



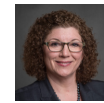
Five Reasons Muni Bonds Offer Opportunity in Evolving Markets

Even amid volatility, municipal bonds have remained a resilient asset.

August 2023

KEY INSIGHTS

- Because they're generally exempt from federal income tax, municipal bonds offer tax-focused investors a compelling fixed income option.
- Even as economic growth slows, we anticipate that municipal credit quality will stay relatively strong.
- Demand for municipal bonds remains volatile, which creates pockets of compelling opportunities for skilled active managers.



Dawn Mueller, CFA®
Portfolio Specialist, Fixed Income

Given the economic aftermath of the coronavirus pandemic, nearly every fixed income sector suffered as the Fed aggressively raised rates in an effort to curb high inflation. Despite last year's sell-off, municipal bonds have proved resilient

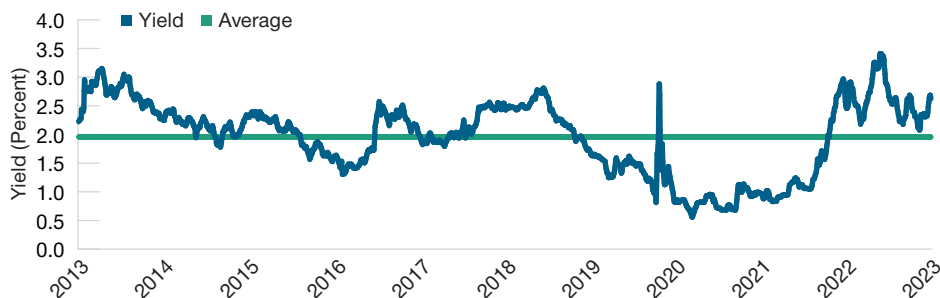
in past periods of economic turmoil and should remain a compelling fixed income option for investors.

1 Attractive Yields

Yields remain attractive for municipal bonds (Fig. 1). This is especially evident

The 10-Year Average Yield Showcases Value in the Muni Bond Market

(Fig. 1) AAA rated muni bond average yield over the past 10 years



From May 31, 2013, through May 31, 2023.
Source: Bloomberg Finance L.P.

Past performance is not a reliable indicator of future performance. Yield shown is yield to maturity. For illustrative purposes only. Data is subject to change. The credit ratings are based on methodology of Bloomberg using S&P and Moody's ratings. A rating of "AAA" represents the highest-rated investment-grade rating. Investors cannot invest directly in an index.

when compared with average yield levels over the past decade, particularly on longer-maturity bonds and those with lower credit ratings.

2 Tax-Advantaged Income for Investors

In nearly every economic environment, taxes consistently remain a top concern for investors. Due to their preferential tax treatment, municipal bonds have the power to be one of the most impactful tools in building a tax-efficient portfolio.

When moving taxable bond allocations into municipal bonds, investors should consider the tax benefits of munis and how those may result in higher after-tax yield potential (Fig. 2). Taxable bonds, such as corporate bonds, may have a higher pretax yield than a muni bond, but it's important for investors to consider the tax obligations of that bond. Only after accounting for taxes on the taxable bond can investors accurately compare its yield to that on a tax-exempt bond.

3 Credit Quality Remains Strong

The credit quality of muni bonds has historically been strong relative to most other fixed income segments with credit risk, and this appears to remain true

for 2023 (Fig. 3). Though it's possible that we may see some credit quality deterioration as economic growth slows, our team remains confident in the overall credit quality of municipal obligors for two primary reasons:

Better fiscal management post the global financial crisis.

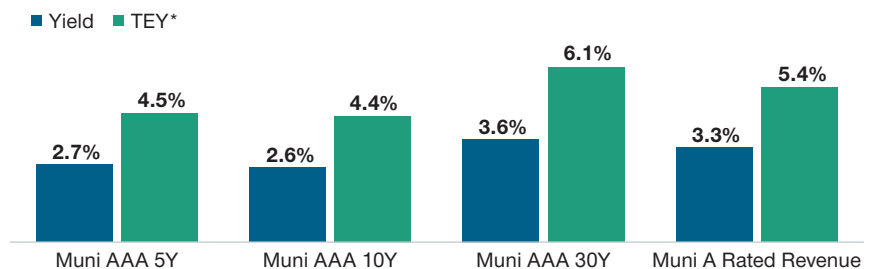
States and local municipalities appear to have upheld more fiscally responsible policies since the global financial crisis of 2008–2009. These efforts have helped rebuild the trust of investors in the ability of municipal issuers to remain stable and financially healthy. This trust in credit quality should play an integral role in the long-term performance of municipal bonds.

COVID-19 funds strengthened many municipal bond issuers.

States, local municipalities, and many related municipal debt issuers, such as hospitals and airports, were bolstered by pandemic funding. Many local governments used the money responsibly to shore up important government-funded programs like state pensions, school systems, and more.

Tax Impact on Bond Yields

(Fig. 2) Taxable equivalent yield (TEY) of various municipal bonds



As of May 31, 2023.

Sources: Refinitiv Lipper and, JP Morgan. See Additional Disclosures.

The credit ratings are based on methodology of Bloomberg using S&P and Moody's ratings. A rating of "AAA" represents the highest-rated investment-grade rating, and a rating of "A" represents the second-lowest investment-grade rating. Investors cannot invest directly in an index.

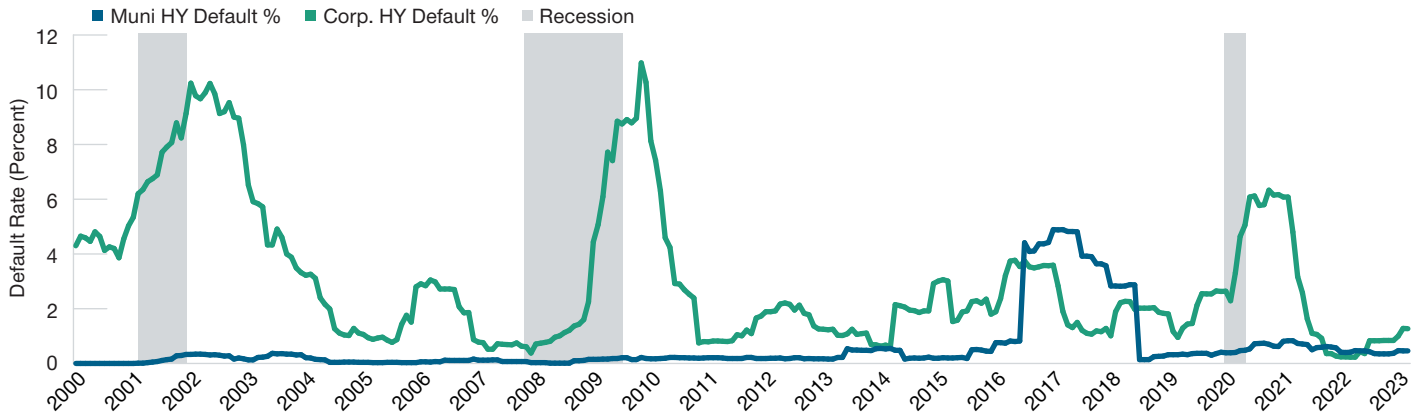
Yield shown is yield to worst. Yields are subject to change.

To calculate a municipal bond's taxable-equivalent yield, divide the yield by the quantity of 1.00 minus the federal tax rate expressed as a decimal.

*TEY assumes a 40% tax rate.

Default Rate of High Yield Muni Bonds Has Remained Lower Than Corporate Bonds

(Fig. 3) Muni high yield (HY) default % vs. corporate high yield default %



From January 31, 2000, through March 31, 2023.

Source: Bloomberg Finance L.P. and J.P. Morgan. See Additional Disclosures.

Default Rate: Percentage of issuers that did not make scheduled payments of interest or principal.

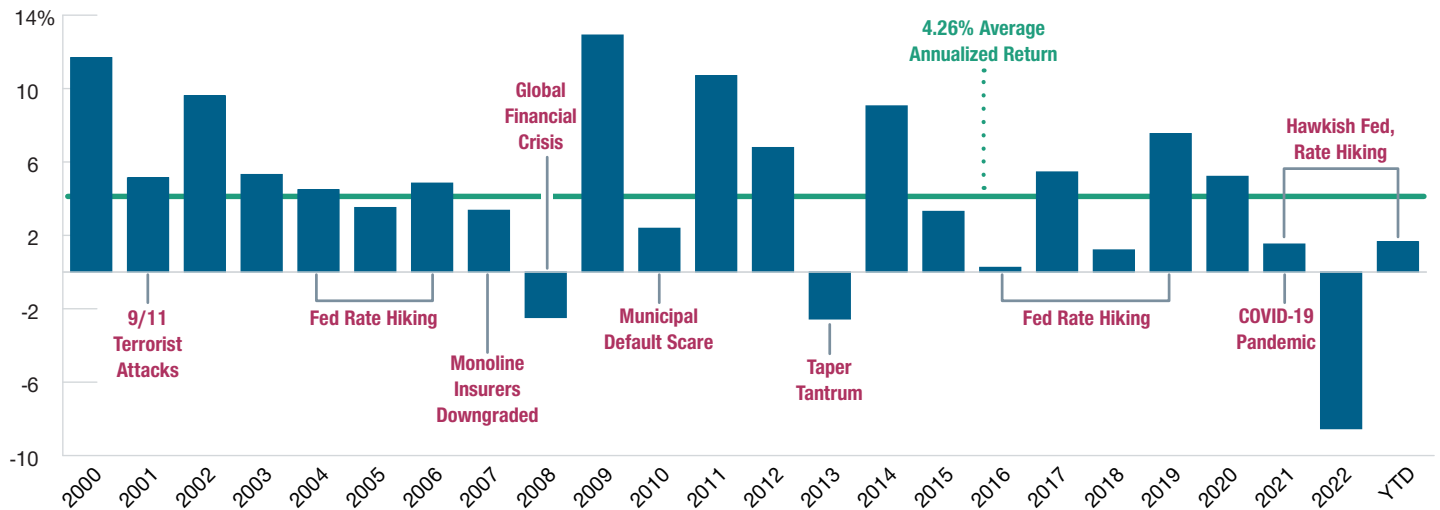
The Muni High Yield Default Percent is based on the Bloomberg Muni High Yield Index. The Corporate High Yield Default Percent is based on research conducted by J.P. Morgan.

For example, prior to receiving federal aid related to the pandemic, the state of Illinois had a dismal credit rating that sat just above junk. Using an infusion of federal money to bolster its finances, the

state was able to improve its credit rating. Similarly, New Jersey received federal aid and was able to fully fund its pension obligations to state employees for the first time in 25 years.

Since 2000, the Municipal Bond Market Has Only Had Negative Total Returns in Three Years, and It Always Recovered the Following Year

(Fig. 4) Municipal bond market performance since 2000



As of May 31, 2023.

Source: Bloomberg Finance L.P.

Past performance is not a reliable indicator of future performance. Index performance is for illustrative purposes only and is not indicative of any specific investment. Investors cannot invest directly in an index.

Bloomberg Municipal Index is being used to represent the broad municipal market.

In 2023, local governments are still benefiting from the infusion of funding experienced during the onset of the pandemic. This puts a number of muni bond issuers in better fiscal positions than before the pandemic.

4 Pockets of Opportunity

Volatility can create opportunity. We continue to see volatility in demand for municipal bonds, which creates pockets of opportunity for skilled active managers who could take advantage of some compelling value in the municipal bond market.

Prior to the COVID-19 crisis, the municipal bond market saw fairly steady inflows. The relatively constant demand from these inflows was partially responsible for the higher valuations of municipal bonds. Then, in 2021, we saw record inflows to municipal bonds across the industry when yields were considerably lower than they are now.

5 Historical Resilience Amid Market Downturns

Even in the wake of economically impactful events like the 2008 peak of

the global financial crisis, the 2013 “taper tantrum,” and the 2020 onset of the pandemic, municipal bonds rebounded quickly the following year. In fact, over the past 23 years, the broad municipal index has only experienced three years with negative total returns (Fig. 4).

Strong Credit Quality Expected to Support Munis in a Potential Recession

Historical resilience combined with the significant tax benefits reinforce why municipal bonds are an attractive option for tax-aware investors. Credit quality is strong among issuing municipalities, thanks in part to the lasting impact of federal pandemic support and a rise in tax revenue. While there is still the potential for a recession, this strength should help municipal bond issuers weather an economic downturn. We are confident that bonds in general—and municipal bonds in particular—are on the mend and should generally remain a core part of an investor’s diversified, tax-conscious portfolio.

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Fixed-income securities are subject to credit risk, liquidity risk, call risk, and interest-rate risk. As interest rates rise, bond prices generally fall.

Investments in high-yield bonds involve greater risk of price volatility, illiquidity, and default than higher-rated debt securities. Income from municipal bonds may be subject to state and local taxes and the federal alternative minimum tax (AMT). Diversification cannot assure a profit or protect against loss in a declining market. All charts and tables are shown for illustrative purposes only.

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