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# SIFMA Research

## The US Repo Markets: A Chart Book

February 2022

This report provides a detailed description of the U.S. repurchase agreement (repo) markets, including discussing: product types, participants and regulations. It also provides outstanding and collateral statistics for repo and reverse repo securities in the bilateral, general collateral finance (GCF) and tri-party repo markets.

This report is based on statistics from the SIFMA Research databases. For data updates, and to view all other SIFMA Research databases and reports, please go to: [www.sifma.org/research](http://www.sifma.org/research)



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## Description and Purpose of Markets

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### Defining Repo Markets

A repurchase agreement (repo) is a financial transaction in which one party sells an asset to another party with a promise to repurchase the asset at a pre-specified later date (a reverse repo is the same transaction seen from the perspective of the security buyer). Repos can be overnight (duration one day) or term (duration up to one year, albeit some are up to two years and the majority are three months or less). The repo market enables market participants to provide collateralized loans to one another, and financial institutions predominantly use repos to manage short-term fluctuations in cash holdings, rather than general balance sheet funding.

In general, repos aid secondary market liquidity for the cash markets (for example, U.S. Treasuries/UST), allowing dealers to act as market makers in a very efficient manner. Market makers stand ready to buy and sell securities, providing liquidity to markets. These firms must take the other side of trades when there are short-term buy and sell imbalances in customer orders. Healthy repo markets provide them the necessary cash and access to securities to perform these actions and keep secondary cash markets running effectively. The ability to finance and efficiently source securities contributes to lower interest rates paid by the issuers, most notably the U.S. Treasury, which lowers debt servicing costs borne by taxpayers.

The repo markets allow investors to manage excess cash balances safely and efficiently. Dealers also benefit from significantly reduced funding costs, the capacity to finance long positions in securities and the ability to borrow securities to cover short positions to satisfy client needs. Long holders of securities can also gain incremental returns by engaging in repo transactions with cash investors for securities they own but have no immediate need to sell.

### Types of Repo Markets

While a broad array of assets may be financed in the repo market, the most commonly used instruments include UST, federal agency securities (agency), high quality mortgage-backed securities (MBS), corporate bonds (corporates) and money market instruments (MM).

The repo market can be split into two main segments:

- **Bilateral Repo** – The bilateral repo market has investors and collateral providers directly exchange money and securities, absent a clearing bank. Bilateral repo transactions can either allow for general collateral or impose restrictions on eligible securities for collateral. Bilateral repo is preferred when market participants want to interact directly with each other or if specific collateral is requested.
- **Tri-Party Repo** – The tri-party repo market is named as such given the role played by clearing banks in facilitating settlement. Clearing banks act as an intermediary, handling the administrative details between the two parties in the repo transaction. Tri-party repo is used to finance general collateral, with investors accepting any security within a broad class of securities. According to the Federal Reserve Bank of New York (New York Fed), market participants view tri-party repo as more cost efficient.

There is also the general collateral finance (GCF) repo market, which is offered by the Fixed Income Clearing Corporation (FICC), a central clearing counterparty. GCF repo is predominantly used by securities dealers, who negotiate the trade on an anonymous basis and then submit it to FICC. FICC then interposes itself as the legal counterparty to both sides of the repo transaction.

### Repo Market Participants

Securities dealers are at the heart of the repo market, operating in all repo market segments. The diagram on the following page shows the interaction of market participants in both repo market segments described above. Additional participants in the repo market include:

- **Financial institutions** – Primary dealers (see appendix for a current list), banks, insurance companies, mutual funds, pension funds, hedge funds
- **Governments** – The New York Fed (used in its implementation of monetary policy), other central banks, municipalities
- **Corporations**

These entities all benefit from the security, operational efficiency and low funding costs available in the repo market. Repos offer cash providers collateralization (with additional margin requirements in most cases) marked-to-market daily to ensure continuing protection. The operational efficiencies developed through tri-party repo and the largely centralized settlement mechanism for repos further minimize risks. Standardized documentation, broadly accepted by market participants, provides further certainty for market participants.

### Repo Regulation

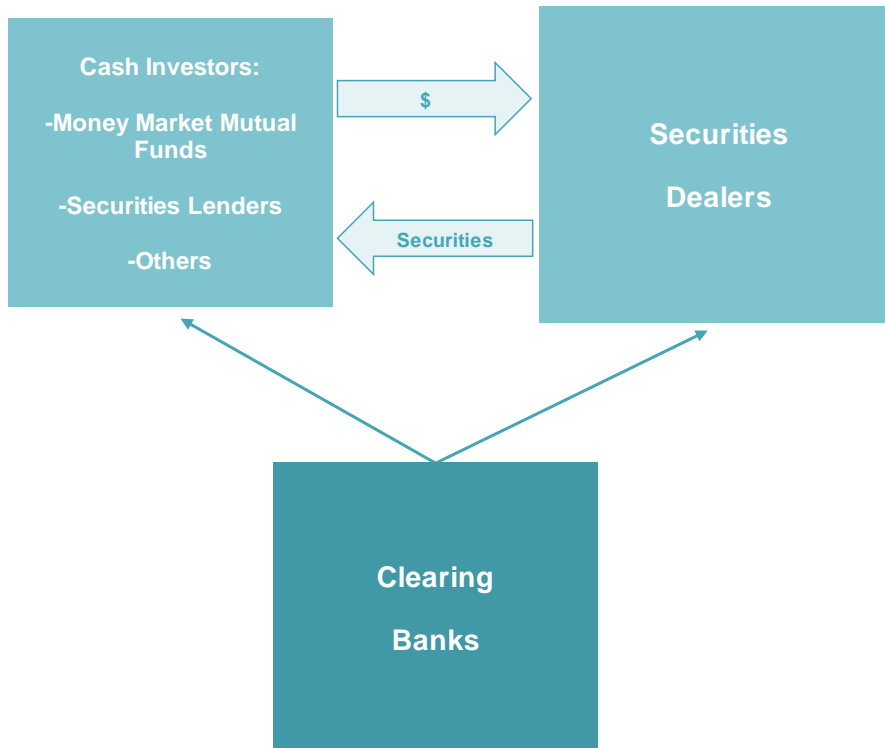
Prior to the financial crisis, some financial institutions used repos to fund leveraged position taking in securities. As asset prices declined during the crisis, repo lenders increased the amount of collateral required, limiting the level of repo activity for some investors holding leveraged portfolios. This created a funding shortfall and forced investors to decrease leverage by selling assets, leading to even lower asset valuations. This fed back into additional asset sales, and the circle went round and round. Repos backed by government securities also faced stress. Flight to safety tendencies drove increased demand for these standalone assets, leading to shortages of available collateral in the repo market.

In light of this, the New York Fed works continuously with market participants to monitor repo infrastructure and recommend reforms as necessary, to ensure these markets remain stable sources of funding during periods of market stress. The New York Fed also provides data for market participants on the repo markets. While comprehensive data for all segments of repo markets are not available, data is provided for certain segments of and specific firms operating in this market.

Bilateral Repo



Tri-Party Repo

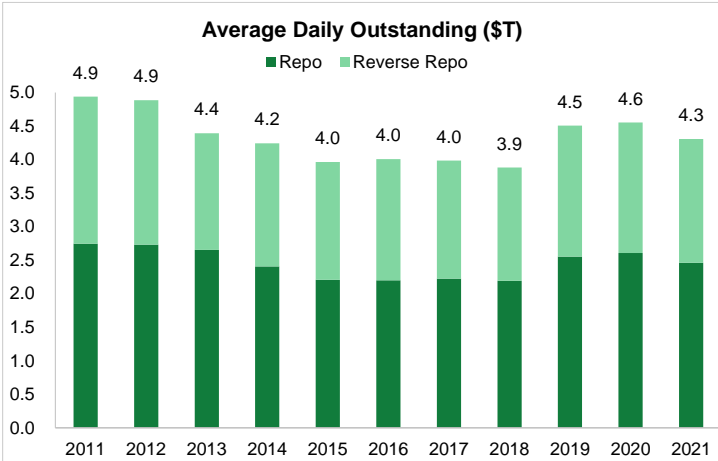
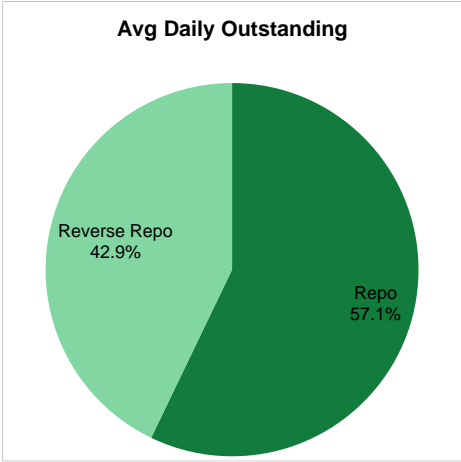


Sources: Federal Reserve Bank of New York, SIFMA

# Repo Chart Book

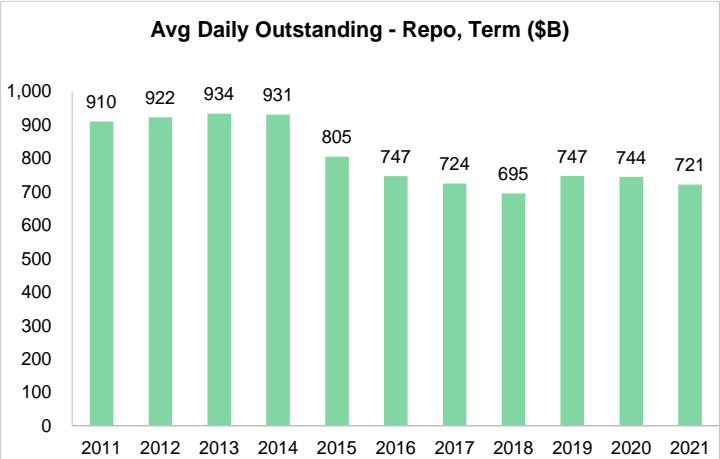
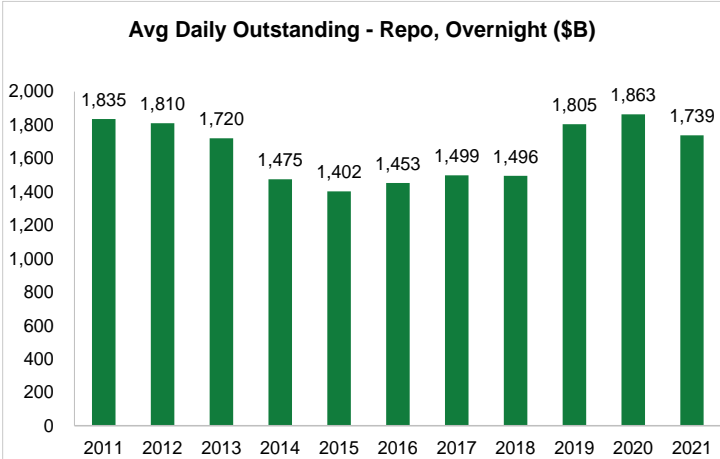
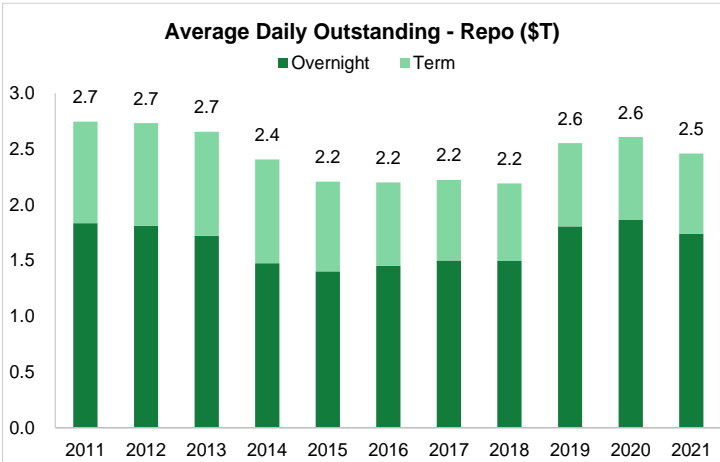
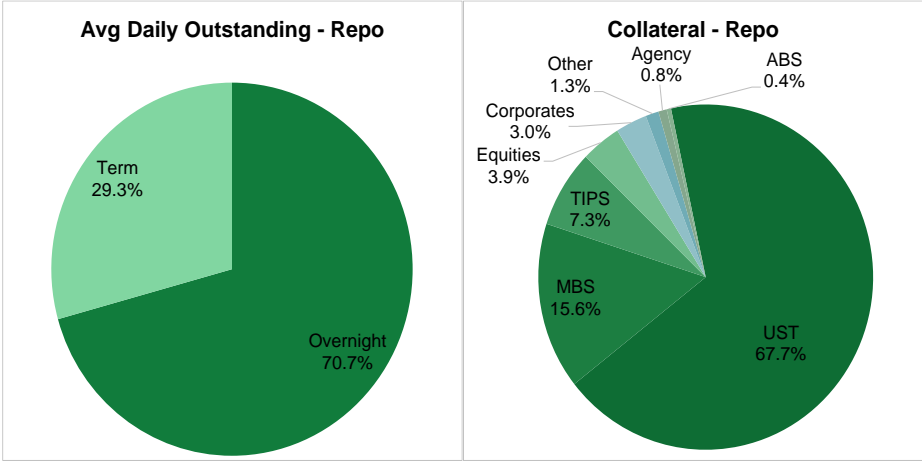
## Bilateral Repo Markets

- Average daily aggregate repo and reverse repo outstanding \$4.3T, -5.5% Y/Y
- Repo: average daily outstanding \$2.5T, -5.7%
  - 70.7% overnight, 29.3% term
  - Collateral 67.7% UST, 15.6% MBS, 7.3% TIPS
- Reverse Repo: average daily outstanding \$1.8T, -5.2% Y/Y
  - 52.8% overnight, 47.2% term
  - Collateral 79.3% UST, 9.7% TIPS, 9.6% MBS



Sources: Federal Reserve Bank of New York, SIFMA estimates  
 Note: Data prior to 3/27/2013 includes other financing activity

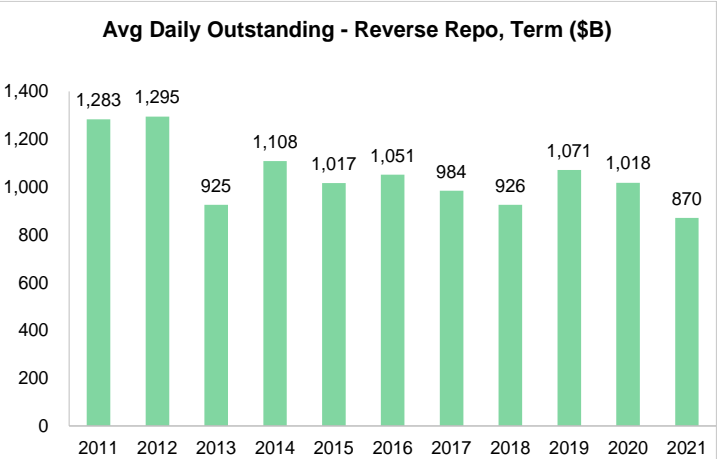
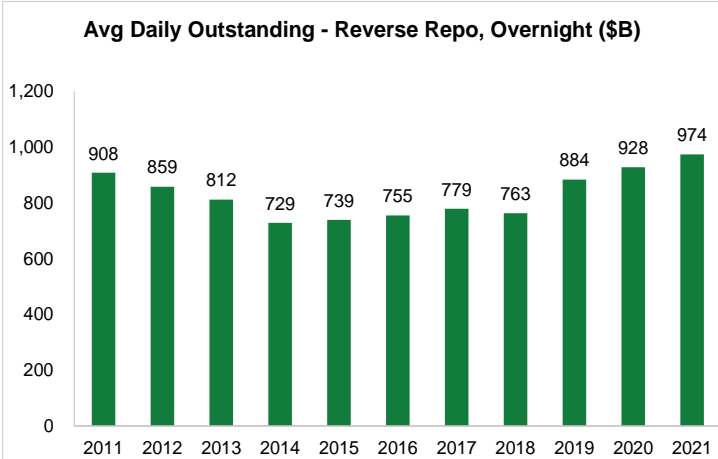
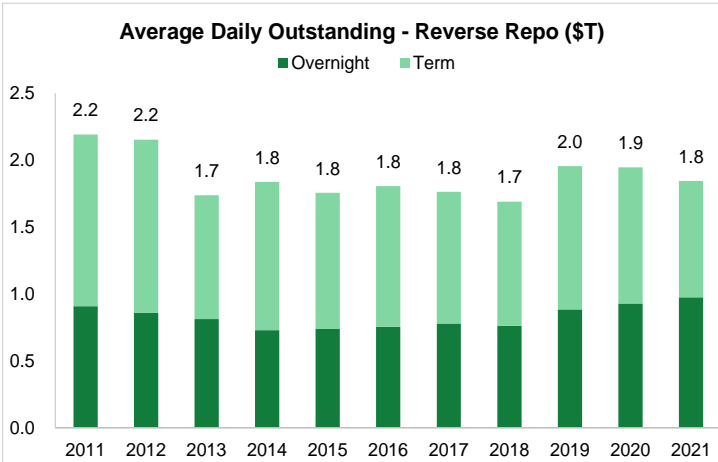
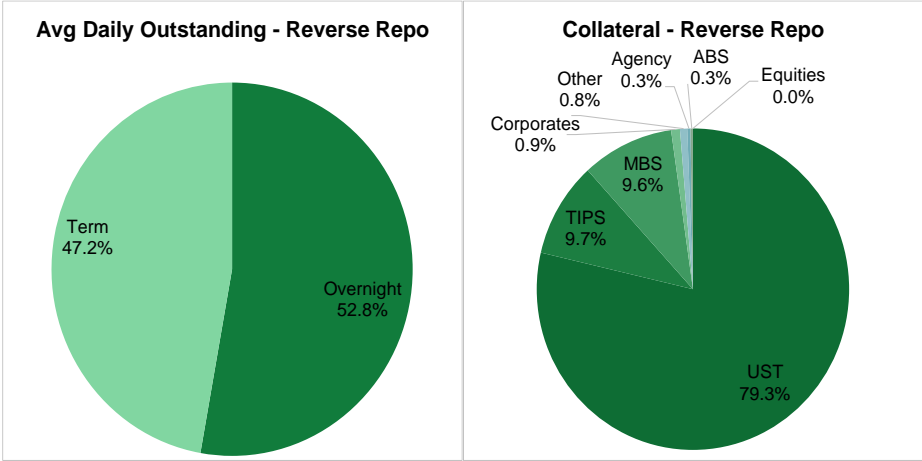
Repo



Sources: Federal Reserve Bank of New York, SIFMA estimates  
 Note: Data prior to 3/27/2013 includes other financing activity



Reverse Repo

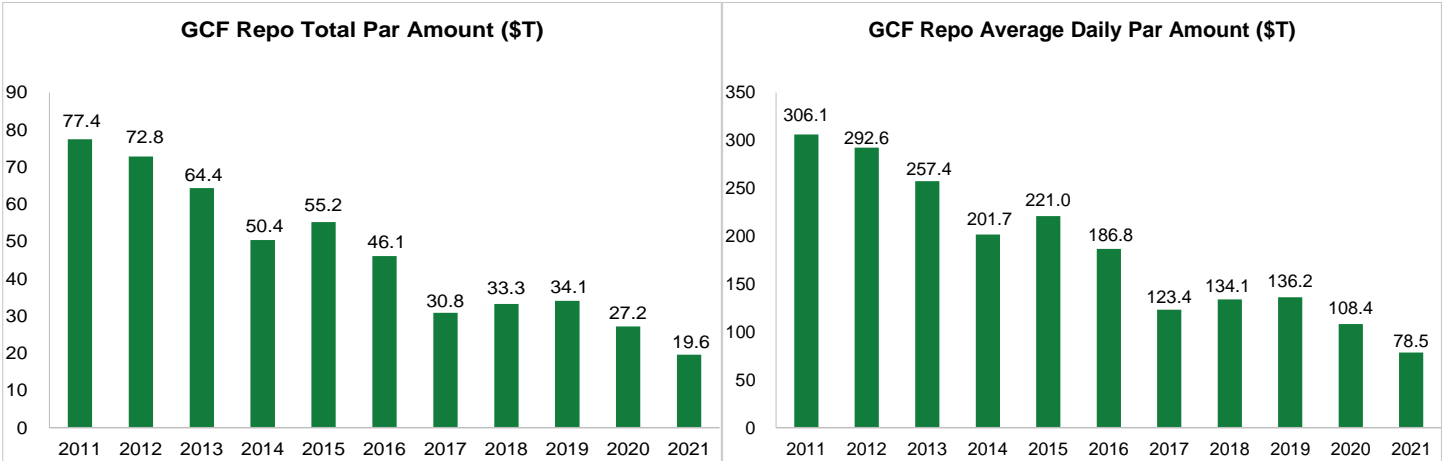
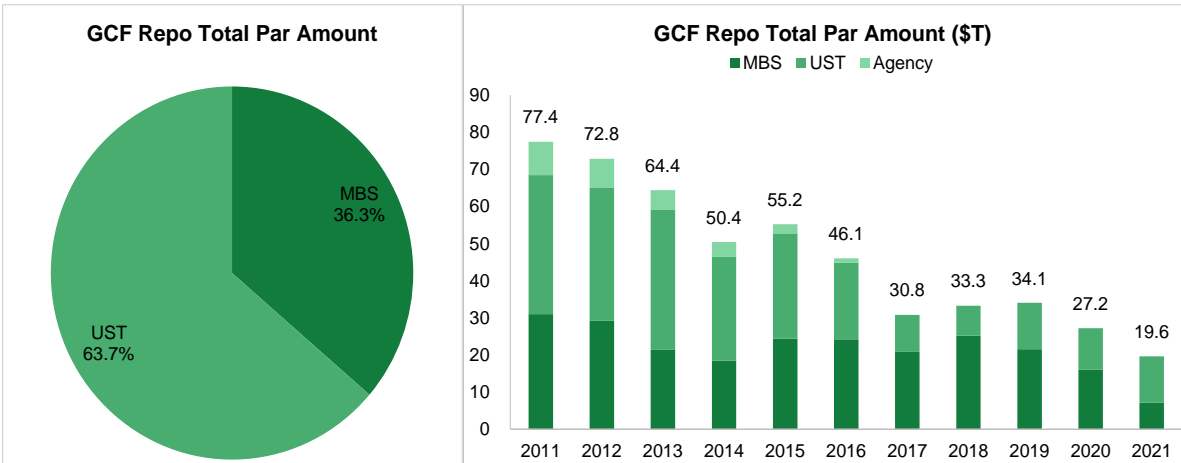


Sources: Federal Reserve Bank of New York, SIFMA estimates  
 Note: Data prior to 3/27/2013 includes other financing activity

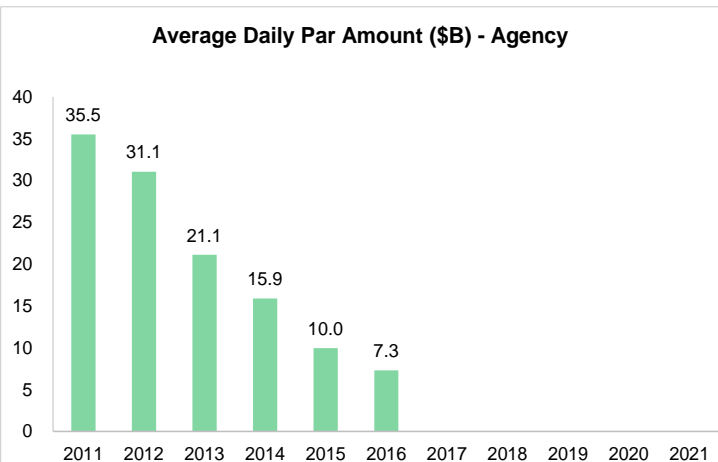
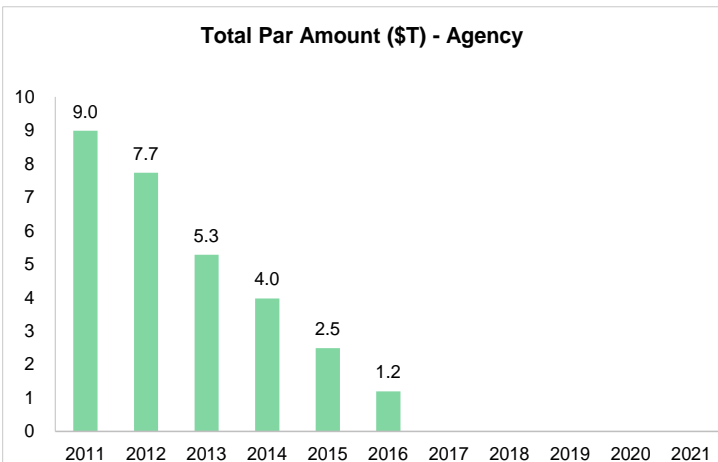
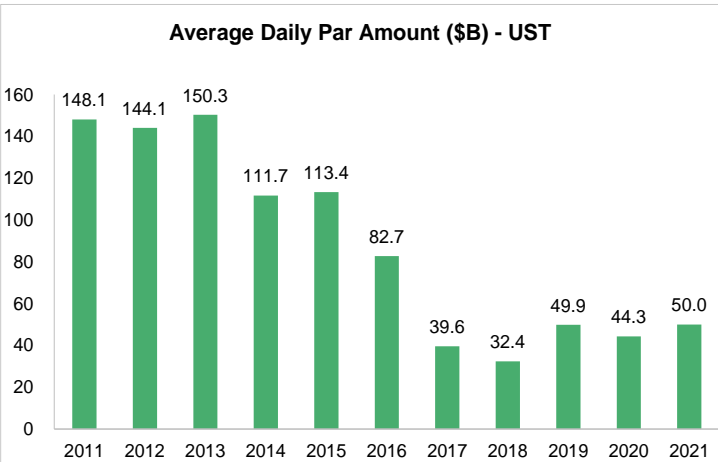
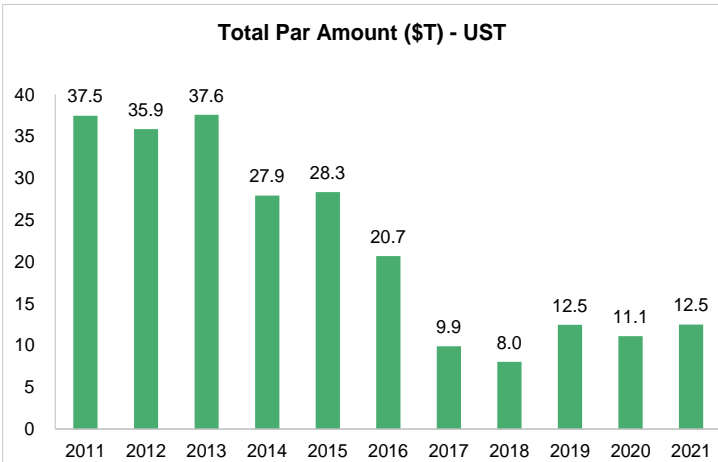
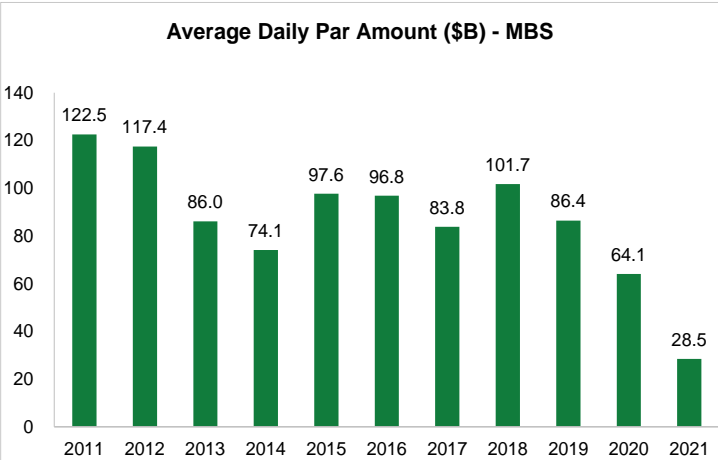
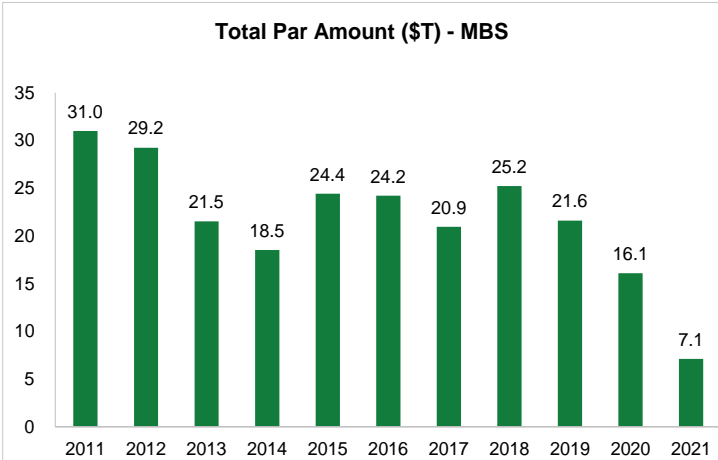


GCF Repo Markets

- GCF repo total par amount \$19.6T, -27.8% Y/Y
- GCF repo average daily par amount \$78.5B, -27.6% Y/Y
- GCF collateral 63.7% UST, 36.3% MBS



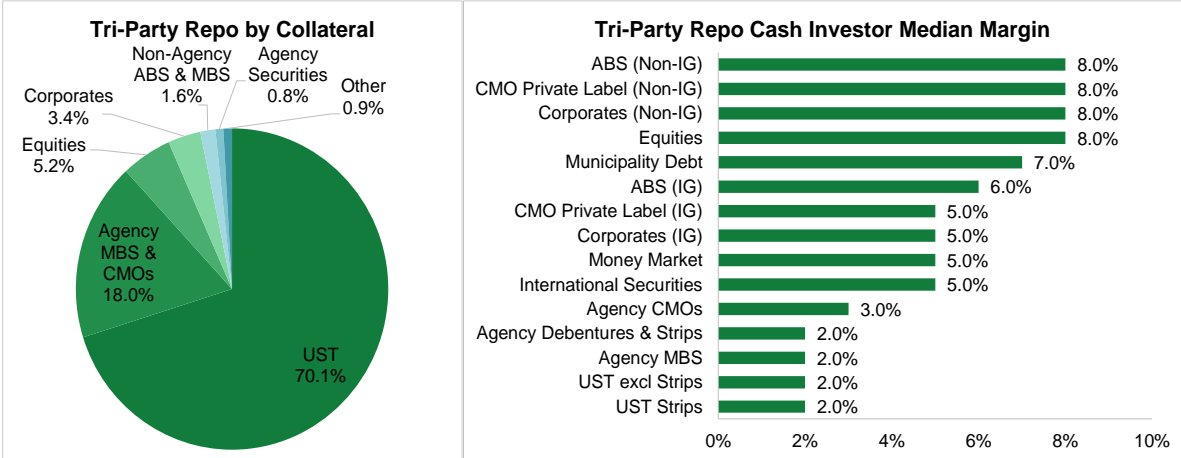
Sources: Depository Trust & Clearing Corporation (DTCC), SIFMA estimates



Sources: Depository Trust & Clearing Corporation (DTCC), SIFMA estimates

Tri-Party Repo Markets

- Tri-party repo collateral 70.1% UST, 18.0% Agency MBS/CMOs
- Tri-party repo cash investor median margin levels range from 2% (UST) to 8% (ABS)



Sources: Federal Reserve Bank of New York, SIFMA estimates  
 Note: Data as of 12/09/2021

## Appendix: Methodology and Sources

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- **Bilateral Repo (Primary Dealer)**

- Data – Primary dealer financing values include both triparty and bilateral agreements. Figures cover financing involving U.S. government, federal agency, corporate and federal agency MBS securities. Beginning in April 2013, figures also include equity and other securities; beginning in January 2015, figures also break out ABS
- Source – Federal Reserve Bank of New York

- **GCF Repo**

- Data – GCF Repo data are only overnight rates and dollar amounts. Figures are total nominal value of GCF repos submitted for clearing to FICC
  - Treasury – Treasury securities are containing those securities 30-year or less
  - Agency – Agency debenture securities
  - MBS – 30Y MBS securities issued by Fannie or Freddie
- Source – DTCC

- **Tri-Party Repo**

- Data – Subcategories may no longer add up to totals listed due to omission of asset classes with fewer than 3 dealers
- Source – Federal Reserve Bank of New York

## Appendix: Primary Dealer List

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The following is the current list of primary dealers, per the Federal Reserve Bank of New York (as of January 2022)

- Amherst Pierpont Securities LLC
- Bank of Montreal, Chicago Branch
- Bank of Nova Scotia, New York Agency
- BNP Paribas Securities Corp.
- Barclays Capital Inc.
- BofA Securities, Inc.
- Cantor Fitzgerald & Co.
- Citigroup Global Markets Inc.
- Credit Suisse AG, New York Branch
- Daiwa Capital Markets America Inc.
- Deutsche Bank Securities Inc.
- Goldman Sachs & Co. LLC
- HSBC Securities (USA) Inc.
- Jefferies LLC
- J.P. Morgan Securities LLC
- Mizuho Securities USA LLC
- Morgan Stanley & Co. LLC
- NatWest Markets Securities Inc.
- Nomura Securities International, Inc.
- RBC Capital Markets, LLC
- Societe Generale, New York Branch
- TD Securities (USA) LLC
- UBS Securities LLC.
- Wells Fargo Securities, LLC

## Authors

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### SIFMA Research

Katie Kolchin, CFA, Director of Research

Justyna Podziemska

Ali Mostafa

[research@sifma.org](mailto:research@sifma.org)