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November 2022

# Municipal market volatility: Focus on the fundamentals

## *Five things to know*

*Persistently high inflation, rising interest rates and recession worries have dragged on global financial markets in 2022 — including municipal bonds. A look past the headlines, however, suggests that municipal bond fundamentals remain solid and strength in the market could be poised to renew. Here are five things investors should consider as they assess the state of the muni bond market.*

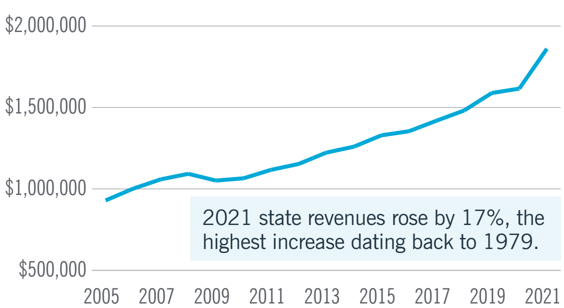
### 1. MUNICIPAL BOND FUNDAMENTALS ARE STRONG

This is perhaps the single most important thing to know about the current market: Price volatility has been driven almost exclusively by macroeconomic factors and fund outflows, rather than credit fundamentals.

State and local governments saw strong economic growth and rising tax revenue collections, further boosted by pandemic-era federal aid and stimulus. State revenue increases and reserve fund levels are at their highest points since 1979.

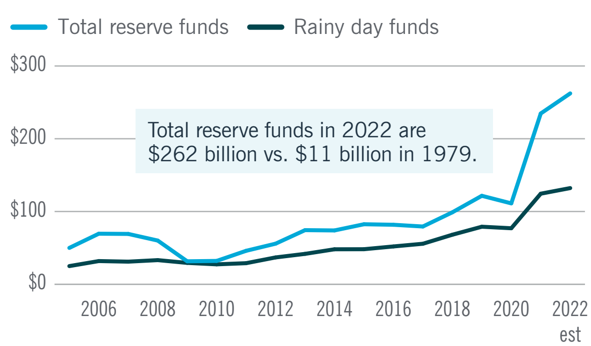
**Figure 1: Revenue collections and reserve levels are the highest in more than 40 years**

*State & local government tax revenue collections ($)*




Data source: census.gov, 31 Dec 2021.

*State government funds ($ billions)*




Data source: National Association of State Budget Officers (NASBO), The Fiscal Survey of States, Spring 2022.

## 2. MUNICIPAL BOND DEFAULTS ARE RARE AND IDIOSYNCRATIC

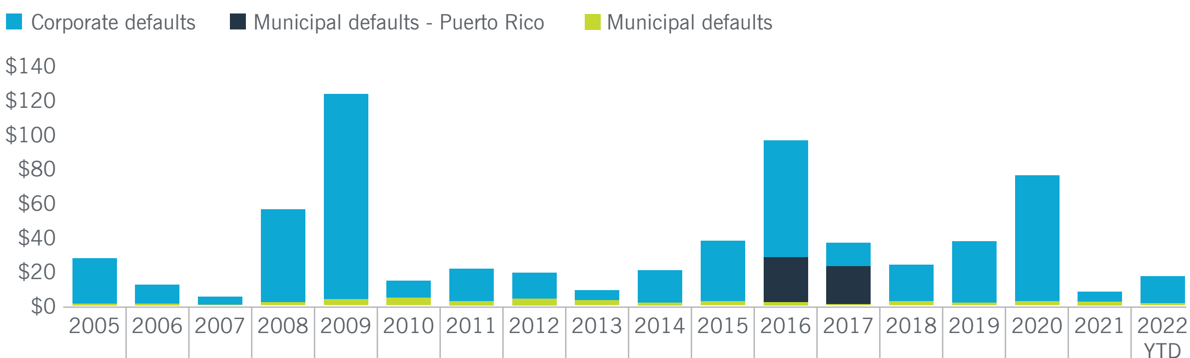
Unlike during the Great Recession, the states are in a stronger position to weather a recession or economic downturn. During FY21 alone, states grew their collective rainy day funds by $37.7 billion, or an increase of roughly 50% from a year earlier. This drove the total held among all states to a record high of $114.6 billion.

For the third consecutive year, municipal defaults are mainly concentrated in nursing homes and industrial development revenue bonds, as these categories include arguably the most idiosyncratic risks. Overall, we do not anticipate municipal payment defaults becoming widespread.

Corporate bond defaults in 2022 are higher than in 2021 but have not risen to the level of prior years. In general, corporations tend to be more sensitive than municipalities to weakening economic conditions.

### Figure 2: Municipal defaults are low, even in times of heightened stress

*Municipal and corporate bond payment defaults ($ billions)*




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 YTD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Municipal defaults | 0.9 | 0.9 | 0.2 | 1.6 | 3.4 | 4.3 | 2.4 | 3.8 | 2.8 | 1.5 | 2.3 | 27.8* | 22.7* | 2.3 | 1.3 | 2.2 | 2.1 | 1.1 |
| Corporate defaults | 26.3 | 11.0 | 4.7 | 54.4 | 119.8 | 9.9 | 18.7 | 15.0 | 6.0 | 18.7 | 35.3 | 68.3 | 13.7 | 21.2 | 36.0 | 73.6 | 5.6 | 15.9 |

Data sources: Bank of America/Merrill Lynch Research, 05 Oct 2022, municipal default data as of 30 Sep 2022. Bank of America/Merrill Lynch Research HY Credit Chart book, corporate default data as of 30 Sep 2022. Data represents defaults on the entire universe of bonds, both rated and unrated, and includes Puerto Rico defaults.
* For 2016 and 2017, the figures shown for municipal defaults were primarily from Puerto Rico defaults, which were $26.0B (2016) and $21.9B (2017).

> **Nursing homes and industrial development bonds** *accounted for 71% of defaults in 2022 and 75% in 2021.*

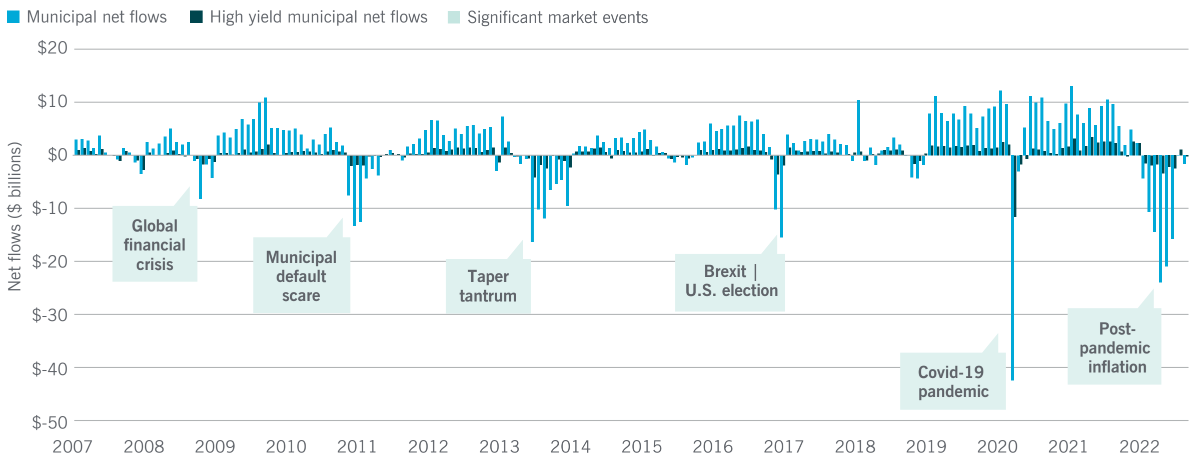
## 3. TECHNICAL ENVIRONMENTS HAVE CYCLES, JUST LIKE MARKETS

The year 2022 is shaping up to be one of the toughest in municipal bond history. Total municipal bond open-end fund outflows have totaled -$105 billion through 30 September (excluding exchange-traded funds), larger than any other time, including during the pandemic.

Although we expect continued mixed inflows and outflows, we believe conditions will start to improve once we receive more clarity around inflation, interest rates and Fed policy. In fact, in similar prior periods with sharply negative technical conditions and performance selloffs, municipal bonds tended to recover within the year following the end of the drawdown period.

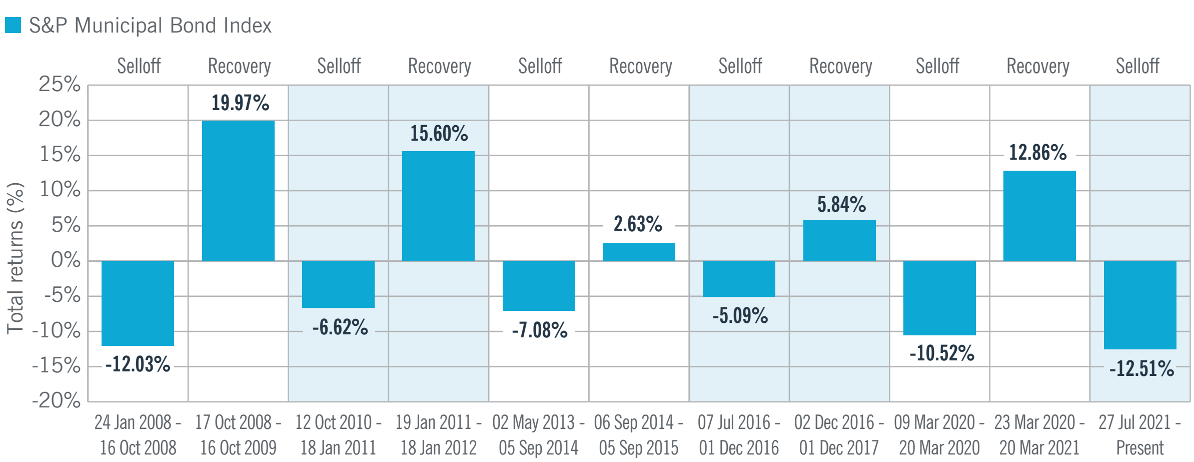
### Figure 3: Fund flows, and resulting performance, have returned after market dislocations

*Total municipal and high yield municipal net fund flows*




Data source: Morningstar Direct, 01 Jan 2007 – 31 Aug 2022, shown monthly. Industry categories: **municipals** represent the total of all municipal bond open-end funds, including high yield; **high yield municipals** represent all high yield municipal bond open-end funds. Shading represents significant market events.

*Municipal performance during selloffs and subsequent 1-year recoveries*




Data source: Morningstar Direct. **Past performance does not predict or guarantee future results.** Data applies to the actual time periods noted. The drawdown time periods represent periods where the S&P Municipal Bond Index declined 5% or more. The recovery periods represent the 1-year period from the trough. Data shown is based on the most recent data provided to Morningstar by asset managers, which may be modified based on Morningstar's methodology and is subject to change.

## 4. HIGHER YIELDS HELP CUSHION PRICE FLUCTUATIONS

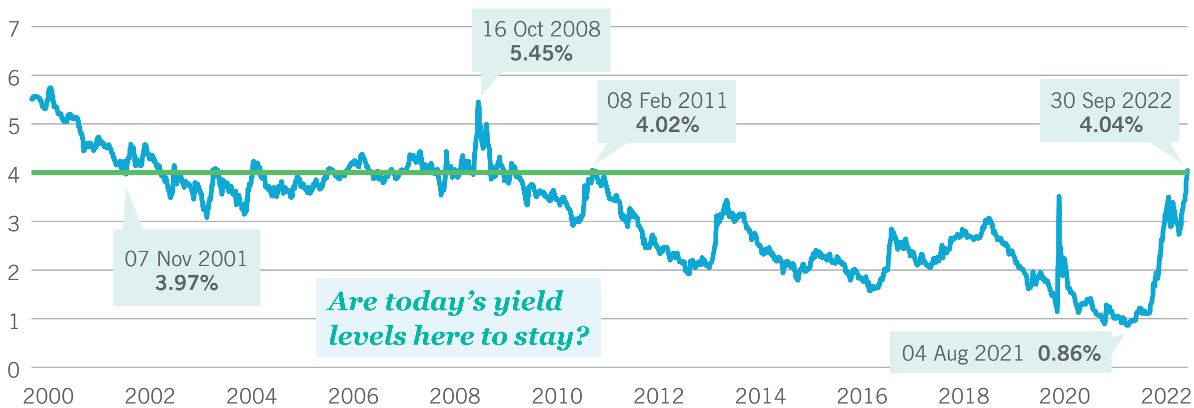
A bond's coupon payments and price fluctuation combine to determine total return. When interest rates are rising, regular coupon payments may be reinvested in new, higher-yielding bonds to help cushion the impact of declining prices for existing bonds and help boost total return over time. Investors should consider capturing today's relatively high yields now.

Bond yields have increased meaningfully this year. The Bloomberg Municipal Bond Index yield-to-worst ended September at 4.0% after starting 2022 at 1.1%. Periods of higher yields are often short-lived. Historically, since yields dipped below 4.0% in November 2001, yields have been 4.0% or higher only 17% of the time.

Similarly, U.S.-based investors can evaluate tax-exempt income opportunities at new levels, with the intermediate taxable-equivalent yield reaching 6.08% versus a taxable bond yield of 4.67% as of 30 September.[1]

### Figure 4: Municipals are offering the highest yields since 2011

*Bloomberg Municipal Bond Index yield-to-worst*




Data source: Bloomberg L.P., 01 Jan 2000 – 30 Sep 2022, shown daily. **Past performance does not predict or guarantee future results.** Yield-to-worst is the lowest potential yield that can be received on a bond without the issuer defaulting.

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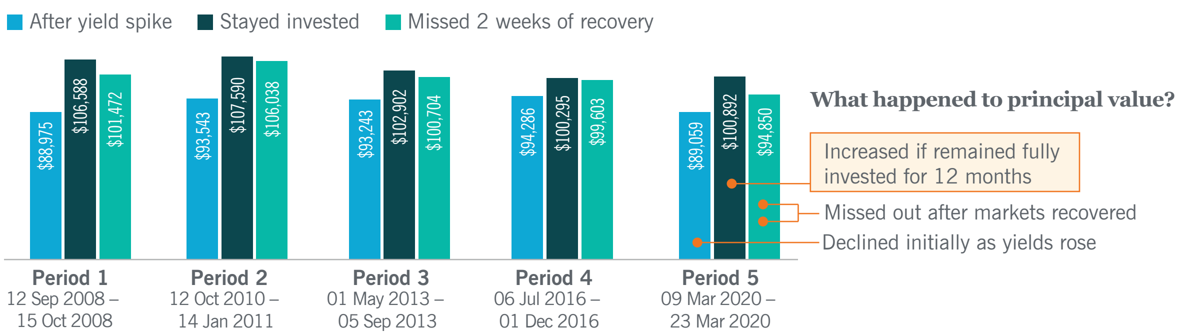
## 5. WHEN MUNICIPAL MARKETS REBOUND, THEY TEND TO DO SO QUICKLY

Historically, missing even the first two weeks of a previous market rebound would have reduced an investor's long-term returns, and generally principal was recovered within 12 months, as seen in the example below.

We are now in the sixth period of municipal market volatility, driven by Fed rate increases and inflation concerns. When it comes to bond markets, there's another reason to counsel patience during times of wider credit spreads and volatility. Those who stay fully invested may benefit from extra income from higher yields before spreads fall when markets normalize. This is the so-called "being paid to wait" strategy as bond values return to par at maturity.

### Figure 5: Portfolios were eventually compensated for patience

*Value of a hypothetical $100,000 portfolio*




Data source: Bloomberg L.P., 31 Mar 2020. Data shown applies to the actual time periods noted in the table. Representative index: Bloomberg Municipal Bond Index. Nuveen analyzed five periods where municipal yields increased by at least 100 basis points in less than one year. Nuveen examined the total return of hypothetical $100,000 portfolios held for 3-, 6-, and 12-month periods following the spike. In this chart, the portfolios were held for 12 months following the spikes. Hypothetical examples are shown for illustrative purposes only and do not represent the performance of an actual portfolio. Individual investor results will vary. Different benchmarks and economic periods will produce different results. Other methods and market conditions may result in slightly different outcomes. Index returns include reinvestment of income and do not reflect investment professional and/or other fees that would reduce performance in an actual client account. Hypothetical results are no guarantee of future results.

"**Those who stay fully invested** *may benefit from extra income from higher yields before spreads fall when markets normalize.*

## WHERE DO WE GO FROM HERE?

All financial markets are subject to volatility, and 2022 has proven to be a year to remember. But because municipal bonds are usually backed by essential services (such as toll roads, schools and hospitals) or by tax revenues, they tend to be relatively resilient over the long term when compared to other investments. And indeed, this resiliency is one of the main reasons investors have long looked to municipal bonds as a source of stability in a broadly diversified portfolio.

Looking ahead to 2023, we believe inflation has likely peaked and the economy is set to slow down. The U.S. Federal Reserve appears near the end of its hiking cycle and will likely be on hold for much of 2023 or may reduce rates, provided inflation starts coming down. We believe that current attractive municipal yields and strong credit fundamentals, combined with rate stability, should allow munis to show their resilience, not only for current investors, but also for those who may be waiting for an entry point.

**For more information, please visit our website, nuveen.com.**

### Endnotes

### Sources

1 Data source: Bloomberg L.P., 30 Sep 2022. **Past performance does not predict or guarantee future results. Representative indexes: Intermediate-term taxable bonds:** Bloomberg U.S. Government/Credit 5-10 Year Index; **Intermediate-term municipal bonds:** Bloomberg Municipal Intermediate Index. Yields are yield-to-worst. Y**ield-to-worst** is the lowest potential yield that can be received on a bond without the issuer defaulting. The taxable-equivalent yield is based on the highest individual marginal federal tax rate of 37%, plus the 3.8% Medicare tax on investment income (the Net Investment Income Tax). Individual tax rates may vary. They do not take into account the effects of the federal alternative minimum tax (AMT) or capital gains taxes. Different benchmarks, economic periods, methodologies and market conditions will produce different results.



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