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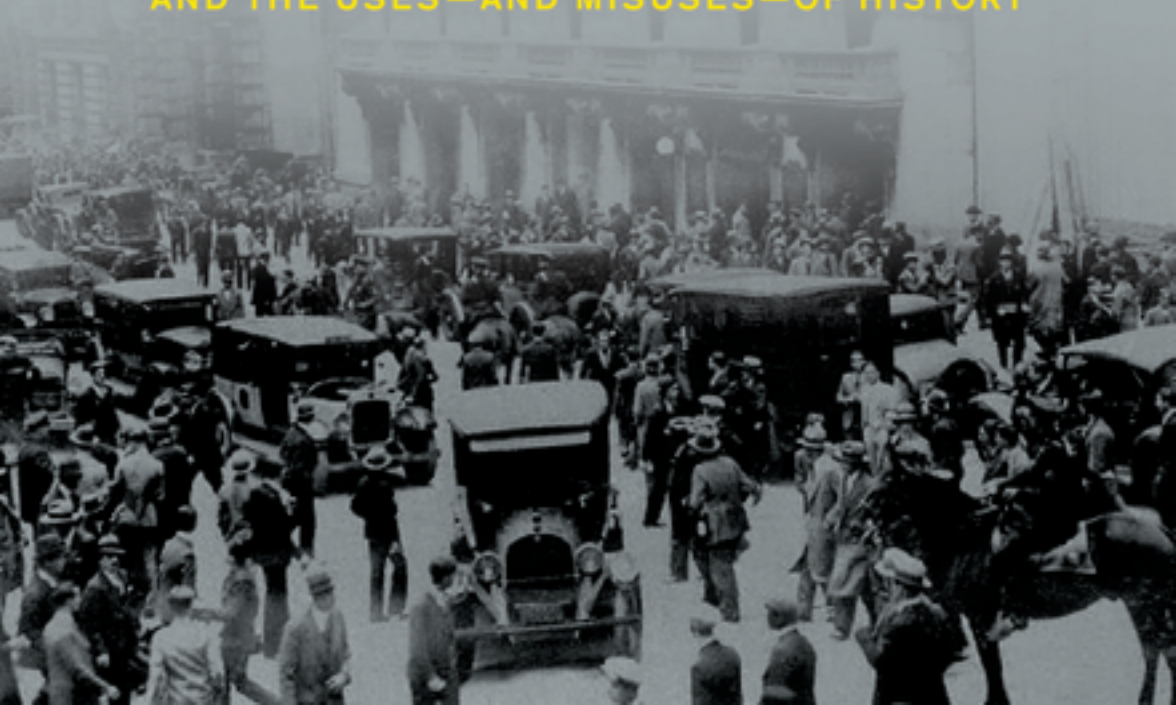
THE GREAT DEPRESSION, THE GREAT RECESSION, AND THE USES—AND MISUSES—OF HISTORY



Introduction

This is a book about financial crises. It is about the events that bring them about. It is about why governments and markets respond as they do. And it is about the consequences.

It is about the Great Recession of 2008–09 and the Great Depression of 1929–1933, the two great financial crises of our age. That there are parallels between these episodes is well known, not least in policy circles. Many commentators have noted how conventional wisdom about the earlier episode, what is referred to as "the lessons of the Great Depression," shaped the response to the events of 2008–09. Because those events so conspicuously resembled the 1930s, that earlier episode provided an obvious lens through which to view them. The tendency to view the crisis from the perspective of the 1930s was all the greater for the fact that key policy makers, from Ben Bernanke, chairman of the Board of Governors of the Federal Reserve System, to Christina Romer, head of President Barack Obama's Council of Economic Advisors, had studied that history in their earlier academic incarnations.

As a result of the lessons policy makers drew, they prevented the worst. After the failure of Lehman Brothers pushed the global financial system to the brink, they asserted that no additional systemically significant financial institution would be allowed to fail and then delivered on that promise. They resisted the beggar-thy-neighbor tariffs and controls that caused the collapse of international transactions in the 1930s. Governments ramped up public spending and cut taxes. Central banks flooded financial markets with liquidity and extended credit to one another in an unprecedented display of solidarity.

In doing so, their decisions were powerfully informed by received wisdom about the mistakes of their predecessors. Governments in the 1930s succumbed to the protectionist temptation. Guided by outdated economic dogma, they cut public expenditure at the worst possible time and perversely sought to balance budgets when stimulus spending was needed. It made no difference whether the officials in question spoke English, like Herbert Hoover, or German, like Heinrich Brüning. Not only did their measures worsen the slump, but they failed even to restore confidence in the public finances.

Central bankers, for their part, were in thrall to the real bills doctrine, the idea that they should provide only as much credit as was required for the legitimate needs of business. They supplied more credit when business was expanding and less when it slumped, accentuating booms and busts. Neglecting their responsibility for financial stability, they failed to intervene as lenders of last resort. The result was cascading bank failures, starving business of credit. Prices were allowed to collapse, rendering debts unmanageable. In their influential monetary history, Milton Friedman and Anna Schwartz laid the blame for this disaster squarely on the doorstep of central banks. Inept central bank policy more than any other factor, they concluded, was responsible for the economic catastrophe of the 1930s.

In 2008, heeding the lessons of this earlier episode, policy makers vowed to do better. If the failure of their predecessors to cut interest rates and flood financial markets with liquidity had consigned the world to deflation and depression, then they would respond this time with expansionary monetary and financial policies. If the failure of their predecessors to stem banking panics had precipitated a financial collapse, then they would deal decisively with the banks. If efforts to balance budgets had worsened the earlier slump, then they would apply fiscal stimulus. If the collapse of international cooperation had aggravated the world's problems, then they would use personal contacts and multilateral institutions to ensure that policy was adequately coordinated this time.

As a result of this very different response, unemployment in the United States peaked at 10 percent in 2010. Though this was still disturbingly high, it was far below the catastrophic 25 percent scaled in the Great Depression. Failed banks numbered in the hundreds, not the thousands. Financial dislocations were widespread, but the complete and utter collapse of financial markets seen in the 1930s was successfully averted.

And what was true of the United States was true also of other countries. Every unhappy country is unhappy in its own way, and there were varying degrees of economic unhappiness starting in 2008. But, a few ill-starred European countries notwithstanding, that unhappiness did not rise to the level of the 1930s. Because policy was better, the decline in output and employment, the social dislocations, and the pain and suffering were less.

Or so it is said.

Unfortunately, this happy narrative is too easy. It is hard to square with the failure to anticipate the risks. Queen Elizabeth II famously posed the question on a visit to the London School of Economics in 2008: "Why did no one see it coming?" she asked the assembled experts. Six months later a group of eminent economists sent the queen a letter apologizing for their "failure of collective imagination."

It is not as if parallels were lacking. The 1920s saw a real estate boom in Florida and in the commercial property markets of the Northeast and North Central regions of the United States to which early-twenty-first-century property booms in the United States, Ireland, and Spain bore a strong family resemblance. There was the sharp increase in stock valuations, reflecting heady expectations of the future profitability of trendy information-technology companies, Radio Company of America (RCA) in the 1920s, Apple and Google eighty years later. There was the explosive growth of credit fueling property and asset-market booms. There was the development of a growing range of what might politely be called dubious practices in the banking and financial system. There was the role of the gold standard after 1925 and the euro system after 1999 in amplifying and transmitting disturbances.

Above all, there was the naïve belief that policy had tamed the cycle. In the 1920s it was said that the world had entered a "New Era" of economic stability with the establishment of the Federal Reserve System and independent central banks in other countries. The period leading up to the Great Recession was similarly thought to constitute a "Great Moderation" in which business cycle volatility was diminished by advances in central banking. Encouraged by the belief that sharp swings in economic activity were no more, commercial banks used more leverage. Investors took more risk.

One might think that anyone passingly familiar with the Great Depression would have seen the parallels and their implications. Some warnings there indeed were, but they were few and less than fully accurate. Robert Shiller of Yale, who had studied 1920s property markets, pointed now to the development of what looked to all appearances like a full-blown housing bubble. But not even Shiller anticipated the catastrophic consequences of its collapse. Nouriel Roubini, who had taken at least one course on the history of the Great Depression in his graduate student days at Harvard, pointed to the risks posed by a gaping US current account deficit and the accumulation of US dollar debts abroad. But the crisis of which Roubini warned, namely a dollar crash, was not the crisis that followed.

Specialists in the history and economics of the Great Depression, it should be acknowledged, did no better. And the economics profession as a whole issued only muted warnings that disaster lay ahead. It bought into the gospel of the Great Moderation. Policy makers lulled into complacency by self-satisfaction and positive reinforcement by the markets did nothing to prepare for the impending calamity.

It may be asking too much to expect analysts to forecast financial crises. Crises result not just from credit booms, asset bubbles, and the wrongheaded belief that financial-market participants have learned to safely manage risk, but also from contingencies no one can predict, whether the failure of a consortium of German banks to rescue Danatbank, a German financial institution, in 1931; or the refusal of the UK Financial Services Authority to allow Barclays to bid for Lehman Brothers over a fateful weekend in 2008. Financial crises, like World War I, can arise from the unanticipated repercussions of idiosyncratic decisions taken without full awareness of their ramifications. They result not just from systemic factors but from human agency—from the vaulting ambition and questionable scruples of a Rogers Caldwell, who in the 1920s fashioned himself the J. P. Morgan of the South; or an Adam Applegarth, the sporty, hyperconfident young banker who launched Northern Rock, a formerly obscure British building society, onto an unsustainable expansion path. Their actions not only brought down the firms they headed but undercut the very foundations of the financial system. Similarly, had Benjamin Strong, the über-competent governor of the Federal Reserve Bank of New York, not passed away in 1928, or Jean-Claude Trichet not become president of the European Central Bank as the result of a Franco-German bargain in 1999, the conduct of monetary policy might have been different. Specifically, it might have been better.

It is similarly disturbing in light of the progressive narrative that policy was not more successful at limiting financial distress, containing the rise in unemployment, and supporting a vigorous recovery. The subprime mortgage market collapsed in mid-2007, and the US recession commenced in December of that year. Yet few if any observers anticipated how severely the financial system would be disrupted. They did not foresee how badly output and employment would be affected. The Great Depression was first and foremost a banking and financial crisis, but memories of that experience did not sufficiently inform and invigorate policy for officials to prevent another banking and financial crisis.

It may be that the very belief that bank failures were the key event transforming a garden-variety recession into the Great Depression caused policy makers to mistakenly focus on commercial banks at the expense of the so-called shadow banking system of hedge funds, money market funds, and commercial paper issuers. The Basel Accord setting capital standards for internationally active financial institutions focused on commercial banks.[1] Regulation generally focused on commercial banks.

Moreover, deposit insurance was limited to commercial banks. Because the runs by retail depositors that destabilized banks in the 1930s led to creation of federal deposit insurance, there was the belief that depositor flight was no longer a threat. Everyone had seen *It's a Wonderful Life* and assumed that a modern-day banker would never find himself in George Bailey's position. But $100,000 of deposit insurance was cold comfort for businesses whose balances were many times that large. It did nothing to stabilize banks that did not rely on deposits but instead borrowed large sums from other banks.

Nor did deposit insurance create confidence in hedge funds, money market funds, and special purpose investment vehicles. It did nothing to prevent a 1930s-like panic in these new and novel parts of the financial system. Insofar as the history of the Great Depression was the frame through which policy makers viewed events, it caused them to overlook how profoundly the financial system had changed. At the same time that it pointed them to real and present dangers, it allowed them to overlook others.

Specifically, it allowed them to miss the consequences of permitting Lehman Brothers to fail. Lehman was not a commercial bank; it did not take deposits. It was thus possible to imagine that its failure might not precipitate a run on other banks like the runs triggered by the failure of Henry Ford's Guardian Group of banks in 1933.

But this misunderstood the nature of the shadow banking system. Money market mutual funds held Lehman's short-term notes. When Lehman failed, those money funds suffered runs by frightened shareholders. This in turn precipitated runs by large investors on the money funds' investment-bank parents. And this then led to the collapse of already teetering securitization markets.

Officials from US Treasury Secretary Henry Paulson on down would insist that they had lacked the authority to lend to an insolvent institution like Lehman Brothers, as well as a mechanism to smoothly shut it down. Uncontrolled bankruptcy was the only option. But it is not as if Lehman's troubles were a surprise. Regulators had been watching it ever since the rescue of Bear Stearns, another important member of the investment-banking fraternity, six months earlier. The failure to endow Treasury and the Fed with the authority to deal with the insolvency of a nonbank financial institution was the single most important policy failure of the crisis. In 1932 the Reconstruction Finance Corporation, created to resolve the country's banking problems, similarly lacked the authority to inject capital into an insolvent financial institution, a constraint that was relaxed only when the 1933 crisis hit and Congress passed the Emergency Banking Act. Chairman Bernanke and others may have been aware of this history, but any such awareness did not now change the course of events.

In part, this policy failure was informed by the belief, shaped and distorted equally by the lessons of history, that the consequences of a Lehman Brothers failure could be contained. But it also reflected officials' concern with moral hazard—with the idea that more rescues would encourage more risk taking.[2] Owing to their rescue of Bear Stearns, policy makers were already being raked over the coals for creating moral hazard. Allowing Lehman Brothers to fail was a way of acknowledging that criticism. Liquidationism—the idea, in the words of President Hoover's Treasury Secretary Andrew Mellon, that failure was necessary to "purge the rottenness out of the system"—may have fallen out of favor owing to its disastrous consequences in the 1930s, but in this subtler incarnation it was not entirely absent.

Finally, policy makers were aware that any effort to endow Treasury and the Fed with additional powers would be resisted by a Congress weary of bailouts. It would be opposed by a Republican Party hostile to government intervention. Ultimately, a full-blown banking and financial crisis would be needed, as in 1933, for the politicians to act.

It was at this point, after Lehman Brothers, that policy makers realized they were on the verge of another depression. The leaders of the advanced industrial countries issued their joint statement that no systematically significant financial institution would be allowed to fail. A reluctant US Congress passed the Troubled Asset Relief Program to aid the banking and financial system. One after another, governments took steps to provide capital and liquidity to distressed financial institutions. Massive programs of fiscal stimulus were unveiled. Central banks flooded financial markets with liquidity.

Yet the results of these policy initiatives were decidedly less than triumphal. Postcrisis recovery in the United States was lethargic; it disappointed by any measure. Europe did even worse, experiencing a double-dip recession and renewed crisis starting in 2010. This was not the successful stabilization and vigorous recovery promised by those who had learned the lessons of history.

Some argued that recovery from a downturn caused by a financial crisis is necessarily slower than recovery from a garden-variety recession.[3] Growth is slowed by the damage to the financial system. Banks, anxious to repair their balance sheets, hesitate to lend. Households and firms, having accumulated unsustainably heavy debts, restrain their spending as they attempt to reduce that debt to a manageable level.

But working in the other direction is the fact that government can step up. It can lend when banks don't. It can substitute its spending for that of households and firms. It can provide liquidity without risking inflation given the slack in the economy. It can run budget deficits without creating debt problems, given the low interest rates prevailing in subdued economic conditions.

And it can keep doing so until households, banks, and firms are ready to resume business as usual. Between 1933 and 1937, real GDP in the United States grew at an annual rate of 8 percent, even though government did only passably well at these tasks. Between 2010 and 2013, by comparison, GDP growth averaged just 2 percent. This is not to suggest that growth after 2009 could have been four times as fast. How fast you can rise depends also on how far you fall in the preceding period. Still, the US and world economies could have done better.

Why they didn't is no mystery. Starting in 2010 the United States and Europe took a hard right turn toward austerity. Spending under the American Recovery and Reinvestment Act, Obama's stimulus program, peaked in fiscal year 2010 before heading steadily downward. In the summer of 2011 the Obama administration and Congress then agreed to $1.2 trillion of spending cuts.[4] In 2013 came expiry of the Bush tax cuts for top incomes, the end of the reduction in employee contributions to the Social Security Trust Fund, and the Sequester, the across-the-board 8½ percent cut in federal government spending. All this took a big bite out of aggregate demand and economic growth.

In Europe the turn toward austerity was even more dramatic. In Greece, where spending was out of control, a major dose of austerity was clearly required. But the adjustment program on which the country embarked starting in 2010 under the watchful eyes of the European Commission, the European Central Bank, and the International Monetary Fund was unprecedented in scope and severity. It required the Greek government to reduce spending and raise taxes by an extraordinary 11 percent of GDP over three years—in effect, to eliminate more than a tenth of all spending in the Greek economy. The euro area as a whole cut budget deficits modestly in 2011 and then sharply in 2012, despite the fact that it was back in recession and other forms of spending were stagnant. Even the United Kingdom, which had the flexibility afforded by a national currency and a national central bank, embarked on an ambitious program of fiscal consolidation, cutting government spending and raising taxes by a cumulative 5 percent of GDP.

Central banks, having taken a variety of exceptional steps in the crisis, were similarly anxious to resume business as usual. The Fed undertook three rounds of quantitative easing—multimonth purchases of treasury bonds and mortgage-backed securities—but hesitated to ramp up those purchases further despite an inflation rate that repeatedly undershot its 2 percent target and growth that continued to disappoint. Talk of tapering those purchases in the spring and summer of 2013 led to sharply higher interest rates. This was not medicine one would prescribe for an economy struggling to grow by 2 percent.

And if the Fed was reluctant to do more, the ECB was anxious to do less. In 2010 it prematurely concluded that recovery was at hand and started phasing out its nonstandard measures. In the spring and summer of 2011 it raised interest rates twice. Anyone seeking to understand why the European economy failed to recover and instead dipped a second time need look no further.

What lessons, historical or otherwise, informed this extraordinary turn of events? For central banks there was, as always, deeply ingrained fear of inflation. The fear was nowhere deeper than in Germany, given memories of hyperinflation in 1923. German fear now translated into European policy, given the Bundesbank-like structure of the ECB and the desire of its French president, Jean-Claude Trichet, to demonstrate that he was as dedicated an inflation fighter as any German.

The United States did not experience hyperinflation in the 1920s, nor at any other time, but this did not prevent overwrought commentators from warning that Weimar was right around the corner. The lessons of the 1930s—that when the economy is in near-depression conditions with interest rates at zero and ample excess capacity, the central bank can expand its balance sheet without igniting inflation—were lost from view. Sophisticated central bankers, like Chairman Bernanke and at least some of his colleagues on the Federal Open Market Committee, knew better. But there is no doubt they were influenced by the criticism. The more hysterical the commentary, the more loudly Congress accused the Fed of debasing the currency, and the more Fed governors then feared for their independence. This rendered them anxious to start shrinking the Fed's balance sheet toward a normal level before there was anything resembling a normal economy.

This criticism was more intense to the extent that unconventional policies had gotten central bankers into places they didn't belong, such as the market for mortgage-backed securities. The longer the Fed continued to purchase mortgage-backed securities—and it continued into 2014—the more the institution's critics complained that policy was setting the stage for another housing bubble, and ultimately another crash. This fear became a totem for the worry that low interest rates were encouraging excessive risk taking. This, of course, was precisely the same concern over moral hazard that contributed to the disastrous decision not to rescue Lehman Brothers.

In the case of the ECB, the moral-hazard worry centered not on markets but on politicians. For the central bank to do more to support growth would just relieve the pressure on governments, allowing excesses to persist, reforms to lag, and risks to accumulate. The ECB permitted itself to be backed into a corner where it was the enforcer of fiscal consolidation and structural reform. In its role as enforcer, economic growth became the enemy.

In the case of fiscal policy, the argument for continued stimulus was weakened by its failure to deliver everything promised, whether because politicians were prone to overpromising or because the shock to the economy was even worse than was understood at the time. There was the failure to distinguish how bad conditions were from how much worse they would have been without the policy. There was the failure to distinguish the need for medium-term consolidation from the need to support demand in the short run. There was the failure to distinguish the case for fiscal consolidation in countries with gaping deficits and debts, like Greece, from the situation of countries with the space to do more, like Germany and the United States. Thus a range of factors came together. The one thing they had in common was failure.

Much may have been learned about the case for fiscal stimulus from John Maynard Keynes and other scholars whose work was stimulated by the Great Depression, but equally much was forgotten. Where Keynes relied mainly on narrative methods, his followers used mathematics to verify their intuitions. Eventually those mathematics took on a life of their own. Latter-day academics embraced models of representative, rational, forward-looking agents in part for their tractability, in part for their elegance. In models of rational agents efficiently maximizing everything, little can go wrong unless government makes it go wrong. This modeling mind-set pointed to government meddling as the cause of the crisis and slow recovery alike. Interference by the government-sponsored entities Freddie Mac and Fannie Mae had been responsible for the excesses in the mortgage market that precipitated the crisis, just as uncertainty about government policy was the explanation for the slow recovery.

It must similarly be, the intuition followed, that fiscal stimulus, as yet another form of government meddling, could do no good. Economists advancing these ideas invoked models in which households, knowing that additional deficit spending now would have to be paid for by higher taxes later, reduce their spending accordingly.[5] This logic suggested that the effects of temporary fiscal stimulus might be less than promised by their Keynesian proponents. But not even these models implied that temporary stimulus would have no effects.[6] Still, freshwater economists (so called because of their tendency to cluster around the Great Lakes) were quick to leap to this conclusion. George Bernard Shaw's aphorism that you can lay all the economists end to end and they still can't reach a conclusion was nowhere more apposite. This inability to agree on even the most basic tenets of economic policy undermined the intellectual case for an effective response.

In much of Europe, in any case, Keynesian theorizing never took hold. The out-of-control budgets and inflation of Weimar left German economists skeptical of deficit spending and led them to argue instead that government should focus on strengthening contract enforcement and fostering competition.[7] This was a more sophisticated position than the "government bad, private sector good" message that bubbled up from the Great Lakes. But it too sat uneasily with the case for stimulus spending and encouraged an early shift to austerity.

If theory of dubious relevance played a role in this policy shift, then so did empirical analysis of dubious generality. Two American economists presented evidence that growth tends to slow when public debt reaches 90 percent of GDP.[8] No one disputed that heavy debts weigh on economic growth, but the idea that 90 percent was a trip wire where performance deteriorates sharply was quickly challenged. Yet the fact that US and British public debts were approaching this red line and that the Eurozone's debt/GDP ratio exceeded it made it expedient to cite the assertion in support of a quick turn to austerity. What he mischaracterized as the "90 percent rule" was invoked by European Commissioner for Economic and Monetary Affairs Olli Rehn, for example, when justifying the policies of the European Union.

Two Italian economists meanwhile presented evidence that austerity, especially if resulting from public spending cuts rather than tax increases, could have contra-Keynesian expansionary effects.[9] Such results were plausible for an economy like Italy in the 1980s and 1990s, with enormous debts, high interest rates, and heavy taxes. In these circumstances, public spending cuts could bolster confidence, and those confidence effects could boost investment. But however plausible such predictions for Italy, they were not plausible for countries with lower debts. They were not plausible when interest rates were near zero. They were not plausible when the country in question, as a member of the Eurozone, lacked a national currency to devalue and could not readily substitute exports for domestic demand. And they were not plausible when the entire collection of advanced economies was depressed, leaving no one to export to.

This did not, however, prevent the doctrine of expansionary fiscal consolidation from being embraced in all its spurious generality by Congressman Paul Ryan, the self-appointed deficit expert in the US House of Representatives. It did not prevent it from being invoked by EU finance ministers in their post-summit press conferences and communiqués. The idea that fiscal consolidation could be expansionary allowed politicians to argue that austerity could be all gain and no pain. That the reality turned out to be different was a rude shock except for those for whom the pain and gain were not the issue but austerity in and of itself was the objective.

The most powerful factor of all in this turn to austerity was surely that policy makers prevented the worst. They avoided another Great Depression.

They could declare the emergency over. They could therefore heed the call for an early return to normal policies. There is no little irony in how their very success in preventing a 1930s-like economic collapse led to their failure to support a more vigorous recovery.

And what was true of macroeconomic policy was true equally of financial reform. In the United States, the Great Depression led to the Glass-Steagall Act, separating commercial banking from investment banking. It led to the creation of a Securities and Exchange Commission to rein in financial excesses. There were calls now for a new Glass-Steagall, the earlier act having been laid to rest in 1999, but there was nothing remotely resembling such far-reaching regulatory reform. The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 contained some modestly useful measures, from limits on speculative trading by financial institutions to creation of a Consumer Financial Protection Bureau. But the big banks were not broken up. Rhetoric to the contrary, little was done about the problem of too-big-to-fail. There was nothing approaching the fundamental redrawing of the financial landscape that resulted from Glass-Steagall's sharp separation of commercial banking, securities underwriting, and insurance services.

The fundamental explanation for the difference is again the success of policy makers in preventing the worst. In the 1930s, the depth of the Depression and the collapse of banks and securities markets wholly discredited the prevailing financial regime. Now, in contrast, depression and financial collapse were avoided, if barely. This fostered the belief that the flaws of the prevailing system were less. It weakened the argument for radical action. It took the wind out of the reformers' sails. And it allowed petty disagreements among politicians to slow the reform effort. Success thus became the mother of failure.

But whatever challenges America faced in getting its political parties to agree on regulatory reform paled in comparison with the challenge in Europe. Where reform in the United States required a modicum of agreement between the two parties, progress in the EU required agreement among twenty-seven governments. To be sure, though all governments were equal, some, like Germany's, were more equal than others. But even in this Orwellian Europe, small countries could cause trouble if they refused to go along, as Finland did when asked to aid Spain through EU's rescue fund, the European Stability Mechanism. Reform might require agreement by countries both inside and outside the Eurozone, as in the case of measures to limit bankers' bonuses, which were stymied when the UK took the EU to the European Court of Justice over pay and bonus regulation.

Nothing more epitomized these difficulties than the fight over banking union. With the creation of the euro, banks throughout Europe became even more tightly connected. But those banks and their national regulators failed to take into account the impact of their actions on neighboring banks and countries. The lesson of the crisis was that a single currency and single financial market but twenty-seven separate national bank regulators was madness. The solution was a single supervisor, a single deposit insurance scheme, and a single resolution mechanism for bad banks. Banking union in its fullness was seen as critical for restoring confidence in EU institutions.

In the summer of 2012, at the height of the crisis, European leaders agreed to establish this banking union. They agreed to create a single supervisor to monitor the banks. But then the process bogged down. Countries with strong banking systems hesitated to delegate supervision to a centralized authority. Others complained that their banks and depositors would be paying into a common insurance fund to bail out countries with poorly run financial institutions. Still others objected that their taxpayers would be on the hook when it came to funding the common resolution authority. The one thing these three groups had in common was, well, Germany, whose chancellor, Angela Merkel, demanded revisions of the EU's treaties to specify how these mechanisms would work, and how they would be financed. But treaty revision was somewhere other governments hesitated to go, since it required the assent of parliaments, and in some cases public referenda, in the course of which the EU's most basic understandings could be cast into doubt.

European leaders therefore agreed to half a loaf. They would proceed with the single supervisor but limit its oversight to Europe's 130 biggest banks, while leaving the single deposit insurance scheme and resolution mechanism to later.[10]

This reflected the difficulty of decision making in a European Union of twenty-seven countries. But it also reflected that the EU did just enough to hold its monetary union together. Through emergency loans and creation of an ECB facility to buy the bonds of troubled governments, it did just enough to prevent the euro system from falling apart. This success in turn limited the urgency of proceeding with banking union. This success too became the mother of failure.

That Europe did just enough to hold its monetary union together and that the euro did not go the way of the gold standard in the 1930s were, for many, among the great surprises of the crisis. In the late 1920s, the gold standard was seen as the guarantor of economic and financial stability, because the decade when it was in abeyance, from 1914 through 1924, had been marked by anything but. It turned out, however, that the gold standard as reconstructed after World War I was neither durable nor stable. Rather than preventing the 1931 financial crisis, it contributed to its development, first by creating a misapprehension of stability that encouraged large amounts of credit to flow toward countries ill equipped to handle it, and then by hamstringing the ability of governments to respond. The results were bank runs and balance-of-payments crises, as investors came to doubt the capacity of the authorities to defend their banks and currencies. Freeing themselves from the gold standard then enabled countries to regain control of their economic destinies. It allowed them to print money where money was scarce. It allowed them to support their banking systems. It allowed them to take other steps to end the Depression.

The architects of the euro were aware of this history. It resonated even more powerfully given that they experienced something similar in 1992–93 with the collapse of the Exchange Rate Mechanism through which European currencies were tied together like a string of mountain climbers. They therefore set out to make their new monetary arrangement stronger. It would be based on a single currency, not on pegged rates between separate national currencies. Devaluation of national currencies would not be possible because countries would no longer have national currencies to devalue. This euro system would be regulated not by national central banks but by a supranational authority, the ECB.

Importantly, the treaty establishing the monetary union would make no provision for exit. It was possible in the 1930s for a country to abandon the gold standard by a unilateral act of its national legislature or parliament. Abandoning the euro, in contrast, would abrogate a treaty obligation and jeopardize a country's good standing with its EU partners.

But while avoiding some of the problems of the gold standard, the euro's architects courted others. By creating the mirage of stability, the euro system set in motion large capital flows toward Southern European countries ill equipped to handle them, like those of the 1920s. When those flows reversed direction, the inability of national central banks to print money and national governments to borrow it consigned economies to deep recession, as in the 1930s. Pressure mounted to do something. Support for governments that failed to do so began to dissolve. Increasingly it was predicted that the euro would go the way of the gold standard; governments in distressed countries would abandon it. And if they hesitated, they would be replaced by other governments and leaders prepared to act. In the worst case, democracy itself might be placed at risk.

This, it turned out, was a misreading of the lessons of history. In the 1930s, when governments abandoned the gold standard, international trade and lending had already collapsed. This time European countries did just enough to avoid that fate. Hence the euro had to be defended in order to preserve the Single Market and intra-European trade and payments. In the 1930s, political solidarity was another early casualty of the Depression. Notwithstanding the strains of the crisis, governments this time continued to consult and collaborate, with help from international institutions stronger and better developed than those of the 1930s. EU countries in a strong economic and financial position provided loans to their weak European partners. Those loans could have been larger, but they were still large by the standards of the 1930s.

Finally, the crisis of democracy forecast by those anticipating the euro's collapse failed to materialize. There were demonstrations, including violent demonstrations. Governments fell. But democracy survived, unlike the 1930s. Here the Cassandras of collapse failed to reckon with the welfare states and social safety nets constructed in response to the Depression. Even where unemployment exceeded 25 percent, as it did in the worst-affected parts of Europe, overt distress was less. This weakened the political backlash. It limited the pressure to abandon the prevailing system.

That the experience of the Great Depression importantly shaped perceptions and reactions to the Great Recession is a commonplace. But understanding just how that history was used—and misused—requires one to look more closely not just at the Depression but also at the developments leading up to it. This in turn means starting at the start, namely, in 1920.

With hindsight, some argued that the Federal Reserve should have done more to restrain the property boom. Doing so would have limited the excesses in the financial system and prevented disruptive bank failures in the South. It would have moderated an important source of downward pressure on economic activity that was starting to be felt at the worst possible time, toward the end of the 1920s.

But targeting a specific sector, housing, would have created many of the same dilemmas as targeting the sterling-dollar exchange rate. Fed officials would have been diverting their attention from their fundamental task of providing an elastic currency, with adverse consequences for economic stability. Using monetary policy to damp down financial imbalances might have ended up only bludgeoning the economy.

In a couple of years, with the boom on Wall Street, the same dilemma would reappear. The question then was whether the Fed should raise interest rates in response to the rise in the stock market, in order to prevent development of even more serious financial imbalances and risks. Alternatively, it could continue to direct monetary policy to the needs of the real economy and address financial imbalances through other means. It could rely on what today we would call "macroprudential policy," and what contemporaries called "direct pressure," that is, attempting to limit bank lending to financial markets directly.[37]

Ultimately, the Fed chose the first alternative, raising rates. The consequences would be far-reaching.

CHAPTER 2 | Golden Globe

It did not take long for financial excesses to migrate from Flagler Street to Wall Street. The same low interest rates and expectations of rapid growth that fueled speculation in property encouraged investment in stocks and bonds. Enthusiasm for stocks was further stoked by exaggerated expectations of the profitability of what might be referred to as, if an anachronism is permitted, a new generation of information technology companies. Much as the Internet was used in the 1990s to trumpet the wisdom of investing in Internet-related companies, radio was used in the 1920s to encourage investing in radio. Radio Corporation of America was one of the most widely traded stocks on Wall Street from the time of its initial listing in 1924.

RCA and the other highflyers were helped along by Wall Street insiders like Walter Chrysler and the Fisher Brothers, of Fisher Auto Body fame. These individuals, auto industry veterans more often than not, were led by the mercurial founder of General Motors turned financial speculator Billy Durant. Under Durant's direction they formed syndicates to purchase RCA stock. They made the soaring price of RCA shares front-page news, attracting small investors and driving up prices still further. At this point the syndicate sold out, taking its profits and in so doing erasing earlier gains.[1]

But even these manipulations did not interrupt the upward trend in the market's favorite. From 1925 to the peak in 1929, the price of RCA shares rose more than tenfold adjusted for splits. The first true growth stock, RCA's price-earnings multiple ultimately exceeded 70. In the event, the company did not pay a dividend until 1937.

What was true of RCA stock was true generally. From early 1926 through mid-1929, the Dow Jones Industrial Average rose without significant interruption. Whether and at what point this should be regarded as a bubble continues to be disputed. It is suggestive that the Dow and corporate dividends rose in lockstep through 1927, as if the run-up in stock prices was a reflection of improved corporate earnings. But in 1928, share prices decoupled from dividends. From this point the Great Wall Street boom—some would say the bubble—was on.[2]

There were as many explanations for the rise in share prices as there were pundits. Expert commentators pointed to expectations of accelerating dividend growth, reflecting the installation of electric motors and adoption of assembly line methods. General Motors was a leader in realizing the potential of these innovations under the direction of the MIT-trained engineer Alfred P. Sloan, who had assumed control when the overleveraged Durant was forced out in 1920.[3] GM reported exceptionally strong profits in 1928, encouraging the belief that the same would be true of other technologically progressive firms. If so, investors overlooked the possibility that GM's strong profitability reflected the fact that Henry Ford had closed down his Highland Park factory in May 1927 in order to retool from the Model T to the Model A, diverting purchases toward his competitor. If savvy investors didn't understand the point, it was because GM's management under Sloan—who was a pioneer not just in scientific management but also in investor relations—did its best to convince them that the surge in profitability was GM's doing.[4]

The other obvious suspect was, as usual, the Fed. In 1927 the Reserve banks once more cut their policy rates to relieve the pressure on the Bank of England. Britain was still struggling to reduce the high labor costs with which it was saddled as a result of the return to gold in 1925. It had been hit in 1926 by a strike by coal miners protesting demands from their employers that they accept wage cuts of 25 percent. In addition, the Dawes Plan, which rescheduled Germany's post–World War I reparations in 1924, permitted the country to make those payments by exporting coal.[5] Germany's reentry into the international coal market now depressed prices, further ratcheting up the pressure for the British industry to cut costs by any and all means.

The coal strike lasted six weeks, during which production and exports were disrupted. The result was a deteriorating British balance of payments and gold losses for the Bank of England. Nor were the coal miners Montagu Norman's only problem; he also had the German and French central banks to contend with. First the Reichsbank and then the Bank of France began withdrawing gold from London. The French and German central banks were not reassured by Britain's contentious industrial relations. Not without reason, they saw gold as a better bet than sterling.

The resulting gold losses forced Norman to keep interest rates high, making for more stringent financial conditions. That in turn made things even more difficult for a British economy struggling to regain its footing.

Strong, Norman, Schacht, and Rist assembled in the first week of July in Woodbury, on Long Island, at the home of US Treasury Undersecretary Ogden Mills. This monumental county seat, designed by John Russell Pope, was one of the most lavish on Long Island, with views in all directions and a central portion that "rises through two stories, with its cornice and parapet of somewhat Italian feeling . . . flanked and carefully held by the well-proportioned blocklike wings whose flat fretted cornices carry the line of the first story order around the entire building."[20]

This was opulent architecture more than befitting a meeting of the world's leading central bankers. Whether the international financial architecture was up to the task was another matter. For five days the central bankers conferred. It was like herding cats; Strong failed even to get all three of his colleagues into a room at the same time. Norman emphasized the delicacy of his position and his limited gold reserves. Schacht and Rist reiterated the importance of adhering to the rules of the gold standard as strictly as possible.

Process of elimination left one central bank to take the initiative. The result was another attempt by Strong to convince the Federal Reserve banks to agree to cut interest rates to support sterling. There was no little irony in the outcome. Strong had agreed to convene the meeting in an effort to encourage adjustments by the European bankers, but it was he who ended up doing the adjusting.

To make the case, Strong saw to it that Norman, Schacht, and Rist continued on to Washington and New York to meet with the board of governors and with Daniel Crissinger, chairman of the New York Fed. These officers of the Fed, evidently, were convinced. By the end of August, eight Reserve banks had voted to cut interest rates by half a point. Adolph Miller would have dissented, but he was summering in California. Later he criticized the decision as giving "a further great and dangerous impetus to an already over-expanded credit situation, notably to the volume of credit used on the stock exchanges."[21]

The majority decision was then imposed on the dissenting Reserve banks, starting with the Federal Reserve Bank of Chicago. This was the first time in the history of the Federal Reserve System that the board of governors imposed its will on dissenting Reserve banks. Strong was pleased, no doubt, to see the board force the other Reserve banks into line. Higher rates in the Midwest than the East had allowed banks in the interior to borrow more cheaply in New York in order to lend to their own customers, resulting in a drain of reserves and gold from the New York Fed. This assertion of authority by the board was an important step toward an integrated Federal Reserve policy, in which decisions were not made by individual Reserve banks following their parochial concerns but instead coordinated across districts with the needs of the national economy in mind.

Unfortunately, it was only a step. When the crunch came, in 1929, coordination would be lacking. And the consequences would not be pretty.

CHAPTER 4 | By Legislation or Fiat

Countrywide credit was the lender at the epicenter of the housing boom, and Angelo Mozilo was the public face of Countrywide. The Bronx-born son of first-generation Italian Americans, Mozilo had gone to work in his father's butcher shop at the age of twelve and then as a messenger for a Manhattan mortgage lender. By the time he was sixteen he had worked his way up from ferrying paperwork to processing loans, progress testifying either to his exceptional ambition or to the straightforward nature of underwriting in the era of plain-vanilla mortgages.

Mozilo stayed with the same firm through his high school and college years and until it merged with Lomax Realty Securities, headed by industry veteran David Loeb. In the mid-1960s Loeb sent Mozilo to Central Florida, which was in the grips of a real estate boom not unlike that of the 1920s. Observing that the boom was being driven by the influx of space engineers to Cape Canaveral, Mozilo recommended taking a stake in a Brevard County subdevelopment. When the bet paid off, Loeb made Mozilo his sidekick.

When Lomax Securities was bought out in 1968, Loeb and Mozilo set out to create their own mortgage company, which they dubbed Countrywide Credit Industries. Initially the name was indicative more of the partners' ambition than the reality. The duo worked out of a single office in Anaheim, California, the Inland Empire to the east beckoning as the final frontier. Loeb served as the firm's strategist, Mozilo as its sales force of one.[1]

Although the business gained traction, costs showed a troubling tendency to escalate. Recruiting and retaining salesmen required paying generous commissions. Turnover was high, in part because Mozilo was a demanding boss—"a son of a bitch," as he proudly put it. Loeb therefore proposed eliminating the sales force and using direct advertising to solicit applications, something that had not previously been tried in the mortgage-banking industry. Mozilo, a salesman himself, resisted but eventually agreed to take the plunge.

Attracting business by advertising meant competing on price, which in turn required keeping costs down. The company's retail offices were standardized, situated in strip malls, and permitted no more than two full-time employees. Gradually the strategy began paying dividends. In the course of the 1970s Countrywide Credit opened four additional offices in California. By 1980 it had forty offices in nine states, no mean feat in a period when mortgage and housing markets were buffeted by interest rates of 20 percent. By the mid-1980s, the 40 offices had grown to 104 and the nine states to twenty-six. By 1992, with nearly 400 branches, Countrywide was the largest mortgage banker in the country and, for that matter, the world.

Reflecting its emphasis on low costs and standardization, Countrywide came to be known as the McDonald's of mortgage banking. The label reflected the extent to which it successfully reduced the home mortgage to a commodity, the financial equivalent of a hamburger, and the loan officer to the white-collar equivalent of a hamburger flipper. Countrywide was an early adopter of information technology to process applications. By the mid-1990s, fully 70 percent of loans passing through its automated underwriting system required no human intervention. Standardization and the commitment to information technology, together with reliance on temporary employees, allowed the company to ramp up when opportunity beckoned and downsize when demand slackened. Countrywide started reselling the mortgages it originated to Freddie Mac and Fannie Mae almost as soon as the two government-sponsored housing agencies were authorized to purchase mortgages not guaranteed by the US government.[2] It diversified into loan servicing, buying the right to service mortgages from other lenders to insulate itself from the ups and downs of loan origination. When interest rates were low, loan origination was big business, but when they were high, prepayments were less common, rendering servicing more profitable. Mozilo referred to this as Countrywide's "macro hedge."

Eventually some of these innovations came to be viewed in a less favorable light. That a majority of loan applications were processed without human intervention meant no independent verification of borrowers' claims of income. Aware that their tenure with the firm was likely to be limited, branch managers focused on originating as many mortgages as possible without due attention to their quality. Loan servicing turned out to provide less insulation from the ups and downs of interest rates and the housing market than Mozilo had posited. But these were problems for the future.

As time passed, the financial establishment grew restive. Memories of the unstable 1930s faded. The thrift industry, enjoying tax and regulatory advantages, gained market share at the expense of the banks. Deposit taking and lending in London—what came to be known as the Eurodollar market—subjected the banks to additional competition.

The abolition of Glass-Steagall closed a chapter in US financial history. But it was also indicative of a broader deregulatory trend. Other manifestations included the Riegle-Neal Interstate Banking and Branch Efficiency Act of 1994, which repealed prohibitions on cross-state branching and opened the door to mega-banks. Likewise, the Commodity Futures Modernization Act (CFMA) of 2000 eliminated federal and state regulatory oversight of financial derivatives. CFMA relieved issuers of credit default swaps from having to hold reserves against the possibility that they would actually have to make payments to purchasers of those instruments. Credit default swaps (CDS) had been designed to allow investors in mortgage-backed securities to insure themselves against default on the mortgages in the underlying pool. Now, however, CDS were purchased by buyers who did not also purchase the asset against whose default the insurance was written but simply wished to bet against the housing market. The decision in 2000 to relieve issuers of the obligation to hold reserves against liabilities associated with these contracts would have momentous implications for what followed.

And where deregulation could not be achieved by legislation, it proceeded by fiat. The activist chair of the Commodity Futures Trading Commission, Brooksley Born, was forced out in 1999 by a hostile Fed chairman and treasury secretary after recommending against further deregulation of derivatives. The Securities and Exchange Commission (SEC), under the more accommodating Harvey Pitt and William Donaldson, then loosened its rules for the financial reserves that had to be held by the brokerage units of banks.

Nor was deregulation limited to the United States. For many years European countries had assiduously regulated their banks and securities markets. In 1986, British Prime Minister Margaret Thatcher, already famous for her commitment to deregulation, then turned her attention to financial markets. Having previously reduced top tax rates, liberalized labor markets, and sold off much of the public housing stock, Thatcher launched her "big bang" financial reform, reducing regulatory restrictions with the goal of enhancing London's position as an international financial center.

Meanwhile the European Union moved to create a single, integrated market in merchandise, labor services, and financial capital. Overregulation, according to the widely accepted diagnosis, was to blame for the slow growth and high unemployment plaguing the continent, and the single market, by prying open the door to cross-border competition, was the pivotal reform that might force European states to lighten that crushing regulatory load. The diagnosis that other sectors and activities were suffering from excessive regulation was extended, for better or worse, to financial services. As a result, the Single European Act, with its goal of establishing a continentwide market by 1992, permitted big European banks to expand into neighboring countries.

At first the banks were slow to respond, and regulators were reluctant to let them. This changed, however, with the establishment of the euro in 1999, which removed exchange-rate risk as a deterrent to cross-border business. As the competition to provide financial services intensified, European banks levered up their bets. Banks in Northern Europe, where interest rates were low, found it impossible to resist the higher yields on loans to Southern European banks and investments in Southern European bonds. Southern European banks, for their part, welcomed the cheap finance provided by their Northern European counterparts, using it to make speculative real estate loans and buy the bonds of their sovereigns.

The result was explosive growth of banking in Ireland and across Southern Europe. In some countries, the assets and liabilities of the banking system grew to large multiples of gross domestic product. In Ireland, claims on the banking system, at their peak in 2007–08, reached 400 percent of GDP.[14] In Cyprus, the liabilities of the banking system peaked out at an extraordinary eight times national income.[15]

Thus, no one factor explains the deregulation of banking and financial services. Memories of how banks had collapsed in the 1930s faded with time. Foreign competition created pressure to eliminate restrictions on the range of permissible bank activities. Financial innovation, from development of new lending instruments to establishment of money market mutual funds, undermined the effectiveness of existing regulation.

The dilemma for policy makers was whether to extend existing regulation to these new entities and markets or to relax restrictions on banks and other incumbents complaining that the playing field was tilted against them. A range of arguments militated in favor of the latter. Banks pointed to advances in technology making it easier to use data from one business to benefit another. Computers made it possible to share information and products across activities in the manner of Citibank and Travelers Insurance, rendering the regulatory walls separating banking from insurance more irritating and, arguably, less efficient.[16] Automated credit-scoring techniques like those pioneered by Countrywide Credit encouraged not just routinization of bank lending but also securitization of mortgages, loans, and credits, creating another argument for allowing lenders to branch into underwriting. Commercial banks could cite the experience of the 1990s, when their limited forays into investment banking enhanced profitability without causing noticeable problems.[17]

Academics like the aforementioned Paul Samuelson, together with Eugene Fama of Chicago and Robert Merton of Harvard, meanwhile provided theoretical models of the efficiency of freely functioning financial markets. In reality, their models were only an intellectual point of departure. They identified the restrictive conditions under which asset prices incorporate all the information needed for market efficiency. It was not long before researchers had built up a catalog of empirical anomalies that were hard to square with the efficient-markets view. The fathers of this efficient-markets theory may have understood its limitations, but this was not universally true of policy makers and others who made use of it to justify their positions. In particular, the efficient-markets view found a ready reception from the likes of Chairman Greenspan.

But the role of ideology extended beyond the halls of the Fed and the person of its chairman. In 1992, the Democratic Party moved in a business-friendly direction in an effort to regain the political middle ground. Responding to twelve years of Republican control of the White House, a party traditionally opposed to financial deregulation now embraced Bill Clinton's "third way" of balanced budgets, private-public partnerships, and finance for growth. Political scientists Sandra Suarez and Robin Kolodny emphasize the role of this ideological convergence between Left and Right in setting the stage for financial deregulation. Where the 1992 Democratic Party platform might have been expected to at least express reservations about the concessions extended to financial institutions, it was notably silent on the question of deregulation.[18] The Riegle-Neal, Gramm-Leach-Bliley, and Commodity Futures Modernization Acts were all signed into law by a president affiliated with a party that had once, but no longer, opposed deregulation of the financial sector—the same party that was responsible during the presidency of Franklin Delano Roosevelt for putting in place the elements of modern financial regulation.

The result of these measures was a massive increase in the size, complexity, and leverage of US financial institutions. After having remained stable for more than two decades, the share of the financial-services industry in GDP more than doubled from 4 percent in the early 1970s to 8.3 percent in 2006.[19] Some of this growth was natural recovery from the turbulent 1930s and post–World War II years. It can be seen as the financial sector reasserting its role in helping to allocate resources in a complex modern economy. But the remainder, and especially the breakneck financialization of the years leading up to the crisis, is not adequately explained by standard models of the efficiency advantages of a well-functioning financial sector.

Moreover, the growth of the sector was financed to a considerable extent not with equity—not by banks raising more capital—but with debt. The debt in question was incurred by borrowing for a fixed, typically short term from corporations, mutual funds, state and municipal governments, government agencies, and not least other banks. Large banks had the best access to this so-called wholesale money market.[20] Having diversified their business and invested in internal controls, they could argue that they were in the best position to manage the risk of relying on borrowed funds.

Large banks were also in the best position to create the special purpose vehicles used to shift risky assets off balance sheet, minimizing the amount of capital the parent institution had to raise. They were further incentivized to reduce their capital ratios and increase their leverage by the knowledge that they were systemically significant. Because they were too big to fail, they were apt to be bailed out in the event of trouble. This in turn encouraged them to take on additional leverage and risk.

And what was true of banks in the United States was similarly true of banks elsewhere, notably in Europe. Although regulatory preferences and subsidies were also extended to small banks specializing in activities like mortgage lending, in country after country it was the large institutions that expanded their balance sheets and raised their leverage most dramatically.

The extreme cases were broker-dealers like Bear Stearns and Lehman Brothers, whose traditional business was trading securities on behalf of their customers. Historically, these firms had maintained large reserves and limited the riskiness of their investment portfolios. Under pressure from commercial bank competitors, they now moved from one extreme to the other.

In 2007 the typical US commercial bank had a leverage ratio on the order of 12 to 1, measured as the unadorned ratio of assets to shareholders' equity. Lehman Brothers, by comparison, had a leverage ratio of 30, Bear Stearns 33.[21] A leverage ratio of 33 meant that a decline in asset values of just 3 percent could wipe out shareholders' equity and therefore the firm itself if it was forced to acknowledge those losses.[22] As subsequent events would reveal, this was a tenuous position for any financial institution.

How this extraordinary situation was allowed to develop became a key question in the wake of subsequent events. The answer starts with the decline of the private partnership model of investment banking. Traditionally, the New York Stock Exchange had banned public listing of investment banks as too risky. Instead, investment houses were organized as private partnerships or closely held corporations owned and operated by a handful of partners whose interests were not easily bought and sold. The partners thus had a stake in the long-term survival of the institution. By tradition, they sat together around a table in the "partners' room," literally keeping an eye on one another. Peer pressure and close oversight thus served as deterrents to excessive risk taking.

Over time, technological change—development of expensive new computer technology to process transactions, for example—heightened the advantages of scale and made the private partnership model, where the size of the bank was limited by the capital resources of the partners, problematic. It doesn't take much effort to imagine whose lobbying caused the ban on public listing to be removed in 1970. (Answer: the investment banks.) Merrill Lynch was the first big broker-dealer to go public in 1971, followed by Bear Stearns, Morgan Stanley, Lehman Brothers, and Goldman Sachs, the four other members of what collectively came to be known as "the Big Five."

Now the CEO, as head of a public company, and those who worked for him, answered (if at all) to the chief risk officer. Management's interest in the firm was neither illiquid nor long-term. If their risky bets paid off, they earned enormous bonuses. And if big payoffs today were followed by big losses tomorrow, there was no provision for clawing back yesterday's bonuses (a practice that regulators and shareholders sought to change only after 2008). In principle, the board of directors, representing the shareholders, was supposed to push back against excessive risk taking. But outside directors had limited information and, in many cases, limited ability to assess it. In practice, no one was watching the store.

Regulators, for their part, were no better positioned to restrain risk taking and leverage. They took their cue from the banks rather than the other way around. The SEC loosened capital requirements for broker-dealers in 2004 in response to similar action by the European Union and lobbying by the Big

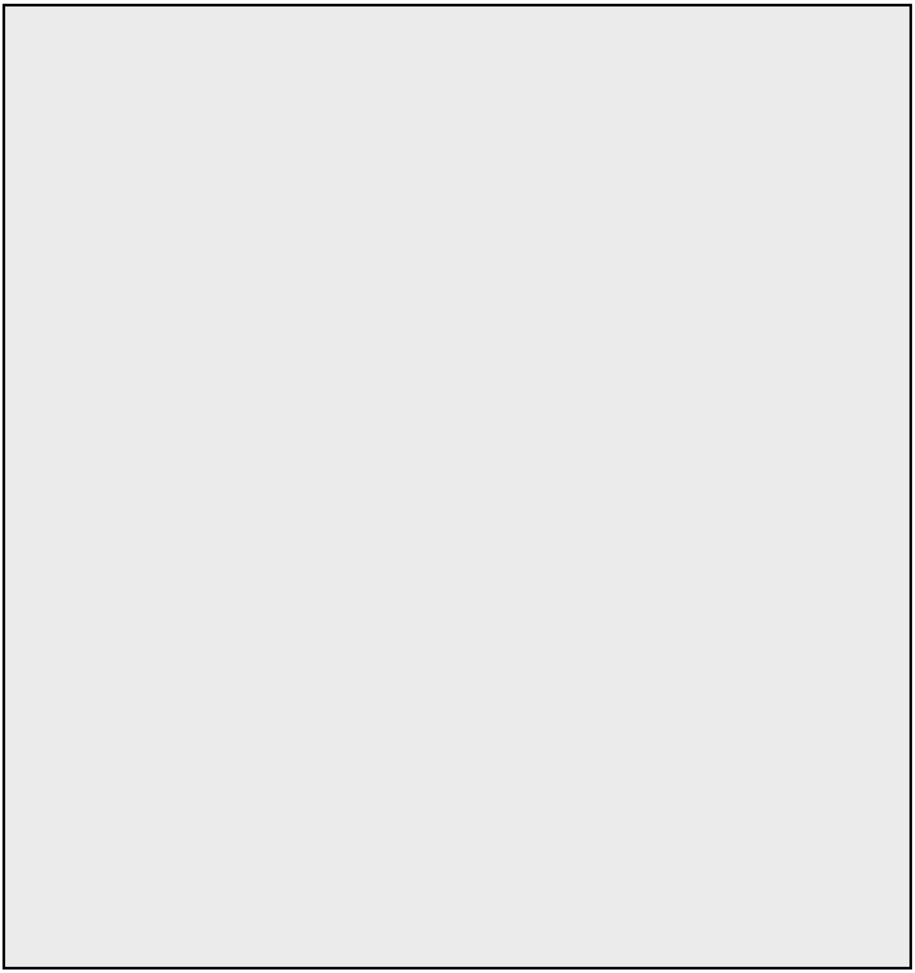
Five, whose members feared losing ground to their foreign rivals. For thirty years, US broker-dealers had been required to apply what was known as the "net capital rule," which obliged them, like their commercial bank brethren, to limit their leverage to 12 to 1. The SEC's 2004 decision now allowed them to use their internal models to estimate, or in practice underestimate, the riskiness of their investments. The broker-dealers reduced their capital cushions accordingly.

The Yale University economist Irving Fisher, like Babson, was both a prohibitionist and partial to the goatee. But where Babson was a student of physics, Fisher had been inspired by scenes of water cascading into mountain pools on a summer trip to Switzerland and now sought to apply the principles of hydraulics to the economy. The fact that liquidity was still ample, Durant's warnings about the future notwithstanding, constituted the basis for Fisher's soon-to-be-notorious proclamation on October 17 that "Stock prices have reached what looks like a permanently high plateau." On Monday, October 21, Fisher doubled down, insisting that any correction was "only shaking out the lunatic fringe."

The Dow Jones average peaked on Tuesday, September 3, at a level that would not be matched for twenty-five years. Share prices fell modestly on September 4 and then sharply on September 5. Thursday the fifth was when Babson gave his speech comparing Wall Street to Florida real estate and predicting the worst. The "Babson Break," as the 5 percent drop that day came to be known, was a reminder that, as Babson's hero Newton might have put it, what went up could come down.

For seven weeks, stock prices drifted downward. There were periodic up days and also sharp sell-offs, as on Thursday, October 3, when the Dow fell by 4½ percent. Traders who bought stocks on margin were hit. "Mortality among speculative Stock Exchange accounts was tremendous," wrote the *New York Times* the following weekend. "Numerous accounts that ran into six figures at the first of the week were entirely extinguished by Friday night."[3]

Still, investors were unprepared for what came next. On October 24, "Black Thursday," the Dow Jones Industrial Average fell 11 percent at the opening bell. In the first thirty minutes, 1.6 million shares changed hands, exceeding typical turnover for an entire trading day. The quotation machinery and transcontinental wire system were overwhelmed.



The Dow Jones industrials lost another 12 percent on "Black Monday," October 28, and 9 percent the following day, "Black Tuesday," as the hoped-for bankers' support failed to materialize. The 16 million shares that changed hands on Tuesday set a record that stood for four decades. Again, traders and bookkeepers were overwhelmed. The Wall Street Bowling League announced that it was postponing further contests owing to the absence of many members.

For margin traders who had lost everything, the New Era was over. "Wall Street was a street of vanished hopes, of curiously silent apprehension and of a sort of paralyzed hypnosis," the *New York Times* wrote in its lead story on October 30. For Will Rogers, flying west from New York on October 24, however, it was much sound and fury signifying nothing.

All day just looking down on beautiful lands and prosperous towns, then you read all this sensational collapse on Wall Street. What does it mean? Nothing. Why, if the cows of this country failed to come up and get milked one night it would be more of a panic than if Morgan and Lamont had never held a meeting. Why, an old sow and a litter of pigs make more people a living than all the steel and General Motors stock combined. Why, the whole 120,000,000 of us are more dependent on the cackling of a hen than if the stock exchange was turned into a night club.[5]

Not everyone was able to view the landscape with such equanimity. Still, there was a considerable body of opinion agreeing with Rogers. Retailers continued to plan for a strong Christmas shopping season. The only hint of what was to come was a report from a Wall Street financier who found himself sitting in a bar alongside his milkman. When the banker remarked that the milk business must have been one of the few activities to have come through the Crash unscathed, the milkman retorted "Unscathed nothing. Do you know that in the past three weeks I have had enough cancellations and reductions in cream order to reduce my business by over $400 a month? People still order the same amount of milk, but they have apparently decided that they can get along without the buying of cream."[6]

The US Federal Reserve, unlike the Bank of England, still had ample gold reserves. But although free to act, it had to display the will. Following a tumultuous October 28, Black Monday, the New York Fed quickly stepped into the breach. Harrison assembled his board for an exceptional 3:00 a.m. meeting. Before the markets opened the next morning and without prior approval from the board of governors in Washington, D.C., he announced that the New York bank would purchase $100 million of short-term treasury securities. The new purchases were made for the New York bank's own account, separate from the account of the Open Market Investment Committee.

The New York Fed went on to purchase $150 million of government securities. It kept its "discount window wide open," as Harrison put it, giving banks cash in return for commercial paper.[22] (Commercial paper, recall, means promissory notes documenting payments that the banks would eventually receive from their corporate clients.) These steps prevented a spike in interest rates like those in earlier financial crises—prevention of such spikes being the main rationale for the creation of the Federal Reserve System in 1914. By limiting distress among brokers and dealers, the New York Fed averted a more serious meltdown. The *New York Times* praised it for having "insured the soundness of the business situation when the speculative markets went on the rocks."[23]

This was impressively fast action even by the standards of Ben Bernanke. It is hard to see how the Federal Reserve Bank of New York could have done more. Milton Friedman and Anna Schwartz, in their monetary history of the United States, blame the Fed for the depth and duration of the Great Depression. They attribute its inaction to the death of Benjamin Strong, the dominant personality within the system and the individual who best understood how to respond to a crisis. The events of October suggest a more nuanced interpretation. The New York Fed may have been unaware of the havoc that would be wreaked by earlier moves to tighten credit conditions. But once that havoc broke out, Harrison and his colleagues were quick to act. Their actions informed by the real bills doctrine, they knew how to respond to signs of credit stringency and distress. Harrison, in particular, understood the urgency. It was not beyond his capacity to formulate a response and secure the backing of his board. He was capable of decisive action and took it.

One might think that a board of governors similarly beholden to the real bills doctrine would have been reassured. In fact, however, more concerned about prerogatives than policy, its members were furious about not having been consulted. Led by Adolph Miller, the board immediately took steps to limit Harrison's ability to respond in this fashion. The precedent had been set in 1927 when the board overrode the directors of the Chicago Fed, forcing the bank to change its discount rate. Now the board held the New York rate hostage, denying Harrison's request for a reduction to help distressed banks and brokers until New York's directors agreed that further purchases of government securities would be made only with the prior approval of the board. Friedman and Schwartz suggest that the problem was with Harrison—that, had Strong been there instead, he would have been able to face down the board. The fact that the terms of engagement between the board and the Reserve banks had already been changed by the events of 1927 suggests otherwise. The problem was structural, not one of personalities.

But if Harrison and his colleagues understood the need to respond quickly to the financial distress caused by the stock market crash, they understood less well how to respond to subsequent events. So long as the problem was financial distress, they understood it was their responsibility to provide emergency liquidity, in contemporary parlance an elastic currency. That the stock market crash placed New York banks at risk was something the directors of the New York Fed readily grasped.

But once the problem became deflation and depression, there was less agreement on what to do, if anything. The Federal Reserve System had been created to prevent spikes in interest rates. Its officials knew how to respond when, as a result of financial dislocations, credit temporarily grew scarce relative to the needs of business. There was no consensus, however, about what to do if the price level showed a tendency to fall for a period of time. The US price level had trended downward before, in the 1870s and 1880s and again in the aftermath of World War I, without producing a full-blown financial crisis. For Federal Reserve governors, their views informed by this historical experience, it was not obvious that the downward movement in prices was a problem now.

As stringency in the money market ebbed and interest rates normalized, action therefore was perceived as less urgent. The views of Harrison and his directors now aligned with those of the board of governors. The New York bank no longer resisted the instructions of Washington, D.C. To the contrary, it became entirely willing to cease and desist from open market purchases.[24] The economy would quickly pay the price.

CHAPTER 13 | The Spiral

IT WAS HARD to imagine that things could get worse. But worsen they did with AIG.

The AIG story is one of the more extraordinary chapters in this extraordinary tale. The company, originally known as American Asiatic Underwriters, was founded in 1919 by Cornelius Vander Starr, Northern California native, ice cream salesman, and clandestine operative for the US government. Starr's introduction to Asia came via a job with the Pacific Mail Steamship Company. Developing a taste for the region, he became, at the age of twenty-seven, the first Westerner to sell insurance to the Chinese residents of Shanghai. (Shades of Clarence Hatry selling insurance to Austrian immigrants before 1914.) Starr insured Chinese shipping companies against losses to marauding pirates off what is now the Indonesian coast. He wrote fire insurance for factories in China and the Philippines.

During World War II, Wild Bill Donovan, head of the US Office of Strategic Services (OSS), then used Starr's employees to gather intelligence on the enemy powers' assets in the Far East. Starting in 1942, following US entry into the war, Starr took personal control of the clandestine operation. He helped Donovan use American Asiatic's commercial property insurance records to identify promising bombing targets. Subsequently Starr set up a pair of front companies, Metropolitan Motors Overseas Incorporated and a New York edition of the *Shanghai Evening Post and Mercury*, whose employees acted as agents for the OSS.[1]

Following the occupation of Beijing and Shanghai by Communist forces in 1949, Starr moved his headquarters to New York. Under his successor, the driven, strong-willed Maurice ("Hank") Greenberg, the rebranded American

International Group grew into the largest underwriter of commercial and industrial insurance in the world. It provided travel and life insurance to households and managed the retirement plans of one in ten Americans. Where Lehman Brothers had $600 billion of debts, AIG's obligations ran to the trillions.

But someone inside AIG apparently believed its experience in commercial and industrial insurance qualified it to sell protection against the failure of collateralized debt obligations. The company's trading arm, AIG Financial Products, was one of the first shops to move into writing specialized insurance on CDOs in the 1990s. The insurance contracts in question, credit default swaps or CDS, had been invented at JPMorgan, with which AIG Financial Products did extensive business.[2] Unlike Dr. Frankenstein, the mad scientists at JPMorgan appear to have understood that their creation could run amok, and they wrote CDOs and CDS with a modicum of restraint. Not so AIG Financial Products, which wrote insurance not just on high-grade securities but also on CDOs backed by subprime mortgages. By mid-2008, the unit had written an extraordinary $500 billion worth, enough to put its corporate parent in jeopardy.

AIG Financial Products was run by Joseph Cassano, who had previously worked at Drexel Burnham Lambert, which pioneered the junk bond business. Average annual compensation of Cassano's four hundred employees exceeded $1 million.[3] Salary and bonuses accounted for a third of the unit's total revenues. AIG's dominant position in markets for commercial, industrial, and life insurance gave it a high credit rating, which in turn relieved it of the obligation to hold collateral to back its CDO insurance. Other financial institutions, lacking AIG's AAA rating and having to post more collateral as a result, had higher costs of providing CDO insurance. AIG Financial Product thus became the dominant player in this market.

In effect, Financial Products was taking a highly leveraged long position on the US housing market. How it was that the corporate parent, not to mention the regulator, looked the other way takes some explaining. Part of the explanation is that credit default swaps could be sold to AIG's board as simply another form of insurance of the sort that the company had long been in the business of providing, although the instruments in question were in fact entirely different. Hank Greenberg, whose aversion to risk was sometimes described as "sociopathic," might have understood the difference, but Greenberg was forced to resign in 2005 over an accounting scandal.[4] Having failed at succession planning, he was followed by a series of short-lived, less-than-impressive CEOs. Part of the explanation may also be that AIG Financial Products was a profit center, rendering the corporate parent loath to question its practices. Part of the explanation may be that Cassano was secretive—he refused to share information on his underwriting activities even with his corporate higher-ups—something that he got away with by virtue of his legendary temper and his unit's profits.

AIG Financial Products was headquartered in London, beyond the purview of the New York State Insurance Department, which oversaw AIG's insurance operations, and the Federal Reserve System, the ostensible steward of the American financial system. It booked trades through a French bank and sold derivatives insurance to European banks that loaded up on subprime-related products. CDS protection allowed the European banks to reduce the capital they were required to hold against their subprime-related investments. The banks could then expand their balance sheets and take on additional risk. One of Greenberg's successors as CEO, Edward Liddy, in testimony before the House Financial Services Subcommittee on Capital Markets in 2009, charmingly referred to the practice as "balance sheet rental."[5]

From a European perspective, AIG Financial Products looked less like an insurance company than a highly leveraged bank, which is of course precisely what it was. European officials logically moved to subject it to bank regulation. Unfortunately, they didn't specify whose bank regulation, or where.[6] The AIG unit arranged for the purchase of a savings and loan, American General Bank, thereby subjecting itself to oversight (if loose use of the word is permitted) by the Office of Thrift Supervision.

OTS was a particularly hapless agency created in 1989 in response to the S&L crisis. Thrifts made plain-vanilla mortgage loans; OTS had no particular competence in derivatives. The regulator's responsibility was to AIG's thrift subsidiary, so it viewed the operations of the larger company solely in that light. Visits by examiners were limited to Financial Products' lowly branch office in Connecticut. The fact that Financial Products had enjoyed a fourfold increase in credit-related revenues in just one year, though noted in OTS's 2006 audit, elicited nothing in the way of substantive comment, much less corrective action. If one fact epitomized the consequences of the ramshackle US regulatory system, this was it.

AIG Financial Products suffered mounting losses as the housing market tumbled. But it was not just the falling housing market; in addition, triggers in the insurance contracts sold by Financial Products required its parent to put up additional collateral if AIG's credit was downgraded to single A. The existence of these provisions was not widely known even within the company, given the secretive manner in which Cassano ran his operation. Their presence came to light on the afternoon of Monday, September 15, following the failure of Lehman Brothers, when Moody's and Standard & Poor's, late again to the game, downgraded AIG.

An immediate case in point was when the Fed stepped in on Tuesday, September 16, to rescue AIG. The Fed initially balked at aiding an insurance company over which it possessed no regulatory authority. Unusual and exigent circumstances might permit it to lend to an investment bank like Bear Stearns, but lending to an insurance company was too exceptional, whatever the exigency. Federal Reserve officials indicated as much to AIG's CEO, the former Citigroup executive Robert Willumstad, and to the company's chief financial officer, Steven Bensinger, in a phone conversation on the morning of Saturday, September 13. New York Fed President Geithner and Treasury Secretary Paulson told Willumstad in no uncertain terms that there would be no government assistance or guarantee for AIG. Echoing the language used by Bank of England officials in their discussions with Northern Rock, they urged the company to find a private-sector solution.[14]

This was a misreading all around, again echoing the case of Northern Rock. The officials in question overestimated the ease of arranging a private-sector solution, while Willumstad et al. underestimated the cost. AIG first attempted to raise additional capital by selling some of its insurance units to Warren Buffett's Berkshire Hathaway and then by selling preferred shares to the private equity shop J. C. Flowers & Co. But Buffett was not interested, and AIG rejected Flowers' price as too high. A few days later Buffett would instead invest $5 billion in Goldman Sachs. Ultimately AIG management would pay an even higher price for assistance.

Fed officials then sought to enlist Goldman Sachs, AIG's principal derivatives trading partner, and JPMorgan Chase, the central bank's now customary private-sector consort, in organizing a line of credit. The banks would issue a bridge loan until AIG was able to sell its insurance units, raising the cash needed to meet commitments. Officials invoked the precedent of Long-Term Capital Management, whose counterparties had collectively provided the liquidity needed to finance that troubled fund's collateral calls.[15] But the liquidity problem in 1998 was LTCM-specific; other financial institutions were flush with funds. Now everyone was potentially short of liquidity, and every bank was happy for other banks to furnish AIG with emergency assistance so long as it could husband its own liquid resources. The banks would have been better off had they acted collectively. But collective action is difficult under duress; it is even more difficult under time pressure. Efforts to assemble a bank syndicate to aid AIG went nowhere.

But if AIG was allowed to collapse, it might bring down the big counterparties, including even Goldman Sachs. Suppressing all qualms—and contradicting denials made to bankers and the insurer in previous days—the Fed, with the support of the Treasury, again declared unusual and exigent circumstances. It provided an $85 billion capital infusion packaged as a Federal Reserve Bank of New York credit line, obtaining 79.9 percent ownership in return.[16] Following the precedent of Bear Stearns, the loan was extended through a pair of special purpose vehicles, Maiden Lane II and III. The capital injection stripped AIG's shareholders of fourth-fifths of their stake. It was contingent on the immediate resignation of Willumstad.

Even though the terms were tough, they were not popular.[17] If Lehman could fail, congressional critics asked, why was it imperative that AIG be saved? To Treasury and Fed officials, the answer was clear. Lehman's failure had caused major disruptions in financial markets, and AIG's balance sheet was many times larger. Because AIG also had retail business—it insured households and firms—failure would be even more destructive of confidence. Helping AIG was uncomfortable, but the alternative of uncontrolled bankruptcy would have been worse.[18] Still, the Fed and Treasury did not cover themselves with glory, having insisted in preceding days that they would not bail out the company under any circumstances.

There was more consternation on Sunday, September 21, when, short-circuiting its usual procedures, the Federal Reserve announced that it was authorizing Goldman Sachs and Morgan Stanley, the only two investment banks still standing, to convert themselves into bank holding companies. As holding companies, Goldman and Morgan Stanley would be able to borrow from the central bank on a permanent basis. As a quid pro quo, the two banks were required to raise additional capital. Still, that the step was taken without the conventional review prompted complaints of the big boys again being accorded special privileges. It was another indication that the crisis was still far from contained.

The Troubled Asset Relief Program, or TARP as the plan immediately became known, was wounded on arrival. Within days, reluctance to grant sweeping new powers to the Treasury secretary coalesced with Republican opposition to all further government intervention. On September 29, the bill authorizing Treasury to spend $700 billion on asset purchases was defeated in the House by 228 to 205. That two-thirds of Republicans opposed the bill was embarrassing for the administration and for Paulson especially. The Dow fell by 778 points, or 7 percent, on the news.

But if Congress could speak, then so could the public. In 1929, only 8 percent of Americans had owned traded securities. Now ownership of common equity was ubiquitous, thanks to the creation in 1978 of 401(k) retirement accounts. Unhappy account holders, seeing their retirement nest eggs shatter, lit up congressional switchboards, which quickly got their representatives' attention. On Friday, October 3, on its second try, the House passed the TARP by a vote of 263 to 171. The Senate having already acted, President Bush quickly signed the bill into law.

Congress, still wary about the open-ended powers granted the Treasury, agreed however to release only the first half of the funds. Thus it was unclear whether Treasury would have the resources to repair the financial system. Equally unclear was whether it possessed a coherent strategy for using them. On the Friday the TARP was voted, the Dow Jones Industrial Average plunged by more than 800 points before recovering the majority of its losses.

On Monday, October 6, it then fell by a further 370 points, or nearly 4 percent. This was not a vote of confidence.

CHAPTER 15 | Revival or Reform

Franklin Delano Roosevelt was inaugurated as thirty-second president of the United States on a cold and blustery March 4. The extraordinary circumstances were signified by the presence of automatic-weapon emplacements along the route from the White House to Capitol Hill. It had been three weeks since Roosevelt was the target of an assassination attempt by an unemployed bricklayer in which five bystanders were wounded, including one, Chicago Mayor Anton Cermak, critically. The president-elect was addressing a gathering at Bayfront Park in Miami following a cruise on Vincent Astor's yacht. Cermak was there to apologize for having opposed him at the nominating convention and to lobby for RFC assistance for Chicago's banks. In his confession, the gunman, Giuseppe Zangara, explained, "I kill kings and presidents first, and next all capitalists."[1]

But the placement of the machine-gun nests at the entry of federal buildings indicated they were designed to guard not so much the new president as government property, against occupation by the unemployed masses. The events of 1932 had created grounds for concern, if not necessarily for expecting attacks on federal buildings on inauguration day. Working-class demonstrators, some organized by communist-inspired Unemployed Councils, demanded relief services and a stay on evictions. Mayor Cermak had been forced to rescind cutbacks in city relief programs in response.[2] In December some three thousand unemployed had caravanned to Washington, D.C., for a National Hunger March down Pennsylvania Avenue.

Economic conditions deteriorated further in the months between the election and inauguration. By March 4, banks in thirty-seven states were shut or under state-government-imposed restrictions on withdrawals.[3] With panicked households unwilling to spend and producers unable to borrow, industrial production fell to just two-thirds the 1925–1929 average. Freight car loadings were down 56 percent. Automobile production was barely a quarter of its 1929 level. At 2:30 a.m. on the morning of the inauguration, Herbert Lehman, who had succeeded Roosevelt as governor, closed New York's banks. The Stock Exchange shut its doors for only the third time in history, the previous occasions having been in 1873, due to an earlier financial panic, and with the outbreak of World War I. This, one might say, was Wall Street's first Lehman moment.

Such was the situation confronting the new president. There was, of course, the criticism, levied by President Hoover among others, that FDR had brought this dire situation on himself. Hoover had reached out to his successor for help in stabilizing the banking system. Roosevelt's refusal to cooperate robbed the incumbent president, down to his last days in office, of remaining legitimacy, or at least of the will to act.

In particular, Hoover believed that Roosevelt's reluctance to endorse the gold standard inflamed the crisis of confidence. Subsequent events do not support this view. FDR took six additional weeks to clarify his position on the gold standard but only days to restore confidence in the banks. Still, Hoover was convinced of the need to remove this source of uncertainty. He therefore sought to lock the president-elect into a pro-gold-standard position.[4] FDR refused to be pinned down. He may not have yet decided against maintenance of the gold standard, but he wanted to keep his options open.

In addition, FDR and his Brains Trust were aware that they would have had to negotiate the terms of any bank holiday with Hoover and his appointees. And prior to March 4, they would not have had powers of office with which to back their views. The more Machiavellian interpretation is that the worse the situation was on March 4, the more problems could be blamed on Hoover, and the more positive would be the reception of his successor's initiatives.

In his inaugural address, Roosevelt sought to communicate that the day marked the dawn of not just a new administration but also a new era of hope and action. But just what form that action would take was uncertain, in part because it was not obvious who had the president's ear. On the economy, Roosevelt consulted three distinct groups of advisors.[5] The first was a team of progressives led by the Harvard law professor Felix Frankfurter, who had cultivated FDR almost from the moment he appeared on the national stage. Their relationship went back to World War I, when Roosevelt was assistant secretary of the navy and Frankfurter chaired the War Labor Policies Board.

Frankfurter and his students were proponents of an economic and political philosophy developed by Supreme Court Justice Louis Brandeis. Brandeis was concerned to limit the concentrated economic and political power of the robber barons, a problem that gained salience with the development of the assembly line and growth of industrial monoliths like Ford and General Motors.[6] The Brandeisians denied that big firms had efficiency advantages, something they were free to do since they were lawyers rather than economists. Nostalgic for an idealized past of small family firms, the urban equivalent of Jeffersonian democracy, they now sought to restore it by regulating large enterprises.

The Brandeisians were more concerned with reform than recovery and saw the Depression as an opportunity to advance their agenda. Thus, not a few of the regulatory burdens imposed on industry by the New Deal, of which business so vociferously complained, were the products of the febrile minds of Frankfurter and his circle.[7] In December 1933 the English economist John Maynard Keynes published an open letter in which he criticized the Roosevelt administration for emphasizing reform over recovery. Whether he knew it or not, Keynes was really criticizing the Brandeisians and FDR for lending them his ear.[8]

A second group of advisors was made up of professors at Columbia University, including the institutional economist Rexford Tugwell, the corporate law specialist Adolph Berle, and the political scientist Raymond Moley. Founding members of the Brains Trust, they had advised FDR during the campaign. In contrast to Frankfurter's circle, they accepted the inevitability of big business but sought to counter it with big government.[9] More generally, members of this group espoused an expanded role for government in organizing activity, given their conclusion, entirely logical under the circumstances, that the market could not be relied on to do so.

More moderate members of the Brains Trust, believing that the market had broken down only temporarily, therefore called for an expanded role for the government at most on a transitory basis. Some like Tugwell, however, saw the breakdown as symptomatic of deeper problems and justifying a permanent role for government in planning the economy. Again, given the depth of the Depression and extent of dislocations, this conclusion was not illogical. In their view, the urgency of initiating economic recovery combined with the call for far-reaching structural reform to prompt proposals for regulating wages and prices and reducing acreage under cultivation. The National Industrial Recovery Act (NIRA) and the Agricultural Adjustment Act were in large part inventions of this second set of advisors.

A third group was made up of inflationists, led by Cornell University agricultural economist George Warren, with support from gentleman farmer and Roosevelt neighbor Henry Morgenthau. Morgenthau was once the publisher of *American Agriculturalist* magazine; his farm specialized in growing Christmas trees. He became treasury secretary when the president's initial designee, William H. Woodin, was forced to resign for health reasons.[10] In 1929, on becoming governor of New York, FDR created an Agricultural Advisory Commission to advise on farm problems, with Morgenthau as chairman and Warren among its members. As specialists in a sector that saw excess supply already in the 1920s and the prices of whose products fell fastest between 1929 and 1933, Warren and his circle sought to apply the lessons they drew from the farm sector to the economy as a whole. They saw pushing up prices and wages as relieving crushing debt burdens. If abandoning the gold standard was necessary in order to achieve this, then so be it.

Warren's agrocentric views were lent a veneer of respectability by Yale University monetary economists James Harvey Rogers and Irving Fisher. Rogers was an expert on the gold standard and could speak with authority on its deflationary effects. Fisher was precluded from formally advising Roosevelt by his notorious "permanently high plateau" remark, made of the stock market in 1929, not to mention his advocacy of eugenics and support for Prohibition. But his 1933 article on debt deflation, in which he argued that falling wages and incomes could further damage the economy by making existing debts harder to repay, lent intellectual heft to Warren's case for inflation.[11]

The first order of business was resolving the banking crisis. The Brandeisians then, like progressive economists Paul Krugman and Joseph Stiglitz more recently, favored nationalizing the banks.[12] So did progressive senators Bronson Cutting of New Mexico and Robert La Follette, Jr., of Wisconsin. But like Barack Obama in 2009, Roosevelt hesitated. Seizing scores of banks and replacing their management with government administrators would take time, which was in short supply. Injecting public money would have been problematic for a president committed to balancing the budget. At a personal level, FDR socialized with prominent investors and financiers like Vincent Astor; Thomas Lamont, the J. P. Morgan partner, had rented Roosevelt's 12th Street townhouse years before. Notwithstanding his populist rhetoric about banishing the money changers from their "high seats in the temple of our civilization," the new president preferred to work with the bankers rather than against them.[13]

Consequently, Roosevelt's approach to resolving the banking crisis did not differ materially from Hoover's. Already on the Friday night before the inauguration, outgoing Treasury Secretary Mills met with Professor Moley and

Treasury Secretary-designate Woodin.[14] With no set ideas of their own, and having promised the president-elect a bank rehabilitation plan within days, Moley and Woodin simply adopted the plan of their predecessors. The New Deal may have been famously experimental, but there was no experimentation here.

On Sunday, March 5, his first full day in office, FDR invoked the Trading with the Enemy Act to suspend gold transactions and declare a four-day bank holiday, an expedient that would have an echo in Gordon Brown's invoking the UK Anti-Terrorism Act in 2008. This too had been considered by Hoover; the outgoing president even recommended that FDR invoke the Trading with the Enemy Act at a White House meeting on March 3.[15]

Roosevelt next summoned the Congress into emergency session, giving his team three days to finalize their plans. Although the Emergency Banking Act submitted for consideration by the House and Senate—read to the House actually, only one copy being available—was scarcely longer than the three-page memorandum submitted by the Paulson Treasury in September 2008, its reception was different.[16] The House approved the bill by voice vote after just forty minutes and no opportunity for amendment. The Senate passed it three hours later, by an overwhelming 73 to 7. The president signed the bill the same night.

Title I of the act gave legal status to the bank holiday. This had already been recommended to Hoover by a Justice Department uneasy about use of the Trading with the Enemy Act.[17] Title II then empowered the treasury secretary to reopen financially sound institutions while placing unsound banks under the supervision of conservators.[18] A version of this had been prepared for Hoover's use by the Comptroller of the Currency. Title III authorized the Treasury Department to instruct the Reconstruction Finance Corporation to inject capital into financial institutions, taking preferred stock in return. This eliminated the provision in the RFC act permitting the corporation to lend to illiquid financial institutions but not to inject capital, a distinction that had frustrated its efforts to rescue Henry Ford's Guardian Group. This had already been recommended to President Hoover by Franklin Fort, a former Republican member of the House Banking and Currency Committee. Title IV, finally, amended the Federal Reserve Act to loosen collateral requirements for lending to illiquid banks. It allowed the Federal Reserve to issue specially designed Federal Reserve Bank Notes, separate from its normal obligations, against "any notes, drafts, bills of exchange or bankers' acceptances, acquired under the provisions of this act"—against virtually any and all collateral, in other words.

The resulting legislation was not original, but it was comprehensive. Whether it worked would become evident soon enough.

Over the weekend the president used his first fireside chat for a simplified exposition of the plan. On Monday, when banks in the twelve Federal Reserve cities reopened, the crisis was over. As the *New York Times* put it, "In contrast with the 'runs' to withdraw funds which preceded the moratorium, there was a general 'run' yesterday to deposit or redeposit money. The banks generally reported heavy deposits and small withdrawals. In all cases, deposits were said to be larger than withdrawals."[19] On Tuesday, when banks in other cities reopened, customers complained of the difficulty of getting through the doors for the number of other depositors crowding their lobbies. Capitalism was saved in eight days, as Raymond Moley modestly put it.[20]

All this happened before any new RFC-backed bank recapitalization. FDR barely had time to install his man Jesse Jones as head of the corporation.[21] Yet the return of confidence in the banks was immediate. What does this tell us about the nature of the 1933 banking crisis? It suggests that the crisis was driven, in substantial part, by panic. In the same way that panic can be self-fulfilling, it can be dispatched by a time-out and a reassuring fireside chat. The time-out, as progressive historians Charles Beard and George Smith put it, performed the same function as "a slap in the face for a person gripped by unreasoning hysteria."[22]

The fireside chat was more reassuring for the fact that the new president was still enjoying a honeymoon with the public. This in turn suggests that FDR was wise to refuse to cooperate with Hoover. An analogous plan advanced by a discredited president would not have received the same benefit of the doubt. And, extenuating circumstances or not, only a president still on his honeymoon could have pushed such a far-reaching bill through Congress in a matter of hours.

The comprehensive audit of which the Emergency Banking Act spoke and of which historians have spoken subsequently was, in fact, less than comprehensive. It was hardly possible to do a comprehensive audit in two weeks. George Norris, looking back on his experience as governor of the Federal Reserve Bank of Philadelphia, describes how, on receiving instructions from Treasury Secretary Woodin on March 10 to take applications from member banks to reopen, he was literally "besieged with visits and telephone calls from bankers all over the district, whom I could not refuse to talk with." Norris immediately recognized the impossibility "in such a short time to make the careful study of the condition of seven or eight hundred banks which alone would justify my passing a sentence of life or death upon them." He appointed the chairman of his board, the chief national bank examiner of the district, and the head of his examination department, a Mr. Hill, as a three-person committee to ostensibly make this determination over the subsequent weekend. "It was a delicate and difficult task, so onerous and responsible, and performed under such a cruel limitation as to time" that it drove Mr. Hill to a nervous breakdown.[23]

If the comprehensive audit was partly smoke and mirrors, the new powers bestowed on the Federal Reserve System were real, and they had very real effects. The Banking Act empowered the Fed to discount notes, drafts, bills, and acceptances as it saw fit, ensuring that the banks would have the liquidity needed to meet the needs of their depositors. This was not yet deposit insurance, but the implicit guarantee had much the same effect.[24] The promise that the Fed would intervene with the emergency provision of liquidity, by calming investors, bought time to conduct a more systematic evaluation of the banks, which proceeded over subsequent months, and then for recapitalization—for the injection of additional funds by private investors and the RFC.

These were lessons that were relearned in 2012 when investors in European sovereign debt panicked but the European Central Bank calmed the markets with its program of Outright Monetary Transactions (OMT).[25] Much as with the Fed's commitment to provide emergency liquidity in 1933, OMT didn't actually have to be activated; its mere announcement was enough to reassure. It at least bought time to conduct additional stress tests and recapitalize the banks.

Finally, the quick return of confidence suggests that the plan as a whole—conservatorship for insolvent banks, a commitment to provide emergency liquidity, and, where necessary, recapitalization with public funds—made a lot of sense. These elements were well known prior to Roosevelt's taking office; they just had to be implemented. Resolving a banking crisis, this experience suggests, is not rocket science.

Clearly, more had to be done. Roosevelt's first step was to announce that the embargo on gold exports would continue indefinitely. This opened the door to other measures to push prices up, like those advocated by Senator Elmer Thomas, who proposed a measure mandating government purchases of silver. Thomas, recall, had already been advocating similar measures in 1932, prompting the Fed to take preemptive expansionary action.[40] Which way FDR would now jump became clear when he and Thomas met on April 19. The two men emerged with a compromise that Thomas appended to the bill that became the Agricultural Adjustment Act. The revised Thomas amendment did not set a target for silver purchases but gave the president permission to reduce the gold content of the dollar—equivalently, to push up the dollar price of gold—by as much as 50 percent.

The Dow Jones Average surged by 9 percent on the news. Even today, April 19 remains on the list of the twenty largest daily percentage gains. So much, then, for the belief that abandoning the gold standard would devastate confidence. "The rank and file of the financial district embraced with enthusiasm the prospects of inflation after years of grinding deflation" was the way the *New York Times* put it.[41]

The second step was to make clear that the change was permanent—that the administration had no intention of again subordinating price stability to the imperatives of the gold standard. This Roosevelt accomplished by informing the World Monetary and Economic Conference that stable prices were his priority. The conference had convened in London on June 10. Within three weeks, conferees drew up a declaration calling for a return to the international gold standard.[42] Although their statement was hedged with allowances for countries to return at a time and level of their choosing, there was nonetheless the prospect that it would create pressure for resumption at previously prevailing exchange rates.

That the US delegation had been able to agree on anything was remarkable in itself. Along with Hull, a dyed-in the-wool free trader, Roosevelt sent Key Pittman, an acolyte of William Jennings Bryan. Pittman, the senior senator from the silver-mining state of Nevada and chairman of the Foreign Relations Committee, had inserted into the 1932 Democratic Party platform a plank advocating an international monetary conference; what was left unsaid was his hope that the conference might decide in favor of silver coinage. Now, in London, Pittman left nothing unsaid. He talked nonstop about measures to support silver prices. The exasperated lead German delegate, none other than Hjalmar Schacht, waved his hands in despair on being subjected to yet another Pittman lecture. There is no shortage of tales of Pittman's adventures in London, including his shooting out streetlamps with his revolver and taking a bath in a sink in the pantry at Claridge's.[43]

Another prominent member of the US delegation was Senator William Couzens, the onetime Henry Ford partner whose influence had made it difficult for the RFC to rescue the Guardian Trust Company.[44] FDR may have chosen Couzens for his protectionist views—that is, to neutralize the secretary of state. If so, he was not disappointed. Couzens repeatedly clashed with Hull, speaking out against tariff reductions and refusing to be bound by Hull's instruction that all public statements by US delegates be cleared through him. FDR also sent James Cox, the former governor of Ohio and newspaper publisher, whose hard-money views neutralized those of Pittman. The remaining two delegates were Representative Samuel McReynolds of Tennessee and Ralph Morrison, a wealthy Texan. None of the members of the six-person delegation had prior experience with an international conference.

Roosevelt may have been surprised that, with this kind of leadership from the Americans, the conference made progress, but he was quick to capitalize on the fact. On July 3, in his bombshell message, transmitted to London from Washington, D.C., he rejected the conference declaration, asserting that priority should instead be attached to policies stabilizing the purchasing power of money. He dismissed the gold standard as exemplifying "the old fetishes of international bankers," language that succeeded in antagonizing the bankers and foreign leaders equally. The inflammatory rhetoric was designed to make his priorities unmistakable, not just to the delegates in London but to the American public. Historians continue to ask what convinced investors that the administration was committed to raising prices. What convinced them was that Roosevelt was prepared to antagonize his allies, shoulder blame for the collapse of the conference, and hang his own delegation out to dry.

CHAPTER 17 | Takahashi's Revenge

The Great Depression was a crisis not just for the United States but for the world. It was the most serious global crisis in memory. For most countries it was the most serious crisis since World War I.

One might think that a crisis of this magnitude would have shocked governments and central banks into action. But officials hesitated to resort to the kind of exceptional measures to which they had turned in wartime. Balanced budgets remained the order of the day, or the aspiration of balanced budgets anyway, since achievement of the same remained elusive. This was very different from the response in 1914, when orthodoxy quickly gave way in the fight for national survival.

Likewise, the gold standard may have collapsed, but central banks and their political masters were reluctant to capitalize on their newfound freedom. Instead they sought to surrender it as quickly as possible by re-pegging the national currency, if no longer to gold then to sterling or the dollar. The instincts that led FDR to re-peg the dollar to gold at $35 an ounce already in January 1934 and to do what he could to restrain the growth of government spending were by no means uniquely Rooseveltian, or for that matter uniquely American.

The specifics were shaped, to be sure, by distinctive aspects of each country's experience. That said, it is possible to identify some common factors affecting the policy response, or lack of response, virtually everywhere. There was belief in the analogy between the household budget and the government budget. Governments should live within their means, and any tendency to do otherwise could only come to grief. Keynesian theories of countercyclical fiscal policy had not yet been developed, for better or worse. (Opinions differ.) Historians of economic thought like to point to contemporaries like Bertil Ohlin in Sweden and Paul Reynaud in France, who were able to intuit the argument for deficit spending in a slump. But even if recovering early proto-Keynesian arguments from contemporary writings is popular sport, it is hard to maintain that such arguments had much of an impact. What mattered more were the imperatives of rearmament, which led governments to increase spending and tolerate deficits as a matter of national survival, as they had in World War I. The bulk of that deficit-financed military spending occurred later, in the second half of the 1930s, by which time the crisis was long in the tooth.

In addition, there was the association of budget deficits and central bank credit creation with inflation, first during World War I and then in the 1920s.[1] In countries like Germany, the public was traumatized by inflation. With that history still vivid, officials were reluctant to contemplate anything that might be seen as courting a recurrence of the experience, however remote and however radically circumstances were now changed. What is more remarkable is how those same fears of inflation, brought alive by this history, informed and inhibited policy in other countries, like the UK, that had experienced the phenomenon only at second hand.

Associated with these fears was an all-but-universal reluctance to abandon the exchange rate as the anchor for monetary policy. The exchange rate against gold had been the basis for central bank decision making for years. The one peacetime exception, the first half of the 1920s, was a disaster of inflation and financial instability. The gold standard had malfunctioned, but there was no coherent alternative for conducting monetary policy. Much later, in the 1990s, central banks developed the conceptual framework known as "flexible inflation targeting."[2] When the crisis hit in 2007–08, they were willing to let their currencies move, if such movement was a corollary of monetary policies directed at stabilizing prices and output. But in the 1930s, the absence of a coherent alternative to the traditional exchange-rate-centered approach to monetary policy left central banks reluctant to abandon it. This in turn limited their ability to stabilize not just prices but also the economy and its financial system.

This reluctance allowed the Depression to deepen and persist. That depth and persistence in turn did much to discredit prevailing economic and financial arrangements. In some cases, as in the United States, this prompted efforts to repair and rehabilitate the market system. It led to regulatory reforms designed to stabilize financial markets, institutional reforms to strengthen the conduct of monetary policy, and social policy reforms to protect those unable to protect themselves. In other cases, as with Germany, the Depression and the failure of policy makers to address it led to less constructive outcomes. The market system was rejected in favor of state direction. This alternative to fixing the broken market economy, it would transpire, was far worse.

The exception that proves the rule, demonstrating what was possible when a government took concerted action, was Japan. The country had already endured a difficult decade, growing at less than 1 percent per annum between 1919 and 1929. Activity was disrupted by bank runs and financial panics. Failure of the Osaka-based Masuda Bill Broker Bank in April 1920 provoked runs across the country. In February 1922 the failure of Ishii Corporation, a lumber company speculating in commodities, sparked runs in Osaka, Kyoto, and Kochi Prefecture on banks thought to have ties to Ishii and one another. The Kanto Earthquake of 1923 wrought financial as well as physical damage, destroying the offices of fully 80 percent of all banks in Tokyo, leading to fears of more bank runs, and prompting a moratorium on debt payments. The government encouraged the Bank of Japan to discount commercial paper and other obligations payable in the affected areas and adopted an emergency ordinance promising to indemnify the bank, not unlike how the US Treasury in 2008 offered to indemnify the Fed for any losses it incurred as a result of its rescue of Bear Stearns.[3] There was then a further round of runs in 1927, when in the course of the debate in the Diet over the terms of that compensation officials revealed the existence of financial problems in Suzuki & Co., a large trading house in Kobe, and its financial partner, the Bank of Taiwan.[4]

This litany of woes and the need for central bank intervention on each occasion resulted in delays in returning to gold.[5] Japan finally did so in January 1930, in an act of exquisitely bad timing. The consequences were not unlike those in Britain, only worse. As in Britain, prices had risen sharply during the war. But in Japan, it was not possible to push them back down as rapidly as in Britain in the 1920s. Instead the Bank of Japan was forced to provide credit to keep the banks on life support. Thus, it could not restore the prewar exchange rate against sterling and gold.

Once conditions finally normalized sufficiently for the prewar exchange rate against sterling to be restored in 1930, the yen was significantly overvalued. This made for trade deficits and gold losses. It fed expectations that, when Britain abandoned the gold standard in September 1931, Japan would necessarily follow.

The Minseitō Party campaigned during the 1928 national election on a platform to cut wasteful public spending and restore the gold standard. The prime minister from 1929, Osachi Hamaguchi, appointed Junnosuke Inoue as his finance minister because he thought that Inoue, a fellow believer in gold standard orthodoxy, could successfully execute the policy. The austere, upright Inoue having done so successfully, he had much invested in the policy status quo. Following Britain's departure from gold, he quickly reaffirmed that the monetary standard would be defended. The Bank of Japan raised the discount rate in October and again in November in an effort to carry out his wishes.[6]

The Federal Reserve had responded similarly to the reserve losses precipitated by Britain's departure from gold.[7] But where America's gold peg held, Japan's did not. Japan had a greater recent record of financial instability. Worried about the state of the banking system and doubtful about the capacity of the central bank to continue draining liquidity from financial markets, National City Bank, the Hong Kong and Shanghai Banking Corporation (HSBC), Sumitomo, Mitsui, and Mitsubishi sold yen for dollars. Gold outflows continued unabated.[8] Unable to agree on steps to contain them, the Minseitō-led government was forced to resign on December 12.

This brought to power the opposition Seiyūkai Party, and specifically Finance Minister Korekiyo Takahashi. The elderly Takahashi was an unlikely revolutionary. The illegitimate son of a court painter at Edo Castle, he was born in 1854, a year after the arrival of Commodore Perry's black ships, and as an infant was adopted into the lowest rank of samurai. As a young man he served as an entry-level bureaucrat, first in the Ministry of Education and then in the Ministry of Agriculture and Commerce, before going to work for the Bank of Japan. For having helped to arrange the foreign loans that financed the country's war against Russia, he was awarded a peerage in 1905. In 1913, not yet forty, he was appointed finance minister. By 1931 he was on his fifth tour of the position. This obviously was no financial neophyte.

Takahashi held the further advantage that by 1931 Japan had formulated its monetary policy without support from the gold standard for more than a decade. Making monetary policy without that familiar structure was thus not something with which he or the Japanese public was unfamiliar. The decision to return to gold in 1930 having been taken by his predecessor, a member of the opposition party, Takahashi could reverse it without embarrassment.[9] In addition, there was a sense of rivalry between Inoue and Takahashi. Inoue was an exponent of not just the gold standard but also fiscal austerity; his rival Takahashi was happy to position himself as the opposite.

This decision to follow Britain off gold was not unlike the response of a number of other countries, as we will see below. What was unique was Takahashi's concerted use of policy to jump-start the economy. Immediately on embargoing gold exports, he moved to push down the exchange rate in order to vanquish expectations of deflation and strengthen export competitiveness.

In March 1932 he proposed that the Bank of Japan directly purchase all newly issued government bonds, expanding the money supply. This was actually more than a proposal, since the Bank of Japan was not independent but, in fact, under the supervision of the Ministry of Finance, Article 16 of the Bank of Japan Act providing a legal basis for the finance minister to instruct the central bank to engage in transactions in government bonds. There was little resistance within the bank; to the contrary, Takahashi received intellectual and political support from the deputy governor, Eigo Fukai, a fellow English speaker and friend.[10] Other members of the bank's administrative hierarchy were more skeptical but, the central bank not having exactly covered itself in glory, were in no position to object.[11]

In June Takahashi then submitted a supplementary budget providing for new spending on rural relief and on the army's military operations in Manchuria, where renegade officers, protecting Japan's colonial holdings there, had staged a terrorist incident they blamed on Chinese bandits, allowing them to launch a police action. Takahashi himself was opposed to Japan's military intervention in Manchuria, but he could still use it to advance his economic strategy.[12]

All this, Takahashi now proposed, should be financed by bond issuance. Remaining limits on the ability of the Bank of Japan to purchase those bonds were then removed by a law raising the amount of unbacked currency the bank could issue from ¥120 million to ¥1 billion, and by a second measure placing controls on capital outflows. The expectation, clear in light of Takahashi's actions and statements, was that the Bank of Japan would do its part to help finance his deficits. The government and central bank would be working in harness to actively bring deflation and depression to an end.

This, then, was an aggressively reflationary monetary policy made credible by fiscal expansion. In other words, it was precisely the policy claimed, erroneously, to have been followed in the United States under FDR.[13] But in Japan, unlike the United States, the fiscal expansion was real.

Here at least is one case where economic analysis may have played a role. Takahashi had firsthand knowledge of Western economic literature, having gained fluency in English at the age of eleven, when he was sent to the treaty port of Yokohama to study with American missionaries. (Takahashi was selected for foreign-language studies by a progressive samurai who understood that Japan, to survive, would need to import military technology, notably from the United States and Britain, and that language skills would be needed for the next generation to achieve these ends.[14]) Takahashi was familiar with the *Tract on Monetary Reform*, the 1923 book in which Keynes emphasized the distinction between exchange rate stability and price stability and the need to prioritize the latter. He was up to date on subsequent intellectual developments, being an avid reader of the *Times* of London.[15]

The results of his initiative were dramatic. Rates on short-term money fell from 15 to 1 percent. The money supply stabilized in 1932 before rising sharply in 1933. In the year from December 1931, the yen depreciated by more than 40 percent against the pound sterling and 60 percent against the dollar. Wholesale prices rose by 7 percent in 1932 and 12 percent in 1933, while industrial production rose even faster. Real GDP grew by 7 percent in 1932 and 8 percent in 1933.[16]

This was a happy outcome for the economy, if not also for Takahashi. When Japan returned to full employment in 1935, he cut back on defense spending—resulting in his assassination by disaffected military officers.

Japan's experience thus illustrates what concerted monetary expansion, backed by fiscal stimulus, could do. But it is hard to find other similar examples. More typical was the response of the Bank of England. The bank's hand had been forced, as we saw in Chapter 10, by the run on sterling that led to the suspension of convertibility in Montagu Norman's absence. But even then, it was far from clear what would come next. The pound fell to $3.40 in the first week of floating, losing a quarter of its value. After a brief recovery, it then fell further to $3.23 at the beginning of December.

At this point Norman grew worried that any further decline would fatally undermine confidence. He also had to address the concerns of other governors and directors who had stepped into policy roles in his absence. Since assuming the governorship in 1920, Norman had turned the Bank of England virtually into a personal fiefdom. But his incapacity over the summer and absence at the time of the country's most critical financial juncture transformed internal decision-making processes. Committees were set up in his absence; advisors were consulted. Following his return, they continued to meet and to advise. Decisions now were taken collectively, in response to collective hopes and fears.

Specifically, there was the collective fear that if panicked sales of the currency followed, Britain would succumb to the kind of inflation that had infected France and Germany in the 1920s. That inflation was the fear at a time when unemployment was 22 percent—when deflation was the real and present danger—can only be understood in light of collective psychology informed by this recent Continental experience.

Concerned that sterling was on the brink, Norman and his colleagues kept the bank's policy rate at 6 percent through the end of the year and into 1932. The idea that sterling was poised to collapse was far-fetched, of course.

The currency still had faithful followers in the banks and governments of the Commonwealth and Empire, and in other countries with extensive trade relations with Britain. But there was no more powerful conservative impulse than fear of the unknown, the gold standard having been the touchstone of policy for more than a century.

Norman, predictably, made no bones of his desire to return, albeit at a lower parity than before. Even Keynes, famously a critic of Churchill's decision to return to gold in 1925, now encouraged the government to pursue an international agreement to restore gold convertibility and fixed exchange rates, albeit with the higher gold price and lower backing ratios needed for price stability. But agreement on a gold peg remained elusive.[17]

This context makes the cautious reorientation of policy easier to understand. Time was needed for old fears to subside. Only on February 18, nearly five months following the suspension of convertibility, did the Bank of England finally cut interest rates, from 6 to 5 percent. No exchange rate collapse or inflationary outburst materializing, it cut rates to 4 and then 3.5 percent in March, and finally to 2 percent in July. This, then, was the advent of Britain's policy of "cheap money," ten long months after the collapse of the old regime.

In fact, the important policy innovations, as in Japan, were undertaken not by the ever-conservative central bank but by the Treasury. Neville Chamberlain, son of Joseph Chamberlain (the father having been mayor of Birmingham, a member of Parliament, and, in his time, the country's leading protectionist politician), was appointed Chancellor of the Exchequer as a result of the October 1931 general election, which saw decisive rejection of the failed Labour government and election of a Conservative-dominated parliament. Eventually, Chamberlain's name would become synonymous with appeasement. But if as prime minister and geopolitical strategist he was a disaster, he was a singularly effective chancellor by the standards of the time.

Effective by the standards of the time meant balancing the budget, as Chamberlain energetically set out to do with backing from his Conservative majority.[18] His biographer, William Rock, captures well the prevailing ethos: "There was no relief from taxes; that might lead to a premature relaxation of the efforts which were beginning to produce a revival of public confidence. Drastic economies were necessary before the normal expenditures and revenue could be balanced; therefore, drastic economies there would be."[19] The resemblance with the policies of the David Cameron–led Conservative-Liberal government starting in 2010 was more than superficial.

Equally consequential was Chamberlain's decision to set up an Exchange Equalisation Account (EEA) in the Treasury. The stated purpose of the account was to smooth fluctuations in the value of sterling by intervening in the foreign exchange market. In practice, however, the bulk of that intervention took the form of purchasing foreign exchange with sterling in order to keep the currency from rising. As Susan Howson, the unofficial historian of the EEA, judiciously put it, "It is clear that the authorities wished to reduce fluctuations in the exchange value of the pound, particularly upward fluctuations."[20]

Using the EEA, Chamberlain kept sterling at a competitive level and ensured an adequate supply of domestic credit. Although he consulted with the Bank of England, it was the chancellor who made the final decision on the stance of policy. This was another example, in the manner of Takahashi, where a political leader seized the reins from a central bank that hesitated to act. Yet another instance of the same, as we have seen, was in October 1933, when FDR intervened in the gold market to push prices up and the dollar down.

As in the United States, and in contrast to Japan, however, there were no large-scale budget deficits accompanying this monetary expansion and no pressure on the central bank to buy the bonds issued to finance them. Moreover, a central bank discount rate of 2 percent, which was what Britain now enjoyed, was not cheap money by the standards of Mervyn King or Ben Bernanke. Supplies of money and credit increased only as permitted by inflows of foreign currency, which were then absorbed by the EEA in exchange for sterling. These could be fickle: inflows grew large in December 1932, when worries developed about a possible dollar devaluation by the US president-elect, but they could be small and even negative at other times. The British money supply, broadly defined, grew by 10 percent in 1932 but then stagnated in 1933.[21] There was no attempt to push sterling down or to expand the money supply more aggressively. Once FDR completed his gold-buying program, the sterling rate against the dollar essentially returned to its early-1931 level, where it was stabilized.

If this was weak soup by the standards of Japan, the policy was better than nothing. A higher domestic currency price of gold meant a higher price level. Wholesale prices stopped falling in the summer of 1932, coincident with the reorientation of policy. Industrial production bottomed out in the third quarter and started rising in the fourth. The subsequent recovery was driven by interest-rate-sensitive spending, notably housing starts, motor vehicle sales, and, beginning in 1934, industrial investment. Cutting interest rates and preventing further falls in the price level also reduced the cost of servicing the heavy public debts inherited from World War I. Britain was able to maintain debt sustainability without having to endure even more severe public spending cuts.[22] This was not vigorous recovery à la Japan, but it was recovery after a fashion.

CHAPTER 19 | Preventing the Worst

IN 2011, IN an interview with the *Daily Telegraph*, Bank of England Governor Mervyn King succinctly summarized what had been achieved by the response to the crisis. "We prevented a Great Depression," King baldly stated. Readers may have been inclined to dismiss the comment, coming from a leading central banker, as self-aggrandizing hyperbole, but King's assertion was not inconsistent with the facts. Global GDP dropped by a disastrous 15 percent between the peak in 1929 and the trough in 1932. Between 2008 and 2009, in contrast, it fell by just a fraction of 1 percent, and growth resumed already in 2010.[1] Even in the advanced countries hit hardest, the fall in 2009 was 3.5 percent of GDP, and growth turned positive again the next year. All was not sweetness and light, but this at least was no Great Depression.

There is no question that policy makers deserved much of the credit. Not all of it, of course. Changes in economic structure over the intervening decades also helped to moderate the slump, insofar as the relatively volatile industrial sector became less important in the advanced economies, while the stabler service sector acquired a heavier weight. The growth of government strengthened the effectiveness of automatic fiscal stabilizers, which work mainly by reducing tax payments when incomes fall. Nothing similar happened in the 1930s, since taxes accounted for a much smaller share of GDP and because governments did what they could to prevent deficits from emerging. The institutionalization of the global trading system, culminating in creation of a World Trade Organization with binding dispute-settlement powers, discouraged resort to beggar-thy-neighbor trade restrictions.[2] Central bank cooperation was fostered by regular meetings at the Bank for International Settlements. Solidarity among governments was forged by heads of state and ministers meeting as the G20.

These institutional developments built in turn on the lessons of the 1930s. The growth of government reflected the conviction, seemingly ineluctable in the wake of the Great Depression, that the market left to its own devices was unstable. It reflected the conclusion that if individuals were unable to protect themselves from the vicissitudes of an unstable market, then government would have to protect them, if capitalism was to survive. New Deal programs establishing work relief, unemployment insurance, and Social Security are all to be understood in this light.

Similarly, belief in the importance of fiscal stabilizers was an implication of the theories developed by John Maynard Keynes in response to the Depression. These theories showed that fiscal policy is especially powerful in a depression, when interest rates approach zero. The worst thing governments can do, economists concluded on the basis of this experience, is to raise taxes and cut public spending in a slump. Central banks were reorganized to prevent the monetary mistakes of the 1930s from being repeated. Decision-making power was centralized in the hands of the Federal Reserve Board, as we have seen, to prevent the Reserve banks from working at cross purposes. Efforts to strengthen the institutions of international economic cooperation were likewise animated by the view that they had failed disastrously in the 1930s.

The institutions for the most part survived intact, though the historical lessons inspiring their creation did not. Initially, central banks responded more forcefully than in 1929, making use of their enhanced powers. Governments cut taxes and boosted public spending to offset the fall in private demand. In April 2009, at the London G20 summit that was the high point of international cooperation, they agreed to coordinate their fiscal initiatives and shun beggar-thy-neighbor policies. The US Congress extended the duration of unemployment benefits to ninety-nine weeks. It increased food stamp eligibility and benefits in recognition that the crisis was having a disproportionate impact on the most vulnerable.

Although the specifics varied across countries, the response, qualitatively, was everywhere the same. Given the speed with which the crisis unfolded, there was no alternative to relying on the institutions and instincts developed in response to the Great Depression. And given the challenge of making sense of the unprecedented news flow, there was little resistance to relying on the kind of monetary and fiscal stimulus, financial triage, and extensions of the safety net that post-Depression thinking deemed appropriate for a crisis as serious as that of the 1930s.

Following this initial push, however, the debate and with it the policy response began to shift. Conservative critics had long been concerned by the growth of government and warned against excessive deficits. Now they began pushing back against the budget deficits and government programs associated with fiscal stimulus. Debt sustainability rather than high employment or growth became the priority. At the February 2010 Group of Seven meeting of finance ministers and central bank governors in Iqaluit, remote Northern Canada, the call for austerity was embraced under the Northern Lights. Fiscal consolidation rather than stimulus became the focus, even though economies were still far from fully recovered from the crisis.

In Europe, health care and pensions for retirees were cut in the name of fiscal consolidation. The 2012 presidential campaign in the United States was dominated less by the plight of the unemployed than by the "47 percent" of the population that, in the words of Republican candidate Mitt Romney, was "dependent on the government." Romney may not have triumphed, but his rhetoric and arguments did. Or so it seemed when Congress limited access to food stamps, and North Carolina replaced extensions in unemployment benefits with cuts in relief.

Similarly, the opponents of monetary activism warned that the aggressive expansion of central bank balance sheets portended inflation, and that purchases of mortgage-backed securities by the Federal Reserve and of sovereign bonds by the ECB delayed the necessary consolidation of private and public finances. By keeping interest rates low, they limited the pressure on households and governments to tighten their belts. The critics mounted strident attacks on central bank policies in the pages of the *Wall Street Journal* and elsewhere. The classic example was the open letter to Chairman Bernanke in the *Journal* on November 15, 2010, signed by twenty-three economists, investors, and political strategists, whose money quote read as follows: "We believe the Federal Reserve's large-scale asset purchase plan (so-called 'quantitative easing') should be reconsidered and discontinued. We do not believe such a plan is necessary or advisable under current circumstances. The planned asset purchases risk currency debasement and inflation, and we do not think they will achieve the Fed's objective of promoting employment."[3] The language in Europe may have differed, but the sentiment was the same.

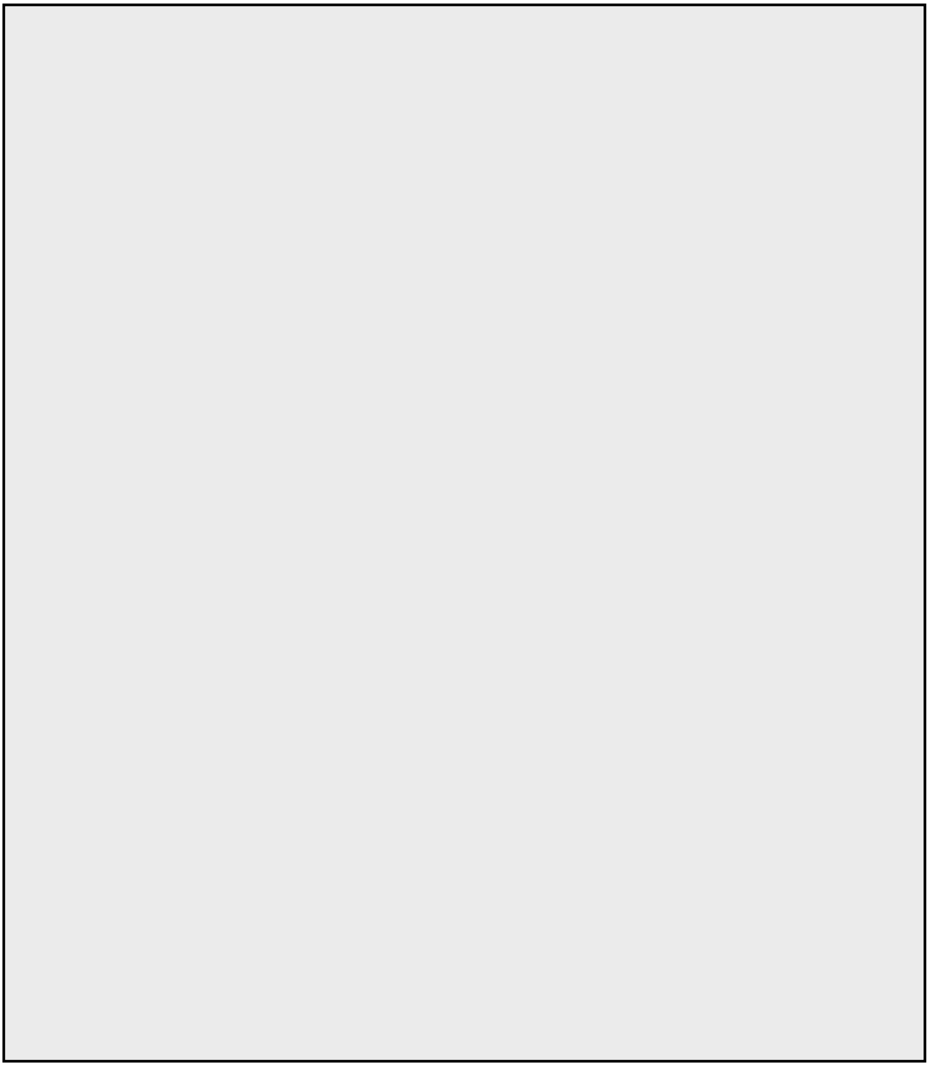
The worry that central banks were prone to debasing the currency was, to be sure, of long standing. In Europe, it was deeply rooted in 1920s experience. The preoccupation was reinforced now by concern that the monetary authorities were interfering with the operation of the market and, by artificially supporting the economy, weakening the pressure to undertake structural reforms.

Increasingly these arguments reshaped policy, even if the dangers to which they pointed were largely illusory. Inflation remained subdued so long as recovery was incomplete, slack was extensive, and interest rates were near zero.

The assumption that structural reform would proceed more quickly if central banks tightened the screws was just that: an assumption.

But, illusory or not, these critiques led central bankers to brood over the negative consequences of their policies. Members of the Federal Open Market Committee were obliged to explain how the Fed would exit from its accommodative policies. Although actual exit remained a matter for the future, talk of exit had a depressing effect. ECB President Mario Draghi was compelled to temper his commitment to "do whatever it takes" to defend the euro with a warning that ECB purchases of government bonds were contingent on pursuit of structural and budgetary reforms.[4] But qualifying the point in this way limited the effectiveness of the commitment to do whatever it took. The pressure on central banks was more intense to the extent that the arguments of the critics received official hearing, whether from Ron Paul and his "Audit the Fed" bill in the US House of Representatives or the German Constitutional Court in its readiness to consider the constitutionality of the ECB's Outright Monetary Transactions. All this helps to explain why central banks hesitated to do more despite the fact that recovery from the recession remained weak.

Thus, after a brief period in 2008–09 when the analogy with the Great Depression was foremost in the minds of policy makers and the priority was to stabilize the economy at all cost, the emphasis shifted. The priority now was to balance budgets. For central banks it was preventing an outbreak of inflation, however chimerical. This shift occurred despite the fact that the recovery continued to disappoint. Rather than avoiding the mistakes of the 1930s, policy makers almost seemed intent on repeating them.



These initiatives—providing unlimited amounts of credit to the banks, financing purchases of commercial paper through the TALF, and purchasing mortgage-backed securities from Freddie Mac and Fannie Mae—all reflected the belief in official circles that the problem was one of liquidity. Trust had dried up. Doubts prompted collateral calls, forcing borrowers to engage in distress sales of assets, in turn requiring more collateral calls. From this diagnosis flowed a prescription: if the authorities stepped in with securities purchases, injecting liquidity into the markets, conditions would normalize.

That the problem was one of liquidity was Paulson's diagnosis in particular. Asset purchases, recall, were the focus of the TARP as proposed to Congress by the Paulson Treasury at the end of September.[8] The notion that the problem was fundamentally one of liquidity resonated with a Treasury secretary exposed to the inner workings of financial markets by his experience at Goldman Sachs. This diagnosis and the policies to which it pointed were politically expedient in that they enabled Treasury to deny that it was providing bailouts to individual financial institutions, plausible deniability being essential in the wake of the AIG rescue if the TARP was to have a snowball's chance of congressional approval. And it could even be argued that, insofar as the Fed and Treasury made their purchases at fire-sale prices, they might end up turning a profit.

There were just two problems. First, it would take weeks or even months to put in place the apparatus for security purchases. The securities in question were complex and varied, which was of course part of what had gotten investors in those same assets into trouble in the first place. Purchasing them would require Treasury to contract with private fund managers knowledgeable of the market, including some of the same financial institutions involved in originating those securities. Compensation schemes and mechanisms for monitoring fund manager performance would have to be arranged. All this would take time. And time was the one thing even scarcer than liquidity.

Second, there was the reluctant realization—reluctant on Paulson's part—that the issue was more than just one of liquidity. Banks that made big bets on real-estate-related investments had taken big losses. They now had inadequate capital as a buffer against losses, rendering them unable to borrow and reluctant to lend. Providing them with additional liquidity by purchasing their securities at something resembling current market prices would do little to solve this problem. As a student of the Great Depression, Bernanke could recall how FDR had used the bank holiday to reassure the public that any bank allowed to reopen would be adequately capitalized. Already in September, prior to final passage of the TARP, the Fed chairman was suggesting to Paulson that capital injections might be required to restore confidence and restart bank lending.[9]

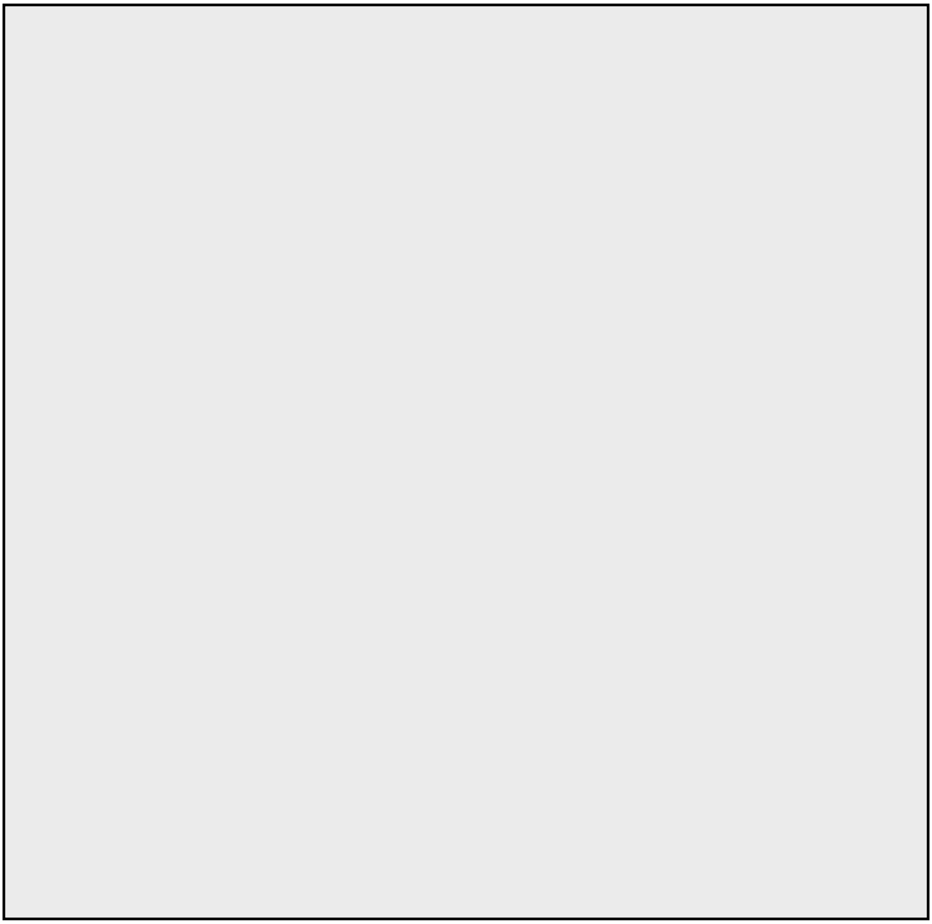
It took ten days following passage of the TARP for Paulson & Co. to acknowledge these facts and agree to use $250 billion of TARP money to recapitalize the banks. On Monday, October 13, Columbus Day, Paulson, Bernanke, New York Fed President Geithner, and Sheila Bair, chair of the FDIC, convened their now-legendary meeting with the CEOs of nine big banks. The officials made clear the importance of those banks present all accepting public capital. If any refused, banks receiving assistance would be singled out as weak links, creating the same problem that had bedeviled the RFC from mid-1932. There was more than a little reluctance on the part of the CEOs and no little chest beating, or so journalistic accounts suggest.[10] Geithner and Paulson made clear that CEOs who resisted were unlikely to have their phone calls returned.

The terms were not onerous. The banks would be required to pay a dividend of 5 percent, significantly less than if they sought to raise capital on the market—assuming of course that they were able to access the market at all. Goldman Sachs, the bank in the strongest position, had just succeeded in raising $5 billion of capital privately, from Warren Buffett's Berkshire Hathaway, but paid handsomely for the privilege. It promised Buffett a 10 percent dividend on his shares, fully twice what was now demanded by the government.[11] Moreover, the government's new capital didn't come with voting rights. Treasury would acquire only nonvoting senior preferred stock, limiting its ability to intervene in future bank operations.[12]

These provisions were precisely what made this use of TARP funds controversial. Cheap capital smelled of subsidies. Preferred shares without voting rights made the taxpayer a silent partner while the banks called the tune. The government would have no way of compelling banks taking public money to use it for lending to corporations and households desperate for funds.

Finally, this shift in use of TARP funding did not enhance Treasury's reputation for policy consistency. It encouraged the view that Paulson was still groping for a response. As David Swensen, manager of Yale University's endowment, put it, policy makers acted "with an extraordinary degree of inconsistency. You almost have to be trying to do things in an incoherent and inconsistent way to have ended up with the huge range of ways that they have come up with to address these problems."[13]

Such suspicions were not entirely wide of the mark. Unlike Robert Rubin, the Clinton-era treasury secretary similarly confronted with crises on his watch, Paulson did not have an overarching worldview to guide his decision making. In his memoirs, Rubin describes his particular view of market dynamics and how this led him to adopt what created at least the appearance of a systematic approach to decision making. Rubin kept a sense of personal detachment, whereas Paulson reacted emotionally to events, swinging from one solution to another. The title of his memoirs, *On the Brink*, almost seems to be referring to his mental state.



Inchoate fears gave way to panic on November 19, when Citi announced it was forced to wind up a structured investment vehicle heavily invested in subprime-related CDOs. Its stock fell by 23 percent, culminating several months of sharp declines.

But even in this wounded state, Citigroup still had more than $3 trillion of assets, counting those hidden away in its SPVs. If any US bank was too big to fail—if any bank had consciously set out to become too big to fail—this was it. Rubin, now in his capacity as chairman of the executive committee of Citigroup's board, reminded Paulson of these facts in a series of characteristically "low key" telephone calls.[15]

The legal niceties that Bernanke, Geithner, and Paulson had cited in connection with the decision to allow Lehman Brothers to go down were set aside in these dire circumstances. Sheila Bair was the one notable dissenter from the decision to go ahead with a bailout. Concerned to husband her agency's $35 billion insurance fund, Bair proposed putting Citibank, Citigroup's insured national bank subsidiary, into receivership. Bernanke, Geithner, and Paulson all argued that Citibank was not easily disentangled from the larger financial group of which it was part. Not only was Citigroup larger than Lehman, but it was more international. The kind of problems that arose when Lehman failed and its British regulator froze its accounts would be immensely more disruptive. For all these reasons, Treasury and Fed officials insisted there was no alternative to the rescue cobbled together over the weekend of November 22–23.

In the plan as ultimately structured, the government injected $20 billion of share capital, again taking preferred shares in return. Bernanke suggested common stock, but Paulson demurred. Had it received common stock, the government would have ended up "owning a large part of the bank," as Paulson subsequently put it, prompting unwelcome headlines about nationalization.[16] The government did, in fact, end up owning almost half the bank, given how Citigroup's market cap fell to little more than $20 billion following announcement of the bailout. The only difference, again, was that its shares did not come with voting rights.

Officials agreed, in addition, to split the losses on $300 billion of Citigroup's toxic assets. Citi would take the first $29 billion of losses, after which the government would absorb 90 percent, with the TARP, the FDIC, and the Fed taking them in turn. This was another way of leveraging Treasury's limited funds.[17] Providing insurance against losses on mortgage-related investments, moreover, was a less transparent way of providing assistance than injecting more capital or purchasing those assets outright. It was a way to deflect accusations that the authorities were providing another mega-bailout.[18]

The bailout left a sour taste for those who recalled this bank having been a prime mover in the elimination of Glass-Steagall. Citi was now advised by Rubin, who was also once Paulson's colleague at Goldman Sachs. Regulatory oversight of the bank was headed up by the New York Fed, whose president, Timothy Geithner, was Rubin's protégé during the latter's years in the Clinton Treasury and had just been announced by President-Elect Obama as treasury secretary-designate. The conspiracy theories to which this gave rise were over the top, but the optics did not make rescuing the bank, or subsequently its competitors, any easier.[19]

The reality that congressional opposition to bailouts without strict conditions, including replacement of top management and retention of voting rights on behalf of taxpayers, had been circumvented with the help of these financial-engineering devices fed skepticism about even more forceful steps to recapitalize the banking system. Still, the mold was cast. It was used again in January when the government bailed out Bank of America.

President Bush had hoped to leave this task to the new administration. Congress had not yet agreed to release the second half of the TARP funds, and Bush was reluctant to ask for fear that his last significant act might have to be to veto a congressional bill prohibiting its disbursal. In addition to the embarrassment, this visible sign of disapproval by Congress would not reassure financial markets. But indications that Bank of America would shortly be announcing a $2 billion loss for itself and a $22 billion loss for its newly acquired investment banking division Merrill Lynch threatened to spark another panic. Bush proved more willing to act than Hoover in his last days in office. On January 12, 2009, he requested the second tranche of TARP funds, and Congress reluctantly agreed. Three days later a deal was struck to use the TARP to inject $20 billion of new capital into Bank of America. The government and the bank agreed to split the losses on its $118 billion of mortgage-related assets ninety-ten, following the Citigroup formula, after the first $10 billion of losses, which would go to the bank.

And with this official support in place, Bank of America was able to announce its quarterly results the next morning.

CHAPTER 20 | Stressed and Stimulated

THROUGH ALL THIS, the president-elect and his team were watching uneasily. Lawrence Summers, chair-designate of Obama's National Economic Council, and Christina Romer, selected to chair the Council of Economic Advisors, resisted the idea of more stealth bailouts on fairness and moral-hazard grounds.[1] They preferred to find a way of seizing, recapitalizing, and reopening so-called too-big-to-fail institutions—nationalizing and quickly reprivatizing them while breaking them up along the way. Other academics farther from the seat of power argued the case for nationalization even more strongly.[2] For the academics, the approach taken by Sweden to repair its banking system in the 1990s had considerable appeal: the authorities would seize the troubled financial institutions and transfer their toxic assets to a government-run "bad bank," which would sell them off over time. The restructured banks could then be recapitalized and reopened, the shareholders having been wiped out and management unseated along the way.

But Obama's political advisors, from Chief of Staff Rahm Emanuel on down, feared sticker shock were the administration to go back to Congress for more funds to recapitalize the banks. Bank nationalization, even temporary nationalization, was anathema to large segments of the American public, not to mention to the banking lobby. Its academic advocates, unlike Treasury Secretary-Designate Timothy Geithner, had not been involved in the most recent round of bank rescues, allowing them to develop an idealized notion of how seamlessly nationalization and reprivatization would work. White House advisors toyed with the idea of testing out the Swedish approach on a single bank, where still-troubled Citibank was the obvious candidate, but the logistics were daunting.

Geithner, for his part, opposed any intervention that might disrupt business as usual and damage the prospects for recovery. He feared that nationalizing one bank might create expectations that others would follow, causing investors to sell their shares in a self-fulfilling prophecy. He was skeptical that there was such a thing as temporary nationalization. The step would demoralize the markets, rendering the nationalized institutions impossible to sell. About this aspect, at least, he was right, as countries like the UK, which went the nationalization route, would discover in the course of time.

But avoiding nationalization required coming up with an alternative, something that was easier said than done in the early days of a new administration, as Raymond Moley and William Woodin could have explained. Where Paulson's Treasury was chaotic, Geithner's was understaffed. Vetting senior appointees was laborious, and congressional confirmation was far from ensured. Although Treasury under Paulson had a thin bench of economists and finance specialists, the situation under Geithner was worse.

The result was reminiscent of how the Roosevelt administration, lacking ideas, adopted the bank rehabilitation plans of its predecessor. Similarly, Geithner's plan was—wait for it—to use TARP funds, suitably leveraged, to buy toxic loans and assets from the banks. It was essentially an expansion of the TALF, which targeted consumer loans, to mortgage-backed securities, property loans, and CDOs. This was the essence of the Public-Private Investment Program for Legacy Assets, or PPIP, announced on March 23, 2009, for which $22 billion of TARP funds was earmarked.

There were other elements of continuity as well. Buying securities would require partnering with private fund managers, as in Paulson's security purchase scheme.[3] There would have to be a way of ensuring that fund managers had skin in the game, like the hedge funds that were the government's partners in the TALF. In other words, if they bought securities for the government, they would also have to buy securities for themselves, at the same prices, as a way of ensuring they did not overpay. In addition to putting up TARP funds to buy securities directly, the Treasury, the FDIC, and the Federal Reserve would guarantee each pool of securities purchased up to 85 percent of the amount bid by investors, much as they had guaranteed 90 percent of the legacy assets of Citigroup and Bank of America.[4]

PPIP excited much negative commentary for the same reasons that these earlier interventions did so. It was difficult to understand. It relied on mortgage securitization and leverage, the very forms of financial engineering that had given rise to the crisis. It involved another open-ended guarantee, exposing taxpayers to losses. It looked to be overpaying for toxic assets again, since the banks would be reluctant to sell at a loss.

But the most serious problem was the same one that derailed Paulson's original scheme for security purchases, namely the time needed to scale it up. The Fed had taken four full months to get the TALF up and running, and Treasury lacked its experienced staff. PPIP was finally launched in September 2009. Rather than removing $1 trillion of bad loans and assets from the banks' balance sheets, the program ended up eliminating just $40 billion, a veritable drop in the financial bucket.

With nationalization off the table and PPIP on hold, Treasury's backup plan of stress-testing the banks was the only option left standing. Secretary Geithner unveiled the idea at a poorly received press conference on February 10, where attention focused on the asset-purchase program. Now the stress tests became the centerpiece of the strategy. Specialists at the Fed and the FDIC, working with Treasury, would construct scenarios for the performance of the banks' mortgage loans, credit card loans, auto loans, and other assets. Nineteen big banks, together with their supervisors, would then estimate their losses under what was referred to as the adverse scenario, "adverse" being one rung up from "worst-case." If a bank's reserves were too small to plug the hole, it would have to raise more capital. If it had trouble raising capital from investors, it would have to take it from the government. With only needy institutions tapping public funds, the burden on taxpayers would be limited. And with every bank adequately capitalized, investors would be reassured. The banks, possessing the resources and cushion against losses to resume lending, could do their part to encourage recovery.

The exercise was greeted with skepticism on the part of investors, the informed public, and even the White House. Supervisors lacked the expertise to value complex securities, forcing them to defer to the banks and their in-house models. If their scenarios were too optimistic and the amount of new capital was small, the markets might dismiss the process as a charade. But if their scenarios were dire and the amount of capital was large, the banks might be unable to raise it, forcing them into the hands of the government in the nationalization scenario investors and officials both feared. Either way, confidence would be damaged rather than restored.

The stress testers thus had a Goldilocks problem: the porridge had to be neither too cold nor too hot. Not being required to value the banks' assets at current market prices, they could instead tweak their model-based estimates of those prices to produce the desired result. Or they could adjust their assumptions about the banks' future earnings growth.

Not surprisingly, the total ultimately selected—for selected it was—was $75 billion, roughly halfway between the low and high estimates of $35 billion and $125 billion.[5] It was not so low as to be dismissed as a gift, nor so high as to make it impossible to raise. It was less than the $125 billion the government had compelled the nine big banks to take a few months earlier. Just in case, it was also less than the Treasury's remaining TARP funds.

Bank stocks jumped when the results were released.[6] With hindsight, it is clear that this marked the beginning of the end of the crisis. But, even now, just why is unclear. Geithner's hunch, like Paulson's before him, was that the banks were not, in fact, insolvent and that, with time and the support of investors, they could earn their way back to health. Not a few other supposed experts had asserted that the banks were insolvent and could be stabilized only by a massive infusion of public funds. In the event, the experts were wrong, while Geithner was right. The banks may not have leapt back into lending with both feet—in fact they dipped their toes in only cautiously—but they were able to steady themselves, raise additional capital, and get back to business.

Doing so required a modicum of investor confidence. Here it helped that the stress tests, unlike the earlier rescues of Bear Stearns, Citigroup, and Bank of America, were not thrown together over a weekend. They were just credible enough to inspire confidence. Appearance, in this case, made for reality. Such is the nature of banking, where confidence is in the eye of the beholder.

In 1933, when declaring the bank holiday, the Roosevelt administration similarly put up a good front. It solemnly declared that only solvent banks would be allowed to reopen. In reality, it was hardly possible in the subsequent two weeks to conduct careful inspections of each and every financial institution, urban legend notwithstanding. Yet the government permitted the vast majority of banks to reopen, providing only verbal reassurance that they were adequately capitalized.

The stress tests were now conducted with comparable solemnity and produced comparable results. Given their effects, it becomes necessary to view the 1933 bank holiday and its aftermath in a somewhat different light and to acknowledge that, like the stress tests, they involved more than a little showmanship.

A less happy interpretation is that the Good Housekeeping Seal of Approval conferred by the tests was tantamount to a colossal government guarantee. The nineteen biggest banks received special attention. Treasury asserted that they were solvent. Nine of them, starting with Goldman Sachs and JPMorgan Chase, required no additional capital. Citigroup, Bank of America, and eight of their less pristine competitors would be adequately capitalized if they raised only an additional $75 billion of capital, or so the government averred. If they then got into trouble, it stood to reason that this would be due to events not of their own making, and that the authorities, having attested to their soundness, would bail them out.

In this respect as well, the response resembled 1933, when the Emergency Banking Act empowered the Federal Reserve to discount notes, drafts, bills, and acceptances as the central bank saw fit, allowing it to provide the banks the liquidity they needed to meet the needs of their depositors. And as in 1933, the policy response stabilized the banking system, but by opening the door to moral hazard on a massive scale.

Or perhaps, as in 1933, it was not so much the measures addressed at the banking system as other policies that were responsible for the happy outcome.

The most contentious responses were the Obama administration's $787 billion fiscal stimulus and three rounds of quantitative easing by the Federal Reserve. The stimulus excited no end of controversy then and continues to do so today. The case was straightforward for those whose views were informed by the experience of the 1930s. The Hoover and Roosevelt administrations had done too little to offset the decline in private spending. Although the New Deal featured prominent public investment projects, from the Grand Coulee Dam to the Triborough Bridge, the increase in spending was too small to make a significant dent in a double-digit unemployment rate. All this was doubly unfortunate in an environment of near-zero interest rates, when there was little danger that an increase in public investment would crowd out a commensurate amount of private spending. The research of Obama's Council of Economic Advisors chair, Christina Romer, pointed to the conclusion that fiscal policy made only a limited contribution to recovery because the fiscal initiatives of the period were small by the scale of the problem.[7]