

The Fed's Role in Maintaining Financial Stability

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I'm delighted to be here to speak at the University of Central Arkansas. I'm gradually making way around the state to the various campuses; perhaps over the next few years I'll manage to speak at all the other Arkansas campuses I've not yet visited. I hope so.

I have a long-standing interest in understanding how and why financial markets sometimes become dysfunctional. When I first started studying economics, in the late 1950s, the subject seemed to be a special topic in economic history. And that remained my view through graduate school. About the time I began my first university appointment, in 1963, financial markets began to become less stable. The issues in the early 1960s, for the most part, centered on the gold standard and instabilities in the Bretton Woods system of fixed exchange rates. But before too many more years had passed, bouts of instability began to appear in the domestic financial markets.

Occasional episodes of financial instability seem now to be the norm, and indeed in recent years operation of our nation's financial system has been subject to substantial shocks. A partial list would include the sudden stock market crash of 1987 and the slow-motion crash starting in early 2000. The list would also include the financial market disruption in the fall of 1998, after Russia defaulted on its bond obligations and Long-Term Capital Management experienced severe pressures that brought the firm to the brink of disorderly collapse. And who can forget the severe stress in the payments system in the hours and days following the 9/11 terrorist attacks in New York and Washington?

My purpose this evening is to address the role of the Federal Reserve in maintaining stability in

the operation of the financial system. I ask this basic question: What sorts of financial instability are the direct responsibility of the Federal Reserve System and what sorts are the responsibility of others or simply a consequence of the behavior of highly competitive markets? In particular, it is a mistake to assume that every financial problem is evidence of a policy failure, or requires a policy response.

Before proceeding, I want to emphasize that the views I express here are mine and do not necessarily reflect official positions of the Federal Reserve System. I thank my colleagues at the Federal Reserve Bank of St. Louis for their assistance and comments, especially Alton Gilbert, David Wheelock, Mark Vaughan, and Bill Emmons. I retain full responsibility for errors.

FEDERAL RESERVE RESPONSIBILITIES

The Federal Reserve has three main responsibilities. One is to contribute to maximum sustainable economic growth by maintaining low and stable inflation, or price stability for short. The second is regulation and supervision of banks and their holding companies to contribute to stability of the banking system. The third is provision of payments services including distribution of currency, clearing of paper checks, and electronic payments services. Success in these three areas contributes to, but does not guarantee, stability of output and employment. Success certainly does not guarantee stability of prices in financial markets, as we have seen from the performance of the stock market in recent years. Despite this

fact, it is also true that Fed failure to achieve its goals has a high probability of destabilizing prices in financial markets.

SELECTIVE HISTORY OF FINANCIAL PROBLEMS

The best way I can communicate what it means to preserve financial stability is to describe events during several periods in our nation's history when the nation was not able to maintain financial stability. If some of these examples seem old and out of date, that is because we must use such examples to explore the importance of price stability given that the nation has enjoyed low and stable inflation for most of the last 20 years.

I begin with the fall of 1907, the last episode of a major breakdown in our nation's banking system prior to the formation of the Federal Reserve. Banking problems in the fall of 1907 were a catalyst for stimulating change in the role of our government in the operation of the national financial system. The United States did not have a central bank at that time—the Federal Reserve began operations in 1914—and did not have federal deposit insurance, which was established in the 1930s. With no federal deposit insurance, the willingness of people to hold bank deposits depended on their confidence in the strength of the banks.

New York City was the nation's financial center, as it remains to this day. The most important stock exchange in the nation was located in New York City, and the uninterrupted operation of the stock exchange depended on short-term loans to stock brokers by banks located in New York City. Businesses located throughout the nation settled transactions among themselves with drafts drawn upon banks located in New York City. Disruptions to the operation of the banks in New York City created disruptions in the nation's payments system.

Prior to 1907, there had been a series of episodes in which adverse developments undermined the confidence of the public in the financial strength of banks. At these times, large numbers

of depositors ran on their banks to withdraw currency. Over time banks developed well defined mechanisms for dealing with such bank runs while avoiding disruption in the payments system. These mechanisms, which were coordinated by the clearing houses through which banks cleared checks, included lending currency to some of the banks under greatest pressure from depositor runs and issuing temporary certificates that members of the clearing houses could use for settlement among themselves.

During some of these periods of bank runs, banks were able to meet the demands of their depositors for currency, thus avoiding disruptions in the payments system. During other periods, however, these private remedies for bank runs were not effective in preserving the operation of the payments system. During 1873 and 1893, members of the clearing house in New York City responded to runs by temporarily refusing to pay currency to their depositors on demand.

These periods of suspension of currency payments involved major disruptions in the payments system of the nation because at the time much commerce involved payment with currency. It is important to realize, however, that disruption in the financial system would have been worse in 1873 and 1893 if banks had not suspended currency payments to depositors. Runs on banks created a kind of implosion of the banking system, as banks attempted to quickly sell their assets to obtain the currency demanded by their depositors. Suspension of currency payments stopped the implosion of the banking system. Even though banks were able to resume currency payments to depositors within about a month of the suspensions in 1873 and 1893, these periods of suspension of currency payments created major disruptions in economic activity in the United States.

Now consider the experience of 1907. Economic activity peaked in May 1907. In the fall, events unique to 1907 led to a run on a major trust company in New York City that was not a member of the clearinghouse. Members of the clearinghouse decided to withhold aid from the trust company. That decision appears to have been

an unwise one, as failure of the trust company triggered runs on members of the clearinghouse. When the private remedies were not effective for coping with the depositor runs, members of the clearinghouse decided to suspend currency payments to their depositors.

As in 1873 and 1893, the suspension of currency payments in the fall of 1907 stopped further reductions in bank assets, but at the cost of a major disruption in the payments system that aggravated the economic recession that had started in May 1907. This episode and many others demonstrate clearly the connection between banking stability and stability of output and employment.

The political backlash from the 1907 banking panic eventually led to the formation of the Federal Reserve System in 1914. The founders of the Federal Reserve believed that an important function of the new central bank was to provide currency to banks to meet temporary increases in currency demand by bank customers. The Fed provided assistance by making loans to member banks through the Fed's discount window.

The United States experienced several minor recessions in the 1920s, but no generalized financial problems. It appeared that the Federal Reserve was working as intended. But then, in October 1929, the stock market crashed. The crash was a major shock to the U.S. financial system, but it did not itself necessarily lead to the Great Depression.

One view of the onset of the Great Depression assigns much of the blame to the Federal Reserve System, which failed in its mandate to maintain price stability and a sound banking system. The Federal Reserve permitted the money supply to fall sharply during the early 1930s, leading to sharply falling prices of goods, services, and wages. The consumer price index declined about 25 percent between 1929 and 1933. This experience with deflation, as well the Japanese experience in the 1990s, demonstrates conclusively that a major deflation is extremely damaging to banking stability and economic activity.

Businesses and households that had borrowed funds in the 1920s prior to the onset of deflation in 1930 did not have sufficient cash flow to meet their debt obligations. As prices and wages fell,

debt increased in real terms. For example, a household that had taken out a mortgage in the 1920s might be unable to make the mortgage payments as wages fell, even assuming that the homeowner remained employed. Of course, many became unemployed. Eventually many businesses and households defaulted on their debt obligations, undermining the solvency of their creditors and the confidence of depositors in the financial strength of their banks.

The U.S. banking system experienced a series of depositor runs during the early 1930s. The Federal Reserve failed to offset the reserves that banks lost through currency withdrawals by their depositors. Banks no longer employed their pre-Fed private remedies for runs, because they expected the Federal Reserve to deal with runs. This was a period of policy drift; neither the Federal Reserve nor the banks themselves acted to halt the implosion of the banking system.

Pressure on the banks became so great that in March 1933, shortly after his inauguration, President Roosevelt declared a banking holiday for the entire nation. Every bank in the nation was closed for at least a few days. Government authorities permitted banks to resume operations as they certified the banks to be in sound financial condition. Customers of thousands of banks that did not resume operation had their bank deposits frozen until the failed banks were liquidated.

The disruption in the operation of the payments system in March 1933 was greater than during the earlier periods of suspension of currency payments. During the periods of suspension of currency payments, banks had remained in operation and processed payments initiated by their depositors in the form of checks. In short, in 1933, the Federal Reserve presided over the largest banking crisis in the history of the United States. The nation's response was to establish a system of federal deposit insurance, to make banking panics less likely in the future.

The 1930s illustrate the damage that deflation can create in an economy; the 1970s, the period of the Great Inflation, illustrates the damage of high inflation. The inflation began to take root in 1965, slowly at first. Then, the entire decade of

FINANCIAL MARKETS

the 1970s was a period of relatively high U.S. inflation. The lowest year-over-year percentage change in the consumer price index was 3.3 percent in 1972, and even that performance was an artificial result of wage-price controls that could not be sustained in the long run. The inflation rate rose every year from 1976, when the inflation rate was 5.8 percent, to 1980, when the inflation rate was 13.5 percent.

Rising inflation during the 1970s had adverse effects on the financial system for several reasons. Whereas deflation in the early 1930s damaged borrowers by increasing the real value of debt, inflation in the 1970s damaged lenders by decreasing the real value of debt. Loans negotiated while inflation was relatively low in the 1950s and early 1960s were repaid in dollars with lower purchasing power, thus undermining the financial strength of lenders.

After a persistent rise in the inflation rate for several years, businesses and households began to borrow on the basis of expectations that high inflation rates would continue indefinitely. Interest rates that borrowers would have considered extremely high a few years earlier appeared more acceptable in light of their expectation of continued high inflation.

The rate of inflation declined sharply during the early 1980s after an aggressive tightening of monetary policy in late 1979. The consumer price index, which rose 13.5 percent in 1980, increased only 3.2 percent in 1982. This abrupt slowing of inflation put financial pressure on the businesses and households that had borrowed at relatively high interest rates in anticipation of continuing high inflation. Of course, some businesses and households could refinance their debt as interest rates declined during the 1980s, but not all could because they were locked into long-term obligations. Perhaps reflecting expectations that inflation would rise once again, long-term interest rates declined much more slowly than did the rate of inflation. The interest rate on 10-year Treasury securities peaked at 15.3 percent in September 1981 and remained above 10 percent until November 1985.

The episodes of the Great Depression and the end of the Great Inflation show clearly the damage from an unexpected decline in the rate of inflation. In the first case, inflation went from about zero to roughly -10 percent per year; in the second case, inflation went from roughly 10 percent to roughly 4 percent per year. Inflation itself causes many difficulties; the lesson is to avoid inflation in the first place, to avoid both the problems from inflation and from its ending.

The relatively large gap between long-term interest rates and the inflation rate during much of the 1980s may be interpreted as an indicator of the inflationary expectations of investors. A long period of relatively low inflation was necessary to convince investors that the economy would not repeat the inflationary experience of the 1970s. While experience of the 1930s illustrates the adverse effects of deflation on the operation of our nation's financial system, the experience of the 1970s and 1980s illustrates the damage that can result from a persistent rise in the rate of inflation followed by an abrupt slowing of inflation.

Savings and loans associations (S&Ls) were especially vulnerable to rising and then falling inflation in the 1970s and 1980s. For several decades, these organizations had remained profitable while assuming a great deal of interest rate risk. The risk arose when S&Ls attracted funds in the form of short-term deposits provided by households and lent funds in the form of long-term, fixed-rate residential mortgages. The S&Ls were vulnerable to sharp increases in market interest rates; as rates rose during the 1970s, S&Ls had to increase deposit rates but were stuck with the lower rates on long-term mortgages issued in earlier years. By the time the government got around to dealing with the problem of the bankrupt S&Ls, the cost to the taxpayers was about \$150 billion.

While the problems of the S&Ls created a mess for the government to resolve, it did not cause a breakdown in the operation of the payments system, because the public continued to have faith in federal deposit insurance. We must go back to 1933 to find an example of a breakdown in the operation of our nation's payment system.

Although the Federal Reserve did not regulate the S&Ls, lessons from that unhappy experience were not lost on banking regulators and Congress. Congress acted to strengthen regulation of depository institutions in the Federal Deposit Insurance Corporation Improvement Act of 1991.

SCORE CARD ON CONDITIONS FOR FINANCIAL STABILITY

Is the Fed achieving its objectives of moderate inflation and financial strength for the nation's banking industry? Since 1992, the year-over-year percentage change in the consumer price index has been within a range between 1.5 percent and 3.5 percent. Excluding the volatile food and energy component of the CPI, the range has been between 2.1 and 3.3 percent. This pattern of inflation rates does not have the kinds of adverse impacts on the stability of the financial system that we observed in many earlier years.

In addition, various measures indicate that the banking industry is in relatively strong financial condition. I will cite one measure, the ratio of equity to total assets for all banks. This ratio, which was 6.4 percent in 1990, was 8.5 percent in 1998, and has risen further to 9.2 percent in 2002. The strength of the banking system was an important source of stability in the fall of 1998, after Russia defaulted on its bonds. That strength has also been important in limiting the extent of the recession of 2001 and helping to sustain the economy in the face of the large decline in the equity markets.

Finally, during recent years the Federal Reserve has implemented a policy of ensuring that default by one or more banks that are involved in the operation of systems for settlement of financial transactions would not disrupt the settlement of transactions by these systems. The Fed acted vigorously to maintain operation of the payments system following the terrorist attacks of 9/11, and has since strengthened its processes further.

In an entrepreneurial, market economy businesses and households are guided by price signals and expectations of profits from new markets

and new technologies. The Fed's responsibility is to maintain a steady general price level and not to take a position on the appropriateness of individual prices. We have ample evidence that stock prices can fluctuate substantially even while the general level of goods prices is stable. Avoiding inflationary disturbances to economic activity and to financial markets is a major achievement of the last 20 years or so.

As I've noted, the U.S. economy in recent years has experienced financial shocks that had the potential to become much more serious. I've emphasized that the Fed plays a critical role in maintaining financial stability through its policies to promote price stability. The baseline condition of price stability makes it much more likely that market responses to shocks will not cumulate to larger and more general problems.

There is another part of the story, though, that I have not emphasized so far. That part is the Fed's role in responding to any particular shock in whatever way is appropriate to deal with the shock. For example, the collapse of the Twin Towers on 9/11 led to the unavoidable closure of the New York Stock Exchange and the government securities markets. The physical clearing process for payments was damaged, which meant that banks and firms with bills coming due could not in fact make the payments, even though they had ample funds. For example, how do I get home from the airport if I'm relying on the ATM to get cash to pay the taxi driver, and find that the ATM is broken? The funds are in my account, but I can't get to them.

Because the payments system for large dollar electronic transfers was broken on 9/11, those relying on receiving funds to make their own payments could not obtain the funds they were owed. The Fed lent massive amounts of funds so these payments could be made. The Fed's actions were tuned to the realities of the particular problem.

So, the Fed's responsibility is two-fold: First, to maintain the solid base of price stability and, second, to respond as needed to offset the effects of shocks when they occur. The Fed has no way to prevent all shocks, but it can limit the collateral damage that would otherwise flow from them.

FINANCIAL MARKETS

The nation is fortunate that the Federal Reserve is generally effective in minimizing collateral damage from unpredictable shocks. Minimizing, though, is not the same thing as eliminating. An important item of unfinished business is to examine changes in government policy and market practice that might reduce the likelihood and severity of shocks in the first place. But that is the subject of another lecture another day. Indeed, the subject is so large that it deserves several lectures on several days.