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Bank Runs, Deposit Insurance, and Bank Regulation, Part II

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Contagious bank failures are often thought to be a possible consequence of a banking system without federal deposit insurance. This article considers whether federal deposit insurance is necessary to prevent these types of bank runs.

Part I, which was presented in the February Economic Commentary, described some of the costs and benefits of providing deposit insurance and concluded that an analysis of contagious bank failures is necessary in order to understand these benefits.

Part II continues with an examination of contagious bank runs and a discussion of how the market handled panics prior to the Federal Reserve System and the Federal Deposit Insurance Corporation.

Contagious Bank Failures

The last apparent difference between banks and other businesses is the possibility for a rumor or a failure of another bank to ignite bank runs and cause the failure of financially sound banks.

These types of bank failures are termed "sunspot" failures because, if depositors truly believe that a bank's solvency depends on events unrelated to market fundamentals—such as the amount of solar activity—a bank's solvency would, in fact, depend on the amount of solar activity. In the typical example, a sunspot is the failure of one bank or a group of banks, which ignites rumors that other banks might also fail.

It would seem irrational for depositors to run on a solvent bank. However, because a bank's solvency and the amount of solar activity depend on the number of depositors wishing to withdraw money, it is rational for each depositor to queue up if he expects other depositors also to stand on line.

Sunspot bank runs are also said to be "bubble" phenomena. One of the most famous examples of a bubble involved tulip bulbs in Holland during the seventeenth century. Investors frantically bought tulip bulbs, expecting their price to rise, which in turn caused their price to rise.

Determining how often bank runs are caused by sunspots—extraneous events—is difficult to do with any degree of statistical accuracy. However, we can examine whether bank failures were the products of the same type of deposit and withdrawal behavior during both panics and nonpanics.
Gorton tests this hypothesis for bank failures during the U.S. National Banking Era (1865 to 1914) and shows that the factors affecting deposits and withdrawals in the late 1870s included the periodicity of widespread bank failures and in periods when banking failures were not widespread. His results suggest that "bank runs during the National Banking Era were systematic responses by depositors to changing perceptions of risk."

Corroborating evidence that extraneous events did not seem to cause a substantial number of bank failures prior to the Great Depression is given by Benston, et al. They show that the average bank failure rate for the 1875 to 1919 period was 0.82 percent, versus 1.01 percent for non-financial firms. If banks are like other firms except for the possibility of contagious bank runs, one would expect the failure rate of banks to be at least as great as it is for other kinds of businesses.

Most bank runs do not seem to be of the type pictured in textbooks (or in the Frank Capra movie American Madness) of banks falling like dominoes, with mass hysteria as depositors line up for blocks hoping to withdraw their money. Instead, the evidence indicates that contagious bank failures may have been rational responses to changes in the financial worth of a bank. Even the recent runs on the Ohio and Maryland thrifts and savings and loans seem to have been based on market fundamentals. Since the evidence against contagious bank failures is indirect, one should not completely dismiss the possibility that contagion of bank runs might arise in an unrelated environment. However, this type of bank run does not appear to be as widespread as typically thought, so the regulatory response to this possibility should be tempered by our current state of knowledge.

Why Bank Runs Can Be Contagious

The possibility for extraneous events leading to bank runs arises from two elements of banking structure: the first, close, first served aspect of banking deposits, and the illiquidity of many bank assets. The former is necessary in order for runs to exist. If the amount in a depositor’s account fluctuated with the market value of the assets and liabilities of the bank (as it does in a mutual fund), bank runs would typically not occur. However, as discussed earlier, the threat of bank runs imposes a necessary discipline on banks.

A bank asset is said to be illiquid if the bank cannot sell it in a short amount of time without incurring a substantial loss. Illiquidity results from the asymmetry between the bank’s perception of the value of its assets and the market’s (depositors’) perception of the value of those assets. This difference arises because information that a bank learns at the time a loan is made (such as a borrower’s credit history, assets, and liabilities) and information that a bank learns during the life of a loan (such as timing and receipt of payments) cannot be costlessly acquired by other financial firms.

The fire sale value of an asset is the price that can be received for an asset on short notice. Asymmetric information explains why the fire sale value of a government security (in which all investors have the same information about its quality) is nearly 100 percent of its long-run market price. Similarly, the fire sale value of a corporate bond is much closer to its long run value than the fire sale value of a personal loan.

Banks will tend to first sell off assets that might look good to purchasers but that the banks know are of poor quality. Because the marketplace anticipates this, asymmetric information causes some of a bank’s assets to sell at a large discount.

Therefore, when a bank run occurs, a financially sound but illiquid bank can conceivably become insolvent. A bank may be forced to sell off a high-quality asset in order to get quick cash, which may bring a low fire-sale value since information about the quality of the asset is not made public.

Cures for Contagious Bank Runs

The two principal methods the federal government uses to eliminate bank runs based on extraneous events are federal deposit insurance and discount lending by Federal Reserve Banks. FDIC insurance has eliminated the need for most depositors to run on a bank, whether the run is caused by sunspots or by information that the bank has become insolvent. Federal Reserve Bank lending can minimize such runs because the Fed stands willing to provide “adjustment” or even extended credit to a solvent but troubled bank, so that it does not have to liquidate in assets at fire sale prices.

Before the Federal Reserve Act, the pre-1914 banking industry was organized by a system of regional clearinghouses, whose powers and functions resembled those of a central bank. In many ways the Federal Reserve System was simply the nationalization of the private clearinghouses.

A study by Gorton indicates that the New York Clearing House helped eliminate contagious bank runs was by suspending convertibility of deposits into specie or currency. A bank would open its doors and make payments, but temporarily would not honor cash withdrawals. Although suspending convertibility was technically illegal, it was allowed to occur on at least eight occasions during the nineteenth and early twentieth centuries.

Gorton argues that “such accommodat ing behavior arose because suspension of a mutually beneficial arrangement.” He maintains that by suspending convertibility, banks signaled to depositors that further liquidation of the bank’s assets was not in their best interest. The ability to temporarily suspend convertibility not only helped to quell existing bank runs, but it also reduced the chance that a run based on extraneous information, or sunspots, could occur.

Bank Runs During the Great Depression

Another lesson can be learned by examining bank failures during the Great Depression. With the inception of the Federal Reserve System, suspension of convertibility did not occur (except for the government-imposed bank holidays). Frieden and Schwartz argue that “if the pre-Federal Reserve banking system had been in effect...the (suspension of convertibility) would have almost certainly taken place in September 1931 and very likely would have prevented at least the subsequent failures.”

Instead, the total suspension that eventually took place aggravated the situation. The haphazard ways in which states declared banking holidays in 1932 and 1933 further wore the runs as depositors in open states rushed to get their money after making states imposed holidays. Ironically, at its inception, the Federal Reserve System instituted a discount window in order to prevent banking panics. Since an earlier, discount lending lessens the incentives for banks to hold liquid assets, making banks more vulnerable to runs. Instead of lowering the discount rate that could have provided liquidity during the panics, the Federal Reserve raised the discount rate in September 1931 and again in February 1933.

Although the level of discount lending increased during the Great Depression, banks also had to dump assets on the market to try to meet depositors. The Federal Reserve System aggravated the situation by not actively pursuing open market operations in order to prevent a multiple contraction of the money supply.

Conclusion

Many agree that reform of the current banking structure is overdue. To their credit, banks regulator allowed nearly 200 insolvent banks to fail in 1987. Unfortunately, they may not be letting enough insolvent banks fail, and even when regulators close a bank, the FDIC sometimes employs a rescue procedure that protects the “uninsured” depositors.

Although reform of the present banking system may be desirable, a growing body of evidence indicates that many of the current financial problems in banking are at least partly the result of the incentive structure created by deposit insurance and by the way deposit insurance is administered. Regulators contemplating reform of the banking system should consider the costs associated with federal deposit insurance. Left on its own, the private system provided many of the current safeguards considered necessary for a well functioning banking system. Charles T. Cochrane is an economist at the Federal Reserve Bank of Cleveland. The author thanks to Walter Todd, James Thomson, John Scadding, William Gau, and Mark Sniderman for their helpful comments.