

# Risky Business

## *Clearing Checks During Banking Crises*

On an average day, U.S. businesses and consumers write 157 million checks. These checks must eventually be presented to the bank on which they are drawn for collection, the paying bank. Individuals writing checks and those accepting checks typically have little concern over *how* their money will be collected. As long as this system continues working smoothly, they probably never will.

This lack of concern can be attributed to the stability and efficiency of the current system. Checks may be cleared through a private-sector system of direct presentments between banks, clearinghouses and correspondent banking relationships; through the Federal Reserve System; or through a combination of the two. (The sidebar on page 7 explains how clearinghouses and correspondent banks fit into the payment system.) Streamlining check clearing was one reason for creating the Federal Reserve, which currently clears about one-third of all checks written in the nation.<sup>1</sup>

Another benefit of the Fed's involvement in check clearing is the need for a safe method of clearing payments during periods of financial instability. The Fed is required to make check-clearing services available to all depository institutions and to price its services competitively. What is unique about the Fed is that it provides a "risk-free" alternative and supplement to private-sector check clearing. Accepting a check in payment entails several risks: the check may be drawn on insufficient funds, and there is the possibility that fraud or other problems might result in the check's being uncollectible. Check clearing by the Fed

is risk-free, in the sense that there is no danger that the Fed will fail as the check clearer. During periods of financial instability, such as the recent banking crises in Texas and New England, risk-free check clearing is critical to the stability of the payment system and the economy.

If the Fed withdrew from the check-clearing business, it would not be able to absorb shocks to the payments system. The result would be a weakened financial safety net, the government mechanisms designed to prevent the loss of depositors' confidence in times of crisis. These mechanisms include federal deposit insurance, liquidity through the Federal Reserve's discount window, and a stable payment system.

### **Risks in Clearing Checks**

Check clearing requires two basic functions. Checks must be physically presented to the bank on which they were drawn,<sup>2</sup> and the bank that receives checks must transfer funds to the bank that presented the checks. The transfer of the funds is called *settlement*. An exchange of actual currency for the transfer of funds would be inefficient. So, banks usually hold accounts, called *clearing accounts*, at other financial institutions to facilitate transfers.

For example, a bank that regularly presents checks directly to another bank probably maintains a clearing account at that other bank. Once the checks are presented, the paying bank credits the other bank's clearing account. If a bank participates in a clearinghouse, all members of the clearinghouse likely hold clearing accounts at a common financial institution. These accounts are credited and debited as needed to transfer the appropriate funds to effect the clearing and settlement. If a bank uses a correspondent bank to clear checks, it would maintain a clearing account at the correspondent. In all these examples, the banks must maintain clearing accounts.

Two types of risks are inherent in check clearing. Banks hold clear-

ing accounts at other institutions, and these institutions might fail and cause the depositing bank to lose the uninsured portion of its deposit. A second type of risk is operational; a technical problem, a natural disaster or the financial failure of an involved party could disrupt check-clearing operations.

These risks are very important in correspondent banking relationships. Correspondent banks want to sever financial relationships with failing respondent banks. If a respondent bank fails, the correspondent bank returns the checks drawn on the respondent to the bank of first deposit. The correspondent is not exposed to risk from holding uncollectible checks, but it may have to pay for returning them. Negative publicity is another reason correspondent banks may distance themselves from weak or failing respondents.

Respondent banks are also concerned about the risk in the correspondent bank relationship. They depend on their correspondent to clear their checks. If the correspondent fails, the respondent may lose all or part of its clearing account or find itself temporarily unable to access its clearing account funds.

Probably the most important reminder of respondent banks' risk exposures was the collapse of Continental Illinois National Bank in 1984. Nearly 2,300 banks had deposits at or had lent federal funds to Continental, and a large portion of these were respondent banks. No respondent or correspondent banks lost funds in Continental because federal regulators guaranteed that all creditors of the bank and its holding company would be made whole. Regulators issued the guarantee to assuage concern that Continental's failure might trigger a crisis in international financial markets. Although later the subject of some criticism, regulators at the time feared that Continental's failure could cause losses to its respondent banks and hundreds more bank failures. Small banks became aware that potential losses depended on how the Federal Deposit Insur-



ance Corporation resolved the failure of a correspondent bank. Small banks were concerned that other correspondent banks might not be considered "too big to fail."

Clearing checks through the Federal Reserve System eliminates a bank's vulnerability to a correspondent bank's failure. Banks that clear checks through the Federal Reserve rather than correspondent banks face no risk of losing their clearing account balances since the Fed cannot fail.

### Check Clearing During Two Crises

Hundreds of banks failed during the Texas banking crisis. From 1982 to 1989, 396 banks failed in the Eleventh District, which includes Texas, northern Louisiana, and southern New Mexico. In 1989, the worst year of the crisis, 144 banks failed (Robinson 1990). By 1990, five of the top eight correspondent banking organizations in Texas had failed and two had been acquired by out-of-state organizations.

As conditions in the Texas financial community deteriorated, correspondent banking relationships broke down. Correspondent banks began closely monitoring their respondents and severed their payments-processing relationships with weak banks. Likewise, as some larger correspondent banks weakened, their respondent banks, concerned about the safety of their clearing balances, sought alternate check-clearing arrangements.

Changes to check-clearing arrangements rose by more than 50 percent.<sup>3</sup> The Dallas Fed responded to mounting problems by processing more checks (*Chart 1*). In effect, the Fed acted as the "processor of last resort" to lessen shocks in the correspondent-respondent network.

In early 1991, Federal Reserve Bank of Boston also encountered a banking crisis that also could have caused the payments system to break down. Correspondent banking relationships deteriorated when the Bank of New England failed, but the

Boston Fed absorbed the increased check volume until the threat subsided (*Chart 2*). The Boston Fed also managed the payment system during the state-declared bank holiday for 45 privately insured credit unions in Rhode Island. The Boston Fed took over check processing for these institutions because their check processor was unwilling to accept checks drawn on these institutions. The first day after the governor declared the "bank" holiday, the Boston Fed processed more than 19,000 returned checks.

### The Cost of Uncertainty

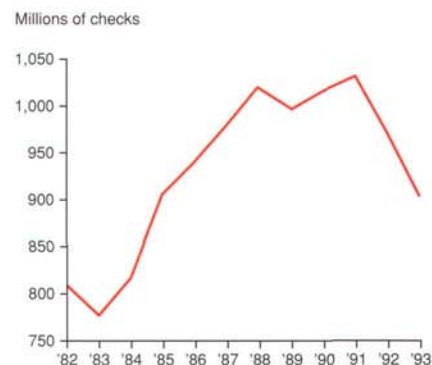
What would happen during a financial crisis if the Federal Reserve did not act as a safety net for the payments system? Without the Federal Reserve's risk-free payment-clearing service, the economy would be subject to financial market turmoil. Uncertainty of payment could hinder the sale of goods and services, which would further weaken the economy.

If the payment system were in jeopardy, stores and other businesses would probably act to minimize their risk. Businesses might require payments to clear before delivering goods. Store owners might reduce or eliminate their check acceptance, possibly even shifting to cash-only policies. Businesses might refuse to accept checks from banks considered risky or discount checks drawn on riskier banks. While this might sound extreme today, one reason

**Chart 1**  
Dallas Fed Check-Clearing Volume  
(Adjusted for the business cycle)



**Chart 2**  
Boston Fed Check-Clearing Volume



for the creation of the Federal Reserve System was to establish on-par clearing of bank checks.<sup>4</sup>

In addition, without the Federal Reserve as a backstop, respondent banks would have to maintain their own contingency plans for check clearing if their correspondent failed. The most straightforward approach would be for respondent banks to maintain two or more correspondent banking relationships to spread out the risk that one correspondent might fail. The Texas experience of the 1980s, however, suggests that this strategy might break down when multiple correspondent banks fail within a short time.

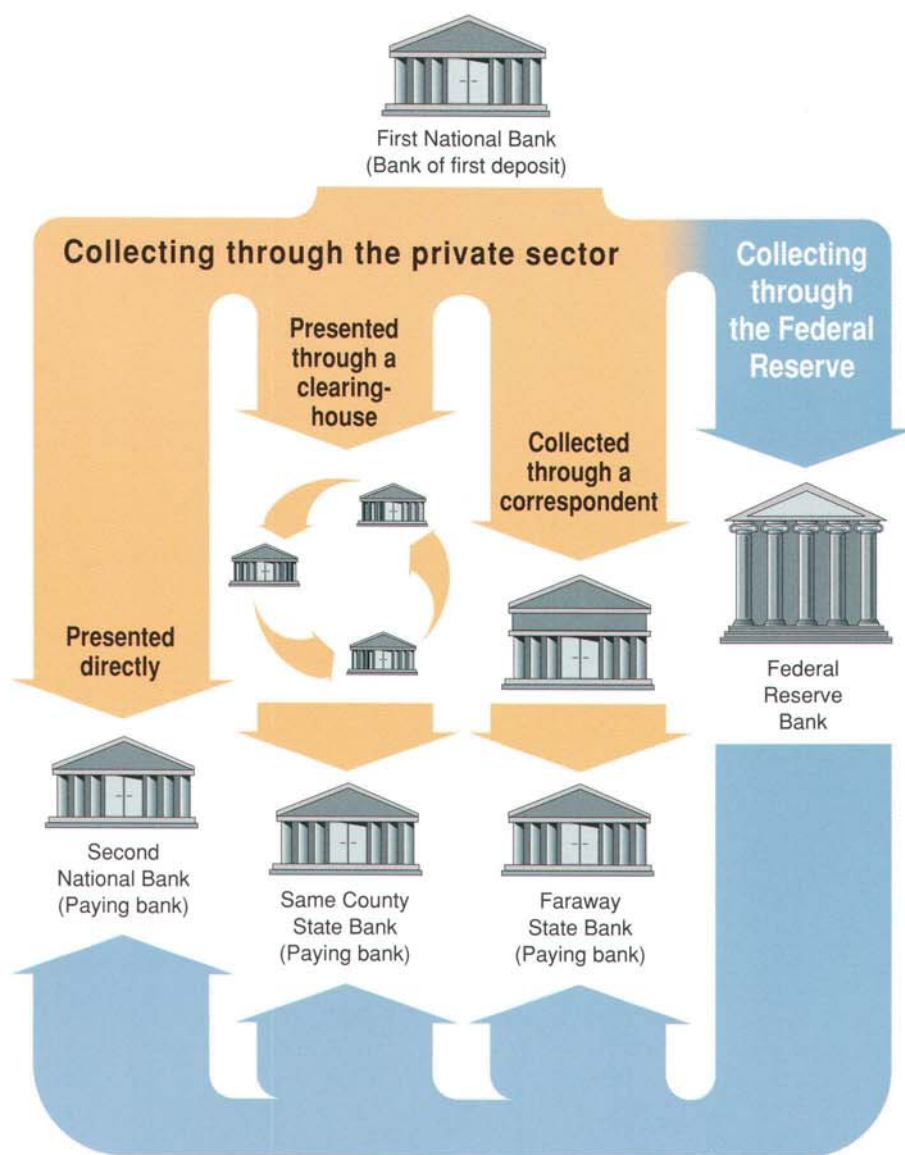
If the Fed ceased its check-clearing operations and banks and businesses had to manage these risks themselves, the overall costs of managing these risks could rise. Furthermore, it is unlikely that any private-sector check-clearing operation would have sufficient incentives or resources to invest as heavily in risk reduction as the Fed. The Federal Reserve maintains sophisticated back-up systems of power sources and processing capacity. Reliance on private-sector check clearing could also increase systemic risk in the banking industry.<sup>5</sup> How would private-sector correspondent banks respond to a financial crisis?

Bank supervisors' options would be limited in closing large, troubled banks if only the private sector provided check clearing. Currently,

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# Four Ways to Collect a Check



People write and deposit millions of checks every day. Somehow, these checks must travel through the payments system to be debited from the check-writer's account, a formidable task in a country as large as the United States. The diagram above shows how checks written to Tony's Grocery, a fictitious business in a fictitious town, might move from Tony's bank back to the banks on which they are drawn.

The cashiers at Tony's Grocery accept checks all day and in the evening deposit them at the First National Bank of Willoughby. At First National, called the bank of first deposit, the checks from

Tony's are sorted depending on how they will be cleared.

One check does not need to be cleared at all because it is from a Tony's customer who also banks at First National. This is an *on-us check*, meaning that the individual writing the check and the party depositing it hold accounts at the same bank. This check can be processed internally.

The second check in Tony's deposit is drawn on the Second National Bank, located across the street from the First National. Here, the bank of first deposit can physically carry this check across the street to the *paying bank*, the bank

that will draw funds from the check writer's account to transfer to the bank of first deposit. Clearing a check in this manner is called *direct presentment*.

The third check is drawn on Same County Bank, located in the same area as First National Bank. Both banks are members of a local check *clearinghouse*, which is an association of banks that meet to exchange checks. By providing a central location for the exchange of checks, clearinghouses eliminate the need for every local bank to present checks directly to every other local bank.

The fourth check deposited by Tony's Grocery is drawn on Faraway State Bank. Faraway State Bank is too distant for an economical direct presentment and does not belong to any of the same clearinghouses as First National. Here, First National may use a correspondent bank to clear the check. A *correspondent bank* is usually a large bank that provides smaller banks with a variety of services, check-clearing among them.

In this case, First National deposits the check into its account with its correspondent, Big City Bank. Under this arrangement, First National is a *respondent bank* of Big City. Once the check is deposited with Big City, Big City is responsible for sending it to Faraway Bank. Big City could present the check to Faraway Bank directly, through a clearinghouse to Faraway Bank or through another correspondent bank that provides correspondent services for Faraway Bank.

All these situations demonstrate private-sector methods of clearing checks. The Federal Reserve System provides an alternative to private-sector check-clearing. First National Bank could have sent any of its checks to a Federal Reserve Bank for clearing. If the checks were drawn on banks in the same Federal Reserve District, the Federal Reserve Bank would transport the check to that bank for collection. Checks drawn on distant banks located in other Federal Reserve Districts would first be transported to another Federal Reserve Bank and then presented to the paying banks. Even Big City Bank, the correspondent bank, might clear checks with the Federal Reserve Banks.

Sometimes the most economical way for Big City Bank to clear the check is to send it to a Federal Reserve Bank. This makes correspondent banks, like Big City Bank, not only competitors with the Federal Reserve but also customers.



(Continued from page 6)

bank supervisors worry about the deposit losses that respondent banks might face if a large correspondent bank failed. Bank supervisors do not worry about how these respondents would clear their checks because the Federal Reserve offers an alternate check-clearing service. Without the Fed as an alternative, bank supervisors would have to consider both financial and operational risks. For example, when Continental Illinois collapsed, bank supervisors were concerned about the 179 banks that had loss exposures greater than half their bank's capital. Had there been only private-sector check clearers, bank supervisors would have had to consider how the 2,299 banks holding deposits at Continental would clear their checks the next day.<sup>6</sup>

The Federal Reserve must provide payment services on an ongoing basis for it to be able to respond to a payment system crisis, not unlike the fire department, which must be fully staffed with trained personnel and equipment before fire breaks out. How large the Fed's share of the check clearing market needs to be for the Fed to be capable of answering a crisis call is uncertain, but a zero market share guarantees an inadequate response.

—Robert T. Clair  
Joanna Kolson  
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## References

Robinson, Kenneth, J. (1990), "The Performance of Eleventh District Financial Institutions in the 1980s: A Broader Perspective," *Financial Industry Studies* Federal Reserve Bank of Dallas, May, 13–24.

U.S. General Accounting Office (1989), *Check Collection: Competitive Fairness Is an Elusive Goal*, May.

U.S. House of Representatives (1984), "Inquiry into Continental Illinois Corp. and Continental Illinois National Bank," hearings before the Subcommittee on Financial Institutions Supervision, Regula-

tion and Insurance of the Committee on Banking, Finance and Urban Affairs, September 18, 19 and October 4, Serial No. 98-111 (Washington, D.C.: U.S. Government Printing Office).

## Notes

<sup>1</sup> An alternative estimate is that the Fed clears about one-half of all U.S. checks that are cleared across banks. This estimate is from John P. Borden's testimony of October 27, 1993 before the U.S. House of Representatives Committee on Banking, Finance and Urban Affairs. Borden's estimate differs from the Fed's because his does not include checks drawn on accounts and deposited into accounts at the same bank, on-us checks.

<sup>2</sup> This is a simplification. New products enable banks, in some cases, to present the paying bank the information contained on the check, rather than the actual check. The information can be presented as either an electronic record of the check or even as an electronically stored image of the check.

<sup>3</sup> The number of changes to the Customer Information System of the Dallas Office of the Federal Reserve Bank of Dallas rose from an average of 237.5 in 1986 and 1987 to an average of 373 for the years 1988, 1989 and 1990.

<sup>4</sup> Before 1913, checks were often cashed and cleared on a discounted basis. The greater the risk involved in accepting a check for clearing the greater the discount required. On-par clearing requires that a check not be discounted—that is, it is accepted for its full face value.

<sup>5</sup> Systemic risk refers to the risk that one bank's failure may result in multiple bank failures. Suppose that, in order to clear their checks, banks have to increase their deposits in clearing accounts at other banks. This leaves the banks more exposed to losses in the event of a bank failure. One bank's failure may result in losses that cause other bank failures.

<sup>6</sup> This statement assumes that the 2,299 banks that held deposits at or sold federal funds to Continental were respondent banks. Probably some of these banks were not respondents. The exact number of respondents was not documented in any of the congressional testimony. Had Continental failed, the correspondent banks of those banks that were not respondents of Continental would have had losses, which could have caused their correspondent banks to question their solvency.

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