



Part 2:
Banking Crisis and Response

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Bank Supervision

Between mid-2007 and September 30, 2008, the U.S. banking industry transitioned from a period of record earnings to a severe crisis. The crisis, and the deep recession that accompanied it, would make clear the extent to which risks had been building during the pre-crisis years at many insured banks and large financial institutions. The crisis would result in some 500 bank failures,¹ spur a massive program of governmental assistance to the financial sector, and engage every bank supervision resource available to the FDIC.

Throughout this chapter, the terms “regulation,” “supervision,” and “examination” appear frequently, and an explanation of these terms is in order. “Regulation” refers to the written rules the federal banking agencies apply to the financial institutions subject to their jurisdiction.² “Supervision” refers to a range of activities that include evaluating banks’ financial condition and risk profiles, taking enforcement actions when needed, acting on applications received from banks or other parties,³ and acting in other matters—in short, “supervision” refers to the processes by which a banking agency carries out its statutory responsibilities to ensure a safe and sound banking industry. “Examination” is a subset of supervision, and the word refers to the periodic review, by trained specialists, of information obtained from individual banks for the purpose of ascertaining each bank’s financial condition, risk profile, and compliance with laws and regulations.

This chapter describes the history of the crisis from the perspective of bank supervision. It starts with the congressional response to the preceding period of crisis in the banking industry (the bank and thrift crisis of the 1980s and early 1990s) and with important changes, during the interval between the two crises, in the banking industry’s risk profile.

¹ During the six years from 2008 through 2013, the period designated as the crisis years for this study, 489 banks failed. Of the 37 banks that failed from January 1, 2014 through June 30, 2017, a significant portion failed because they never recovered from the effects of the crisis.

² The FDIC is the primary federal regulatory agency for state-chartered banks that are not members of the Federal Reserve System and for state-chartered thrifts; the Office of the Comptroller of the Currency is the primary federal regulator for national banks and federally chartered thrifts; and the Federal Reserve System is the primary federal regulator for state-chartered banks that are members of the Federal Reserve System and for bank holding companies.

³ Applications to the FDIC are required in connection with the formation of new insured banks and may be required in connection with bank mergers, changes in control, and other matters.

It then describes the evolution of the FDIC's supervision and risk analysis processes in the years following the earlier crisis.⁴ Next, looking at the 2008–2013 crisis itself, the chapter describes the characteristics of a sample of banks that failed or became problem banks during the crisis, provides a detailed account of the supervisory strategies the FDIC mobilized in its response to the challenge of so many weak and failing banks, and discusses the effectiveness and appropriateness of supervisory efforts in dealing with troubled banks. The chapter concludes with a discussion of lessons learned. The crisis was a test not only of the efficacy of bank supervision in addressing a full-blown crisis but also of the supervisory processes that had been put in place during the inter-crisis years. In that sense, it provides lessons not only for how supervisors can respond to a crisis, but also for the conduct of supervision in times of economic prosperity.

Prelude to the Crisis: Statutory Framework and Banking Conditions

The end of the protracted banking and thrift crisis of the 1980s and early 1990s is a good starting point for tracing the history of the most recent crisis. As in the recent crisis, the failure or federal rescue of a large number of banks (more than 2,900 banks and thrifts from 1980 through 1994) was a transformative experience. Important legislative changes that were enacted during and shortly after that earlier crisis established new mandates for FDIC safety-and-soundness supervisors, and resulted in accelerated consolidation in the banking industry. In this new landscape, banks would embark on a significant expansion of lending activity, particularly real estate lending, and would do so in a way that gave rise to significant new risks.

Statutory Framework

As the banking and thrift crisis of the 1980s progressed, a widespread perception developed among academics and members of Congress that bank and thrift regulators had not taken necessary or timely steps to address problems at troubled institutions, or were allowing nonviable institutions to remain open indefinitely while the institutions were relying on the federal deposit insurance guarantee to attract deposits.

Congress addressed these concerns in the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) and the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA). Together, these statutes established a comprehensive set of expectations for more effective regulation and supervision of banks in the aftermath of the 1980s banking and thrift crisis.

⁴ The risk analysis processes discussed in this chapter do not include the FDIC's system of risk-based deposit insurance assessments. That system is discussed at length in chapter 5.

Among other things, FIRREA increased and clarified the FDIC's authorities as insurer and receiver for failed institutions, most notably by abolishing the Federal Savings and Loan Insurance Corporation (FSLIC) and transferring its deposit insurance and resolution responsibilities for thrifts to the FDIC. FIRREA also restricted the acceptance of brokered deposits by troubled banks. "Brokered deposits" are, roughly speaking, deposits solicited and placed at a bank by an outside party, for a fee.⁵ The 1980s thrift crisis highlighted concerns about such deposits as it became evident that, because of the federal deposit insurance guarantee, economically nonviable institutions could use such deposits to stay open almost indefinitely. FIRREA also allowed the FDIC to recover part of its cost of liquidating a failed institution by seeking reimbursement from other commonly controlled insured institutions.⁶ Banks' obligation to reimburse the FDIC under such circumstances became known as "cross-guarantee liability."

Among the many provisions of FDICIA, Congress (1) required the federal banking agencies to conduct a full-scope on-site safety-and-soundness examination at least once per year for every bank (or once every 18 months for smaller banks meeting certain conditions) and to maintain enough well-trained examination staff to adhere to that schedule;⁷ (2) established requirements for prompt corrective action on the part of the federal regulators and required each bank with assets greater than \$150 million to obtain an annual audit of its financial statements by an independent public accountant; and (3) directed the agencies to develop standards for safety and soundness and for real estate lending as well as regulations requiring appraisals for real estate transactions. With the prompt corrective action requirements, Congress directed the agencies—giving particular responsibility to the FDIC—to address and "resolve the problems at insured depository institutions at the least possible long-term loss to the deposit insurance fund."⁸ Accordingly, taking prompt corrective action to address problems at troubled banks was an important goal for the FDIC (and the federal banking agencies more generally) in addressing the recent crisis.

⁵ The large body of legal opinions and precedents regarding brokered deposits is beyond the scope of this chapter.

⁶ Depository institutions are "commonly controlled" if such institutions are controlled by the same company or if one depository institution is controlled by another. A person is not a company, but certain trusts can be considered companies under the Bank Holding Company Act.

⁷ Section 111(a) of FDICIA requires annual (or every 18 months for certain smaller banks) full-scope on-site safety-and-soundness examinations; and Section 111(d) of FDICIA requires agencies to ensure that the training and number of staff are sufficient for examinations to be objective and thorough.

⁸ Section 131 of FDICIA. The quoted language is from the beginning of Section 131 describing the purpose of the section. Thus, it refers broadly to the prompt corrective action requirements and not narrowly to the term "least cost resolution" referenced in chapter 6. In addition, although the quoted language refers to the deposit insurance fund, after the FSLIC was abolished by FIRREA and until 2006 there were two FDIC deposit insurance funds, one for banks and one for savings associations. They were combined into one—the Deposit Insurance Fund (DIF)—in 2006. In this chapter, references to the DIF before 2006 are intended as generic references to either fund.

By 1994, when the banking and thrift crisis had subsided, Congress turned its attention toward issues of banking industry structure. The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 significantly eased federal restrictions on banks' ability to open branches across state lines. The Gramm-Leach-Bliley Act, enacted in 1999, removed most federal restrictions on affiliations between banks, investment banks, and insurance companies. An argument advanced for both Riegle-Neal and Gramm-Leach-Bliley was that they would lead to more-diversified financial institutions and that greater diversification would make the institutions less subject to the problems that had afflicted smaller, less diversified, and geographically concentrated institutions during the crises of the 1980s and early 1990s. These changes contributed to an increase in the size and interconnectedness of financial institutions.

Banking Conditions

As just suggested, Riegle-Neal and Gramm-Leach-Bliley contributed to significant structural changes in the U.S. banking industry, including a wave of consolidation that resulted in a substantial reduction in the number of insured institutions and a concomitant increase in the size of the largest ones. The consolidation of charters within banking companies, which occurs when legally separate but commonly owned banks are converted into multiple branches of a single bank, had begun in the 1980s with the relaxation of state branching laws, and Riegle-Neal facilitated the trend. Between 1994 (the passage of Riegle-Neal) and 2006 (the last of a succession of record-breaking earnings years for the banking industry before the crisis), the number of FDIC-insured institutions decreased from 12,604 to 8,681; as a result of strong loan growth, the industry's assets increased from \$5 trillion to \$11.9 trillion; the asset size of the largest insured bank increased from \$210 billion to \$1.2 trillion; and the percentage of insured banks' assets held by the ten largest insured banks increased from 20 percent to 45 percent. The effect of Gramm-Leach-Bliley was to facilitate the growth of large bank holding companies (BHCs) through affiliations. At year-end 1994 the largest BHC had assets of \$250 billion. By year-end 2006, the largest had assets of \$1.9 trillion (as noted in chapter 2, during the crisis the FDIC would guarantee certain liabilities of bank holding companies).

Banking industry consolidation in the inter-crisis years occurred against a backdrop of economic prosperity. The ten-year period from year-end 1996 to year-end 2006 was one of rapid increases in home prices. Nominal GDP grew at a brisk annualized rate of 5.4 percent during that decade, while loans outstanding at FDIC-insured institutions grew at an annualized rate of 7.5 percent. (Given the problems that banks would soon experience, it is noteworthy that acquisition, development, and construction [ADC] lending grew especially fast, at an annualized rate of nearly 19 percent for the ten-year

period.)⁹ During the same decade, insured institutions' earnings grew at an annualized rate of 11 percent and set new records in every full year from 2001 through 2006.¹⁰

At larger institutions, earnings records were driven in part by the securitization (and, for some institutions, the origination) of Alternative-A (Alt-A) and subprime mortgages (see chapter 1). Reciprocally, the mortgage securitization pipeline, which contributed to seemingly unlimited liquidity for mortgage-related assets, was fueled by the activities of a number of the largest financial institutions in the United States, including thrifts, U.S. and foreign banking organizations,¹¹ and investment banks, and, it could be argued, by the activities of rating agencies and providers of financial guarantees of the performance of these assets.

Subprime lending became an important risk for some banks well before the full onset of the crisis in 2008. In February 2000, the FDIC estimated that approximately 140 banks had significant exposures in the subprime lending business. Although those institutions represented just over 1 percent of all insured institutions, they accounted for nearly 20 percent of all problem institutions—those with CAMELS ratings of 4 or 5.¹² Of the 22 banks that failed between 1997 and September 2001, 8 had significant subprime lending portfolios, foreshadowing, to an extent, the broader systemic risks that subprime and nontraditional mortgages would present in 2007 and 2008. Among these 8 banks were BestBank in Boulder, Colorado, which held subprime credit card receivables; First National Bank of Keystone in Keystone, West Virginia, which held retained interests in subprime mortgage loans; Pacific Thrift and Loan Company in Woodland Hills, California, which held retained interests in subprime mortgage loans; and Superior Bank FSB, in Hinsdale, Illinois, which held retained interests related to the securitization of subprime mortgages.

⁹ ADC loans are loans to finance the acquisition of raw land, land development, or real estate construction projects. Historically the repayment performance of ADC loans has tended to be more sensitive to adverse changes in economic or market conditions than has the repayment performance of other loan categories.

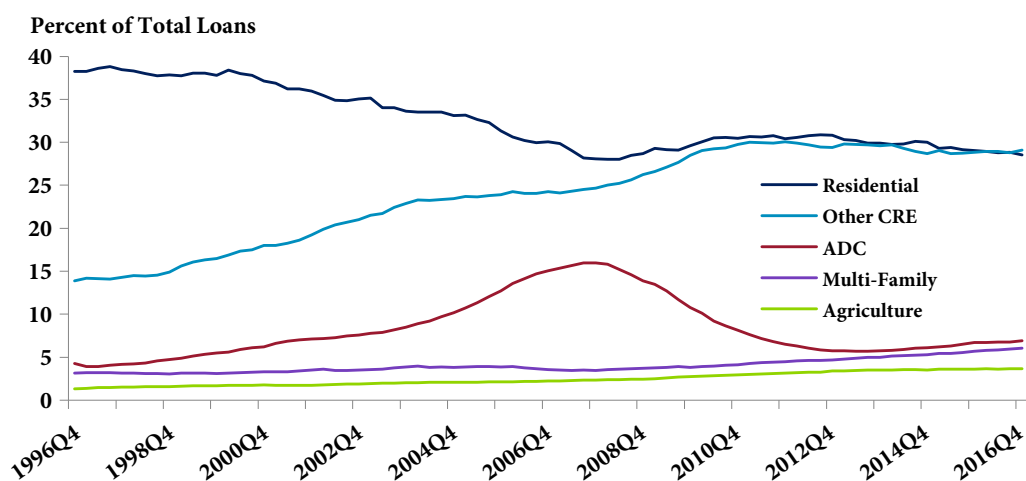
¹⁰ For the new records set by earnings, see FDIC, *Quarterly Banking Profile*, Q4 2006.

¹¹ In this chapter, the term “banking organization” will be used to encompass both banks and bank holding companies, and the terms “bank” and “insured bank” will be used interchangeably to refer to all FDIC-insured depository institutions—including both banks and thrifts—unless the context makes clear that a distinction is being drawn among different insured-bank charter types.

¹² *Hearings on Recent Bank Failures and Regulatory Initiatives Before the House Committee on Banking and Financial Services*, 106th Cong. (February 8, 2000) (statement of FDIC Chairman Donna Tanoue), <http://archives.financialservices.house.gov/banking/2800tan.shtml>. CAMELS stands for Capital adequacy, Asset quality, Management, Earnings, Liquidity, and Sensitivity to market risk. (The “S” component was added in 1996.) Bank supervisory ratings, or CAMELS composite ratings, are on a scale of 1 to 5, with a 1-rating being the highest and indicating the greatest strength in performance and risk management and the lowest level of supervisory concern. At the other end of the scale, a 5-rating is the lowest rating and indicates the weakest performance, inadequate risk management, and the highest level of supervisory concern. The CAMELS composite rating is derived from an evaluation of the six CAMELS components; although the composite rating is generally a close reflection of the assigned component ratings, it is not an arithmetic average of the component ratings.

Small banks (those having total assets of under \$10 billion) generally were not involved in subprime and nontraditional mortgages. Earnings at small banks were driven largely by growth in traditional lending categories, particularly real estate lending. The proportion of small banks' loan portfolios that was secured by real estate increased from about 61 percent to about 75 percent from year-end 1996 through year-end 2006. Growth in commercial real estate (CRE) and in ADC lending was particularly noteworthy: during that decade, CRE loans outstanding (excluding ADC) at small banks grew at an annualized rate of 6.3 percent, while ADC loans grew at an annualized rate of 15 percent. As a result, ADC loans outstanding at small banks increased from 4 percent of loans outstanding at these banks to 15 percent (see Figure 4.1).

Figure 4.1. Real Estate Loans as a Percent of Total Loans, 1996–2016 (Banks with Total Assets < \$10 Billion)



Note: "Other CRE" refers to real estate loans secured by nonfarm nonresidential properties.

By 2004, the tide of rising housing prices and favorable economic conditions was buoying up the financial performance of almost all banks. Between midyear 2004 and early February 2007, no FDIC-insured bank failed. And as of year-end 2006, the FDIC's *Quarterly Banking Profile* reported that of a total of 8,681 banks with assets of \$11.9 trillion, only 50 were on the FDIC's problem-bank list, with total assets of \$8.3 billion.¹³ Throughout 2006, only about one-half of 1 percent of banks were on the problem list, the lowest percentage for any year for which these data are available (1980–2017), suggesting, incorrectly as it turned out, that the risk profile of the banking industry was at a historic low.

¹³ "Problem banks" are FDIC-insured depository institutions assigned a CAMELS rating of 4 or 5; see note 12 for an explanation of these ratings.

Prelude to the Crisis: The Safety-and-Soundness Examination Program

As the risk profile of the banking industry evolved in the years between the previous banking crisis and the more recent one, the FDIC's safety-and-soundness examination program evolved as well. During the years between the two banking crises, two broad themes shaped the program. One theme was an effort to benefit from the lessons learned during the crisis of the 1980s and early 1990s. The other was an effort to avoid placing undue burden on banks.

Benefiting from lessons learned meant, among other things, a focus on ensuring prompt supervisory action to address deficient risk management practices at banks before those deficiencies resulted in a bank's condition deteriorating beyond repair. In addition, organizational and policy changes were made to strengthen the FDIC's risk analysis capabilities. Avoiding undue burden on banks meant streamlining the examination process at institutions that the FDIC believed had a low risk-profile.

Timely Corrective Action

One of the most important lessons flowing from the crisis of the 1980s—a lesson that directly affected bank supervision during the 2008–2013 crisis and that affects bank supervision today—is the need for supervisors to take timely corrective action to address problems at troubled banks and, more broadly, the need to correct banks' risk management deficiencies before these deficiencies do substantial harm.

In 1993, the federal bank and thrift regulators published a revised uniform common core report of examination that highlighted the importance of timely steps by banks to address weaknesses in risk management practices.¹⁴ Though each agency had its own set of instructions, the interagency group developed common definitions for parts of the core report in order to ensure accurate and consistent presentation of that information—and, importantly, the new uniform report introduced the “Matters Requiring Board Attention” page to focus the attention of the bank's board and management on material issues requiring immediate consideration.¹⁵

In 1995 the FDIC took another step emphasizing the importance of a proactive assessment of banks' exposure to and management of credit risks, when FDIC examiners began completing an “underwriting standards” survey at each examination. The survey, still in use today, reflects an examiner's view of bank management's ability to identify, measure, monitor, and control credit risks in various types of lending. This focus on loan underwriting standards is designed to serve as an early-warning mechanism for identifying future problems.

¹⁴ FDIC, “Regulators Adopt Common Format for Examination Reports,” *Financial Institution Letter*, FIL-72-93, October 19, 1993.

¹⁵ Further discussion of MRBAs is available in “Supervisory Trends: ‘Matters Requiring Board Attention’ Highlight Evolving Risks in Banking,” FDIC, *Supervisory Insights*, Summer 2014.

In 1996, the Federal Financial Institutions Examination Council issued an important clarification of examination and supervision policy when it revised its Uniform Financial Institutions Rating System, which had been introduced in 1979.¹⁶ The changes added a new component rating, the “S” rating for sensitivity to market risk, to the five previous components, expanding the acronym CAMEL to CAMELS.¹⁷ More broadly, the 1996 changes were designed to make sure that both bankers and examiners understood that CAMELS ratings were based not only on a bank’s current financial indicators (e.g., earnings, capital, and nonperforming assets) but also on its risk profile, which is influenced by the bank’s loan underwriting, internal controls, degree of exposure to market risk, and other factors. Thus, for example, a well-capitalized and profitable institution could still be assigned a composite rating of 3 if the examiner found risk controls to be weak or the bank to be inadequately managed.

In 1997, the FDIC, in conjunction with the Federal Reserve Board and the Conference of State Bank Supervisors, began implementing a new risk-focused examination process designed to direct bank examinations and examination resources at whichever bank functions posed the greatest risk exposure at the particular institution. Identifying the functions that pose the greatest risk exposure is part of what an examination is about, and depends on the business model and risk mitigation strategies, or the weaknesses thereof, at each individual institution.

As already noted, the risk-focused examination process attempts to assess an institution’s ability to identify, measure, evaluate, and control risk. This process recognizes that in a rapidly changing environment, a bank’s financial condition at any given time may not indicate the bank’s future performance, and so the risk-focused examination process seeks to strike an appropriate balance between evaluating the financial condition of an institution at a certain time and evaluating the soundness of the bank’s processes for managing risk. For if management’s risk controls are properly designed and effectively applied, they should help ensure that the bank’s future performance will be satisfactory. (Moreover, for well-run banks the risk-focused approach may involve less regulatory burden because examiners will be testing, rather than duplicating, the work of the bank’s own audit and management review functions.)

In 2000, the FDIC implemented new on-site supervision processes for large FDIC-supervised banks (banks with assets greater than \$10 billion; the role of the FDIC with respect to large banks not supervised by the FDIC is discussed below, in the section titled “Large-Bank Risk Assessment”).¹⁸ In light of the banking industry’s ongoing consolidation and evolution toward larger and more complex institutions, the FDIC

¹⁶ “Uniform Financial Institutions Rating System,” 61 Fed. Reg. 67021–67029 (Dec. 19, 1996), <https://www.gpo.gov/fdsys/pkg/FR-1996-07-18/pdf/96-18187.pdf>.

¹⁷ Again, see footnote 12 for a brief explanation of the ratings system.

¹⁸ See that same section for an explanation of which federal agency supervises which category of banks.

determined that an on-site presence beyond traditional “snapshot” examinations is generally necessary to effectively monitor certain larger state institutions that are not members of the Federal Reserve System. The new program emphasized the importance of supervisory plans that were dynamically updated to address the evolving risks of larger and more complex institutions: generally, the examination process for large banks consisted of a series of targeted reviews of key business lines and risk areas, based on an annual supervisory plan, with the findings of these activities incorporated into the annual report of examination. Examiners were instructed to focus their most intense efforts on, among other things, the presence of rapid asset growth, asset concentrations, and internal control weaknesses—in other words, indicators that may reflect increasing risks at a bank.

The changes in the supervisory process discussed in this section were designed to sharpen FDIC supervisors’ sensitivity to the importance of banks’ risk management practices. Addressing weaknesses in banks’ risk management practices in a timely manner is important, because if supervisors do not address weaknesses in risk management until after a bank’s condition deteriorates, it is often too late to prevent that bank from failing. The result may be an increase in costs to the Deposit Insurance Fund (DIF) for reimbursing insured depositors of the failing bank and for resolving the failed bank. (On the Deposit Insurance Fund, see chapter 5. On resolutions, see chapter 6.) And if the institutions whose problems are allowed to go unaddressed are very large, a financial crisis may ensue with deep and widespread economic repercussions.

In short, at the beginning of the decade that preceded the 2008–2013 banking crisis, a fundamental supervisory goal of the FDIC (and the other federal banking agencies) was to be proactive, attempting to address deficiencies in risk management at an early stage. As discussed below, in the aftermath of the crisis the FDIC has reemphasized this fundamental goal.

Reduction of Regulatory Burden

The second broad theme driving changes to the safety-and-soundness examination program was the desire to reduce the regulatory burden associated with the examination process, especially for smaller, lower-risk institutions. Efforts to reduce burden included economizing on the overall level of resources devoted to bank examination and supervision, and streamlining examination procedures for smaller, well-rated banks.

The FDIC’s burden reduction efforts included a 2002 Corporate Performance Objective (CPO) to reduce by 20 percent the average time spent conducting safety-and-soundness examinations of 1- and 2-rated banks with assets less than \$250 million.¹⁹ A subsequent CPO called for an additional 10 percent to 20 percent reduction in

¹⁹ The FDIC’s expectation of this 20 percent reduction in examination hours was communicated in FDIC, “Reducing Burden on Banks and the Public,” *Financial Institution Letter*, FIL-36-2002, April 24, 2002.

examination hours compared with then-current benchmarks for banks with a CAMELS rating of 1 or 2. To create incentives to meet these goals, regional and territory offices were ranked on the basis of their success in reducing the time spent examining banks; processing examination reports, applications, and enforcement actions; and meeting other efficiency measures. To help achieve the CPO, a new Maximum Efficiency Risk-Focused Institution Targeted (MERIT) examination program was introduced in 2002; it encouraged streamlined loan review and the limited use of a number of examination procedures. Examiners were encouraged to use the streamlined MERIT procedures for a narrowly defined set of eligible banks, and for other institutions as appropriate. The MERIT examination program was discontinued in 2008, in part because of concerns it was being implemented in a way that reduced the rigor of some examinations to an extent that had not been intended.

Efforts to Enhance Risk Analysis Capabilities

The FDIC's effort to learn from the experience of the earlier crisis was reflected not only in changes to its examination programs but in organizational changes and other efforts to improve the quality of its risk analysis capabilities, its expertise regarding more complex banking activities, and its off-site monitoring systems.

A first step in this evolution was the FDIC's establishment in 1995 of a new Division of Insurance (which subsequently merged with the already existing Division of Research and Statistics to become the Division of Insurance and Research). In addition to administering the FDIC's risk-based deposit insurance pricing system (see chapter 5), the new Division stationed a small interdisciplinary staff of seasoned bank examiners, regional economists, and analysts in each of the (at the time) eight FDIC regional offices and Washington, DC.²⁰ Their charge was to bridge the gap between the analysis of broad economic and market trends and the micro perspective of individual bank examinations. Staff in these offices published a *Regional Outlook* designed to heighten banker and examiner awareness of emerging regional risks and trends. These staff members also served as a resource for management, both in the regions and in Washington, on economic conditions affecting insured banks.

In 1997, to align the FDIC's organizational structure with an industry that was consolidating across state lines, the FDIC established a new Case Manager position in the regional offices. Each Case Manager is assigned a caseload of banking organizations and is responsible for keeping abreast of developments at these organizations by regularly reviewing financial reports, the results of off-site monitoring systems, and examination reports, and by maintaining contact with counterparts at other bank regulatory agencies or the bank. This review by the Case Manager supplements the on-site FDIC examination,

²⁰ As of June 30, 2017, the FDIC had six regional offices, located in New York City, Atlanta, Chicago, Dallas, Kansas City, and San Francisco. These, along with offices in Boston and Memphis, constituted the eight regional offices referenced in the text.

which may occur as infrequently as once every three years if the FDIC alternates examinations with its state counterparts. The FDIC also created a number of subject-matter specialist positions in the regional offices to help ensure that if complex issues arose at individual institutions during an examination, an adequate level of expertise existed to address them. Such specialist positions were created in the areas of capital markets, accounting, trust, and information technology.

In 2003, the FDIC created a National Risk Committee (NRC), a cross-divisional body of senior managers established to identify and evaluate major business risks facing the banking industry and the insurance funds (as noted in footnote 8, until 2006 there were two deposit insurance funds). Risk committees in the regions delivered regular regional risk reports to the NRC. A successor structure of regional and national risk committees exists at the FDIC today.

Increased emphasis was placed on the review of banks that were outliers according to the FDIC's off-site monitoring tools. The term "off-site monitoring" is used here to refer to a specialized subset of the more general concept of risk analysis, namely, the periodic and systematic analysis of data from the quarterly Consolidated Report of Condition and Income (Call Report). Off-site monitoring tools used then and still used include (1) a Statistical CAMELS Offsite Review (SCOR) model designed to make it easier to identify signs of potential financial deterioration at a bank,²¹ (2) a Growth Monitoring System to flag for further off-site review the banks that were growing most rapidly, and (3) a Real Estate Stress Testing (REST) model to help identify institutions that were more susceptible to the types of real estate-related problems that had played a major role in the 1980s banking crisis.²²

The development and use of such tools allows for a quarterly analysis of the financial data reported by all insured banks to identify signs of deteriorating performance or undue risk-taking; this review is an important supplement to the relatively infrequent on-site examinations. Such off-site systems help ensure that potential issues are systematically brought to the attention of safety-and-soundness staff: regional staff is asked to review institutions that are flagged as outliers relative to the off-site indicators and to recommend additional supervisory attention where warranted.

Retrospectively, one can see that these enhanced risk-analysis processes brought important issues to the attention of bankers, examiners, and policymakers. Examples include two FDIC publications in 1997, one on subprime lending and the other on Trust

²¹ The SCOR model is described in Charles Collier, Sean Forbush, Daniel A. Nuxoll, and John O. Keefe, "The SCOR System of Offsite Monitoring: Its Objectives, Functioning, and Performance," *FDIC Banking Review* 15, no. 3 (2003): 17–32, <https://www.fdic.gov/bank/analytical/banking/br15n3full.pdf>.

²² The REST model is described in Charles Collier, Sean Forbush, and Daniel A. Nuxoll. "Evaluating the Vulnerability of Banks and Thrifts to a Real Estate Crisis," *FDIC Banking Review* 15, no. 4 (2003): 19–36, <https://www.fdic.gov/bank/analytical/banking/br15n4full.pdf>.

Preferred Securities²³ and associated risks.²⁴ A number of other FDIC publications, including one published in the first quarter of 1999 and one in the third quarter of 2000, highlighted the risk of overbuilding in several major metropolitan markets (some of which subsequently experienced severe real estate downturns) and identified concerns about new, higher-risk mortgage lending practices.²⁵ A publication in the first quarter of 2002 discussed concerns about mortgage underwriting, concentrated lending exposures to finance the development of vacant lots, and potential credit risks facing ADC lenders in particular metro markets, including Atlanta and San Francisco (markets that would experience high rates of bank failure during the crisis).²⁶ On the other hand, a publication in the spring of 2004 discussed the risk of a bubble in national housing prices but concluded, on the basis of information through 2003, that such a bubble was not underway and was unlikely to develop.²⁷

Internal risk metrics such as the REST model mentioned above flagged increasing industry vulnerability to economic downturns associated with growing concentrations in ADC lending. In 2003, as concerns about ADC concentrations grew, staff undertook a horizontal review of risk exposures associated with ADC lending in the Atlanta metropolitan area. The review identified concerns with risk management practices but concluded that risks were mitigated because the ADC lending exposures were primarily to finance the development of residential subdivisions to meet the housing demands of an increasing population. What was not so readily apparent was the significant reliance on subprime and nontraditional mortgages in supporting market activity. The pipeline for this problematic mortgage credit was fed by nonbank mortgage originators and by the activities of large investment banks, large thrifts, and large BHCs. It was hard for small

²³ Trust Preferred Securities are discussed in the section below titled “Strategies to Insulate Banks from Problems at BHCs.”

²⁴ Kathy R. Kalsner and Debra L. Novak, “Subprime Lending: A Time for Caution,” *Regional Outlook, San Francisco*, Q3 1997, <https://www.fdic.gov/bank/analytical/regional/s3q1997.pdf>; and Kathy R. Kalsner, “Financial Markets,” *Regional Outlook, San Francisco*, Q4 1997, <https://www.fdic.gov/bank/analytical/regional/s3q1997.pdf>.

²⁵ Steven Burton, “Commercial Development Still Hot in Many Major Markets, but Slower Growth May Be Ahead,” *FDIC Regional Outlook National Edition*, Q1 1999, <https://www.fdic.gov/bank/analytical/regional/t1q1999.pdf>. Robert Burns and Sarah Zachary, “Ranking Metropolitan Areas at Risk for Overbuilding,” *FDIC Regional Outlook National Edition*, Q3 2000, <https://www.fdic.gov/bank/analytical/regional/t3q2000.pdf>. Alan Deaton, “Rising Home Values and New Lending Programs Are Reshaping the Outlook for Residential Real Estate,” *FDIC Regional Outlook National Edition*, Q3 2000, <https://www.fdic.gov/bank/analytical/regional/t3q2000.pdf>.

²⁶ Scott Hughes, Judy Plock, Joan Schneider, and Norman Williams, “In Focus this Quarter: Housing Market Has Held Up Well in this Recession, but Some Issues Raise Concern,” *FDIC Regional Outlook National Edition*, Q1 2002, <https://www.fdic.gov/bank/analytical/regional/t1q2002.pdf>.

²⁷ Cynthia Angell, “Housing Bubble Concerns and the Outlook for Mortgage Credit Quality,” *FDIC Regional Outlook National Edition*, Spring 2004, <https://www.fdic.gov/bank/analytical/regional/t1q2004.pdf>.

banks, for builders, and indeed for bank supervisors to appreciate just how dependent on the continued operation of this pipeline the ADC exposures really were.²⁸

In March 2005, as part of the FDIC's formal risk analysis process, staff raised significant concerns about trends in mortgage credit and the unsustainable appreciation of housing prices. Specifically, staff expressed concerns to the FDIC's National Risk Committee about the rapidity with which house price appreciation was outstripping income growth by a widening margin in high-cost metro areas, and about the rising fraction of credit attributable to subprime mortgages, alternative mortgage products designed to minimize initial payments, home-equity loans, and houses purchased by investors. The memorandum to the Committee stated, "The situation is beginning to look like a credit-induced boom in housing that could very well result in a systemic bust if credit conditions or economic conditions should deteriorate."²⁹ The response recommended by staff was further research on trends in home prices and mortgage credit, the development of guidance to banks and examiners, and public communication.

In May 2005, the FDIC published a discussion of these issues that drew connections between the rapid escalation of home prices and the pricing and terms of mortgage credit.³⁰ The FDIC also joined with the other federal banking agencies in issuing supervisory guidance addressing the significant and rising risks associated with banks' real estate exposures: in January 2006, the agencies published for comment proposed interagency guidance relating to sound risk management practices for concentrations in commercial real estate lending; in September 2006 they published the "Interagency Guidance on Nontraditional Mortgage Product Risks;" and in December they finalized and published the guidance that had been proposed in January (the published document was called "Concentrations in Commercial Real Estate Lending, Sound Risk Management Practices.")³¹ As it turned out, however, in the summer of 2006 the S&P/Case-Shiller U.S. National Home Price Index had already peaked and begun its multiyear decline.

²⁸ As it turned out, demand for vacant lots in Atlanta collapsed in 2007 shortly after subprime and nontraditional mortgage originations were sharply curtailed. For further information, see "Commercial Real Estate," *Hearing Before the Congressional Oversight Panel*, 111th Cong. (January 27, 2010, held in Atlanta, Georgia) (statement of Doreen Eberley, Acting Atlanta Regional Director, Federal Deposit Insurance Corporation), <https://www.gpo.gov/fdsys/pkg/CHRG-111shrg55522/pdf/CHRG-111shrg55522.pdf>.

²⁹ FDIC, "Memorandum to the FDIC National Risk Committee: Rising Risks in Housing Markets," 2005, from Richard A. Brown, Chief Economist, http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2005-03-21%20FDIC%20Memo%20from%20Richard%20Brown%20to%20the%20National%20Risk%20Committee-%20Rising%20Risks%20in%20Housing%20Markets.pdf.

³⁰ Cynthia Angell and Norman Williams, <https://www.fdic.gov/bank/analytical/fyi/050205fyi.pdf>, FDIC, FYI, May 2, 2005, <https://www.fdic.gov/bank/analytical/fyi/050205fyi.pdf>.

³¹ Interagency final joint guidance, "Concentrations in Commercial Real Estate Lending, Sound Risk Management Practices," 71 Fed. Reg. 74580–74588 (Dec. 12, 2006), <https://www.gpo.gov/fdsys/pkg/FR-2006-12-12/pdf/06-9630.pdf>. "Interagency Guidance on Nontraditional Mortgage Product Risks," 71 Fed. Reg. 58609–58618 (Oct. 4, 2006), <https://www.gpo.gov/fdsys/pkg/FR-2006-10-04/pdf/06-8480.pdf>.

To put this section's discussion of risk analysis processes into context, the FDIC, like most other observers, did not manage to connect the dots among the trends that were developing with regard to home prices, alternative mortgage credit products, off-balance-sheet securitization vehicles, interconnected credit derivatives exposures, and increased financial leverage and reliance on short-term funding (for a detailed discussion of these subjects, see chapter 1). So although it is important to supplement the examiners' bank-level view of risk with risk assessment of broad external trends, consensus on the most important risks in the financial system and on the urgency of those risks at any given time is likely to be elusive.

As noted above, some pre-crisis analyses pointed directly to the way nontraditional mortgages were contributing to a potential housing bubble. Yet such examples illustrate the significant difference between identifying a risk and developing an agency-wide or interagency consensus for policy action to address that risk. Agency action to change or curtail risky but currently profitable banking industry practices tends to encounter significant external resistance. Decisions on whether and how to take such action are within the purview of the senior management of an agency. That such decisionmaking can be informed and enhanced by sound risk analysis was a guiding principle for the FDIC's risk assessment efforts during the pre-crisis years and continues to be so today.

Large-Bank Risk Assessment: Before and into the Crisis

Although a majority of FDIC-insured institutions are supervised by the FDIC, most of the assets of insured institutions are held by banks and thrifts that the FDIC does not supervise. The reason has to do with the distribution in U.S. law of bank regulatory responsibilities across agencies. Specifically, FDIC-insured depository institutions that are federally chartered—i.e., national banks and federal thrifts—are supervised by the Office of the Comptroller of the Currency (OCC), and these institutions include most of the largest FDIC-insured institutions. State-chartered banks that are members of the Federal Reserve System—state member banks—and bank holding companies are supervised by the Federal Reserve. State-chartered banks that are not members of the Federal Reserve System—state nonmember banks—and state thrifts are supervised by the FDIC. (Before the enactment, in 2010, of the Dodd-Frank Act, another federal regulator—the Office of Thrift Supervision [OTS]—supervised federal and state thrifts, except for state-chartered mutual savings banks, which were supervised by the FDIC. The Dodd-Frank Act abolished the OTS.) As of June 30, 2017, there were 5,787 FDIC-insured banks, and the FDIC was the primary federal regulatory agency for about 64 percent of them. Most of the banks the FDIC supervises are small, a category defined as having assets of less than \$10 billion. (Bank asset sizes range from more than a trillion dollars for the largest banks to under \$100 million for the smallest banks.)

Larger institutions can pose outsized risks to the DIF: of the 489 banks that failed during the crisis years 2008–2013, only 9 had assets of more than \$10 billion, but these

9 institutions accounted for 35 percent of all losses the DIF experienced during that time.³² Thus, one function of the FDIC's supervision program is to maintain a level of awareness of significant risks and developments at large non-FDIC-supervised banks. This function has mostly been carried out through off-site analysis and the exercise of special examination authority as granted by Congress in 1950 under Section 10(b)(3) of the Federal Deposit Insurance Act. "Special examination authority" refers to the FDIC's statutory authority to conduct an examination of an FDIC-insured institution for which it is not the primary federal regulator (e.g., a national bank or state member bank). In practice, this authority is exercised on a limited basis and typically in cooperation with the federal agency that regulates the bank being examined. A typical scenario for a special examination, often referred to as a "backup examination," involves a problem bank or other bank posing unusual risks where the FDIC requests, and is granted, some level of participation in an examination conducted by the Office of Comptroller of the Currency or by the Federal Reserve (or, before July 2010, by the OTS). Although the practices of off-site analysis did not substantially change before or at the beginning of the crisis, the FDIC's exercise of special examination authority became a more important part of the risk assessment process as the proportion of insured assets held by institutions not directly supervised by the FDIC continued to grow.

In determining when to exercise its special examination authority, the Corporation was helped by reviews it carried out under a program it had maintained since the late 1980s and still maintains—its Large Insured Depository Institution (LIDI) program, devoted to the monitoring and risk assessment of insured institutions with assets exceeding \$10 billion.³³ On the basis of reviews of financial data and examination reports as well as contacts with the primary federal regulator (PFR), the LIDI program generates a brief quarterly report on each of these large institutions, highlighting risks, trends, and areas of supervisory focus. These reviews are shared with the PFRs for consideration in their examination planning.

Since 1950, when Congress granted the FDIC authority to perform special examinations, the FDIC Board of Directors has adopted various policies governing the use of these examinations. For example, in 1983 the Board authorized a Cooperative Examination Program under which FDIC personnel would automatically be invited to participate in examinations of national banks rated CAMEL 4 or 5 and of selected other banks (as mentioned in footnote 12, the "S" component of CAMELS was added in 1996). That policy was rescinded in 1993 when the FDIC Board adopted a policy requiring all recommendations for a special examination to go to the Board for approval.

In 1995, the FDIC Board delegated authority to the then Division of Supervision to participate in special examination activities when the PFR invited FDIC participation, or

³² This information can be found at www.fdic.gov under the "industry analysis/historical statistics on banking/failures and assistance transactions" tabs.

³³ As of June, 30, 2017, there were 121 FDIC-insured depository institutions that had assets of \$10 billion or more.

when an institution had a CAMEL composite rating of 4 or 5, or when there were material deteriorating conditions not reflected in the current CAMEL rating and the PFR did not object to the FDIC's participation.³⁴

In the last few years of the 1990s, three institutions failed that imposed extraordinarily high loss rates on the DIF as a percentage of their asset size: BestBank in Boulder, Colorado (in which the FDIC's loss amounted to 69 percent of the institution's assets at failure); First National Bank of Keystone in Keystone, West Virginia (51 percent loss rate); and Pacific Thrift and Loan Company in Woodland Hills, California (61 percent loss rate). In the case of Keystone in particular, then FDIC Chairman Donna Tanoue observed that, although the outcome might not have been affected, coordination between the Office of the Comptroller of the Currency and the FDIC was not optimal.³⁵ In commenting on the 2001 failure of Superior Bank, FSB in Hinsdale, Illinois, John Reich, an FDIC Director at the time, stated, "The FDIC needs full access to all banks and thrifts. ... The FDIC Board's own complicated procedures inhibit our access when another regulator denies our participation. We ought to fix this."³⁶

In 2002, the federal banking agencies entered into an interagency agreement, "Coordination of Expanded Supervisory Information Sharing and Special Examinations." This agreement identified the types of institutions for which the FDIC could conduct special examinations: (1) institutions that represented a heightened risk to the deposit insurance funds, as agreed on a case-by-case basis; (2) institutions with a composite CAMELS rating of 3, 4, or 5; or (3) institutions that were undercapitalized under the Prompt Corrective Action guidelines.³⁷ The agreement also addressed coordination between the other agencies' examiners and a cadre of FDIC "dedicated examiners." The FDIC's dedicated examiner program was an effort to improve the FDIC's understanding and awareness of risks at the largest insured banks. For each of the eight largest financial institutions in the nation, the program provided for a single FDIC examiner to work on-site with the primary federal regulator's examination team under parameters described in the 2002 agreement. Pursuant

³⁴ In 2005, recognizing the growing size and complexity of institutions and the implication for the DIF, the FDIC Board further delegated authority to the FDIC Chairman to determine when a special examination was warranted.

³⁵ *Hearings on Recent Bank Failures and Regulatory Initiatives Before the House Committee on Banking and Financial Services*, 106th Cong. (Feb. 8, 2000) (statement of Donna Tanoue, Chairman, Federal Deposit Insurance Corporation), <http://archives.financialservices.house.gov/banking/2800tan.shtml>.

³⁶ John Reich, "The Lessons of Superior," August 21, 2001, <https://www.fdic.gov/news/news/speeches/archives/2001/sp28aug01.html>. FDIC staff may request participation on an examination of a bank regulated by another banking agency, but if that agency denies the request, staff would need to obtain explicit approval from the FDIC Board of Directors in order to conduct such examination activities.

³⁷ The Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA) amended the Federal Deposit Insurance Act to require the appropriate federal banking agency to take prompt corrective action to resolve the problems of insured depository institutions, and provides a framework of supervisory actions for insured institutions that are less than well capitalized.

to the parameters of the dedicated examiner program, FDIC dedicated examiners worked on-site with the primary federal regulators of Citigroup, Wachovia, Bank of America, Bank One, FleetBoston Financial, JP Morgan Chase, Wells Fargo, and Washington Mutual.

The dedicated examiners served as the FDIC's primary point of contact with PFR supervisory personnel. Under the 2002 agreement, if the dedicated examiner determined it appropriate to participate in an examination to evaluate the risk to the DIF of a particular banking activity but the PFR's staff disagreed, the dispute was to be settled by the heads of supervision of the two agencies, and if the dispute remained unresolved, then by the principals of the two agencies.

In addition to its strengths, the dedicated examiner program presented opportunities for improvement. Its importance was that it provided the FDIC with a better window into the risks posed by these large institutions, thereby enhancing the Corporation's efforts to identify, monitor, and assess the risks to the DIF posed by large, complex banks that are not supervised by the FDIC. However, the FDIC was not always able to secure prompt permission to participate in examinations of these banks. To gain access to an institution, the FDIC was required to show that the institution posed a high level of risk to the DIF—but it needed this access to assess the level of risk.³⁸ A few examples drawn from the FDIC's experience with large troubled institutions will help clarify these points.

On July 11, 2008, the Office of Thrift Supervision appointed the FDIC as conservator of IndyMac Bank FSB, a West Coast thrift institution with \$32 billion in assets. Measured by its estimated cost to the DIF, IndyMac was and remains the most expensive bank failure in the FDIC's history. Before mid-2007, however, the FDIC's regular risk monitoring of IndyMac had not identified more than a normal, or at worst a somewhat elevated, level of risk to the DIF, consistent with the favorable examination ratings assigned by the institution's PFR, the Office of Thrift Supervision. Only starting in August 2007, when Countrywide Bank—a large thrift that, like IndyMac, had specialized in alternative mortgage lending—began experiencing liquidity problems, did the FDIC's supervisory concerns with IndyMac and other thrifts that had concentrations in subprime and other nontraditional mortgage lending increase significantly. The FDIC requested and gained a presence in the on-site examination of IndyMac and began evaluating that bank's viability. As a result of these efforts, the FDIC was better prepared for the resolution of IndyMac when the institution failed.

Another large thrift that failed in the second half of 2008 was Washington Mutual Bank (WaMu). With assets of \$307 billion, WaMu—which failed on September 25, 2008—was the largest bank failure by asset size in the FDIC's history.³⁹ In 2005, WaMu management

³⁸ For further discussion, see U.S. Department of the Treasury and Federal Deposit Insurance Corporation, Offices of Inspector General, "Evaluation of Federal Regulatory Oversight of Washington Mutual Bank," Report EVAL-10-002 (April 2010), 52–53, <https://www.fdicig.gov/sites/default/files/publications/10-002EV.pdf>.

³⁹ WaMu's failure did not cost the DIF anything because the thrift was acquired by JPMorgan Chase.

had made a decision to shift its business strategy away from originating traditional fixed-rate and single-family residential loans that conformed to the criteria for purchase by the government-sponsored enterprises Fannie Mae and Freddie Mac, and toward riskier nontraditional loan products and subprime loans. The FDIC had a dedicated examiner at WaMu and in 2006, 2007, and 2008 made a number of staff-level requests to the institution's PFR, the Office of Thrift Supervision, to be allowed to increase its on-site presence. The OTS denied these requests because it believed that the FDIC did not have the requisite need for access according to the terms of the interagency agreement, and it also believed that the FDIC could rely on the work performed by the OTS. The OTS assigned favorable examination ratings to WaMu through 2007 and into 2008, and the FDIC did not contest these ratings. Starting in the spring of 2008, with the agreement of the OTS, the FDIC increased its on-site presence at WaMu and argued that the institution should be downgraded to problem-bank status.⁴⁰

After WaMu's failure, the Office of Inspector General (OIG) at the Department of the Treasury (Treasury) and the OIG at the FDIC recommended that the FDIC Chairman, in consultation with the FDIC Board of Directors, revisit the interagency agreement governing access to information and backup examinations for large depository institutions, to ensure not only that the agreement provided the FDIC with sufficient access to the information necessary for assessing an institution's risk to the DIF but also that it covered all large depository institutions. The interagency agreement was modified in July 2010.

In the days following the WaMu failure, Wachovia Corporation experienced a liquidity crisis and was subsequently acquired by Wells Fargo. The FDIC had had a dedicated examiner at Wachovia. As described more fully in chapter 3, in early 2008 the FDIC downgraded its internal outlook rating (LIDI rating) for Wachovia Bank, the flagship depository institution subsidiary of Wachovia, indicating that the FDIC considered the institution to have an elevated risk profile and was likely to deteriorate to a "3" CAMELS composite rating within 12 months. In August 2008, Wachovia's PFR, the OCC, downgraded the institution's CAMELS rating to a composite "3." However, as late as the week before Wachovia Corporation's liquidity crisis, the OCC had not viewed Wachovia Bank as a problem bank, and the FDIC had not raised objections to the OCC's risk assessment. The discrepancy between Wachovia's precarious condition and regulators' views of the institution provides a good example of both the difficulty, and the importance, of evaluating the risks at large banks. At any rate, the need to address the liquidity crisis quickly came to a head, and FDIC supervision staff provided analytical support to the FDIC's Board of Directors about alternative courses of action potentially available to address the problems at this institution. Staff's ability to provide the needed support was enhanced by the information gained from the dedicated examiner program and the LIDI program.

⁴⁰ The material in this paragraph is drawn from the Offices of Inspector General, U.S. Department of the Treasury and FDIC, "Evaluation."

Similar comments apply to the staff assistance provided to the FDIC Board of Directors in the cases of two other very large and troubled banks, Citigroup and Bank of America Corporation, about which the Board would likewise have to make a decision. (For details on the cases of all three banks—Wachovia, Citigroup, and Bank of America Corporation—see chapter 3.) At each of these institutions, the FDIC had a dedicated examiner, and the members of the Board relied on supervisory staff to help assess potential loss exposure to the FDIC under various options that the Board needed to consider for dealing with these institutions. Staff’s ability to provide analytical support to the decisionmaking process depended on a baseline of knowledge about these institutions gained from the dedicated examiner program and the LIDI program.

The Crisis: Characteristics of Failed and Problem Banks

The Case-Shiller index of home prices peaked in July 2006 and then declined steadily for almost six years, losing 27 percent of its value before bottoming out in February 2012. For banks and their borrowers, the effects of this steady decline in housing prices and of the recession that began in December 2007 were gradual at first, but quickly grew more severe. As depicted in Table 4.1, the number of problem banks (which stood at only 50 at year-end 2006) reached 252 by year-end 2008, 702 by year-end 2009, and 884 by year-end 2010. The number of bank failures increased rapidly as well, going from 25 in 2008 to 140 in 2009 to 157 in 2010, before declining to 92 in 2011 and dropping every year through 2016.

Table 4.1. Number of Problem Banks and Failures, 2007–Q1 2017

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Q1 2017 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| Total IDIs | 8,534 | 8,305 | 8,012 | 7,658 | 7,357 | 7,083 | 6,812 | 6,509 | 6,182 | 5,913 | 5,856 |
| Problem Banks | 76 | 252 | 702 | 884 | 813 | 651 | 467 | 291 | 183 | 123 | 112 |
| Failures | 3 | 25 | 140 | 157 | 92 | 51 | 24 | 18 | 8 | 5 | 3 |
| <i>Cumulative Failures</i> | 3 | 28 | 168 | 325 | 417 | 468 | 492 | 510 | 518 | 523 | 526 |

Note: “IDI” stands for “Insured Depository Institution.”

Most banks that failed or became problem banks did so because of large concentrations, relative to their capital, of poorly underwritten and administered commercial real estate loans and (especially) ADC loans. During the pre-crisis years, many of these banks had exhibited financial metrics that often indicate a higher appetite for risk. These metrics include high concentrations of ADC loans, rapid asset growth, and relatively greater use of

wholesale funding sources as compared with other banks.⁴¹ In addition, banks’ choice of capital structure mattered: banks that operated with lower levels of capital during the run-up to the crisis failed more often.⁴²

Figure 4.2 addresses the experience of banks during the crisis by percentile ADC loan concentration range. For this figure, the ratio of ADC loans to capital for each bank as of December 31, 2006, was calculated, and the banks were grouped into percentiles based on this ratio. This set of banks was then restricted to those with a CAMELS rating of 1 or 2 as of December 31, 2006. For each percentile group, the proportions of banks that, over the subsequent five years, either failed (red) or were downgraded to a CAMELS composite rating of 3, 4, or 5 (various shadings) are depicted by the vertical bars. The figure indicates that the more concentrated a bank was in ADC lending, the more likely it was to fail or be downgraded. Although ADC loan concentrations alone do not necessarily present a problem if the loans are well underwritten, all other things being equal, a bank with a higher ADC loan concentration will be more affected by a real estate downturn.

Figure 4.2. Downgrades of 1- and 2-Rated Banks: Ratio of ADC Loans to Capital

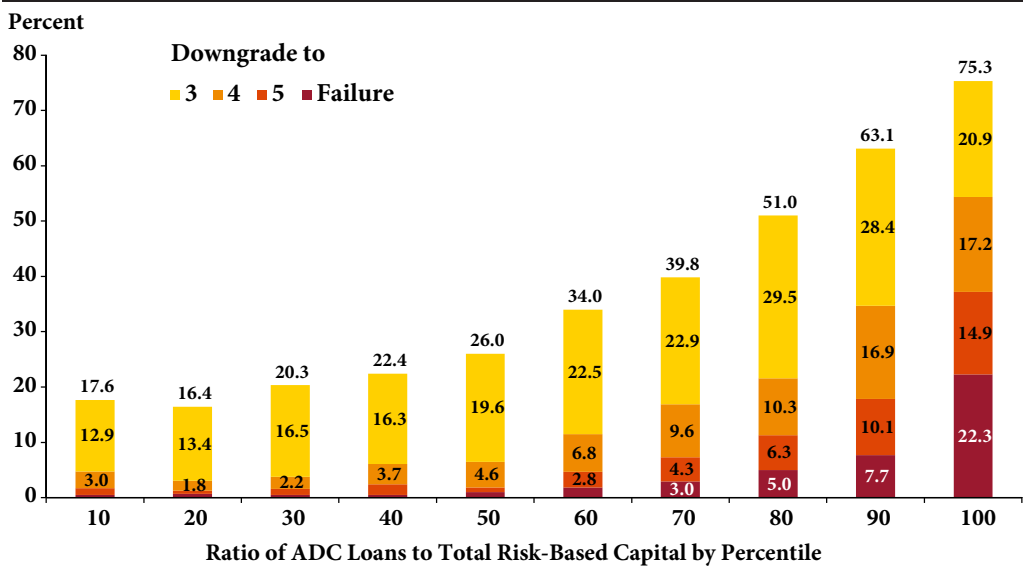


Figure 4.3 presents the failure and downgrade experience of banks by percentile asset growth range. The percentile rank of each bank’s one-year merger-adjusted asset growth

⁴¹ The term "wholesale funding" is a generic and imprecise term intended to refer to those liabilities of a bank that are not stable core deposits. In this chapter, specific funding categories that are deemed "wholesale" are noted in the descriptive text associated with individual figures.

⁴² The discussion in this chapter is consistent with the results of the FDIC’s statistical analysis of factors associated with bank failures, described in FDIC, "Assessments—Notice of Proposed Rulemaking and Request for Comment," 81 Fed. Reg. 74580–74588 (Feb. 4, 2016), <https://www.gpo.gov/fdsys/pkg/FR-2016-02-04/pdf/2016-01448.pdf>.

as of year-end 2006 was computed and compared with the subsequent five-year failure and downgrade experience, as was done for Figure 4.2. Figure 4.3 indicates that failures and downgrades were concentrated among institutions that were growing relatively faster. This is consistent with the observation that fast growth may sometimes be the result of lowered underwriting standards and more-aggressive competition for new business. Banks that make more lending concessions to attract borrowers during a real estate expansion are more likely to run into trouble during the downturn.

Figure 4.3. Downgrades of 1- and 2-Rated Banks: Asset Growth

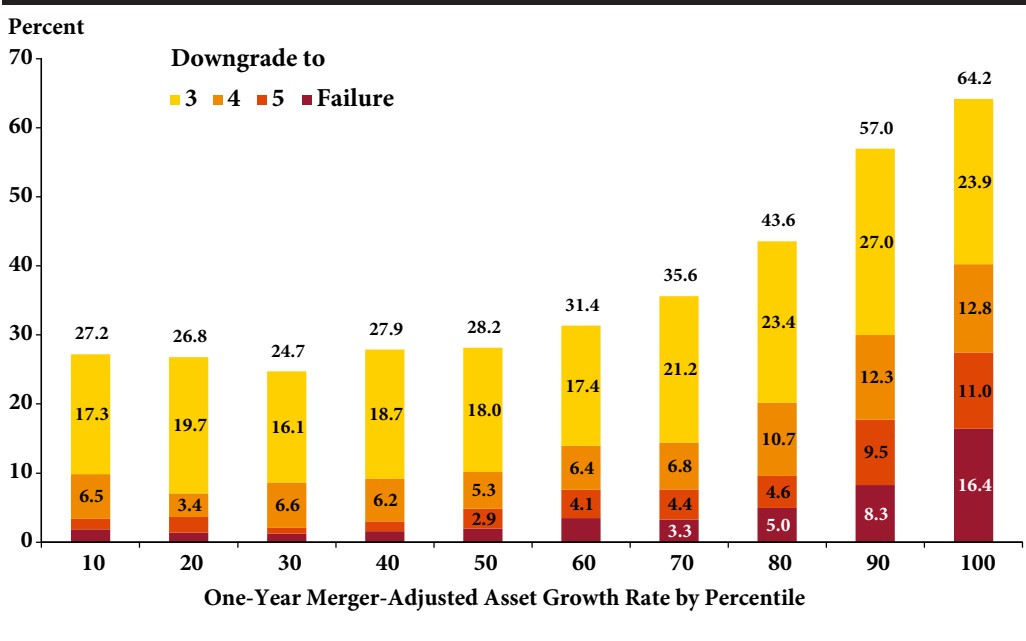
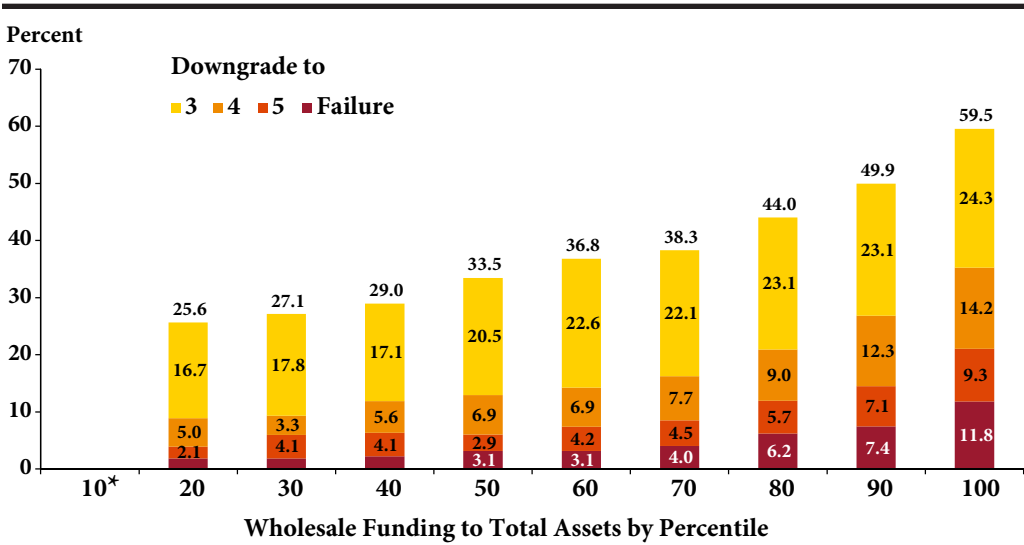


Figure 4.4 presents the failure and downgrade experience of banks by reliance on wholesale funding, defined for this figure as the sum of brokered deposits, federal funds purchased, securities sold under repurchase agreements, and other borrowed money. The figure takes the approach that was taken for the two preceding figures: year-end 2006 ratios are calculated and compared with the failure and downgrade experience for the subsequent five years. Generally speaking, failures and downgrades were more concentrated among banks that made relatively greater use of wholesale funding sources. Although use of wholesale funding sources within a sound liquidity management program is not in itself a risky practice, significant reliance on wholesale funds may reflect the decisions an institution has made to grow its business more aggressively. At such institutions, the loan mix may tend to be generally more risky. On the liability side, if the institution comes under stress, wholesale counterparties may be more apt to withdraw funding or demand additional collateral. Additionally, if the institution becomes less than well capitalized, it cannot accept brokered deposits without a waiver

from the FDIC and is subject to restrictions on the interest rates it can pay on all its deposits. If the institution becomes less than adequately capitalized, it cannot accept brokered deposits at all.⁴³

Figure 4.4. Downgrades of 1- and 2-Rated Banks: Ratio of Wholesale Funding to Total Assets



* The 10th percentile bar does not exist because 2,090 banks had zero Wholesale Funding. Since there is no differentiation among these banks in their use of Wholesale Funding, they are all aggregated under the 20th pctl.

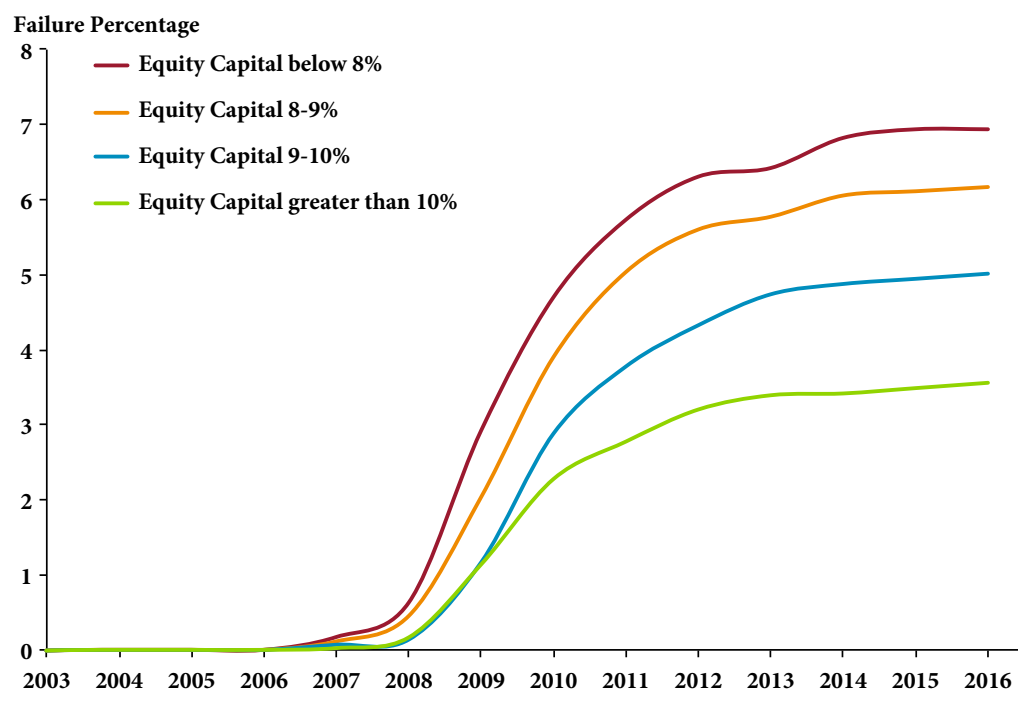
Note: “Wholesale Funding” includes federal funds purchased and securities sold under agreements to repurchase, other borrowed money, and brokered deposits.

Figure 4.5 depicts the failure experience of FDIC-insured banks during the crisis using their equity-to-asset ratios as of year-end 2003; for example, “equity capital below 8%” in the figure refers to banks with an equity-to-asset ratio of less than 8 percent. This calculation date is well before the onset of the crisis and is in the midst of the housing price boom. Capital ratios as of a date well before the start of this crisis are more likely to reflect institutions’ strategic priorities regarding safety, return on equity, and growth and are less likely to reflect factors such as loan write-downs or other operating losses. As indicated in the figure, banks that chose to operate during the midst of the housing boom with lower equity-to-asset ratios were more likely to fail during the crisis. These results probably reflect two factors. First, operating with lower capital reduces an institution’s ability to absorb losses and therefore (all else being equal) makes the institution’s failure during a downturn more likely. Second, operating with lower capital may reflect more

⁴³ Section 29 of the Federal Deposit Insurance Act describes the restrictions—applicable to banks that are less than “well capitalized” for purposes of prompt corrective action—on the use of brokered deposits and interest paid on deposits. Part 337.6 of the FDIC’s regulations implements the statutory provisions.

emphasis by bank management on achieving aggressive return-on-equity goals, and this emphasis may reflect management's higher appetite for risk more generally.

Figure 4.5. Cumulative Failure Percentage by Equity-to-Asset Ratio, 2003–2016



Finally, the failure rate of newer institutions during the crisis was substantially higher than that of more-established institutions. Among institutions chartered between January 1, 2000, and December 31, 2006, 15 percent have since failed. In contrast, among institutions chartered before 2000, 5 percent have since failed. The tendency of more recently chartered institutions to fail more often than established institutions was observed during the 1980s crisis as well.⁴⁴ Under any circumstances, newly chartered institutions tend to operate with losses during their early years while they build up their business. In addition, a number of the failures of newer institutions during the recent crisis involved institutions entering into activities that were significantly riskier than those contemplated in the business plans that were the basis of their approved application for deposit insurance.⁴⁵

It is important to note that though the indicators described above—ADC concentrations, rapid growth, dependence on high levels of wholesale funding, lower capital, and the age

⁴⁴ FDIC, “Banking Problems in the Southwest,” in *History of the Eighties: Lessons for the Future* (1997), 1:313–14, https://www.fdic.gov/bank/historical/history/291_336.pdf.

⁴⁵ Analysis of de novo bank performance and a survey of relevant literature is contained in Yan Lee and Chiwon Yom, “The Entry, Performance, and Risk Profile of De Novo Banks,” FDIC Center for Financial Research Working Paper 2016-03, April 2016, <https://www.fdic.gov/bank/analytical/cfr/2016/wp2016/2016-03.pdf>.

of the bank—are highly correlated with bank failures and problem-bank status, they do not paint a complete picture. Many banks that had heightened values of the first four indicators or were more recently chartered did not fail, and some banks that failed were established banks and did not have heightened values of the four indicators.

The reason for the only partial correlation between the indicators and failure or problem-bank status is that the viability of a bank and its resilience during a period of economic stress depend on important bank-specific factors that cannot be evaluated adequately using published financial reports. Among these factors are the quality of loan underwriting and credit administration, risk limits, and internal controls, all of which are specific aspects of bank governance. Failures of governance can result in excessive risk in the lending or investment functions and can also increase a bank's susceptibility to fraud and insider abuse. Material Loss Reviews (MLRs) prepared by the FDIC OIG for the six FDIC-supervised institutions with assets exceeding \$5 billion that failed during and just after the crisis all reported significant deficiencies in their risk management practices, and five of the six MLRs referenced identified or suspected irregularities (possibly indicative of fraud or insider abuse) that contributed to the problems these institutions had faced.⁴⁶ Governance issues are equally important for smaller banks. MLRs for smaller banks consistently described how the managements of failing banks did not implement adequate controls over their institutions' risk profiles. A recent paper on fraud detection in banking finds that bank supervisors detected material insider abuse or internal fraud among a significant minority of banks that failed between 1989 and 2015.⁴⁷

Viewing the importance of governance in a more positive light, the FDIC's experience has been that strong governance is the most important determinant of a bank's long-term viability. A study by the FDIC OIG of banks that remained in satisfactory condition in 2011 despite high ADC concentrations reinforces that experience.⁴⁸ As discussed in the

⁴⁶ The six MLRs, prepared by the FDIC Office of Inspector General and available at www.fdicig.gov, are (1) "Material Loss Review of Franklin Bank, S.S.B, Houston, Texas," Report AUD-09-014 July 2009, https://www.ncl.org/images/pdf/foreclosure_mortgage/lender_failed_banks/franklin-bank-oig.pdf; (2) "Material Loss Review of Colonial Bank, Montgomery, Alabama," Report MLR-10-031, April 2010, <https://www.fdicig.gov/sites/default/files/publications/10-031.pdf>; (3) "Material Loss Review of United Commercial Bank, San Francisco, California," Report MLR-10-043, July 2010, <https://www.fdicig.gov/sites/default/files/publications/10-043.pdf>; (4) "Material Loss Review of Westernbank Puerto Rico, Mayaguez, Puerto Rico," Report MLR-11-007, December 2010, <https://www.fdicig.gov/sites/default/files/publications/11-007.pdf>; (5) "Material Loss Review of R-G Premier Bank of Puerto Rico, Hato Rey, Puerto Rico," Report MLR-11-009, December 2010, <https://www.fdicig.gov/sites/default/files/publications/11-009.pdf>; and (6) "Material Loss Review of Doral Bank, San Juan, Puerto Rico," Report AUD-15-007, September 2015, <https://www.fdicig.gov/sites/default/files/publications/15-007AUD.pdf>.

⁴⁷ John O'Keefe and Chiwon Yom, "Offsite Detection of Insider Abuse and Bank Fraud among U.S. Failed Banks 1989–2015," FDIC Center for Financial Research Working Paper 2017-06, October 2017, <https://www.fdic.gov/bank/analytical/cfr/2017/wp2017/cfr-wp2017-06.pdf>.

⁴⁸ FDIC Office of the Inspector General, "Acquisition, Development, and Construction Loan Concentration Study," Report EVAL-13-001, October 2012, <https://www.fdicig.gov/sites/default/files/publications/13-001EV.pdf>.

section titled “The Aftermath of the Crisis: Lessons Learned for Supervision,” the OIG study affirms that banks with effective governance were more likely to achieve a positive outcome during the crisis.

The Crisis: Supervisory Strategies

The supervisory strategies the FDIC used in the crisis were intended to identify and respond appropriately to the risks at individual banks and groups of banks. An immediate and important challenge was to evaluate banks’ risk profiles and ensure appropriate examination ratings. Given the rapid deterioration of a large number of institutions, this was a significant task.

Once risks were identified, supervisory responses varied depending on the condition of each bank. Ideally, before adverse financial conditions occur, supervisors can identify and obtain corrections of the weaknesses in banks’ policies and procedures that have a realistic potential to cause financial problems. The goal of this forward-looking model is to recognize problems early enough for corrective measures to be taken and for banks to be returned to health. In fact (to anticipate some of the discussion in this section), a number of banks received only an informal enforcement action during the crisis, corrected their problems, and returned to health. At other banks, however, the crisis resulted in severe financial deterioration and imminent danger of failure. In those situations, supervisory strategies focused on close monitoring of troubled institutions to promote conservation of capital, to limit the incentives to take excessive risks, and ultimately to limit losses to the DIF. As described in this section, the FDIC used a range of supervisory strategies to meet these various objectives.

The Examination Program

The effects of the banking crisis on the FDIC’s bank examination and supervision activities escalated quickly. From the beginning of 2008 through March 31, 2017, nearly 1,800 insured banks were in problem-bank status at some point; the period 2009–2010, in particular, was a period of exponential growth in the number of problem banks. Given the examination and supervision resources available at that time, handling the dramatic increase in the number of troubled banks required changes to the normal supervisory routine. With the quickly deteriorating conditions facing the U.S. banking industry, waiting what could be as long as 24 to 36 months for the next scheduled FDIC examination was not a feasible supervisory strategy.

The FDIC, however, was not staffed for a crisis of this speed and magnitude and had to take several contingency actions to address the sudden deterioration in the industry. Examples included applying to the federal Office of Personnel Management (OPM) for authority to repurchase employees’ annual leave; sending examiners from regions

experiencing less stress to help regions experiencing more stress; spending less time on specialty examinations⁴⁹ to free more examiner resources for other safety-and-soundness examination work; and reducing the portion of examiners' time spent in training and temporary assignments so that they could spend more time examining banks.

Another way the FDIC addressed the resource challenge was by supplementing the examination force with employees who were hired for a time-limited term. Many of these term employees had substantial experience in bank supervision. By 2010, 494 term employees hired to assist with safety-and-soundness examinations were on board at the FDIC. More than 75 percent of them were loan review specialists; others were specialists in investigations, information technology, and the Bank Secrecy Act/Anti-Money Laundering. Some of the term employees were retired FDIC employees, who were rehired under a special authority granted by the federal Office of Personnel Management. Some of these rehired individuals were able to pass along the benefit of their extensive examination and bank supervision experience by helping with the training of pre-commissioned examiners.

One of the effects of the banking industry's rapid deterioration, especially in conjunction with relatively reduced examiner staffing entering the crisis, was that there was a lag in the adjustment of examination ratings to reflect new industry conditions. In addition to the staffing measures just described, the FDIC used a variety of examination techniques to address the lag in rating changes. For example, the volumes of noncurrent loans self-reported by some banks on their quarterly Call Reports were at levels historically characteristic of problem banks. Other banks self-reported strong asset quality metrics despite balance-sheet characteristics similar to those of banks on the problem-bank list (characteristics such as significant concentrations of ADC loans). Such banks were often handled by a visitation focused on asset quality, unless a safety-and-soundness examination was already scheduled in the near term. These visitations frequently resulted in rating downgrades and the establishment of corrective action plans. As a result of such contingency measures, by the third quarter of 2009, ratings overall more closely reflected the condition of the industry.

For the FDIC as insurer, accurate CAMELS ratings are important, for they are key inputs to the FDIC's statutorily mandated risk-based deposit insurance system (see chapter 5). The ratings affect the distribution of assessments across insured banks, and the FDIC historically has attempted to ensure that this distribution, to the extent practicable, reflects the risk of loss to the DIF. From a bank supervision perspective, accurate CAMELS ratings are important to the timely identification, mitigation, and remediation of problems at troubled banks. The CAMELS rating, and the associated formal or informal enforcement actions in the case of troubled or poorly rated banks, are extremely important in that they clearly communicate to a troubled bank's board of directors the actions needed to restore or maintain the bank's health.

⁴⁹ "Specialty examinations" include examinations of bank trust departments, examinations of banks' information technology systems, and examinations to ensure compliance with the Bank Secrecy Act.

Enforcement Actions

As a rule, formal FDIC enforcement actions are closely associated with a CAMELS composite rating of 4 or 5, while an informal FDIC action is most often associated with a CAMELS rating of 3. Formal actions are publicly disclosed and can be enforced in federal court. Additionally, civil money penalties (CMPs) can be assessed for noncompliance with a formal action. Informal actions are non-public agreements between the bank and the FDIC (or other banking agency) to address specific risk management issues or other issues, and are not enforceable.

The types of formal actions available to the FDIC include termination of insurance; cease-and-desist orders and consent orders; prohibition, removal, or suspension actions; CMPs; and prompt corrective action directives. During the crisis the specific subject matter addressed by formal enforcement actions varied, depending on the facts and circumstances at each bank, but often included orders to cease unsound banking practices, to increase capital or reduce the volume of problem loans or both, to cease dividend payments or inter-affiliate transactions, to replace management, or to curtail asset growth.

For problem banks where problems were particularly severe, some orders directed the banks' boards to either raise capital or prepare to sell, merge, or liquidate the bank. These directives were effective in making banks' boards understand the severity of their problems. They forced reluctant boards to take actions the result of which would often be that those board members lost control of the banks. In these cases, however, raising capital or proceeding to sell, merge, or liquidate was in the best interest of the bank, its shareholders, and the DIF.

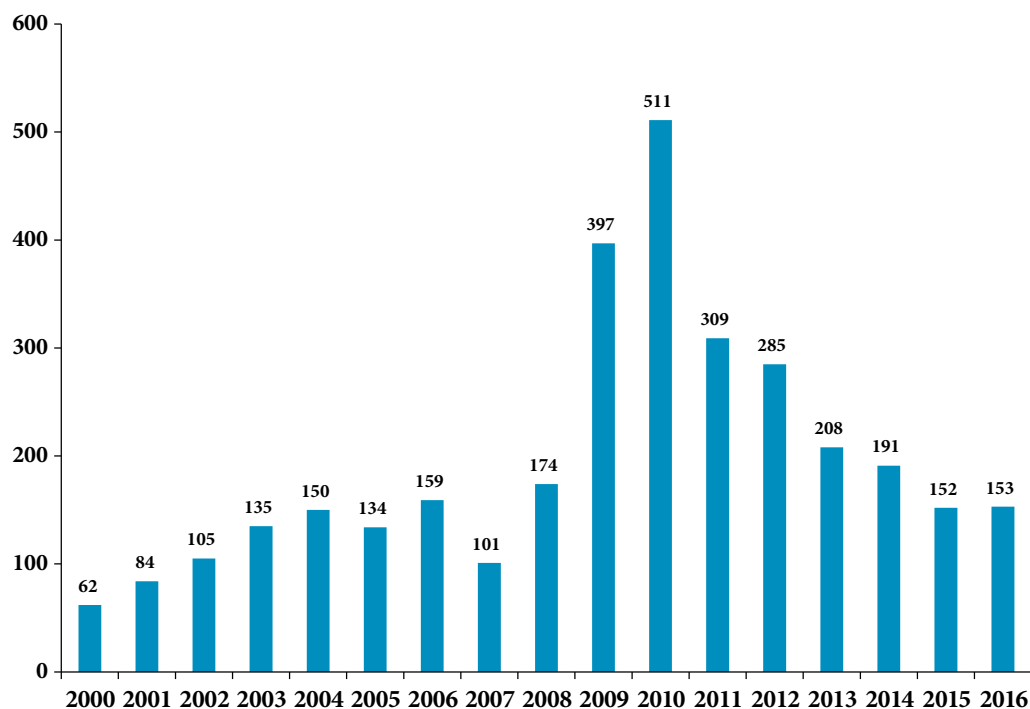
Informal actions available to the FDIC include bank board resolutions and memoranda of understanding (MOU). They also include safety-and-soundness plans pursuant to Section 39(e) of the FDI Act when an institution does not operate in conformance with the safety-and-soundness operating standards identified in Section 39. A typical example of an informal action would be an MOU signed by a bank's board of directors committing to address shortcomings in loan underwriting or in other aspects of credit administration, to raise capital, to reduce levels of nonperforming loans, or to address some other shortcoming depending on the specific facts.

Figure 4.6 depicts the number of formal safety-and-soundness enforcement actions issued by the FDIC from 2000 through 2016.⁵⁰ As the crisis intensified, the number increased sharply, going from 101 in 2007 to 174 in 2008, to 397 in 2009, and to 511 in

⁵⁰ Actions include those taken pursuant to Section 8(b) of the Federal Deposit Insurance Act, which addresses the federal banking agencies' authority to order banks or affiliated parties to cease and desist from certain activities; those taken pursuant to Section 8(e) of that act, which addresses the banking agencies' authority to remove bank-affiliated individuals from office or prohibit them from further participation in the business of banking; and civil money penalties. Actions reported in Figure 4.6 are only those with a safety-and-soundness basis issued from January 1, 2000, through December 31, 2016. Not included are actions with a Community Reinvestment Act or compliance basis or actions with a status of "withdrawn" or "proposed."

2010. Since the crisis, the number has dropped substantially: the numbers of such actions issued in 2015 and 2016 were close to the levels that generally prevailed before the crisis.

Figure 4.6. Number of Formal Safety-and-Soundness Enforcement Actions Issued by FDIC, 2000–2016



For enforcement actions in general during the crisis, the formality of actions and the specific provisions depended on the unique circumstances of individual banks and were adjusted over time as the condition of an institution changed. Outcomes included actions being withdrawn after successful resolution of the problems, transition from a formal action to an informal action in response to observed progress in addressing issues, transition from an informal action to a formal action if problems were not resolved successfully, voluntary cessations of bank operations with no loss to the FDIC,⁵¹ and bank failures. As noted in a subsequent section (“Strategies to Insulate Banks from Problems at BHCs”), outcomes also sometimes included the bankruptcy of a bank’s parent bank holding company while the bank itself survived.

⁵¹ Some troubled banks voluntarily wound down their activities by selling assets, paying off depositors and creditors, and ultimately ceasing their operations with no loss to the FDIC; this process is sometimes referred to as self-liquidation.

Examination Letters

In late 2008, supervision staff observed that some institutions were increasing their risk profile between the close of an examination and the issuance of a related enforcement action. In response, in early 2009, FDIC began issuing letters to boards of directors of troubled institutions at the close of an examination to communicate the FDIC's expectations for the period of time until the issuance of an enforcement action. These documents were referred to as examination letters. Examination letters notified a bank's board of directors that the institution's composite rating was tentatively downgraded, and conveyed the expectation that management stabilize the institution's risk profile and strengthen its financial condition. The examination letters also notified the board that actions taken to materially expand the institution's balance sheet or risk profile would be inconsistent with supervisory expectations, and that a non-objection from the regional director had to be obtained before the bank engaged in any transactions that would materially change the institution's balance sheet composition, such as significantly increasing total assets or volatile funding sources. Boards were informed that failure to ensure compliance with the requirements of the examination letter would be unfavorably viewed by the FDIC and might constitute an unsafe and unsound practice or condition. These letters served to limit any incentive a troubled institution might have to take excessive risks.

Supervision of New Institutions

As noted above, new institutions failed at a substantially higher rate during the crisis than did more-established institutions. Many of those failures occurred during the fourth through seventh years of operation. Moreover, a number of the newly chartered institutions that failed deviated significantly from the business plans on which the approval of their application for deposit insurance had been based, and the deviation led to increased risk and financial problems when the accompanying controls and risk management practices were inadequate. In August 2009, the FDIC responded by extending from three years to seven years the period during which newly insured state nonmember banks were subject to heightened oversight, including review and approval of their business plans and annual examinations.⁵² Given the ongoing improvement in post-crisis industry performance, in April 2016 the FDIC rescinded the extension to seven years as the period of heightened oversight, returning the period to three years.

Strategies to Insulate Banks from Problems at BHCs

For most of the FDIC's history, the Corporation's statutory responsibilities centered on insured banks: insuring their deposits, acting as receiver in the event of failure, and serving as the primary federal regulator for a subset of insured banks, with backup examination

⁵² FDIC, "Enhanced Supervisory Procedures for Newly Insured FDIC-Supervised Depository Institutions," *Financial Institution Letter*, FIL-50-2009, August 28, 2009.

authority for all insured banks. As a result of the crisis, however, the FDIC's formal, programmatic focus expanded beyond the boundaries of the insured bank. In 2008, the FDIC temporarily guaranteed certain liabilities issued by bank holding companies (see chapter 2). And in 2010, Congress conferred certain resolution responsibilities on the FDIC with respect to bank holding companies and other financial firms whose failure could pose systemic concerns.⁵³

Yet even within the scope of the FDIC's supervisory responsibilities for insured banks, the relationship between a bank and its holding company was (and remains) an important consideration. A concern is that nonbank entities that own or control a bank could enter into abusive arrangements with the bank that benefit themselves at the bank's expense. Examples could include excessive dividends or other fund transfers from the bank to its parent, sales of assets from the bank to an affiliate or vice versa on terms disadvantageous to the bank, loans by the bank to fund purchases of products sold by affiliates, and so forth. An important aspect of bank supervision is guarding against the misuse of the bank by its affiliates. Areas of focus include, for example, examining banks for compliance with statutory inter-affiliate transaction limits and with insider lending rules.

Bank holding companies are supervised by the Federal Reserve and are subject to the principle that bank holding companies should serve as a source of strength for their subsidiary banks. However, when the subsidiary (the underlying financial institution) is not a bank for the purposes of the Bank Holding Company Act of 1956,⁵⁴ the parent company is not a bank holding company subject to consolidated supervision by the Federal Reserve. In these cases, the FDIC generally requires the parent company to enter into a Capital and Liquidity Maintenance Agreement (CALMA), which is a written agreement, authorized under Section 8 of the Federal Deposit Insurance Act, requiring the holding company to inject capital into the insured bank as necessary to ensure that the bank maintains adequate capital. These agreements essentially impose the source-of-strength principle.

The 2008–2013 crisis showed that in times of economic stress, banks' access to insured deposits often makes them the financially strongest entities within a holding company structure. At such times, statutory limits on inter-affiliate transactions are particularly important in preventing transactions that may benefit holding company affiliates at the expense of the bank. Specifically, Sections 23A and 23B of the Federal Reserve Act are designed to protect insured depository institutions from sustaining losses on transactions with, or having excessive credit exposures to, their nondepository affiliates. Sections 23A

⁵³ See Title I and Title II of the Dodd-Frank Act.

⁵⁴ The Competitive Equality Banking Act of 1987 (CEBA), Pub. L. No. 100-86, § 101(a)(1), 101 Stat. 554, 562, redefined "bank" for purposes of the Bank Holding Company Act (BHCA) to include any bank insured by the FDIC but specifically excepted certain classes of banks from the BHCA, including CEBA credit card banks and certain industrial loan companies.

and 23B also constrain the ability of nondepository affiliates to benefit from the subsidies arising from insured institutions' access to the federal safety net, namely, federal deposit insurance and the Federal Reserve System's discount window and payment systems. To these ends, Sections 23A and 23B impose both quantitative and qualitative restrictions on transactions between an insured institution and its affiliates. Included in the restrictions is a prohibition in Section 23A against the transfer of "low quality assets" to an insured institution from an affiliate.

Although designed primarily as a safeguard, Section 23A also provides for a process wherein the federal banking agencies are empowered to exempt transactions from the section's qualitative and quantitative restrictions, if such exemption is "in the public interest" and is consistent with the purpose of the statutory provisions limiting inter-affiliate transactions. During the crisis, a number of banking organizations sought exemptions from Section 23A transaction limits, given the extreme financial distress they were experiencing and the potential for insured depository institution subsidiaries of holding companies to provide support to their nonbank affiliates.

These exemption requests were under the primary purview of the Federal Reserve, with the FDIC having a consultative role. A number of these Section 23A exemption requests were granted, and some were not. Approvals were granted when the requested exemptions were viewed as consistent with the safety and soundness of the insured institution that would be entering into the otherwise prohibited transaction, and in some cases were for the purpose of increasing liquidity to constricted credit markets.

As became increasingly evident during the crisis, another source of potential risk to banks from their holding companies can come from a holding company's capital and funding structure. For example, holding companies may issue debt and downstream the proceeds into an insured bank subsidiary in the form of an equity investment in the bank. Since the holding company must service the debt it has issued, there is then the possibility the bank could be under pressure to pay dividends to the holding company to service that debt. The regulator of the insured bank may, of course, cut off the bank's dividend payments to the parent if they pose undue risk to the bank, with concomitant financial stress on the holding company.

In this respect, a noteworthy regulatory development in the inter-crisis years was the approval in the 1990s of Trust Preferred Securities (TruPS) as a limited portion of the regulatory capital of bank holding companies.⁵⁵ TruPS were subordinated debt issued by a special-purpose entity set up by a bank holding company, with the proceeds of the debt typically downstreamed into a subsidiary bank as an equity investment. TruPS generally had very long maturities and allowed for the issuing entity to defer the payment of dividends to the investors for up to five years, and it was this financial flexibility that was

⁵⁵ The term "regulatory capital" refers to the totality of financial components identified by an institution's primary federal regulatory agency—in the case of bank holding companies, the Federal Reserve—that are eligible to count toward the satisfaction of the agency's capital requirements.

viewed as meriting their inclusion, within limits, as regulatory capital for bank holding companies. Given TruPS's status as regulatory capital, issuing them was attractive for bank holding companies, partly because for tax purposes they were viewed as debt with the dividends treated as tax-deductible interest payments.⁵⁶

The widespread use of TruPS created unanticipated difficulties during the crisis in recapitalizing troubled banks whose parent bank holding companies had issued them. The prospect of staving off a potential bank failure by injecting new capital can require the bank's financial stakeholders to make difficult decisions. If the bank's financial condition is sufficiently dire, investing in the organization may be unattractive unless some of the organization's creditors can agree to accept less than full value for their claims. Those creditors may be willing to do this if the alternative is perceived to be a bankruptcy where they will experience even greater losses. For the troubled banking organization to issue equity, moreover, existing shareholders must typically agree, even though their ownership interest will be diluted by the issuance of new equity. Again, they may agree to this if the alternative is a failure that wipes out their equity investment entirely.

With this as background, we can touch on some of the complex issues involved in recapitalizing banking organizations that had issued TruPS. Many TruPS were pooled into collateralized debt obligations (CDOs), the terms of which could not be modified without the consent of a high percentage, or even 100 percent, of the TruPS interests outstanding. As a practical matter, it was difficult or impossible for a bank holding company (BHC) to communicate directly with the holders of the CDO in order to offer to purchase CDO interests, or to obtain consent for any collective action by the CDO holders to accept less than the full amount of the TruPS indebtedness. In addition, in some states, corporation law required that equity investments directly in the bank be approved by BHC shareholders, because of the significant dilution of the BHC's equity interest in the bank that would have resulted.

Sometimes, failure of the subsidiary bank could be averted by its sale to investors while the holding company declared bankruptcy. Such situations sometimes involved the use by BHCs of Section 363(b) of the bankruptcy code to sell their ownership in subsidiary insured institutions to a stronger purchaser willing to recapitalize those institutions.

The impending bankruptcy of a BHC, however, can be a disruptive event that threatens the liquidity of its subsidiary banks. This is the case not only because of counterparty concerns but also because the risks of inappropriate transfers that disadvantage the bank can tend to be more acute during the time leading up to a BHC's bankruptcy. The FDIC found that it needed to be particularly vigilant during such times; FDIC examiners closely monitored liquidity in these instances, in some cases conducting visits to the subsidiary banks as often as daily. In many situations involving troubled banks and bank holding

⁵⁶ For an extensive discussion of the contractual features of TruPS, see George E. French et al., "Trust Preferred Securities and the Capital Strength of Banking Organizations," *FDIC Supervisory Insights* 7, no. 2 (2010): 3–16. https://www.fdic.gov/regulations/examinations/supervisory/insights/siwin10/si_wtr10.pdf.

companies, the FDIC took steps to isolate and protect the insured institution, sometimes while its BHC parent filed for bankruptcy, including by preventing the dissipation of capital and impermissible transfers from the insured institution to the BHC.

In other situations, one or more subsidiary banks were troubled in a multi-bank holding company ownership structure. When failures occurred in a multi-bank holding company, the cross-guarantee provisions of FIRREA, implemented as Section 5(e) of the FDI Act, allowed the FDIC to recover part of its costs of handling the failures by obtaining reimbursement from other commonly controlled insured institutions.⁵⁷ Those provisions allow the FDIC to assess cross-guarantee liability within two years of the failure of a commonly controlled institution, provide the FDIC with broad discretion in applying the law, and focus on minimizing costs and taking actions that are in the best interests of the DIF.

During the crisis, the FDIC used its authority to assess cross-guarantee liability proactively to minimize losses to the DIF. When a commonly controlled insured bank failed, the FDIC carefully analyzed the cost to the DIF in order to determine whether to assess cross-guarantee liability immediately or to defer assessment. In the case of two companies, the FDIC assessed cross-guarantee liability immediately because deferring assessment would have increased the cost of resolution. In other cases, the FDIC deferred the assessment, allowing the BHC to determine how to meet the liability to the FDIC. Some BHCs sold their remaining banks, giving the FDIC the sales proceeds net of selling costs. In other situations, the FDIC accepted payment of a portion of the liability as a better alternative than bearing the cost of another bank failure.

Sometimes the FDIC deferred the assessment of cross-guarantee liability in order to increase the incentive for troubled, commonly controlled banks to find a merger partner or raise capital to avoid failures. In the case of Capitol Bancorp, Ltd., a multi-BHC listed in Table 4.2, the FDIC allowed the sale of subsidiary banks and granted cross-guarantee waivers to those institutions to settle the liability. However, the FDIC controlled the BHC's use of the sale proceeds and required the funds to be injected into affiliated troubled banks, thereby reducing potential losses to the DIF.

Granting prospective waivers of cross-guarantee liability was another tool that was used to avoid needless bank failures. For example, the FDIC granted a prospective waiver to a bank in Texas when its BHC acquired control of another bank, which was troubled, and recapitalized it. The prospective waiver eliminated the risk that if the acquired troubled bank failed, the BHC's existing bank would become liable under the cross-guarantee regulations.

⁵⁷ "Commonly controlled" is defined in note 6.

Table 4.2. Supervisory Focus and Outcomes for Selected Banking Organizations

| Holding Company Bankruptcy | Subsidiary Insured Bank(s) | Supervisory Focus | Outcome |
|--|--|---|--|
| Lehman Brothers September 2008 | Woodlands Commercial Bank, Aurora Bank FSB | insulate bank from parent, capital restoration, CALMA ^a | Chapter 11 bankruptcy; banks were wound down, ^b no DIF loss |
| Capmark Financial Group, Inc October 2008 | Capmark Bank | insulate bank from parent, liquidity monitoring | Chapter 11 bankruptcy; bank was wound down, no DIF loss |
| CIT Group, Inc. ^c November 2009 | CIT Bank | insulate bank from parent | Chapter 11 bankruptcy; bank survived |
| AmericanWest Bancorporation October 2010 | AmericanWest Bank | PCA capital directive ^d | Chapter 11, Section 363 bankruptcy with sale of bank, no DIF loss |
| Outsource Holdings, Inc. April 2011 | Jefferson Bank | capital restoration, problem asset and concentration reduction | Chapter 11, Section 363 bankruptcy with sale of bank, no DIF loss |
| Premier Bank Holding Company, Inc. August 2012 | Premier Bank | capital restoration, problem asset and concentration reduction | Chapter 11, Section 363 bankruptcy with sale of bank, no DIF loss |
| Big Sandy Holding Company September 2012 | Mile High Banks | PCA capital directive, “sell or merge” | Chapter 11, Section 363 bankruptcy with sale of bank, no DIF loss |
| Capitol Bancorp, Ltd. August 2012 | 65 insured banks | capital, concentrations, noncore funds, liquidity monitoring; “sell, merge, or recapitalize” | 6 bank failures, multiple banks merged or sold with proceeds invested in troubled banks to waive cross-guarantee liabilities |
| First Place Bank Corporation October 2012 | First Place Bank | capital restoration, problem asset reduction | Chapter 11, Section 363 bankruptcy with sale of bank, no DIF loss |

^a CALMA refers to Capital and Liquidity Maintenance Agreement.

^b Banks that were “wound down” went through an orderly process of voluntarily selling assets, paying off depositors and other creditors, and ultimately ceasing operations without loss to the DIF.

^c CIT Group is not to be confused with Citigroup, an unrelated institution.

^d PCA refers to prompt corrective action (see note 37).

The FDIC imposed a variety of conditions when granting cross-guarantee waivers. These conditions included requiring that proceeds from the sale of a bank holding company's subsidiaries be used to make equity investments in one or more of its troubled banks, requiring that directors and executive officers who materially contributed to the problems of the failing bank resign or be subject to ongoing management restrictions, or accepting partial payment of the cross-guarantee liability in lieu of the full amount.

Such strategies were effective in insulating banks from problems at their parent or affiliated companies and in averting losses to the Deposit Insurance Fund. Table 4.2 lists examples where significant problems at banking organizations with a holding company structure were resolved mostly or entirely without loss to the Deposit Insurance Fund.⁵⁸ For reasons of space, the list of supervisory strategies in the table is not complete. These strategies included a focus on preventing inappropriate transactions with the parent company and affiliates, limiting dividend payments, recapitalizing troubled banks, entering into a CALMA, incentivizing corrective action through the type of “sell or merge” language in enforcement actions alluded to earlier in this chapter, and monitoring liquidity. The phrase “Section 363 sale of bank” in the “outcomes” column refers to the sale of an insured bank by a BHC as part of its reorganization, with such sale governed by Bankruptcy Code Section 363. From the specific standpoint of protecting the DIF in severe circumstances where the probability of loss was elevated, the examples in Table 4.2 can be viewed as success stories. The section below titled “Effectiveness and Appropriateness of Supervisory Efforts Related to Troubled Banks,” discusses the success of supervisory actions from a broader perspective.

Private Equity Recapitalizations

As discussed in chapter 6, during the course of the crisis several private equity investors expressed an interest in purchasing failed banks. The FDIC's Board of Directors adopted a Statement of Policy (SOP) to provide guidance to private capital investors interested in acquiring or investing in failed insured depository institutions regarding the terms and conditions for such investments or acquisitions.⁵⁹ Some groups sought shelf charters from the OCC and others sought to acquire a small existing charter that could then be used to make failed-bank acquisitions.⁶⁰ Supervision staff determined the readiness of both types of proposed ownership groups relative to the statutory requirements for

⁵⁸ Table 4.2 is not necessarily a complete list of instances in which a holding company entered bankruptcy but some or all of its bank subsidiaries did not fail.

⁵⁹ FDIC, “Final Statement of Policy of Qualifications for Failed Bank Acquisitions,” 74 Fed. Reg., 45440–45499 (Sept. 2, 2009), <https://www.fdic.gov/regulations/laws/federal/2009/09FinalSOP92.pdf>><https://www.fdic.gov/regulations/laws/federal/2009/09FinalSOP92.pdf>.

⁶⁰ A shelf charter is a conditional banking charter granted to an organizing group for the specific purpose of acquiring one or more failing banks. It is conditional on the organizing group's being selected as the winning bidder for the failing bank or banks. (On the bidding process for failing banks, see chapter 6.)

deposit insurance and the principles in the SOP; in addition, supervision staff adopted new procedures to evaluate the activities of the institutions relative to the principles contained in the SOP.

Effectiveness and Appropriateness of Supervisory Efforts Related to Troubled Banks

The strategies and approaches used by the FDIC to supervise a troubled bank can be labor-intensive and time-sensitive. Examining a bank that is in seriously weakened condition or that seems to have potential issues of fraud or insider abuse requires significantly more examiner time than does examining a healthy bank of comparable size.⁶¹ Developing, negotiating, and finalizing informal or formal enforcement actions, as well as monitoring an institution's compliance with them, are also significantly resource-intensive. And the day-to-day liquidity monitoring and eleventh-hour efforts to handle a troubled bank in a way that will avoid or minimize losses to the Deposit Insurance Fund can similarly tap a significant amount of supervisory resources.

However, these intensive supervisory efforts are worthwhile as they make a beneficial difference to the ultimate outcomes for troubled banks. For example, between January 2007 and September 2013, for 1,441 FDIC-supervised 3-rated banks that entered into informal actions, nearly two-thirds of the informal actions were effective at preventing a further rating deterioration at subsequent examinations.

Moreover, a study by the FDIC OIG found that enforcement actions did not hinder an institution's ability to raise capital. The OIG report noted that between 2008 and 2011, more than 50 percent of the FDIC-supervised financial institutions that were subject to informal or formal enforcement actions received material capital injections ("material" was defined for the study as an amount raised during a year that was at least \$100,000 and 0.5 percent of total assets at the end of the year). The report stated, "The extent of capital injections for these institutions compares favorably to all active financial institutions over that same period."⁶²

The same report stated the OIG's view that banking agency enforcement actions (including the FDIC's) were applied in a manner consistent with policies and were supported by the findings in examination reports.⁶³ Specifically, "We also determined there was a correlation between examination ratings, key financial ratios, and enforcement actions, which, in our view, illustrates that regulators applied actions fairly across the

⁶¹ For example, the FDIC OIG's report "The FDIC's Examination Process for Small Community Banks," EVAL-13-001, August 2012, page 11, <https://www.fdicig.gov/sites/default/files/publications/12-011AUD.pdf>, indicated that typical timelines for the FDIC to issue an examination report following on-site work were two to four weeks for banks rated 1 or 2, and four to six weeks for banks rated 3, 4, or 5.

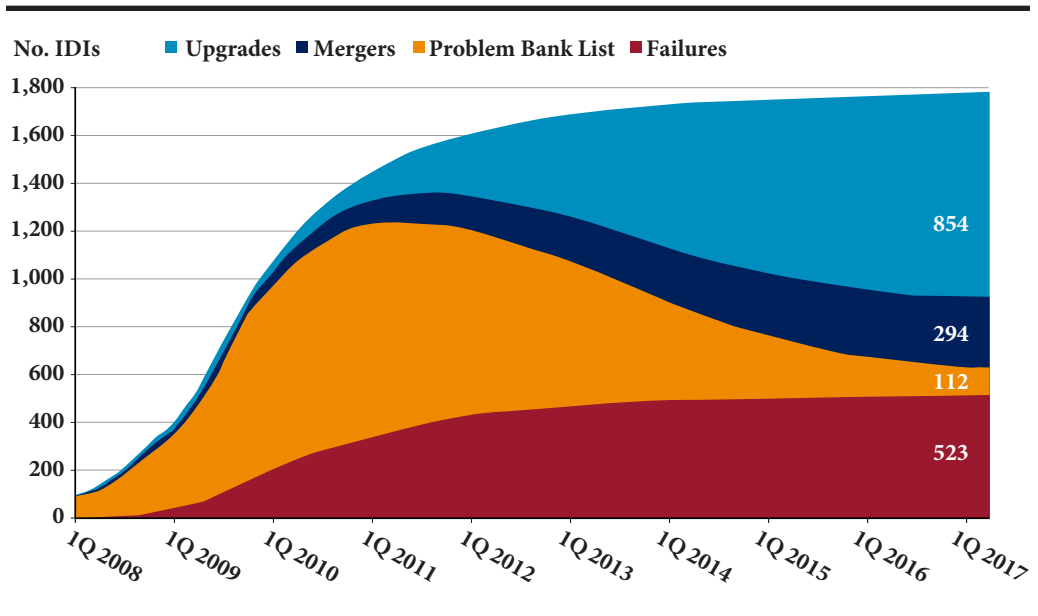
⁶² FDIC OIG, "Comprehensive Study on the Impact of the Failure of Insured Depository Institutions," Report EVAL-13-002, January 2013, p. 114, <https://www.fdicig.gov/sites/default/files/publications/13-002EV.pdf>.

⁶³ *Ibid.*, 15–16.

institutions they regulated.”⁶⁴ The report found, in addition, that enforcement actions were terminated uniformly and appropriately and in a manner consistent with policies and procedures. In other words, enforcement actions were terminated when institutions were in material compliance with the conditions laid down in the enforcement actions and had improved sufficiently, and the actions were not terminated when institutions continued to present safety-and-soundness risks.

In all, of the 1,783 insured depository institutions that were designated as problem banks between January 1, 2008 and March 31, 2017, 523 had failed as of March 31, 2017; 112 remained in problem status; 294 had merged with other institutions in private-sector transactions without FDIC assistance; and 854, the largest portion, were no longer problem banks (see Figure 4.7).

Figure 4.7. Status of Institutions on Problem-Bank List, 2008–Q1 2017



In short, the experience strongly suggests that the corrective actions, formal and informal, undertaken by the FDIC and the other banking regulators during the crisis were effective in reducing the number of banks that ultimately failed, effective in reducing the cost of the crisis to the Deposit Insurance Fund, and effective in returning the banking industry to health.

⁶⁴ Ibid., 16.

The Aftermath of the Crisis: Lessons Learned for Supervision

The building up of risk in the banking industry during the inter-crisis years, and the sometimes belated supervisory policy response, demonstrates that the choices banks and bank supervisors make during times of prosperity can have important consequences for the long-term safety and soundness of individual banks and the banking industry as a whole. The choices for banks in the pre-crisis years related to risk-taking, including the degree of involvement in subprime and other nontraditional mortgage products and the growth of ADC lending. For bank supervisors the choices related to how forcefully to respond to the risks that were emerging. The crisis itself is a reminder of how quickly problems in the banking industry can ramp up and how important the supervisory response is to containing and mitigating damage. This concluding section reflects on what FDIC staff views as the most important lessons of the crisis for bank supervisors.

Lesson 1: Prosperous Times Can Mask the Building Up of Risks

Perhaps the most striking feature of pre-crisis banking conditions when viewed in hindsight is the unbroken string of earnings records and the steadily declining caseload of problem banks. In retrospect, however, it is clear that this earnings growth masked a significant buildup of risks in the banking industry. Although the risks were identified by examiners and pointed out in reports of examination, the apparently strong financial condition of institutions was weighed more heavily in the rating determinations. At a policy level, the agencies' response to the accumulating risks was limited to issuing supervisory guidance that was, in retrospect, belated. Taking actions to constrain risk-taking practices during a period of industry prosperity can be unpopular and meet with significant resistance. The issues involved in such situations call to mind the saying about taking away the punch bowl just when the party is warming up.

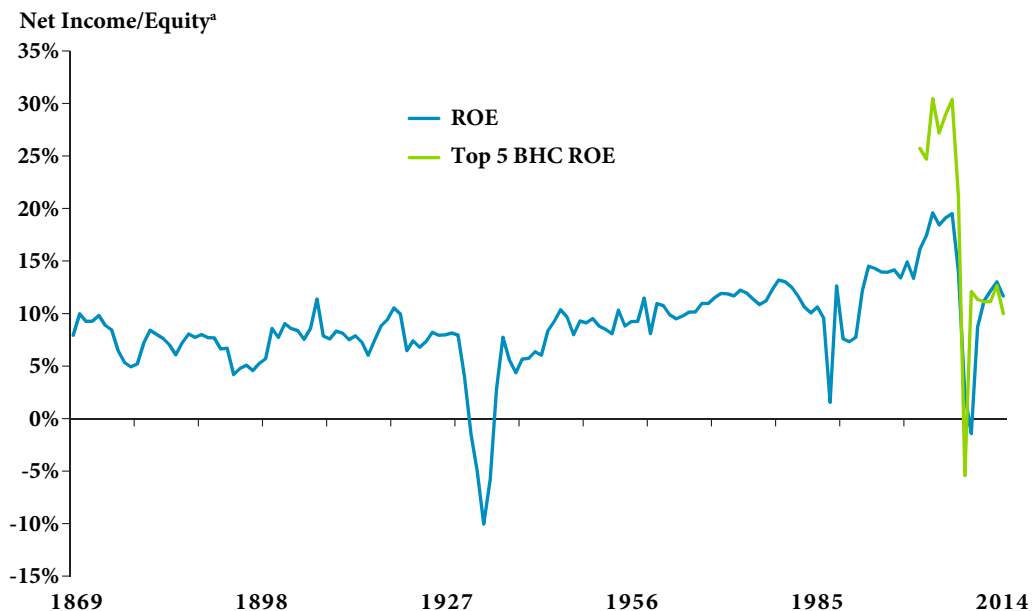
Lesson 2: Past Performance Is Not a Guide to Future Performance

Mining data to review characteristics of past failed and problem banks can have considerable value, for underlying issues involving banks' appetite for risk tend to be repeated. Nonetheless, it is important to remember that past performance is not always a guide to future performance. For example, many observers in the pre-crisis period believed that a *national* real estate market downturn was highly unlikely, since past real estate downturns had been regional. In the current context, that example is a reminder to supervisors to remain highly attentive to new issues, such as cybersecurity or the effects of a prolonged low-interest-rate environment, and more generally not to assume that issues that have not caused problems in the past will not cause problems in the future. Supervisors should never allow themselves to become complacent.

Lesson 3: Choices about Risk and Return Do Matter

Bank managers always have choices to make about how aggressively to pursue earnings growth and whether to do so through new lending programs, trading activities, higher-yielding investments, or other avenues. Generally, greater returns are achieved only by taking greater risks. The purpose of risk management in banking is to ensure that risk-taking is prudent and does not threaten the viability of the bank. Figure 4.8 provides a reminder of the trade-off between risk and return in banking. Before the crisis, large bank holding companies' activities boosted their returns on tangible equity to extraordinarily high levels—but this was followed in 2008 by the financial collapse of a number of these institutions. The lesson to examiners, supervisors, the banking industry, and its investors is that notwithstanding the apparent profitability of an institution, there may be significant underlying risks that should be addressed.

Figure 4.8. Return on Equity, 1869–2014



Source: FDIC; Historical Statistics of the United States, Millenium Edition Online, 2016.

Note: Data from 1869 to 1933 are only for national banks, data from 1934 through 2014 are for all commercial banks, and top 5 BHC data from 2001 through 2014 are for the five largest BHCs by total assets in any given year.

^a From 2001 forward, return on equity for both the BHC and bank series is net income divided by tangible equity; before 2001 return on equity is net income divided by total equity.

Lesson 4: Call Report Data Can Help Identify Risk

Call Report data can provide important indicators of which banks may be accepting relatively higher levels of risk. For example, concentrations in ADC lending, rapid asset growth, higher levels of potentially volatile funding, and lower levels of capital during the pre-crisis period were important indicators of banks that failed during the crisis. Although the Call Report data alone do not shed light on important bank-specific risk practices, governance, and other matters, data over multiple business cycles and the two most recent banking crises make it clear that the red flags presented by extreme values of such indicators are real and warrant supervisory attention.

Lesson 5: Risk Management Drives Outcomes

Studies conducted by the FDIC OIG based on Material Loss Reviews indicate that during the crisis, the level of ADC concentrations, the risk management of those concentrations, and the responsiveness to supervisory concerns (where applicable) all mattered greatly in separating the surviving banks from those that failed. In describing the characteristics of banks with high ADC concentrations that nonetheless remained in satisfactory condition, a recent OIG report stated, “Ultimately, the strategic decisions and disciplined, values-based practices and actions taken by the Boards and management helped to mitigate and control the institutions’ overall ADC loan risk exposure and allowed them to react to a changing economic environment.”⁶⁵ In particular, the report stated that banks specializing in ADC lending while remaining in satisfactory condition throughout the period were more likely to have implemented more-conservative growth strategies; relied on core deposits and limited net noncore funding dependence; implemented prudent risk management practices; limited speculative lending, loan participations, and out-of-area lending; and maintained stable capital levels and access to additional capital if needed.

Lesson 6: The Most Important Bank Risk Factors Can Be Evaluated Only On-Site

The safety and soundness of an insured depository institution depends on many factors that supervisors cannot evaluate satisfactorily by reviewing Call Reports or other external information. These factors include the quality of loan underwriting and credit administration; the presence or absence of effective risk limits and internal controls; the extent of compliance with applicable laws; and the presence or absence of issues involving fraud or insider abuse. The FDIC’s experience is that when it comes to determining a bank’s long-term viability, the quality of management and the effectiveness of governance are of paramount importance. Such factors can be evaluated only with an on-site examination that includes an appropriate level of transaction testing—that is, examination procedures designed to check the reliability of key risk

⁶⁵ FDIC OIG, “Acquisition, Development and Construction Loan Concentration Study,” page iii.

metrics and internal controls. Thus, although supervisors explore the use of enhanced information technology to potentially allow off-site examination hours to constitute a greater proportion of total hours, an in-depth on-site component of the examination remains indispensable.

Lesson 7: Supervisors Should Require Corrective Action When Risk Management Is Deficient

Material Loss Reviews conducted by the FDIC Office of Inspector General often concluded that FDIC examiners drew attention to the risk management deficiencies or issues that ultimately led to the bank's failure, generally well before the failure. Recommendations to address the deficiencies were typically included in the examination report that was transmitted to the bank. However, not until the bank's financial condition deteriorated did those recommendations translate to rating downgrades or enforcement actions. A frequently recurring OIG finding in such MLRs was that the FDIC could have been, or should have been, more assertive in downgrading bank ratings and requiring corrective action before the bank's problems became unmanageable.

The FDIC agreed with the findings of the MLRs,⁶⁶ and in fact it had come to a similar conclusion through an internal review of the examination program completed at the end of 2007. The FDIC's conclusion in that internal review was that problematic practices should have been addressed more forcefully before they led to problematic conditions, particularly with respect to credit administration deficiencies and asset quality ratings. In response to the findings of the internal review and the MLRs, the FDIC's efforts to address risks in banks more promptly have included training examiners on the importance of proactive and forward-looking supervision to address deficiencies in risk management at an early stage, before problems become so severe that it is too late to address them; revising the "concentrations page" in the report of examination, designed to focus examiner attention on the quality of risk management of lending and funding concentrations; and revising the manual of examination policies, the case manager procedures, and other supervisory documents so as to incorporate enhanced guidance on matters requiring attention by the bank's board of directors.

Lesson 8: New Banks Require Extra Attention

As noted above, new banks have historically been disproportionately represented among failing institutions, and the recent crisis was no exception. The FDIC has long devoted extra supervisory efforts to new banks, which are often referred to as de novo banks. In the past, these efforts included an annual examination during the three-year de novo period (even if other factors would have made the bank eligible for an 18-month examination

⁶⁶ Written responses to the MLRs are prepared by FDIC staff, and specifically by the director of the FDIC division responsible for safety-and-soundness supervision.

cycle); a requirement that new banks maintain leverage capital ratios of at least 8 percent during the de novo period; and a requirement that the new bank adhere during the de novo period to the business plan that was the basis for its approved application for deposit insurance.⁶⁷ During the crisis, given the severity of problems de novo banks were experiencing, the FDIC increased the de novo period from three to seven years. Recently, recognizing that the crisis had receded and that the FDIC had improved other aspects of its supervisory processes, the FDIC restored the three-year de novo period. Going forward, as the economic environment becomes more propitious for the establishment of new banks, maintaining supervisory focus on the safe and sound operation of these institutions will be important.

Lesson 9: Large Banks Require Extra Attention

In all, nine insured banks with assets of \$10 billion or more failed during the years 2008 through 2013. In addition, Citigroup and Bank of America Corporation did not fail but benefited from individually targeted federal assistance programs;⁶⁸ Wachovia nearly failed but was acquired by Wells Fargo without federal assistance; and each of the five largest investment banks failed or was acquired in stressed circumstances or became a bank holding company.⁶⁹ But as severe as the liquidity problems of large financial institutions were during the crisis, they could have been much worse. To gain a sense of what could have happened, one need only review the list of financial institutions that received special Federal Reserve liquidity assistance from programs created during the crisis, and the amounts borrowed under the programs.⁷⁰ Had these programs, along with programs of the Treasury and the FDIC, not been created, many more large financial institutions would likely have failed.

The gravity of the liquidity issues that surfaced during the crisis is a reminder of how sensitive to counterparty runs large banking organizations can be. This reminder highlights the importance for these institutions of maintaining strong capital and liquidity

⁶⁷ Under the federal banking agencies' prompt corrective action regulations, insured banks must satisfy a minimum leverage ratio requirement of 4 percent to be designated "adequately capitalized," and a leverage ratio of 5 percent to be designated "well capitalized." These are the regulatory minimum values of the leverage ratio needed to achieve these designations, but the agencies have the authority to require individual banks to hold more capital depending on their circumstances. Maintaining an 8 percent leverage ratio (or possibly more, if warranted by the specific facts) during the de novo period is a standard condition the FDIC imposes before approving an application for deposit insurance, as documented in the FDIC Statement of Policy on Applications for Deposit Insurance, *Federal Register*, Vol. 63, No. 161, August 20, 1998.

⁶⁸ As described in more detail in chapter 3, Citigroup actually received assistance while Bank of America benefited from the announcement that assistance was available to it.

⁶⁹ See chapter 1 for a discussion of how the five largest investment banks (Goldman Sachs, Morgan Stanley, Merrill Lynch, Bear Stearns, and Lehman Brothers) fared during 2008.

⁷⁰ These were liquidity programs of broad availability as opposed to the targeted assistance announced for Citigroup and Bank of America. This information is available at <https://www.federalreserve.gov/regreform/reform-transaction.htm>.

positions and the importance for the FDIC (and the other federal banking agencies) of having robust programs in place to understand and address the risks undertaken by large institutions. Risk assessment for these institutions needs to be more effective than it was in the years leading up to the crisis. On the basis of the experience of the crisis, the FDIC has implemented a number of improvements to its risk assessment of large, complex financial institutions. These include an expanded on-site presence at selected large banking organizations, intensive off-site horizontal analysis of risks posed by all large banking organizations,⁷¹ and the review of stress-testing results.⁷² Supervision staff also supports the preparedness of the FDIC's resolutions staff (see chapter 6) by reviewing the resolution plans filed by large banking organizations.⁷³

Lesson 10: Bank Supervision Benefits from Steady Focus

The pre-crisis period was notable for a number of significant changes in the bank supervision process. These included a move first to risk-focused supervision and then to streamlined supervision under the MERIT examination program and directives to significantly reduce overall examination hours. These changes led to a significantly smaller supervision workforce at a time when the banking industry was growing in asset size and was taking on significant new risks. And after the crisis finally erupted, the smaller size of the workforce created challenges in responding to it. Changes in examination processes are sometimes necessary or advisable, but the best results are likely to follow from an incremental approach to change and a steady and consistent focus on the importance of examining and supervising banks.

Lesson 11: Bank Examination and Supervision Require Expertise

One of the greatest strengths of the FDIC's bank supervision program during the crisis was its corps of seasoned examiners and supervisors, many of whom had been examining banks since the 1980s or even the 1970s, and a number of whom returned to the examination force from retirement. This depth of experience was critical to the FDIC's ability to respond to the crisis with examinations and the tailoring of

⁷¹ For further information, see FDIC OIG, "The FDIC's Risk Monitoring of Systemically Important Financial Institutions' Proximity and Speed to Default or Danger of Default," Report EVAL-17-003, January 2017, <https://www.fdicig.gov/sites/default/files/publications/17-003EV.pdf>.

⁷² Stress testing in this context refers to an analysis of how a bank's financial condition may change over time under various assumed adverse economic scenarios. Formal requirements for stress testing are part of Section 165 of the Dodd-Frank Act.

⁷³ There are two types of resolution plan documents. The first type, required by the Dodd-Frank Act and often referred to as living wills, is prepared by large financial institutions and submitted to the FDIC and the Federal Reserve with information and analysis to show that the company could be resolved under bankruptcy. The second type, required by Part 360 of the FDIC regulations, requires large insured depository institutions to submit plans to the FDIC that should enable the FDIC to resolve the bank under the Federal Deposit Insurance Act.

appropriate informal and formal enforcement actions that helped make it possible for many banks to return to health.

This experience highlights the importance of the hiring process for maintaining a steady flow of new examiners as a foundation for bank supervision in the future; the importance of a continued rigorous examiner commissioning process; and the importance of efforts to ensure that new generations of examiners are able to benefit from the knowledge and experience of those who came before them.

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