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## Are Banks Still Important for Financing Large Businesses?

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*As more corporations turn to the securities markets to meet their funding needs, the role of banks as providers of credit to large businesses seems increasingly uncertain. But a look at developments during the financial market turmoil last fall suggests that banks are still a critical source of liquidity at times of economic stress.*

Over the past twenty-five years, an increasing number of financial transactions have moved from banks to the securities markets. During the same period, competing financial institutions have expanded the range of traditional banking services they offer customers. Both thrifts and finance companies now provide loans to small businesses, and money market mutual funds offer close substitutes for checkable deposits. This shift toward the financial markets and nontraditional financial institutions has significantly reduced the role of banks in providing credit to U.S. businesses. The decreasing reliance on bank credit has been most pronounced among large corporations, which now tend to turn to the securities markets to fulfill their short- and long-term financing needs.

These changes have led many people to question whether banks remain important in the financing of large corporations. In this edition of *Current Issues*, we argue that they do. Despite their declining role in the provision of credit, banks continue to perform a critical function in providing liquidity to large corporations, particularly during periods of economic stress.

To support our point, we analyze the effects of last fall's economic turmoil in the securities markets on the borrowing practices of large corporations. Our analysis shows that during this period, borrowing in the com-

mercial paper market—the primary source of short-term funding for large corporations—grew too expensive, causing many borrowers to turn to bank loans until interest rates stabilized. By providing a backup source of liquidity, banks helped insulate many large corporations from market shocks.

We then show why banks are better equipped than other financial intermediaries to provide this liquidity insurance. An analysis of how banks fund themselves suggests that they have an advantage over competing financial institutions because they tend to experience deposit inflows when liquidity elsewhere dries up.

### **The Changing Role of Banks in Offering Credit**

Over the past three decades, securities markets have captured a growing share of financial transactions. For example, the share of credit to nonfinancial businesses from bonds and commercial paper rose from about 45 percent in the mid-1970s to about 55 percent by the mid-1990s.<sup>1</sup> All types of debt instruments have also become more marketable. Corporate bonds issued in public markets have increased significantly as a portion of total corporate bonds, rising about 25 percent since the late 1960s.<sup>2</sup> In addition, illiquid loans that in the past would have remained on bank balance sheets are now used to create tradable securities. This process, known

as securitization, was applied first to mortgages in the 1970s, and then to both consumer loans and business loans in the 1980s and 1990s. As a result of securitization, loans originated by banks are often ultimately held by mutual funds and pension funds. A growing portion of financial assets can now be held by nonbank inter-

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mediaries; in fact, banks' share of total assets held by financial intermediaries fell about 50 percent from 1980 to the middle of the 1990s.

As banks' role in providing credit has declined, corporations have increasingly turned to securities markets to obtain credit. For most large, highly rated corporations, the commercial paper market is now the primary source of short-term credit. Banks' role, as we will see, is to provide the commercial paper issuers with insurance against market shocks.

### The Commercial Paper Market

Commercial paper is an unsecured form of short-term debt used by large, well-established corporations for their short-term borrowing needs. Commercial paper is attractive because it usually carries an interest rate lower than that on a comparable loan. During the first half of 1998, for example, a typical issuer could borrow money in the commercial paper market at interest rates about 50 basis points below bank loan rates.<sup>3</sup> Thus, under normal conditions, firms prefer to use commercial paper rather than to borrow from banks.

Under certain circumstances, however, turmoil in the financial markets can cause the interest rates on commercial paper to rise. Issuers are vulnerable to such rate increases when their commercial paper matures and they wish to refinance. To protect themselves, firms routinely secure a commercial paper backup line of credit with a bank. This line of credit provides a firm with the right to borrow any amount of money up to a specified level at any time. When commercial paper grows too costly, the firm can borrow from its line of credit, paying the bank interest at a predetermined rate equal to a fixed markup over a low-risk benchmark interest rate such as LIBOR. Because the firm's borrowing rate cannot exceed the rate guaranteed by the backup line of credit, the backup line of credit acts as an insurance policy against liquidity shocks that can drive up credit spreads over low-risk rates.<sup>4</sup>

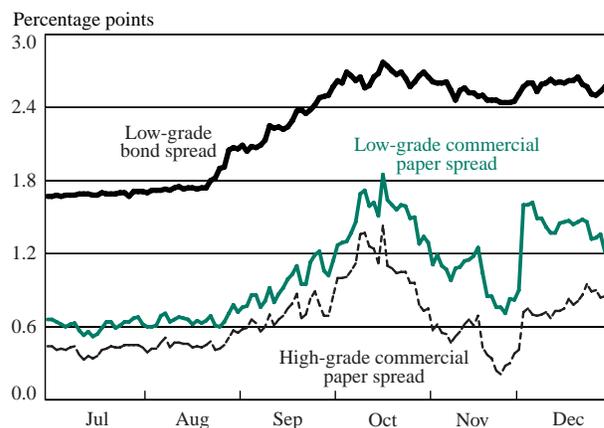
### Liquidity Crises and Bank Lending

The role of banks in supplying liquidity insurance for commercial paper can be traced to a financial crisis in 1970, when Penn Central Transportation Company filed for bankruptcy with more than \$80 million in commercial paper outstanding. As a result, other large companies had difficulty refinancing their commercial paper as it matured, even though the problems of Penn Central had little to do with their prospects. In response to the default, commercial paper issuers began establishing backup lines of credit with banks to prevent future disruptions in financing stemming from market turmoil.

In the thirty years since these events, however, corporations have been able to take advantage of many alternative sources of credit. To investigate whether corporations still turn to bank financing at times of economic stress, we look at developments in the commercial paper market and bank lending during the financial market turbulence last fall.

Beginning in August 1998, when the Russian government announced its intention to default on its bonds, volatility in foreign financial markets increased, equity prices fell, and credit spreads for bonds of all maturities and ratings widened. These troubles abroad spilled over into U.S. markets. The yield spread between risky corporate bonds and safe Treasury bonds of similar maturity rose by nearly 100 basis points in September, a 60 percent increase over August rates (Chart 1).<sup>5</sup> Commercial paper

Chart 1  
The Path of Three Yield Spreads



Source: Board of Governors of the Federal Reserve System.

Notes: The low-grade bond spread is the difference between interest rates on BAA-rated bonds and ten-year Treasury bonds. The high-grade commercial paper spread is the difference between interest rates on paper issued by AA-rated nonfinancial companies and on three-month Treasury bills. The low-grade commercial paper spread is the difference between interest rates on paper issued by A2/P2-rated nonfinancial companies and on three-month Treasury bills.

rates rose even more over the same period—the yield spread between commercial paper rates and short-term Treasury bill rates (the “paper-bill” spread) more than doubled. The paper-bill spread for highly rated (AA) non-financial companies widened from 45 basis points at the beginning of July to more than 140 basis points in October. The paper-bill spread for lower rated (A2/P2) companies followed a similar path, increasing from 65 basis points in early July to more than 180 basis points in October.

The widening of spreads was part of a “flight to quality” in which investors’ willingness to hold risky securities fell suddenly and dramatically. In the commercial paper market, wide spreads gave issuers a strong incentive to draw on their preexisting lines of bank credit. Given this incentive, we would expect to see a decline in the volume of commercial paper outstanding and a rise in bank lending following Russia’s default announcement. Before August, total commercial paper outstanding issued by nonfinancial companies had exhibited steady growth, rising from \$191 billion in January 1997 to about \$225 billion by July 1998. As the paper-bill spreads widened at the end of the third quarter of 1998, however, the volume of nonfinancial paper outstanding began to fall, dropping from more than \$245 billion in the middle of September to \$229 billion by year-end (Chart 2).<sup>6</sup>

We can conclude from the drop in commercial paper outstanding that borrowers found liquidity in the market expensive. But did corporations respond by drawing funds from their bank lines of credit? To answer this question, we first look at the weekly reporting of com-

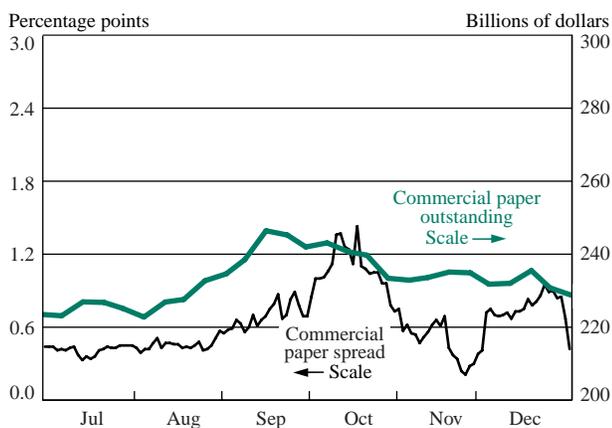
mercial and industrial (C&I) loans by large U.S. banks. These data show that as the volume of commercial paper outstanding declined, large commercial banks’ C&I lending growth accelerated (Chart 3).<sup>7</sup> Before September, both commercial paper and C&I loans had been growing at about 1 percent per month. From September to the beginning of November, when the

*In the commercial paper market [in the fall of 1998], wide spreads gave issuers a strong incentive to draw on their preexisting lines of bank credit.*

value of commercial paper outstanding declined by almost \$10 billion, C&I lending by large commercial banks rose by more than \$20 billion. The rate of growth in large banks’ C&I lending was double the rate observed earlier in the year.

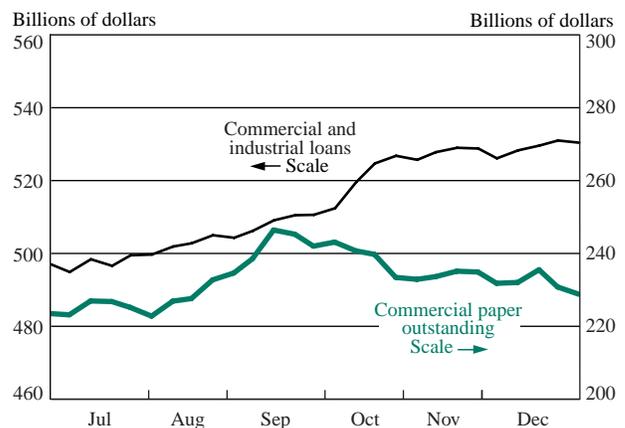
Because the weekly reporting data do not distinguish new lending from lending drawn from existing lines of credit, the possibility exists that the acceleration in loan growth was the result of new loan originations. Anecdotal evidence, however, suggests otherwise. The *New York Times*, for example, reported in November 1998 that “rather than signaling a flow of new loans, much of the lending [growth] appears to be borrowers’ drawing on existing lines of credit.”<sup>8</sup> In addition, information from the Loan Pricing Corporation’s Dealscan

**Chart 2**  
**Commercial Paper Spread and Nonfinancial Commercial Paper Outstanding**



Source: Board of Governors of the Federal Reserve System.  
Note: The commercial paper spread is the difference between interest rates on high-grade commercial paper and three-month Treasury bills.

**Chart 3**  
**Nonfinancial Commercial Paper Outstanding and Commercial and Industrial Loans**



Source: Board of Governors of the Federal Reserve System.

database suggests that a relatively small number of new loans went to large corporations during this period.<sup>9</sup> According to these data, the flow of new loans to large corporations began to trail off in July 1998 and stayed low for the remainder of the year (see table). Excluding January, when new lending is typically low, originations averaged \$154 billion per month during the first half of the year and \$124 billion during the second half of the year. The decline in new loans over 1998 contrasts sharply with the pattern of lending in 1997; in that year, loan originations were 14 percent higher in the second

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*[During the financial market turmoil in the fall,] the rate of growth in large banks' C&I lending was double the rate observed earlier in the year.*

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half than they were in the first half. As the figures show, 1998 loan originations were 16 percent lower from July to December than they were from January to June.

We conduct one further test to make sure that companies were drawing on existing lines of credit. We compare growth in C&I lending at large banks holding relatively high levels of unused loan commitments with growth at large banks holding relatively low levels of unused commitments.<sup>10</sup> If loan growth accelerated because borrowers were drawing funds from existing loan commitments, then the first set of banks should have experienced more rapid expansion of their on-balance-sheet lending than the second set.<sup>11</sup> We again use the data from the weekly reporting banks to focus on the September-October 1998 period, when commercial paper rates

were particularly high and commercial paper volume began a sustained decline. C&I loans grew fastest in the first set of banks—by about 6 percent. In contrast, lending at large banks with relatively little lending under commitment grew only about 2 percent. The value of total loans outstanding grew \$15 billion for the banks with high levels of loan commitments but rose only \$4 billion for the other banks.<sup>12</sup>

### Why Are Banks Well Positioned to Provide Liquidity Insurance?

So far we have explained why companies turn to banks in times of economic turmoil, but why do banks, rather than other financial institutions, fill unexpected liquidity needs? Issuers of lines of credit must have the capacity to provide liquidity when it is needed. By holding large amounts of cash and safe securities as assets, many types of financial institutions could ensure that they had the means to provide customers with liquidity on demand. This “buffer stock” approach, however, is costly because these assets do not provide a high return.<sup>13</sup> Alternatively, financial institutions could achieve the capacity to meet liquidity needs while avoiding some of the associated costs by funding themselves in a way that would reduce their reliance on cash and safe securities.

In a recent article, Kashyap, Rajan, and Stein (1999) explore one aspect of bank funding that puts these institutions in a position to provide liquidity more cheaply than other financial intermediaries. The authors suggest that banks owe their edge over other institutions to the fact that they combine committed lending with deposit-taking services. According to Kashyap et al., two observations suggest that these services can be provided most efficiently within a single organization: first, most committed lending is conducted by banks; second, banks with a greater number of demand deposits provide more liquidity insurance through lines of credit and loan commitments than do other banks.

But how, precisely, do banks achieve such cost efficiency? As Kashyap et al. explain, demand deposits act very much like loan commitments: After placing funds in the bank, depositors can withdraw those funds from their accounts at any time. As a consequence, banks need a buffer stock of liquid assets to support their provision of demand deposits, just as they need a buffer stock to support their loan commitments. Since banks offer lending and deposit-taking services together, however, they are able to economize on the quantity of cash and safe securities they hold, maintaining a smaller buffer than would be required by two financial intermediaries offering these services separately. These savings in turn allow banks to provide liquidity to their customers at lower cost.

### New Loan Originations during 1998

	Volume of New Loans (Millions of Dollars)	Number of New Loans
January	92	568
February	164	726
March	162	833
April	151	757
May	156	726
June	159	890
July	136	745
August	131	546
September	115	589
October	133	585
November	102	513
December	128	652

Source: Loan Pricing Corporation, Dealscan database.

The argument advanced by Kashyap and his co-authors clearly depends on the assumption that the need for liquidity by depositors is not strongly correlated with the need for liquidity by borrowers—in other words, that depositors are unlikely to withdraw funds from their accounts at the same time that firms are tapping bank credit lines. We present additional support

*Because of the inflow of deposits, banks did not have to run down their buffer stock of liquid assets to provide liquidity to borrowers.*

for the authors' argument—and shed further light on the way in which banks' method of funding gives them an advantage in providing liquidity insurance—by showing that the liquidity needs of depositors and borrowers may actually be *negatively* correlated.

A negative correlation will arise if many small investors, acting on the belief that banks provide a safe haven for their funds, move their wealth into deposits during periods of market turmoil. If, in fact, deposit inflows tend to occur when borrowers' liquidity demands are greatest, then banks are indeed well equipped to meet these demands without drawing heavily on their buffer stock of liquid assets.

We draw our evidence of a negative correlation from a look at how banks funded their rapid loan growth during the fall of 1998. Deposits at large banks grew very

rapidly during the months when firms were drawing down their backup lines of credit—even faster than the growth in business lending (Chart 4). C&I lending rose by about \$20 billion between September and October. During this period, deposits increased by about \$25 billion and continued to grow rapidly for another several weeks. Because of the inflow of deposits, banks did not have to run down their buffer stock of liquid assets to provide liquidity to borrowers. Together, cash plus securities held by banks actually increased from September to October (Chart 4).<sup>14</sup> Part of the rise in deposits can be attributed to an inflow of funds from foreign banks and from U.S. banks' own offices abroad.<sup>15</sup> This inflow of funds most likely stemmed from the perception that a financial crisis originating outside the United States would affect U.S. banks less than other countries' banks.

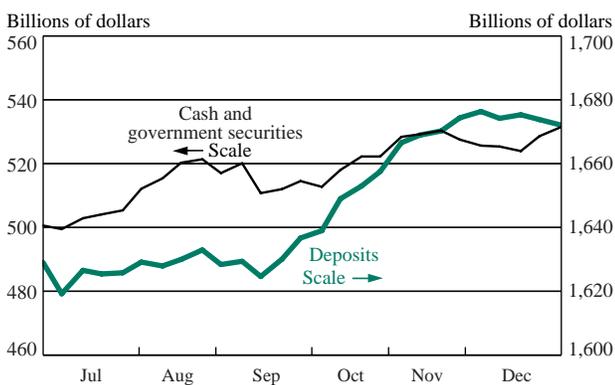
### Conclusion

Securities markets have become increasingly important in providing funding to businesses. Banks' role in supplying credit has been steadily declining, as their falling share of total nonfinancial debt clearly shows. The decreasing reliance on bank loans has been most pronounced among large businesses, which routinely use the commercial paper market to fill short-term funding needs and the bond market for long-term needs.

In our judgment, however, the decline in the relative importance of banks in financing large firms has been overstated—in a pinch, even the largest and most highly rated companies go to banks for liquidity. Last year, when spreads increased and volume decreased in the commercial paper markets as a result of turmoil in the securities markets, 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 nonfinancial firms.

**Chart 4**  
**Large Bank Holdings: Cash Plus U.S. Government Securities Relative to Deposits**

Four-Week Moving Average



Source: Board of Governors of the Federal Reserve System.

### Notes

1. For a more detailed description of changes in debt markets and the role of new information technologies, see Mishkin and Strahan (1999). For a description of banks' role in lending to small businesses, see Strahan and Weston (1998).

2. This estimate is based on the authors' calculations from Carey et al. (1993, Table D.1).

3. During this period, the thirty-day high-grade nonfinancial commercial paper rate averaged 5.50 percent; the thirty-day U.S. dollar LIBOR rate averaged 5.65 percent. As of June 30, 1998, the average spread on all lines of credit to firms with a commercial paper rating from the Loan Pricing Corporation's Dealscan database was 35 basis points above LIBOR.

4. Interest rates on bank lines of credit typically float over a short-term market rate, so borrowers receive insurance against changes in credit spreads but not against changes in the level of interest rates.

Borrowers that have established loan commitments, however, seem to suffer less from monetary policy tightenings than do other borrowers (Hirtle 1990; Morgan 1998).

5. The data used to construct Charts 1-4 are available online at [www.federalreserve.gov](http://www.federalreserve.gov).

6. Our data on commercial paper volume are not broken out by the rating of the issuer. Nevertheless, given the changes in prices, we would expect that volume fell more for the low-rated commercial paper issuers than for the highly rated ones.

7. Data on bank lending are based on weekly reporting by a sample of banks. These figures, scaled up to reflect the balance sheets of all small banks and all large banks, are reported in the H.8 statistical release issued by the Board of Governors of the Federal Reserve System.

8. Louis Uchitelle, "Sure, Banks Are Lending, But Will They Keep It Up?" *New York Times*, November 1, 1998.

9. Dealscan is a database of loan originations to large publicly traded companies. Although this database does not contain detailed information on all types of new lending, it provides very complete coverage of lending to large businesses in the United States. The data come primarily from Securities and Exchange Commission filings, although the Loan Pricing Corporation also receives data from large loan syndicators and its own staff of reporters.

10. Banks offer many types of loan commitments to businesses. In general, a loan commitment obligates the bank to provide funds on demand up to a specified amount at a predetermined price. Commercial paper backup lines of credit are a specific form of loan commitment offered mainly by large banks.

11. To make this comparison, we split the top fifty banks into two groups of twenty-five based on a scaled measure of unused loan commitments at the end of third-quarter 1998. This measure is defined as the ratio of total unused commitments for credit extended through overdraft facilities or commercial lines of credit to the sum of these unused commitments and total C&I loans. These data come from the Federal Financial Institutions Examination Council's Reports of Condition and Income.

12. Note that these two sets of banks reported about the same amount of total C&I lending at the beginning of the period.

13. A large buffer stock of cash and securities also creates agency costs because managers may be tempted to waste or misinvest the funds. See Jensen (1986) and Kashyap, Rajan, and Stein (1999).

14. Board of Governors of the Federal Reserve System, H.8 statistical release.

15. Small banks also experienced deposit inflows at this time. Although small banks normally supply funds to large banks, large banks did not experience an increase in funding from small banks during the fall of 1998.

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