S&P Dow Jones Indices

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Market Commentary

Municipal Bonds: Navigating the Curve in 2024

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Banner Performance, But Far from a Straight Line

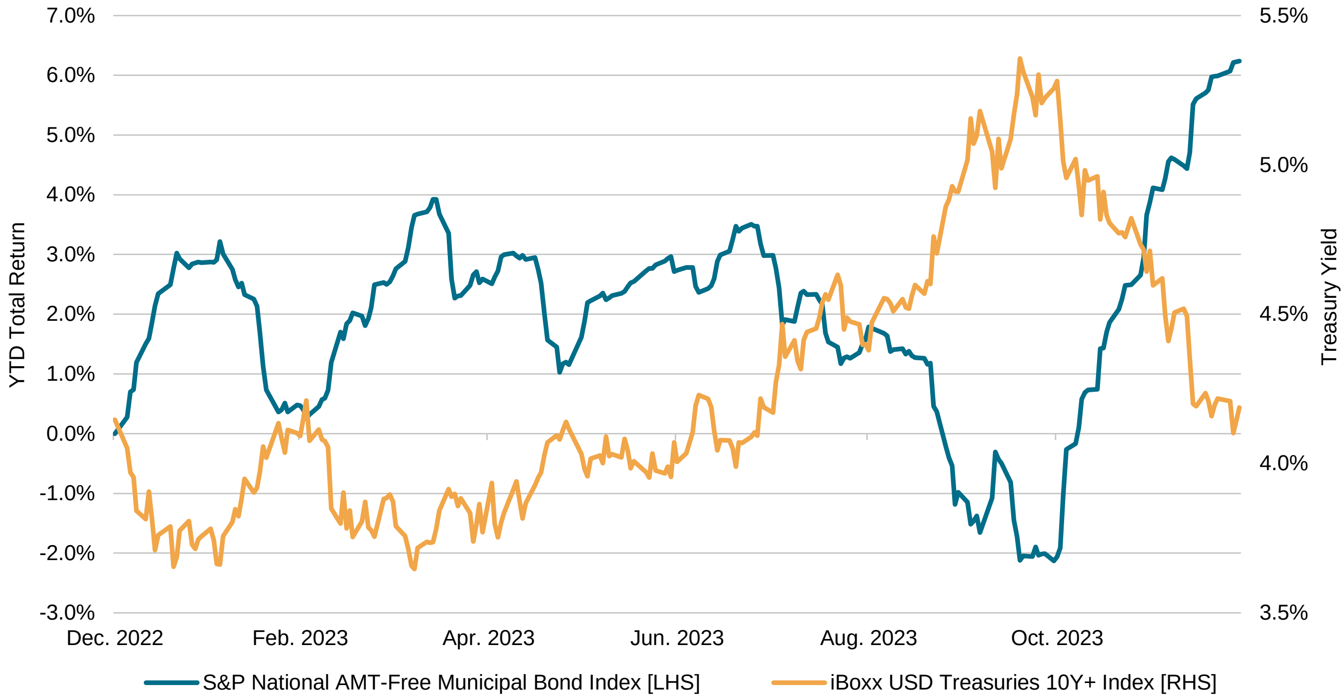
The municipal bond market, as measured by the S&P National AMT-Free Municipal Bond Index, finished 2023 posting its strongest quarter in 14 years. Its 2023 annual return of 6.24% was its best full-year performance since 2019. While this was good news for many market participants, the path to get there was far from linear; 2023 presented many challenges for most fixed income asset classes, with central bank policy at the core. Municipal bond indices proved resilient throughout the volatility, with favorable technicals and strong fundamentals driving performance. As a new year begins, municipal bond indices may continue to be positioned to provide opportunities for 2024, both on a broad basis as well as across the curve.

Full Circle: How Did We Get Here?

The municipal bond market spent much of 2023 weathering the storm of interest rate volatility, as the U.S. Federal Reserve continued the most aggressive rate hiking cycle seen in over 40 years. While the year began with optimism, performance across the municipal bond suite struggled through mid-year 2023 as the Fed raised rates for the 11th time in 16 months to 5.25-5.50%, before pausing in September. The 10-year U.S. Treasury bond yield reached its peak in October, surpassing 5% for the first time in 16 years, at which time the S&P National AMT-Free Municipal Bond Index was down 2.13% YTD.

The rest of the fourth quarter would see the rate narrative change sharply, as falling inflation and weaker-than-expected economic data coupled with the Fed pause increased market expectations for rate cuts in Q1 2024. The 10-year U.S. Treasury yield fell from its high and came full circle to end the year largely where it began, near 4%. Munis rallied in sympathy with Treasuries and the S&P National AMT-Free Municipal Bond Index posted a quarterly gain of 7.29%, its strongest single quarter since Q3 2009.

Exhibit 1: Falling Rates Drive Q4 2023 Performance



Source: S&P Dow Jones Indices LLC. Data as of Jan. 16, 2024. Past performance is no guarantee of futures results. Table is provided for illustrative purposes.

What Now? Timing Is Everything

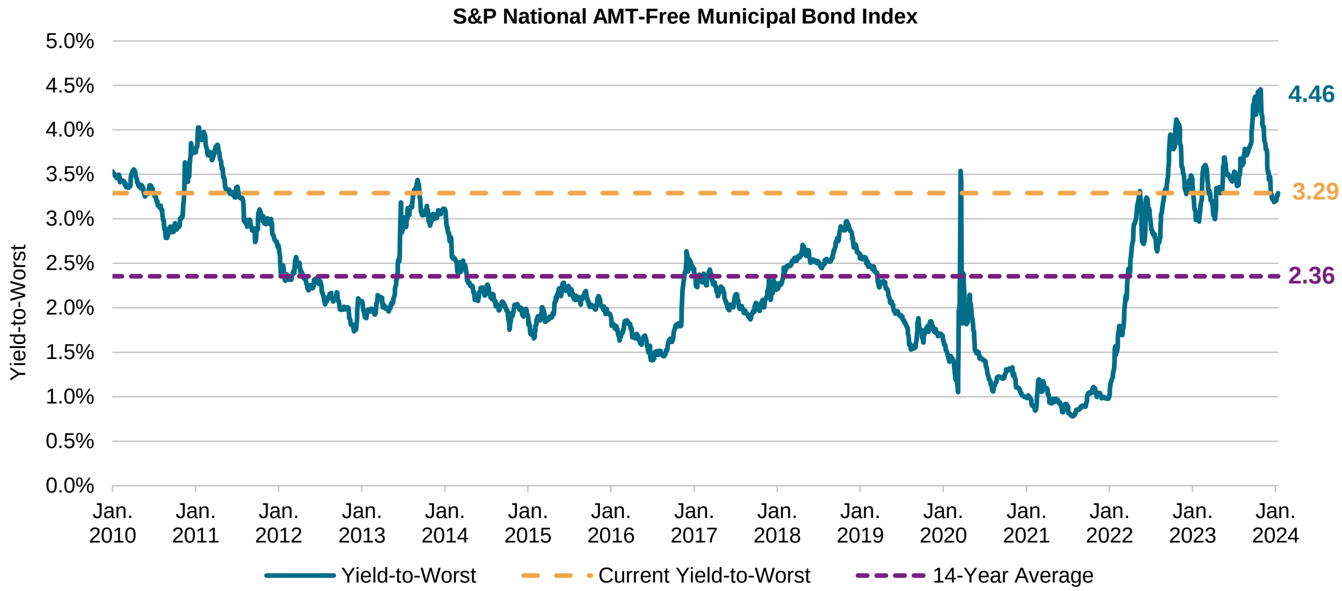
We began 2024 with tempered expectations of rate cuts, with Fed Funds futures indicating rate cut probabilities of 47.1% in March and 84.7% for May.[1] While these probabilities have lowered from the late 2023 expectations, it is clear the market feels rates have peaked and that chances of the Fed managing inflation while avoiding a U.S. recession are within reach.

When rates reached their peak in October 2023, munis reached a yield-to-worst of 4.46%, which was their highest level since 2009 and 1.87x the 14-year average. While current yields have fallen since October, they are still at relatively high levels. The yield-to-worst level of 3.29% seen at the beginning of 2024 is still well above the 14-year mean of 2.36%, and 2024 has been one of the highest yielding starts to a year for munis in the last decade. Coupled

[1] Source: CME FedWatch Tool, as of Jan. 19, 2024.

with low default rates and a more stable interest rate outlook, munis may offer yield opportunities, especially for those who had cash on the sidelines during the last 18 months.

Exhibit 2: Muni Yields Start the Year Higher than Historical Average



Source: S&P Dow Jones Indices LLC. Data as of Jan. 16, 2024. Past performance is no guarantee of futures results. Chart is provided for illustrative purposes.

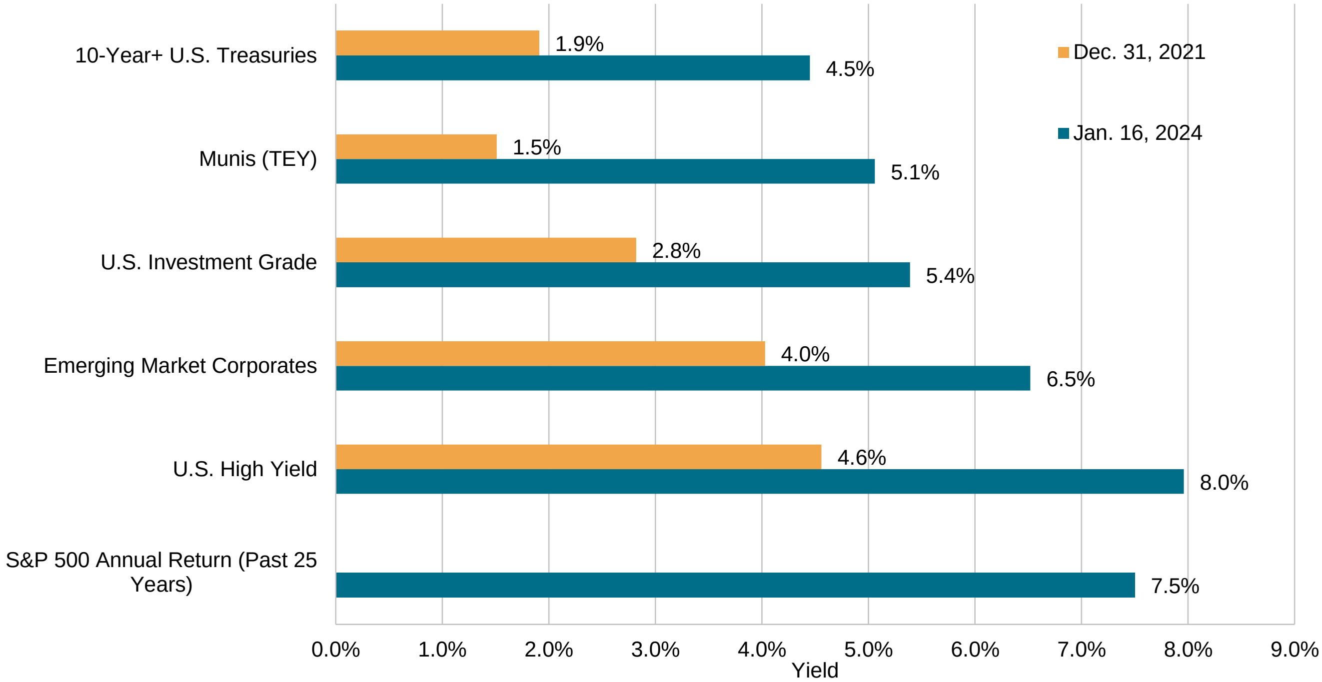
Looking on a tax-equivalent basis, the yield of the S&P National AMT-Free Municipal Bond Index was at 6.86% in October 2023, offering a performance profile not far from more risky assets.[2] The tax-equivalent yield of 5.1% seen at the beginning of 2024 is comparable to that of the U.S. investment grade corporates yield of 5.4%, as measured by the iBoxx USD Investment Grade Corporate Bond Index, but with munis historically offering a lower default rate and higher credit quality.[3]

It is interesting to note that prior to the Fed's tightening cycle, there was greater dispersion between the yields of asset classes within fixed income, from U.S. Treasuries to U.S. high yield corporates (see Exhibit 3). The environment in January 2024 offers a more convergent picture, where the gap between municipal bond yields and that of emerging markets or high yield credit has narrowed.

[2] Tax-equivalent yield calculated assuming a 35% tax rate.

[3] Source: S&P Dow Jones Indices LLC. The iBoxx USD Investment Grade Corporate Bond Index composition is over 56% BBB rated bonds, while the S&P National AMT-Free Municipal Bond Index is less than 10% BBB, as of Jan. 16, 2024.

Exhibit 3: Fixed Income Yields – Then and Now

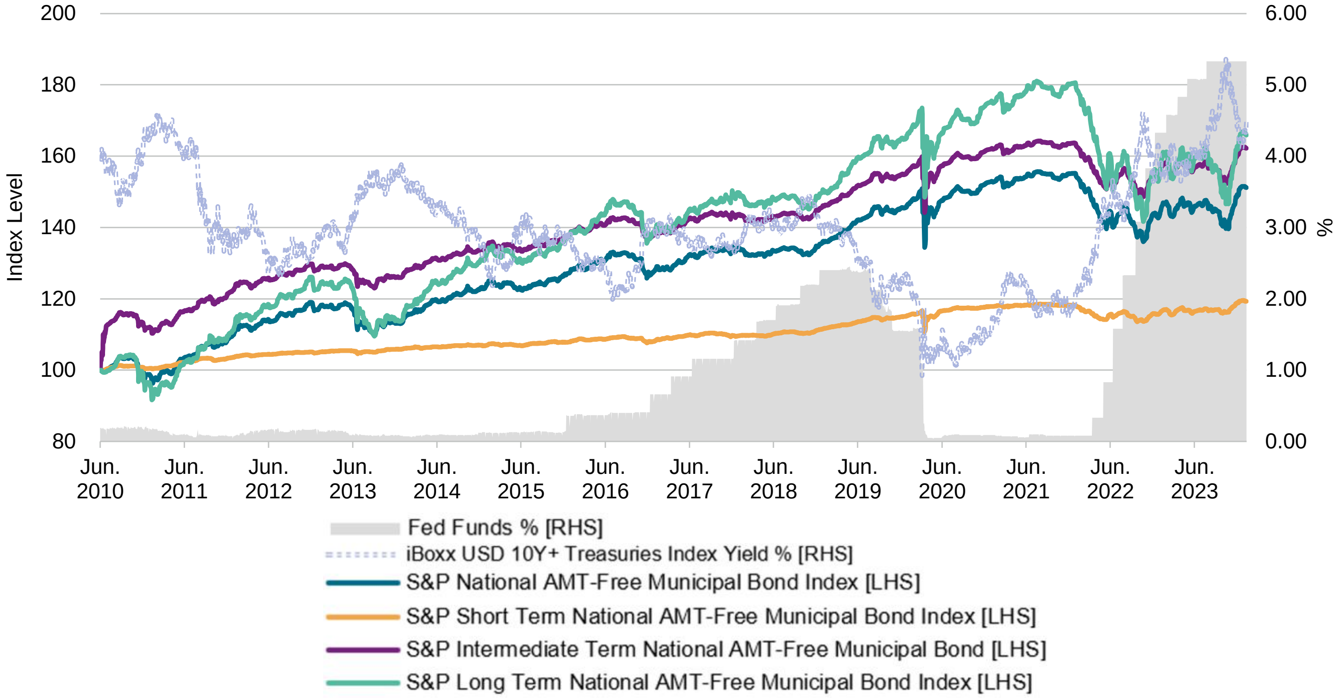


Source: S&P Dow Jones Indices LLC. Data as of Jan. 16, 2024. 10-Year+ U.S. Treasuries are represented by the iBoxx USD Treasuries 10Y+ Index. Munis (TEY) are represented by the S&P National AMT-Free Municipal Bond Index, tax-equivalent yield. U.S. Investment Grade is represented by the iBoxx USD Investment Grade Corporates Index. Emerging Market Corporates are represented by the iBoxx USD Emerging Market Corporates Overall Index. U.S. High Yield is represented by the iBoxx USD High Yield Developed Markets Index. S&P 500 Annual Return is calculated using the S&P 500 Total Return Index. Past performance is no guarantee of futures results. Chart is provided for illustrative purposes.

Navigating the Curve: A Rising Tide May Not Lift All Boats

While it feels like 2024 could present an environment that offers more stability and support for the municipal bond market, it is important to point out that all municipal bond indices may not respond to rate cuts in the same manner. While lower rates lead to higher bond prices, the magnitude of bond appreciation will depend a great deal on duration. As shown historically, shorter maturity indices can provide more stability during a period of rising rates, given they tend to have less duration and therefore less sensitivity to interest rates. As demonstrated in Exhibit 4, greater volatility and larger drawdowns were witnessed on the longer duration indices during rising rate periods. With the U.S. Treasury yield curve inverted since July 2022, yields on shorter maturities (which are less sensitive to interest rate hikes) were higher or comparable to longer maturity, higher risk instruments, potentially driving cash into shorter-dated instruments, in munis and broader fixed income.

Exhibit 4: Muni Index Curve Performance through Historical Interest Rate Cycles



Source: S&P Dow Jones Indices LLC. FRED Economic Data, St. Louis Fed. Data as of Jan. 16, 2024. The S&P Intermediate Term National AMT-Free Municipal Bond Index was launched July 19, 2010. The S&P Long Term National AMT-Free Municipal Bond Index was launched Nov. 29, 2012. Past performance is no guarantee of futures results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure linked at the end of this post for more information regarding the inherent limitations associated with back-tested performance.

However, with the rate narrative expected to pivot in 2024, and rate cuts being priced into the Fed Funds futures market for the first half of 2024, considerations further out the curve to extend duration and lock in longer-term yields not seen in many years may be useful within a diversified portfolio. Exhibit 4 demonstrates that during periods of lower interest rates and rate stability, the S&P Long Term National AMT-Free Municipal Bond Index and the S&P Intermediate Term National AMT-Free Municipal Bond Index outperformed the S&P Short Term National AMT-Free Municipal Bond Index.

The year ahead will largely be determined by central bank policy and the path of interest rates, and the timing of a Fed pivot will depend largely on the totality of economic data. Munis continue to play a critical role in diversified portfolios and offer high quality credit and steady tax-free income. With the recent rise in rates, broad muni indices, along with term maturity indices, could be useful tools for informing portfolio construction decisions.

Performance Disclosure/Back-Tested Data

The S&P Intermediate Term National AMT-Free Municipal Bond Index was launched July 19, 2010. The S&P Long Term National AMT-Free Municipal Bond Index was launched Nov. 29, 2012. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance, and is based on the index methodology in effect on the index launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Complete index methodology details are available at www.spglobal.com/spdji. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. Back-tested performance is for use with institutions only; not for use with retail investors.

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