THE RATE AND CREDIT VIEW

Treasury Auction Primer

A Publication of LPL Research

February 20, 2024

Lawrence Gillum, CFA,
Chief Fixed Income Strategist

EXECUTIVE SUMMARY

- The U.S. Treasury Department has significantly increased coupon auction sizes since the August refunding and announced increases earlier this year for the February through April quarter, as supply continues to adjust for rising deficits and Federal Reserve (Fed) redemptions.
- In this edition of *The Rate and Credit View*, we examine the basics of the auction process and how to determine if the auction was successful.
- The current increase in supply will occur amid a backdrop of slowing inflation and expectations of Fed rate cuts this year. Investors might require some concessions to digest the larger issues — tamping down bid-to-cover ratios and nudging auction tails higher — but the improved outlook for rates this year should attract some additional demand from the sidelines.

As mentioned in the September *Rate and Credit View* , America has a debt problem. According to recent data from the congressional budget office (CBO), total Treasury debt held by the public is expected to grow to over $46 trillion by 2033. The primary reason for the increase in expected debt issuance is an increase in spending. Per the CBO, the U.S. government is expected to run sizable deficits over the next decade in the tune of 5%–7% of GDP each year. The Treasury Department needs to issue debt to fund those deficits and plans to issue a lot of it.

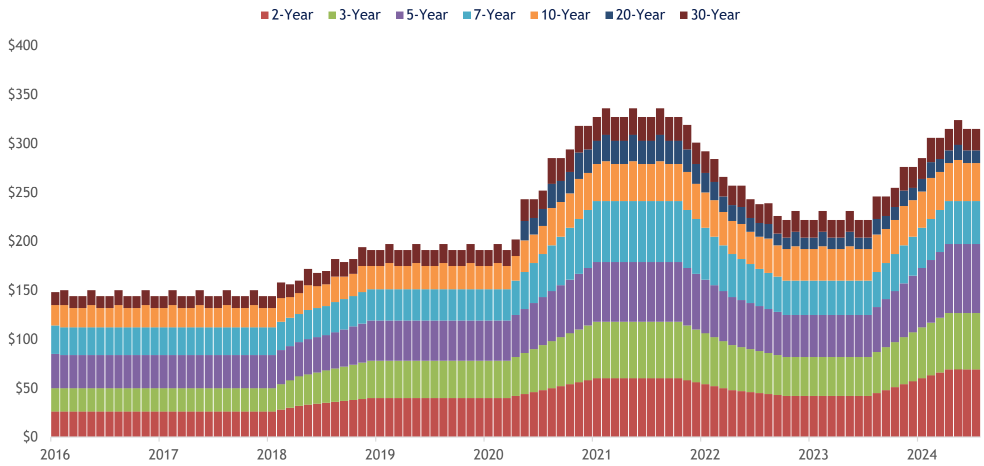
The Treasury has significantly increased coupon auction sizes since the August refunding and announced increases earlier this year for the February through April quarter, as supply continues to adjust for rising deficits and Fed redemptions. The latest increase in auction sizes began a few weeks ago with a $54 billion three-year note auction, a record $42 billion 10-year note auction, and a $25 billion 30-year bond auction. The auctions were well received by the market, which was perhaps surprising given the uneven success in auctions leading up to the increased issuance. In this edition of *The Rate and Credit View*, we examine basics of the auction process and how to determine if it was successful.

__LPL Research__ is your financial professional's trusted partner. Our mission is simple: Provide independent and sound investment research to support you and your financial professional as you work toward your investment goals.

Source: LPL Research, Bloomberg, 01/15/24
Past performance is no guarantee of future results.

The Treasury has significantly increased coupon auction sizes since the August refunding and announced increases earlier this year for the February through April quarter, as supply continues to adjust for rising deficits and Fed redemptions.

Expected Treasury Issuance Broken Out by Maturity



Source: LPL Research, Bloomberg, 02/15/24
Past performance is no guarantee of future results.

TREASURY AUCTION BASICS

The Treasury Department issues public debt through regular auctions with the intent to minimize the cost of financing and to provide liquidity to secondary markets. As the government spends more money every year than it collects in tax revenue, there's the need to issue more debt to fund this deficit. Treasury debt securities are sold at auctions facilitated by the Federal Reserve Bank of New York for the Treasury Department on behalf of Congress and are backed by the full faith and credit of the U.S. government. Through February 13, 2024, public debt outstanding totaled $34.3 trillion, with $27.2 trillion of that marketable debt held by the public.

There are four major types of marketable debt issued by the U.S. government, collectively known as Treasury securities: bills, nominal notes and bonds (also known as coupon securities), floating-rate notes (FRNs) and Treasury Inflation-Protected Securities (TIPS). This primer will mostly cover bills and coupons but the mechanics for FRNs and TIPS are the same.

Bills have a maturity not greater than 1-year and don't pay coupon (interest) payments. These securities are valued at a discount to par value, which is the sole cash inflow to investors, paid on the maturity of the instrument. Tenors sold include 1, 2, 3, 4, 6, and 12-months. The Treasury likes to keep issuance levels of bills to no more than 20% of debt outstanding but in recent quarters has breached those levels to maintain price stability for coupon securities, which tend to be harder for the market to digest (relative to bills).

Treasury notes and bonds are longer-term coupon-bearing debt instruments with a time to maturity between two and 30-years. These securities are auctioned once a month, typically with only one sale occurring on a given day. While both bills and coupon securities (along with FRNs and TIPS) are auctioned regularly, the buyer base for coupons is often watched to determine the success of the auction so it matters to bond markets who is actually bidding on Treasury securities.

WHO IS BIDDING IS IMPORTANT

There are generally three types of bidders of Treasury securities: primary dealers, indirect bidders, and direct bidders, as noted in the “Indirect Bidders are Important for Auction Success” chart below.

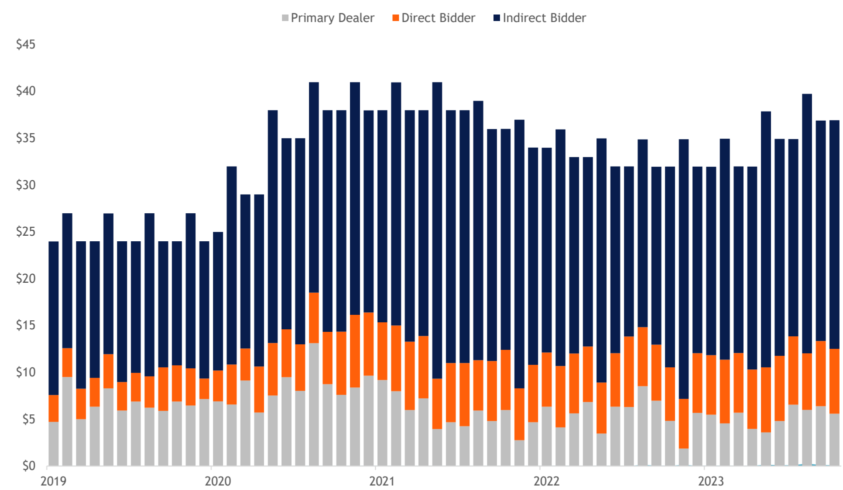
There are generally three types of bidders of Treasury securities: primary dealers, indirect bidders and direct bidders.

Primary dealers are large financial institutions that act as direct counterparties with the New York Fed. To remain in good standing, primary dealers are required to bid for a pro-rata share of every Treasury auction, at reasonably competitive yields or discount rates. This requirement means there should never be a failed auction, where the entire issue is not awarded due to lack of demand.

Direct bidders are institutions with access to the Treasury Automated Auction Processing System (TAAPS) and can submit competitive bids directly in auctions — or on behalf of others. Direct bids are for the bidder themselves rather than for another party, which are counted as indirect bids. There are many firms aside from dealers that may bid directly, including central banks and asset managers.

Indirect bidders, often the most relevant in Treasury auction pricing, are "end users" such as domestic investment funds, foreign investors, and other non-dealers. Indirect bidders are those who can't or choose not to bid directly at Treasury auctions, but instead do so through a dealer or other eligible intermediary set up to bid directly with the New York Fed. Besides foreigners and domestic investment funds, indirect investors often include banks, households, pensions, and insurance companies. Along with bid-to-cover (explained next), the best representation of auction strength is found in the proportion of an auction awarded to indirect bidders. Indirect-bidder strength tends to coincide with sales that do better or worse than expected at the time the auction closes.

Indirect Bidders Are Important for Auction Success (10-year auction below)



Source: LPL Research, Bloomberg, 02/15/24
Past performance is no guarantee of future results.

The best representation of auction strength is found in the proportion of an auction awarded to indirect bidders.

INTERPRETING AUCTION RESULTS

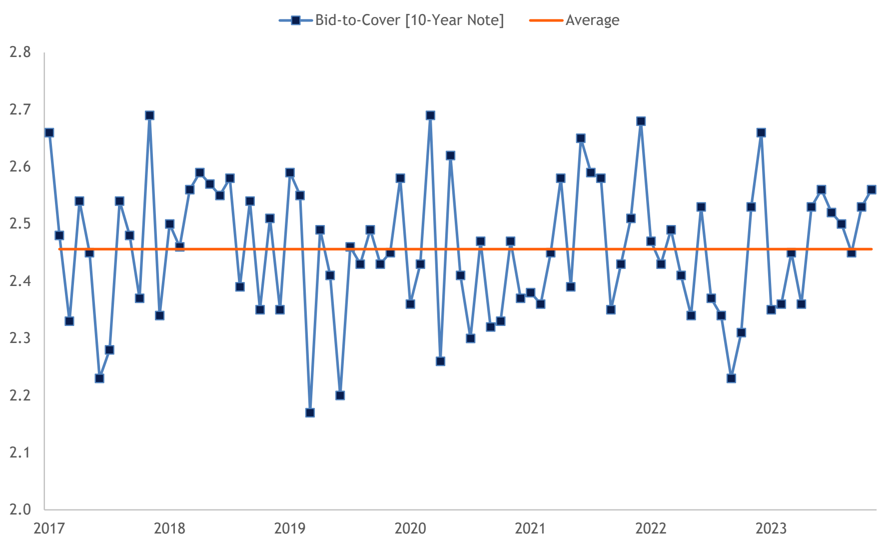
The three primary means of assessing Treasury auction results are the overall demand expressed by the bid-to-cover ratio, indirect bidder share accepted as a sign of end-user demand, and the difference between auction yield and expectations (the tail). The latter has been an important factor recently as adverse auction results materially affected secondary-market prices.

BID-TO-COVER RATIOS

When comparing to historical results, a higher bid-to-cover ratio signals broadly stronger demand at auction, while the inverse is also true.

As highlighted in the chart “Bid-to-Cover Metrics Show How Well Bid the Auction Was”, the bid-to-cover ratio is a metric used to measure the strength of demand at auctions. This measure is calculated as the ratio of the total dollar value of both competitive and non-competitive bids submitted, to the total dollar value of the securities auctioned to the public. When comparing to historical results, a higher bid-to-cover ratio signals broadly stronger demand at auction, while the inverse is also true. Generally speaking, ratios above the longer-term average suggest the auction was well bid. And remember, since primary dealers are required to bid on Treasury auctions, there will always be demand so the ratio will always be at least 1.0. However, ratios below 2.0 are generally seen as a disastrous auction.

Bid-To-Cover Metrics Show How Well Bid the Auction Was



Source: LPL Research, Bloomberg, 01/15/24
Past performance is no guarantee of future results.

WATCH FOR “TAILS”

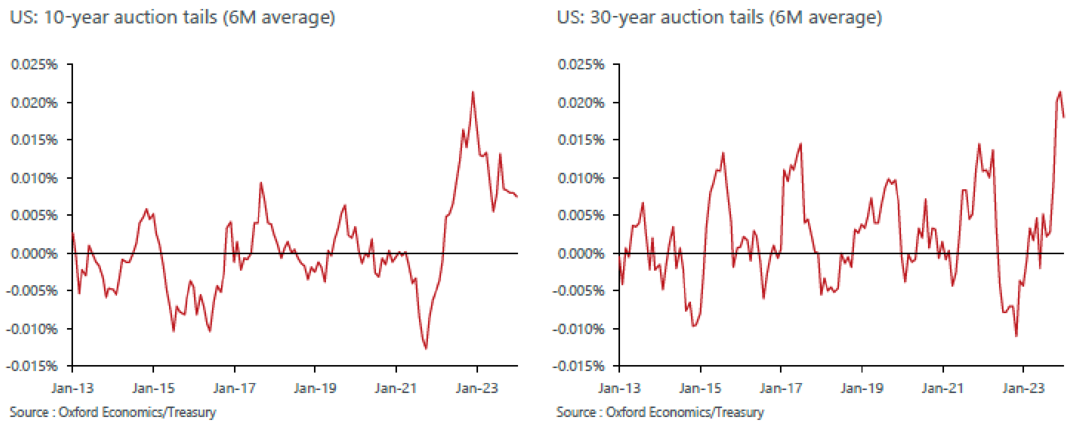
If an auction stops at a yield of 3.50%, and the WI last traded at 3.48%, this auction is said to have "tailed" by 2 basis points (bps). When the auction yield is lower than the WI this is called a "stop short" or "stop through," and signifies better demand.

When-issued (WI) trading allows for market participants to buy and sell Treasury securities before they are auctioned and issued. These instruments begin their existence immediately after a Treasury auction is announced and behave similarly to traditional forward contracts, allowing for price discovery and market positioning ahead of the auction and eventual issuance of any Treasury security.

An auction "tail" is when the yield of an auction is higher than the WI yield at the auction's close. A tail usually signifies relatively weak demand, with large 30-year auction tails late last year amid a pullback in demand for duration a prime example. If an auction stops at a yield of 3.50%, and the WI last traded at 3.48%, this auction is said to have "tailed" by 2 basis points (bps). When the auction yield is lower than the WI this is called a "stop short" or "stop through," and signifies better demand.

Data from Oxford Economics, as highlighted in the 10-year and 30-year auction tails chart, provides the historical tails for the 10-year and 30-year auctions and last year was unfavorable for longer-maturity auctions. Generally speaking, the majority of 10-year and 30-year auctions tailed, sometimes by wide margins. And while demand was still decent (see bid-to-cover ratios), investors were not willing to pay up for Treasury securities.

Difference Between Expected and Issued Yields



Source: LPL Research, Oxford Economics, 02/15/24
Past performance is no guarantee of future results.

WHAT DOES THIS MEAN FOR INVESTORS?

While a lot of attention is (rightly) focused on the amount of Treasury supply coming to market over the next few years, the primary driver of Treasury yields is still Fed policy.

While a lot of attention is (rightly) focused on the amount of Treasury supply coming to market over the next few years, the primary driver of Treasury yields is still Fed policy. Our base case is that the Fed can cut rates this year and can likely cut the fed funds rate by 1%. And after a few months of overly aggressive expectations, markets have generally re-priced to be more in line with our expectations. As such, unless inflationary pressures re-accelerate (not our base case), Treasury yields could be around cycle highs, which should help with demand if the market expectation is lower yields a year from now.

Moreover, Treasury auctions could benefit from adjustments to the Fed's balance sheet. As a reminder, the Fed is allowing bonds to mature without replacing some of the bonds. We expect conditions will be in place for the Fed to begin slowing the pace of balance sheet runoff sometime this year before ending it perhaps in 2025. And while we don't expect the Fed to grow its balance sheet, maintaining it would mean the Fed will be a buyer of Treasuries again, which could provide support.

The current increase in supply will occur amid a backdrop of slowing inflation and expectations of Fed rate cuts this year. Investors might require some concessions to digest the larger issues — tamping down bid-to-cover ratios and nudging auction tails higher — but the improved outlook for rates this year should attract some additional demand from the sidelines.

As such, with the economic data (so far) continuing to reflect a more resilient economy than originally expected, we think Treasury yields are likely going to stay in a trading range at least in the near term. Despite the ongoing supply discussion, we think the 10-year Treasury yield could mostly stay in the 3.75% and 4.25% range this year with risks to both the upside and downside roughly balanced.

IMPORTANT DISCLOSURES

This material is for general information only and is not intended to provide specific advice or recommendations for any individual. There is no assurance that the views or strategies discussed are suitable for all investors or will yield positive outcomes. Investing involves risks including possible loss of principal. Any economic forecasts set forth may not develop as predicted and are subject to change.

References to markets, asset classes, and sectors are generally regarding the corresponding market index. Indexes are unmanaged statistical composites and cannot be invested into directly. Index performance is not indicative of the performance of any investment and do not reflect fees, expenses, or sales charges. All performance referenced is historical and is no guarantee of future results.

Any company names noted herein are for educational purposes only and not an indication of trading intent or a solicitation of their products or services. LPL Financial doesn't provide research on individual equities.

All information is believed to be from reliable sources; however, LPL Financial makes no representation as to its completeness or accuracy.

US Treasuries may be considered "safe haven" investments but do carry some degree of risk including interest rate, credit, and market risk. Bonds are subject to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise and bonds are subject to availability and change in price.

The Standard & Poor's 500 Index (S&P500) is a capitalization-weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

Bonds are subject to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise and bonds are subject to availability and change in price.

Treasury inflation-protected securities (TIPS) help eliminate inflation risk to your portfolio as the principal is adjusted semiannually for inflation based on the Consumer Price Index – while providing a real rate of return guaranteed by the U.S. Treasury Inflation-Protected Securities, or TIPS, are subject to market risk and significant interest rate risk as their longer duration makes them more sensitive to price declines associated with higher interest rates.

Treasury floating-rate securities have two-year maturities and have a rate that adjusts each week based on the weekly auction of three-month T-bills. They are an alternative to U.S. Treasury bills.

This research material has been prepared by LPL Financial LLC.

Securities and advisory services offered through LPL Financial (LPL), a registered investment advisor and broker-dealer (member FINRA/SIPC). Insurance products are offered through LPL or its licensed affiliates. To the extent you are receiving investment advice from a separately registered independent investment advisor that is not an LPL affiliate, please note LPL makes no representation with respect to such entity.

Not Insured by FDIC/NCUA or Any Other Government Agency | Not Bank/Credit Union Guaranteed | Not Bank/Credit Union Deposits or Obligations | May Lose Value

For Public Use | Tracking # 543397(Exp. 02/25)