



CRISIS OF CONFIDENCE:

BANKS AS A SOURCE OF LIQUIDITY IN A FINANCIAL CRISIS



In most U.S. financial crises, banks have played a critical role in the fight to maintain stability.

By their very nature, banks are ideally positioned to act as a source of liquidity for borrowers cut off from other sources of funds amid market turmoil. That is because, in general terms, an environment of escalating risks makes investors jittery about keeping funds in stocks, bonds and other securities. As a result, investors instead seek the safety that can be found in traditional banks deposits, making banks awash with funds and able to lend.

Although that model had worked well in past crises, the events of 2007-09 raised questions about its viability in all such occurrences.

“This crisis was special in that commercial banks and the entire banking system were much more exposed to losses and uncertainty surrounding these losses than in recent past crises. Not only were banks directly holding mortgage-related securities but they also had offered support to issuers of debt backed by mortgage securities,” says Nada Mora, an economist at the Federal Reserve Bank of Kansas City who examined the ability of banks to provide liquidity during the 2007-09 crisis.

Understanding these issues and the degree to which banks might have been compromised in their ability to respond is important for

policymakers considering what steps might be necessary to further protect the financial system and the economy from future calamity.

‘WHAT WAS ONCE A VERY EXCLUSIVE CLUB’

Those who closely followed the financial turmoil of 2007-09 will recall there was much talk about how the crisis was creating problems between investors/savers and borrowers. Savers’ funds can move through numerous channels to get to borrowers. For example, in addition to a traditional bank loan or accessing a pre-established line of credit, corporations that wish to access funds might offer corporate bonds or raise capital through an equity or stock offering.

One funding option, particularly for firms needing funds for only a short period of time, is selling unsecured commercial paper. Unsecured commercial paper is a security with a fixed maturity that ranges between one day and nine months and that is not secured by collateral, such as real property or another security owned by the issuer. Essentially, the commercial paper is backed only by the issuer’s creditworthiness and ability to pay off the commercial paper when it matures.

Commercial paper, once used almost exclusively by financial companies and with a history dating back to at least the 1800s, has

become increasingly popular with a full range of businesses in recent decades.

It can be a critical source of funds to cover operating costs, such as payroll or inventory. For borrowers with strong credit ratings, the commercial paper market is especially attractive because it can provide funds at an interest rate that is cheaper than what could be found at a bank or through other means.

However, despite the low interest rate, commercial paper is not an area without risk for investors. The borrower can default on its commercial paper, leading to investor losses. As such, in a period of financial uncertainty, the commercial paper market can become volatile, with rates escalating for even the most creditworthy issuers, or even drying up completely for some firms.

That was the case during what was the first major modern-era crisis involving commercial paper when rail giant Penn Central Transportation filed for bankruptcy in the summer of 1970. The failure of the

world's largest railroad and the sixth-largest non-financial firm in the United States was at that time the biggest bankruptcy in the nation's history.

On its own, the failure was a major event, but it also came at a time when some were already expressing concerns that the commercial paper market had been made vulnerable by an unprecedented boom. Prior to Penn Central's collapse, the commercial paper market had nearly doubled from \$20.5 billion at the end of 1968 to more than \$37 billion in April 1970, according to an article from *The New York Times* from that period.

"The concern of long-time participants in the commercial paper market (both buyers and sellers) is that the market has grown so fast that some 'marginal' companies have slipped into what was once a very exclusive club and that, if one of these should default, it could generate a general crisis of confidence," *The New York Times* reported on June 17, 1970.

Only four days after the article was

OVERLAND PARK, KAN.-BASED YRC was among the companies challenged as credit conditions tightened. The firm's iconic trucks are often seen on highways throughout the Tenth Federal Reserve District, such as this one just outside of Omaha, Neb.



published, the crisis had its spark: Penn Central declared bankruptcy with \$152 million in outstanding commercial paper.

“(T)he glory days of commercial paper may be ending and some new financial difficulties may be beginning,” *Time* wrote in its July 6, 1970, edition. “The big buyers of commercial paper are now carefully scrutinizing the credit worthiness of the issuers, and many companies may have difficulty selling new paper.”

Within three weeks, outstanding nonfinancial commercial paper had shrunk by almost 10 percent, according to a later review by the Federal Reserve Bank of New York. With the financial uncertainty growing, the Federal Reserve took critical policy steps in response, including the liberalizing of discount window lending, to make funds readily available to financial institutions. As was noted in the New York Fed review, the central bank’s actions helped commercial banks act swiftly to meet credit demands, bringing an end to the crisis.

An important response to the Penn Central bankruptcy was that commercial paper issuers began to arrange backup lines of credit with banks. To insulate themselves from future disruptions should investors refuse to roll over maturing commercial paper, companies would be able to draw down funds from the backup bank lines to pay off commercial paper.

‘UNCERTAINTY IN THE ECONOMY’

The events of 1970, of course, were only a precursor to more severe financial turmoil in the years to come, including the fall of 1998. After the Russian debt default and the failure of the massive Long Term Capital Management Hedge Fund, commercial paper spreads jumped 50 basis points and outstanding paper from nonfinancial companies dropped about 7 percent from late summer through the end of the year.

“There are occasions when investors, who are the ones that supply the funds to the market, might have suffered a major loss or changed their beliefs about risks or uncertainty in the economy,” Mora says. “As a result, they shift funds to low-risk assets such as U.S. Treasury

bonds or bank deposits in what is known as a flight to safety.”

Many comparisons in Mora’s research focus directly on the differences between the ’98 crisis and more recent events. And in the ’98 crisis, it was clear where borrowers could turn for liquidity when turmoil hit the securities market.

An analysis of the role of banks in providing corporate credit was published by the Federal Reserve Bank of New York in 1999. In it, authors Marc Saidenberg and Philip Strahan found that “in a pinch, even the largest and most highly rated companies go to banks for liquidity.

“Last year (1998), when spreads increased and volume decreased in the commercial paper markets as a result of turmoil ... large firms chose to draw down funds from backup lines of credit. With market liquidity regarded as too expensive, banks proved to be a reliable source of liquidity for non-financial firms.”

In a dire scenario, the flight to safety can be broad enough that it creates a systemic shortage of liquidity in securities markets, which is what began to unfold in 2007.

The commercial paper spread relative to Treasury securities first spiked in the middle of August 2007, rising 100 basis points for those borrowers still able to access the market. The climb was followed by a 6 percent drop in outstanding unsecured paper. A little more than a year later, in the aftermath of the Lehman Brothers bankruptcy and as the full range of the crisis came into focus, spreads shot up more than 200 basis points. With twice the increase in interest spreads, the drop in outstanding unsecured commercial paper was more extreme, falling 13 percent from the previous month.

The implications for businesses were substantial, as illustrated in a *Wall Street Journal* article published near the height of the credit crunch.

“Wall Street’s financial crisis has rippled across the business landscape, raising borrowing costs for corporate giants, squeezing companies that rely heavily on loans and making it harder

for small enterprises to find capital and close sales,” the newspaper reported in its Sept. 18, 2008, edition.

Among several companies featured in the article was Overland Park, Kan.-based YRC Worldwide. The trucking giant had hoped to spend nearly \$300 million on new trucks, but, with credit conditions tightening and a need to refinance \$325 million in debt, it instead was planning to spend less than a third of that amount to lease equipment.

To raise cash, the firm was selling some assets and turning to an established line of bank credit.

“We feel like we still have a lot of levers at our fingertips to manage through this downturn,” Sheila Taylor, YRC’s vice president of investor relations told the newspaper.

card borrowing and other debt, was packaged together into asset-backed securities (ABS) to diversify the risks of any one borrower falling behind on his or her loan. ABS are securities where the payments to investors come from payments made by the initial borrowers on the loans backing the securities. Mortgage-backed securities were roughly half of outstanding ABS in mid-2007. Investors were eager to buy ABS because the diversification allowed them to forgo the costs and time associated with examining each borrower individually. The failure of a single household loan, it was thought, would be offset by the others rolled into the security.

Another security that developed to fund consumer debt was secured commercial paper, known as asset-backed commercial paper (ABCP). Like ABS, it was backed by mortgages

“ **UNCERTAINTY MADE IT IMPOSSIBLE FOR COUNTERPARTIES—
EVEN AMONG BANKS—TO GAUGE ANOTHER PARTY’S SOUNDNESS.** ”

“Would we say we’re not worried at all? No, we wouldn’t say that.”

In the same *Journal* article, Kenneth Barnett, the owner of an underwater lighting business in Georgia talked about the challenges faced by smaller businesses, such as Aqua Lights, in a tight credit environment. Barnett, who had hoped to expand, said he could only secure the funding if he was willing to give up an equity stake and pay 21 percent interest.

“There is just no money out there being lent,” Barnett told the newspaper. “It is getting tougher by the day.”

‘A LOSS OF CONFIDENCE’

In the ’07-’09 crisis, banks faced challenges trying to fill the liquidity provision role because they also were suffering from financial problems caused by large holdings of mortgage-related securities. And, to only further cloud the situation, securities and debt linkages had become much more complicated than they were in previous crises.

Since the 1980s, much consumer borrowing, including mortgages, auto loans, credit

and other securities. Unlike ABS and similar to unsecured commercial paper, it relied on ABCP investors continually rolling over maturing ABCP.

For borrowers, the result was lower interest rates. However, for investors, the seeming safety of built-in diversification was actually a recipe for disaster when confidence began to flail. As house prices fell and delinquencies rose on low-credit-quality subprime mortgages, investors became concerned that the initial borrowers would not be able to make the interest payments upon which the ABS and ABCP interest payments depended. As a result, investors shunned ABS and ABCP backed by subprime mortgages.

This liquidity shortage spread to prime mortgage-backed securities, and other ABS and ABCP. The first sign of this liquidity shortage was the sharp tumble in ABCP outstanding in August 2007 by about 20 percent, or \$200 billion. This drop was essentially a run by investors in ABCP that refused to reinvest when the ABCP matured.

The crisis also spread to mortgage lenders,

such as Thornburg Mortgage in Santa Fe, N.M., that relied heavily on short-term funding secured by their mortgage portfolio. Even though Thornburg had a very low default rate on its portfolio of mostly jumbo mortgages, it began to experience funding problems in February 2008 when UBS reported a major loss on its jumbo mortgages. Investors rushed to demand more collateral to secure Thornburg's short-term funding.

"UBS's sneeze meant that Thornburg, among others, caught a major cold," wrote William Cohan in *House of Cards*.

As a result, Mora notes that a crisis originally centered on subprime borrowers unable to pay their loans quickly morphed into something with a much wider reach and one that caused a loss in confidence and did damage to the idea of banks as a safe haven in a crisis.

"Commercial banks, and not just those with concentrated exposures to mortgage-related securities, were affected in this crisis due to the panic that developed from a lack of information and a loss of confidence," Mora says. "Uncertainty made it impossible for counterparties—even among banks—to gauge another party's soundness."

Among other things, Mora's data note that while bank deposit growth rose sharply during the flight to safety of the '98 crisis, there was a slight decline in deposit growth during the first phase of the '07-'09 turmoil. In the most recent crisis, the growth in bank deposits recovered only in the fall of 2008 as the government took emergency measures to provide funds to banks and investors transferred funds from money market funds that were no longer viewed as safe.

The behavior, however, differed among institutions. For example, Mora noted the largest banks, which were seen as too big to fail during the crisis, had a distinct advantage over other institutions in terms of attracting deposits—an issue which has its own range of policy implications, including what it means about the incentive for these firms to take on risk.

While deposits did not follow traditional patterns, Mora also found that on the other side of the bank balance sheet, loan growth also did not follow traditional crisis patterns and differed across banks. Lending growth was especially weak at banks most vulnerable to liquidity demand.

Mora concludes that her research raises serious policy issues that need to be considered in terms of perhaps designing mechanisms to supply credit to creditworthy borrowers during such a crisis. For example, the commercial paper market showed signs of recovery when the Federal Reserve intervened in October 2008. At that time, what had been a commercial paper market of less than \$40 billion in 1970 had expanded to \$1.5 trillion—down from more than \$2 trillion before the turmoil.

As far as the original question at the core of her research, Mora says she found that it cannot be assumed that bank deposits will be a stable source of funding to address market stress when banks are at the center of the crisis.

"In the last crisis, depositors shunned banks generally when there was greater uncertainty about the health of banks and uncertainty over whether the government would support the financial system," she says. "The main message is that bank deposit funds cannot be assumed to be robust to all types of market liquidity stress."



BY TIM TODD, TEN CONTRIBUTING WRITER

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CAN BANKS PROVIDE LIQUIDITY IN A FINANCIAL CRISIS?

By Nada Mora

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COMMENTS/QUESTIONS are welcome and should be sent to teneditors@kc.frb.org.