INSIGHT

Treasuries and Repo in the Time of COVID-19

July 20, 2020

Background: Three Roles for Treasuries

The U.S. Treasury issues debt securities—known as Treasuries—that play three critical roles in the economy: funding the government, supplying safe assets, and anchoring liquidity flows in financial markets. This Insight examines how the coronavirus pandemic has affected all three roles.

Treasuries primarily serve as a *means of government finance*. The U.S. Treasury sells securities to obtain cash to fund government operations when revenues fall short of outlays. The Treasury issues bills, maturing within a year, to respond to short-term financing needs. Treasury notes, with maturities up to 10 years, and bonds, with longer maturities, help the government hedge against the risk of rising interest rates. Most Treasuries first sell in scheduled auctions and then trade in secondary markets.

Investors hand over cash to purchase Treasuries to obtain assets essentially free of default risk that serve as a *store of value* as well as a safe haven against severe market or other unforeseen risks. Interest rate changes affect the price of Treasuries. Longer-term Treasuries generally carry higher yields to induce investors to lock up funds for longer times. The yield curve—a plot of Treasuries' yields ordered by their maturities—therefore usually slopes upwards. A downward sloping, or *inverted* yield curve can signal an impending economic slowdown.

Treasuries anchor liquidity flows in financial markets largely through repurchase agreements, or *repos*. A repo provides a common means of secured lending, often within the nexus of financing arrangements involving nonbank financial institutions sometimes called the *shadow banking system*. Most repo trades use Treasury securities for *collateral*, intertwining repos and markets for Treasuries. Repos allow asset holders to obtain extra revenues on otherwise idle assets. Most U.S. repo lending is overnight, although some repos continue on a rolling or *open* basis.

For instance, a hedge fund may sell $100 million in Treasuries to a bank for a day in return for $98 million in cash to fund its operations. The next morning, the hedge fund *repurchases* the Treasuries, returning the cash and an interest charge to the bank. That $2 million difference—the *haircut*—helps protect the bank from credit and transactions risks. Haircuts for other types of assets are generally higher. Asset holders and borrowers might also transact a repo through a clearing bank, called a triparty repo. Hedge funds use repos for leverage by taking short positions on Treasuries—that is, lending borrowed Treasuries.

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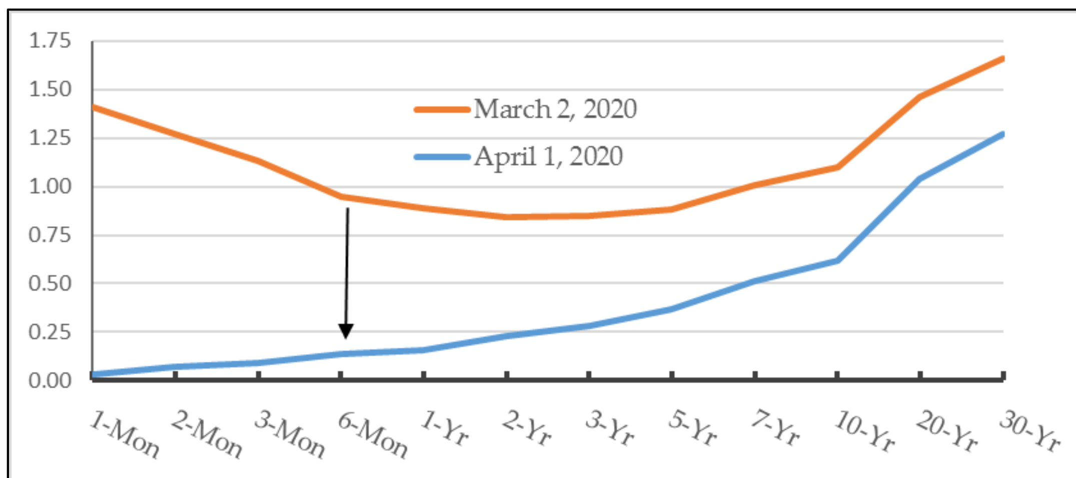
Dramatic Moves in Financial Markets in March 2020

Financial markets reacted sharply once the World Health Organization declared Coronavirus Disease 2019 (COVID-19) a global pandemic on March 11, 2020. In the following week, some market indices had multiple historic falls in value, a market adjustment far more sudden than the onset of the financial crisis of 2007-2009. In Treasuries markets during March 2020, yields on Treasury securities of all maturities fell (**Figure 1**), some reaching historic lows. The 10-year bond yield dropped below 1% for the first time and the 30-year bond had a yield of 1.27%—the one-month T-bill yield a month earlier.

Figure 1. Treasury Yield Curve for March 2 and April 1, 2020

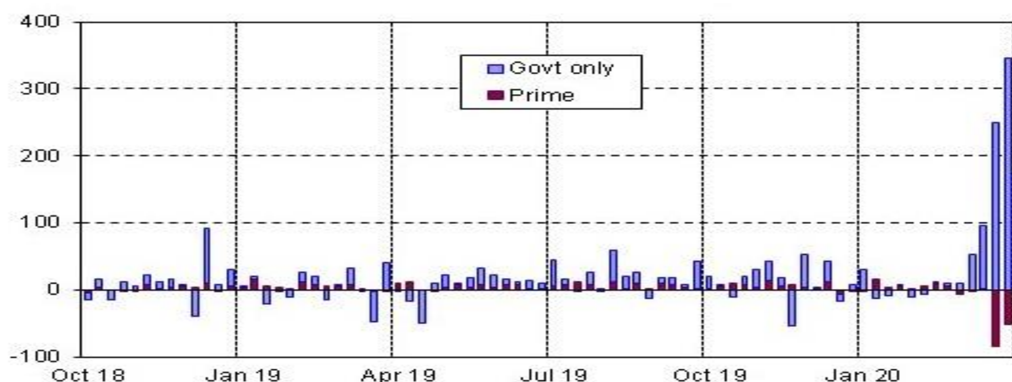


Source: CRS calculations based on U.S. Treasury data on constant maturity rates. Rates in percentage points.

Sudden inflows into money market funds holding government securities and withdrawals from other money market funds mirrored the rush into Treasuries (**Figure 2**).

Figure 2. Weekly Changes in Money Market Fund Assets

(Government-Only vs. Prime Funds: Wednesday Levels in $Billions)



Source: Investment Company Institute (ICI) data via Wrightson ICAP. Government securities include "Treasury debt, Treasury repurchase agreements, government agency debt, government agency repurchase agreements, and 'other' government securities, or other securities, which contain all remaining non-government securities."

What Caused Those Market Movements?

Within the general uncertainty of the COVID-19 pandemic, two factors helped drive these movements. First, many firms faced severe revenue drop-offs, sparking demand for cash and credit while depressing risky assets' prices and raising safe assets' prices, especially Treasuries. Post-2007-2009 financial crisis bank leverage limits were eased to bolster the supply of credit. Surging demand for cash also drove unusual patterns in Treasury prices, which vary inversely with yields. Asset prices that tended to trend together, such as Treasuries and stock indices, diverged. Even 10-year Treasury yields and mortgage rates, which usually move in tandem, diverged, indicating extraordinary financial stresses. Massive Federal Reserve support and COVID-19 response efforts funded by Congress helped ease divergences in late April 2020.

Second, repo lending supports the leveraging strategies of hedge funds and similar entities. One analysis noted "any sustained disruption in this market, with daily turnover in the US market of about $1 trillion, could quickly ripple through the financial system." COVID-19 stresses prompted *deleveraging*—a pullback in the borrowing of safer assets and curtailed demand for risky assets. A hedge fund using a leveraged funding strategy could exchange Treasuries with a bank to borrow cash. The hedge fund would then be short on Treasuries—holding a negative position in them—and long on assets purchased with borrowed cash. Financial theory suggests investors facing higher market volatility reduce short positions in Treasuries and sell some risky assets. As other firms do likewise, prices of riskier assets fall, further straining leveraged positions. Avoiding such fire-sale dynamics appeared to spur some Federal Reserve responses to enhance market liquidity. The shadow banking sector faced more pressure than the formal banking sector, which bolstered capital reserves following the 2007-2009 financial crisis.

Historic Increase in Treasury Supply Ahead

Congress enacted fiscal responses to the pandemic, including the CARES Act (P.L. 116-136), scored as costing about $1.7 trillion, mostly for FY2020 and FY2021. Funding those outlays implies an unprecedented increase in the issuance of Treasuries. Lowered yields shown in **Figure 1** reflect strong demand for Treasuries. Market pricing indicates low interest rates will persist, lessening debt service costs. Nevertheless, fiscal challenges loom. Slower economic activity reduces federal revenues and expanding public debt underlines preexisting concerns about the federal fiscal trajectory. Other long-term fiscal challenges, such as the Baby Boomer retirement and climate change, remain. Many economists, however, regard responding to COVID-19 as more important than restraining federal debt at present.

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