PART II

Setting the Stage

2

SHADOW BANKING

CONTENTS

The financial crisis of 2007 and 2008 was not a single event but a series of crises that rippled through the financial system and, ultimately, the economy. Distress in one area of the financial markets led to failures in other areas by way of interconnections and vulnerabilities that bankers, government officials, and others had missed or dismissed. When subprime and other risky mortgages—issued during a housing bubble that many experts failed to identify, and whose consequences were not understood—began to default at unexpected rates, a once-obscure market for complex investment securities backed by those mortgages abruptly failed. When the contagion spread, investors panicked—and the danger inherent in the whole system became manifest. Financial markets teetered on the edge, and brand-name financial institutions were left bankrupt or dependent on the taxpayers for survival.

Federal Reserve Chairman Ben Bernanke now acknowledges that he missed the systemic risks. "Prospective subprime losses were clearly not large enough on their own to account for the magnitude of the crisis," Bernanke told the Commission. "Rather, the system's vulnerabilities, together with gaps in the government's crisis-response toolkit, were the principal explanations of why the crisis was so severe and had such devastating effects on the broader economy."[1]

This part of our report explores the origins of risks as they developed in the financial system over recent decades. It is a fascinating story with profound consequences—a complex history that could yield its own report. Instead, we focus on four key developments that helped shape the events that shook our financial markets and economy. Detailed books could be written about each of them; we stick to the essentials for understanding our specific concern, which is the recent crisis.

First, we describe the phenomenal growth of the shadow banking system—the investment banks, most prominently, but also other financial institutions—that freely operated in capital markets beyond the reach of the regulatory apparatus that had been put in place in the wake of the crash of 1929 and the Great Depression.

This new system threatened the once-dominant traditional commercial banks, and they took their grievances to their regulators and to Congress, which slowly but steadily removed long-standing restrictions and helped banks break out of their traditional mold and join the feverish growth. As a result, two parallel financial systems of enormous scale emerged. This new competition not only benefited Wall Street but also seemed to help all Americans, lowering the costs of their mortgages and boosting the returns on their 401(k)s. Shadow banks and commercial banks were codependent competitors. Their new activities were very profitable—and, it turned out, very risky.

Second, we look at the evolution of financial regulation. To the Federal Reserve and other regulators, the new dual system that granted greater license to market participants appeared to provide a safer and more dynamic alternative to the era of traditional banking. More and more, regulators looked to financial institutions to police themselves—"deregulation" was the label. Former Fed chairman Alan Greenspan put it this way: "The market-stabilizing private regulatory forces should gradually displace many cumbersome, increasingly ineffective government structures."[2] In the Fed's view, if problems emerged in the shadow banking system, the large commercial banks—which were believed to be well-run, well-capitalized, and well-regulated despite the loosening of their restraints—could provide vital support. And if problems outstripped the market's ability to right itself, the Federal Reserve would take on the responsibility to restore financial stability. It did so again and again in the decades leading up to the recent crisis. And, understandably, much of the country came to assume that the Fed could always and would always save the day.

Third, we follow the profound changes in the mortgage industry, from the sleepy days when local lenders took full responsibility for making and servicing 30-year loans to a new era in which the idea was to sell the loans off as soon as possible, so that they could be packaged and sold to investors around the world. New mortgage products proliferated, and so did new borrowers. Inevitably, this became a market in which the participants—mortgage brokers, lenders, and Wall Street firms—had a greater stake in the quantity of mortgages signed up and sold than in their quality. We also trace the history of Fannie Mae and Freddie Mac, publicly traded corporations established by Congress that became dominant forces in providing financing to support the mortgage market while also seeking to maximize returns for investors.

Fourth, we introduce some of the most arcane subjects in our report: securitization, structured finance, and derivatives—words that entered the national vocabulary as the financial markets unraveled through 2007 and 2008. Put simply and most pertinently, structured finance was the mechanism by which subprime and other mortgages were turned into complex investments often accorded triple-A ratings by credit rating agencies whose own motives were conflicted. This entire market depended on finely honed computer models—which turned out to be divorced from reality—and on ever-rising housing prices. When that bubble burst, the complexity bubble also burst: the securities almost no one understood, backed by mortgages no lender would have signed 20 years earlier, were the first dominoes to fall in the financial sector.

A basic understanding of these four developments will bring the reader up to speed in grasping where matters stood for the financial system in the year 2000, at the dawn of a decade of promise and peril.

COMMERCIAL PAPER AND REPOS: "UNFETTERED MARKETS"

For most of the 20th century, banks and thrifts accepted deposits and loaned that money to home buyers or businesses. Before the Depression, these institutions were vulnerable to runs, when reports or merely rumors that a bank was in trouble spurred depositors to demand their cash. If the run was widespread, the bank might not have enough cash on hand to meet depositors' demands: runs were common before the Civil War and then occurred in 1873, 1884, 1890, 1893, 1896, and 1907.[3] To stabilize financial markets, Congress created the Federal Reserve System in 1913, which acted as the lender of last resort to banks.

But the creation of the Fed was not enough to avert bank runs and sharp contractions in the financial markets in the 1920s and 1930s. So in 1933 Congress passed the Glass-Steagall Act, which, among other changes, established the Federal Deposit Insurance Corporation. The FDIC insured bank deposits up to $2,500—an amount that covered the vast majority of deposits at the time; that limit would climb to $100,000 by 1980, where it stayed until it was raised to $250,000 during the crisis in October 2008. Depositors no longer needed to worry about being first in line at a troubled bank's door. And if banks were short of cash, they could now borrow from the Federal Reserve, even when they could borrow nowhere else. The Fed, acting as lender of last resort, would ensure that banks would not fail simply from a lack of liquidity.

With these backstops in place, Congress restricted banks' activities to discourage them from taking excessive risks, another move intended to help prevent bank failures, with taxpayer dollars now at risk. Furthermore, Congress let the Federal Reserve cap interest rates that banks and thrifts—also known as savings and loans, or S&Ls—could pay depositors. This rule, known as Regulation Q, was also intended to keep institutions safe by ensuring that competition for deposits did not get out of hand.[4]

The system was stable as long as interest rates remained relatively steady, which they did during the first two decades after World War II. Beginning in the late-1960s, however, inflation started to increase, pushing up interest rates. For example, the rates that banks paid other banks for overnight loans had rarely exceeded 6% in the decades before 1980, when it reached 20%. However, thanks to Regulation Q, banks and thrifts were stuck offering roughly less than 6% on most deposits. Clearly, this was an untenable bind for the depository institutions, which could not compete on the most basic level of the interest rate offered on a deposit.

Compete with whom? In the 1970s, Merrill Lynch, Fidelity, Vanguard, and others persuaded consumers and businesses to abandon banks and thrifts for higher returns. These firms—eager to find new businesses, particularly after the Securities and Exchange Commission (SEC) abolished fixed commissions on stock trades in 1975—created money market mutual funds that invested these depositors' money in short-term, safe securities such as Treasury bonds and highly rated corporate debt, and the funds paid higher interest rates than banks and thrifts were allowed to pay. The funds functioned like bank accounts, although with a different mechanism: customers bought shares redeemable daily at a stable value. In 1977, Merrill Lynch introduced something even more like a bank account: "cash management accounts" allowed customers to write checks. Other money market mutual funds quickly followed.[5]

These funds differed from bank and thrift deposits in one important respect: they were not protected by FDIC deposit insurance. Nevertheless, consumers liked the higher interest rates, and the stature of the funds' sponsors reassured them. The fund sponsors implicitly promised to maintain the full $1 net asset value of a share. The funds would not "break the buck," in Wall Street terms. Even without FDIC insurance, then, depositors considered these funds almost as safe as deposits in a bank or thrift. Business boomed, and so was born a key player in the shadow banking industry, the less-regulated market for capital that was growing up beside the traditional banking system. Assets in money market mutual funds jumped from $3 billion in 1977 to more than $740 billion in 1995 and $1.8 trillion by 2000.[6]

To maintain their edge over the insured banks and thrifts, the money market funds needed safe, high-quality assets to invest in, and they quickly developed an appetite for two booming markets: the "commercial paper" and "repo" markets. Through these instruments, Merrill Lynch, Morgan Stanley, and other Wall Street investment banks could broker and provide (for a fee) short-term financing to large corporations. Commercial paper was unsecured corporate debt—meaning that it was backed not by a pledge of collateral but only by the corporation's promise to pay. These loans were cheaper because they were short-term—for less than nine months, sometimes as short as two weeks and, eventually, as short as one day; the borrowers usually "rolled them over" when the loan came due, and then again and again. Because only financially stable corporations were able to issue commercial paper, it was considered a very safe investment; companies such as General Electric and IBM, investors believed, would always be good for the money. Corporations had been issuing commercial paper to raise money since the beginning of the century, but the practice grew much more popular in the 1960s.

This market, though, underwent a crisis that demonstrated that capital markets, too, were vulnerable to runs. Yet that crisis actually strengthened the market. In 1970, the Penn Central Transportation Company, the sixth-largest nonfinancial corporation in the U.S., filed for bankruptcy with $200 million in commercial paper outstanding. The railroad's default caused investors to worry about the broader commercial paper market; holders of that paper—the lenders—refused to roll over their loans to other corporate borrowers. The commercial paper market virtually shut down. In response, the Federal Reserve supported the commercial banks with almost $600 million in emergency loans and with interest rate cuts.[7] The Fed's actions enabled the banks, in turn, to lend to corporations so that they could pay off their commercial paper. After the Penn Central crisis, the issuers of commercial paper—the borrowers—typically set up standby lines of credit with major banks to enable them to pay off their debts should there be another shock. These moves reassured investors that commercial paper was a safe investment.

In the 1960s, the commercial paper market jumped more than sevenfold. Then in the 1970s, it grew almost fourfold. Among the largest buyers of commercial paper were the money market mutual funds. It seemed a win-win-win deal: the mutual funds could earn a solid return, stable companies could borrow more cheaply, and Wall Street firms could earn fees for putting the deals together. By 2000, commercial paper had risen to $1.6 trillion from less than $125 billion in 1980.[8]

The second major shadow banking market that grew significantly was the market for repos, or repurchase agreements. Like commercial paper, repos have a long history, but they proliferated quickly in the 1970s. Wall Street securities dealers often sold Treasury bonds with their relatively low returns to banks and other conservative investors, while then investing the cash proceeds of these sales in securities that paid higher interest rates. The dealers agreed to repurchase the Treasuries—often within a day—at a slightly higher price than that for which they sold them. This repo transaction—in essence a loan—made it inexpensive and convenient for Wall Street firms to borrow. Because these deals were essentially collateralized loans, the securities dealers borrowed nearly the full value of the collateral, minus a small "haircut." Like commercial paper, repos were renewed, or "rolled over," frequently. For that reason, both forms of borrowing could be considered "hot money"—because lenders could quickly move in and out of these investments in search of the highest returns, they could be a risky source of funding.

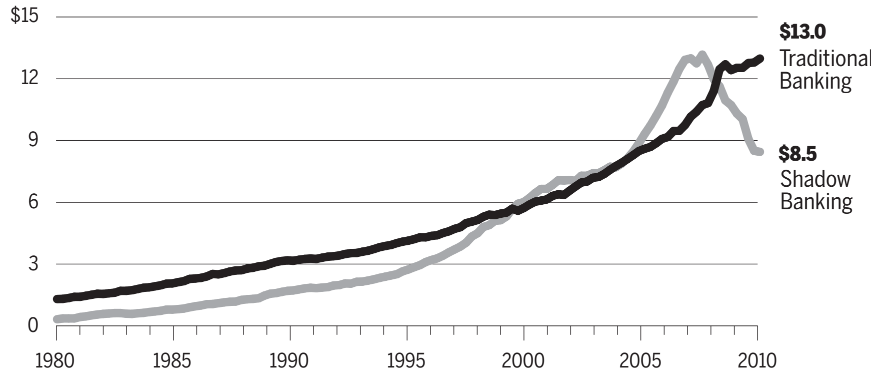
The repo market, too, had vulnerabilities, but it, too, had emerged from an early crisis stronger than ever. In 1982, two major borrowers, the securities firms Drysdale and Lombard-Wall, defaulted on their repo obligations, creating large losses for lenders. In the ensuing fallout, the Federal Reserve acted as lender of last resort to support a shadow banking market. The Fed loosened the terms on which it lent Treasuries to securities firms, leading to a 10-fold increase in its securities lending. Following this episode, most repo participants switched to a tri-party arrangement in which a large clearing bank acted as intermediary between borrower and lender, essentially protecting the collateral and the funds by putting them in escrow.[9] This mechanism would have severe consequences in 2007 and 2008. In the 1980s, however, these new procedures stabilized the repo market.

The new parallel banking system—with commercial paper and repo providing cheaper financing, and money market funds providing better returns for consumers and institutional investors—had a crucial catch: its popularity came at the expense of the banks and thrifts. Some regulators viewed this development with growing alarm. According to Alan Blinder, the vice chairman of the Federal Reserve from 1994 to 1996, "We were concerned as bank regulators with the eroding competitive position of banks, which of course would threaten ultimately their safety and soundness, due to the competition they were getting from a variety of nonbanks—and these were mainly Wall Street firms, that were taking deposits from them, and getting into the loan business to some extent. So, yeah, it was a concern; you could see a downward trend in the share of banking assets to financial assets."[10]

Traditional and Shadow Banking Systems

The funding available through the shadow banking system grew sharply in the 2000s, exceeding the traditional banking system in the years before the crisis.

IN TRILLIONS OF DOLLARS



NOTE: Shadow banking funding includes commercial paper and other short-term borrowing (bankers acceptances), repo, net securities loaned, liabilities of asset-backed securities issuers, and money market mutual fund assets.

SOURCE: Federal Reserve Flow of Funds Report

Figure 2.1

Figure 2.1 shows that during the 1990s the shadow banking system steadily gained ground on the traditional banking sector—and actually surpassed the banking sector for a brief time after 2000.

Banks argued that their problems stemmed from the Glass-Steagall Act. Glass-Steagall strictly limited commercial banks' participation in the securities markets, in part to end the practices of the 1920s, when banks sold highly speculative securities to depositors. In 1956, Congress also imposed new regulatory requirements on banks owned by holding companies, in order to prevent a holding company from endangering any of its deposit-taking banks.

Bank supervisors monitored banks' leverage—their assets relative to equity—because excessive leverage endangered a bank. Leverage, used by nearly every financial institution, amplifies returns. For example, if an investor uses $100 of his own money to purchase a security that increases in value by 10%, he earns $10. However, if he borrows another $900 and invests 10 times as much ($1,000), the same 10% increase in value yields a profit of $100, double his out-of-pocket investment. If the investment sours, though, leverage magnifies the loss just as much. A decline of 10% costs the unleveraged investor $10, leaving him with $90, but wipes out the leveraged investor's $100. An investor buying assets worth 10 times his capital has a leverage ratio of 10:1, with the numbers representing the total money invested compared to the money the investor has committed to the deal.

In 1981, bank supervisors established the first formal minimum capital standards, which mandated that capital—the amount by which assets exceed debt and other liabilities—should be at least 5% of assets for most banks. Capital, in general, reflects the value of shareholders' investment in the bank, which bears the first risk of any potential losses.

By comparison, Wall Street investment banks could employ far greater leverage, unhindered by oversight of their safety and soundness or by capital requirements outside of their broker-dealer subsidiaries, which were subject to a net capital rule. The main shadow banking participants—the money market funds and the investment banks that sponsored many of them—were not subject to the same supervision as banks and thrifts. The money in the shadow banking markets came not from federally insured depositors but principally from investors (in the case of money market funds) or commercial paper and repo markets (in the case of investment banks). Both money market funds and securities firms were regulated by the Securities and Exchange Commission. But the SEC, created in 1934, was supposed to supervise the securities markets to protect investors. It was charged with ensuring that issuers of securities disclosed sufficient information for investors, and it required firms that bought, sold, and brokered transactions in securities to comply with procedural restrictions such as keeping customers' funds in separate accounts. Historically, the SEC did not focus on the safety and soundness of securities firms, although it did impose capital requirements on broker-dealers designed to protect their clients.

Meanwhile, since deposit insurance did not cover such instruments as money market mutual funds, the government was not on the hook. There was little concern about a run. In theory, the investors had knowingly risked their money. If an investment lost value, it lost value. If a firm failed, it failed. As a result, money market funds had no capital or leverage standards. "There was no regulation," former Fed chairman Paul Volcker told the Financial Crisis Inquiry Commission. "It was kind of a free ride."[11] The funds had to follow only regulations restricting the type of securities in which they could invest, the duration of those securities, and the diversification of their portfolios. These requirements were supposed to ensure that investors' shares would not diminish in value and would be available anytime—important reassurances, but not the same as FDIC insurance. The only protection against losses was the implicit guarantee of sponsors like Merrill Lynch with reputations to protect.

Increasingly, the traditional world of banks and thrifts was ill-equipped to keep up with the parallel world of the Wall Street firms. The new shadow banks had few constraints on raising and investing money. Commercial banks were at a disadvantage and in danger of losing their dominant position. Their bind was labeled "disintermediation," and many critics of the financial regulatory system concluded that policy makers, all the way back to the Depression, had trapped depository institutions in this unprofitable straitjacket not only by capping the interest rates they could pay depositors and imposing capital requirements but also by preventing the institutions from competing against the investment banks (and their money market mutual funds). Moreover, critics argued, the regulatory constraints on industries across the entire economy discouraged competition and restricted innovation, and the financial sector was a prime example of such a hampered industry.

Years later, Fed Chairman Greenspan described the argument for deregulation: "Those of us who support market capitalism in its more competitive forms might argue that unfettered markets create a degree of wealth that fosters a more civilized existence. I have always found that insight compelling."[12]

THE SAVINGS AND LOAN CRISIS: "THEY PUT A LOT OF PRESSURE ON THEIR REGULATORS"

Traditional financial institutions continued to chafe against the regulations still in place. The playing field wasn't level, which "put a lot of pressure on institutions to get higher-rate performing assets," former SEC Chairman Richard Breeden told the FCIC. "And they put a lot of pressure on their regulators to allow this to happen."[13]

The banks and the S&Ls went to Congress for help. In 1980, the Depository Institutions Deregulation and Monetary Control Act repealed the limits on the interest rates that depository institutions could offer on their deposits. Although this law removed a significant regulatory constraint on banks and thrifts, it could not restore their competitive advantage. Depositors wanted a higher rate of return, which banks and thrifts were now free to pay. But the interest banks and thrifts could earn off of mortgages and other long-term loans was largely fixed and could not match their new costs. While their deposit base increased, they now faced an interest rate squeeze. In 1979, the difference in interest earned on the banks' and thrifts' safest investments (one-year Treasury notes) over interest paid on deposits was almost 5.5 percentage points; by 1994, it was only 2.6 percentage points. The institutions lost almost 3 percentage points of the advantage they had enjoyed when the rates were capped.[14] The 1980 legislation had not done enough to reduce the competitive pressures facing the banks and thrifts.

That legislation was followed in 1982 by the Garn-St. Germain Act, which significantly broadened the types of loans and investments that thrifts could make. The act also gave banks and thrifts broader scope in the mortgage market. Traditionally, they had relied on 30-year, fixed-rate mortgages. But the interest on fixed-rate mortgages on their books fell short as inflation surged in the mid-1970s and early 1980s and banks and thrifts found it increasingly difficult to cover the rising costs of their short-term deposits. In the Garn-St. Germain Act, Congress sought to relieve this interest rate mismatch by permitting banks and thrifts to issue interest-only, balloon-payment, and adjustable-rate mortgages (ARMs), even in states where state laws forbade these loans. For consumers, interest-only and balloon mortgages made homeownership more affordable, but only in the short term. Borrowers with ARMs enjoyed lower mortgage rates when interest rates decreased, but their rates would rise when interest rates rose. For banks and thrifts, ARMs offered an interest rate that floated in relationship to the rates they were paying to attract money from depositors. The floating mortgage rate protected banks and S&Ls from the interest rate squeeze caused by inflation, but it effectively transferred the risk of rising interest rates to borrowers.

Then, beginning in 1987, the Federal Reserve accommodated a series of requests from the banks to undertake activities forbidden under Glass-Steagall and its modifications. The new rules permitted nonbank subsidiaries of bank holding companies to engage in "bank-ineligible" activities, including selling or holding certain kinds of securities that were not permissible for national banks to invest in or underwrite. At first, the Fed strictly limited these bank-ineligible securities activities to no more than 5% of the assets or revenue of any subsidiary. Over time, however, the Fed relaxed these restrictions. By 1997, bank-ineligible securities could represent up to 25% of assets or revenues of a securities subsidiary, and the Fed also weakened or eliminated other firewalls between traditional banking subsidiaries and the new securities subsidiaries of bank holding companies.[15]

Meanwhile, the OCC, the regulator of banks with national charters, was expanding the permissible activities of national banks to include those that were "functionally equivalent to, or a logical outgrowth of, a recognized bank power."[16] Among these new activities were underwriting as well as trading bets and hedges, known as derivatives, on the prices of certain assets. Between 1983 and 1994, the OCC broadened the derivatives in which banks might deal to include those related to debt securities (1983), interest and currency exchange rates (1988), stock indices (1988), precious metals such as gold and silver (1991), and equity stocks (1994).

Fed Chairman Greenspan and many other regulators and legislators supported and encouraged this shift toward deregulated financial markets. They argued that financial institutions had strong incentives to protect their shareholders and would therefore regulate themselves through improved risk management. Likewise, financial markets would exert strong and effective discipline through analysts, credit rating agencies, and investors. Greenspan argued that the urgent question about government regulation was whether it strengthened or weakened private regulation. Testifying before Congress in 1997, he framed the issue this way: financial "modernization" was needed to "remove outdated restrictions that serve no useful purpose, that decrease economic efficiency, and that . . . limit choices and options for the consumer of financial services." Removing the barriers "would permit banking organizations to compete more effectively in their natural markets. The result would be a more efficient financial system providing better services to the public."[17]

During the 1980s and early 1990s, banks and thrifts expanded into higher-risk loans with higher interest payments. They made loans to oil and gas producers, financed leveraged buyouts of corporations, and funded developers of residential and commercial real estate. The largest commercial banks advanced money to companies and governments in "emerging markets," such as countries in Asia and Latin America. Those markets offered potentially higher profits, but were much riskier than the banks' traditional lending. The consequences appeared almost immediately—especially in the real estate markets, with a bubble and massive overbuilding in residential and commercial sectors in certain regions. For example, house prices rose 7% per year in Texas from 1980 to 1985.[18] In California, prices rose 13% annually from 1985 to 1990.[19] The bubble burst first in Texas in 1985 and 1986, but the trouble rapidly spread across the Southeast to the mid-Atlantic states and New England, then swept back across the country to California and Arizona. Before the crisis ended, house prices had declined nationally by 2.5% from July 1990 to February 1992[20]—the first such fall since the Depression—driven by steep drops in regional markets.[21] In the 1980s, with the mortgages in their portfolios paying considerably less than current interest rates, spiraling defaults on the thrifts' residential and commercial real estate loans, and losses on energy-related, leveraged-buyout, and overseas loans, the industry was shattered.[22]

Almost 3,000 commercial banks and thrifts failed in what became known as the S&L crisis of the 1980s and early 1990s. By comparison, only 243 banks had failed between 1934 and 1980. By 1994, one-sixth of federally insured depository institutions had either closed or required financial assistance, affecting 20% of the banking system's assets.[23] More than 1,000 bank and S&L executives were convicted of felonies.[24] By the time the government cleanup was complete, the ultimate cost of the crisis was $160 billion.[25]

Despite new laws passed by Congress in 1989 and 1991 in response to the S&L crisis that toughened supervision of thrifts, the impulse toward deregulation continued. The deregulatory movement focused in part on continuing to dismantle regulations that limited depository institutions' activities in the capital markets. In 1991, the Treasury Department issued an extensive study calling for the elimination of the old regulatory framework for banks, including removal of all geographic restrictions on banking and repeal of the Glass-Steagall Act. The study urged Congress to abolish these restrictions in the belief that large nationwide banks closely tied to the capital markets would be more profitable and more competitive with the largest banks from the United Kingdom, Europe, and Japan. The report contended that its proposals would let banks embrace innovation and produce a "stronger, more diversified financial system that will provide important benefits to the consumer and important protections to the taxpayer."[26]

The biggest banks pushed Congress to adopt Treasury's recommendations. Opposed were insurance agents, real estate brokers, and smaller banks, who felt threatened by the possibility that the largest banks and their huge pools of deposits would be unleashed to compete without restraint. The House of Representatives rejected Treasury's proposal in 1991, but similar proposals were adopted by Congress later in the 1990s.

In dealing with the banking and thrift crisis of the 1980s and early 1990s, Congress was greatly concerned by a spate of high-profile bank bailouts. In 1984, federal regulators rescued Continental Illinois, the nation's 7th-largest bank; in 1988, First Republic, number 14; in 1989, MCorp, number 36; in 1991, Bank of New England, number 33. These banks had relied heavily on uninsured short-term financing to aggressively expand into high-risk lending, leaving them vulnerable to abrupt withdrawals once confidence in their solvency evaporated. Deposits covered by the FDIC were protected from loss, but regulators felt obliged to protect the uninsured depositors—those whose balances exceeded the statutorily protected limits—to prevent potential runs on even larger banks that reportedly may have lacked sufficient assets to satisfy their obligations, such as First Chicago, Bank of America, and Manufacturers Hanover.[27]

During a hearing on the rescue of Continental Illinois, Comptroller of the Currency C. Todd Conover stated that federal regulators would not allow the 11 largest "money center banks" to fail.[28] This was a new regulatory principle, and within moments it had a catchy name. Representative Stewart McKinney of Connecticut responded, "We have a new kind of bank. It is called 'too big to fail'—TBTF—and it is a wonderful bank."[29]

In 1990, during this era of federal rescues of large commercial banks, Drexel Burnham Lambert—once the country's fifth-largest investment bank—failed. Crippled by legal troubles and losses in its junk bond portfolio, the firm was forced into the largest bankruptcy in the securities industry to date when lenders shunned it in the commercial paper and repo markets. While creditors, including other investment banks, were rattled and absorbed heavy losses, the government did not step in, and Drexel's failure did not cause a crisis. So far, it seemed that among financial firms, only commercial banks were deemed too big to fail.

In 1991, Congress tried to limit this "too big to fail" principle, passing the Federal Deposit Insurance Corporation Improvement Act (FDICIA), which sought to curb the use of taxpayer funds to rescue failing depository institutions. FDICIA mandated that federal regulators must intervene early when a bank or thrift got into trouble. In addition, if an institution did fail, the FDIC had to resolve the failed institution in a manner that produced the least cost to the FDIC's deposit insurance fund. However, the legislation contained two important loopholes. One exempted the FDIC from the least-cost constraints if it, the Treasury, and the Federal Reserve determined that the failure of an institution posed a "systemic risk" to markets. The other loophole addressed a concern raised by some Wall Street investment banks, Goldman Sachs in particular: the reluctance of commercial banks to help securities firms during previous market disruptions, such as Drexel's failure. Wall Street firms successfully lobbied for an amendment to FDICIA to authorize the Fed to act as lender of last resort to investment banks by extending loans collateralized by the investment banks' securities.[30]

In the end, the 1991 legislation sent financial institutions a mixed message: you are *not* too big to fail—until and unless you *are* too big to fail. So the possibility of bailouts for the biggest, most centrally placed institutions—in the commercial and shadow banking industries—remained an open question until the next crisis, 16 years later.