

Thriving late-cycle— Municipal bonds

From MacKay Municipal Managers

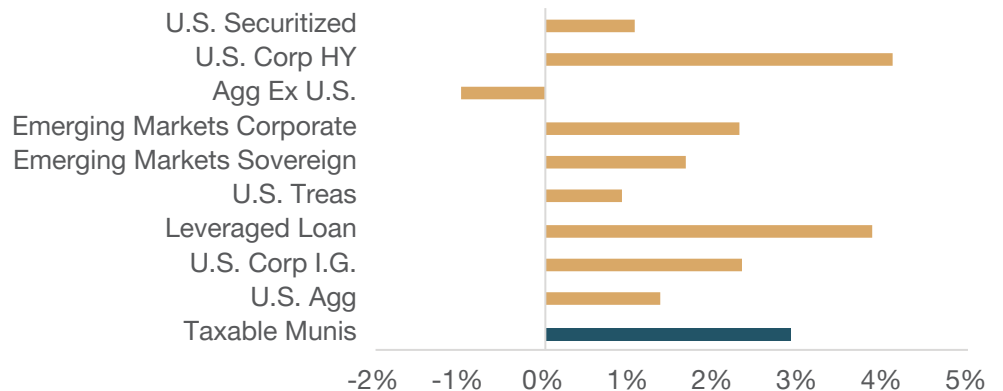
JULY 2023

From **MacKay**
Municipal Managers™
The Minds Behind Munis

As we approach a slower period of economic growth in the U.S. economy, we believe taxable municipals will draw investor interest as a safe haven asset class. We believe the high credit quality, diversification, and resiliency of the cash flows used to repay debt service will resonate with investors across the globe.

Domestic retail investors have long dominated the U.S. municipal bond market, but over the last decade, institutional interest in the sector has soared, particularly outside of the United States. Over the last 10 years, municipal bonds have performed well (see **Figure 1** below). Consequently, the taxable municipal sector’s 2.9% annualized total return for the period handily outperformed the 2.3% return on U.S. corporate investment-grade bonds.

Figure 1: 10-year annualized total return



Data as of March 29, 2013 – March 31, 2023. U.S. Securitized: Bloomberg U.S. Securitized Index; U.S. Corp HY: Bloomberg U.S. Corporate High Yield Total Return Index; Agg Ex U.S.: Bloomberg Global Aggregate ex USD Total Return Index; EM Corp, Emerging Markets Corporate: ICE BofA Emerging Markets Corporate Index; EM Sovereign, Emerging Markets Sovereign: Bloomberg Emerging Markets USD Sovereign Bond Index; U.S. Treas: Bloomberg U.S. Treasury Total Return Unhedged USD Index; Leveraged Loan: Credit Suisse Leveraged Loan Index; U.S. Corp IG: ICE BofA U.S. Corporate Index; U.S. Agg: Bloomberg U.S. Aggregate Bond Index; Taxable Munis: Bloomberg Taxable Municipal Bond Index. **It is not possible to invest directly into an index. Past performance is not indicative of future results.** Please see Index Descriptions at the end of this document.

Source: Bloomberg, ICE Data.



INVESTMENTS

Not FDIC/NCUA Insured	Not a Deposit	May Lose Value
No Bank Guarantee	Not Insured by Any Government Agency	

But strong returns are just one reason why investors have ventured into the asset class. Taxable municipal bonds are also garnering interest due to their high quality ratings, inefficient pricing, low correlations, diversification to other asset classes and potential for liability matching.

Investors have learned that taxable munis offer higher yield spreads and total return potential due to inefficient pricing in a fragmented market. Diversification benefits and the possibility of lower capital charges have resulted in foreign demand for taxable munis more than doubling from \$51 billion in 2008 to over \$113 billion as of June 30, 2022.¹

Today, many institutional investors see taxable municipals as an attractive diversifier for their fixed income portfolio. Many of these investors welcome the historically higher credit quality and ratings of municipals versus other fixed income sectors.

Pricing inefficiency creates opportunity

The municipal bond market is highly fragmented with some 56,000 issuers versus the corporate bond market where the corporate credit index includes less than 8,000. The Treasury market is huge, with over \$15 trillion in value, but the index includes just 270 issues.²

In the municipal bond market, market fragmentation, limited sell-side research and the prevalence of buy and hold investors often leads to inefficient pricing. Pricing inefficiencies create opportunity for investors with an edge in credit research and trading to seek greater yield and total return potential than the sector's typical buy-and-hold investors reap.

Competitive yields and long duration

Many investors have sought to enhance yields by increasing corporate or emerging-market credit risk. Additionally, even in today's rising rate environment, taxable municipal bonds have still maintained their yield advantage. In December 2022, yields on double-A (AA) rated taxable municipal bond of eight years or longer were 43 bps higher than yields on comparable AA corporates. (Source: Bloomberg, ICE Data) And, if corporate and municipal spreads are to continue rising as they did in 2022, history suggests that taxable municipals will have an advantage. During months where AA corporate spreads widened over the last ten years according to Bank of America indices, taxable municipal spreads have outperformed 79% of the time. In our opinion, this is because taxable municipals are so often bought by investors employing buy-and-hold strategies, giving their spreads lower betas than corporate counterparts, and also because investors are inclined to seek the financial stability of governments when credit conditions show signs of deteriorating.

Duration is another key driver of growth. Because capital projects financed with taxable municipal bonds generally last for decades, they are typically financed with longer maturing bonds. Over 40% of outstanding taxable municipals bonds have maturities of 10 to 20 years; another 22% are even longer.³

Low correlations and broad diversification

Municipal bonds also provide significant risk management benefits. An allocation to municipal bonds may help manage fixed income portfolio volatility because municipal bond returns generally have a low correlation to other fixed income instruments.

The taxable municipal market has far fewer issuers than the tax-exempt market, but is well-diversified in purpose. They fund toll roads, bridges, light rail lines, airports, university and government buildings, water and sewer systems, fiber-optic telecom lines and electric supply and distribution systems. The issuers are also diversified by region, credit rating and security structure (e.g., callable vs non-callable bonds).

¹ Source: Federal Reserve Z.1 Statistical Release, Q2 2022 Report.

² Source: Bloomberg.

³ Source: Bloomberg, Bloomberg Municipal Index – Taxable Bonds.

High quality asset class and stable return potential

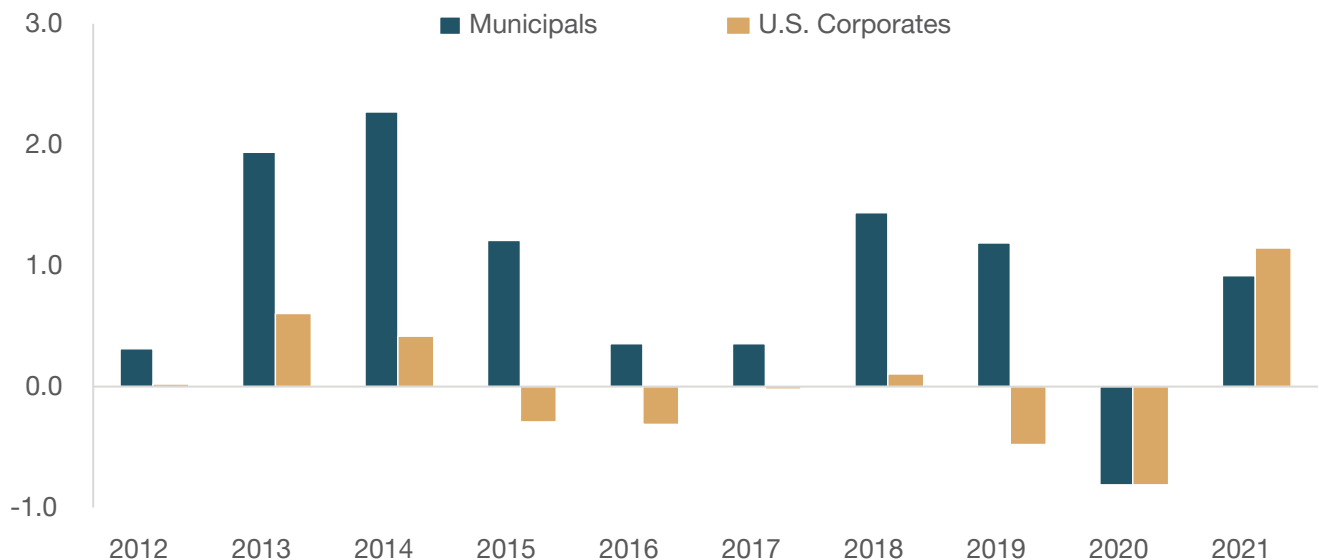
The relative high-quality nature of municipal bonds is also attractive for risk-conscious investors and insurers seeking to meet their capital requirements most efficiently. Approximately 60% of U.S. municipal bonds outstanding are A-rated or better; only a tiny portion are below investment-grade. In contrast, only about 7% of the global corporate bond market is double-A rated.

Historically, municipal bond ratings have been far more stable than corporate bond ratings, according to Moody's. Why should this be? Some corporations are vulnerable to event risks, such as leveraged buyouts, that rarely affect municipal bonds. More generally, corporations have fewer options to cover their debt in times of stress. Municipal bond issuers have more latitude to generate funding. Generating additional revenues in the corporate world usually requires incurring additional expenses. Many municipal issuers, on the other hand, are natural monopolies and can therefore increase revenues by simply raising service charges or tax rates, without adding expenses. When revenue growth starts to weaken, this provides more stability to municipal credit and, consequently, municipal ratings.

A look at historical default rates also demonstrates the resiliency of the municipal bond asset class. In fact, the average five-year municipal default rate since 2012 is 0.1%, up just slightly from the historical average of 0.08%, which dates back to 1970; meanwhile the average five-year global corporate default rate was 7.2% since 2012, up 40 basis points from its historical average of 6.8% since 1970.⁴

The difference in credit quality becomes more glaring during periods of fundamental weakening. S&P downgrades of U.S. corporates outpaced upgrades in five of the ten years leading up to 2021. For municipals over that period, it happened just once, in 2020 (see **Figure 2** below). This could prove vital in the current environment—year-over-year revenue growth among S&P 500 companies was 4% in Q1 of 2023, down from 13.5% in Q1 of 2022 and less than the current inflation rate. As a result, downgrades of U.S. corporates have outpaced upgrades so far in 2023, according to Bloomberg.

Figure 2: S&P upgrade/downgrade ratio



Over the next three years, we believe debt profiles among corporates could contribute to more fundamental weakness. 24% of IG corporate bonds are set to mature by the end of 2025, and issuers will have to pay a 2-3% incremental funding costs to refinance them in this yield environment according to Morgan Stanley Research. Meanwhile, only 12% of outstanding taxable municipals will mature during this period. (Source: Bloomberg).

Source: S&P Reports - "Default, Transition, and Recovery: 2021 Annual U.S. Corporate Default And Rating Transition Study" & "Default, Transition, and Recovery: 2022 Annual U.S. Public Finance Default And Rating Transition Study".

⁴ Source: Moody's, U.S. municipal bond defaults and recoveries, 1970-2021, data report, 21 April 2022.

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Infrastructure issuance and opportunities

We expect strong issuance of taxable municipal bonds in the future. After decades of neglect, U.S. infrastructure earned a C- on The American Society of Civil Engineers (ASCE)'s 2021 Infrastructure Report Card. Bringing U.S. infrastructure to a state of good repair would cost \$5.9 trillion, the ASCE estimates. Although the federal government and some states have stepped up infrastructure investments in recent years, only 55% of the funds needed have been committed. Another \$2.6 trillion in funding is needed over the next 10 years.

The 2021 passage of the \$1.2 trillion Infrastructure Investment and Jobs Act (IIJA) provides federal grant funding for much needed infrastructure programs. These funds are available for various projects through 2022 to 2026.

Munis—A natural fit for sustainable investing

While many investors have been focusing on the corporate bond and equity markets for their ESG investment strategies, we believe that the municipal bond market is a natural fit for this. As the primary funding source for U.S. infrastructure projects, many of these projects address environmental and social considerations and are also aligned with the sustainable development goals, including conservation projects for water and wastewater systems, wind farms, public and affordable housing.

Making a strategic allocation to U.S. Munis

In conclusion, the addition of taxable municipal bonds helps to improve the risk/return profile of a diversified fixed income portfolio. Lower correlations, incremental yield potential and the potential to generate alpha in a highly fragmented asset class all contribute positively to a portfolio's risk/return trade off. Over the last ten years, an allocation to taxable municipal bonds has improved the return per unit of risk on a portfolio of diversified U.S. bonds.⁶

We believe taxable-bond yields remain competitive and credit quality remains high. There are good fundamental reasons that we believe will allow credit ratings to remain relatively stable, and correlations to other fixed income sectors to remain low.

⁵ Source: Bloomberg.

⁶ Source: eVestment.

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Past performance is not indicative of future results.

Definitions

Alpha—Alpha measures the portfolio's risk adjusted performance and is expressed as an annualized percentage. Alpha is the return generated in excess of the benchmark, also commonly referred to as beta, and is generally considered to be a measure of manager skill.

Beta—Beta is a measure of historical volatility relative to an appropriate index based on its investment objective. A beta greater than 1.00 indicates volatility greater than the benchmark.

Correlation—Correlation shows the strength of a relationship between two variables and is expressed numerically by the correlation coefficient. The correlation coefficient's values range between -1.0 and 1.0. A perfect positive correlation means that the correlation coefficient is exactly 1. This implies that as one security moves, either up or down, the other security moves in lockstep, in the same direction. A perfect negative correlation means that two assets move in opposite directions, while a zero correlation implies no linear relationship at all.

Duration—Modified duration measures the change in the value of a bond in response to a change in 100-basis-point (1%) change in interest rates. The modified duration to worst calculation is based on either the final maturity date or a call date within the bond's call schedule and uses the worst duration for each bond. This calculation does not adjust for changes in projected cashflows as a result of yield changes.

Comparisons to an Index

Comparisons to a financial index are provided for illustrative purposes only. Comparisons to an index are subject to limitations because portfolio holdings, volatility and other portfolio characteristics may differ materially from the index. Unlike an index, portfolios are actively managed and may also include derivatives. There is no guarantee that any of the securities in an index are contained in any managed portfolio. The performance of an index may assume reinvestment of dividends and income, or follow other index-specific methodologies and criteria, but does not reflect the impact of fees, applicable taxes or trading costs which, unlike an index, may reduce the returns of a managed portfolio. Investors cannot invest in an index. Because of these differences, the performance of an index should not be relied upon as an accurate measure of comparison.

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The following indices may be referred to in this document:

The **ICE BofA Emerging Markets Corporate Plus Index** tracks the performance of U.S. dollar and euro denominated emerging markets non-sovereign debt publicly issued in the major domestic and eurobond markets. In order to qualify for inclusion in the Index an issuer must have risk exposure to countries other than members of the FX G10, all Western European countries, and territories of the U.S. and Western European countries.

The **Bloomberg U.S. Aggregate Index** represents securities that are SEC-registered, taxable, and dollar denominated. Must have at least one year to final maturity regardless of call features. Must have at least \$300 million par amount outstanding. Must be rated investment-grade (Baa3/BBB- or higher) by at least two of the following ratings agencies: Moody's, S&P, Fitch. Must be dollar-denominated and non-convertible.

The **Bloomberg Securitized MBS/ABS/CMBS Index** tracks agency mortgage backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC); investment grade debt asset backed securities; and investment grade commercial mortgage backed securities. The index is constructed by grouping individual pools into aggregates or generics based on program, coupon, and vintage.

The **Bloomberg U.S. Treasury Index** measures US dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury. Treasury bills are excluded by the maturity constraint, but are part of a separate Short Treasury Index.

The **Bloomberg Global Aggregate ex USD Index** is a measure of global investment grade debt from 24 local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers. Bond issued in USD are excluded.

The **ICE BofA U.S. Corporate Index** tracks the performance of U.S. dollar denominated investment grade corporate debt publicly issued in the U.S. domestic market.

The **Credit Suisse Leveraged Loan Index** is a representative index of tradable, senior secured, U.S. dollar-denominated non-investment grade loans.

The **Bloomberg EM Aggregate Corporate index** is the Corporate component of the EM USD Aggregate index. USD-denominated debt only. Debt denominated in other currencies that settles in USD are not eligible. Debt from sovereign, agency (government owned, government guaranteed, and government sponsored entities), local authority, and corporate issuers are eligible.

The **Bloomberg U.S. Taxable Municipal Bond Index** is a rules-based, market-value-weighted index engineered for the long-term taxable bond market. To be included in the index, bonds must be rated investment-grade (Baa3/BBB- or higher) by at least two of the following ratings agencies if all three rate the bond: Moody's, S&P, Fitch. If only two of the three agencies rate the security, the lower rating is used to determine index eligibility. If only one of the three agencies rates a security, the rating must be investment-grade.

The **Bloomberg U.S. High Yield Index** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, 144-As and pay-in-kind bonds (PIKs, as of October 1, 2009) are also included. Must have at least one year to final maturity regardless of call features. Must have at least \$150 million par amount outstanding. Must be rated high-yield (Ba1/BB+ or lower) by at least two of the following ratings agencies: Moody's, S&P, Fitch. Must be fixed rate, although it can carry a coupon that steps up or changes according to a predetermined schedule. Must be dollar-denominated and non-convertible. Must be publicly issued.

About risk

Municipal bond risks include the ability of the issuer to repay the obligation, the relative lack of information about certain issuers, and the possibility of future tax and legislative changes, which could affect the market for and value of municipal securities. Bonds subject to interest rate risk and can lose principal value when interest rates rise. Bonds are also subject to credit risk which is the possibility that the bond issuer may fail to pay interest and principal in a timely manner.

Diversification cannot assure a profit or protect against loss in a declining market.

Impact investing and/or Environmental, Social and Governance (ESG) managers may take into consideration factors beyond traditional financial information to select securities, which could result in relative investment performance deviating from other strategies or broad market benchmarks, depending on whether such sectors or investments are in or out of favor in the market. Further, certain ESG strategies may limit exposures found in similar strategies or broad market benchmarks, which could also result in relative investment performance deviating. There is no assurance that employing ESG strategies will result in more favorable investment performance.



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