing to announce fourth-quarter results below market expectations.

To determine whether assistance was necessary, the FDIC gathered information on Bank of America's losses and current exposures. These losses and exposures included subprime exposures at Merrill Lynch and poorly performing nontraditional mortgages and home equity loans in high-risk regions of the country at Countrywide Financial Corporation (which Bank of America had previously acquired).

The FDIC requested additional information on Bank of America's exposures to loss: were the exposures in the insured depository institutions and funded with insured deposits, or were they exposures stemming primarily from the nondepository investment bank?⁷² The source of the exposures would influence the structure of the assistance to be provided, with FDIC assistance dependent on the degree of exposure in Bank of America's insured depository institutions. As with the Citigroup transaction, staff from all the involved agencies worked quickly to determine the best available options for assistance.

The Decision to Recommend the Systemic Risk Exception

Following Bank of America's acquisition of Merrill Lynch, regulators were concerned about the holding company's potential short-term liquidity problems, particularly if its short-term wholesale funding was not rolled over upon maturity. Additionally, if the company's credit rating were to be downgraded, it would need to post additional collateral that it did not have. If Bank of America proved unable to meet its obligations, the markets for short-term interbank lending, bank senior and subordinated debt, and

⁷⁰ Bank of America Corporation, Earnings Conference Call Transcript on Q4 2008, January 16, 2009, <http://online.wsj.com/public/resources/documents/BACTranscript20090116.pdf>.

⁷¹ *Bank of America and Merrill Lynch: How Did a Private Deal Turn into a Federal Bailout? Part V, Before the U.S. House of Representatives Committee on Oversight and Government Reform and the Subcommittee on Domestic Policy*, 111th Cong. (December 11, 2009) (statement of Sheila Bair, Chairman, Federal Deposit Insurance Corporation), 2, <https://oversight.house.gov/wp-content/uploads/2012/01/20091211Bair.pdf>. Acquiring Merrill Lynch added \$10 billion in capital from TARP to the \$15 billion Bank of America had received in October 2008. Bank of America (including Merrill Lynch and Bank of America's other subsidiaries) relied heavily on a variety of available government assistance programs in 2008. Bank of America and Merrill Lynch borrowed \$88 billion under the Federal Reserve's collateralized programs and \$15 billion under the same agency's Commercial Paper Funding Facility. Bank of America borrowed \$92 billion from the Federal Home Loan Banks (which are discussed in footnote 44). See FCIC, Report, 385. Bank of America and its subsidiaries also issued \$71 billion in senior debt that was guaranteed by the FDIC under the Temporary Liquidity Guarantee Program (including guaranteed debt issued by Merrill Lynch before it was acquired by Bank of America). See FDIC, "TLGP Debt Guarantee Program: Issuer Reported Debt Details," https://www.fdic.gov/regulations/resources/tlgp/total_debt.html.

⁷² *Bank of America and Merrill Lynch*, statement of Bair, 3.

derivative products, among others, could be disrupted, increasing the likelihood of deposit runs at banks, larger repo haircuts (larger discounts on asset values when banks sold assets subject to repurchase agreements), increased margin requests (which would require banks to post additional collateral when they borrowed), and draws on unfunded loan commitments (which would be prompted by borrowers' fears that the lender would be unable to fulfill its lending obligations).⁷³ The banking agencies and Treasury believed that these consequences would be systemic because of Bank of America's size and the volume of its counterparty transactions. Moreover, given Bank of America's strong reputation, the banking agencies and Treasury feared that its failure could lead to a belief that wider problems existed in the banking industry⁷⁴ and could significantly undermine broader business and consumer confidence, thus weakening the overall economy.

In contrast to the timing in the case of the two previous SREs, the Treasury and banking agencies began discussing a potential assistance package in advance of market turmoil. With Wachovia and Citigroup, decisionmakers had had very little time to react to the companies' liquidity problems, but because Bank of America was scheduled to hold its earnings call on January 16, 2009, decisionmakers had a sense of when potential adverse market reactions might occur and had time to prepare a preemptive assistance package.

After discussing concerns related to Bank of America's liquidity position, supervisory ratings, and potential future losses,⁷⁵ and in light of the deepening economic recession and the risk of negative market reaction to Bank of America's imminent earnings report (as well as the risk of market concerns about the company's ultimate viability), on January 15, 2009, the Board of Governors of the Federal Reserve System and the FDIC Board of Directors recommended that the Secretary of the Treasury invoke the SRE and allow the FDIC to provide open-bank assistance. (As discussed below, the Secretary of the Treasury never made a formal SRE determination for Bank of America.)

Actions Taken under the Exception

On January 16, 2009, the Treasury and the banking agencies announced an interagency assistance package for Bank of America consisting of a capital injection by the Treasury and loss protection on a pool of BofA assets by the Treasury, the FDIC, and the FRBNY. The structure of the package was similar to the structure of the package offered to Citigroup. The Treasury injected \$20 billion in capital from TARP (under TIP) in exchange for preferred stock. In addition, the Treasury (under AGP), and the

⁷³ FDIC, "Memorandum Regarding Bank of America," 2, 8.

⁷⁴ Federal Reserve Board and Office of the Comptroller of the Currency, "Memorandum to FDIC on Bank of America Corporation Funding Vulnerabilities and Implications for Other Financial Market Participants," January 10, 2009, http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2009-01-11%20FDIC%20Cox%20Email%20to%20Corston.%20Hoyer%20-%20FW%20Funding%20Vulnerabilities%20Memo.pdf.

⁷⁵ FDIC, Transcript, FDIC Closed Board Meeting, January 15, 2009, http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2009-01-15%20FDIC%20Board%20Meeting%20Transcript.pdf.

FDIC (under the authority granted by the SRE) agreed to provide protection against the possibility of unusually large losses on a \$118 billion asset pool consisting of loans, securities backed by residential and CRE loans, and other assets. The asset pool had maximum potential future losses of up to \$81 billion.

For the pool of assets under the government guarantee, Bank of America would bear the first \$10 billion in losses (see Table 3.3). Losses beyond Bank of America’s \$10 billion first loss position, up to approximately \$11.1 billion more, would be shared between Bank of America and the government, with Bank of America taking 10 percent of losses and the government covering 90 percent (Bank of America’s responsibility for potential losses therefore increased by \$1.1 billion). The Treasury would cover the first \$7.5 billion of the government’s share of losses, while the FDIC would cover the next \$2.5 billion.⁷⁶ Ninety percent of any further losses (beyond \$21.1 billion—\$10 billion plus \$11.1 billion) would be financed through a nonrecourse loan from the FRBNY, with Bank of America taking the remaining 10 percent. Under the terms of the agreement, the FDIC’s portion of risk would be limited in recognition that most of the exposures lay within the investment banking entities (that is, the Merrill Lynch acquisition) and not Bank of America’s insured depository institutions. The term of the loss share guarantee would be ten years for residential assets (loans secured solely by 1- to 4-family residential real estate, securities predominantly collateralized by such loans, and derivatives that predominantly referenced such securities) and five years for nonresidential assets.⁷⁷

Table 3.3. Bank of America Asset Guarantee Loss Positions

First Loss Position		Second Loss Position		Additional Losses
Bank of America	\$10 billion	10%, up to \$0.83 billion	10%, up to \$0.27 billion	10%
Treasury		90%, up to \$7.5 billion		
FDIC			90%, up to \$2.5 billion	
FRBNY				90% (nonrecourse loan)
Subtotal	\$10 billion	\$8.33 billion	\$2.77 billion	
Total		\$21.1 billion		

⁷⁶ The Treasury’s share of the asset guarantee was covered under the Asset Guarantee Program, and the FDIC’s share was authorized under the SRE. See FCIC, *Report*, 385.

⁷⁷ U.S. Department of the Treasury, Federal Reserve Board, and Federal Deposit Insurance Corporation, “Summary of Terms: Eligible Asset Guarantee (Bank of America),” January 16, 2009, <https://www.federalreserve.gov/newsevents/press/bcreg/bcreg20090115a1.pdf>.

As compensation for these guarantees, the Treasury and the FDIC together would receive \$4 billion in preferred stock and warrants (\$3 billion to the Treasury and \$1 billion to the FDIC, consistent with their respective loss sharing percentages). In addition, Bank of America would be prohibited from paying dividends on common stock in excess of a penny per share per quarter for three years without government consent. As under the assistance agreement for Citigroup, Bank of America would also comply with enhanced restrictions on corporate governance and executive compensation (including bonuses) that rewarded long-term performance and profitability, and would implement a mortgage loan modification program on the assets under guarantee.

After the announcement of the assistance package on January 16, Bank of America, the FDIC, the FRB, and the Treasury began negotiating the specific terms of the asset guarantee portion of the package. However, in May, before the parties could finalize terms and before the Secretary of the Treasury formally approved an SRE, Bank of America asked to terminate the asset guarantee as part of its efforts to reduce its reliance on government support and return to normal market funding.⁷⁸ In September, Bank of America paid \$425 million to the government as compensation for the benefits it had received from the market's perception that the government would guarantee its assets.⁷⁹ Also in September, Bank of America asked to repay its TARP funding (including the capital provided under TIP), and in December, after negotiations with regulators, Bank of America repaid its TARP funding in full.

Effects of Recommending the Systemic Risk Exception

The government support package was announced in tandem with the announcement of Bank of America's fourth-quarter losses. Although the Secretary of the Treasury never formally approved an official systemic risk determination for Bank of America, the public announcement of planned assistance served as a de facto determination, signaling "regulators' willingness to provide such assistance and may have achieved to some degree the intended effect of increasing market confidence in Bank of America."⁸⁰

⁷⁸ Bank of America, "Bank of America Terminates Asset Guarantee Term Sheet," Press Release, September 21, 2009, http://investor.bankofamerica.com/phoenix.zhtml?c=71595&p=irol-newsArticle&ID=1333936#fbid=KdIAO_1PIBQ.

⁷⁹ The payments consisted of \$276 million to the Treasury, \$57 million to the Federal Reserve, and \$92 million to the FDIC. See "Bank of America Termination Agreement," September 21, 2009, <https://www.treasury.gov/initiatives/financial-stability/programs/investment-programs/agp/Documents/BofA%20-%20Termination%20Agreement%20-%20executed.pdf>.

⁸⁰ GAO, *Regulators' Use of Systemic Risk Exception*, 10.

Conclusion

After the announcements of the SREs, funding and liquidity stabilized (not only at the individual institutions supported by SREs, but also at other major financial institutions), and interbank lending continued (bolstered by the Temporary Liquidity Guarantee Program, which required its own SRE [see chapter 2]).

The severity of the financial crisis and resulting banking crisis, and the extraordinary government assistance that followed—which raised concerns about an increase in moral hazard and a reduction in market discipline—led to a number of financial reforms, including those contained in the Dodd-Frank Act.

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 seeks to reduce the likelihood that large bank holding companies and other systemically significant financial companies will fail in the future. For example, the act mandates enhanced risk-based capital and leverage standards for large banking organizations. To implement that mandate, banking regulators have adopted new, stronger standards for capital at the largest, most systemically important banking organizations. In light of the rapid liquidity problems observed at several banking organizations, banking regulators have also begun monitoring liquidity at these institutions more frequently and have adopted stricter liquidity standards for them.

But if a systemically important company were nevertheless to fail, Dodd-Frank seeks to reduce the adverse effects on financial stability that could result. The act requires the largest bank holding companies and systemically significant nonbank financial companies to prepare resolution plans, commonly referred to as “living wills.” These living wills must demonstrate that the company could be resolved under the Bankruptcy Code without severe adverse consequences for financial stability or the economy. The living wills also serve to reduce moral hazard by making clear to creditors their potential exposure to losses in the event of failure. In addition, the living wills help alleviate the persistent dearth of information about firms’ interconnections and interdependencies that vexed the Treasury and banking agencies as they were deciding whether to invoke SREs during the recent crisis.

Moreover, for financial companies whose resolution under bankruptcy procedures would pose serious risks to financial stability, Dodd-Frank created a back-up resolution mechanism, called the Orderly Liquidation Authority (or OLA). The OLA is intended to enable the FDIC to wind down and liquidate such a company, while ensuring that shareholders, creditors, and culpable management are held accountable and taxpayers do not bear losses.

Dodd-Frank significantly narrowed the scope of the SRE provision that had been created in FDICIA (see footnote 1 in this chapter, and the discussion of the SRE provision in chapter 2). The law now requires that, for the FDIC to use an SRE, an institution must first be placed into receivership, thus eliminating the possibility that an SRE can be used

to provide open-bank assistance.⁸¹ Furthermore, while the FDIC can still establish a debt guarantee program applicable to multiple banks (as it did with the Temporary Liquidity Guarantee Program), the FDIC's authority to establish such a program is now separate from the SRE authority, and using the authority requires the approval of Congress.⁸²

⁸¹ Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, Pub. L. No. 111-203, 124 Stat. 1376, § 1106(b), amending 12 U.S.C. § 1823(c)(4)(G) (2016).

⁸² *Ibid.*, § 1105(a), codified at 12 U.S.C. § 5612 (2016), and § 1106(a), codified at 12 U.S.C. § 5613(a) (2016).

Bibliography

The Acquisition of Wachovia Corporation by Wells Fargo & Company, Before the Financial Crisis Inquiry Commission (Public Hearing on Too Big to Fail: Expectations and Impact of Extraordinary Government Intervention and the Role of Systemic Risk in the Financial Crisis, September 1, 2010). (Statement of Scott G. Alvarez, General Counsel, Board of Governors of the Federal Reserve System.) <https://www.federalreserve.gov/newsevents/testimony/alvarez20100901a.htm>.

Bair, Sheila. *Bull by the Horns: Fighting to Save Main Street from Wall Street and Wall Street from Itself*. 2012.

Bank of America. “Bank of America Terminates Asset Guarantee Term Sheet.” Press Release. September 21, 2009. <http://investor.bankofamerica.com/phoenix.zhtml?c=71595&p=irol-newsArticle&ID=1333936#fbid=NEmIRgjbQDw>.

Bank of America Corporation. Earnings Conference Call Transcript on Q4 2008. January 16, 2009. <http://online.wsj.com/public/resources/documents/BACTranscript20090116.pdf>.

“Bank of America Termination Agreement.” September 21, 2009. <https://www.treasury.gov/initiatives/financial-stability/programs/investment-programs/agp/Documents/BofA%20-%20Termination%20Agreement%20-%20executed.pdf>.

Bank of America and Merrill Lynch: How Did a Private Deal Turn into a Federal Bailout? Part V, Before the U.S. House of Representatives Committee on Oversight and Government Reform and the Subcommittee on Domestic Policy. 111th Cong. (December 11, 2009). (Statement of Sheila Bair, Chairman, Federal Deposit Insurance Corporation.) <https://oversight.house.gov/wp-content/uploads/2012/01/20091211Bair.pdf>.

Citigroup, Inc. “Citi Ends Negotiation with Wells Fargo on Wachovia Transaction.” Press Release. October 9, 2008. <http://www.citigroup.com/citi/news/2008/081009g.htm>.

———. Third Quarter 2008 Earnings Review Presentation. October 16, 2008. <http://www.citigroup.com/citi/investor/data/p081016a.pdf?ieNocache=975>.

———. “Citi Finalizes SIV Wind-Down by Agreeing to Purchase All Remaining Assets.” Press Release. November 19, 2008. <http://www.citigroup.com/citi/news/2008/081119a.htm>.

———. “Citi Reports Fourth Quarter Net Loss of \$8.29 Billion, Loss per Share of \$1.72.” Press Release. January 16, 2009. <http://www.citigroup.com/citi/news/2009/090116a.htm>.

Dash, Eric. “Citigroup Plans to Sell Assets and Cut More Jobs.” *New York Times*. November 17, 2008.

Delmar, Rich (Treasury Office of the Inspector General). “Memorandum for Inspector General Eric M. Thorson: Inquiry Regarding IRS Notice 2008-83.” September 3, 2009. <https://www.treasury.gov/about/organizational-structure/ig/Documents/Inquiry%20Regarding%20IRS%20Notice%202008-83.pdf>.

———. Interview by Financial Crisis Inquiry Commission. August 25, 2010. <https://fcic.law.stanford.edu/interviews/view/51>.

Federal Deposit Insurance Corporation (FDIC). *History of the Eighties: Lessons for the Future*. Vol. 1, *An Examination of the Banking Crises of the 1980s and Early 1990s*, chapter 7. 1997. https://www.fdic.gov/bank/historical/history/235_258.pdf.

———. “FDIC Implements Loan Modification Program for Distressed IndyMac Mortgage Loans.” Press Release 67-2008. August 20, 2008. <https://www.fdic.gov/news/news/press/2008/pr08067.html>.

———. “Memorandum to the FDIC Board of Directors Regarding Wachovia Corporation.” September 29, 2008. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-09-29_Memo_to_the_FDIC_Board_of_Directors.pdf.

———. Transcript, FDIC Closed Board Meeting, September 29, 2008. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-09-29_FDIC_Board_of_Directors_Meeting_Closed_Session.pdf.

———. “Memorandum to the FDIC Board of Directors Regarding Citigroup.” November 23, 2008. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-11-23%20FDIC%20Board%20of%20Directors%20Memo%20re%20Citi.pdf.

———. Transcript, FDIC Closed Board Meeting. November 23, 2008. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-11-23%20Transcript%20of%20FDIC%20Board%20of%20Directors%20meeting,%20closed%20session.pdf.

———. “Memorandum to the FDIC Board of Directors Regarding Bank of America.” January 15, 2009. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2009-01-15%20Memo%20to%20the%20FDIC%20board%20of%20directors%20from%20Mitchell%20Glassman,%20Sandra%20Thompson,%20Arthur%20Murton,%20and%20John%20Thomas%20re%20Bank%20of%20America.pdf.

———. Transcript, FDIC Closed Board Meeting, January 15, 2009. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2009-01-15%20FDIC%20Board%20Meeting%20Transcript.pdf.

———. *2008 Annual Report*. 2009. <https://www.fdic.gov/about/strategic/report/2008annualreport/arfinal.pdf>.

———. *2013 Annual Report*. 2014. <https://www.fdic.gov/about/strategic/report/2013annualreport/ar13final.pdf>.

———. “TGLP Debt Guarantee Program: Issuer Reported Debt Details.” October 1, 2015. https://www.fdic.gov/regulations/resources/tlgp/total_debt.html.

———. “Failures and Assistance Transactions—Historical Statistics on Banking.” <https://www5.fdic.gov/hsob/SelectRpt.asp?EntryTyp=30>.

———. “Report of Inspection to Board of Directors, Citigroup, Inc.” April 15, 2008. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-04-15_FRBNY_Letter_from_John_J_Ruocco_to_Board_of_Directors_of_Citigroup_Re_Annual_report_of_inspection.pdf.

Federal Reserve Bank of St. Louis. “Federal Reserve Introduces New BHC Rating System.” *Central Banker*. Spring 2005. <https://www.stlouisfed.org/Publications/Central-Banker/Spring-2005/Federal-Reserve-Introduces-New-BHC-Rating-System>.

———. “The Financial Crisis: Full Timeline.” <https://www.stlouisfed.org/financial-crisis/full-timeline>.

Federal Reserve Board. “Report Pursuant to Section 129 of the Emergency Economic Stabilization Act of 2008: Authorization to Provide Residual Financing to Bank of America Corporation Relating to a Designated Asset Pool.” January 15, 2009. <https://www.federalreserve.gov/monetarypolicy/files/129bofa.pdf>.

Federal Reserve Board and Office of the Comptroller of the Currency. “Memorandum to FDIC on Bank of America Corporation Funding Vulnerabilities and Implications for Other Financial Market Participants.” January 10, 2009. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2009-01-11%20FDIC%20Cox%20Email%20to%20Corston,%20Hoyer%20-%20FW%20Funding%20Vulnerabilities%20Memo.pdf.

Financial Crisis Inquiry Commission (FCIC). *The Financial Crisis Inquiry Report: Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States*. 2011. http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_full.pdf.

Kacperczyk, Marcin, and Philipp Schnabl. “When Safe Proved Risky: Commercial Paper during the Financial Crisis of 2007–2009.” *Journal of Economic Perspectives* 24, no. 1 (Winter 2010): 29–50. http://pages.stern.nyu.edu/~sternfin/mkacperc/public_html/commercial.pdf.

Office of the Comptroller of the Currency (OCC). “Matters Requiring Attention: Updated Guidance.” *OCC Bulletin* 2014-52. October 30, 2014. <https://www.occ.gov/news-issuances/bulletins/2014/bulletin-2014-52.html>.

———. Supervisory Letter 2008-05 to Vikram Pandit, Chief Executive Officer of Citigroup, Inc., February 14, 2008. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-02-14_OCC_Letter_from_John_C_Lyons_to_Vikram_Pandit_Serious_Problems_at_Citibank.pdf.

Richardson, Mark D., e-mail message to Doreen R. Eberley, Daniel E. Frye, et al., subject: “11-21-08 Citi Liquidity call notes.” November 21, 2008. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-11-21%20FDIC%20Richardson%20Email%20re%2011-21-08%20Citi%20Liquidity%20Call%20Notes.pdf.

Special Inspector General for the Troubled Asset Relief Program (SIGTARP). “Extraordinary Financial Assistance Provided to Citigroup, Inc.” Management Comments from FDIC. SIGTARP-11-002. January 13, 2011. <https://www.sigtarp.gov/Audit%20Reports/Extraordinary%20Financial%20Assistance%20Provided%20to%20Citigroup.%20Inc.pdf>.

———. “Exiting TARP: Repayments by the Largest Financial Institutions.” SIGTARP-11-005. September 29, 2011. https://www.sigtarp.gov/Audit%20Reports/Exiting_TARP_Repayments_by_the_Largest_Financial_Institutions.pdf.

Subramanian, Guhan, and Nithyasri Sharma. “Citigroup–Wachovia–Wells Fargo.” Harvard Business School Case 910-006. 2009.

Systemically Important Institutions and the Issue of “Too Big to Fail,” Before the Financial Crisis Inquiry Commission (Public Hearing on Too Big to Fail: Expectations and Impact of Extraordinary Government Intervention and the Role of Systemic Risk in the Financial Crisis, September 1, 2010). (Statement of John H. Corston, Acting Deputy Director, Complex Financial Institution Branch, Division of Supervision and Consumer Protection, FDIC.) https://fcic-static.law.stanford.edu/cdn_media/fcic-testimony/2010-0901-Corston.pdf.

———. (September 2, 2010). (Statement of Sheila Bair, Chairman, FDIC.) <https://www.fdic.gov/news/news/speeches/archives/2010/spsep0210.html>.

U.S. Department of the Treasury. “Treasury Announces TARP Capital Purchase Program Description.” Press Release. October 14, 2008. <https://www.treasury.gov/press-center/press-releases/Pages/hp1207.aspx>.

———. Office of Financial Stability. “Troubled Asset Relief Program Transactions Report for Period Ending September 16, 2009.” https://www.treasury.gov/initiatives/financial-stability/reports/Documents/transactions-report_09162009.pdf.

U.S. Department of the Treasury, Federal Reserve Board, and Federal Deposit Insurance Corporation. “Joint Statement by Treasury, Federal Reserve, and the FDIC on Citigroup.” Press Release. November 23, 2008. <http://www.federalreserve.gov/newsevents/press/bcreg/20081123a.htm>.

———. “Summary of Terms: Eligible Asset Guarantee (Citigroup).” November 23, 2008. <https://www.fdic.gov/news/news/press/2008/pr08125a.pdf>.

———. “Treasury, Federal Reserve, and the FDIC Provide Assistance to Bank of America.” Joint Press Release. January 16, 2009. <https://www.federalreserve.gov/newsevents/press/bcreg/20090116a.htm>.

———. “Summary of Terms: Eligible Asset Guarantee (Bank of America).” January 16, 2009. <https://www.federalreserve.gov/newsevents/press/bcreg/bcreg20090115a1.pdf>.

U.S. Government Accountability Office (GAO). *Federal Deposit Insurance Act: Regulators’ Use of Systemic Risk Exception Raises Moral Hazard Concerns and Opportunities Exist to Clarify the Provision*. GAO-10-100. 2010. <http://www.gao.gov/products/GAO-10-100>.