



Potential
Benefits and
Opportunity
in the
Current
Environment

Municipal bonds have long been a steadfast allocation within diversified investment portfolios, but with the wide range of available instruments that can provide a fixed income stream why should investors own municipals and why might now be a wise time to invest?

**SEPTEMBER** 

This whitepaper will aim to explore the potential benefits of owning municipal bonds, including their ability to preserve capital, their consistent tax-advantaged income, their stability relative to other asset classes, as well as their high after-tax risk-adjusted returns, and their diversification potential and risk characteristics. Additionally, we will discuss why we believe the current market environment provides a strong entry point into investment grade municipal bonds, due to currently high yields, robust fundamentals, and strong technical factors.

## Introduction

Municipal bonds are debt issued by state and local entities, their agencies, and instrumentalities within the United States and its territories, the proceeds of which can be used for numerous purposes including financing critical infrastructure projects, such as schools, bridges, roads, highways, water and sewer facilities, and airports. One famous product of municipal bond issuance is the Golden Gate Bridge which was built with the proceeds from a voter approved, \$35 million, issue in 1930.¹ These bonds, once issued, would be purchased by investors who then receive semi-annual "coupon" payments at a specified interest rate for the life of the bond. In the case of the Golden Gate Bridge, the interest payments were entirely financed by tolls collected from those crossing the bridge until the debt to investors was ultimately paid off 40 years later. Other iconic infrastructure built with the proceeds of municipal bonds include the George Washington Bridge in New York and New Jersey and Chicago's O'Hare Airport.

To provide an incentive for individuals to buy such municipal debt, while keeping the cost of borrowing low for public entities, the interest on municipal bonds is not taxed at the federal level. This allows municipal market issuers to pay lower interest rates than taxable offerings while ensuring that investors are well compensated for the level of risk they may be taking. Further, many states exempt the income from municipal bonds issued within their state from taxation for residents who buy them. For example, if a Minnesota resident buys a City of Minneapolis, MN bond, the income from that bond would usually be exempt from both state and federal taxation. We will further discuss the potential tax advantages of municipal bonds later in this paper and how this feature affects their income potential compared to other asset classes.

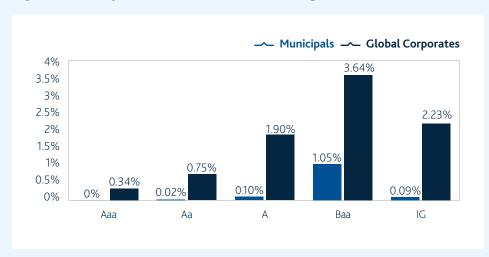


# **Potential Benefits of Owning Municipal Bonds**

#### **Preservation of Capital**

Municipal bonds are traditionally considered a lower risk investment, relative to other credit-asset classes, given the financial strength of many municipal issuers as well as their low historical default rates. Being that state and local governments or other essential service providers typically issue these bonds, their monopoly level control over revenues helps ensure the willingness and ability of issuers to repay their debt obligations. This control, in addition to the often strict legal and regulatory frameworks that provide for the rights and interests of the bondholders, has meant that municipal bonds maintain exceedingly low historical default rates. In fact, the average 10-year cumulative default rate for investment grade municipal bonds stands at just 0.09% compared to 2.23% for investment grade corporate bonds (Figure 1). Looking at just 2022, of the 80,000 plus entities that can issue in the municipal market, there were just two bankruptcies, only one of which had any outstanding debt that amounted to roughly \$15 million out of an almost \$4 trillion marketplace.

Figure 1: Moody's 10 Year Cumulative Average Default Rates



Source: Moody's as of 7/19/23. Default rates based on data from 1970-2022 as shown in Moody's report: U.S. Municipal Bond Defaults and Recoveries.

#### **Consistency of Income**

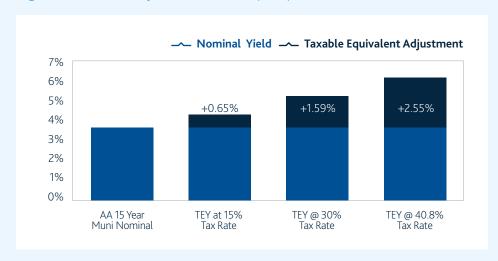
The consistent, predictable nature of municipal bond income can potentially offset market volatility, provide a steady stream of income, and help investors budget. A standard municipal bond structure entails a fixed, semi-annual coupon payment. For example, a 5% coupon on a \$10,000 par value would pay \$500 per year over two payments of \$250 in January and July. While interest rates can change over time, impacting the price return of the bonds in a positive or negative fashion, the income from the coupon remains consistent over the life of the bond. This consistency can help smooth out the overall volatility of returns by potentially offsetting some of the price losses in a declining market or enhancing them in a rising one. Additionally, understanding the amount and timing of predictable municipal bond cash flows can help investors to plan around future income needs and avoid potential liquidity issues.

#### Tax Advantaged Income

Perhaps the most well-known feature of municipal bonds is the tax advantaged nature of the income they produce. While some municipal bonds are taxable, the majority produce income that is exempt from federal income tax. Many states do not tax income from municipal bonds from within their state, which results in "double" tax-exempt income. For a tax-exempt municipal bond, this can mean that the higher an individual's tax rate, the more a municipal bond's income is worth to them on a taxable equivalent basis. Taxable equivalent yield (TEY) is the amount that an individual would have to earn in a fully taxable security to be equal to the municipal bond after-tax. For example, as of the end of August, a 15 year generic AA municipal bond would have earned a nominal yield 3.70% for an investor that is not subject to taxes, but for an investor in the highest federal tax bracket (40.8%) the taxable equivalent yield would be 2.55% higher for a total of 6.25% (Figure 2).

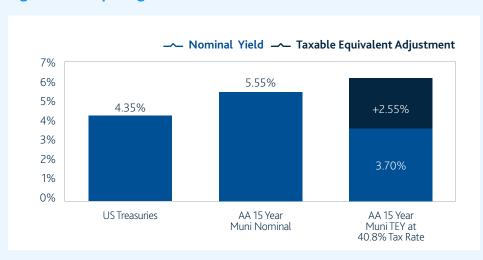
Using taxable equivalents, we can also compare municipal bonds with other fixed income instruments to understand how they stack up from a comparable yield perspective. For example, as of the end of August, a 15 year U.S. Treasury bond or AA Corporate bond would have yielded 4.35% or 5.55%, respectively (Figure 3). When comparing to the same 15-year AA municipal bond, an investor in the highest tax bracket would have earned 6.25% on a taxable equivalent basis, 1.90% more than a similar tenor U.S. Treasury and 0.70% more than a similar tenor AA corporate. Municipal bonds significant tax advantage is even more pronounced for those in higher tax brackets and can ultimately mean that investors end up earning a higher yield on a taxable equivalent basis than they could from other high quality fixed income investments with a similar term.

Figure 2: Taxable Equivalent Yields (TEY)



Source: Bloomberg, Thomson Reuters, Merrill Lynch as of 8/31/23. Taxable Equivalent yields assume a 37% maximum federal tax rate plus a 3.8% Medicare surcharge tax.

Figure 3: Comparing Yields Across Asset Classes



Source: Bloomberg, Thomson Reuters, Merrill Lynch as of 8/31/23. Taxable Equivalent yields assume a 37% maximum federal tax rate plus a 3.8% Medicare surcharge tax.

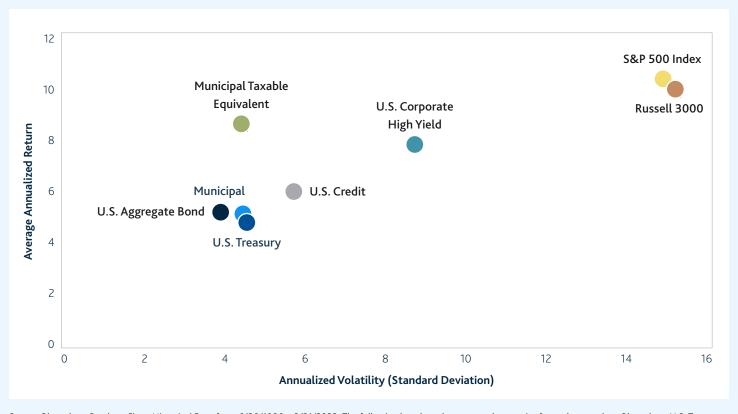
### Municipal Bond Volatility Versus Returns

Municipal bonds, as an asset class, are also relatively stable with a low level of volatility and a comparatively high level of total return when factoring in tax efficiency. For the sake of comparison, we will examine historical total returns of U.S. Treasuries, the Bloomberg Aggregate Index, U.S.

credit, U.S. high yield, municipal bonds/ tax adjusted municipal bonds, the Russell 3000 Index, and the S&P 500 Index as a broad comparison across public asset classes using a respective benchmark for each. Historically, we can see that taxable equivalent municipal bond average annual total returns at 8.42% rank higher among the peer group than every other non-equity asset class including U.S. high yield (Figure 4). Further, as measured by standard deviation, taxable equivalent municipal bonds at 4.47% have a lower level of volatility than all other members of the peer group other than U.S. aggregate bonds at 3.94%. When taken together, municipal bonds' high annualized returns, approaching those of equities, and low level of volatility make a compelling case for the asset class.

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Figure 4: Historical Volatility vs Return



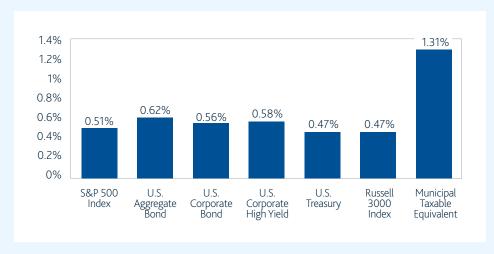
Source: Bloomberg Barclays, Fiera. Historical Data from 6/30/1990 – 8/31/2023. The following benchmarks were used as proxies for each asset class: Bloomberg U.S. Treasury Index as U.S. Treasuries, Bloomberg U.S. Aggregate Index as U.S. Credit Index as U.S. Credit, Bloomberg U.S. High Yield Index as U.S. Corporate High Yield, Russell 2000 Index as Russell 2000, S&P 500 Index as S&P 500, and Bloomberg Municipal Bond index as Municipal Bonds with tax adjustments using a 40.8% federal tax rate to historical income return for taxable equivalent.

# Risk Characteristics and Diversification

As part of an investor's asset allocation, municipal bonds can also serve as a provider of strong risk adjusted returns, a lower volatility stabilizer and diversifier. Using Sharpe Ratios as a measure of risk adjusted returns, taxable equivalent municipal bond returns are strong relative to other asset classes at 1.31, the highest by a wide margin within the asset classes examined (Figure 5).

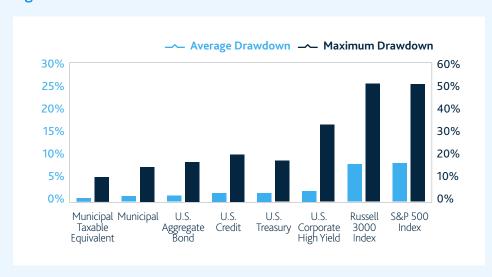
Given that many investors often look to municipal bonds as a source of liquidity, looking at average and maximum drawdowns can prove useful as an understanding of what worst case historical scenarios have looked like. Should investors have needed liquidity in these environments, drawdown information can be instructive for estimating performance that might have been realized. In this case, tax adjusted municipal bonds again come out ahead of the compared asset classes with both the lowest average drawdown and lowest maximum drawdown relative to the other asset classes examined (Figure 6).

Figure 5: Sharpe Ratio



Source: Bloomberg Barclays, Fiera. Historical Data from 6/30/1990 – 8/31/2023. Sharpe Ratio is calculated as the average return of each asset class over the period minus the risk free rate divided by the standard deviation of the returns. Generic 3-month U.S. Treasuries were used as the "risk free" rate. The following benchmarks were used as proxies for each asset class: Bloomberg U.S. Treasury Index as U.S. Treasuries, Bloomberg U.S. Aggregate Index as U.S. Aggregate Bonds, Bloomberg U.S. Credit Index as U.S. Credit, Bloomberg U.S. High Yield Index as U.S. Corporate High Yield, Russell 2000 Index as Russell 2000, S&P 500 Index as S&P 500, and Bloomberg Municipal Bond index as Municipal Bonds with tax adjustments using a 40.8% federal tax rate to historical income return for taxable equivalent.

Figure 6: Drawdowns



Source: Bloomberg Barclays, Fiera. Historical Data from 6/30/1990 – 8/31/2023. The following benchmarks were used as proxies for each asset class: Bloomberg U.S. Treasury Index as U.S. Treasuries, Bloomberg U.S. Aggregate Index as U.S. Aggregate Bonds, Bloomberg U.S. Credit Index as U.S. Credit, Bloomberg U.S. High Yield Index as U.S. Corporate High Yield, Russell 2000 Index as Russell 2000, S&P 500 Index as S&P 500, and Bloomberg Municipal Bond index as Municipal Bonds with tax adjustments using a 40.8% federal tax rate to historical income return for taxable equivalent.

#### Risk Characteristics and Diversification (Continued)

A final consideration from a risk perspective is diversification, specifically how municipal bonds might be correlated with other asset classes within an investment allocation. As a diversifier relative to equities, municipal bonds have historically had a lower correlation to the S&P 500 (0.17) than other credit oriented taxable fixed income asset classes such as U.S. credit (0.36) or U.S. high yield (0.64) (Figure 7). Though the correlation is similar to that of U.S. Aggregate Bond (0.16), for taxable investors, municipals may still be a preferable choice given the tax advantages previously discussed. Municipals can also serve a role as an investment grade diversifier to a core taxable bond allocation with a lower correlation to U.S. aggregate bonds (0.76) than U.S. Treasuries (0.93) or U.S. credit (0.88).

**Figure 7: Asset Class Correlations** 

|                              | S&P 500 INDEX |  |  |
|------------------------------|---------------|--|--|
| S&P 500                      | 1.00          |  |  |
| Russell 3000                 | 0.99          |  |  |
| U.S. Corporate<br>High Yield | 0.64          |  |  |
| U.S. Credit                  | 0.36          |  |  |
| Municipal                    | 0.17          |  |  |
| U.S. Aggregate<br>Bond       | 0.16          |  |  |
| U.S. Treasury                | -0.07         |  |  |

|                              | U.S. Aggregate |  |  |
|------------------------------|----------------|--|--|
| U.S. Aggregate<br>Bond       | 1.00           |  |  |
| U.S. Treasury                | 0.93           |  |  |
| U.S. Credit                  | 0.88           |  |  |
| Municipal                    | 0.76           |  |  |
| U.S. Corporate<br>High Yield | 0.29           |  |  |
| S&P 500                      | 0.16           |  |  |
| Russell 3000                 | 0.14           |  |  |

Source: Bloomberg Barclays, Fiera. Historical Data from 6/30/1990 – 8/31/2023. The following benchmarks were used as proxies for each asset class: Bloomberg U.S. Treasury Index as U.S. Treasuries, Bloomberg U.S. Aggregate Index as U.S. Aggregate Bonds, Bloomberg U.S. Credit Index as U.S. Credit, Bloomberg U.S. High Yield Index as U.S. Corporate High Yield, Russell 2000 Index as Russell 2000, S&P 500 Index as S&P 500, and Bloomberg Municipal Bond index as Municipal Bonds with tax adjustments using a 40.8% federal tax rate to historical income return for taxable equivalent.

# Hedging Against Future Tax Rate Increases

Investors often employ strategies to hedge against various risks in their portfolio; though not often considered in this light, municipal bonds can serve as a kind of hedge against future tax rate increases. Considering the legislative risk that income tax rates could increase at a future date, tax advantaged income from municipal bonds could potentially become more valuable to an individual investor should their tax rate increase. Considering that all the individual tax provisions of the Tax Cuts and Jobs Act of 2017 expire at the end of 2025, sans congressional reauthorization, the short-term risk of marginal tax rate increases is apparent. This would bring the top marginal individual tax bracket back up to 39.8% from the current 37% as well as cut the standard deduction roughly in half.2 Tax advantaged municipal income could help shield investors from loss of after-tax income should these changes come into effect.

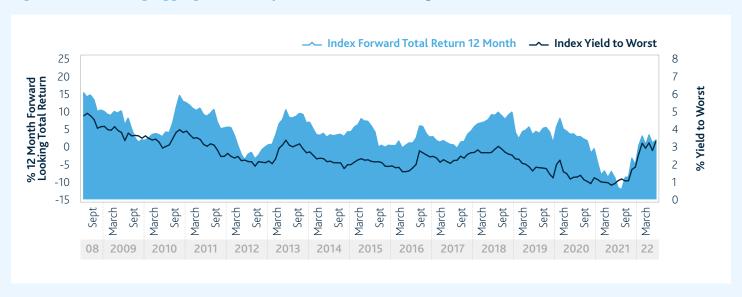
# Why Now Might be a Good Entry Point into Municipal Bonds

We believe the current market environment provides a strong opportunity for long-term oriented investors to enter or add to an allocation to high-quality municipal bonds given high starting yields, healthy credit fundamentals, and technical tailwinds to the asset class.

#### **High Starting Yield**

Given the current level of yield that municipal bonds provide and the strong historical relationship between yields and forward-looking returns, we believe the current market environment provides an attractive entry point into the asset class. From the Great Financial Crisis (GFC), starting in July 2008 through the current day, there has been a strong historical correlation of 0.75 between yield to worst and 12-month forward-looking returns in the municipal market (Figure 8). Given that we are currently in the 89th percentile of starting yield environments since the GFC, based on the current 3.79% or 6.40% taxable equivalent yield to worst of the Bloomberg Muni Aggregate Index, we believe that investors putting funds to work in the municipal market today are well positioned for robust forward-looking returns<sup>3</sup>.

Figure 8: Bloomberg Aggregate Municipal Bond Index Starting Yield vs. Forward 12 Month Return



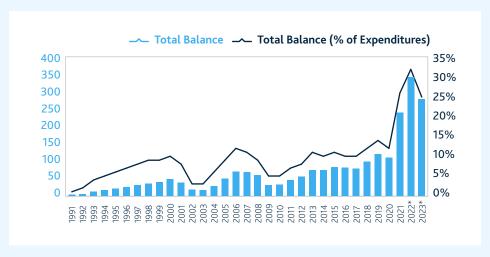
Source: Bloomberg Barclays as of 8/31/23. Yield to Worst is defined as the lowest possible yield an investor can receive on an an investment assuming non-default. In municipal bonds this is often the lower of yield to maturity and yield to call.

<sup>3.</sup> Source: Bloomberg Barclays as of 8/31/23.

#### **Strong Credit Fundamentals**

Looking at the fiscal health of municipal issuers indicates what we believe to be strong credit fundamentals given their resilience following the COVID-19 pandemic. This is due to strong tax collection receipts, above average fund balances, and the government stimulus packages and pandemic relief funds exceeding \$674 billion to state, local, and tribal governments4. Starting at the state level, all U.S. states currently carry a credit rating in the "A" category from Standard & Poor's and Moody's given the broad sovereign powers that states carry to levy taxes and allocate expenses. Additionally, U.S. states are specifically excluded from filing Chapter 9 bankruptcy. To put the current financial health of states in context, prior to 2020, states carried rainy day and general fund balances that represented an average of 8% of their expenditures (Figure 9). Though that percentage has decreased slightly for fiscal year 2023 to 25%, it followed two years of extraordinary growth that have left states in a much stronger position than their historical averages. From a local perspective, property taxes – the primary revenue source for local issuers - have been in an upward trajectory since the GFC with an increase of 6.5% year over year for the most recent period of Q1 2023 (Figure 10). Overall, the fundamental health of municipal bond issuers appears to be among the strongest in recent memory which we believe to be a supportive factor for municipal bonds going forward.

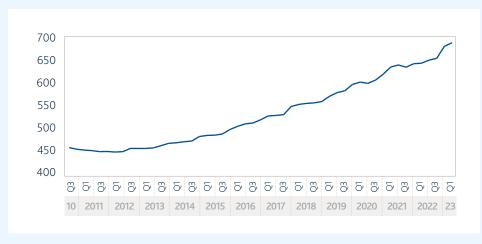
**Figure 9: State Fund Balances Over Time** 



Source: National Association of State Budget Officers, Fiscal Survey of States, Spring 2023. Data from 1991 – 2023.

\* Figures for fiscal 2023 are estimated. Historical total balance data shown in this table may differ from figures published in previous editions of The Fiscal Survey of States, as figures for some years were updated based on a review of original source data.

**Figure 10: Local Property Tax Revenues** 



Source: U.S. Census Bureau, data released on June 15, 2023.

<sup>4.</sup> Source: Pandemicoversight.gov accessed on 7/25/2023. Includes the \$150 billion Coronavirus Relief Fund (CRF) which provided payments to State, Local, and Tribal Governments navigating the impacts of the COVID-19 pandemic and the \$350 Coronavirus State and Local Fiscal Recovery Fund (SLFRF) which delivers money to state, territorial, local, and Tribal governments to support their response to and recovery from the COVID-19 public health emergency.

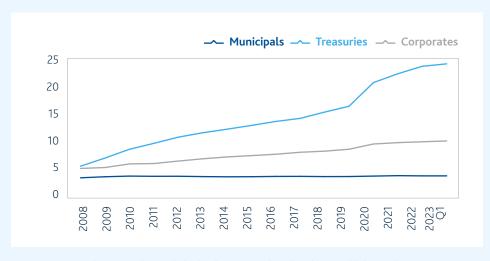
#### **Strong Technical Tailwinds**

Between a low supply environment and the historical influence of retail mutual fund flows, we believe the current environment looks favorable as an entry point into municipal bonds for a long-term investor. While the total size of the corporate bond market has roughly doubled and the U.S. Treasury market roughly quadrupled since the GFC, the total amount outstanding in the municipal market has essentially stayed flat around \$4 trillion (Figure 11). Focusing in on 2023 year-to-date, municipal bond issuance is down 15% year-over-year,

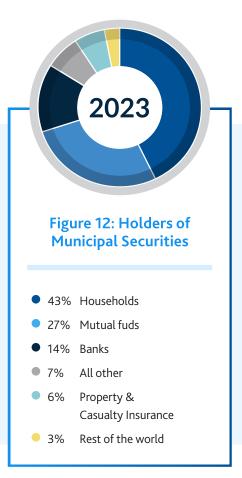
further exacerbating the low supply condition<sup>5</sup>. Many of the country's largest investment banks are also continuing to revise their supply forecasts downward for the remainder of 2023 given issuers reluctance to take debt in a high interest rate environment and generally strong balance sheets as previously discussed. Notwithstanding a drastic change in the demand environment, which we would not expect given the high level of yield available, we believe the constrained supply environment could provide a strong tailwind to the municipal market looking forward.

The retail-oriented nature of the municipal market also lends itself to outsized impacts from individual investor behaviors that have historically provided a buying opportunity. Given that most traditional institutional investors likely do not benefit from the tax-advantaged nature of municipal bonds, the municipal market is dominated by retail investors that own over two thirds of the outstanding debt though mutual funds or directly as individual households (Figure 12).

Figure 11: Fixed Income Markets Total Outstanding



Sources: SIFMA as of 3/31/23. Chart includes fixed income markets directly accessible by retail investors.



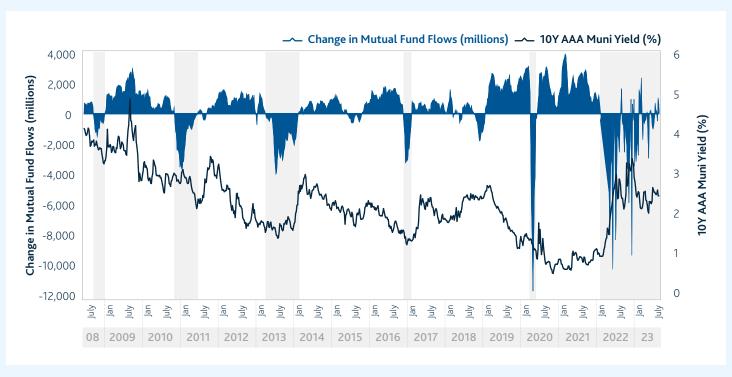
Sources: Federal Reserve Flow of Funds Accounts of the United States, L.212 Municipal Securities and Loans, data published on September 8, 2023.

By using flows into and out of mutual funds as a proxy for retail demand, we can see that historically retail has sold out of municipal bonds when yields have risen and bought more when yields fell (Figure 13). This behavior may be due to retail investor fears when they see the prices on their bonds

or mutual funds decrease due to rising yields. In other words, retail historically has "bought high" and "sold low" in bond price terms. This predictable behavior pattern can help highlight attractive entry points into the asset class. Since 2008 there have been 6 sizeable, distinct periods of

historical outflows from municipal mutual funds around the GFC, Meredith Whitney predicting widespread municipal defaults, the tapering of Quantitative Easing & high-profile issuer credit distress, the 2016 U.S. presidential election, and the onset of the COVID-19 pandemic.

Figure 13: Municipal Fund Flows & 10 Year AAA Municipal Yields



Source: LIPPER and JP Morgan as of September 7, 2023.

By looking at the historical total return of the Bloomberg Municipal Index in the 12 months following these outflow cycles and comparing it to the average 12 month return over the entire period, we can see that returns following an outflow cycle were an average of 1.95% higher than the average over the entire period (Figure 14). Given that we are currently in the midst an outflow cycle that is almost double the next largest outflow, we believe that the returns following this period will be outsized as well. Though

the exact timing of the outflow cessation is difficult to predict, we believe the current yield environment to be attractive as an entry point for long term investors with the potential for additional capital appreciation should the outflows turn in the near term.

**Figure 14: Total Return Following Outflows** 

| Impetus  | Timeframe         | Total Outflows<br>(\$ Billions) | Total Return<br>12 Months<br>Post Outflow | Difference from<br>12 Month Average |
|--|-------------------|---------------------------------|---|-------------------------------------|
| Average 1 Year Return – 3.56%                    | 7/2008 – 9/2023   | -                               | -   | -                                   |
| GFC – Lehman Collapse                            | 9/2008 – 12/2008  | \$12.20                         | 12.91%                                    | + 9.35%                             |
| Meredith Whitney                                 | 11/2010 – 5/2011  | \$49.26                         | 10.40%                                    | + 6.84%                             |
| Puerto Rico/Detroit Concerns<br>& Tapering of QE | 3/2013 – 1/2014   | \$73.22                         | 8.86%                                     | + 5.30%                             |
| 2016 Election                                    | 11/2016 – 12/2016 | \$24.70                         | 5.45%                                     | + 1.89%                             |
| Covid-19   | 3/2020 – 4/2020   | \$47.50                         | 7.75%                                     | + 4.19%                             |
| Inflation Concerns and FOMC<br>Rate Hikes        | 1/2022 - ?        | \$132.43+                       | ?   | -                                   |

Source: Lipper, JP Morgan, and Bloomberg as of 9/7/23.



## **Conclusion**

Municipal bonds provide a valuable funding mechanism for state and local governments to bring much needed services and infrastructure to their communities. Though they are not only an asset class that can help build tangible infrastructure around investors, but they can also serve as a valuable addition to an investor's portfolio as a "sleep at night" asset class. Municipals similarly provide strong principal preservation and risk characteristics to diversify investor portfolios. Given their ability to generate tax-advantaged income, which is their most wellknown characteristic, they can also offer investors consistent cash flow that is protected from future tax-rate increases. Furthermore, the current market environment can serve as an attractive entry point for long term investors as it features high starting yields, strong credit fundamentals, and technical tailwinds driven by a dearth of supply and predictable retail demand trends. While municipals are a lower risk asset class, we would always recommend investing through a professional manager that can evaluate fundamental credit quality and changes in the market environment to adjust the portfolio accordingly.



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