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IN FOCUS

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Treasury Securities Market Disruptions and Policy Issues

The U.S. Treasury securities market is considered one of the most important financial markets in the world. The market provides a low-risk (backed by the full faith and credit of the U.S. government) and liquid asset for global investors while raising funding to finance U.S. federal spending. Any event that significantly disrupts Treasury market functions could cause distress in the global financial system, and recent market events show that the Treasury market is not immune to such disruptions. This In Focus describes examples of these market events and related policy recommendations.

Overview

The U.S. Treasury securities outstanding grew in nominal dollars to $22 trillion as of October 2021 from $3 trillion in 2000. They account for around 40% of all U.S. fixed income securities outstanding. Market participants use Treasury securities to hedge portfolio positions, create low-risk investment strategies, speculate on interest rate movements, and provide reference rates for pricing and analyzing other securities. The Federal Reserve (Fed), foreign central banks, mutual funds, pension funds, banking institutions, and households are common holders of Treasury securities. As the largest individual holder of Treasury securities, the Fed held $5.6 trillion, or around a quarter of all Treasury securities outstanding as of November 2021.

The Treasury cash market is the market for Treasury benchmark securities as opposed to Treasury futures and options. In the cash market, the Treasury Department issues bills, nominal fixed-rate coupon securities, nominal floating rate securities, and inflation-indexed securities. These securities are referred to as "benchmark" securities because the yields of these securities are used as references for other transactions. The Treasury futures market refers to the market where Treasury securities buying and selling happens at a predetermined price and a set future time.

Regulatory and Operational Framework

Multiple authorities are responsible for regulating or operating various components of the Treasury market:

- The Treasury Department is responsible for securities issuance, while the Fed executes auctions and buybacks (the latter of which are rarely performed).

- Trading in Treasury securities is facilitated mainly by brokers and dealers. The Government Securities Act of 1986 (P.L. 99-571) establishes the broker-dealer regulatory framework in the government securities market. Congress authorized the Treasury Department to promulgate rules governing transactions in government securities by government securities brokers and dealers. The enforcement authority for the rules generally resides with the Securities and Exchange Commission (SEC), Financial Industry Regulatory Authority (FINRA), and relevant banking regulators.

- Trade Reporting and Compliance Engine (TRACE) is the main system for consolidating Treasury securities transaction data and reporting. FINRA operates TRACE with the involvement of the Treasury, SEC, Fed, and other official entities.

- Treasury securities clearing and settlement processes are facilitated by some entities operated by or under the oversight of the Fed and the SEC. The Fed operates the Fedwire clearing and settlement system. Regulated entities include, for example, the Fixed Income Clearing Corporation and the Bank of New York Mellon.

- Treasury derivatives markets generally include Treasury futures, options, swaps, and futures on indices related to Treasuries, among other instruments. The Commodity Futures Trading Commission (CFTC) oversees Treasury derivatives markets. In addition to its enforcement authority over manipulative and deceptive activities involving derivatives such as Treasury futures, the CFTC has regulatory oversight of Treasury derivatives market participants and exchanges.

Treasury Market Disruptions

This section explains three Treasury market events in 2014, 2019, and 2020 and what economists have generally described as their conditions.

"Flash Rally" in October 2014

On October 15, 2014, the Treasury market experienced unusually high volatility and a sharp swing of prices without significant news that would normally move markets. The event was called a "flash rally" because the large decline and rebound in prices happened in a short time window of minutes, after which markets were calm again. Market observers focused on changes in market structure to explain the event. The most fundamental shift in market structure in the years leading up to the event included the emergence of high-speed electronic trading. The shift affected the types of market participants and the ways they demand and supply liquidity. For example, principal trading firms (PTFs), a type of electronic and automated intermediary that includes certain high-frequency trading firms and nonbank market makers, have become key players in the Treasury market. At the time of the event, PFTs accounted for the majority of trading and standing quotes in certain Treasury order books (e.g., futures and the inter-dealer cash market). Because the emerging intermediaries, such as PTFs, may not have the same

balance sheet capacity for market making as the more traditional bank-affiliated dealers, this change in market structure potentially led to weakened market resilience. In addition, high-speed trading created incentives for being the fastest, which could cause slower traders to withdraw from the market or seek other venues, thus reducing liquidity by reducing the number of traders and separating them into different venues. The lack of full information to thoroughly analyze the event, some argue, also underscored the need for transparency into some parts of the Treasury market structure that were not covered by data reporting in 2014 and are still not covered as of January 2022.

Treasury Repo Market Stress in September 2019

A repurchase agreement (repo) is an agreement to sell securities with a promise to buy them back at a higher price and a later time. Repo transactions are similar to collateralized loans, with the higher price for future repurchase playing the role of an interest rate. The repo transactions collateralized by Treasury securities represent the largest segment of the repo market. Each day, financial institutions generally use repos to borrow more than a trillion dollars against Treasury securities.

In September 2019, Treasury repo and other money market instruments briefly experienced unexpected and severe rate spikes. The Treasury repo market stress coincided with the quarterly corporate tax payment and the settlement of the mid-month Treasury coupon auction that generated transitory shocks (through the decrease in supply of cash and increase in demand for cash). At the time, the reserve holdings at some banks were low relative to the banks' desired levels. The reserve levels limited the amount of cash these intermediaries could lend out to alleviate the rate pressure at the repo market, creating a situation where many lenders did not step in to take advantage of the higher rates. Some large Treasury repo market dealers also experienced increases in intermediation costs, driving up repo rates. The temporary reduction in lending from money market mutual funds may have contributed to this cost increase in intermediation. The Fed intervened by lending cash in the repo market and purchasing Treasury securities outright.

"Dash for Cash" in March 2020

In March 2020, the economic and financial uncertainties surrounding the COVID-19 pandemic induced a "dash for cash" that involved extensive market selloffs for assets across a wide spectrum, including stocks, bonds, and Treasury securities. Many market participants—including foreign central banks, mutual funds, and hedge funds—started selling Treasury securities. The sales pressure distorted the market and overwhelmed the Treasury market intermediaries, resulting in key market makers (high-volume traders that stand ready to buy or sell a security to "make a market"), including PTFs and other dealers, being unable to keep up with the demand for intermediation services. Treasury securities prices briefly experienced abnormal volatility, and the financing for Treasuries through repo became scarce. The Fed took actions to address the market conditions, including establishing liquidity facilities and providing large-scale purchases of Treasury securities and repo lending.

Some researchers attribute the reasons for the 2020 Treasury market disruption to the sale pressure driven by liquidity needs at foreign central banks, mutual funds, and hedge funds. One research paper indicates that sales of Treasury securities by foreign investors, mutual funds, and the household sector (which includes hedge funds) were at $287 billion, $266 billion, and $196 billion, respectively, in first quarter of 2020. In contrast, these groups did not sell many Treasury securities during the 2008 financial crisis.

Potential Causes and Policy Options

The recent Treasury market events revealed areas of structural vulnerability. According to a number of observers, the root cause of the increased Treasury market disruptions relates to the rapid growth of the market size that outstripped dealers' intermediation and market-making capacity. Specifically, the nominal amount of Treasury securities held by the public more than tripled between 2008 and 2020, placing pressure on intermediation. Various government agencies and think tanks have made a number of recommendations in recent years to address challenges, some of which are broadly described below. Critics of these recommendations may assert some proposals create undue government intervention or additional costs in the market. Proposed policy options include:

Enhance market-making capacity through the creation of a facility at the Fed—which would provide permanent, broad, and direct access to the Fed's financing—in an effort to ensure intermediaries' confidence in market making. The Fed launched a standing repo facility in 2021.

Increase safeguards, including potential registration of PTFs as dealers under securities law and evaluating all exemptions of Treasury securities from U.S. securities laws to see if the exemptions continue to be warranted.

Mandate central clearing of more trading activities through a central counterparty clearinghouse. Central clearing could reduce counterparty risk, increase transparency, and expand intermediaries' balance sheet capacity (e.g., through "netting"). The specific steps could include the expansion of central clearing to all Treasury securities and repos.

Increase market transparency and monitoring by expanding reporting, disclosure, and data collection and tracking. Recommendations along these lines include potential enhancements to TRACE reporting for Treasury securities. Among the enhancements under consideration is a shortened trade reporting time frame. Others have recommended Treasury securities transactions be publicly disclosed, like the TRACE reporting on corporate bonds.

Enhance trading venue oversight by expanding Treasury securities trading regulation (e.g., through changes to the SEC Regulation Alternative Trading Systems).

Evaluate investor positions and trading flows, including positions at large Treasury securities investors. These could include certain hedge funds and mutual funds that pose leverage and liquidity considerations.

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