

Interbank lending forms a critical foundation of modern financial markets. In normal times, banks lend to each other in large volumes at low cost for periods ranging from overnight to a few months. These interbank loans are the marginal source of funds for many banks. Even for banks that are mostly funded by deposits, interbank loans may be a critical source of additional funds.

Aside from the market for short-term U.S. government borrowing, the interbank market usually is one of the most liquid. The rate on interbank loans also is an important guide for other loans and for the pricing of bonds and equities. In normal times, the interest rate for loans to banks is lower than for other customers: because banks are seen as low-risk borrowers, investors require a smaller risk premium than on other loans (core principle 2).

Interbank lending contributes greatly to the efficiency of banking and of financial markets generally. It helps satisfy temporary, localized excess demand for funding liquidity (see Chapter 2 module: Liquidity and the Crisis of 2007-09) that is needed for the smooth function of other financial markets. Confidence in their trading partners usually allows banks to lend to each other even without collateral.¹

How does interbank lending resolve temporary imbalances of supply of demand? On any particular day, some banks receive more payments than expected, while others receive less than expected. Similarly, some banks face an unexpected demand for loans – say, from home buyers or investors in stocks and bonds – while other banks experience the opposite pattern. If a bank could not reliably borrow and lend each day to offset these random ebbs and flows, it would need to hold a larger volume of cash to insure itself against the possibility of unanticipated payment outflows or loan demand. For the banking system as a whole, such extra cash holdings waste resources that could be lent profitably elsewhere.

The market for interbank lending helps deliver funding liquidity to the banks that need it that day or week, and allows banks with a temporary excess of cash to invest it reliably. The market is large and active. Inside the United States, outstanding loans to other banks averaged close to \$440 billion in 2009. Most of this lending is at very short maturities, typically overnight.

Events occasionally strain the interbank market. For example, on September 11, 2001, physical disruptions made it difficult for some banks to measure their cash surpluses and shortfalls, while communication obstacles limited transactions. The resulting surge in overnight demand for liquidity by the U.S. banking system as a whole was met by an extraordinary increase in supply from the Federal Reserve.

¹ Collateral is defined in Chapter 3 as the assets pledged to pay for a loan in the event that the borrower does not make the required payments.

Within a few days, the restoration of efficient interbank lending allowed the central bank to withdraw this addition to liquidity.

The financial crisis of 2007-09 triggered unprecedented, sustained strains in interbank lending. The crisis prompted a surge in the demand for liquid assets – those that could be converted easily and cheaply into the means of payment – across the entire financial system. Rather than lend them out, anxious banks preferred to hold additional liquid assets just in case their own needs might increase. Banks also grew concerned about the safety of their trading partners, and became increasingly unwilling to lend without collateral as the level of trust and confidence plunged.

Uncertainty about their own needs combined with concerns about potential borrowers prompted banks to be unwilling to lend for more than a few days, and even then only at very high interest rates. The rising cost and reduced availability of interbank loans created a vicious circle of increased caution, greater demand for liquid assets, reduced willingness to lend and higher loan rates.

The waves of the financial crisis may be seen in the extra cost (or *spread*) of an interbank loan over the expected Federal Reserve policy interest rate (known as the federal funds rate; see Figure 1).² Beginning in August 2007, this spread jumped from only about 0.1% to more than 0.8%. While the spread receded from time to time during the crisis, it remained sharply above earlier levels. The spread leapt above 3.5% in the panic that followed the September 2008 failure of Lehman. The interbank market dried up as banks feared a cascading collapse of the financial system.

Eventually, unprecedented actions by governments to add liquidity and guarantee bank debt were able to counter the record strains in 2009, but did not prevent extensive damage to the financial system and the global economy. The financial crisis made painfully clear to surviving financial institutions that they cannot always count on being able to borrow at a low cost when needed. As core principal 2 teaches us, banks have to be compensated for the risk posed by the possibility of insufficient liquidity. To reflect this heightened risk premium, the rate on interbank loans seen in Figure 1 may stay above pre-crisis levels for a long time.

² The figure shows the gap between two measures. The first measure is the cost of an interbank loan, represented by the three-month London Interbank Offered Rate (LIBOR). LIBOR is the rate that banks in London charge each other for three-month loans in U.S. dollars (see Chapter 13). The second measure is the expected policy interest rate, represented by a special financial instrument, called the “overnight indexed swap” (OIS). An OIS pays one party to the swap contract a fixed interest rate in return for a payment equal to the average of the federal funds rate over the life of the swap. The federal funds rate (explained in Chapter 16 as the rate that U.S. policymakers choose to control) is the rate that U.S. banks charge each other for overnight loans. An OIS agreement typically has little default risk because of the limited size of the *net* payments. Consequently, the OIS rate should closely reflect the expected federal funds rate even if, as during the crisis, the default probabilities of the swap parties change.

Figure 1. Interbank Lending Rate *Minus* Expected Federal Reserve Policy Interest Rate, 2007 – May 2009.



Note: The vertical scale is in basis points. A basis point is 0.01%.

