What Are Money Markets?

They provide a means for lenders and borrowers to satisfy their short-term financial needs

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UNTIL PROBLEMS SURFACED during the global financial crisis, money markets were often taken for granted as plain-vanilla, low-volatility segments of the financial system.

For the most part, money markets provide those with funds—banks, money managers, and retail investors—a means for safe, liquid, short-term investments, and they offer borrowers—banks, broker-dealers, hedge funds, and nonfinancial corporations—access to low-cost funds. The term money market is an umbrella that covers several types of secured transactions, which vary according to the needs of the lenders and borrowers.

One consequence of the financial crisis has been to focus attention on the differences among various segments of money markets, because some proved to be fragile, whereas others exhibited a good deal of resilience.

For the short term

These markets are described as "money markets" because the assets that are bought and sold are short term—with maturities ranging from a day to a year—and normally are easily convertible into cash. Money markets include markets for such instruments as bank accounts, including term certificates of deposit; interbank loans (loans between banks); money market mutual funds; commercial paper; Treasury bills; and securities lending and repurchase agreements (repos). These markets comprise a large share of the financial system—in the United States, accounting for about one-third of all credit, according to the Federal Reserve Board's Flow of Funds Survey.

These money market instruments, many of them securities, differ in how they are traded and are treated under financial regulatory laws as well as in how much a lender relies on the value of underlying collateral, rather than on an assessment of the borrower.

The most familiar money market instruments are bank deposits, which are not considered securities, even though certificates of deposit are sometimes traded like securities. Depositors, who are lending money to the bank, look to the institution's creditworthiness, as well as to any government programs that insure bank deposits.

Interbank loans are not secured by collateral, so a lender looks exclusively to a borrower's creditworthiness to assess repayment probabilities. The most closely watched interbank market is in England, where the London interbank offered rate (LIBOR)

is determined daily and represents the average price at which major banks are willing to lend to each other. That market did not prove to be a reliable source of funding during the crisis. LIBOR rates rose sharply in comparison to other money market rates once the creditworthiness of banks was called into question. Moreover, lending volume decreased significantly as banks struggled to fund their existing assets and were less interested in new lending. Emergency lending by central banks helped make up for the contraction of this funding source. Recent investigations by regulatory authorities have identified serious flaws in integrity of the pricing process by which LIBOR is determined.

Commercial paper is a promissory note (an unsecured debt) issued by highly rated banks and some large nonfinancial corporations. Because the instrument is unsecured (no more than a promise to pay, hence the name), investors look solely to the creditworthiness of the issuer for repayment of their savings. Commercial paper is issued and traded like a security. But because it is short term by nature and not purchased by retail investors, it is exempt from most securities laws. In the United States, for example, commercial paper is issued in maturities of 1 to 270 days, and in denominations that are deemed too large for retail investors (typically \$1 million, but sometimes as small as \$10,000).

The safest investment

Treasury bills, which are issued by the government, are securities with maturities of less than a year. US Treasury bills, sold at a discount from face value and actively bought and sold after they are issued, are the safest instrument in which to place short-term savings. The markets are deep and liquid, and trading is covered by securities laws. US Treasury bills are not only savings instruments; they can be used to settle transactions. Treasury bills, which are issued electronically, can be sent through the payments system as readily as money.

Repos are a large, but more complicated, segment of money markets. Repos offer competitive interest rates for borrowing and lending on a short-term basis—usually no more than two weeks and often overnight. A borrower sells a security it owns for cash and agrees to buy it back from the purchaser (who is in effect a lender) at a specified date and at a price that reflects the interest charge for borrowing over the period. The security at the heart of the transaction serves as collateral for the lender.

Besides making possible secure short-term borrowing and lending in money markets, repo and other securities lending markets are critical to short-selling—when a trader agrees to sell a security he or she does not own. To come up with such a security, the short-seller must borrow it or purchase it temporarily through a repo transaction. When it is time to return the security to the lender, the short-seller again must buy or borrow it. If the price has fallen, the short-seller makes money on the transaction.

Money market mutual funds (MMMFs) are securities offered by companies that invest in other money market instruments such as commercial paper, certificates of deposit, Treasury bills, and repos. Money market mutual funds are regulated as investment companies in the United States and in the European Union. They offer low-risk return on a short-term investment to retail and institutional investors as well as corporations. A typical MMMF invests in liquid, short-term, highly rated instruments. Although the price is not fixed or guaranteed, the fund is managed so that the price is constant—or in securities parlance, maintains a stable net asset value, usually \$1 a share. (This is in contrast to other mutual funds that invest in stocks or bonds and whose per share value changes daily.) If the value of the underlying MMMF assets rises above \$1 a share, the difference is paid as interest. Until the global crisis, a money market fund with a net value of less than \$1 a share—or breaking the buck, as it is called—was almost unheard of. The few times it happened, the fund's investment managers used their own resources to keep the price at \$1 a share.

But during the financial crisis, money market funds were threatened by losses on commercial paper and later on notes issued by Lehman Brothers (the broker-dealer that went bankrupt in September 2008). Because MMMFs are important players in other crucial money markets, the US government acted to prevent a panic that might have caused the credit contraction to spread. The US Treasury guaranteed principal and the Federal Reserve created a special lending facility for commercial paper to help MMMFs stave off a run by investors.

Dysfunctional markets

There are some other sectors of the money market that are not so plain and simple. These include asset-backed commercial paper (ABCP) and certain triparty repo transactions.

A firm with hard-to-sell (illiquid) financial assets, such as loans, mortgages, or receivables, might use ABCP to borrow at a lower cost or to move these assets off its balance sheet. It creates a special purpose entity that purchases the illiquid assets from the firm and finances the purchase by issuing ABCP, which—unlike normal commercial paper—is secured or "backed" by the underlying assets. This type of commercial paper can obtain a high credit rating if the assets are rated highly and if the special facility has adequate capital and lines of credit. The capital is

intended to cover unexpected losses on the assets, and the lines of credit take into account the difficulty of selling the underlying assets to meet cash needs.

Some parts of the ABCP market had problems during the crisis. Standard commercial paper issuers—almost exclusively large nonfinancial corporations and banks—file quarterly financial statements that enabled investors to easily assess their credit condition. The credit risk on ABCP depended on, among other things, how the special purpose entity was set up, its credit enhancements, its liquidity backstop, and the value of the underlying assets—all likely to be less transparent and more complex than that of the straightforward commercial paper. In the United States, the ABCP market shrunk by 38 percent from

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August to November 2008.

That hit the MMMF market, which holds more than onethird of outstanding commercial paper. When investors began to withdraw funds from MMMFs, the funds pivoted sharply away from ABCP and into government and agency securities.

The triparty repo market proved to be much less reliable than the ordinary repo market for Treasury and agency securities. The triparty repo market is organized around one or two clearing banks that hold the collateral and transfer ownership from borrower to lender and back again when the loan is repaid.

The triparty repo market was roiled by the collapse of markets for privately issued securities backed by mortgages. These securities made up a large share of the collateral in the triparty repo market. Once the market value and the credit ratings of these securities fell and the trading in these securities dried up, the triparty market suffered from both the higher haircuts (the percentage by which a lender reduces the value of a security for collateral purposes) needed to offset the volatility in the securitized debt market and the difficulty of pricing collateral that no longer had a market price.

Together the crises in the ABCP and triparty repo markets spread funding problems to banks, securities firms, and hedge funds that had used these money markets to fund investments. Today those markets have shrunk dramatically.

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