

# Policy Analysis

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## Run, Run, Run

### Was the Financial Crisis Panic over Institution Runs Justified?

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#### EXECUTIVE SUMMARY

**T**hroughout history there has been a consistent fear of bank runs, particularly regarding large institutions during times of crisis. The financial crisis of 2007–09 was no exception. The Financial Crisis Inquiry Commission, which was created after the crisis to investigate its causes and triggering events, highlighted no less than 10 cases of runs at individual institutions. Those runs were a major consideration in the shifting policy responses that authorities employed during the crisis.

In the early stages of the crisis, troubled institutions facing runs were dealt with through a scattered blend of voluntary mergers, outright closures, and bailouts. By late September 2008 and thereafter, panic had descended on the Treasury and the major financial agencies. That resulted in the decision to backstop the full range of large institu-

tions, as government officials feared a collapse of the entire financial system. However, serious analysis of the risks facing the financial sector was sorely lacking and outright misstatement of the facts was evident.

It did not have to be that way. Simple rules elaborated by Walter Bagehot and Anna J. Schwartz involving a systemic review of the condition of the financial system, prompt intervention, and consideration of the condition of individual institutions could have prevented the numerous ill-advised bailouts. Additionally, evidence that the runs were not indicative of a pending collapse of the system, but were rather a simple matter of migration of deposits from weaker institutions to stronger institutions, were apparently not considered or ignored. Application of these considerations could have avoided the panic by the authorities and the strategy of bailouts for the megabanks.

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“The interventions of the authorities in response to these runs raise a number of questions.”

## INTRODUCTION

Sir, we regret to announce that a severe run on our deposits and resources has compelled us to suspend payment, this course is being considered, under advice, the best calculated to protect the interests of all parties.

—*Portion of a note announcing the closure of Overend, Gurney & Co. in May 1866. Walter Bagehot used a case study of the institution to explain his approach to central bank lending.*<sup>1</sup>

The narrative created by U.S. financial authorities during the last financial crisis became all too familiar: A financial institution publicly announces operating losses and its condition deteriorates, ultimately resulting in a “run” as its customers hasten to withdraw their deposits. Because much of the institution’s assets are invested, the viability of the institution is threatened. Government authorities argue that they have to intervene and bolster the institution through extraordinary measures, not only to save the institution, but also to keep its condition from “spilling over” to other financial institutions—the so-called “contagion” or “interconnectedness” argument. The authorities at times further speculate about the broader secondary impact of these runs, and emphasize that if they do not follow through on their chosen course of action, the entire financial system could experience a “world-wide bank run.”<sup>2</sup>

The Financial Crisis Inquiry Commission (FCIC) was created in May 2009 in order to investigate the causes of the financial crisis of the 2000s, including ultimately the underlying triggering events for these runs. The FCIC’s Final Report, issued in February 2011, weaves into its narrative no less than 10 cases of runs at individual institutions: banks and savings associations (Countrywide Financial, IndyMac, Washington Mutual, Wachovia) and other financial institutions such as investment banks, hedge funds, and money market funds (Bear Stearns, Bear Stearns Asset Management, Lehman Brothers, Morgan Stanley, Goldman Sachs, Reserve Primary Fund). It also cites broader runs on finan-

cial industry segments (money market funds, the repo market, hedge funds, commercial paper).<sup>3</sup> Although the FCIC did not directly label it as such, another investigative agency, the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) described Citigroup during a period of financial stress as “the subject of a global run on its deposits.”<sup>4</sup> Despite the fact that the FCIC cited all of these cases in its Final Report, the commission undertook minimal analysis specifically on the phenomenon of bank runs.

The interventions of the authorities in response to these runs raise a number of questions that call for not only consideration of the facts surrounding each of the runs, but also an assessment of what the various runs induced the authorities to do. For example, why would the authorities—whose stated responsibility was to instill confidence in the financial system—tell everyone who would listen that the financial system was inherently unstable? Additionally, did the authorities have any quantifiable basis for spreading these fears, and was there any evidence that depositors and other creditors were actually taking their money completely out of the financial system, something that was clearly evident during the Great Depression of the 1930s?

## THE CONCEPT OF A RUN AND THE TRADITIONAL RESPONSE

The FCIC did not choose to define a run for purposes of its Final Report.<sup>5</sup> However, SIGTARP did make an effort at defining the narrow concept of a “deposit run” in the context of its Citigroup analysis:

Deposit run—when large numbers of depositors suddenly demand to withdraw their deposits from a bank. This may be caused by a decline in depositor confidence or fear that the bank will be closed by the chartering agency. Banks keep only a small fraction of their deposits in cash reserves, and thus, large numbers of withdrawals in short periods of time can cause even a healthy bank to have a severe liquidity crisis that could cause the bank to be unable to meet its obligations and fail.<sup>6</sup>

This definition is useful in that it sets forth the “who,” the “how,” the “what,” and the “why” of a deposit run. However, “large numbers of depositors” does not give a precise measure of the critical mass of depositors required to distinguish between an unpleasant “run off” or “drain” of deposits and a full-fledged run that threatens the institution’s existence. The description that this “suddenly” occurs is indefinite as to the timing and intensity needed to raise supervisory concerns. The definition is also narrow in the sense that it describes a commercial bank run triggered by depositors, which does not describe the phenomenon of a financial institution run that affects an investment bank, hedge fund, money market fund, or insurance company. Finally, the definition is lacking in focus to address the main problem the authorities want to avoid in formulating their response: deposits being withdrawn and taken completely out of the financial system, a phenomenon that occurred during the Depression. One indicator of the severity of the runs during the Depression is the ratio of deposits to currency, which plunged from 11.6 percent in 1929 to 4.4 percent in 1933.<sup>7</sup>

So the refined definition of a run would have the following critical elements:

- Creditors of a financial institution preemptively withdraw or refuse to renew their extended credit, thereby threatening the institution as a going concern.
- The run occurs over a concentrated period of time (a few days or weeks), based on creditors’ concern for the financial institution’s deteriorated financial position or concerns about the stability of the entire financial system.
- If the resulting weakened financial position is not addressed, the institution will be forced into bankruptcy or some form of receivership.
- Financial authorities feel compelled to intervene to prevent any externalities from the run that may cause a significant withdrawal of deposits and other forms of short-term credit from the financial system.

The traditional response to a run by the financial authorities (usually a central bank) has been to make a critical decision regarding the viability and solvency of a financial institution. If the institution is deemed viable, the central bank supports the institution with short-term and well-collateralized loans at a penalty interest rate. If the institution is not deemed viable, the central bank allows the institution to fail outright and face reorganization in receivership, conservatorship, bankruptcy, or its equivalent. In the words of Bagehot:

The end is to stay the panic; and the advances should, if possible, stay the panic. And for this purpose there are two rules: First. That these loans should only be made at a very high rate of interest. This will operate as a heavy fine on unreasonable timidity, and will prevent the greatest number of applications by persons who do not require it. . . . Second. That at this rate these advances should be made on all good banking securities, and as largely as the public ask for them. The reason is plain. The object is to stay alarm, and nothing therefore should be done to cause alarm. But the way to cause alarm is to refuse some one who has good security to offer. . . . No advances indeed need be made by which the Bank will ultimately lose.<sup>8</sup>

Bagehot further makes the distinction between the unsound minority—those unsound or insolvent institutions that are not worthy of such advances from the authorities—and the sound majority of institutions who are worthy:

That in a panic the bank, or banks, holding the ultimate reserve should refuse bad bills or bad securities will not make the panic really worse; the “unsound” people are a feeble minority, and they are afraid even to look frightened for fear their unsoundness will be detected. The great majority, the majority to be protected, are the “sound” people, the people who have good security to offer.

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Bringing the issue back to more recent times, Anna J. Schwartz in an early 1990s analysis took note of a troubling trend. She described how, in comparison to the clear approach of supporting solvent institutions, the Federal Reserve during many periods of its history “contravened the ancient injunction to central banks to lend only to illiquid banks, not to insolvent ones.” She chronicled the “Misuse of the Fed’s Discount Window”<sup>9</sup> over a span of time from the 1920s preceding the Great Depression through the turbulence of the financial crisis of the 1980s and early 1990s.

The Schwartz analysis was prescient in the sense that it foreshadowed what would be continued focus and scrutiny of the Federal Reserve’s actions during the 2000s crisis. In particular, Schwartz focused on the following elements of this misuse of the discount window: lending to institutions with a high probability of insolvency, lending for an extended period of time, and lending to nonbanks.

In response to those that argued that it was difficult to determine the solvency of financial institutions during a crisis, Schwartz responded: “Currently, CAMEL ratings 4 and 5 are known promptly. Why should it be impossible or even difficult to distinguish between an illiquid and an insolvent bank?”<sup>10</sup> The CAMEL rating system was a five-component rating system used from 1979 to 1996 to assign a grade to the condition of banks. In 1996 a sixth component was added, creating the CAMELS system that examines capital, assets, management, earnings, liquidity, and sensitivity to market risk. Institutions rated 4 and 5 (the two lowest ratings) under this system are classified as “problem” banks by the Federal Deposit Insurance Company (FDIC).<sup>11</sup> Proxies for the CAMELS ratings are important indicators of whether or not a bank ultimately fails.<sup>12</sup>

### THREE HISTORICAL CASE STUDIES ON COMMERCIAL BANK RUNS AND THE GOVERNMENT RESPONSE

This analysis is not intended primarily as a recitation of the history of financial institution runs. But the review of a few discrete, historical cases (not unlike Bagehot’s review of Overend,

Gurney) is vital to see the most recent runs as the latest developments in a long-evolving process.<sup>13</sup>

Some observers mistakenly state that the phenomenon of commercial bank runs has disappeared since the onset of federal deposit insurance. A description from a recent book by Alan Blinder, former vice chairman of the Federal Reserve Board, is typical of this view:

The FDIC was set up in 1933 to prevent bank runs, and it has done so exceedingly well. If the First National Bank of Nowhere goes under, its depositors know they won’t lose a cent as long as their balances are below the insured maximum, which is now \$250,000. They have no reason to run on the bank. And they certainly have no reason to run on the Second National Bank next door. . . . Fully insuring money market mutual fund accounts regardless of the amount] was bound to precipitate runs on banks—something the FDIC had ended in 1934.<sup>14</sup>

While Blinder is correct that insured depositors have not lost a cent, runs have occurred because of potential losses on uninsured deposits. Insured depositors may also run if they believe the process of obtaining their funds will be tied up for a long time. Throughout the turbulent financial period of the 1970s to the early 1990s, and once again during the financial crisis of the 2000s, the phenomenon of runs on commercial banks and savings associations did not disappear. In 2008 there was even an incident where insured depositors lined up to withdraw from a large, failing institution.

Although runs on institutions during the first half of the 20th century hold a great deal of historical interest, they were largely dealt with by allowing the institution to fail outright. The much more relevant period to begin a historical analysis is from the mid-1970s through the early-1990s. It is during this period that the authorities became much more likely to intervene.

The following are three indicative commercial bank runs from this period. Each case study will give a sense of what weaknesses were present



that placed the institution in such a fragile position; the history of how its condition was rated on the CAMEL scale; the details of the run on the institution; the role of the Federal Reserve and the FDIC in supporting the institution; and how the institution was ultimately resolved by the authorities. Finally, the response by the authorities is critiqued by means of the Schwartz analysis. These case studies, when later compared against the runs during the 2000s crisis, will give a sense of the progress made over time by the authorities in refining their responses to runs.

### Franklin National Bank (May–October 1974)

Franklin National Bank (FNB) was subjected to a run, but it was also the first case of the application of “too big to fail”—the doctrine that some banks are so large and important to the economy that allowing them to go through the standard resolution or liquidation procedures would create enormous negative externalities.<sup>15</sup> In order to limit these externalities, an intervention involving some form of bailout of creditors is justified as a preemptive measure to avoid many of the negative spillover effects of an outright failure.

**SOURCE OF WEAKNESS.** At its peak, FNB was the 20th largest bank in the United States. FNB was a textbook example of an institution that was so poorly governed and in such weak financial condition that the authorities would clearly have been justified in allowing it to fail. After a period of rapid growth during the 1960s and early 1970s, FNB had total assets of over \$5 billion by 1973. It had far-flung branches in Nassau, the Bahamas and in London, and it was heavily involved in Eurodollar activities and foreign exchange trading. A number of adverse developments accompanied this rapid growth and expansion, including weak management, a bad domestic loan portfolio, poor investments, and heavy reliance on short-term borrowings to finance long-term loans. FNB also sustained heavy losses on its foreign exchange trading.<sup>16</sup>

**CONDITION AND CAMEL RATING.** The CAMEL rating system that Schwartz used to judge an institution’s soundness and solvency was not fully

developed in 1974 during the collapse of FNB, as it was not implemented until 1979. However, a system of “word ratings” was in place at the time, and the state of FNB by November 1973 would have been akin to a CAMEL rating of 4.<sup>17</sup> Thus, under Schwartz’ formulation, FNB should not have been eligible for Federal Reserve borrowings. FNB was likely insolvent by May 1974.<sup>18</sup>

**MAGNITUDE OF THE RUN.** Table 1 depicts the run on FNB from the time just before it publicly announced losses on nonperforming loans and foreign exchange trading in May 1974 through the last reporting date prior to its closure on October 8, 1974. The Federal Reserve did in fact lend to FNB during this time frame to make up for the loss of funding from the various private sources. The Fed justified the lending with language that would become a template for such resolutions for decades to come: “first to prevent the severe deterioration of confidence, at home and abroad, that would have resulted from an early failure of the bank, and second, to provide time to permit Franklin National Bank itself, or if necessary the bank regulatory authorities, to achieve a more permanent solution to the bank’s difficulties.”<sup>19</sup>

On a comparative basis, FNB was a rather severe and intense run. This can be attributed to the lack of decisive action in resolving FNB as the various involved agencies (Federal Reserve, Office of the Comptroller of the Currency, and the FDIC) held lengthy deliberations regarding the best course of action. All forms of private funding saw a sustained runoff during this time, especially short-term financing through foreign deposits, uninsured domestic deposits, loans from other banks, and securities repurchase agreements (“repos”). Federal Reserve lending during this timeframe essentially kept FNB afloat. This reliance on Federal Reserve borrowings is evident through analysis of the dramatic drop in availability of non-Federal Reserve borrowing sources, which plummeted a full 62 percent during the course of the run. Foreign branch deposits, which were uninsured, experienced a run of nearly 80 percent.

**RESOLUTION.** After five months of negotiation, the various agencies ultimately agreed to re-

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**Table 1**  
**Run on Private Funding Sources at Franklin National Bank (\$millions)**

| Funding Source (excluding capital)                                | April 1974 (avg.) | October 7, 1974 |
|---|-------------------|-----------------|
| Domestic demand deposits  | 1,226             | 548             |
| Domestic time and savings   | 825               | 564             |
| Foreign branch deposits   | 982               | 222             |
| Secured federal funds   | 0                 | 0               |
| Money market CDs  | 446               | 63              |
| Federal funds net   | 591               | 0               |
| Repurchase agreements   | 333               | 166             |
| Other liabilities   | 216               | 195             |
| Sources excluding Federal Reserve borrowings (reduced 62 percent) | 4,619             | 1,758           |
| Federal Reserve borrowings  | 0                 | 1,722           |
| <b>Total liabilities</b>  | <b>4,619</b>      | <b>3,480</b>    |

Source: Joan E. Spero, *The Failure of the Franklin National Bank: Challenge to the International Banking System* (Washington: Beard Books, 1999), pp. 72–74.

solve FNB with a bailout of uninsured creditors and depositors. FNB was sold via auction under a purchase-and-assumption transaction to European American Bank and Trust, a bank chartered in New York State and owned by a consortium of European banks. The FDIC accepted the obligation of the Federal Reserve Bank of New York with a three-year term for repayment of the borrowing.<sup>20</sup> Losses from FNB totaled \$59 million, which would have been lower had uninsured creditors and depositors of FNB been subjected to losses.<sup>21</sup>

This special treatment of uninsured creditors was justified by the federal regulators on the basis that to do otherwise would have caused considerable disruption to the banking public in New York and to the international monetary markets, and it would have severely damaged the public confidence. This is essentially an “interconnections argument” that large banks had become highly interdependent because of the development of the Eurocurrency interbank market and the dramatic rise in interbank foreign exchange trading.<sup>22</sup>

**SCHWARTZ CRITIQUE.** Schwartz decried the approach of the Federal Reserve for advancing funds to FNB through the discount window and Office of the Comptroller of the Currency (OCC) for not closing such a clearly insolvent institution more promptly. To her, this signaled a dangerous precedent as it “shifted discount window use from short-term liquidity assistance to long-term support of an insolvent institution pending final resolution of its problems. The bank was insolvent when its borrowing began and insolvent when its borrowing ended. The loans merely replaced funds that depositors withdrew the inflow from the Reserve Bank matching withdrawals.”<sup>23</sup>

### **Continental Illinois National Bank (May–July 1984)**

A much more widely publicized case of a bank run during this period was Continental Illinois National Bank. Owing to the bank’s size, its high profile hearings in the midst of a presidential campaign, and the fact that the phrase “too big

to fail” was coined during this time, a great deal more post hoc analysis of Continental Illinois has been undertaken than for any other such institution prior to the 2000s crisis.

**SOURCE OF WEAKNESS.** Not unlike the case of FNB, Continental was a poorly managed financial institution with a weak loan portfolio and volatile funding sources. By April 1984, nonperforming loans had reached \$2.3 billion, much of which was attributable to the failed Penn Square Bank and Latin American loans.<sup>24</sup> As the seventh largest bank in the United States, Continental had over \$30 billion in deposits, 90 percent of which were uninsured foreign deposits or large deposits substantially exceeding the then-\$100,000 deposit insurance limit. In particular, European funding sources were relied upon heavily. In the early months of 1984, the vice chairman, president, and chief financial officer resigned.<sup>25</sup>

**CONDITION AND CAMEL RATING.** By the time of Continental’s deterioration in 1984, the CAMEL rating system had been formalized. By 1983 Continental was given a CAMEL rating of 4, classified as a problem bank, and placed under a formal enforcement measure with the OCC.<sup>26</sup>

As in the case of FNB, Continental was an insolvent institution that should never have received Federal Reserve lending. This insolvency is substantiated by the fact that the institution ultimately was resolved at a cost of over \$1 billion by the FDIC. However, at the time of the run on Continental, the key leaders at the Federal Reserve, FDIC, and OCC disputed the notion that solvency had been breached.<sup>27</sup>

**MAGNITUDE OF THE RUN.** Beginning in May 1984 large uninsured depositors withdrew about \$9 billion. Also in May, to make up for the large withdrawals, Continental began to borrow from the Federal Reserve; first about \$3.6 billion in May, and ultimately reaching \$7.6 billion as Continental’s funding problems continued into the summer. The FDIC also provided about \$2 billion in the form of the purchase of subordinated debt and a consortium of large banks provided another \$4.5 billion lending facility.<sup>28</sup>

**RESOLUTION.** A key aspect of the ultimate resolution of Continental was the announcement in May that all depositors and other general

creditors would be protected, regardless of the \$100,000 limit on deposit insurance. The authorities spent the following two months searching for a merger partner for Continental, without success. Finally, in July, a complex resolution plan was announced that involved a combination of an FDIC purchase of problem loans, an infusion of \$1 billion of capital by the FDIC, continued liquidity support from the Federal Reserve and commercial banks, and removal of Continental’s top management and board of directors.<sup>29</sup>

The justification for resolving Continental with this bailout was the classic interconnectedness argument. Continental was a large domestic correspondent bank that supposedly would have taken many other financial institutions with it—100 or more, as argued by then-Comptroller of the Currency Todd C. Conover. However, this argument was undermined in a more detailed analysis of the FDIC’s underlying analysis undertaken by a House subcommittee.<sup>30</sup>

**SCHWARTZ CRITIQUE.** Schwartz disparaged the Continental response, noting that the “undeclared insolvency of Continental in 1984 was also papered over by extensive discount window lending from May 1984 to February 1985, albeit with smaller subsidies than in the case of Franklin National.” Schwartz was also critical of the claims of interconnectedness, noting:

Even if closing Continental had led to runs on the foreign interbank depositors—ostensibly the reason for keeping Continental in operation—the lenders of last resort in the nations concerned could have provided adequate liquidity in their markets to tide the banks over if the Continental deposits were their only problem. Fear of contagion should not determine a regulator’s decision to keep an insolvent bank open. It should lead the Fed to lend to the market to prevent the contagion.<sup>31</sup>

### Bank of New England (January 1990–January 1991)

The final of the three commercial bank cases experienced difficulties at the end of the period of financial turbulence that began back in the mid-

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1970s. Bank of New England (BNE) was a large institution, the 33rd largest bank in the United States. The timing of its failure was particularly sensitive because 45 credit unions without federal deposit insurance were closed in nearby Rhode Island a week before the closure of BNE.

**SOURCE OF WEAKNESS.** Well over a year before its ultimate demise, BNE had poor and rapidly deteriorating asset quality, ineffective supervision by management and the board of directors, uncontrolled growth, poor risk selection, unsafe risk concentrations, unsafe and unsound real estate lending and appraisal practices, inadequate credit approval and administration processes, inadequate risk identification, and inadequate staffing of key lending areas such as loan review and workout functions. The allowance for loan and lease losses was materially misstated and liquidity was grossly inadequate.<sup>32</sup> When asked what caused BNE’s difficulties, Bill Seidman, the FDIC chairman at the time, stated bluntly, “They made loans that could not be collected.”<sup>33</sup>

**CONDITION AND CAMEL RATING.** The CAMEL rating for BNE throughout 1990 was the lowest possible rating: 5. The assignment of the rating followed an examination initiated in the first quarter of 1990 and was accompanied by a cease-and-desist order by the OCC that enumerated several required improvements in operations and an increase in capital.<sup>34</sup> It was not until a later examination of BNE in late 1990 that sufficient scrutiny was applied to the loan portfolio and losses were appropriately recognized. At that point, the bank was determined to be insolvent, but it was likely insolvent in 1990. The ultimate cost of resolving BNE at nearly \$1 billion highlights the deep level of insolvency of BNE.<sup>35</sup>

**MAGNITUDE OF THE RUN.** The Federal Reserve Bank of Boston began discount window lending to BNE in early 1990 after a runoff by depositors of just over \$2 billion of the total of \$26 billion in BNE deposits (about 8 percent). Borrowings from the Federal Reserve peaked at \$2.265 billion in March, but were paid off by June.<sup>36</sup>

However, by late 1990, liquidity strains resurfaced. On January 2, 1991, the Commonwealth of Massachusetts withdrew \$50 million in funds from BNE, reportedly in response to the closing

of 45 credit unions in Rhode Island the previous day. In the following days, other municipalities withdrew \$211 million in funds. On January 4, 1991, BNE announced a fourth quarter loss of \$450 million that rendered it insolvent. The OCC began to believe that BNE would soon return to the discount window, but the bank did not have the resources to support such borrowings. On January 6, after approximately \$1 billion in further depositor outflows, the OCC declared BNE and its subsidiary banks insolvent.<sup>37</sup>

**RESOLUTION.** The FDIC utilized a newly granted bridge bank authority in the closure of BNE. At the urging of the Federal Reserve and Treasury Department, the FDIC decided to bail out uninsured depositors by protecting them from loss.<sup>38</sup> The bridge bank option that was brought to bear in the case of BNE was a direct response to the Continental run and resolution, whereby the FDIC argued that from an administrative standpoint it could not possibly take over such a large bank and pay off depositors or arrange a standard purchase-and-assumption transaction. Changes codified in the Competitive Equality Banking Act of 1987 allowed the FDIC to address a Continental-type institution (one of great size or complexity) by creating a bridge bank to hold its good assets and a portion of its liabilities until it could be sold off or paid out in a more orderly manner. By the spring of 1991, the bank was sold to Fleet/Norstar Financial Group.<sup>39</sup>

**SCHWARTZ CRITIQUE.** As might be expected, Schwartz was critical of the delay in resolving BNE, saying that it

allowed outflows of uninsured deposits. Had the institution been closed promptly, the earnings deficiency could have been offset at least somewhat by reducing the principal paid to uninsured depositors. . . . As William Seidman testified, the FDIC decided to protect all depositors of the Bank of New England at “the additional cost [of] somewhere in the \$200 to \$300 million range up front.” In the absence of Fed lending to a bankrupt institution, early closing would have prevented a flight of uninsured deposits. In effect, Fed lending merely replaced withdrawals of uninsured depositors.<sup>40</sup>



**Table 2**  
**Summary Information on Three Case Studies of Runs and Interventions**

| Date of Failure/<br>Assistance | Financial Institution<br>(Rating)            | Period of Lending to<br>Stem the Run | Federal Regulatory Response,<br>Resolution and Cost   |
|--------------------------------|--|--------------------------------------|---|
| 1974                           | Franklin National Bank<br>(Estimate rated 4) | May–October 1974                     | Fed borrowing at peak was \$1.7 billion. Uninsured covered at a cost of \$59 million.                     |
| 1984                           | Continental Illinois<br>(CAMEL rated 4)      | May 1984–<br>February 1985           | Fed borrowing at peak was \$7.6 billion. Open bank assistance with cost of \$1 billion.                   |
| 1991                           | Bank of New England<br>(CAMEL rated 5)       | January–June 1990                    | Fed borrowing at peak was \$2.3 billion. Bridge bank with uninsured covered, resolution cost \$1 billion. |

Source: Federal Deposit Insurance Corporation, “Managing the Crisis: The FDIC and RTC Experience: Chronological Overview,” August 1998, [http://www.fdic.gov/bank/historical/managing/Chron/guide.html#back\\_i](http://www.fdic.gov/bank/historical/managing/Chron/guide.html#back_i).

### **POLICY ASSESSMENT IN LIGHT OF THE THREE CASE STUDIES**

The three case studies summarized in Table 2 were all instances of discount window lending—and ultimately a bailout—in response to a run. The funds were provided to keep open problem institutions for extended periods of time.

The verdict of the Congress based on the shape of reform legislation was in keeping with the Schwartz critique: a clearly expressed dissatisfaction with the response of the financial authorities. As a result, Congress placed limitations on the powers of the OCC, the Federal Reserve, and the FDIC, as part of the Federal Deposit Insurance Corporation Improvement Act (FDICIA):

[FDICIA] addresses the too-big-to-fail problem in several ways. First, the prompt corrective action system . . . requires bank regulators to act before an institution is in imminent danger of failing at the expense of the deposit insurance system. Second, [FDICIA] requires the FDIC to follow the least cost resolution approach to resolving failed depository institutions. The bill provides a narrow systemic risk exception for those rare

instances in which the failure of an institution could threaten the entire financial system. . . . Finally, title II restricts the Federal Reserve Board’s ability to keep failing institutions afloat through discount window advances.<sup>41</sup>

The prompt corrective action mandate was intended to bind the hands of regulators who might otherwise keep an undercapitalized institution experiencing a run afloat for an extended period of time. The mandate for the least-cost resolution approach was apparently a direct reaction to the resolution of BNE and its coverage of uninsured depositors and creditors, in contrast to cases where smaller banks’ uninsured depositors and creditors would not have been so covered.<sup>42</sup> Unfortunately, the so-called “narrow” exception to this rule would not be so narrow when it came to applying it to the 2000s financial crisis.

The reforms also fundamentally altered the discretion of the Federal Reserve in implementing discount window operations. FDICIA amended the Federal Reserve Act, limiting advances to undercapitalized institutions to no more than 60 days in any 120-day period and to critically undercapitalized institutions to no more than five days. The Federal Reserve Board

“The prompt corrective action mandate was intended to bind the hands of regulators who might otherwise keep an undercapitalized institution afloat for an extended period of time.”

“In the early to mid-2000s when home values were appreciating wildly, such loans were attractive to both borrowers and lenders.”

has liability to the FDIC for paying any losses resulting from extensions beyond those limits.<sup>43</sup>

Another provision of FDICIA, that did not attract much attention at the time was inserted by Sen. Christopher Dodd (D-Conn.) and adopted without extensive discussion or debate, reportedly at the urging of Goldman Sachs lobbyists.<sup>44</sup> This deeply buried provision allowed the Federal Reserve to lend directly to securities firms in emergency situations. Schwartz predicted that this provision “portends expanded misuse of the discount window.”<sup>45</sup>

During the hearings leading up to the passage of FDICIA, finance professor George Kaufman of Loyola University of Chicago made the point that the runs during the 1980s and early 1990s were not nearly as potentially damaging as those during the Great Depression, where small depositors pulled money out of the system. He argued the financial authorities were overstating the potential systemic damage as the recent runs merely moved funds from weak banks into healthy banks. By delaying closure, authorities simply increased FDIC losses:

The runs on Continental Bank in 1984, the large Texas banks in 1987–1989, and the Bank of New England in 1990–1991 were rational runs on economically insolvent institutions that moved funds not into currency to start systemic risk, but to safer banks. The delayed resolutions by the regulators did little more than increase FDIC losses substantially. The small depositors are the only ones you need to worry about because they are the only ones who could run into currency. The big depositors can't. The only way that systemic risk, if there is such a thing, can occur is if there is a run on all banks into currency. So you have to worry about the small depositors.<sup>46</sup>

### **TRADITIONAL COMMERCIAL BANK AND SAVINGS ASSOCIATION RUNS DURING THE 2000s**

Some observers of the 2000s financial turmoil, including Federal Reserve Board Chair

Ben Bernanke, argue that the commercial bank and savings association runs were not the significant story, but rather the “shadow bank” runs were.<sup>47</sup> However, there were some significant runs at these traditional institutions in the 2000s. Below are five case studies of runs from the financial turbulence of the subprime crisis. As in the earlier case studies, the analysis will give a sense of what weakness the bank had, the institution's condition and CAMELS rating, the details of the run on the institution and the roles of the Federal Reserve<sup>48</sup> and FDIC in supporting the institution, and how the institution was ultimately resolved by the authorities. Finally, the Schwartz critique will be applied.

#### **Countrywide Financial (August 2007)**

The earliest of the runs on banks and savings associations in the FCIC Report was at Countrywide Financial, which is known more for the personality of its chairman and chief executive officer, Angelo Mozilo, than for the run. Although Countrywide may not seem like a candidate for too-big-to-fail status, it did hold a critical position in the mortgage market as the largest single mortgage lender and servicer in the United States. During the first half of 2007, its total residential mortgage originations of \$245 billion accounted for a 17 percent market share, besting the likes of Wells Fargo (11 percent), CitiMortgage (8 percent), Chase Home Finance (8 percent), and Bank of America (7 percent).<sup>49</sup>

**SOURCE OF WEAKNESS.** Countrywide was an institution that plunged heavily into various option adjustable-rate mortgage (ARM) loans. Many of them were of the low-documentation and no-documentation variety, meaning that the borrower had to provide little if any evidence of his or her financial standing. Many of the loans were structured so that they negatively amortized, meaning that the principal balance actually rose initially because the payments made by the borrower were too low to cover even the interest on the loan. This may seem irrational, but in the early to mid-2000s when home values were appreciating wildly, such loans were attractive to both borrowers and lenders. Countrywide also adjusted its underwriting standards over time, requiring lower

down payments so that the loan-to-value ratios for newly originated loans rose from 80 percent to 95 percent. Countrywide was the largest mortgage originator from 2004 to 2007, with these so-called “nontraditional loans” making up 59 percent of originations in the latter years.<sup>50</sup>

**CONDITION AND CAMELS RATING.** In March 2007 Countrywide transitioned from its status as a national bank/financial holding company supervised by both the OCC and the Federal Reserve to a federal savings bank/thrift holding company supervised by the Office of Thrift Supervision (OTS). This move was both an effort to reduce Countrywide’s regulatory burden and a means of expressing its displeasure with Federal Reserve regulations on select mortgage assets and OCC regulations on property appraisals. Some described it more as a transition to a lax regulatory regime. Countrywide’s last rating under the CAMELS system prior to the transition to OTS supervision was a composite 2.<sup>51</sup> It does not appear that the OTS had an opportunity to assign a more up-to-date CAMELS rating to Countrywide prior to August 2007.

**MAGNITUDE OF THE RUN.** Countrywide’s second-quarter 2007 financial results indicated no significant weaknesses and the major ratings agencies assigned it strong ratings with a stable outlook.<sup>52</sup> This calm situation changed dramatically on August 2, 2007, as Countrywide was unable to roll over its commercial paper or borrow in the repo market.<sup>53</sup> On August 6, Mozilo reported to his board during a specially convened meeting that “the secondary market for virtually all classes of mortgage securities (both prime and nonprime) had unexpectedly and with almost no warning seized up and . . . the Company was unable to sell high-quality mortgage backed securities.” On August 14 Countrywide released its July operational results, reporting that foreclosures and delinquencies were up and that loan production had fallen by 14 percent during the preceding month.<sup>54</sup>

That same day, staff from the Federal Reserve sent a dour memo to the Board of Governors, which had been called upon to consider lending to Countrywide through its discount window based on nonconforming collateral that

did not meet its usual standards. The memo noted that Countrywide was unable to securitize or sell any of its nonconforming mortgages and that its short-term funding strategy relied heavily on commercial paper and, especially, on asset-backed commercial paper, which in current market conditions was of questionable viability. It also noted that Countrywide’s ability to use mortgage securities as collateral in repo transactions was uncertain. Finally, the memo summarized that Countrywide could face severe liquidity pressures that “could lead eventually to possible insolvency” and that “it seems possible that there could be a rapid and substantial deposit outflow in the event significant concern arose regarding the bank’s health.” The staff determined that Countrywide had eligible collateral that would allow discount window borrowing of nearly \$4 billion, but that the Federal Reserve would not accept risky mortgage-backed securities as collateral to go beyond that level.<sup>55</sup>

On August 15, Mozilo recommended to his board that the company notify lenders of its intention to draw down \$11.5 billion on backup lines of credit that were in place in case a need arose for additional funding. That same day a Merrill Lynch analyst switched Countrywide from a “buy” to a “sell” rating because of the ongoing funding difficulties. That led to a *Los Angeles Times* article that Mozilo blamed for causing the run that ensued.<sup>56</sup> The run drained about \$8 billion in total deposits from Countrywide in a single day, most of which likely came out of the estimated \$25 billion of uninsured deposits.<sup>57</sup> One customer pulled \$500,000 from a Countrywide Bank branch to put it in an account at Bank of America: “It’s because of the fear of the bankruptcy. . . . I don’t care if it’s FDIC-insured—I just want out.”<sup>58</sup>

**RESOLUTION.** The next week, on August 22, Bank of America announced it would invest \$2 billion for a 16 percent stake in Countrywide. On January 11, 2008, Bank of America issued a press release announcing a “definitive agreement” to purchase Countrywide for approximately \$4 billion.<sup>59</sup> Borrowings from the Federal Reserve during this time were limited to \$750 million from late December 2007 to late January 2008 under one of the Federal Reserve’s newly implemented

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programs during the financial crisis, the Term Auction Facility (TAF).<sup>60</sup>

**CRITIQUE.** The Federal Reserve was justified in not offering to extend credit to Countrywide on a stand-alone basis given its deteriorating and potentially unsound condition. Beyond the \$4 billion in high-quality collateral that it had available, Countrywide only had lower-quality collateral to support further borrowing. In hindsight, many have looked at the Bank of America purchase of Countrywide as a disastrous acquisition, but from the taxpayers' perspective it is better to have private funds absorb the losses than public.<sup>61</sup>

### IndyMac (June and July 2008)

One of the more intriguing set of circumstances surrounding a run during the most recent crisis involved a mixture of regulatory breakdowns, political grandstanding, and a run by insured depositors at IndyMac. That run occurred before the financial crisis reached a crescendo during the fall of 2008. IndyMac was among the top 10 savings and loans and mortgage loan originators in the United States.<sup>62</sup>

**SOURCE OF WEAKNESS.** A number of factors led to IndyMac's demise: its aggressive growth strategy; its heavy involvement in the “Alt-A” (mortgages that are rated below prime-grade but above sub-prime), interest-only, and option ARMs markets; insufficient underwriting; credit concentrations in residential real estate in the California and Florida markets; and heavy reliance on costly funds borrowed from the Federal Home Loan Bank (FHLB) and from deposit brokers as opposed to core customers. IndyMac often made loans without verification of the borrower's income or assets and to borrowers with poor credit histories. Appraisals obtained by IndyMac on underlying collateral were often questionable as well. During the period from August 2007 to March 2008, brokered deposits—which are a volatile and expensive funding source—more than quadrupled to nearly \$7 billion. When home prices declined in the latter half of 2007 and the secondary mortgage market for purchasing underwritten loans collapsed, IndyMac was forced to hold about \$11 billion of loans it could not sell in the secondary market.<sup>63</sup>

**CONDITION AND CAMELS RATING.** IndyMac's CAMELS rating stayed steadily and consistently at a composite 2 rating from 2002 through early 2007, with examinations conducted approximately every 12 to 15 months. As the thrift's financial reports showed deteriorating conditions in 2007, planning began for the 2008 examination. That examination was ultimately started four months ahead of schedule because of concerns noted by its primary supervisor, the OTS. Three FDIC examiners also participated in the January 2008 examination. Just a few weeks into the examination, IndyMac's CAMELS composite rating was downgraded to a 3. It would ultimately take nearly six months to complete the examination.<sup>64</sup>

On July 1, 2008, OTS finally assigned IndyMac a thrift composite CAMELS rating of 5 for the examination. In a letter of the same date, the Federal Reserve Bank informed IndyMac that it was no longer considered to be in sound condition and that it was subject to higher borrowing rates (those for secondary loans made through the discount window). The next day, the Federal Reserve Bank informed IndyMac that the thrift had no funds available to it and that the Federal Reserve Bank would hold the thrift's collateral (nearly \$4 billion).<sup>65</sup> About the same time, the Federal Home Loan Bank pulled IndyMac's credit lines.<sup>66</sup>

**MAGNITUDE OF THE RUN.** IndyMac's reduced liquidity was exacerbated in late June and early July 2008 when account holders withdrew \$1.55 billion in deposits. This run on the thrift followed the public release of a letter from Sen. Charles Schumer (D-N.Y.) to the FDIC and OTS that outlined his concerns about the bank's solvency.<sup>67</sup>

**RESOLUTION.** On July 11, 2008, IndyMac requested \$750 million from the Federal Reserve Bank, most likely to relieve pressure from depositor withdrawals. It was granted \$500 million.<sup>68</sup> That same day, IndyMac was closed outright by the OTS, and the FDIC was named the conservator.<sup>69</sup>

The following week, when IndyMac was opened under FDIC ownership, there was another wave of depositor withdrawals that took most of the entire week to resolve. A big part of the problem was a decision by the OTS to close the bank three hours early the previous Friday to



give the head of the agency time to call members of Congress while they were still in their offices. Customers, rightly expecting the bank to still be open, were terrified by the locked doors and members of the media filming their every move.<sup>70</sup>

Over the weekend and on Monday, insured and uninsured depositors lined up at all 33 IndyMac branches. The FDIC acknowledged it was not prepared to handle the 1,000-plus customers who were waiting outside IndyMac branches at the beginning of the week, but officials blamed the problem on extensive television coverage, which they claimed heightened anxiety that depositors would not have access to their money. “Nobody anticipated the kind of media that was going to get played—and frankly in an inflammatory way with some of the networks,” FDIC Chair Sheila Bair said in an interview. “This has been pretty nonstop since Friday. My plea to the media is [to] get the facts in your reporting.”<sup>71</sup>

IndyMac stayed under FDIC conservatorship, akin to bridge bank status, through the remainder of 2008 and was sold to OneWest Bank in March 2009.

**CRITIQUE.** IndyMac was shuttered once it was determined that it was no longer viable, which was the appropriate decision by the OTS. However, the OTS failed to supervise the institution properly, despite the many legislative changes in the early 1990s that were intended to avoid such breakdowns. As summarized by the Office of Inspector General of the Department of the Treasury: “Although OTS conducted timely and regular examinations of IndyMac and provided oversight through off-site monitoring, its supervision of the thrift failed to prevent a material loss to the Deposit Insurance Fund. The thrift’s high-risk business strategy warranted more careful and much earlier attention.”<sup>72</sup>

### Washington Mutual (July and September 2008)

In the later stages of the financial crisis, the various financial agencies largely moved in unison. However, in the case of Washington Mutual (WaMu), the decision of how to respond to the run on the institution and how to treat creditors was one of the rare cases of open dissent among the ranks of the authorities. It also marked the beginning of a period of hesitancy on the part of the pri-

mary regulator of an institution experiencing a run to downgrade an institution to “problem” status.

**SOURCE OF WEAKNESS.** Like Countrywide and IndyMac, WaMu was heavily invested in option ARMs, many of which were the low- or no-documentation variety. Originations jumped from \$30 billion in 2003 to \$68 billion in 2004. As of year-end 2007, \$59 billion in option ARMs were on the books. WaMu was then the largest savings association, with over \$300 billion in assets. That same final quarter of 2007, the stream of losses began with a \$1.9 billion write-off and another \$1.1 billion write-off for the first quarter of 2008.<sup>73</sup>

**CONDITION AND CAMELS RATING.** Not unlike the case of IndyMac, WaMu’s supervisor, the OTS, rated the institution a CAMELS 2 for an extended period of time between 2001 and 2007. A downgrade in the CAMELS rating to a 3 occurred in February 2008 as losses began to build, combined with an informal enforcement action. However, as WaMu’s condition worsened, the OTS was hesitant to take the further step to classify it as a problem institution at a 4 rating or worse. The OTS may have been conflicted in its assessment of WaMu in that it was the largest institution under the agency’s supervision. The OTS budget relied on assessments on the thrifts it supervised, and WaMu accounted for 12–15 percent of the agency’s budget from 2003 to 2008.<sup>74</sup> If WaMu were shuttered, it would put a large strain on the OTS revenue stream. Bair described WaMu as having a “too-close relationship with its primary regulatory, the OTS” and she was concerned that the OTS was “completely captive to the only remaining major institution that it regulated.”<sup>75</sup>

By September 2008, the OTS and FDIC were in conflict on whether WaMu should be downgraded to a 4 rating, with OTS maintaining a 3 rating.<sup>76</sup> Bair highlighted the conflict in later testimony, telling the FCIC that “our examiners, much earlier, were very concerned about the underwriting quality of WaMu’s mortgage portfolio, and we were actively opposed by the OTS in terms of going in and letting our [FDIC] examiners do loan-level analysis.”<sup>77</sup> The OTS finally downgraded WaMu to a CAMELS 4 composite rating on September 18, 2008, a week before its

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closure, likely in response to a depositor run.<sup>78</sup> A later Treasury/FDIC joint inspector general report noted: “We concluded that OTS should have lowered WaMu’s composite CAMELS rating sooner and taken stronger enforcement action sooner to force WaMu’s management to correct the problems identified by OTS.”<sup>79</sup> This was the beginning of a trend: henceforth, primary supervisory agencies were hesitant to assign the CAMELS 4 or 5 rating and place the institution in “problem” status.

**MAGNITUDE OF THE RUN.** Liquidity problems for WaMu built up slowly over time. WaMu had an increasing reliance on the FHLB of San Francisco for funding during 2007, with \$28 billion owed in March 2007 and \$73 billion as of December 2007. In early 2008, WaMu appeared to be making some progress in improving its financial position, discontinuing subprime mortgage lending and also raising \$7 billion in new capital. But in mid-July, the closure of IndyMac combined with a late July announcement by WaMu of a \$3.3 billion second quarter loss caused a run-off of deposits at the institution.<sup>80</sup> About two-thirds of the run-off was from uninsured depositors, with depositors withdrawing \$10 billion over two weeks (a total outflow of over 6 percent of the retail deposit base).<sup>81</sup> The FHLB of San Francisco began to limit WaMu’s access to their borrowing facility.<sup>82</sup> Federal Reserve borrowings were periodically run up to between \$1 and \$2 billion and then ultimately paid off on multiple occasions throughout 2008 until August, with borrowing capacity at the discount window at about \$8 billion as of early September.<sup>83</sup>

WaMu experienced a serious run in mid to late September 2008, with withdrawals reaching \$16.7 billion through September 24 (over 10 percent of the retail deposit base). Its Federal Reserve borrowings reached \$3 billion on a blend of TAF and discount window borrowing. Uninsured deposits had been drawn down to about \$8.5 billion.

**RESOLUTION.** The OTS appointed an FDIC receiver the following day. “Given the bank’s limited sources of funds and significant deposit outflows, it was highly likely to be unable to pay its obligations and meet its operating liquidity

needs,” according to a report to the FDIC Board of Directors.<sup>84</sup> JP Morgan paid a premium of \$1.9 billion to acquire WaMu’s operations, including both insured and uninsured depositors, while WaMu’s unsecured creditors ended up taking losses. Citigroup also bid on WaMu.<sup>85</sup>

Treasury and the Federal Reserve Bank of New York management criticized the FDIC’s choice of resolution option for forcing the unsecured creditors to take losses in this manner. A comment regarding WaMu from Neel Kashkari, the assistant Treasury secretary for financial stability, typifies government officials’ panicked state: “We were saying that’s great, we can all be tough, and we can be so tough that we plunge the financial system into the Great Depression. And so, I think, in my judgment that was a mistake.”<sup>86</sup> In contrast, Bair remained unconvinced: “I absolutely do think that was the right decision. . . . WaMu was not a well-run institution.”<sup>87</sup> In her later book, she described WaMu as an institution that “had been horribly mismanaged.”<sup>88</sup>

**CRITIQUE.** Like IndyMac, WaMu was shuttered once it was determined that it was no longer viable, which was the appropriate decision by the OTS. The FDIC decision to have unsecured creditors absorb losses was also the appropriate choice. Also, as in the case of IndyMac, there was a severe regulatory breakdown displayed in the OTS’s supervision of the institution, likely owing to its conflicted position in relying on WaMu for its continued subsistence.

### Wachovia (April, July, September 2008)

Early in the subprime crisis, the authorities did a good job of responding to the runs on savings institutions. In the cases of IndyMac and WaMu, there were regulatory breakdowns, but once it was clear that institutions had deteriorated to problem status as indicated by the CAMELS rating and the runs by creditors, they were shuttered. Starting with the case of Wachovia Bank and the ultimate vote to provide it with a bailout, the decisionmaking process by the authorities, including FDIC chairman Bair, descended into panic. As a result, the actual decisions became more flawed and lacked specific justifications for actions taken.

**SOURCE OF WEAKNESS.** Wachovia, which was the fourth largest bank in the United States, suffered massive losses from its mortgage-related investments, including a \$100 billion portfolio of option ARMs inherited from its acquisition of Golden West Financial Corporation of California in 2006. Simultaneously Wachovia pushed aggressively into commercial real estate. A new chief executive officer, Robert K. Steel, was brought in to restructure Wachovia in 2008, but by then the institution was already spiraling downward.<sup>89</sup>

**CONDITION AND CAMELS RATING.** In what is now a familiar scenario, Wachovia received a CAMELS composite rating of 2 in annual examinations in 2005, 2006, and 2007. An on-site examination of Wachovia as of June 30, 2008, and finalized in August 2008 revealed deterioration, but the bank composite rating of a 3 did not give an indication of an institution that would collapse in a matter of weeks.<sup>90</sup> Bair accused the OCC of not giving her information “that truly reflected the severity of the problems” at Wachovia and as a result the FDIC did not place on-site specialist “monitors” in Wachovia “based on the OCC’s assurances that it was in sound condition.”<sup>91</sup>

In the case of IndyMac and WaMu, the OTS—which was the primary supervisor and chartering authority—was hesitant to downgrade the institutions to problem status, but eventually accepted the obvious. The OCC never did downgrade Wachovia to a composite 4 or 5, as it apparently was the first institution to have a bailout approved by the FDIC without ever reaching official problem bank status. Beyond the composite rating, though, the underlying component parts of the rating did change.

As detailed in Table 3, the liquidity rating plummeted from a 2 to a 5, yet the collapsing liquidity apparently had no impact on the composite rating. This raises two questions: Notwithstanding the acceleration in the financial crisis during this period, how can an institution go from a 2 to a 5 rating for liquidity in just a matter of weeks? Additionally, how can an institution be so illiquid that it receives a 5 rating in the liquidity component and needs a bailout, but not be downgraded to problem bank status of a composite 4 or 5?

**MAGNITUDE OF THE RUN.** In April 2008, after Wachovia announced a first quarter loss, there was a mild run-off of about \$15 billion in core deposits.

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**Table 3**  
**CAMELS Rating Comparison for Wachovia, August and September 2008 ratings**

| CAMELS Category     | August 4, 2008<br>(financial data as of<br>June 30, 2008) | September 28, 2008<br>(financial data as of<br>September 26, 2008) |
|---------------------|---|--|
| Capital             | 2   | 3  |
| Assets              | 3   | 3  |
| Management          | 3   | 3  |
| Earnings            | 3   | 4  |
| <b>Liquidity</b>    | <b>2</b>  | <b>5</b>   |
| Sensitivity to Risk | 2   | 2  |
| <b>Composite</b>    | <b>3</b>  | <b>3</b>   |

Source: Memo from James Wigand and Herbert Held to the FDIC Board of Directors, “Wachovia Bank, Wachovia Corporation,” September 29, 2008, pp. 1, 5.

“The Federal Reserve simply ignored the question regarding a solvency calculation for Wachovia.”

By June the lost core deposits had been recovered. Another run-off of about \$20 billion in core deposits occurred in July 2008 after an earnings announcement for the second quarter loss.<sup>92</sup> During that time, a nominal level of borrowing from the Federal Reserve occurred through the TAF facility, starting at \$3.5 billion in late March 2008, ratcheting up to \$7 billion coinciding with the April earnings announcement, and up to \$12.5 billion at the July earnings announcement. That borrowing level was generally maintained through Wachovia's September collapse.<sup>93</sup> In September 2008 there was yet another run-off of deposits, this time of about \$30 billion. Shortly thereafter, in early October there was a new extension to Wachovia through the discount window for \$29 billion, raising total borrowings to almost \$42 billion.<sup>94</sup>

Based on the available evidence, it appears that these periodic run-offs and related draws from the Federal Reserve were manageable, and not necessarily debilitating, given that Wachovia was not classified as a “problem” institution and was apparently solvent (capital was rated as a 3). During testimony by Bernanke and Bair before the FCIC, commission member Peter Wallison raised the issue of discount window lending to address such short-term liquidity challenges:

COMMISSIONER PETER WALLISON: Now Wachovia is an interesting case, because as far as I can understand the only thing that was considered for Wachovia—which again I would like your judgment on this of course—the only thing that was considered for Wachovia was an acquisition. Whereas, Wachovia, at least as far as we understand it, was solvent but was subject to liquidity problems. That is to say, there were runs. Why was it, then, that as an alternative Wachovia was not able to use the discount window?

CHAIRMAN BERNANKE: Well they were allowed to use the discount window. And you raise a good question, and perhaps I could come back with more information subsequent to this hearing. But their liquidity drains were quite serious, and they were—it was their judgment that they were

not going to be able to open up within a day or two. They thought that the liquidity drains were such that they could not meet them even with the discount window.

COMMISSIONER WALLISON: This was Wachovia's judgment? They were the ones who said we cannot survive this?

CHAIRMAN BERNANKE: Confirmed by the Richmond Federal Reserve Bank . . . So part of my problem here is I don't recall exactly the discussion, and I would like to get back to you on that.

COMMISSIONER WALLISON: I'd like you to do that.<sup>95</sup>

Ultimately the FCIC did provide follow-up questions to Bernanke regarding “the use of Federal Reserve lending facilities” and a request for a “solvency calculation for Wachovia.” However, the Federal Reserve's response regarding the use of lending facilities was inconsistent with other information it provided to Bloomberg News, and the Federal Reserve simply ignored the question regarding a solvency calculation for Wachovia.<sup>96</sup>

But did Wachovia really say that it could not survive the liquidity problems of late September? Wachovia CEO Steel also testified before the FCIC, but he did not admit that the bank could not access any funding sources and made no clear statement of Wachovia's liquidity position other than that it experienced “some liquidity pressure” and that “failure of negotiations *could have* resulted in Wachovia filing for bankruptcy.” That does not seem to indicate that it was at risk of imminent liquidity failure:

On Friday, September 26, there was significant downward pressure on Wachovia's common stock and deposit base, and as the day progressed, some liquidity pressure intensified as financial institutions began declining to conduct normal financing transactions with Wachovia. In light of these deteriorating market conditions during the week of September 22, it appeared that Wachovia was no longer in a position to engage in the public offering and private placement transactions necessary to



raise capital, which in turn was considered to be the best method short of selling the company for sustaining Wachovia in this tumultuous environment. Heading into the weekend of September 27–28, management advised the Board of Directors that, in light of the bank’s inability to access the capital markets, Wachovia had begun discussions with both Citigroup and Wells Fargo regarding a possible merger and that management intended to pursue both options during the weekend. The failure of these negotiations could have resulted in Wachovia filing for bankruptcy and the national bank being placed into FDIC receivership. Such a result would have had a major impact on Wachovia’s creditors, counterparties, employees, and more broadly on the U.S. economy.<sup>97</sup>

Finally, as part of its board materials for Wachovia, the FDIC, and OCC put together a stress-scenario analysis of Wachovia, with data as of September 26, 2008, of available sources of funding compared to demands for funding through October 7. The FDIC described the situation as one where Wachovia would “likely be unable to pay obligations or meet expected deposit outflows.”<sup>98</sup> However, the memo detailed available sources of funds of \$220.1 billion, including assets such as securities, and commercial and consumer loans available for pledging, some of which would have required a haircut on their value to borrow against (see Table 4). Expected demands on funding sources through October 7 totaled \$115.5 billion, which assumed a steady run on Wachovia in the form of daily deposit outflows. These details are consistent with Steel’s statement regarding “some liquidity pressure,” but are certainly not clear evidence of an imminent debilitating liquidity failure and reveal capacity for Wachovia to fund itself in the near-term.

**RESOLUTION.** On September 29 the FDIC Board approved open bank assistance for Wachovia, a form of a financial institution bailout, with Citigroup as the acquiring institution.<sup>99</sup> The board took all of 30 minutes to approve the information presented to it at the meeting, asking very few questions and none about the specific details

of the funding needs of Wachovia.<sup>100</sup>

Unlike in the case of WaMu, Bair in her own words “acquiesced” to the bailout for Wachovia. She also added, “I’m not completely comfortable with it but we need to move forward with something, clearly, because this institution is in a tenuous situation.”<sup>101</sup> It is not clear why she felt compelled to intervene in this way, especially when Wachovia’s primary regulator was not acting. In her book on the financial crisis, she noted that “the OCC, whose job it was to revoke the charter of a failing institution, flatly refused to do so. [Comptroller of the Currency] John Dugan clearly did not want the embarrassment of a major national bank being closed on his watch.”<sup>102</sup> The only seemingly plausible explanation was that she caved in to pressure from the White House, Treasury, and Federal Reserve who were using the transaction as a subterfuge to bail out Citigroup, a possibility that Bair herself speculated about after hearing the idea from Steel: “The NY Fed might be trying to push Wachovia into Citi’s arms as a backdoor way to bail it out, though the deal would be camouflaged as a way to help Wachovia.”<sup>103</sup>

Ultimately, the bailout was superseded by an outright unassisted purchase of Wachovia by Wells Fargo, another institution that was bidding for Wachovia along with Citigroup, a few days after the FDIC Board voted for the bailout. Notwithstanding the protests of Treasury Secretary Tim Geithner, who wanted Bair to stick with the Citigroup deal, allowing Wells Fargo to follow through on the transaction was the right call, especially given that it allowed the FDIC to avoid any exposure.

**CRITIQUE.** In the end, all the panic over the condition of Wachovia seems for naught given that Wells Fargo swooped in for the acquisition. However, what was observable before the acquisition announcement was enlightening as it displayed the authorities not only in the midst of regulatory breakdown, but also in full panic. This was manifested to the point where the authorities were blind to a situation of an institution that was probably easily resolvable through old-fashioned discount window or other Federal Reserve lending, as observed by FCIC member Wallison.

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**Table 4**  
**Wachovia FDIC/OCC Liquidity Stress Analysis**  
**(September 26 to October 7, 2008)**

|   | (\$billions) |
|---|--------------|
| Overnight Fed Funds Sold Less Funds Purchased                   | 4.5          |
| Federal Reserve (collateral posted)                             | 2.6          |
| T-Bills and Term Commercial Paper                               | 10.0         |
| Discount Window (post-haircut)                                  | 52.0         |
| Unpledged Securities (pre-haircut)                              | 29.0         |
| Federal Home Loan Bank  | 5.0          |
| Additional Collateral: Commercial Loans (pre-haircut)           | 97.0         |
| Additional Collateral: Consumer Loans (pre-haircut)             | 20.0         |
| <b>Potentially Available Funding Sources (some pre-haircut)</b> | <b>220.1</b> |
| 1.5% Daily Deposit Outflow                                      | 42.0         |
| Corporate Sweeps 100% Outflow                                   | 12.0         |
| Retail Brokerage Outflow  | 30.0         |
| Variable Rate Demand Note Maturity and Stress                   | 15.8         |
| Maturing Debt   | 9.7          |
| Asset Backed Commercial Paper Maturity                          | 3.3          |
| Maturing Repo Agreements  | 2.7          |
| <b>Actual Maturity and Stress</b>                               | <b>115.5</b> |
| <b>Net Available Funding Sources (some pre-haircut)</b>         | <b>104.6</b> |

Source: Memo from James Wigand and Herbert Held to the FDIC Board of Directors, “Wachovia Bank, Wachovia Corporation,” September 29, 2008, pp. 4–5.

### **Citibank (November 2008)**

Unlike the Wachovia run and its subsequent bailout, no serious effort was made to find an acquirer for troubled Citibank, the third largest bank in the United States.<sup>104</sup> The pattern of panic that began with the response to Wachovia continued in the analysis and response to Citibank’s troubles. There were simply the thin justifications supporting the bailout of an unsound institution in contravention to the lessons learned from decades-earlier Fed advances to Franklin National Bank, Continental, and BNE, as well as the admonitions of Bagehot and

Schwartz.

**SOURCE OF WEAKNESS.** Citibank was weakened by tens of billions of dollars in write-downs of mortgage-related securities. It deteriorated further after it ultimately failed to win the bidding for Wachovia. Roger Cole, head of banking supervision at the Federal Reserve, described the market response to Wells Fargo wresting away the Wachovia franchise from Citigroup: “It was regarded [by the market] as an indication of bad management at Citi that they lost the deal, and had it taken away from them by a smarter, more astute Wells Fargo team.”<sup>105</sup>

**CONDITION AND CAMELS RATING.** Citibank received a steady stream of composite ratings of 2 based on OCC examinations from 2004 to 2006. But a December 2007 examination led to a downgrade to a 3, with Citigroup placed under a memorandum of understanding (MOU) in April 2008. The MOU, a written agreement between the OCC and Citibank, addressed a broad range of weaknesses as it detailed necessary improvements in risk management, corporate governance, and Board oversight; the allowance for loan and lease losses reserve methodology; the development and implementation of management succession; and risk management, liquidity, profit and capital adequacy plans.<sup>106</sup> A smaller bank with similar problems to Citibank would have been placed under a more formal supervisory order to take corrective action and placed on the troubled-bank list.<sup>107</sup>

The 3 composite CAMELS rating for Citibank remained throughout 2008. The OCC did not choose to downgrade Citibank to problem bank status of a 4 or 5, so this is yet another case of an institution, like Wachovia, being bailed out without ever reaching problem bank status. Ultimately, in 2009 Citigroup and Citibank were downgraded to a 4 after three separate bailouts, but the downgrade was apparently reversed.<sup>108</sup>

In retrospect, it is extraordinary to consider that an institution with such wide-ranging weaknesses was approved just a few months later to purchase Wachovia. FCIC member Wallison made this point succinctly at the same hearing that focused on Wachovia. The FDIC representative, John Corston, really did not have a particularly satisfying answer as to the question of the weak condition of Citibank:

**COMMISSIONER WALLISON:** We've looked at Citi, and at the time we looked at Citi it looked like a pretty weak institution in 2008. It didn't seem to improve much between—after 2008, a little bit. But the question that is bothering me is: The FDIC approved the idea of Citi, which [was] near insolvency itself as many people said, to pick up another institution that was also weak in the form of Wacho-

via. I don't understand how that decision could have been made. What was in the minds of the people at the FDIC who unanimously agreed to do that, to take an already large and seemingly confused institution like Citi and graft onto it another institution that the market had already concluded was, if not insolvent, at least in seriously illiquid conditions? Can you explain that?

**WITNESS CORSTON:** When you look at Wachovia, and you look at Citi, Citi had a largely wholesale funding structure and not a very large retail deposit base. What Wachovia had was a fairly decent retail franchise, albeit with some wholesale funding and certainly some baggage that would have gone along with it. The thought was, to be able to incorporate the two would allow to stabilize some of the funding structure at Wachovia and add some core funding structure at Citi at the same time. So it's taking two institutions that had some financial weaknesses, but there were some synergies that actually could—they could grow off of and actually build some strength within them. But certainly your concerns are very well—<sup>109</sup>

Shortly after Citigroup lost the bidding for Wachovia, the largest nine financial institutions received the initial allocation of funding through the Troubled Asset Relief Program (TARP) in October 2008, with Citibank receiving \$25 billion. Of the nine, Citibank was clearly the weakest commercial bank from a capitalization standpoint, and it was conceivable that the justification for the initial capital injections was to provide cover for propping up Citibank and the investment banks.<sup>110</sup>

Chairman Elizabeth Warren of the Congressional Oversight Panel made a related point in highlighting a seeming contradiction between Citibank being publicly adjudged by Treasury Secretary Henry Paulson as healthy in October 2008 as it was receiving its first installment of TARP funding—just weeks before the run on the bank discussed in the next section:

“A smaller bank with similar problems to Citibank would have been placed under a more formal supervisory order to take corrective action and placed on the troubled-bank list.”

“The Federal Reserve was not the only source of government or government-sponsored funding. Citi received \$25 billion from TARP in October and \$84 billion from the FHLBs.”

WARREN (COP): On October 14th, 2008, Secretary Paulson announced the creation of the Capital Purchase Program and the infusion of cash into nine financial institutions, including Citi, and under the program he announced—these are the words he used—“These are healthy institutions, and they have taken this step of accepting taxpayer money for the good of the U.S. economy. As these healthy institutions increase their capital base, they will be able to increase their funding to U.S. consumers and businesses.” On October 28, under that program, Citi got \$25 billion and was pronounced a “healthy institution.” And yet, on November 23rd, which I think is about three weeks and four days later, the Secretary of the Treasury said that Citi was—Citi and Citi alone—was in such dire straits that it would need an additional \$20 billion, and that was, then, followed by another \$102 billion in guarantees. What I want to understand is, now we describe Citi as a “healthy institution,” what does “healthy” mean now that it didn’t mean on October 14, 2008?<sup>111</sup>

**MAGNITUDE OF THE RUN.** In October Citigroup announced a \$2.8 billion net loss for the third quarter, concentrated in subprime and Alt-A mortgages, commercial real estate investments, and structured investment vehicle write-downs. Press speculation focused on a “lost confidence in senior management” on the part of Citi’s Board, which reportedly led to concerns by wholesale funding sources and depositors. Credit default swaps on Citigroup increased dramatically and its stock price plummeted.<sup>112</sup> Borrowing from the various Federal Reserve facilities started in January 2008 at relatively modest levels (\$4.5 billion, mostly through the TAF program) and steadily grew to much more substantial levels by late October (\$51 billion, mostly through the Term Securities Lending Facility and Prime Dealer Credit Facility). But the Federal Reserve was not the only source of government or government-sponsored funding. As previously noted, Citi received \$25 billion from TARP in October and \$84 billion from the FHLBs.<sup>113</sup>

The measurable extent of the so-called run on Citibank has not been well quantified. Various sources of information, primarily the financial agencies and oversight bodies and commissions such as the SIGTARP and FCIC, described the flurry of activity that led the FDIC, OCC, Treasury, and Federal Reserve to intervene with a bailout. But this information often did not distinguish between the holding company, Citigroup, and the primary insured bank, Citibank. Much of it involved merely projecting out a run to a specific point in time in the future based on a set of assumptions. Overall, the information was not cohesive enough to draw much in the way of conclusions. However, the information perpetuated the state of panic by the agencies initiated during the Wachovia resolution:

- Paulson was concerned that these various converging events “might start a run on Citigroup.”
- Overnight from Thursday, November 20 to Friday, November 21, Citigroup’s Global Transaction Services unit, which offers integrated cash management, trade, and securities and fund services to multinational corporations, financial institutions, and public sector organizations, experienced a \$14 billion drop-off in available funds (about 5 percent of total funds).
- A senior OCC official stated that “numerous counterparties called with concerns about counterparty risk” of Citigroup. A Federal Reserve official on November 21 noted that Citigroup counterparties began to “pull back from Citigroup” because of its perceived decline in creditworthiness. The extent of the pullback was not quantified.
- On Friday, November 21, there were “significant corporate withdrawals (i.e., a run), primarily in the U.S. and secondarily in Europe,” but again the extent of these withdrawals was not quantified.
- An OCC official stated that the OCC received indications that problems related to deposit outflows were also beginning to emerge for Citigroup in Asia’s Monday morning trading hours the evening of Sun-



day, November 23, East Coast time.<sup>114</sup>

- On Friday, November 21, the United Kingdom's Financial Services Agency imposed a \$6.4 billion cash lockup requirement on Citibank to protect the interests of Citigroup's London broker dealer.
- The OCC and Citigroup projected that Citibank would be unable to pay obligations or meet expected deposit outflows over the ensuing week ending November 28. This projection was based on the assumption of a 7.2 percent deposit run-off at Citibank at a rate of 2 percent per day, but it is not clear how reasonable the stress scenario assumptions were.
- Upon questioning at an FDIC Board meeting on November 23 to, in part, determine Citibank and Citigroup's fate, FDIC director and comptroller of the currency Dugan revealed that "Citi" had about \$130 billion in available liquidity.<sup>115</sup> No breakdown of the available liquidity was released at that time.

**RESOLUTION.** Under the bailout for Citigroup negotiated the weekend of November 22–23, the Treasury, FDIC, and Federal Reserve combined efforts to provide a package that was a complex blend of additional funding combined with open bank assistance in the form of a guarantee scheme for troubled assets. The funding primarily came through a \$20 billion capital injection from TARP, which was on top of the existing \$25 billion provided in October. The need for an additional capital injection indicates that Citigroup was dealing not just with liquidity problems, but also solvency issues, and that a composite rating of 4 and classification as a problem bank status was justified.

Bair suggested that consideration be given to some form of receivership process that would have given the authorities the option to force some losses on shareholders and unsecured creditors (likely through some form of bridge bank). But Paulson and Geithner pushed back against this possibility and it was ultimately never pursued. Reliance was placed on labeling Citibank as systemic, which allowed for a loophole for yet

another bailout, notwithstanding the fact that, as described by SIGTARP, the decision was "based as much on gut instinct and fear of the unknown as on objective criteria."<sup>116</sup>

Even as Citigroup was being resolved through such extraordinary measures, the OCC remained hesitant to give a CAMELS rating harsher than a 3 in any of the underlying component ratings. The stated reason for keeping the liquidity rating at a 3 was an assumption that it would receive a bailout, even before the FDIC board voted on it. Chairman Bair found this surprising in her questioning of Dugan and his staff at the FDIC board meeting that focused on Citi's bailout:

DOUG RODER (OCC): In terms of the composite we had it as a "3." Obviously their liquidity situation rapidly changed, so—but with the fix—I'm not in a position to necessarily say that that is anything less than a "3," given the other conditions and the support from this transaction.

CHAIRMAN BAIR: How can you say that? I mean we were on the verge of having to close this institution because it can't meet its liquidity Monday morning. How can you keep liquidity at a "3." They've got [\$]500 billion in foreign deposits that nobody can guarantee. How can you keep it at a "3"? I don't understand that.

DIRECTOR DUGAN: I think it has to do with the situation once this thing gets put in place, that's all.

MR. ROEDER: Exactly right.

CHAIRMAN BAIR: In other words, once a lot of government assistance is injected into this institution, then it stays at a "3." That is not the criteria we use. That is certainly not the criteria we use for other banks. You can't stabilize liquidity without significant government support. So how do you rate a "3"? Is that the standard now that people get a "3" if, with government assistance, they can have adequate liquidity? That doesn't make any sense to me.<sup>117</sup>

**CRITIQUE.** Much of the analysis of the precise condition of Citigroup and Citibank is clouded

“The need for an additional capital injection indicates that Citigroup was dealing not just with liquidity problems, but also solvency issues.”

“All along it appeared that the authorities were publicly in denial about the condition of Citigroup.”

because of the lack of clear information. The most plausible summary is that the mega-institution was experiencing solvency problems and certainly more serious consideration should have been given to a more permanent resolution such as a bridge bank, rather than a bailout of Citigroup that would merely allow it to linger on until the next financial crisis.

All along it appeared that the authorities were publicly in denial about the condition of Citigroup. They were in denial in September when they approved Citigroup’s proposal for resolving Wachovia. They were in denial in October when they labeled Citigroup as a healthy institution as it received its first installment of TARP funding. Finally, they were in denial in November when they were unwilling to downgrade Citigroup to a 4, which they ultimately did during 2009. Whether the authorities privately held different motives or assessments is difficult to say, but there were clearly some cases of blind allegiance to the notion that Citibank and Citigroup had to be saved at all costs, notwithstanding their weak management or the lack of clear information on their systemic importance.

Even years later, Assistant Treasury Secretary Herbert Allison was hesitant to publicly label the institution as “failing” during 2008 when he was questioned by Congressional Oversight Panel member Damon Silvers:

MR. SILVERS: And, as you note, the Fed took certain other actions, but a unique step was taken that week with respect to Citi.

MR. ALLISON (TREASURY): In the case of Citi in that week, what action was taken? Citi was in a position where it was—and it did communicate this to Treasury, I know this—that they could have difficulty funding themselves at that time. Their debt spreads had widened considerably, and so, in the opinion of their management, they were facing a very serious situation.

MR. SILVERS (COP): These sound like euphemisms for “failing.” I don’t understand, frankly, and I have the greatest respect for you and the work you’ve done

with the TARP, and I don’t mean to be taken in any other way, but I do not understand why it is that the United States government cannot admit what everyone in the world knows, which is that, in that week, Citigroup was a failing institution. And I don’t understand why—since no one denies that they called the Treasury Department and asked for extraordinary aid and said, effectively, they would run out of cash, why it is that we can’t all agree that they were failing. Can you explain to me why that is?<sup>118</sup>

Silvers was right in pursuing his line of questioning on the state of denial. An institution that reportedly cannot make it through the week without government assistance and is not able to provide sufficient collateral to support borrowing either in the market or through the discount window or similar facility should be deemed a 4 or 5. It is a failing institution.

## **POLICY REASSESSMENT IN LIGHT OF THE FIVE CASE STUDIES**

The justification for swiftly closing an institution outright if it is experiencing a run, as argued by Schwartz, is to assure that exposed creditors absorb their share of the losses at a failing institution. The case studies from the 1970s, 1980s, and early 1990s were clear examples of delays that allowed creditors to withdraw funds while the government filled the funding gap and ultimately absorbed losses in excess of what would have occurred during a more prompt closing. The early case studies from the recent financial crisis—Countrywide, IndyMac, and WaMu—were addressed decisively with a good deal of consistent discipline. In the case of Countrywide, pleas for the Federal Reserve to take on subquality assets as collateral were rightly ignored. IndyMac and WaMu were extended nominal amounts of Federal Reserve funding, but once it was clear they were 4- or 5-rated institutions that would be unable to meet liquidity demands, they were shuttered.

In the latter two cases, Wachovia and Citibank, the authorities intervened before they

had determined the extent of the debilitation that would result from a run. Rather, they projected what might happen as the run played out for a week or two and then acted on that basis. Early intervention is good if it is based on solid financial analytics, but in these instances that does not appear to have been the case. Wachovia seemed to have sufficient liquidity for an extended period of time and the authorities simply assumed that Citibank was systemic with very little underlying analysis. Citibank continued to receive funds through various Federal Reserve borrowing facilities even though it should have been adjudged as a problem institution. So even though it is true that the interventions in those two cases were swift, the early interventions did not achieve the objective of forcing losses upon uninsured creditors because those uninsured creditors were bailed out.

In particular, the bailout for Citibank was really no different than the bailouts of FNB, Continental, and BNE in earlier times. In all cases, the institution was poorly managed and the existing management team largely put the institution on the brink of collapse. There was really no justification for allowing the institution to continue to operate. No evidence was ever presented in any of the cases that deposits withdrawn from the institutions were being taken out of the banking system entirely, as happened during the Great Depression. In fact, available evidence indicates that during 2008, institutions like JP Morgan—which were seen as stable and well managed—were benefiting from the flight of depositors from the troubled institutions. According to a JP Morgan letter to shareholders,

As we entered the most tumultuous financial markets since the Great Depression, we experienced the opposite of a “run on the bank” as deposits flowed in (in a two-month period, \$150 billion flowed in—we barely knew what to do with it).<sup>119</sup>

The authorities have not publicly released any analysis of whether, on balance, the deposits withdrawn from institutions like Countrywide, IndyMac, WaMu, Wachovia, and Citigroup left

the banking system entirely or simply were moved to stronger institutions like JP Morgan.<sup>120</sup> Deposit data that are readily available reveal that total bank deposits and insured deposits increased during this period, which suggests that since total bank deposits did not decline, there was simply a reallocation of deposits to other institutions, which largely offset the withdrawals from the troubled institutions.<sup>121</sup>

### Runs at Other Financial Institutions

Traditionally, concerns regarding the damaging aspects of runs on financial institutions have been focused on commercial banks and savings associations. The standard convention during the historical period reviewed from the mid-1970s through the early 1990s was that commercial banks and savings associations are “special” and should have access to a system of deposit insurance and a lender of last resort, the so-called “safety net.”<sup>122</sup> As a consequence of extending the benefits of the safety net, these institutions’ activities are also more heavily regulated than those of other types of institutions. This point was well summarized in an influential analysis written by Gerald Corrigan, former president of the Federal Reserve Bank of New York:

Banks and bank regulators have long since recognized the importance of banks acting in ways that preserve public confidence in banks’ capacity to meet their deposit obligations, thereby minimizing the likelihood of large, sudden drains of bank deposits. Deposit insurance and direct access to the lender of last resort are uniquely available to banks to reinforce that public confidence. Indeed, deposit insurance and access to the lender of last resort constitute a public safety net under the deposit taking function of banks. The presence of this public safety net reflects a long-standing consensus that banking functions are essential to a healthy economy. However the presence of the public safety net uniquely available to a particular class of institutions also implies that those institutions have unique public responsibilities and may

“No evidence was presented that deposits withdrawn from the institutions were being taken out of the banking system entirely, as happened during the Great Depression.”

“An explicit safety net was never extended to investment banks, hedge funds, insurance companies, and money market funds, or broader markets such as repo and commercial paper markets prior to the 2008 crisis.”

therefore be subject to implicit codes of conduct or explicit regulations that do not fall on other institutions.<sup>123</sup>

Specifically with regard to drains on deposits and how the presence of deposits helps to distinguish between the treatment of commercial banks and savings associations as opposed to other financial institutions, Corrigan also surmised:

[T]he critical difference between banks and other classes of financial institutions rests with the capacity of banks to incur (and to create) liabilities that are payable on demand at par and that are readily transferable to third parties. The resulting mismatch of the maturities of assets and liabilities makes banks particularly vulnerable to sudden drains on deposits that can jeopardize their solvency. In practice, depositors—reinforced by the public policy safety net—have demonstrated tendencies to drain deposits from particular banks only when confronted with the reality or the perception of losses growing out of asset management problems and/or poor management of banking organizations. Thus, while the deposit taking function of banks is what makes them unique, the integrity of that process depends upon the risks, real and perceived, associated with the lending and related activities of the banking system as a whole and its capacity to absorb shocks in the short run.

An explicit safety net was never extended to investment banks, hedge funds, insurance companies, and money market funds, or broader markets such as repo and commercial paper markets prior to the 2008 crisis. For example, Drexel Burnham Lambert was allowed to file for bankruptcy in 1990 without the benefit of any type of financing from the Federal Reserve.<sup>124</sup> When FDICIA extended the safety net beyond commercial banks (at least to the extent of emergency lending to securities firms), Schwartz was clearly puzzled by the lack of a clear justification for doing so: “Traditionally, commercial banks, knowing they had access to the

discount window, have lent to brokerage firms and others short of cash in a stock market crash. It is not clear why the traditional practice was deemed unsatisfactory.”<sup>125</sup>

### The Safety Net Is Extended in Practice

Paulson, in his book on the financial crisis, explained his reasoning for broadening the safety net of federal lending beyond commercial banks and savings association. When he was Treasury secretary, he and the Fed came to the rescue when the investment bank Bear Stearns experienced a run by short-term creditors and approached failure. Based on Paulson’s response to Bear Stearns specifically and more broadly throughout the course of the crisis (which was closely coordinated with and implemented by the Federal Reserve), the implication was that a much broader range of institutions was now deemed “special.” They needed to be treated similarly to the way commercial banks and savings associations were treated regarding access to emergency funding, guarantees, or other backstopping:

I couldn’t stop thinking about the consequences of a Bear failure. I worried about the soundness of balance sheets, the lack of transparency in the [credit default swaps] market, and the interconnectedness among institutions that lent each other billions each day and how easily the system could unravel if they got spooked. My mind raced through dire scenarios.

All financial institutions depended on borrowed money—and on the confidence of their lenders. If lenders got nervous about a bank’s ability to pay, they could refuse to lend or demand more collateral for their loans. If everyone did that at once, the financial system would shut down and there would be no credit available for companies or consumers. Economic activity would contract, even collapse.<sup>126</sup>

Bernanke and Geithner echoed similar panicked responses when detailing their justification for intervention before the FCIC and in testimony on Bear Stearns:



“But the reality is that there was little in the way of a direct connection between the Lehman bankruptcy and any financial institution failures.”

BERNANKE: Bear Stearns, which is not that big a firm, our view on why it was important to save it—you may disagree—but our view was that because it was so essentially involved in this critical repo financing, that its failure would have brought down that market, which would have had implications for other firms.<sup>127</sup>

GEITHNER: The sudden discovery by Bear’s derivative counterparties that important financial positions they had put in place to protect themselves from financial risk were no longer operative would have triggered substantial further dislocation in the markets. This would have precipitated a rush by Bear’s counterparties to liquidate the collateral they held against those positions and to attempt to replicate those positions in already very fragile markets.<sup>128</sup>

But among all of these arguments—none of which were quantifiably supported publicly—that “the financial system would shut down” or that Bear’s failure “would have brought down” the repo market or “triggered substantial further dislocation in the markets,” none justify any type of special treatment and access to a safety net of Federal Reserve lending analogous to that available to banks. There is no coherent argument advanced to explain what is systemically harmful about a run of this kind on a nonbank financial institution and how a nonbank financial firm would cause a systemic breakdown if it were to fail.<sup>129</sup> The arguments set forth above and others at the time regarding the credit default swaps (CDS) market, repo markets, and interconnectedness were not based on any substantive analysis of the facts related to Bear Stearns, but were entirely speculative.

More specifically, interconnectedness can be of two types: asset interconnectedness and liability interconnectedness. Asset interconnectedness is the concern that the failure of one financial institution will directly cause the collapse of other financial institutions that have direct credit exposures to the first failed institution. Liability interconnectedness is the idea that

one institution that is the source of short-term funding to other institutions will stop funding those institutions, causing the failure of other institutions. In contrast, contagion involves run behavior whereby funding is withdrawn from banks and other financial institutions as a result of a fear of widespread impending failure.<sup>130</sup> Asset interconnectedness was the concept that was feared in the Continental case of the 1980s, an institution that was a correspondent bank at the center of a web of smaller banks that it had relationships with. When publicly detailed, it was shown that the interconnectedness of Continental was greatly overstated by the FDIC. In contrast, the extent of interconnectedness in the case of Bear Stearns has never been publicly detailed. What little evidence has come to light regarding the underlying analysis of the CDS market reveals little clear need for concern.<sup>131</sup>

### Interconnectedness and Lehman

Some argue that the aftermath of the bankruptcy of Lehman Brothers in September 2008 offers a more convincing case than Bear for the damaging impact and systemic impact of runs on investment banks and other financial institutions. Economist Alan Blinder falls in this camp that focuses on interconnectedness, as he refers to the “cascade of failures and near failures that followed the Lehman bankruptcy.”<sup>132</sup> But the reality is that there was little in the way of a direct connection between the Lehman bankruptcy and any financial institution failures. No major financial institution—such as derivatives counterparties, prime brokerage clients, structured securities investors, and money market funds—failed as a result of its direct exposure to Lehman. For example, multiple money market mutual funds held Lehman debt, but only one fund, the Reserve Primary Fund, actually had to “break the buck” on account of its Lehman exposure, and even this exposure was quite small.<sup>133</sup>

Notwithstanding the lack of evidence regarding interconnectedness, there were a number of effects of the Lehman bankruptcy filing, primarily the realization that an implicit government backing of large financial institutions was no longer reliable, as implied by the Bear Stearns

“As demonstrated in the case of Citibank during 2008, one could imagine that under pressure of a financial crisis, regulatory decisionmakers would not have the discipline to apply the toughened rules as envisioned.”

intervention. Rather than a case of interconnectedness, Lehman was more likely a case of contagion, which involves run behavior as a result of fear of widespread impending failure.<sup>134</sup> This contagion flowed from the uncertainty of investors and other market participants who believed that after the Bear Stearns bailout, all large financial institutions would also be backstopped if they faced similar difficulties. When Lehman Brothers was allowed to fail, this caused investors and market participants to rethink their previous view of the market and led to an unprecedented halt in lending and the hoarding of cash.<sup>135</sup>

### **DODD-FRANK CHANGES AND THE NEXT CRISIS**

Similar to the legislative changes codified in FDICIA in 1991 that were prompted by the response of the authorities to the runs on FNB, Continental, and BNE, lawmakers expressed a clear sense of dissatisfaction with many aspects of the policy response in addressing the financial institution runs during the 2000s crisis. The focus of FDICIA in the early 1990s was to place stricter limitations on the ability of the Federal Reserve and the FDIC to keep unsound, problem institutions afloat for an extended period of time through discount window borrowing.

The conclusion of the deliberations in the run-up to the passage of the Wall Street Reform and Consumer Protection Act of 2010, better known as Dodd-Frank, with regard to institutions experiencing a run was that any efforts to provide financing to such institutions should: (1) not be directed to a single institution on an ad hoc basis, but should be done through a broad-based and widely available program designed for a wide range of institutions; (2) not be provided to insolvent institutions; and (3) be supported by sufficient collateral to cover any potential losses.<sup>136</sup>

Sections 1101 through 1105 of Dodd-Frank introduced a revamped structure for financing by the Federal Reserve and FDIC, allowing such financing only in cases of a “broad-based” or “widely available” program, not in cases to ad-

dress a single institution like the ad hoc financing to resolve Wachovia, Citibank, or Bear Stearns. Only solvent institutions are allowed to participate in such programs, and in the case of Federal Reserve programs any provided funding must be supported by sufficient collateral. For the FDIC’s “widely available” program, “solvent” is defined as a situation where the value of the assets of an entity exceeds its obligations to creditors.

It is difficult to estimate how such limitations will be implemented in practice during the next financial crisis. As demonstrated in the case of Citibank during 2008, one could easily imagine that under pressure of a financial crisis, regulatory decisionmakers would not have the discipline to apply the toughened rules as envisioned. During 2008 the OCC applied its discretion to continue to rate Citibank as a 3-rated CAMELS institution despite the fact that it displayed all the criteria of a problem bank that should have been given a 4 or 5. Similarly, the clear tendency in the future would be to use any grant of discretion (for example, in determining the solvency of an institution under the Dodd-Frank formulation) to err on the side of allowing access to funding as opposed to allowing such legislative strictures to place limits on funding a problem institution experiencing a run.

FDICIA codified a system of prompt corrective action to limit losses at resolved financial institutions, including those experiencing a run. To further improve on the system of resolving institutions, especially large institutions that might be experiencing a run, Dodd-Frank provisions mandate the submission of resolution plans (Section 165[d], also known as “living wills”) and provide for an orderly liquidation process (Sections 201–217). However, these provisions do not appear likely to significantly reduce the likelihood of financial institution runs. In fact, both are aimed at speeding up or making more effective the process of resolving financial institutions and have as their aim to make sure that short-term creditors are not guaranteed a recovery as they were during 2008.<sup>137</sup> If they do meet these goals, they will in fact make it more likely that short-term creditors will have an incentive to run on an institution, leading to a contagion.

## CONCLUSION

This analysis began with a comment from Comptroller Dugan, a senior official from one of the financial regulatory authorities during the height of the crisis in late 2008. He warned that if the advocated action before the FDIC Board of bailing out Citigroup and its affiliated banks, which were experiencing a run, was not taken, there was a threat of a “worldwide bank run.” The off-the-cuff comment was in response to a straightforward question regarding the OCC’s supervisory strategy going forward to “get the situation under control again.” In response to a request for more detail on the underlying basis for this comment, the OCC noted that the source of the reference to a “world-wide bank run” was an internal FDIC document. However, the FDIC document made no such reference to a “world-wide bank run.”<sup>138</sup> Dugan’s response had no basis in fact.

As detailed throughout this analysis, this example is unfortunately all too typical of the reaction by the financial authorities to the phenomenon of bank runs: a thick dose of overblown, panic-based rhetoric to convince the agency boards to go along with a bailout that will, in the short-run, “make the problem go away.” These types of decisions likely had negative long-term consequences that were of little concern to the authorities at the height of the panic. The evidence to support these actions during the crisis was frightfully thin. As summarized by a key participant in these deliberations, FDIC chairman Bair, “The lack of hard analysis showing the necessity of [the bailouts troubles] me to this day.”<sup>139</sup> The thick rhetoric and contrastingly thin underlying analytical substance was also evident in the prior financial crisis and was relied upon to justify similar interventions for FNB, Continental, and BNE. During both crises there was never any evidence of a pending collapse analogous to the Great Depression, but the rhetoric would have us all believe that that was exactly what was just around the corner if the prescribed intervention was not heeded.

The goal when responding to runs that are building to crisis proportions should be, as

separately detailed by Bagehot and Schwartz, to swiftly decide upon a systemic review which institutions are sound, allowing the unsound to fail outright and the sound to be eligible for lender-of-last-resort lending. On one level, the swiftness with which collapsing financial institutions were dealt with during 2008 and 2009 was an improvement over the dragged-out means of addressing banks experiencing a run during the period from the mid-1970s to the early-1990s. However, the efficacy of the interventions during 2008 and 2009 should be judged on the basis of the underlying substance of the transactions. In each of the cases outlined in this analysis, the arguments for systemic disruption were wildly overstated. In the case of Citibank it was a repeat of history from the earlier crisis: propping up a poorly managed problem institution that, but for the endless backstopping by government funding sources, would have failed and been broken up. Allowing an institution to fail is the only way to assure that it will never operate again, as we should never accept the authorities at face value when they make their favored argument for intervention: to limit “systemic risk.”

The Dodd-Frank legislation—with the expressed desire for a more thoughtful, coordinated funding of illiquid institutions on a systemwide basis—is a better approach for decisionmaking over the ad hoc, seat-of-the-pants, individual institution approach of 2008 and 2009. This “big picture” view should logically be extended to address movement of deposits on a systemwide basis: if a poorly managed, problem institution like Citibank experiences a run and loses \$50 billion in deposits, but JP Morgan or other institutions seen as better-managed and financially strong also gain a like amount in deposits, there is really no basis for the authorities to panic and make public statements about the system collapsing or a worldwide bank run. Unfortunately, the discretion granted to authorities under Dodd-Frank to determine whether or not an institution is “solvent” and any lending is supported by “sufficient collateral” will allow those agencies to continue to make the results of those determinations match their desired resolution outcome.

“There is no basis for the authorities to panic and make public statements about the system collapsing or a worldwide bank run.”

## NOTES

1. “The Monetary Crisis: Suspension of Overend and Gurney Liabilities,” *Newcastle Courant*, May 18, 1866, <http://greatayton.wdfiles.com/local--files/newspapers/Great-Ayton-Newspapers-pre-1900.pdf>. Bagehot is known for “Bagehot’s Dictum,” which details the role of a central bank during banking panics.
2. Federal Deposit Insurance Company (FDIC) board meeting transcript, “Topic: Citibank,” November 23, 2008, p. 16. From the transcript:
 

FDIC CHAIRMAN BAIR: I assume—does OCC have a supervisory strategy for helping get the situation under control again?

FDIC DIRECTOR AND CONTROLLER OF THE CURRENCY JOHN DUGAN: Well, this is all about confidence right now, not about the capital in the company or its reserve level, and we’ll be closely monitoring the situation and dealing with issues related to supervision. But the issue now is the potential of a large worldwide bank run, and that’s what’s got to be brought under control.
3. 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,” January 2011, pp. 240, 250, 280, 304, 308.
4. Special Inspector General for the Troubled Asset Relief Program (SIGTARP), “Extraordinary Financial Assistance Provided to Citigroup, Inc” (Hereinafter, SIGTARP Citigroup Report), January 13, 2011, p. 41. Earlier in the report, the liquidity problems are referred to at various points as “a potential run” and “significant corporate withdrawals (i.e., a run) primarily in the United States and secondarily in Europe.” The FCIC Report noted regarding Citigroup’s liquidity problems: “If the trend of recent withdrawals continued, the company could expect an outflow of 2% of deposits per day. Unless Citigroup received a large and immediate injection of funds, its coffers would be empty before the weekend.”
5. FCIC Report, glossary, p. 539.
6. SIGTARP, “Extraordinary Financial Assistance Provided to Citigroup, Inc.,” January 13, 2011, p. 53.
7. Milton Friedman and Anna Jacobson Schwartz, *Monetary History of the United States 1867–1960* (Princeton, N.J.: Princeton University Press, 1963), pp. 801–04.
8. Walter Bagehot, *Lombard Street: A Description of the Money Market* (London: Henry S. King & Co. 1873).
9. Anna J. Schwartz, “The Misuse of the Fed’s Discount Window,” *Federal Reserve Bank of St. Louis Review* 74, no. 5 (September/October 1992): 58–69.
10. *Ibid.*, p. 59.
11. FDIC, “Managing the Crisis: The FDIC and RTC Experience: Chronological Overview,” August 1998, <http://www.fdic.gov/bank/historical/managing/Chron/guide.html#back.i>.
12. Rebel A. Cole and Lawrence J. White, “Déjà Vu All Over Again: The Causes of U.S. Commercial Bank Failures This Time Around,” *Journal of Financial Services Research* 42 (May 22, 2011): 5.
13. As another example, one of the most widely cited case studies of a run during the Great Depression is detailed in Charles W. Calomiris and Joseph R. Mason, “Contagion and Bank Failures During the Great Depression: The June 1932 Chicago Banking Panic,” *American Economic Review* 87, (December 1997): 863–83.
14. Alan Blinder, *After the Music Stopped* (New York: Penguin Press, 2013), pp. 144, 147. Emphasis in bold is McKinley’s. In this passage, Blinder tries to contrast the status of insured deposits, where there is no incentive to run, with the status of money funds, which were uninsured, and that shareholders in the Reserve Primary Fund “did lose money” and “did have a reason to run on the Reserve.” Interestingly enough, later on in his book he does discuss a run on Washington Mutual (p. 155).



15. Some argue that other institutions that approached failure at later dates and were bailed out under the FDIC's formal open bank assistance powers were the first such case, such as First Pennsylvania in 1980. See James R. Barth, Apanard (Penny) Prabha, and Phillip Swagel, "Just How Big is the Too Big to Fail Problem?" Milken Institute, March 2012, p. 9.
16. Joan E. Spero, *The Failure of the Franklin National Bank: Challenge to the International Banking System* (Washington: Beard Books, 1999), p. 11.
17. "Oversight Hearings into the Effectiveness of Federal Bank Regulation, Hearings before a Subcommittee of the Committee on Government Operation" (Franklin Hearings). House of Representatives, 94th Congress, 2nd sess., February 10, May 25–26, and June 1, 1976, p. 89, Tables 2 and 3, "Examination of Descriptive Word Ratings" and "Category and Composite Ratings." Note the word ratings as of November 14, 1973, which is the last date ratings were available. Condition of the bank: extremely poor; Management: poor; Earnings: poor; Capital: inadequate; Internal controls: adequate; Future prospects: fair. Composite ratings ranged from "1" to "4," with "1" being sound. Franklin's rating as of November, 1973 was a "3" and had been since August 1970. Banks with 3 or 4 rating required "special attention."
18. Franklin Hearings, p. 43.
19. Federal Reserve Bank of New York, "Annual Report—1974," p. 23; and "Letter from the Federal Reserve dated October 7, 1974," as quoted in Franklin Hearings, p. 200.
20. Spero, pp. 137–42.
21. General Accounting Office (GAO), "Financial Crisis Management: Four Financial Crises in the 1980s," GAO/GGD-97-96, May 1997, p. 16 (cost estimate).
22. Spero, pp. 101–02.
23. Schwartz, p. 64.
24. FDIC, *History of the 80s: Lessons for the Future* (Washington: FDIC, 1997), p. 243.
25. GAO, p. 36.
26. There is conflicting information about when this downgrade occurred. One source places the timing in 1982: "Inquiry Into Continental Illinois Corp. and Continental Illinois National Bank, Hearings Before the Subcommittee on Financial Institutions Supervision, Regulation, and Insurance of the Committee on Banking, Finance and Urban Affairs," House of Representatives, 98th Congress, 2nd sess., September 18–19, 1984, and October 4, 1984, Report 98–111, pp. 328–333 (comments of Conover). An FDIC document places the timing of the downgrade in 1983: FDIC, *History of the 80s*, p. 246.
27. Vern McKinley, *Financing Failure* (Oakland, CA: Independent Institute, 2012), pp. 80, pp. 88–89 (comments of Volcker, Conover, and Isaac).
28. GAO, pp. 35–37, 40.
29. FDIC, *History of the 80s*, p. 244.
30. McKinley, pp. 81–87.
31. Schwartz, pp. 64, 66.
32. Statement of Joseph Hooks, Senior National Bank Examiner, Office of the Comptroller of the Currency, Examiner-in-Charge, October 1989 examination, "The Failure of the Bank of New England Corporation and Its Affiliate Banks, Hearing Before the Committee on Banking, Finance, and Urban Affairs, House of Representatives," 102nd Congress, 1st sess., Serial No. 102-49, June 13, 1991. The description was of the state of Bank of New England at the October 1989 examination.
33. Stephen Labaton. "U.S. Is Taking Over a Group of Banks to Head Off a Run." *New York Times*, January 7, 1991.
34. Bank of New England (BNE) Hearing, pp. 112, 115.
35. FDIC, *Managing the Crisis: The FDIC and RTC*

*Experience*, p. 649. The additional cost of covering uninsured depositors totaled in the range of \$200–\$300 million. See Bill Seidman’s testimony before the Senate.

36. BNE Hearing, p. 111.

37. BNE Hearing, pp. 108, 113–114.

38. FDIC, *Managing the Crisis*, pp. 635–636. From the text:

The FDIC identified the major categories of customers with deposits in excess of the insurance limit in the event that only insured deposits were passed to an acquirer and determined that the effect of that action on the community at large outweighed the benefits of paying insured deposits only. Both the Federal Reserve and the Treasury Department supported the idea that all depositors be protected. “It was clear to us that to protect the stability of the system, we should protect all depositors,” said Chairman Seidman.

39. FDIC, *History of the 80s*, p. 254; *United States Code Congressional and Administrative News*, 100th Congress, 1st sess., 1987, vol.11, 101 Stat. 623.

40. Schwartz, p. 68.

41. “Comprehensive Deposit Insurance Reform and Taxpayer Protection Act of 1991,” Report of the Committee on Banking, Housing, and Urban Affairs, United States Senate, to Accompany S.543 together with additional views, 102nd Congress, 1st sess., Report 102–167, October 1, 1991, p. 45.

42. Robert DeYoung and Jack Reidhill, “A Theory of Bank Resolution: Political Economics and Technological Change,” FDIC Working Paper CFR-SS-2008, Washington: FDIC pp. 26–27. According to the paper,

The FDIC’s role in the failure of the Bank of New England (BNE) in 1991 caused a backlash in Congress, and may have led to the

new legislation (FDICIA) that constrained the FDIC’s freedom in resolving future failed banks. . . . Many complained that uninsured depositors had losses imposed on them only at small failed banks, while those in large banks were protected. This perception encouraged the framers of FDICIA to include passages that restricted the FDIC’s discretionary ability to protect uninsured creditors of failed banks. This was accomplished by requiring the FDIC to choose the *least costly* method of resolving failed insured institutions rather than being able to choose any resolution method as long as it was less costly than liquidation.

43. Walker F. Todd, “FDICIA’s Discount Window Provisions,” *Economic Commentary* (Federal Reserve Bank of Cleveland), December 15, 1992. An override provision is available for select advances.

44. David Wessel *In Fed We Trust: Ben Bernanke’s War on the Great Panic* (New York: Crown Business, 2009), p. 161.

45. Schwartz, p. 63.

46. “Economic Implications of the ‘Too Big to Fail’ Policy, Hearing Before the Subcommittee on Economic Stabilization of the Committee on Banking, Finance and Urban Affairs, House of Representatives,” 102nd Congress, 1st sess., May 9, 1991, Serial No. 102–31, pp. 53, 58. The reference to the large Texas banks is to First Republic Bank in 1988 and MCorp in 1989. These banks were not included as case studies in this analysis.

47. Ben S. Bernanke, “At the Conference Co-sponsored by the Center for Economic Policy Studies and the Bendheim Center for Finance,” Princeton, N.J.: Princeton University, September 24, 2010. From Bernanke’s comments:

Indeed, the recent crisis bore a striking resemblance to the bank runs that figured so prominently in Thornton’s and Bagehot’s eras; but in this case, the run occurred outside the traditional banking system, in the shadow banking system—consisting of financial institutions other than regulated depository insti-

tutions, such as securitization vehicles, money market funds, and investment banks.

See also: Hal S. Scott, “How to Improve Five Important Areas of Financial Regulation,” in *Rules for Growth: Improving Innovation and Growth through Legal Reform*, Yale Law and Economics Research Paper no. 426. 2011. 117. According to Scott, “Significant bank runs were not a feature of the financial crisis; instead there were runs on nonbank financial institutions (which some call the shadow banking system, though this term is quite vague).”

See also John H. Cochrane, “Stopping Bank Crises Before They Start,” *Wall Street Journal*, June 23, 2013. According to Cochrane:

At its core, the recent financial crisis was a run. The run was concentrated in the “shadow banking system” of overnight repurchase agreements, asset-backed securities, broker-dealers and investment banks, but it was a classic run nonetheless.

48. The Federal Reserve dramatically expanded its options beyond the primary option of discount window lending through the implementation of a number of new lending programs. For purposes of this analysis, there is little distinction between the different sources, although the precise program utilized for the lending will be noted.

49. “Background on Countrywide Financial Corporation,” Staff Memo to the Board of Governors, August 14, 2007, p. 4. [Hereinafter, Countrywide Fed Staff Memo].

50. FCIC Report, pp. xxiii, 20, 89, 107, 108. “Non-traditional” loans are considered anything other than the “traditional” loans of the fixed rate, 30-year variety with a 20 percent down payment and standard documentation requirements and principal reduction over time.

51. Countrywide Fed Staff Memo, p. 3. The timing of the 2 rating was not disclosed in the Federal Reserve memo (FCIC Report, 173–74). On the lax regulatory regime, see Blinder, (New York: Penguin Press,

2013), p. 131. The author refers to Office of Thrift Supervision (OTS) as having “extremely lax regulation—especially compared with the regulation of commercial banks.”

52. Countrywide Fed Staff Memo, p. 2.

53. Repurchase agreement (repo): A method of secured lending where the borrower sells securities to the lender as collateral and agrees to repurchase them at a higher price within a short period, often within one day. Commercial paper: Short-term unsecured corporate debt. From the FCIC Report’s glossary.

54. FCIC Report, pp. 248–49. Mozilo does not precisely cite a cause. Angelo Mozilo, “Deposition before the SEC in the Matter of Countrywide Financial Corp.,” 03370-A, October 2, 2008, pp. 149–50. From the transcript:

QUESTIONER: Well, to that end, in your mind what caused the issues that the industry is currently experiencing with liquidity?

ANSWER: What caused that?

QUESTIONER: Mm-hmm.

ANSWER: [I]n Countrywide’s case, it really wasn’t until—because we were doing—in June we did \$40 billion in loans. We were doing June of ’07, we were doing great. And then it was in July, I bought stock at \$194 a share. So they—what it was really—and then it sort of kept on cascading down, and in August we were cut off. We had—our repo lines were not—and that’s what we live off. That’s our option, the repo lines, commercial paper, and medium term notes. We couldn’t issue anything.

One triggering event during that week was the meltdown and August 6 filing of bankruptcy by American Home Mortgage Investment Corp. American Home ceased taking mortgage applications on August 1, 2007, and separated all production employees two days later. U.S. Securities and Exchange Commission, Form 8-K, Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 (earliest event reported): August 3, 2007, American Home Mortgage Investment Corp. Two

- weeks earlier, Bear Stearns disclosed that two subprime hedge funds had losses and during the first week of August legal action was taken by investors in the two funds.
55. Countrywide Fed Staff Memo, pp. 2, 9, 10, 12.
56. FCIC Report, “Minutes of a Special Telephonic Meeting of the Boards of Directors of Countrywide,” August 15, 2007,” pp. 249–50. See also Kenneth Bruce, “Liquidity Is the Achilles Heel,” Merrill Lynch, August 15, 2007.
57. FCIC Report, 249–50. See also: Countrywide Fed Staff Memo, p. 9. The report estimates total deposits at the time at about \$60 billion.
58. Alistair Barr and Murray Coleman, “Countrywide Tries to Calm Bank Customers,” *MarketWatch*, August 17, 2007.
59. FCIC Report, p. 250.
60. Bloomberg data on Countrywide Financial. Under the TAF, the Federal Reserve auctioned term funds to depository institutions. Information on TAF available at <http://www.federalreserve.gov/monetarypolicy/taf.htm>.
61. Ben Protes, “Tallying the Cost of Bank of America’s Countrywide Nightmare,” *Dealbook*, October 25, 2012. From the article:
- When Bank of America bought Countrywide the subprime lending specialist, it initially paid \$4 billion. Some analysts have pegged the true financial toll—including write-downs, legal expenses and settlements—at upward of \$40 billion.
62. Office of Inspector General, Department of the Treasury, “Safety and Soundness: Material Loss Review of IndyMac Bank, FSB,” February 26, 2009, p. 2. Hereinafter, Indymac OIG Report.
63. Indymac OIG Report, pp. 2–3, 10. See also Sheila Bair, *Bull by the Horns: Fighting to Save Main Street from Wall Street and Wall Street from Itself* (New York: Free Press, 2012), pp. 79–82.
64. Indymac OIG Report, pp. 58–9, 61–8. The composite and individual CAMELS ratings for the January 2008 examination were as follows: 5/4-5-4-5-5-4 and for the January 2007 examination: 2/2-2-2-2-2-2.
65. Indymac OIG Report, pp. 61–2.
66. Bair, *Bull by the Horns*, p. 80.
67. Indymac OIG Report, p. 3. Total deposits stood at nearly \$19 billion from the final reported data by IndyMac for the SEC 10Q as of March 31, 2008. Information available at <http://www.secinfo.com/dVut2.t668.htm#t7ow>. No reporting was filed as of June 30, 2008, so it is very difficult to determine how significant the \$1.55 billion was as a percentage of total deposits or uninsured deposits.
68. Available data on this issue appear to be in conflict. The information from the Bloomberg database, which reportedly lists all borrowings from the Federal Reserve from August 2007 to April 2010, does not reflect any borrowings by Indymac. However, the Indymac OIG Report (p. 62) reflects the request and the ultimate borrowing of \$500 million from the relevant Federal Reserve Bank. No information source is cited in the Indymac OIG Report, but this information is assumed to be accurate.
69. FDIC Failed Bank Information, “IndyMac Bank, FSB.” Information available at <http://www.fdic.gov/bank/individual/failed/IndyMac.html>.
70. Bair, *Bull by the Horns*, p. 80.
71. Joe Adler, “FDIC Defends Handling of IndyMac Run,” *American Banker*, July 18, 2008. For sample videos of media coverage, see “Huge IndyMac Bank Run in Southern California,” <http://www.youtube.com/watch?v=IVRgZ9LizZQ>; “Modern Bank Runs,” <http://www.youtube.com/watch?v=2EnaU7D8o0M>.
72. Indymac OIG Report, p. 3.
73. FCIC Report, pp. 107, 306.



74. Offices of Inspector General Report, pp. 15–16. See also OTS, “Fact Sheet,” September 25, 2008. According to the fact sheet, “Washington Mutual Bank assessment revenue—12.2 percent of 2008 OTS budget.”
75. Bair, *Bull by the Horns*, pp. 76, 89.
76. See OTS, “WaMu Ratings of 3/343432,” September 11, 2008. “Confidential Problem Bank Memo,” Stan Ivie, undated, unsigned, p. 1.
77. Sheila Bair, FCIC Interview, August 18, 2010.
78. Office of the Inspector General Report, pp. 18, 47.
79. Office of the Inspector General, Department of the Treasury, and Federal Deposit Insurance Corporation, “Evaluation of Federal Regulatory Oversight of Washington Mutual,” Report EVAL 10-002, April 2010, p. 3.
80. FCIC Report, pp. 274, 301–302, 306.
81. FDIC, “Confidential Problem Bank Memo,” Stan Ivie, undated, unsigned, p. 2.
82. FCIC Report, p. 306.
83. Bloomberg data, Washington Mutual, “Confidential Problem Bank Memo,” Stan Ivie, undated, unsigned, p. 3.
84. Bloomberg data, Washington Mutual; Memo from James Wigand and Herbert Held to the FDIC Board of Directors, “Washington Mutual Bank: Failing Bank Case,” September 24, 2008; OTS, “Fact Sheet,” September 25, 2008.
85. FCIC Report, p. 365; Letter from Edward J. Kelly, III, Head of Global Banking for Citigroup to Mitchell Glassman, FDIC (redacted version).
86. FCIC Report, pp. 365–66.
87. Sheila Bair, Testimony before the FCIC, September 2, 2010.
88. Bair, *Bull by the Horns*, p. 93.
89. FCIC Report, pp. 304–05. See also Dan Fitzpatrick and Diya Gullapalli, “Storm of Fear Enveloped Wachovia” *Wall Street Journal*, September 30, 2008.
90. See table of summary data from Office of the Comptroller of the Currency (OCC) examinations in memo from James Wigand and Herbert Held to the FDIC Board of Directors, “Wachovia Bank, Wachovia Corporation” September 29, 2008, p. 6.
91. Bair, *Bull by the Horns*, pp. 79, 84.
92. FCIC Report, 304. See also Federal Reserve, “Wachovia Case Study,” November 12–13, 2008, p. 20.
93. Bloomberg Fed borrowing database, Wachovia borrowing, August 2007 to April 2010.
94. Federal Reserve, “Wachovia Case Study,” p. 20.
95. FCIC, “Hearing on Too Big to Fail: Expectations and Impact of Extraordinary Government Intervention and the Role of Systemic Risk in the Financial Crisis,” official transcript, September 2, 2010, pp. 79–80.
96. Letter from Wendy Edelberg, executive director, FCIC, October 1, 2010, to Fed Chairman Ben Bernanke. Bernanke’s response to the FCIC, November 4, 2010. Bloomberg Fed borrowing database, Wachovia borrowing, August 2007 to April 2010. Chairman Bernanke’s response to the question from the FCIC was as follows: “Wachovia borrowed \$5 billion from the Term Auction Facility (TAF) on September 25, 2008.” However, the data provided to Bloomberg showed no new borrowing under TAF on that date.
97. FCIC, “Testimony of Robert Steel, Former CEO of Wachovia Corporation,” September 1, 2010, <http://fcic.law.stanford.edu/videos/view/50>. Steel was not asked any questions during the hearing regarding the liquidity standing of Wachovia.
98. Memo from James Wigand and Herbert Held to the FDIC Board of Directors, “Wachovia Bank, Wachovia Corporation,” September 29, 2008, p. 2.

99. FDIC, Wachovia Board meeting transcript, September 29, 2008.
100. FCIC Report, p. 369. See also FCIC, “Too Big to Fail: Expectations and Impact of Extraordinary Government Intervention and the Role of Systemic Risk in the Financial Crisis, Session 1: Wachovia Corporation,” (video), <http://fcic.law.stanford.edu/videos/view/50>. At approximately the 59:00 mark John H. Corston of the FDIC discusses the dearth of information and the haste with which the analysis was undertaken regarding Wachovia.
101. FDIC, Board meeting transcript, Wachovia, September 29, 2008.
102. Bair, *Bull by the Horns*, 100.
103. *Ibid.*, p. 97.
104. SIGTARP Citigroup Report, 18.
105. Roger Cole, interview by FCIC, August 2, 2010.
106. Memo from James Wigand and Herbert Held to the FDIC Board of Directors, “Citibank, NA and Citigroup, Inc.,” November 23, 2008.
107. Bair, *Bull by the Horns*, p. 121.
108. *Ibid.*, pp. 168–73. From the book:
- Our FDIC examiners were aghast that the OCC had kept Citi’s CAMELS rating at a 3 even though it had required three separate bailouts. . . . The Federal Reserve had already lowered its rating of Citi’s holding company to a 4. . . . There was no doubt in my mind that our examiners were right. Citi was a troubled 4 by every established standard used to measure bank health. . . . Sandra Thompson sent a letter to William Rhoades, the CEO of Citibank, notifying him that FDIC examiner had downgraded Citibank to a CAMELS 4, citing the institution’s weak capital and liquidity position. . . . Shortly thereafter Citi was restored to a 3. . . . I question whether we made the right decision.
109. FCIC, Official Transcript, 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, pp. 132–34.
110. Bair, *Bull by the Horns*, p. 115.
111. “Citigroup and the Troubled Asset Relief Program.” Hearing Before the Congressional Oversight Panel, 111th Congress, 2nd sess., March 4, 2010, p. 23.
112. FCIC Report, p. 380.
113. FCIC Report, p. 381. Conflicting public information is available on the actual balance of Federal Reserve lending as of November 21, 2008. Bloomberg data reveals \$48 billion outstanding and the FCIC Report shows \$24 billion.
114. The first five bullets are drawn from SIGTARP Citigroup Report, pp. 10–11.
115. Memo from James Wigand and Herbert Held to the FDIC Board of Directors, pp. 5–6 for the first two of the final three bullets and FDIC board meeting transcript, November 23, 2008, p. 19 for the final bullet.
116. Bair, *Bull by the Horns*, pp. 123–124. See also SIGTARP Citigroup Report, p. 42.
117. FDIC board meeting transcript, November 23, 2008, p. 21.
118. “Citibank and the Troubled Asset Relief Program, p. 27.
119. JPMorgan Chase, “Letter to Shareholders,” *Annual Report*, 2009 p. 28, <http://www.ft.com/intl/cms/1d11280c-3d20-11df-b81b-00144feabdco.pdf>.
120. The most logical agency to undertake such analysis would seem to be the FDIC. However, the author submitted a request to the FDIC under the Freedom of Information Act for “any and all records concerning, regarding, or relating to any analysis of bank runs involving either a run of insured deposi-

tors, uninsured depositors, or other creditors of insured depository institutions from August 2007 to November 2008. Such records would include, but are not limited to, any broad-based analysis on the phenomenon of bank runs during this period or bank runs on specific institutions, including, but not limited to, the following: Countrywide Financial, IndyMac Bank, FSB, Washington Mutual Bank, Wachovia Bank, NA, Citibank.” No such analysis exists, according to the FDIC.

121. *FDIC Quarterly*, “Quarterly Banking Profile,” p. 1, and “Highlights from the 2008 Summary of Deposits Data,” October 8, 2008, p. 30, [http://www.fdic.gov/bank/analytical/quarterly/2008\\_vol2\\_4/FDIC139\\_QuarterlyVol2No4\\_Web.pdf](http://www.fdic.gov/bank/analytical/quarterly/2008_vol2_4/FDIC139_QuarterlyVol2No4_Web.pdf). See also subsequent reports of the *FDIC Quarterly*. Board of Governors of the Federal Reserve System, Assets and Liabilities of Commercial Banks in the United States (Weekly)—H.8, <http://www.federalreserve.gov/releases/h8/current/default.htm>. Federal Reserve Bank of St. Louis, “Total Checkable Deposits,” <http://research.stlouisfed.org/fred2/graph/?id=TCDC>. Further research on this issue would certainly be called for.

122. FCIC Report, p. 29. From the report:

For most of the 20th century, banks and thrifts accepted deposits and loaned that money to home buyers or businesses. Before the Depression, these institutions were vulnerable to runs, when reports or merely rumors that a bank was in trouble spurred depositors to demand their cash. If the run was widespread, the bank might not have enough cash on hand to meet depositors’ demands.

123. Gerald Corrigan, “Are Banks Special?” *Annual Report of the Federal Reserve Bank of Minnesota*, January 1982.

124. For a summary, see “Richard C. Breeden, Former Chairman—Securities and Exchange Commission, Before the Senate Committee on Banking, Housing and Urban Affairs,” March 26, 2009.

125. Schwartz, p. 63.

126. Henry Paulson, *On the Brink*, pp. 97–8.

127. Ben Bernanke, “Closed-door Session with FCIC,” November 17, 2009.

128. Timothy Geithner, “Actions by the New York Fed in Response to Liquidity Pressures in Financial Markets,” testimony before the Senate Committee on Banking, Housing and Urban Affairs,” 110th Congress, 2nd sess., April 3, 2008, p. 10.

129. Peter J. Wallison, “TARP Baby: The Administration’s Resolution Authority for Nonbank Financial Firms,” American Enterprise Institute, September 2009, p. 5.

130. Hal S. Scott, “Interconnectedness and Contagion,” November 20, 2012, p. 2.

131. On the interconnectedness issue, see McKinley, pp. 9–21 and 130–36. On the credit default swaps market, the limited evidence referred to includes analysis by Federal Reserve Governor Randall Kroszner that was discussed with Board of Governors Vice Chairman Donald Kohn in the late evening of March 13, 2008, just a few hours before Bear Stearns was backstopped by the Federal Reserve on the morning of March 14, 2008. See McKinley, pp. 15–18.

132. Blinder, p. 127.

133. Scott, “Interconnectedness and Contagion,” pp. 2, 30–31, 87–89. From the text: “Reserve Primary Fund’s losses from Lehman exposure were quite small as the fund held only \$785 million of Lehman debt. . . through July 2010 investors have received a recovery of over 99%.” See also Jean Helwege and Gaiyan Zhang, “Financial Firm Bankruptcy and Contagion,” working paper, July 31, 2012; McKinley, pp. 169–71.

134. Scott, “Interconnectedness and Contagion,” pp. 2, 4.

135. FCIC Report, p. 445 (“Dissent of Commission Member Peter Wallison”).

136. McKinley, pp. 281 and 295–97.

137. Scott, "Interconnectedness and Contagion," pp. 209–19.

138. A request was submitted to the OCC asking for any and all records concerning the "potential for a large world-wide bank run" as referenced by Comptroller Dugan. By letter from Frank D. Vance Jr. dated October 18, 2013, the OCC responded:

A document located in our files originated with the Federal Deposit Insurance Corporation (FDIC). Your request and the responsive document has [sic] been referred to the FDIC for review and a direct response to you. Any further questions regarding this should be directed to the FDIC.

By letter dated November 7, 2013, from Jerry Sussman, the FDIC responded:

The record referred by the OCC to the FDIC ("the Record") is a Memorandum, from James R. Wigand, Deputy Director, Franchise and Market Branch, Division of Resolutions and Receiverships, and Herbert J. Held, Assistant Director, Franchise and Asset Marketing Branch, Division of Resolutions, to the Board of Directors . . . [dated] November 23, 2008 (14 pages)."

The cited memo does make a reference to a run with regard to Citigroup and its subsidiaries, but makes no reference to a "world-wide bank run."

139. Bair, *Bull by the Horns*, p. 120.