

# Research



## Outstanding Repo Agreements Surge Past \$2.0 Trillion in 1997

The repurchase (repo) market continued to break new ground in 1997, as the average amount outstanding exceeded \$2.0 trillion on a weekly basis last year, 20.7% greater than 1996's \$1.7 trillion average and more than double the level seen as recently as 1990. The repo market has experienced dramatic growth in recent years, as both primary and secondary market volume in the U.S. domestic bond markets have surged to record levels. The increase in market supply has led to a corresponding increase in the level of activity in the repo market, as dealers use these agreements to finance their market-making activities.

The data represent financing activities by the primary dealers reporting to the Federal Reserve Bank of New York and include repurchase and reverse repurchase agreements involving U.S. government, federal agency and agency mortgage-related securities. The data include overnight financings, continuing contracts and term agreements. However, overnight financings and continuing contracts are grouped into one category by the Fed. Overnight financings are defined as arrangements settled on one business day that mature on the next business day.

Continuing contracts are defined as arrangements that remain in effect for more than one business day, but have no specific maturity and can be terminated on demand by either the buyer or the seller. Term agreements are defined as agreements with an original specific fixed maturity of more than one business day that are not under continuing contract.

### Outstanding Average Repo Activity by Type of Contract

1994 - 1997

	Overnight & Continuing	Term	Total
1994	\$723.8	\$753.5	\$1,477.3
1995	\$717.0	\$723.3	\$1,440.3
1996	\$826.4	\$865.4	\$1,691.8
1997	\$927.9	\$1,114.1	\$2,042.0

All amounts in billions  
Source: Federal Reserve Bank of New York

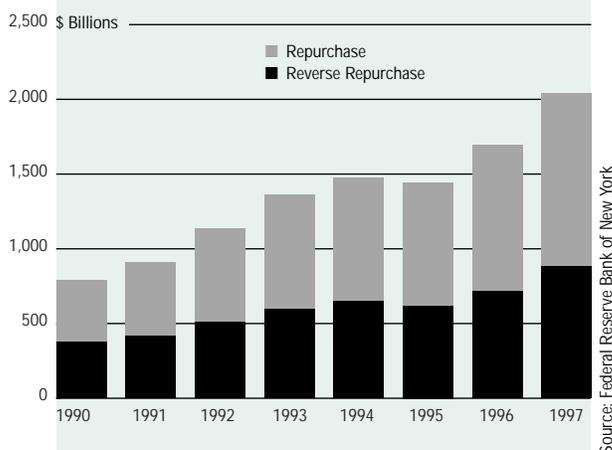
### Repos Remain Primary Source of Funding for Primary Dealers

Repos are widely used as a source of financing by primary dealers, other securities firms and institutional investors, among others. A repo involves an agreement between a seller and a buyer, typically of U.S. government securities but increasingly involving other types of securities and financial assets as well, whereby the seller sells the securities to the buyer, with a simultaneous agreement to repurchase the securities at an agreed upon price at a future point in time. A reverse repurchase agreement is the flip side of the transaction, with the buyer buying the securities from the seller and simultaneously agreeing to resell them at a future point in time.

Repo agreements are the most important source of financing for dealers in the Treasury and agency securities markets. The highly liquid nature of the market allows dealers to economically finance their dealing activities and serves to lower the cost of borrowing to the U.S. Treasury. In addition, the Federal Reserve incorporates repos in its monetary policy

### Financing by U.S. Government Securities Dealers Repurchase and Reverse Repurchase Agreements

Average Weekly Amount Outstanding  
1990 - 1997



Note: Figures cover financings involving U.S. government, federal agency, and federal agency mortgage-related securities

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activities. The Fed implements its monetary policy in large part through open market operations using repos. For example, in order to expand the money supply, the Fed purchases securities in repo transactions from the non-bank dealers, who deposit the proceeds into commercial banks, which increases reserves in the banking system. Conversely, if the Fed wishes to tighten the money supply, it will sell securities to non-bank dealers, who will draw on their reserves to purchase the securities.

In addition to using repo agreements for financing activities, dealers also engage in repo trading activity. Dealers engage in repo and reverse repo transactions in what is often referred to as matched book trading, where a dealer buys and sells securities to designated dates in the future in repo and reverse repo transactions. These transactions may be market driven, reflecting arbitrage opportunities between different markets and different types of securities, or reflect the trader's view as to the future direction of interest rates. This type of repo trading activity provides additional liquidity to both the cash and financing markets for the underlying securities. Term repo activity facilitated by dealer matched book trading also allows market participants the opportunity to lock-in favorable rates for financing or cash investment, depending on which side of the market they are on.

**Funding Rates in the Repo Market**

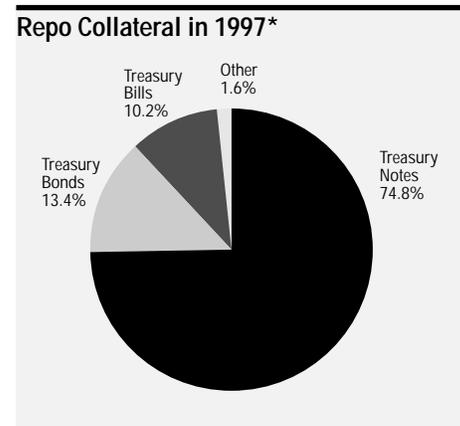
Interest rates in the repo market generally follow the federal funds rate, the interest rate charged on loans between banks. The repo rate is essentially the interest the seller pays the buyer for the use of funds and is primarily determined by the underlying collateral and maturity of the repo agreement. Generally, the higher the credit quality and liquidity of the underlying collateral, the lower the repo rate. The accompanying chart illustrates the relationship between the federal funds rate and

the GovPX General Collateral Repo Index over the past two years. Although interest rates in the funding markets typically move in tandem, however, the yield relationships between funding sources can fluctuate dramatically during times of market volatility and heavy demand for funds.

**Innovations in Collateral Continue, Equity Repo Seen as Emerging Sector**

Unfortunately, it is difficult to obtain exact statistics about the volume of repo market activity involving financial assets other than U.S. government securities, which are not all tracked by the Fed or cleared or settled in any one system. However, repo activity involving financial assets other than U.S. government obligations are increasing due to dealers' and investors' desire to achieve the least expensive and most efficient funding sources for their inventories. In recent years market participants have turned to money market instruments, mortgage and asset-backed securities, corporate bonds and foreign sovereign bonds as collateral for repo agreements. Many market participants expect the lending of equity securities to become a growing segment of the repo market, in light of recent legislative and regulatory changes.

The Government Securities Clearing Corporation (GSCC), a registered clearing corporation that helps



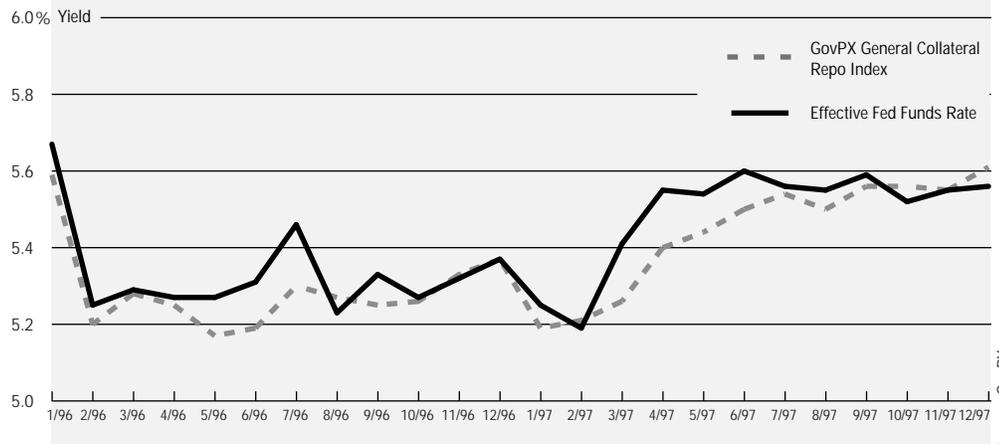
\* Includes repo transactions collateralized by U.S. treasury and agency securities that were submitted and cleared by GSCC in 1997.

Source: Government Securities Clearing Corporation

facilitate orderly settlement in the U.S. government securities markets, tracks repo trades settled through its system by product type. An estimated \$69.5 trillion in repo agreements was submitted and compared by GSCC participants in 1997, representing an average daily total of \$277.8 billion in transactions collateralized by U.S. Treasury and agency securities. The bulk of the total involved transactions using treasury notes as collateral, which accounted for \$52.0 trillion or 74.8% of the total. Transactions collateralized by Treasury bonds accounted for \$9.3 trillion of the total, while repo agreements involving Treasury bills accounted for an additional \$7.1 trillion of the total. Repo agreements collateralized by Treasury bonds and bills accounted for 13.4% and 10.2% of the total, respectively.

**General Collateral Repo Index Versus Effective Fed Funds Rate**

January 1996 - December 1997



Source: GovPX