November 2023

MFA on Treasury market structure

State of the Treasury markets

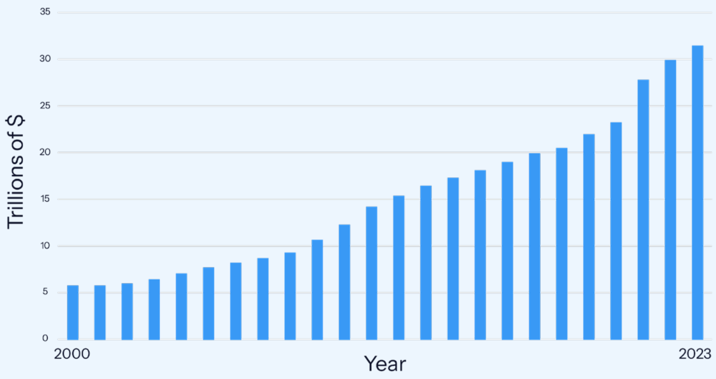
The U.S. Treasury markets are the largest and most liquid government bond markets in the world. Treasuries are both the primary debt instrument for the U.S. government and a foundation of the global financial system. The Treasury markets' liquidity and depth limit volatility and provide stability. The markets are comprised of a large and diverse pool of market participants who buy, sell, and hold the bonds. The resilience of these markets is critical to financial stability and economic prosperity. The diversity of participants in the market fuels its resilience.

To enhance the resiliency and efficiency of the Treasury markets, it is critical that policymakers do not radically change the market structure before understanding the consequences of significant modifications. Treasury market structure is enhanced with thoughtful and gradual modifications that minimize any negative, unintended impacts to liquidity and efficiency, while maximizing participation and resilience.

2023 Treasury markets: diversity of participation is key

Since 2000, the supply of Treasuries has grown significantly to support the expanding U.S government debt. Preserving robust participation by a diverse group of market participants is essential to ensuring that demand keeps up with supply and that government funding costs are kept as low as possible, as that debt continues to expand.

Treasury securities have increased significantly since 2000[1]



Treasury market participants:

- Foreign entities
- Mutual funds
- Depository institutions
- State & local governments
- Hedge funds
- Private & public pensions
- Insurance companies
- U.S. savings bonds

[1] Data from U.S. Treasury, Monthly Statement of the Public Debt reports, total debt outstanding in January of each year

How trading Treasuries works

The primary market is where investors buy newly issued bonds directly from the U.S. Department of Treasury at auction. The secondary market is where investors buy and sell Treasuries that have previously been issued. Both markers are critical to the functioning of the U.S. economy as well as the global financial system.

Hedge funds' role in Treasury markets

Hedge funds are one of many active participants in the Treasury markets. Hedge funds transact in Treasuries as part of their investment, trading, hedging, and cash management activities. One example that has received outsized attention, but is not always well understood, is the cash-futures "basis trade."

The basis trade refers to a position established through the sale of a Treasury futures contract and the purchase of a Treasury bond that is deliverable under the futures contract. An array of market participants–not just hedge funds–participate in the basis trade. The basis trade is not unique to the Treasury futures market–rather, it is a regular feature of nearly all futures markets.

A Treasury futures contract is an agreement to buy or sell Treasury securities at a specific price and date in the future. Many investors—such as mutual funds and pension funds—increasingly rely on Treasury futures as an efficient way to obtain exposure to Treasuries in their portfolios while maximizing their allocation to other higher-yielding assets, such as corporate bonds.

For every buyer of a futures contract, there needs to be a seller—and the supply and demand for futures is what determines their price. High demand for Treasury futures relative to supply leads to a pricing discrepancy, where the futures contract trades at a premium to the underlying bond. This pricing discrepancy—or "basis"—provides an arbitrage opportunity for market participants who can sell the future and buy an underlying deliverable cash Treasury. At the expiry date of the futures contract, the prices converge making the trade profitable for the seller of the future contract.

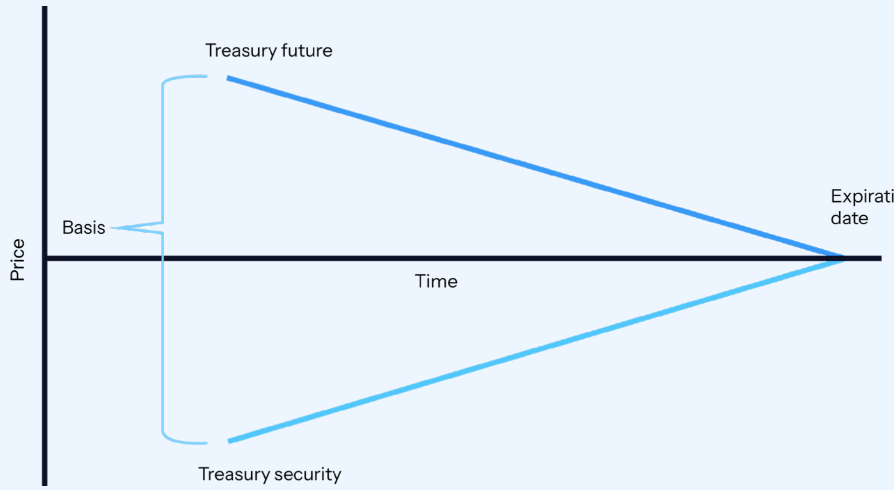
> **The Fed found that hedge funds were not the primary driver of the March 2020 Treasury market volatility.[2] In March 2020, foreign investors sold $400 billion of Treasuries, mutual funds sold over $200 billion[3], and hedge funds sold only $35 billion.**

[2] Board of Governors of the Federal Reserve System, Financial Stability Report – November 2020

[3] Federal Reserve Bank of New York, "Treasury Market Liquidity and Early Lessons from the Pandemic Shock", October 23, 2020

Some hedge funds act as sellers of the Treasury futures and buyers of the bonds. Their participation in the Treasury markets narrows the price dislocation between the futures contract and the underlying Treasury bond, enhances overall efficiency and liquidity in the markets, and helps lower the cost of government debt issuance by creating demand for U.S. Treasuries.

The price of the Treasury future and Treasury security coverage as they reach their expiration date



However, the difference in price between the future and the Treasury is small. To make the trade economically viable, hedge funds often use leverage, buying Treasuries in the cash market and then funding their purchases with banks by making use of the repo market. Hedge funds are constrained in how much leverage they can utilize, in part because the futures contracts they are shorting against their Treasury longs have significant initial margin requirements. For banks, the repo trade's credit risk is generally very small, since banks are typically clear of the futures contract as well.

The basis trade benefits the Treasury market by:

- Increasing liquidity
- Dampening volatility
- Reducing bid-ask spreads
- Lowering the cost of government borrowing
- Helping pensions and other buyers of futures optimize their allocation of capital

Collateralization of the basis trade

The amount of collateral posted in connection with the basis trade includes both margin posted on the futures leg of the trade and any haircuts on the repo transaction used to finance the cash leg of the trade.

The futures leg of the trade is over-collateralized. The Chicago Mercantile Exchange (CME) margins the short futures position as an outright directional position, and does not account for the underlying cash Treasury being held against it.

Recently, there has been focus on the seeming existence of zero haircut repo financing. This narrow focus overlooks the fact that repo financing is provided under master netting agreements where a dealer/prime broker recognizes that its client has a netted package of a Treasury future and a cash Treasury. If the dealer had to close out the client's full position, it would have recourse to the excess margin posted on the futures leg.
In October, in the annual Financial Stability Report, the Federal Reserve wrote that concerns about risk in the basis trade are being "mitigated by tighter financing terms applied to hedge funds by dealer counterparties over the past several quarters."[4]

> **CME operates both an exchange and a clearinghouse, which are regulated by the CFTC. The CME's margin methodology is subject to robust requirements and approved by regulators.**

Dealers, including banks, decide margin levels in the basis trade by looking at a hedge fund's exposure in aggregate. Low haircuts on repos are often driven by netting and cross-product margining, where a dealer estimates and collects margin for their risk exposure over all trades and exposures in a hedge fund's portfolio. Netting and cross-product margining significantly contribute to the low repo haircuts hedge funds often obtain on their repo borrowing in the context of the basis trade and shows why this practice is sound from a risk-management perspective.

Some policymakers have floated the idea of implementing a minimum haircut on bilateral uncleared repo in order to limit the use of leverage in the basis trade. Counterparty banks—through their own risk management protocols—determine margin requirements on hedge fund financing arrangements. Bank regulators work with banks to ensure appropriate counterparty and collateral risk management. It is important to understand that implementing leverage limits is not without cost, and therefore should be done with great care. Unintended consequences for the Treasury markets include:

- Raising the cost of government borrowing
- Increasing volatility
- Widening bid-ask spreads
- Reducing liquidity

[4] Board of Governors of the Federal Reserve System, Financial Stability Report – October 2023

[5] Board of Governors of the Federal Reserve System, Hedge Fund Treasury Exposures, Repo, and Margining

> **"[Most] funds already satisfy the collateral requirement and, in our analysis, do not need additional capital to support existing borrowing.... [Imposing leverage limits] may affect the size and volatility of spreads among related instruments in Treasury cash and derivatives markets, as well as market liquidity conditions in those markets."[5]**
>
> **- U.S. Federal Reserve**

0% Haircuts is a misnomer:

Some policymakers have noted and criticized a perceived practice of providing a lending arrangement with a 0% haircut. This assertion is a misunderstanding of the margining practices between funds and banks. Some policymakers have noted and criticized a perceived practice of providing a lending arrangement with a 0% haircut. This assertion is a misunderstanding of the margining practices between funds and banks. For example, in a typical basis trade arrangement, a fund might finance the underlying bond through a low or zero haircut repo because the risk is sufficiently offset with its corresponding futures exposure (which is typically margined at 1% to 9%, depending on maturity). Therefore, looking at one piece of a connected trade in a silo does not give an accurate representation of the actual collateralization level and risk management practices.

Further, as has been noted by the Federal Reserve, in the event of selling pressure, funds have unencumbered cash, or dry powder.[6]

Treasury market transparency and risk management

Comprehensive information about transactions in the cash, futures, and repo markets is already reported to regulators. To the extent these data sets need to be further enriched to better understand market dynamics or perform market oversight, this should be prioritized. Currently:

- All cash transactions are reported to FINRA through its TRACE system.
- All futures market activity is conducted on exchanges subject to CFTC oversight.
- For all centrally cleared repos, data is collected through OFR's cleared repo collection.
- For the non-centrally cleared tri-party repo market, the Bank of New York Mellon serves as the tri-party custodian and transaction-level data is collected under the supervisory authority of the Federal Reserve Board.

In addition, hedge fund managers provide data and information to the SEC about their investment strategies and their use of leverage through Form PF. This provides regulators with the information to properly assess risk in the financial system.

[6] Ibid

In addition to SEC oversight, hedge funds and their bank counterparties use sophisticated risk management. Collateral, margin, and haircuts are determined by minimum legal requirements, the customer's credit risk, and other business relationships the customer maintains with the bank. Minimum legal margin requirements are set by the banks' prudential regulators and can be revised, as needed.

The information provided to regulators in form PF includes:

- Fund size
- Investor type
- Investor concentration
- Liquidity
- Fund performance
- Strategy
- Counterparty exposure
- Use of trading and clearing mechanisms

Enhancing Treasury markets

The size of the Treasury markets has quadrupled in the last 15 years and is expected to continue growing. It is important to modernize the market architecture to meet evolving market dynamics. But policymakers should do so in a way that is gradual, thoughtful, data-driven, and, above all, based on the first-order principle of "Do No Harm."

To enhance Treasury market resiliency, policymakers need to modernize market structure. MFA supports specific proposals to bolster Treasury market structure including by:

- Improving data collection by adding customer legal entity identifiers (LEIs) and a clearing arrangement indicator to TRACE for cash trades.
- Requiring reporting of repo and reverse repo transactions to a central depository (such as the OFR recently proposed).
- Expanding the use of voluntary central clearing in the dealer-to-customer segment of the Treasury market for both secondary cash market transactions and repos.
- Requiring clearing members of FICC (the only clearing agency for Treasury securities) to accept transactions executed by their customers with third-party executing firms ("done away" trades).
- Providing for segregation of customer margin at FICC.
- Introducing cross-margining for end-users for Treasury futures and cash Treasury transactions.

Expanding central clearing solutions has the potential to:

- Enhance market resiliency, transparency, and liquidity while reducing credit and operational risks.
- Benefit investors and market participants by allowing them to more efficiently deploy capital by netting offsetting transactions and providing access to market-wide protections provided by a clearinghouse's default management framework.
- Help facilitate the development of all-to-all trading in Treasuries.

Avoid harmful proposals

Recent proposals from the SEC will create negative, unintended consequences for investors and the markets:

Dealer Proposal: The SEC's proposal to expand the scope of who is a "dealer" under the Exchange Act would capture a large number of private funds and their advisers. These market participants are already subject to Commission registration, examination, and significant reporting requirements. Many private funds, as a result of the SEC's dealer proposal, will be forced to curtail their participation in the U.S. Treasury markets. This will:

- Reduce liquidity
- Impair price discovery
- Increase the cost of capital for companies and the U.S. government

Treasury Clearing Proposal: The SEC's proposal to mandate clearing in the U.S. Treasury markets before the clearing ecosystem to support customer clearing is developed would be counter-productive. In addition, the rationale for repo clearing and cash clearing differs significantly, and the rationale for only targeting hedge funds with a cash clearing mandate is problematic. Unless the implementation details and timeline are appropriately designed and staggered, it could:

- Decrease market efficiency and resiliency
- Make it more difficult and expensive for investors to transact
- Increase market concentration and risk

Data-driven updates of Treasury market structure is needed as markets evolve

The Treasury markets underpin the U.S. economy as well as the global financial system. As the market continues to grow and evolve, so too must the underlying market structure. Making data-driven, gradual changes will ensure a continued diversity of market participation—including the important role played by hedge funds. This approach, in turn, will maximize liquidity and resiliency and avoid negative, unintended consequences.