ARTIVEST

Revisiting Municipal Bonds

An Alternative Approach to a Traditional Asset Class

In this report, we assist Qualified Purchasers and the Financial Advisors that serve them by outlining:

- **THE CASE FOR MUNICIPAL BONDS**
- **WHY NOW MAY BE AN OPPORTUNE TIME TO CONSIDER INCREASING YOUR ALLOCATION TO MUNIS**
- **HOW THE MUNI BOND MARKET HAS FUNDAMENTALLY CHANGED SINCE THE 2008 CRISIS**
- **THE BENEFITS OF ACTIVE MANAGEMENT IN MUNI INVESTING**
- **SPECIFIC VEHICLES FOR ACCESSING THE ASSET CLASS**
- **THE ADVANTAGES OF THE PRIVATE PARTNERSHIP STRUCTURE IN TODAY'S MUNICIPAL MARKET**

Introduction

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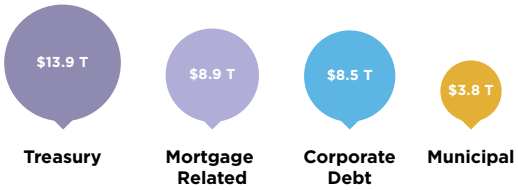
Municipal bonds ("munis") are a core portfolio building block, as standard-issue for tax-aware investors as the S&P 500. The fourth largest bond market at $3.8 trillion[1], munis are available to individual investors through three principal avenues: direct investment in individual bonds, participation via passive vehicles like ETFs and investment in actively managed offerings including open-end and closed-end mutual funds and separately managed accounts (SMAs). Direct investments by individuals have accounted for over 40% of municipal holdings in recent years, whereas commingled funds including mutual funds, ETFs and closed-end funds have hovered at around a quarter of the municipal market.[2]

In light of the major shift in the governing ideology on taxes, regulation and other issues ushered in by the new presidential administration and in consideration of the muni market's higher volatility and lower liquidity since the 2008 crisis, we take a fresh look at the municipal bond asset class and different ways to extract returns from an investment in munis. Among these, we introduce private funds, offered under an exemption from Regulation D of the Investment Company Act of 1940. Private funds investing in muni bonds present a lesser-known option whereby investors who meet the Qualified Purchaser definition can enjoy the benefits of active management without losing the control and customization afforded by direct investment in the underlying bonds. Chief among these benefits, particularly in today's low yield environment, is the opportunity to extract alpha from a structurally inefficient market by utilizing a research-intensive relative value approach.

Largest Bond Markets



Back to Basics: The Traditional Case for Munis Still Applies

Tax-free interest is compelling— even in a lower tax regime

As most investors are aware, municipal bonds typically pay interest that is federal tax-free and, in the case of same-state investors, state tax-free. For investors in the top tax bracket, the taxable equivalent yields on offer in the muni market are compelling even if the top marginal rate is lowered from 40% to 33% as has been proposed by President Trump. In this scenario, a muni bond yielding 5% would correspond to a corporate bond yielding nearly 7.5%, a difficult hurdle to clear in the current rate environment.[3] Further, if marginal tax rates are lowered significantly, municipalities may need to offer higher yields on new issues so that their bonds remain competitive with the corporate sector and their funding is not jeopardized.

Strong risk-adjusted returns

Among the many U.S. stock and bond market sectors available for investment, munis have boasted some of the most compelling risk-adjusted rewards, particularly on a taxable equivalent basis (i.e. with muni returns adjusted upwards by the amount an investor in the top tax bracket would have paid in taxes had the bonds' income been taxable). A tax-adjusted investment in munis in the past 10 years offered a higher return than the S&P 500 with less than a third of the risk (see Figure 1). Notably, the risk-adjusted return prospects for the S&P in the next ten years may be even less promising than history would indicate, as today's S&P is trading at a much higher absolute level and a much higher P/E multiple than it was in Figure 1's period, which was between September 30, 2007 and September 30, 2016.

Muni Bonds Offer Attractive Characteristics, Including...

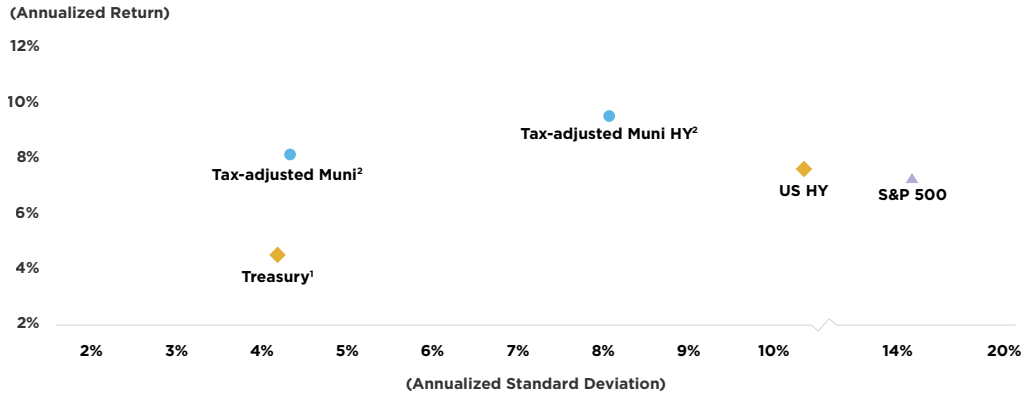
- Higher tax-equivalent yields than comparable taxable bonds, even after proposed federal tax cuts*
- Higher tax-adjusted return than the S&P 500 with less than a third of the risk**
- Low correlation with the broader U.S. bond market and virtually no correlation to U.S. stocks**
- Defensive return characteristics in rising rate environments
- Improving fundamentals as municipalities in general have shored up their finances

* For investors in the top federal tax bracket
**During the past decade ending September 30, 2016. Past performance is not indicative of future results.

Figure 1

Taxable Equivalent Index Returns and Volatility for Past 10 Years

(October 1, 2007 to September 30, 2016)



Through September 30, 2016. Past performance is not indicative of future results. 1. U.S. Treasury income is exempt from state income taxes and is adjusted using a national state average (top bracket), net of federal income tax. 2. Based on an equally weighted national average federal and state (top bracket) income tax rate; local taxes have not been considered. Source: Bloomberg Barclays Municipal Indices Monthly. Indexes referenced: S&P 500® Index, Muni: Bloomberg Barclays Municipal Bond Index, Muni HY: Bloomberg Barclays Municipal High Yield Index. Please see the final page for index definitions.

Munis are a strong portfolio diversifier

Just as important as municipal bonds' efficiency when compared with other investments is how they interact with those other asset classes in a total portfolio context. As measured by correlations of substantially less than 1, munis have offered meaningful diversification to portfolios dominated by equities and/or taxable bonds (see Figure 2 below).

Figure 2

Correlations for Past 10 Years

	S&P 500	Russell 2000	MSCI EM	Barclays US Corp. HY	Barclays US Muni	Barclays US Agg.	Barclays US Gov't
S&P 500	1.00	0.92	0.79	0.73	0.07	0.02	-0.31
Russell 2000	0.92	1.00	0.71	0.70	0.01	-0.07	-0.36
MSCI EM	0.79	0.71	1.00	0.76	0.15	0.18	-0.18
Barclays US Corporate HY	0.73	0.70	0.76	1.00	0.33	0.23	-0.23
Barclays US Municipals	0.07	0.01	0.15	0.33	1.00	0.56	0.35
Barclays US Aggregate	0.02	-0.07	0.18	0.23	0.56	1.00	0.87
Barclays US Government	-0.31	-0.36	-0.18	-0.23	0.35	0.87	1.00

Source: eVestment. Through December 31, 2016.

Correlations between assets are by no means a constant and, in fact, can shift markedly over time. Muni correlations, however, may be uniquely stable because their returns are driven by idiosyncratic factors. General obligation (GO) munis are backed by the "full faith and credit" of the issuers, which can tax their constituents to repay debt. Revenue bonds are tied to the revenue

generated by a specific project, such as the tolls from a bridge whose repairs the bonds are financing. The collective ability for taxpayers to make good on their obligations or for a specific project to generate revenue are often not tied to global market events. Munis, for example, did not experience the extreme volatility that global equity markets were dealt in the first quarter of 2016 by the news of China's deteriorating growth.[4]

Munis have proven resilient in rising interest rate environments

Municipal bonds, particularly high yield municipals, have shown defensive characteristics in previous rising interest rate environments. High yield bonds across issuer types are more equity-like than bond-like in their response to macroeconomic factors, tending to see positive price action from credit spread tightening as rates rise. Investment grade munis may also be defensive, for a subtle yet important reason (see Figure 3).

Municipalities' fundamentals are constructive

Municipal defaults like those seen in 2016 in Detroit and Puerto Rico are the stuff of headlines and cause price volatility in the municipal market at large. For the casual observer, though, these events may obscure a bigger picture characterized by improving fundamentals. Since the Great Recession, state finances have stabilized, with overall collections surpassing 2008 levels.[6] Many municipalities have adopted more fiscally responsible measures, curtailing new debt service expenditures, reducing state-level aid to localities and imposing higher tax rates in order to make up budget shortfalls. Also potentially constructive for the value of munis, the Trump administration has proposed boosting infrastructure by incentivizing the creation of public-private partnerships and possibly issuing Build America Bonds.[7]

Figure 3

Relative Tax Benefit of Munis Increases as Interest Rates Rise

	$100,000 (35% Tax Bracket)	
	Before Rate Hikes	After Rate Hikes
Hypothetical Rate Environment	3%	4%
Taxable Income	$3000	$4000
Tax Liability	$1050 →	$1400

In a scenario where the Fed raises rates and the average coupon on muni issues with certain characteristics rises from 3% to 4%, an investor with $100,000 invested in these issues would experience a $350 increase in their annual tax liability (a liability avoided by choosing a municipal bond(s) instead). The relative tax benefit of munis increases as interest rates rise, a factor that is likely to contribute to price stability during rate hikes.[5]

Finding an Alternative Return Stream in a Traditional Place

Figure 4

Different access points offer vastly divergent experiences

	No (or very low) management fee	Intraday or daily liquidity	Actively Managed	No or minimal "cash drag"	Protected from other investors' redemptions	Investor can benefit from tax loss swaps
Individual Muni Bonds	✓	✗	✗	✓	✓	✓
ETF	✓	✓	✗	✓	✓	✗
Mutual Fund	✗	✓	✓	✗	✗	✗
Separately Managed Account	✗	✓	✓	✗	✓	✓
Limited Partnership	✗	✗	✓	✓	✓	✓

The municipal bond market is both illiquid and inefficient, and these attributes have only intensified since the 2008 crisis. As a result, investors can experience a wide range of outcomes depending on the vehicle through which they choose to access the asset class (see Figure 4).

An Illiquid Market

Although the market is sizable, munis are not nearly as actively traded as other bond sectors. Their average daily trading volume is a mere 2% of Treasuries' and just over a third of corporate bonds'.[8] Those who would transact in munis are challenged further by the lack of a centralized exchange, as munis are traded exclusively through registered dealers. In the wake of the Great Recession, muni dealers pulled back their inventories, which as of 2015 are down 65%.[9] The price markup on trades in the $100,000 to $1 million size band, another key measure of liquidity, rose 50% between 2007 and 2014.[10] More than ever, municipal bond trading is a relationship business, giving those who know the issuers and the dealers a significant pricing advantage.[11]

Munis Provide Fertile Ground for Alpha Generation...

In the years since the Great Recession, the muni market has become increasingly illiquid.

The muni market is also highly fragmented, with a staggering number of securities and a retail-dominated investor base.

Illiquidity and fragmentation make munis an inefficient market, creating significant opportunity for investors with the tools, relationships, and bandwidth to analyze it.

An Inefficient Market

With over 30,000 individual issuers and one million distinct securities, the supply of municipal bonds is highly fragmented.[2, 12] Compare this to the 500 securities comprising the S&P 500, and a picture emerges of an extremely complex landscape where only a large research organization is equipped to value individual securities relative to others.

Despite the advantages for larger, better-networked investors, the demand side of the muni market is equally fragmented, with retail investors accounting for 70% of muni ownership both directly and through commingled funds.[9] Retail investors often make buy and sell decisions without the benefit of the market-level and security-specific information that professional investors possess. Moreover, individuals are often motivated by liquidity needs and emotional responses that arise in the absence of any fundamental change in the value of their investments. As a result, individual muni issues are often mispriced relative to other securities of similar credit quality, coupon and maturity.

The municipal market's unique combination of illiquidity and fragmentation renders it structurally inefficient, meaning that information about a particular muni bond, issuer or sector is often not quickly reflected in prices. The resulting mispricings can create significant opportunities for experienced investment teams.

Limitations of the Mutual Fund Structure

By availing themselves of active, professional management, investors in municipal securities can exploit mispricings, avoid security-specific and macro pitfalls and attain best execution. No matter how talented the manager, however, if she is operating within the confines of a liquid structure, i.e. a '40 Act mutual fund, certain avoidable risks and missed opportunities remain.

Mutual fund managers are hampered by three factors that are designed to protect retail investors from risk: investment restrictions, mandated liquidity provisions and taxes levied at the investment company level.

By participating in an actively managed portfolio, an investor can take advantage of situations like Chicago's in 2016, when Moody's downgraded the city's general obligation bonds.[13] The bonds of Chicago O'Hare International Airport, a major midwestern hub with very different credit drivers than the GO bonds, were not downgraded, but the market did not distinguish between the two, and the airport bonds sold off. Active managers following the situation were given an opportunity to buy the airport bonds on the cheap.

Investment restrictions can limit upside

Mutual funds must comply with concentration limits including those on the percentage ownership of a single issuer's debt and on the preponderence of a single industry in the overall portfolio. These measures are protective but can make it difficult for a manager to conviction-weight trades in times of extreme dislocation.

> "The municipal bond market is both illiquid and inefficient, and these attributes have only intensified since the 2008 crisis."

High liquidity can lead to "cash drag" and fire sales

On the liquidity front, mutual funds are required to stand ready to accept daily redemptions at net asset value. This has two disadvantageous implications for shareholders. First, daily liquidity necessitates that the manager hold more cash than her convictions might dictate, leading to "cash drag" on returns. Worse yet for investor outcomes, in a liquidity crunch, mutual fund managers are often forced to liquidate securities at unfavorable prices.

Tax benefits do not flow through to the investor

Mutual funds are also structurally inefficient from a tax standpoint in that tax implications hit the investment company before flowing to the end investor. There are two negative consequences worth noting: first, mutual fund investors can incur a net loss of principal in a given tax year but still owe income and capital gains tax on individual transactions made at the fund level. Second — and conversely— mutual fund investors cannot avail themselves of benefits from tax-loss selling. While a mutual fund may engage in tax swaps where the fund sells a security to book a taxable loss and purchases a substantially similar security in order to maintain the investment exposure without violating the Wash Sale Rule, the ensuing loss accrues to the investment company, offsetting its gains rather than those of the individual investor.

Limited Partnerships advantageous in "brave new world" of muni investing

Private municipal funds offered as limited partnerships impose a qualified purchaser requirement and may restrict liquidity to a monthly or quarterly redemption schedule vs. the daily liquidity of a mutual fund or ETF. In addition, these funds may impose gates, or limits on the percent of one's investment that can be redeemed during each redemption window. However, for investors that meet the wealth requirement and that do not need the daily liquidity of a mutual fund or ETF, private funds can provide significant advantages.

Fewer restrictions on investment decisions

Private municipal funds can accumulate large positions in specific municipal issues or economic sectors as long as they stay within self-imposed portfolio parameters. Provided that investors understand and are comfortable with these limits at the outset of investing, the increased flexibility can inure to investors' benefit. During periods of dislocation, an issue may trade well below what the manager perceives to be its intrinsic value. Unlike their counterparts at mutual funds, private fund managers can focus exclusively on reward and risk in sizing a position in this issue, acquiring enough bonds so that the attainment of the price target will produce a substantial positive impact on overall portfolio return.

Advantages of Private Partnerships Over Mutual Funds

Fewer investment restrictions. Private partnerships can focus exclusively on risk/reward when choosing securities and sizing positions.

Favorable liquidity terms. Private funds can buy opportunistically when mutual funds must sell to meet redemptions.

Tax benefits. Any tax loss swaps conducted by a mutual fund do not accrue directly to its underlying investors, whereas a private partnership's accrue to the direct benefit of its limited partners.

Liquidity terms that support an opportunistic stance

The private fund structure also provides the patient capital needed for opportunistic trades. If there is a pullback in municipal markets like the 2010 shock from Meredith Whitney's prediction of widespread default or the Fed's "taper tantrum" of 2013, mutual funds will likely be forced by redemptions to

reprise their role as net sellers.[14, 15] Meanwhile, private funds, with an investor base that is protected from its own worst instincts, will be in a position to step in as a provider of liquidity. In a classic example of being "greedy when others are fearful," these funds can buy— very cheaply— the very assets that mutual funds are selling (see example on page 8).

One way mutual fund managers can try to reduce fire-sale risk is to keep cash on hand. However, doing so creates "cash drag" for the portfolio, lowering the return to the investor. This cash drag is particularly costly in the current low interest rate environment.

Tax advantages

With regard to taxes, limited partnerships' structure is significantly more efficient than that of mutual funds. Gains are allocated to each LP, rather than first passing through a corporate entity, making the tax implications of private fund participation much like those of investing directly in individual bonds. Specifically, each LP can use the losses incurred from tax loss swaps to offset personal gains in other parts of their portfolio.*

Conclusion

With equity markets arguably priced to perfection, investors are seeking sources of capital appreciation and income. Particularly on a taxable equivalent basis for high net worth investors, municipal bonds offer a compelling risk/reward profile. However, the typical avenues of access— buying individual bonds, participating in passive ETFs, and purchasing mutual fund shares or SMAs — are fraught with limitations. By hiring an active manager with deep domain knowledge and longstanding relationships in the municipal securities community, investors may benefit from the fragmentation and retail dominance of the muni market. For qualifying investors who do not need daily liquidity, limited partnerships can be quite compelling. LPs may offer diversification and active management while preserving the tax benefits of investing in individual bonds and potentially profiting from the short-term orientation of other investors.

*It should be noted that limited partnerships issue K-1 forms as opposed to the 1099 forms filed by mutual funds. K-1s are sometimes unavailable prior to the April 15th tax filing deadline, requiring LPs to file for an extension.

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Index Definitions

Barclays Municipal Bond Index
A rules-based, market-value-weighted index engineered for the long-term tax-exempt 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: 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. They must have an outstanding par value of at least $7 million and be issued as part of a transaction of at least $75 million. The bonds must be fixed rate, have a dated-date after December 31, 1990, and must be at least one year from their maturity date. Remarketed issues, taxable municipal bonds, bonds with floating rates, and derivatives, are excluded from the benchmark. The index has four main sectors: general obligation bonds, revenue bonds, insured bonds (including all insured bonds with a Aaa/AAA rating), and prerefunded bonds. Most of the index has historical data to January 1980. In addition, subindices have been created based on maturity, state, sector, quality, and revenue source, with inception dates later than January 1980.

Barclays Municipal High Yield Index
An unmanaged index of municipal bonds with the following characteristics: fixed coupon rate, credit rating of Ba1 or lower or non-rated using the middle rating of Moody's, S&P, and Fitch, outstanding par value of at least $3 million, and issued as part of a transaction of at least $20 million. In addition, the bonds must have a dated-date after December 31, 1990 and must be at least one year from their maturity date.

S&P 500 Index
Tracks the performance of 500 widely held, large-capitalization US stocks.

Artivest offers a technology driven alternatives investment platform that enables asset managers to more efficiently raise capital and receives fees in connection therewith.

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