
The Dilemma of Bailouts

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On May 17, 1984, after a twelve-day “electronic” run, the Federal Reserve Board (Fed), the Federal Deposit Insurance Corporation (FDIC), and the Office of the Comptroller of the Currency jointly announced that they would guarantee “all depositors and general creditors” of Continental Illinois Bank—the country’s sixth-largest bank, with assets of \$45 billion—make a capital infusion of \$2 billion, and supply any “extraordinary liquidity” needed to keep the bank afloat (Office of the Comptroller 1984). The announcement stunned many policy observers as the group of regulators promised to make whole (that is, to bail out) all of the bank’s creditors, not just those entitled to federal deposit insurance, a step that had never been taken previously. The regulators took this exceptional action because they believed that owing to Continental’s large size and its financial connections with other large banks, its failure might trigger a crisis in the world’s financial system. The regulators knew that many other important U.S. banks had been weakened by a wave of bad loans to industrial corporations, real estate developers, and Third World governments and might also be vulnerable to an electronic run on their credit sources. The Fed acted as it did, according to Comptroller of the Currency Todd Conover in testimony before Congress, because “we could very well have seen a national, if not an international financial crisis, the dimensions of which were difficult to imagine” (Conover 1984). Thus, Continental Illinois was deemed to be “too big to fail,” regardless of existing laws or precedents.

The Mother of All Resolutions

The announcement, however, was not enough to halt the run on the bank, which had begun after rumors surfaced in Tokyo that it was about to file for bankruptcy.

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The bank had become dependent on the Eurodollar financial market for the sale of certificates of deposit and medium-term notes. Holders of Continental paper were refusing to roll over maturities and looking for buyers at almost any price. Indeed, despite the regulators' pledge, the run continued through the month of July, causing the bank to draw down its emergency credit lines and to sell assets. The FDIC later invested another \$4.5 billion in Continental Illinois and took over its \$3.5 billion debt to the Chicago Fed in exchange for 80 percent of the bank's common stock (later expanded to include all of it) and replacement of its entire management and board of directors. Continental was divided into a recapitalized and restaffed "good" bank, which continued in business, and a "bad" bank, which held \$3 billion of the bank's most troubled loans until they could be resolved. A few years later the FDIC commenced a successful program of public offerings of the "good" Continental stock, and in 1994 Bank of America acquired Continental at a premium over its market price. The proceeds from the stock sales greatly offset losses on the "bad" bank's holdings, limiting them to about \$800 million ("Continental Illinois" 1997).

The Continental resolution, conducted under Fed chairman Paul A. Volcker's direction, was the landmark transaction during a ten-year crisis in the U.S. banking system (separate from the savings-and-loan crisis that occurred at roughly the same time). During this period, most of the large commercial banks experienced exceptional loan losses that degraded their credit ratings, stock prices, and market shares and led to a massive disintermediation of wholesale banking business to capital markets. New wholesale financing products initiated by investment bankers (for example, securitization, junk bonds, and derivatives) met the corporations' requirements, usually at lower cost, so that the availability of funds to the U.S. economy was not impaired by the long-term distress the major banks experienced. Many large banks¹ were forced to merge with stronger banks or to submit to draconian controls imposed by the regulators to avoid fates similar to Continental's (Smith 1993, 62–68). Few doubted that any bank larger than Continental Illinois would receive the same support from general creditors that the failing Chicago bank had received if such help were necessary to keep it alive, but no such additional guarantees were necessary. By the mid-1990s, ten years after the Continental affair, a reconfigured banking industry had recovered and was chafing to be allowed into the capital-markets business. This expansion was necessary, they said, in order to be competitive with investment banks and European universal banks that were not restricted by the separation of commercial banking and investment banking required by the Glass-Steagall Act of 1933. Regulators and legislators, under pressure, gave in to the banks, and in 1999 the Glass-Steagall Act was repealed.

1. They included the five largest banks in Texas and many of the major banks in New England, the Pacific Northwest, New York, and California.

Although some people objected to the bailouts, the banking crisis of the 1980s was broadly understood to have been well managed by the Fed and the FDIC, and government officials dealing with similar crises in Europe and Japan studied and copied their methods and practices in the 1990s. A much-praised model of bank resolution developed by the Swedish government in 1992 was similar to the Continental Illinois intervention, providing for (a) a shield for creditors to discourage sudden “electronic” runs by institutional investors; (b) takeover of the bank’s stock, the previous stockholders being wiped out; (c) replacement of the board and senior management; and (d) division of the entity into good and bad banks to be resolved separately, the former to be privatized as soon as possible (Smith 1993, 59–60). More important, however, may have been the many more numerous instances of intervention in which healthier banks acquired ailing ones at the urging of regulators in order to avoid the consequences to stockholders of a resolution like Continental Illinois’s.

Chaos in 2008

The next banking crisis occurred in the United States nearly twenty-five years later, beginning with the forced merger of Bear Stearns into JP Morgan Chase in March 2008, assisted by the Fed’s \$29 billion guarantee of troubled assets. Bear Stearns, the fifth-largest U.S. investment bank, had been undermined by its exposure to mortgage-backed securities and its investment in two subprime mortgage-backed hedge funds that failed. The subject of many denied rumors about its solvency, Bear Stearns experienced a sudden run on its short-term financing sources and was bailed out by the Fed because it was thought to be too interconnected to large banks through swap and other markets to be permitted to fail (Geithner 2008). To guarantee Bear Stearns’s assets, the Fed had to invoke its seldom-used emergency-lending authority in section 13(3) of the Federal Reserve Act, which gives the Fed in “unusual and exigent circumstances” broad authority to lend to a wide range of borrowers using good collateral if at least five Fed governors approve. Section 13(3) had also served as the Fed’s authority when it guaranteed all of Continental Illinois’s general creditors. The Fed’s invocation of this authority to rescue Bear Stearns, a midsize nonbank, surprised many observers, but most believed the action was justified by the need to prevent a wider collapse of the now enormous financial system. The Fed’s action did calm markets as intended—but for only about six months.

During those six months, the market for collateralized mortgage obligations (CMOs) collapsed. Residential real estate prices began to fall in late 2006, melting away the value of the collateral behind these securities, many of which contained sizeable quantities of subprime mortgages. It was not always easy to tell which CMOs had the subprime components, so in panic the market rejected everything, causing all CMO prices to plunge. Several large banks, however, were found to

have sizeable inventories of CMOs, much of which had been financed not by deposits, but in financial markets.² The free fall in prices had to be marked-to-market by banks and other dealers holding the CMOs as collateral, causing enormous unrealized losses to be reported. By September 2008, the situation was so bad for the two largest government-sponsored mortgage finance companies, the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), that they were taken into “conservatorship,” with the government’s capturing an ownership stake of 79.9 percent in each. Both companies were big buyers of CMOs from the market (Acharya et al. 2011, 432–34).

A week later the Fed invoked section 13(3) again to rescue AIG from bankruptcy in an \$85 billion infusion that gave the government 79.9 percent of the company’s stock. AIG, the largest U.S. insurance company, was not insolvent, but it was threatened by the need to put up \$60 billion of cash collateral to support its large exposures to credit default swaps, especially those written on CMOs. As prices fell, rating agencies threatened to downgrade AIG’s debt rating, which would trigger the requirement for collateral that AIG did not have on hand, and so it faced the possibility of being forced into bankruptcy—a situation caused not by the failure of its credit-default-swap business, but by mismanagement of its risks and collateral exposures (Smith 2010b).

On the same day that AIG was rescued, however, Lehman Brothers, the fourth-largest U.S. investment bank, was not. After a run, it filed for bankruptcy on September 15, 2008, igniting a global market crash that lasted for months. Given Lehman’s \$613 billion in assets, its bankruptcy was the largest in history, six times the size of the next largest—that of WorldCom, which had failed in July 2002 (Beltran 2002). Lehman’s bankruptcy instantly transmitted panic to the money-market funds, the U.S. and European commercial paper markets, the corporate bond market, the Euro-bond market, and the London-based bank-credit market. The Fed and other central banks considered themselves compelled to intervene in these markets to the extent of approximately \$2 trillion to stabilize them (Smith 2010b, 34). Merrill Lynch, afraid it would be swept away in the market’s torrent, hurriedly sold itself to Bank of America with the government’s encouragement. Morgan Stanley and Goldman Sachs, the last two independent investment banks, braced for the run on their debt that the market was foretelling. Each rushed to raise capital from private sources, then, at the Fed’s urging, converted themselves into bank holding companies in order to gain access to the Fed’s emergency lending window (Smith 2010b, 23–30). These drastic events were exactly what the government was trying to avoid in its rescue of Bear Stearns, Fannie, Freddie, and AIG. Under pressure to avoid bailouts, however, it drew the line at Lehman and reaped the whirlwind.

2. Deposits at Citigroup and JP Morgan Chase then financed only about one-third of their assets (from company reports).

After Lehman's failure, there were several additional rounds of federal infusions into AIG, Citigroup (which owned about \$500 billion of asset-backed securities parked in off-balance-sheet "special investment vehicles"), and Bank of America (which had absorbed Merrill Lynch's difficulties) through the \$700 billion Troubled Assets Relief Program (TARP).

The effect of the government's actions was indirectly to guarantee the uninsured depositors and general creditors of all of the country's too-big-to-fail institutions (except Lehman Brothers) in order to dispel the crisis, but the government did not offer any such guarantees to approximately three hundred smaller banks that were allowed to fail, including the \$300 billion Washington Mutual Bank, which the FDIC took into custody in September 2008, with some of its assets and deposits being sold to JP Morgan. As a result, the general creditors of Bear Stearns, AIG, Merrill Lynch, Bank of America, Citigroup, and Wachovia were essentially bailed out in the interest of systemic stability, but those of Lehman, Washington Mutual, and the insolvent smaller banks were not.

The government's position as to which firms would be bailed out and which would not was far from clear. Lehman, which met the "too big to fail" criterion, had been allowed to fail anyhow, even after Barclays Bank had offered to buy it if the Fed would guarantee Lehman's open trading positions for a few weeks. The Fed said that unlike Bear Stearns's collateral, Lehman's was unacceptable under 13(3), and thus the Fed had no authority to make such a guarantee (Bernanke 2010). The Lehman decision, however, meant that the market could not tell which bank might be bailed out, so it assumed that none would be, and, as a result, investors withdrew support from all banks and money-market funds. This withdrawal required an enormous diversion of government resources to intervene in and stabilize banks and financial markets through the TARP and market purchases by the Fed. AIG, Citigroup, and Bank of America required additional infusions of government funds, but these infusions did not trigger a harsh resolution like the one applied to Continental Illinois (stock fully nationalized, board and management replaced, separation of good and bad assets), no doubt because these firms were so large that the government did not want the burden of managing them. No one knew at the time how to separate the assets the banks then carried on their books (about \$2 trillion each) into manageable and unmanageable segments.

In May 2009, the government announced the conclusions of the "stress tests" it imposed on the country's nineteen largest banks, which required some of them to raise an additional \$74.5 billion of capital, of which \$34 billion had to be raised by Bank of America. U.S. banks raised \$812 billion of new capital altogether between 2007 and 2010 to replenish write-offs of more than \$1 trillion, with the nine largest banks accounting for more than half of the total ("Banks and Brokers" 2010). However, with the government's continuing support and financial assistance, the more troubled financial companies recovered their equilibrium, if not their profitability, right away. AIG began an active effort to sell assets ("AIG Cleans

House” 2010).³ Citigroup sold some assets (including Smith Barney, its large brokerage division) and forced its preferred shareholders to convert their holdings to common stock to bolster the bank’s common equity and market capitalization. The government participated in this exchange offer and later sold some of its common stock in the market (Moore and Christie 2010). As market conditions improved, other banks, with their regulators’ consent, redeemed the preferred stock that the government had acquired in connection with the TARP. By the end of September 2010, the banks had redeemed \$192 billion of \$245 billion disbursed under the TARP’s Capital Purchase Program for banks (U.S. Treasury 2010). Although the economic recovery was far from complete, the largest U.S. banks were stable by the end of 2010.

The Dodd-Frank Act

Early in the Barack Obama administration, under strong political pressure to discipline and control the banks that the public blamed for the steep economic recession that followed the bank bailouts in 2008, President Obama announced a plan to provide the government with the authority it needed to resolve financial crises in the future and to deal with a variety of other issues, including consumer protection, derivatives, and bank compensation (“President Obama” 2009). The president’s approach (later explained by Treasury Secretary Timothy Geithner) was to single out all financial institutions (including large nonbanks) that might be too big to fail, so they could be made subject to enhanced regulation. He did not seek to break up the firms or to restrict their major operations, but to control them through capital requirements and close supervision of their risk-taking activities. The enhanced supervision would be undertaken by the Fed, even though in its supervisory capacity it had previously failed to detect the emerging CMO bubble or to prevent the banks from collapsing once it burst.

The legislative process soon became politicized, however, and to gain the bill’s passage, its legislative architects expanded it to 2,300 pages and 15 titles, including requirements for nearly 250 new rules to be written by banking, securities, commodities, and other regulators after its passage (Davis, Polk & Wardwell 2010). Signed into law as the Dodd-Frank Wall Street Reform and Consumer Protection Act in July 2010, the statute requires that large “systemically important” financial firms be identified and be made subject to tougher regulations to ensure their safety. Under the law, the Fed may impose one or more “mitigatory actions” or require asset sales by any systemically important bank that it declares (by a two-thirds vote of the ten-person Financial Stability Oversight Council) to pose a “grave threat” to financial

3. In November 2010, AIG, after selling two of its insurance businesses and recapitalizing some of the government’s investment, repaid approximately \$37 million of debt extended by the New York Fed, announced a restructuring in which the government share of ownership was to be increased to 91.2 percent (worth \$70 billion), and the aggregate government investment in AIG was to be reduced to \$121 billion.

stability (sec. 121). At that point, the government will begin a resolution process that allows it to intervene directly in the operations of a firm or, if necessary, to shut it down through a proscribed, orderly liquidation process. The new law expressly prohibits government bailouts of general creditors, however, either by the Fed or by any other part of the government.⁴

No other government has taken such a position on guarantees or assistance, although many European governments advanced funds to save banks after 2007.

These provisions will make orderly resolution, as envisioned by Dodd-Frank, virtually impossible in the future.

For a bank to be declared a “grave threat” sufficiently in advance for the Fed to do something about it, the Fed would have to be able to detect the threat before the market does so—that is, before it is abundantly obvious. The bank involved may dispute the Fed’s diagnosis and seek to have the Fed’s action overturned by the Financial Stability Oversight Council, but the market will already be reacting to the news that the Fed thinks the firm is in trouble. Once this reaction happens, and because the law says there can be no bailouts, the market will refuse the firm’s paper, thereby suddenly inducing a run—investors will not want to wait to see what might happen at the council. Nor will investors want to touch any other large financial firm’s paper for fear it too may be in trouble. The run will spread instantly throughout the banking industry, as such runs did after the Lehman episode in September 2010, and without the capacity for bailouts several firms rather than only one might end up in bankruptcy. Lehman’s sudden bankruptcy was bad enough. Many Lehmans occurring all at once would be the financial equivalent of a nuclear disaster. The only way to avoid such an outcome in a no-bailout world is never to declare a firm to be a “grave threat,” which means the Dodd-Frank resolution authority almost certainly will never be used except to liquidate a bank the Fed has decided to close down.

The Dilemma of Bailouts

Bailouts, with reason, are much disliked. They not only abuse the taxpayers who have to pay for them but also disregard the free-market theory that maintains that bailouts prevent market forces from bringing about necessary corrective moves. Many see bailouts as undeserved guarantees of creditor positions taken on by speculators in large, too-big-to-fail banks and of other entities that face failure because of their managers’ greed, irresponsibility, and stupidity. Many Americans believe that the managers themselves are bailed out if they are allowed to keep their jobs, stocks, severance pay, and pensions.

4. Section 214 of the Dodd-Frank Act prohibits taxpayer funding of any liquidation effort, and section 1101 restricts the Fed to making 13(3) loans for emergency liquidity support only, but not to assist firms that may be insolvent.

Until now, however, the market has known that government officials prefer bailouts to a global financial or economic disaster and that when faced with such a possibility they will decide in favor of bailing out the threatened institution rather than letting it fail. This preference was evident in the case of Lockheed, bailed out by the Nixon administration; Chrysler by the Carter administration; Continental Illinois by the Reagan administration; Mexico and much of the rest of Latin America by the George H. W. Bush administration; Thailand, Korea, and Indonesia by the Clinton administration; and, most recently, many banks and other companies by the George W. Bush and Obama administrations. The same policies have been followed in recent years for European banks and for Greece, Ireland, and Portugal by governments in the United Kingdom, France, Germany, Italy, and Switzerland and by the European Union and the European Central Bank, and they may ultimately be extended to other “peripheral” Eurozone countries.

The basic argument for bailing out large banks is that a single failure of such a firm can contaminate the whole financial system, which is a public good that the government must safeguard. The government tries to exercise its protection first through regulation and, if that fails, through the spreading of a safety net. The opposing argument is that banks become overprotected and that the system becomes infected by moral hazard and agency conflicts that encourage excessive risk taking. This argument is seen as applicable to nonsystemically important banks, but no government can be expected to risk the financial equivalent of a nuclear disaster simply to prevent a little moral hazard.

The irony of bailouts is that whether a government carries one out or not, the government will still be involved economically in the situation that created the demand for a bailout. Systemic risk may be a by-product of an active and competitive global banking system, but the bailouts aimed at remedying it have large costs. Governments are expected to clean up the mess left behind by the failure of large corporations and financial institutions, using unemployment insurance, economic stimulus efforts, or financial intervention. After Lehman failed, the Fed’s own balance sheet increased by more than \$1.5 trillion owing to its various market-support efforts,⁵ and the Treasury committed up to another \$700 billion to TARP. One might argue that it would have been much less costly if the government had saved Lehman instead of intervening as extensively as it did afterward to stem the panic caused by Lehman’s failure.

By being willing to bail out large banks, however, the government provides these banks with a free, valuable subsidy of their funding costs and accepts the moral hazard that such guarantees create. Both of these effects may entail great costs for the operation of the financial system.

5. Between mid-September and the end of December 2008, the Fed’s balance sheet added \$1.5 billion of short-term loans to banks and businesses, currency swaps, and other loans.

Andrew Haldane, executive director of the Bank of England, tried to estimate the annualized cost of the too-big-to-fail subsidy (a measure of the cost of systemic risk) in a speech given in March 2010. Assuming an intervention of \$100 billion in the United States every twenty years, he calculated the annual premium on an insurance policy of that amount to be less than \$5 billion a year, to be shared by, say, twenty banks. The top five banks would pay most of this premium, which they probably could afford, although they would greatly dislike being required to pay. However, if the cost of lost domestic economic output from a banking crisis were included, then, according to Haldane, the combined cost would be well beyond the banks' ability to pay. Thus, he argues, the true cost of systemic risk in the United States is huge, and the government has to be realistic in thinking about how to bear it.

The banks can be made to pay a share of the cost of either insuring the risk or reducing it, but either way, the banks will argue, the weight of such costs will impede their ability to function as internationally competitive, innovative, risk-taking institutions. They will be forced to carry more capital than they need for their ordinary business, and therefore the cost of finance to the whole economy will be raised. This result may occur, yet it would still be a better outcome than periodically having to face repeated financial crises that wreck the economy, costing billions in repairs, interventions, and lost output. The crisis of 2007–2009 arguably was the banking version of the earlier financial crisis that occurred in 2000–2002, following the bursting of the technology bubble, and that involved record levels of bankruptcies, three years of negative stock-market returns, and a nasty recession that led the Fed to push interest rates to record lows for several years. Those easy-monetary conditions contributed to the subsequent bubble in real estate and mortgage-related securities.

Looking Ahead

Dodd-Frank ends the expectation of bank bailouts in the future—an expectation the rating agencies and the credit market had taken for granted since Continental Illinois's bailout. Moody's, which uses a bank-rating methodology that explicitly considers the possibility of support to a bank from national government sources, must now disregard the possibility of such support in rating large banks because risk assessors may no longer assume that too-big-to-fail assistance will be available (Moody's 2010). The credit market has discounted substantially the greater risk in obligations of large banks. The average of five-year credit-default-swap rates (a measure of risk relative to U.S. Treasuries) of the six largest U.S. banks was 117 basis points in November 2010, more than ten times the average rate of 10.7 basis points in June 2007. (At its peak in October 2008, this average rate was more than 500 basis points above Treasuries).⁶ Thus, the banks will have to bear greater market-funding

6. Swap rates courtesy of Goldman, Sachs, November 1, 2010.

costs in the future, but they are also subject to additional capital costs owing to the enhanced requirements of Basel III (global bank capital adequacy standards) and to whatever fees and other charges the regulators add (as required by Dodd-Frank) for increased FDIC premiums, to recover the government's estimated \$20 billion of implementation costs and their own increased compliance costs.

Future regulators may be expected to adopt a regulatory regime that is as failure-proof as possible. This may cause them to deny mergers or expansions into new product areas and may include, as it did in the 1980s, warning the directors of large banks that they will be held responsible for any loss of public funds used in rescuing and liquidating failed institutions. Between 1990 and 1995, the government prosecuted approximately 1,850 bank officers and directors (mainly from failed savings-and-loan institutions), more than 1,000 of whom went to prison, and collected \$4.5 billion in professional liability claims (Eaglesham 2010). Imposing such conditions on large banks will take some of the starch out of them.

New Strategies

The net result of all of these added costs and liabilities is to lower the expected normalized earnings per share of the large banks—by 26 percent, according to one estimate (Ramsden et al. 2010)—on top of higher capital requirements, which may bring down large-bank return-on-investment (ROI) by as much as 50 percent. This decline has already been evident in the ROI reported by the top six U.S. banks, which averaged 6.4 percent through the third quarter of 2010, much less than the approximately 15 percent average in the years before the crisis. This lower average ROI occurred well after the financial crisis was over, but before most of the new costs of Dodd-Frank and Basel III had been borne. The market prices of the banks' common stock are also very low by historical standards—in September 2010 they averaged only 1.02 times book value—and their average economic value-added (the ROI less cost of capital) was negative 4.5 percent. The top six European banks have reported similar results (Smith 2010a).

The stock market is evidently doubtful about the future of large banks. Traders believe either that these banks are too big to manage or that the aggregate cost of regulation will exceed their ability to recover it. Banks will be driven to carry more capital and to assume less risk, which will force many of them to reconsider the big-balance-sheet, multiple-platform business model on which they have relied for a decade. Some will try to stay as they are, hoping that the market will change its mind about their business model in the future, but others will try to change themselves into institutions with greater economic viability. They can make themselves smaller (to reduce assets subject to enhanced regulatory cost) and simpler (to become more specialized and better managed) by sloughing off certain lines of business and concentrating on what they do best. They can spin off nonbanking assets and businesses (trading, asset management) to shareholders where their prospects would be

improved by operating outside the enhanced regulatory umbrella. They can shore up and streamline their basic banking business to focus on their extensive global client base, risk management, and advisory and distribution activities. But whatever they do, they need to try to find an optimal mix of activities that will produce better economic results for their shareholders and to stay within risk limitations set by their regulators.

This trade-off has always existed for banks, but for many years regulators emphasized deregulation and increasing competition more than preventing failure. Dodd-Frank changes this emphasis by prohibiting bailouts, but it leaves the system exposed to a nuclear accident if regulators fail to prevent failures. The statute makes the operation of a large, accident-prone bank very expensive and economically inefficient, so the banks will be forced to establish a different business model. By doing so, they will return some of their assets and businesses to the nonsystemically important financial world, which is desirable, but the shift may lead to a buildup of risk in this less-regulated sector. The nonbanks that take over these businesses will endeavor not to become large enough to become systematically important under Dodd-Frank.

The trimmed-down, residual banking business will adopt methods of handling market risk for others without absorbing it on their own books for more than short periods. Investors should be willing to pay more than ten to twelve times (the average price-to-earnings ratio of the top six U.S. banks) for their earnings, which will be much less risky because trading activities will no longer constitute 25 percent or more of total noninterest revenues, as they have for the top six banks.⁷

Putting the burden of reducing systemic risk on the banks themselves is a desirable, if unintended, result of the banking crisis and of the many efforts to resolve and reregulate banks in the United States and abroad.

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7. Data on trading revenues as a percentage of total noninterest revenues are from company reports.

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