T. ROWE PRICE INSIGHTS

ON MUNICIPAL BONDS



The Advantage of Active Management in the Municipal Market

Credit research and trading strategies can impact performance.

March 2019

KEY INSIGHTS

- With over 50,000 bonds in the municipal bond index, true passive investing is an inexact science at best in the municipal market.
- While still a small part of the municipal market, passively managed muni portfolios—including exchange-traded funds—that have attempted to replicate the characteristics of the municipal benchmark grew rapidly in 2018.
- We believe investors are better served with actively managed portfolios that take full advantage of credit research and efficient trading across the broader market.

Ithough passively managed products in the municipal bond market are not as popular as in other investment areas such as equities and taxable fixed income, passive muni portfolios saw rapid growth in 2018. Flows into passive muni funds accounted for 28% of all money coming into the asset class, up from about 19% three years ago, and passive muni assets—while still a small slice of the USD 3.8 trillion markethave grown to USD 31 billion from USD 9 billion in 2015.1 In addition, muni exchange-traded funds (ETFs) have recently accelerated in popularity, with trading in muni ETFs up 80% in the fourth guarter of 2018 compared with the previous three months.2

While passive portfolios typically offer a lower-cost approach to investing in muni bonds, they also have risks and opportunity costs that may not be readily apparent, and their lower fees do not guarantee outperformance. We believe that active credit research that seeks superior risk-adjusted yields, along with smart liquidity management and efficient trading strategies, provides us with the ability to create muni bond portfolios that have the potential to produce a performance advantage over passive products and justify the cost of an active approach.

Of course, actively managed strategies can underperform their benchmarks when managers' allocation and security selection decisions fail to pay off, particularly over shorter time periods.

Not All Muni Bonds Created Equal

The municipal bond market is highly fragmented and complex, with nearly



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¹ Source: Strategic Insight.

² Source: Municipal Market Analytics.

(Fig. 1) Municipal Bond Funds vs. Their Benchmarks

Active portfolios have held up well over longer periods. As of December 31, 2018

	One Year	Five Years	Ten Years
Municipal National Short			
Actively Managed Funds Average Return	1.27%	1.16%	2.00%
Bloomberg Barclays 1-5 Year Municipal Bond Index Return	1.75%	1.38%	2.20%
% of Actively Managed Funds Outperformed Benchmark	6.00%	29.00%	31.00%
Municipal National Intermediate			
Actively Managed Funds Average Return	0.93%	3.20%	4.36%
Bloomberg Barclays 1-15 Year Municipal Bond Index Return	1.58%	3.00%	3.90%
% of Actively Managed Funds Outperformed Benchmark	9.00%	49.00%	66.00%
Municipal National Long			
Actively Managed Funds Average Return	0.56%	4.04%	5.41%
Bloomberg Barclays Municipal Bond Index Return	1.28%	3.82%	4.85%
% of Actively Managed Funds Outperformed Benchmark	14.00%	67.00%	64.00%
Municipal High Yield			
Actively Managed Funds Average Return	2.28%	5.89%	8.02%
Bloomberg Barclays 65% High Grade/35% High Yield Municipal Bond Index Return	2.49%	4.77%	6.35%
% of Actively Managed Funds Outperformed Benchmark	22.00%	82.00%	93.00%

Past performance is not a reliable indicator of future performance.

Sources: Bloomberg Index Services Limited (see Important Information) and Morningstar fund data. Analysis by T. Rowe Price. Average fund return is based on the actively managed funds listed in each Morningstar category and is net of fees. 5- and 10-year returns are annualized.

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54,000 issues in the Bloomberg Barclays Municipal Bond Index, a broad benchmark for investment-grade muni performance. While municipal default rates remain very low, credit quality varies much more now than it did before the global financial crisis. Until 2008, nearly 70% of the muni market was AAA rated; by the end of 2018 the figure had fallen to about 15%. The changing landscape means that sector and security selection matter now more than ever, and the ability to perform fundamental credit research can play a pivotal role in creating a municipal bond portfolio that meets an investor's objectives.

State and local general obligation (GO) bonds make up 28% of the muni index and a similar portion of many passive portfolios. However, we believe these bonds, which are backed by a government's taxing authority, represent an area of the market that should be approached with caution. Many governments are grappling with underfunded pension and retiree health care obligations—funding gaps that stem from losses during the financial crisis, insufficient plan contributions, and unrealistic return projections—and could face increasing financial stress in the coming years.

T. ROWE PRICE BEYOND THE NUMBERS

Finding Value in Hospital Bonds

Site visits help our municipal credit analyst create a fuller portrait of health care sector opportunities.

Municipal credit analyst Marcy Lash says strong balance sheets and well-funded pensions make health care one of the most attractive segments of the muni market. Lash, who has been covering health care at T. Rowe Price since 1998, regularly visits hospitals as part of her research process and believes that site visits offer an important opportunity to determine the quality of a bond issuer's management. She also evaluates the condition of a facility's physical plant and the locations of competing hospitals when possible. Looking ahead, she points out that consolidation has been favorable for the sector as small hospitals have been taken over by larger systems and that the trend is expected to continue.

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Some of the larger positions in the muni index consist of GO debt from the most heavily indebted states and cities and can include issuers with various credit challenges. For example, at the end of 2018, bonds from Illinois—the state with the lowest credit rating of any state—represented just over 1% of the muni index. Pennsylvania and Connecticut, which face some of the largest unfunded pension challenges, are also among the largest guarantors in the index. California (which makes up about 3.7% of the benchmark) and New York City (1.5%) are two of largest issuers in the index. While both maintain solid credit profiles. investors should still be aware of the geographic risks that come from having a significant portion of a portfolio in general obligation bonds from one state or city, where factors such as natural disasters or political disfunction could negatively impact an issuer.

As a result of the challenging credit situations that many GO issuers face, T. Rowe Price national municipal bond portfolios maintain notable underweights to GO debt and corresponding overweights to revenue bonds, which are more insulated from the pension risks that we believe will become increasingly priced into the

market over time. Revenue bonds also typically offer an incremental yield advantage over state and local GO debt, and we maintain overweight positions in segments such as health care that offer the potential for higher risk-adjusted returns within revenue debt.

Puerto Rico Provides a Cautionary Tale

Although Puerto Rico is in many ways a unique situation, the commonwealth does illustrate the risks that go along with investing in a portfolio that tries to match an index. Puerto Rico bonds made up about 4% of the investment-grade muni index as recently as mid-2012, so anyone who invested in a passive portfolio at that point would have likely faced similar exposure. Puerto Rico underperformed the index in 2012 as its fiscal problems became increasingly apparent, and the island's GO debt was downgraded to junk status by 2014. While some active managers also held large positions in Puerto Rico bonds, the island's troubled history does show that passive investing does not necessarily provide an easy path to a higher-quality or lower-risk portfolio. (For comparison, Puerto Rico-related debt made up 1.12% of the T. Rowe Price muni platform in 2012, a significant underweight to the index, and we had virtually eliminated the exposure

9%

of the muni index is made up of the health care sector.

in our investment-grade portfolios by the end of 2013.)

Traders Can Navigate Illiquid Sectors

Aside from the importance of security selection, investors should also be aware of the value that trading can add to an actively managed portfolio. Passive muni portfolios employ sampling strategies to match key index characteristics such as maturity and interest rate risk. But since many muni securities are smaller and trade infrequently, passive funds tend to overweight the most liquid sectors of the market and underweight segments that face liquidity constraints.

The health care sector, for example, makes up about 9% of the muni index, but some passive muni portfolios have little or no exposure to it because of the smaller size of many of the issues and difficulty of trading in the segment. Active traders, on the other hand, can patiently build up positions as securities become available.

Tax Efficiency Important in Active Management

An active approach to trading can also potentially improve a portfolio's tax efficiency. Passively managed portfolios generally only trade when inflows to or outflows from a portfolio make purchases or sales necessary. While this can reduce costs and produce higher tax efficiency in some asset classes, there are some questions about whether it is the best approach in the muni market, where avoiding taxable

gains is a priority for many investors. In an actively managed fund, portfolio managers have the ability to sell bonds in down markets and book tax losses that can be used to offset future gains.

Market Sell-Offs Can Provide Opportunities

Another factor that investors should be aware of is that muni market performance is driven by supply and demand more than some other asset classes, and the impact of technical factors has increased as market regulation has reduced the ability of dealers to provide liquidity in the municipal market when needed. As a result, an actively managed muni portfolio can take advantage of market dislocations caused by supply and demand imbalances.

During a market sell-off, for example, an active portfolio manager can sell lower-yielding but highly liquid prerefunded bonds and purchase higher-yielding debt that is trading at a relative discount. Passive portfolios, meanwhile, may be limited in their ability to take advantage of the situation.

In conclusion, we believe active management offers multiple advantages for an investor seeking attractive risk-adjusted yields in the municipal bond market. Risk-aware portfolio construction based on rigorous, bottom-up security selection, combined with prudent liquidity management and efficient trading strategies, can offer the potential for long-term outperformance.

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