charles SCHWAB

An Introduction to Repurchase Agreements

One of the largest and most active markets in the U.S. financial system, the repurchase agreement market is a vital component in helping to efficiently allocate capital across the U.S. economy.[1] On a daily basis, roughly $5 trillion[2] changes hands through repurchase agreements, allowing businesses and other organizations to participate in effective and flexible means for short-term borrowing and lending. Repurchase agreements provide an important strategy, one that Federal Reserve banks have used as early 1917 to extend credit.[3] The Federal Reserve also uses repurchase agreements to influence interest rates via its open market operations.

Terminology

Buyer: The party buying securities for cash and receiving securities as collateral.

Seller: The party selling securities for cash and using securities as collateral.

Counter-party: Generally, the second party in the transaction or the seller of securities. Can also be the custodian bank in a tri-party agreement.

Collateral: The securities that are pledged in the repurchase agreement.

Overnight repo: A repurchase agreement that matures the next working day.

Tri-party repo: A form of repurchase agreement that uses an independent third party, such as a bank, to maintain cash and securities accounts for both parties.

Repurchase Agreements Defined

A repurchase agreement—also referred to as a repo—is an agreement between a buyer and a seller in which the buyer agrees to (1) buy securities from a seller for cash and (2) sell back the same securities to the seller. A repurchase agreement is, in essence, similar to a collateralized loan—a secured loan for a specified period against which interest is paid and collateral (in this case, securities) is pledged.

Although a broad range of assets may be used for collateral in a repurchase agreement, the most common are highly liquid U.S. Treasury and federal agency securities (such as those issued by the Federal Home Loan Bank), high-quality mortgage-backed securities, corporate bonds and equities. The majority of repurchase agreements are generally executed within one day, although some may have longer terms.

How and Why Repos are Used

Repurchase agreements are widely used for short-term investing or for borrowing cash for short-term needs. Repurchase agreement buyers (cash providers) typically include money market funds, insurance companies, corporations, municipalities, central banks and commercial banks that have excess short-term cash and are willing to lend it for a specified period of time and for an agreed price. Repurchase agreement sellers (securities providers) include commercial banks, central banks, insurance companies and investment banks that hold high-quality assets, such as U.S. Treasury bonds. Although they want to own those assets for the long-term, they also have short-term cash needs; by using a repurchase agreement, these sellers receive the short-term cash they require while retaining the ability to own the securities for the long term. Repurchase agreements also provide the certainty of fixed terms, so sellers know their costs up-front, as opposed to the uncertainty of buying and selling in the open market.

The repurchase agreement market provides many potential advantages to both buyers and sellers. It's operationally efficient, liquid and involves high-quality collateral. Buyers get flexibility in determining the term of the contract and

[1] http://www.newyorkfed.org/research/current_issues/ci9-6.pdf.

[2] Securities Industry and Financial Markets Association 2011 Repo Market Fact Sheet.

[3] Kenneth D. Garbade (2006-05-01). "The Evolution of Repo Contracting Conventions in the 1980s." New York Fed. http://www.newyorkfed.org/research/epr/06v12n1/0605garb.pdf.

receive competitive rates of return, helping them manage their excess cash efficiently. They receive collateral in the form of high-quality, liquid securities whose value is equal to or greater than the value of the cash provided. Sellers, on the other hand, benefit from the ability to generate cash on idle securities with significantly lower costs than through other methods, such as bank loans.

Risks and Risk Management

Because most repurchase agreements are fully collateralized—in fact, more often than not, over-collateralized—their risks are significantly reduced. They are, however, subject to risks, including the credit risk of the seller. There is also the possibility that the value of the collateral could change during the contract's term. And, if the seller were to become unable to repurchase the securities as promised, the buyer may experience a delay in receiving the cash pending the sale of the collateral and/or the potential loss of value upon the sale of those securities. There is also a relatively small risk that the conversion of the securities used for collateral may take longer than the original term of the repurchase agreement. Such delays may be caused by factors such as operational issues, market conditions or legal actions.

Measures to manage the risks include ensuring that assets are highly liquid, establishing maximum exposure limits for potential securities providers, and undertaking a rigorous credit-review process to continuously monitor investments. Repurchase agreements are continually marked to market, with additional collateral required if the value of the securities falls below the contracted value. Also, to provide an extra degree of risk management, the total value of the collateral is often greater than the cash that was borrowed. For example, a seller in a repurchase agreement who receives $100 million in cash may have to provide collateral in the form of $102 million worth of securities.

Key Participants in the Repurchase Agreement Market

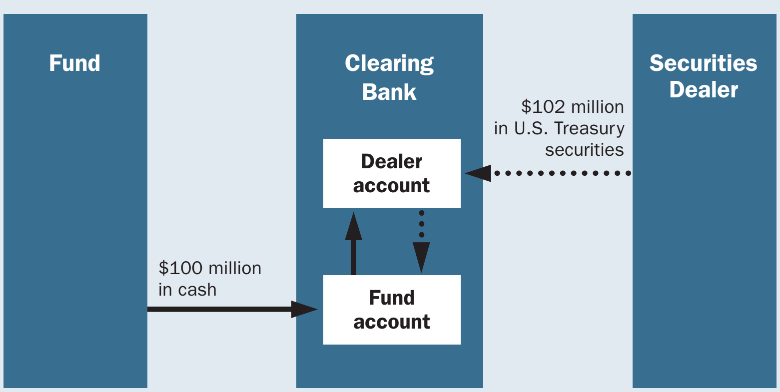
Buyers	Sellers
Money Market Mutual Funds	Commercial Banks
Insurance Companies	Central Banks
Corporations	Insurance Companies
Municipalities	Securities Brokers
Central Banks	Pension Funds
Securities Brokers	
Commercial Banks	

In addition, the processing of repurchase agreement transactions is largely centralized—handled by only a few large commercial banks—and the legal documents by which the agreements are governed are standardized across the industry to further help reduce risks. Risks can also be managed through the use of an independent third party (i.e., a custodian) who ensures the exchange of securities and cash and holds the securities for safe-keeping. Such an arrangement is known as a tri-party repurchase agreement.

Repurchase Agreements and Mutual Funds

Repurchase agreements are often used by money market funds to help manage excess cash balances. They represent a useful tool that allows money funds to tap into a vast universe of supply. By buying securities for a short term and then selling them back to the lender at a premium, a fund can earn interest on its otherwise idle cash balances. Because money market funds are designed to offer stability of capital and liquidity, the repurchase agreements they engage in are generally of a very short term, frequently overnight.

Example of a Tri-Party Repurchase Agreement



- Using existing contracts, the fund and securities dealer agree to enter an overnight repurchase agreement for $100 million in U.S. Treasury securities.
- Both parties inform the clearing bank of the trade.
- At the time of the trade execution, the following movements occur:
  - > $100 million in cash from the fund moves to the securities dealer account through the clearing bank;
  - > Collateral of $102 million (includes the required premium) in Treasuries from the securities dealer is held by the clearing bank in the fund's name.
- Upon maturity of the agreement, the flow reverses. Interest on the $100 million is paid to the fund by the securities dealer through the clearing bank.

An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the Fund seeks to preserve the value of your investment at $1.00 per share, it is possible to lose money by investing in the Fund. Investors should carefully consider information contained in the prospectus, including investment objectives, risks, charges and expenses. You can request a prospectus by calling Schwab at 800-435-4000. Please read the prospectus carefully before investing.

The information provided here is for general informational purposes only and should not be considered an individualized recommendation or personalized investment advice. The investment strategies mentioned here are designed to illustrate the concept of repurchase agreements and not meant for individuals nor represents all of the complexities and alternate methodologies available to complete a repurchase agreement.