nuveen
A TIAA Company

Municipal market update

June 2025

As of 31 May 2025

4577544

2025 municipal market themes

Economic environment

Inflation	• Core inflation had been moderating but could face challenges amid policy uncertainty. • Inflation will likely not reach the Fed's target by year end 2025.
Policy	• While surveys have shown weakness, hard data has been surprisingly resilient, limiting the Fed's ability to cut rates. • Weak labor readings should result in rate cuts in the second half of the year.
Economic growth	• Proposed baseline tariffs represent the largest tax increase since 1968. Uncertainty has paused capital spending and hiring plans. • Economic growth in the second half of the year will be heavily influenced by the scope and timing of the current tax bill.
Interest rates	• With the magnitude & intensity of rate cut expectations scaled back, the higher-for-longer yield environment should persist. • Treasuries remain pressured, particularly on the long end of the curve, as the bond market assesses the impact of the tax bill.

Municipal market environment

Credit fundamentals	• Credit remains resilient, with stable revenue collections. • Governments are spending down reserve funds, but overall reserve levels remain strong. • We expect municipal defaults will remain low, rare and idiosyncratic.
Supply & demand	• We anticipate another year of heavy supply in 2025, approaching $500 billion. • Demand for municipals was dampened by tariff announcements and policy uncertainty. • Taxable municipal supply remains muted in the elevated rate environment and is roughly 10% of the overall market.
Valuations	• Ratios have grown more favorable, and municipals offer elevated income levels which can help generate attractive returns. • High yield credit spreads remain below historical averages, supported by inflows. • The municipal yield curve is upward sloping, with the intermediate portion offering heightened opportunity.

Source: Nuveen as of 31 May 2025. Certain statements may be deemed forward-looking statements. Please note that any such statements are not guarantees or intended to constitute a prediction of any future performance; actual results or developments may differ materially from those projected.

Volatility can create opportunity

Investment grade municipals have underperformed the US Agg by 341 bps YTD through May, creating an attractive entry point for patient investors.

Municipals have underperformed YTD

- Tax-exempt issuance is up 12.5% YoY vs. last year (record levels in 2024).[1]
- May reinvested capital increased considerably compared to April, helping drive relative outperformance for municipals during the month.
- Reinvested capital is forecasted to outpace new issuance in the summer months, which could be a catalyst for stronger performance.
- Pressure on liquidity from ETFs impacted municipals during April:
    - The fund industry must learn to co-exist better with this growing municipal wrapper

Fundamentals remain strong

- Property tax, individual income tax and sales tax collections increased in 2024.
- While some reserves are being spent down, overall reserves are anticipated to account for nearly 15% of spending in FY 2025, up notably from 8% in FY 2019.
- Upgrades continue to outpace downgrades, with the first quarter seeing 124 upgrades vs 68 downgrades.
- Municipal credit remains strong, especially for essential service monopolies.

Changes in tax code can lead to opportunity

- The Republican party is looking to extend existing TCJA ($4.5T) and additional tax cuts ($1.5T) to help offset tariff costs.
- Tax-exempt status of municipals is not part of the most recent proposed Tax Bill, a favorable development for municipal investors.
- If reconciliation efforts change, the Private Activity Bond (PAB) segment of the market could be impacted.
- Threats to individual entities losing their tax-exempt status should remain idiosyncratic.

Data source: Bloomberg, L.P., 31 May 2025. **Performance data shown represents past performance and does not predict or guarantee future results.** Bloomberg Municipal Bond Index Yields are yield to worst. Yield to worst is the lowest potential yield that can be received on a bond without the issuer defaulting. **Representative indexes: Investment grade municipals:** Bloomberg Municipal Bond Index. **1** Data source: Bond Buyer, as of 31 May 2025. **2** Data source: Morningstar, as of 30 Apr 2025. **3** Data source: JPM/LSEG Lipper, as of 30 Apr 2025.

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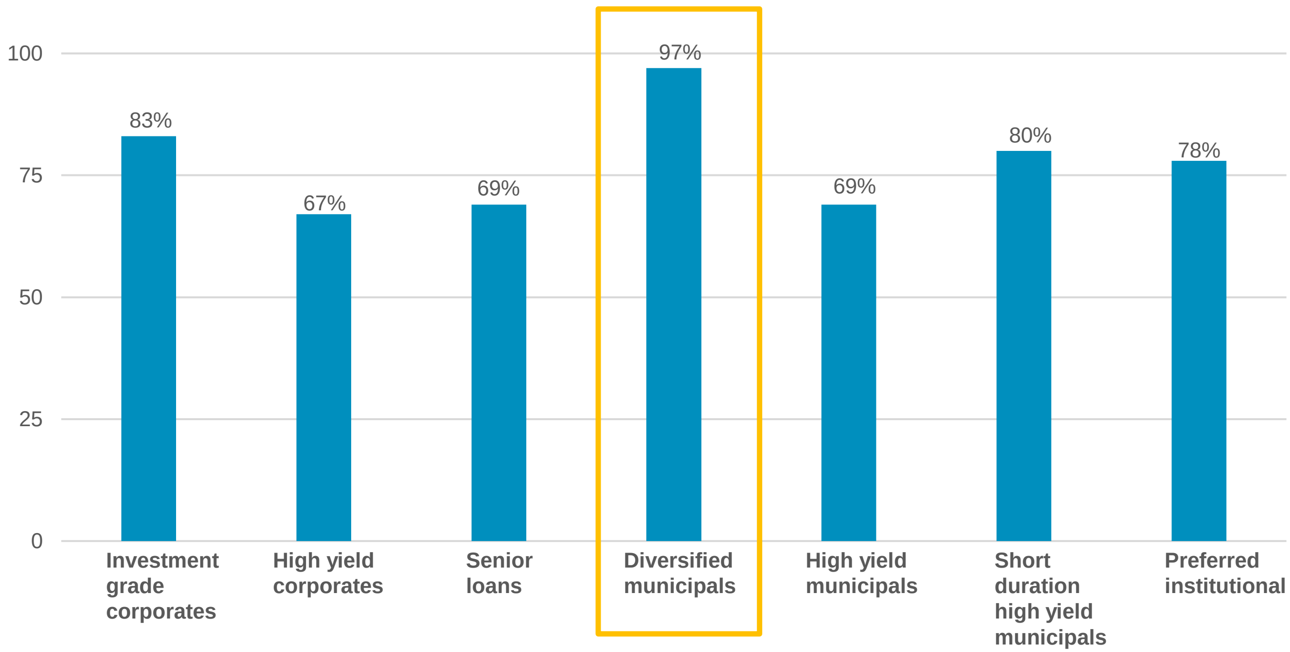
Municipals are back in favor with attractive yields and more positive technical conditions

Current yields vs. 10-year average: Municipals in 97th percentile



Muni-to-Treasury ratios

(AAA IG Muni/UST)

	Current	3-yr average
10-year	76%	70%
30-year	92%	89%

Crossover buyers have been irregular participants in the municipal market as ratios have grown more favorable. Buying opportunity exists despite recent lackluster performance.

Data sources: Bloomberg, L.P., 29 May 2025. **Performance data shown represents past performance and does not predict or guarantee future results. Representative indexes: investment grade corporates:** Bloomberg U.S. Corporate Total Return Value Unhedged USD; **high yield corporates:** Bloomberg U.S. Corporate High Yield Total Return Index Value Unhedged USD; **senior loans:** S&P UBS Leveraged Loan Index Total Ret Index Level Unhedged USD; **diversified municipals:** ICE BofA U.S. Municipal Securities Index; **high yield municipals:** ICE BofA U.S. Municipal High Yield Securities Index; **short duration high yield municipals:** ICE 1-12 Year Broad High Yield Crossover Municipal Index; **preferreds: institutional:** ICE U.S. Institutional Capital Securities Index.

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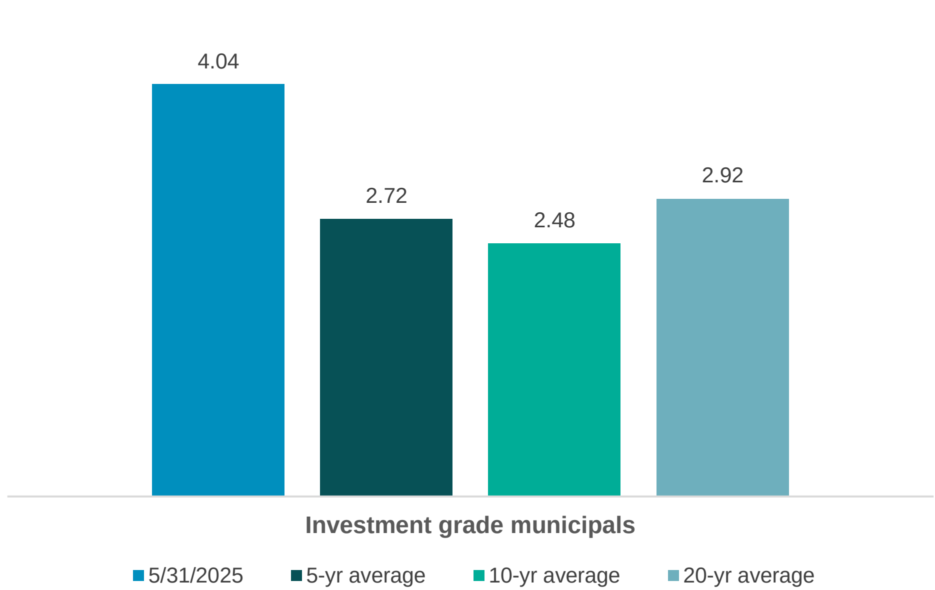
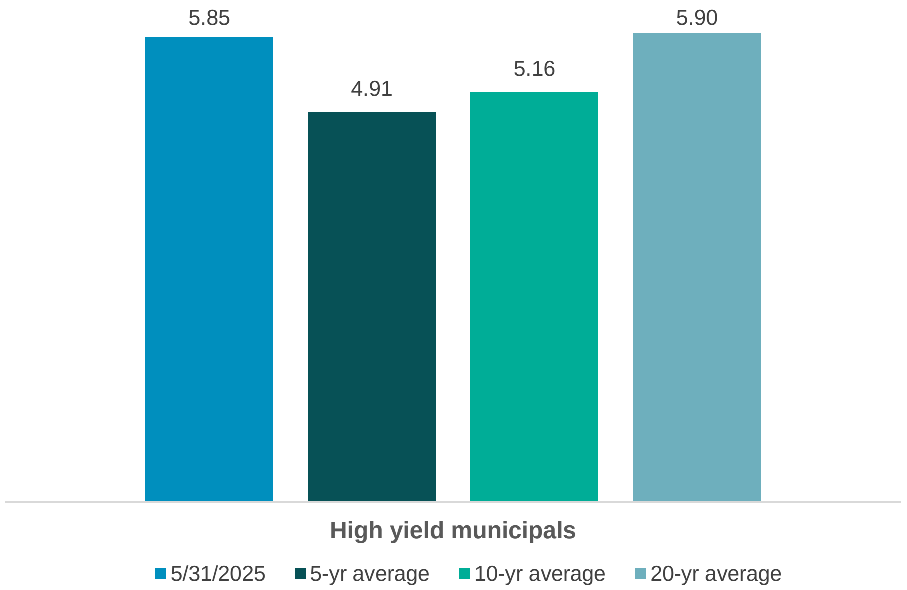
Starting yield levels are elevated across investment grade and high yield municipals

Current municipal yields are attractive compared to history.

Yield to worst (%)



+132 bps vs. trailing 5 years



+94 bps vs. trailing 5 years

Data source: Bloomberg, L.P., 31 May 2025. **Performance data shown represents past performance and does not predict or guarantee future results.** Yields are yield to worst. Yield to worst is the lowest potential yield that can be received on a bond without the issuer defaulting. **Representative indexes: Investment grade municipals:** Bloomberg Municipal Bond Index; **High yield municipals:** Bloomberg High Yield Municipal Bond Index.

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Current tariffs are the largest tax increase since 1968

Municipals are positioned to benefit, despite the historically substantial increase in taxes.

Municipal bond allocation can be sheltered from impacts of tariffs

- Municipals are **backed by essential services**, which are less exposed to global trade
- State and local governments, as well as water and sewer utilities, are in strong fiscal shape and are **resilient in the current environment**
  - **Tax collections increased** in 2024 vs. 2023[1]
  - **FY 2025 reserve funds** projected to be 15% of spending vs 8% in 2019[2]
  - **Defensive sectors** include state and local governments, water, sewer and electric utilities

Credits must be evaluated on case-by case basis

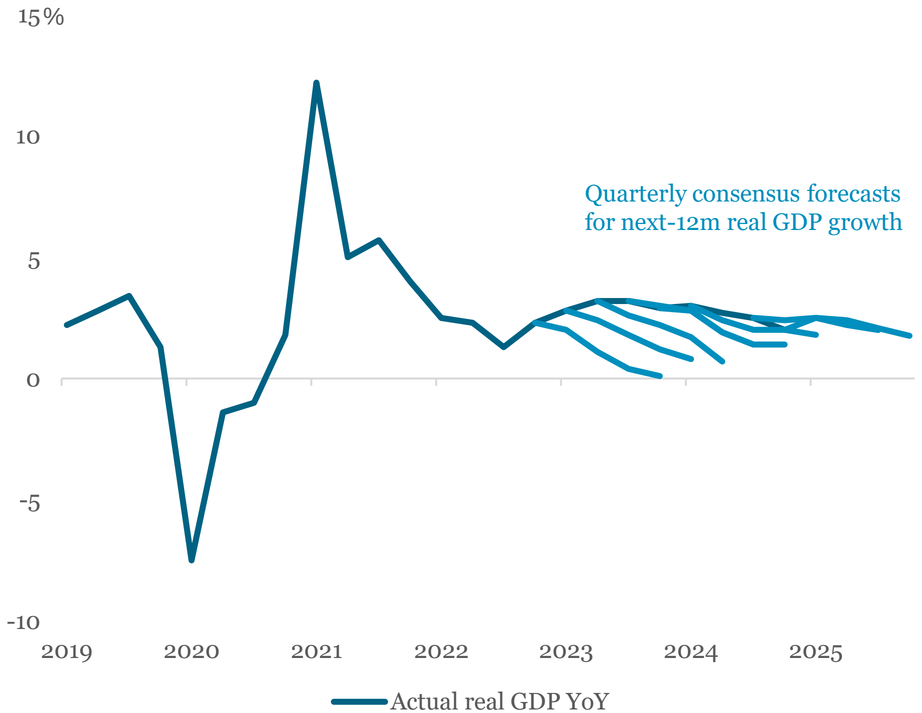
- Higher construction costs could have more impact on sectors that have **large capital renewal programs**, such as transportation and housing
- Transportation is a sector we are very closely monitoring, as **reduced cargo volume could impact the sector**
- Tariffs are anticipated to **create cost increases on housing materials**. While builders believe supply chains can hold up in the near term, new home construction costs could face pressure

1 Data source: Nuveen; census.gov, as of 31 Mar 2025, with data as of 31 Dec 2024.

2 Data sources: National Association of State Budget Officers (NASBO), *The Fiscal Survey of States*, Spring 2022. Pew Charitable Trust, *States Build Their Reserves Amid Growing Uncertainties*, 31 Jan 2025.

Baseline expectations are for a sharper economic slowdown and higher inflation this year

U.S. GDP growth is expected to slow from around 3% to below 1% this year, though expectations for slowdown have been repeatedly defied



Core inflation is set to accelerate this year due to tariffs; we forecast 3.0% core PCE inflation

Source: Bloomberg, BEA, as of 4 Jun 2025.

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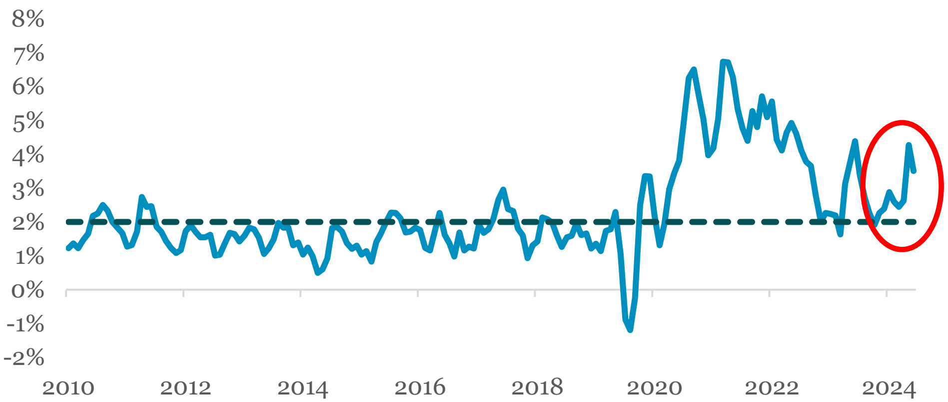
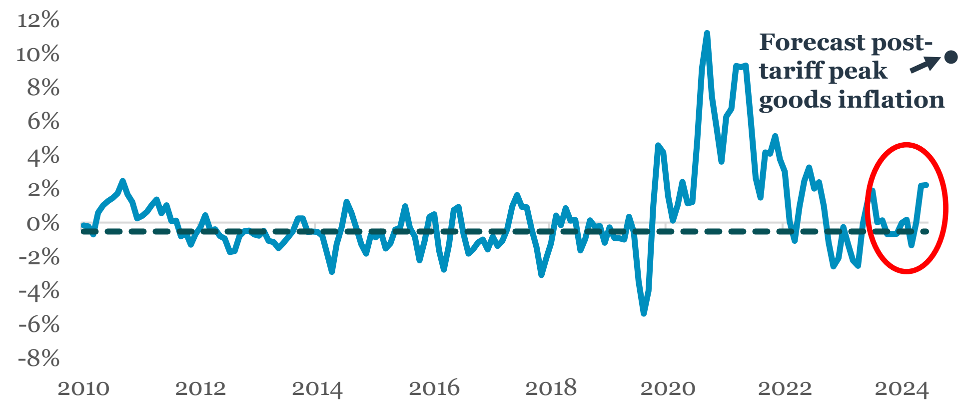
Core inflation has moved higher on a three-month annualized basis, but key metrics have improved

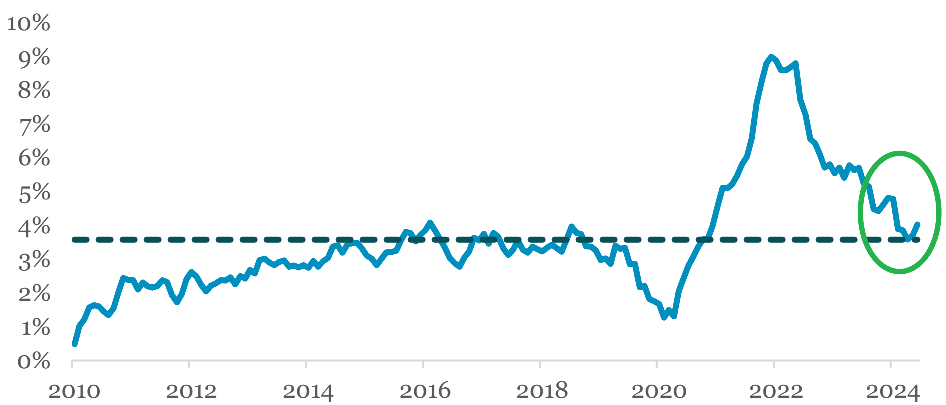
Core inflation has moved higher in early 2025



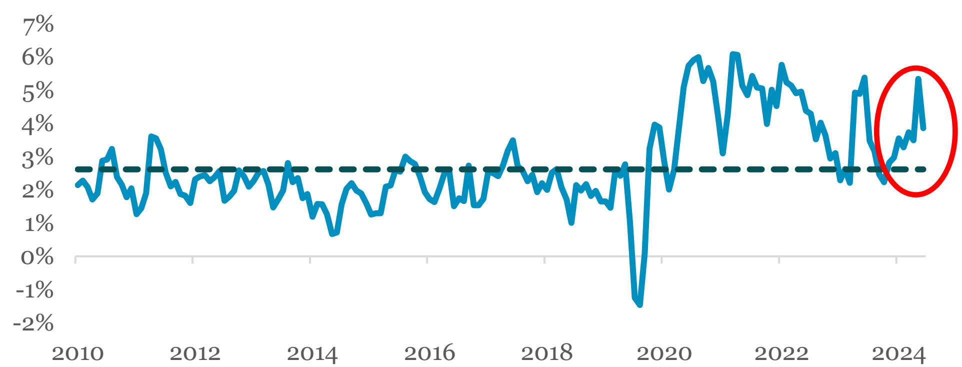
Goods inflation has picked up this year, possibly reflecting front-running activity ahead of tariffs



Housing inflation is back to target over last few months



Other core services have picked up as well



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Sources: Bloomberg, BEA, as of 4 Jun 2025.

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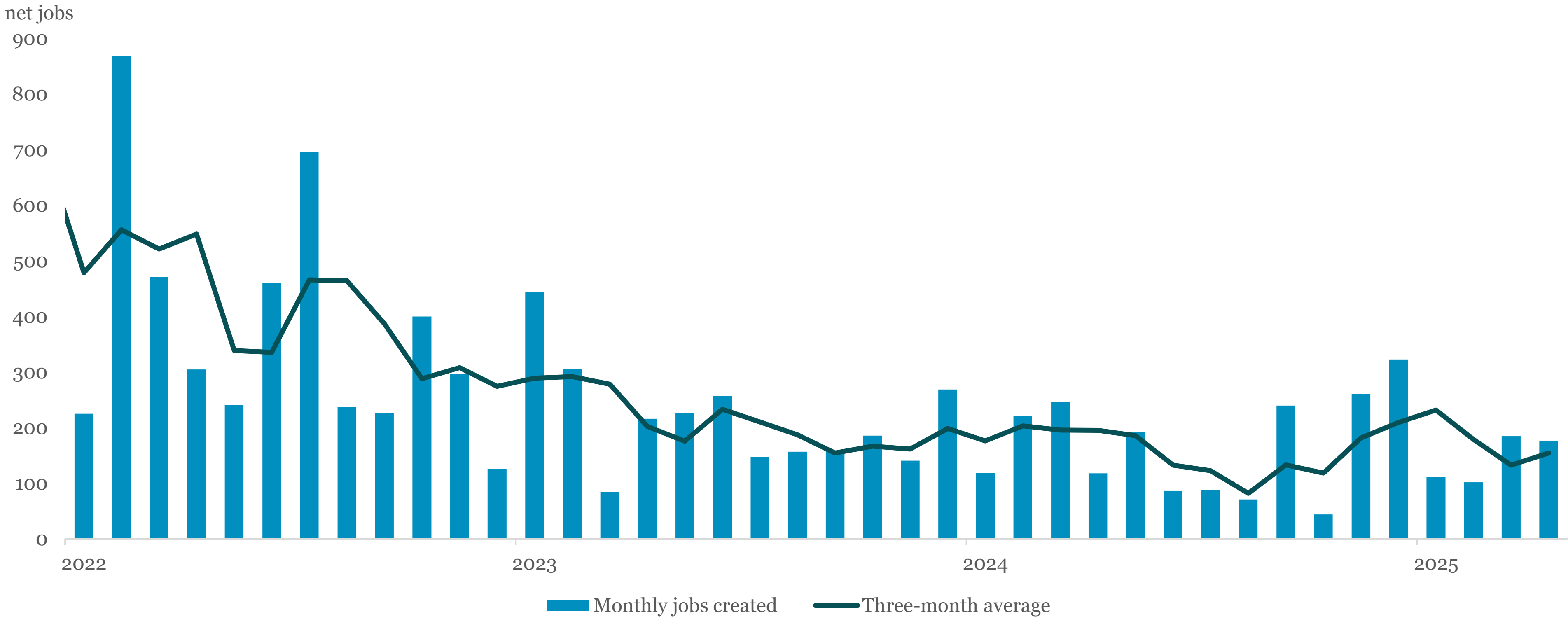
The labor market has cooled and downside risks persist

The US economy added 177,000 jobs in April, roughly in line with the recent trend pace

Three-month average job creation has remained strong in 2025



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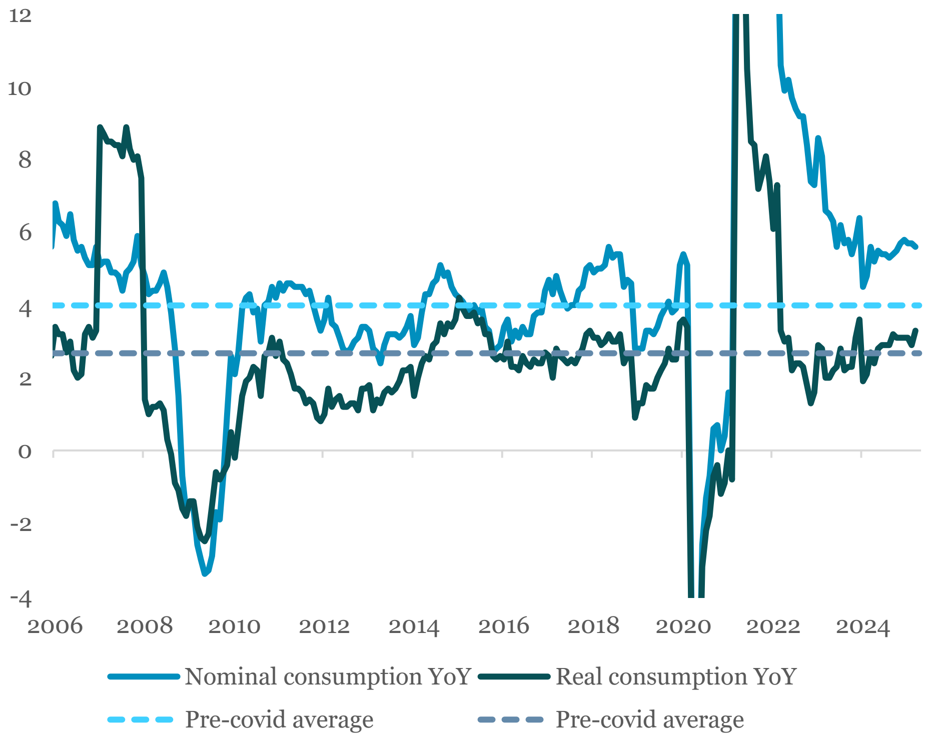
Source: Bloomberg, BLS, as of 4 Jun 2025.

The consumer remains healthy despite elevated uncertainty

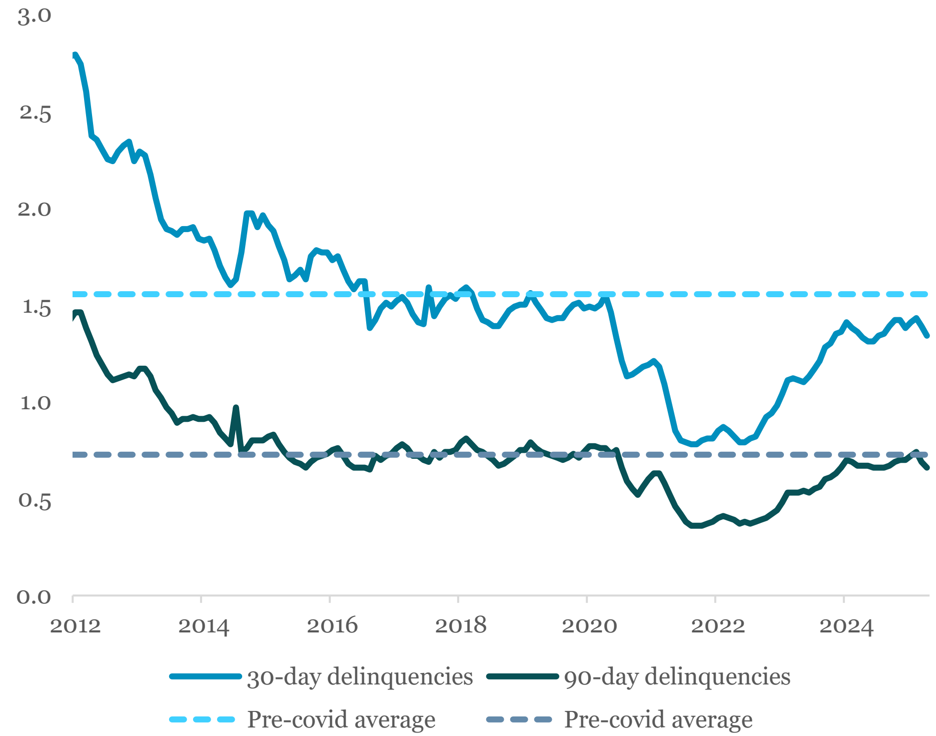
Real consumption growth has moved back above pre-covid averages, at around 3.3% year-on-year

Consumption, both nominal and real, remains strong



Source: Bloomberg, BEA, as of 4 Jun 2025.

Credit card delinquency rates remain lower than pre-covid levels



Source: Bloomberg, NY Fed, as of 4 Jun 2025.

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Larger federal policy shifts are too soon to assess

Tariffs

- **More comprehensive aluminum and steel tariffs** increase capital project and borrowing costs for all issuers. Electric, water and sewer utility sectors in need of capital investment may pass higher construction costs onto customers via rate increases
- **Port volumes** may be pressured. West coast ports considered more vulnerable due to proximity to China
- **Certain U.S. border communities** could be impacted by less commerce. For example, in Laredo, TX, 25% of revenues are derived from charges for services, most of which is bridge toll revenue

Deregulation

- **Deregulation for utilities** may provide longer runway to implement environmentally-mandated capital projects
- **Healthcare M&A** may be easier to execute due to less focus on regulation, which could support smaller, struggling hospitals

Immigration

- **Federal funding at risk** for cities and counties identified as sanctuary jurisdictions. Those governments may see cuts to federal grant funds
- **Potential labor shortfalls** could create inflationary pressures
- **School districts** enrolling undocumented migrant students could see enrollment declines. Large urban districts, like Chicago, may be more vulnerable to losing students and federal K-12 aid cuts

Muni tax exemption

- **Tax-exemption on muni bonds** is not revised in current tax bill. At this time, it doesn't appear that the muni tax exemption would be broadly revised in final legislation
- **The exemption is important to municipals** that help finance local infrastructure
- **No restrictions in private activity bonds** are included in current tax bill. Historically, private activity bond restrictions have been discussed but not enacted (e.g., not-for-profit hospitals and higher education in 2017)

State and Local Tax (SALT)

- **SALT cap deduction increased** in current bill to $40k for individuals earning less than $500k with annual 1% increases through 2033. Deduction cap set at $30k set to expire at year end. High tax states have advocated for increasing the cap to provide tax relief to residents
- **Deduction cap** supports higher federal and state income tax collections. States facing a tougher economic and budget environment next year benefit from compromise that maintains a deduction cap rather than allowing full expiration

Source: Nuveen, 26 Feb 2025.

Evolving federal policy could have implications for certain sectors and credits

State & local governments

- **Cuts to federal agencies** and aid could create service shortfall, leading to budget pressure, depending on circumstances
- **Medicaid reimbursement changes** could produce state budget gaps or coverage reductions
- **Cuts to federal K-12 aid** could pressure school finances
- **FEMA funding changes** may impact disaster-prone states

Education

- **School choice policies** may gain momentum and support charter schools over public K-12
- **Student loan forgiveness** could be rolled back
- **Taxes on private higher education endowments** is included in current tax bill, and impact would vary depending on wealth of the institution
- **National Institutes of Health grant cuts** may impact less-prestigious, research colleges and universities

Transportation

- **Large transportation projects** that benefited from federal infrastructure aid (e.g., airports and public transit) may see less support, potentially increasing issuance or extending timelines
- **Ports are bracing for declines** in shipping volume amid tariff hikes and uncertainty, although ports did experience record cargo volume during first four months of 2025 to get ahead of tariffs
- **Lower demand for air travel** may lead to a reduction in revenues amidst tariff and trade uncertainty

Housing

- **Changes to the GSEs** including Fannie Mae and Freddie Mac could result in the removal of the implicit government guarantee and affect ratings for mortgage-backed securities guaranteed by these entities
- **Potential downgrades** could negatively impact the credit rating of some state housing finance agencies which hold mortgage-backed securities on balance sheets

Water & sewer utilities

- **Relaxed environmental regulations** and enforcement may alleviate near-term cost pressures for utilities
- **Fewer mandated capital upgrades** could benefit balance sheets and keep rates lower. Deferring capital may undermine longer-term credit quality

Health care

- **Medicaid reimbursement** to states will likely be curtailed in some form, including the possibility of further restrictions on the provider tax mechanisms utilized by most states, the addition of work requirements, and other changes which may reduce eligibility.
- **The impact is likely to vary by state**, as Medicaid programs are administered and vary widely by state. It is also possible that changes are delayed into the future

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Source: Nuveen, 26 Feb 2025.

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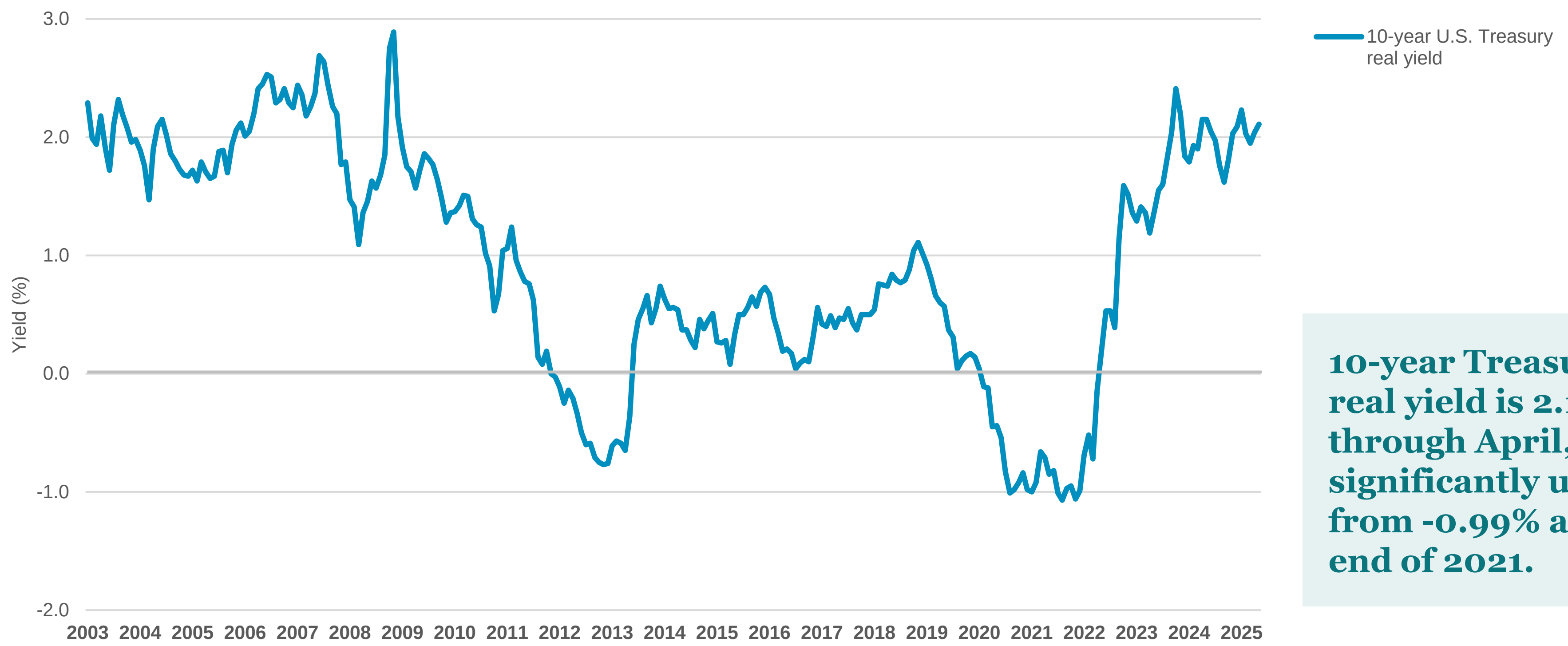
Real yield levels are outpacing inflation

Treasury yield minus inflation remains at levels not seen in nearly two decades.

10-year U.S. Treasury real yield



10-year Treasury real yield is 2.11% through April, significantly up from -0.99% at the end of 2021.

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Data source: FRED, 31 Jan 2003 – 31 May 2025, shown monthly. The real yield is a measure of the stated return on Treasury bonds, minus inflation, as of 31 May 2025.

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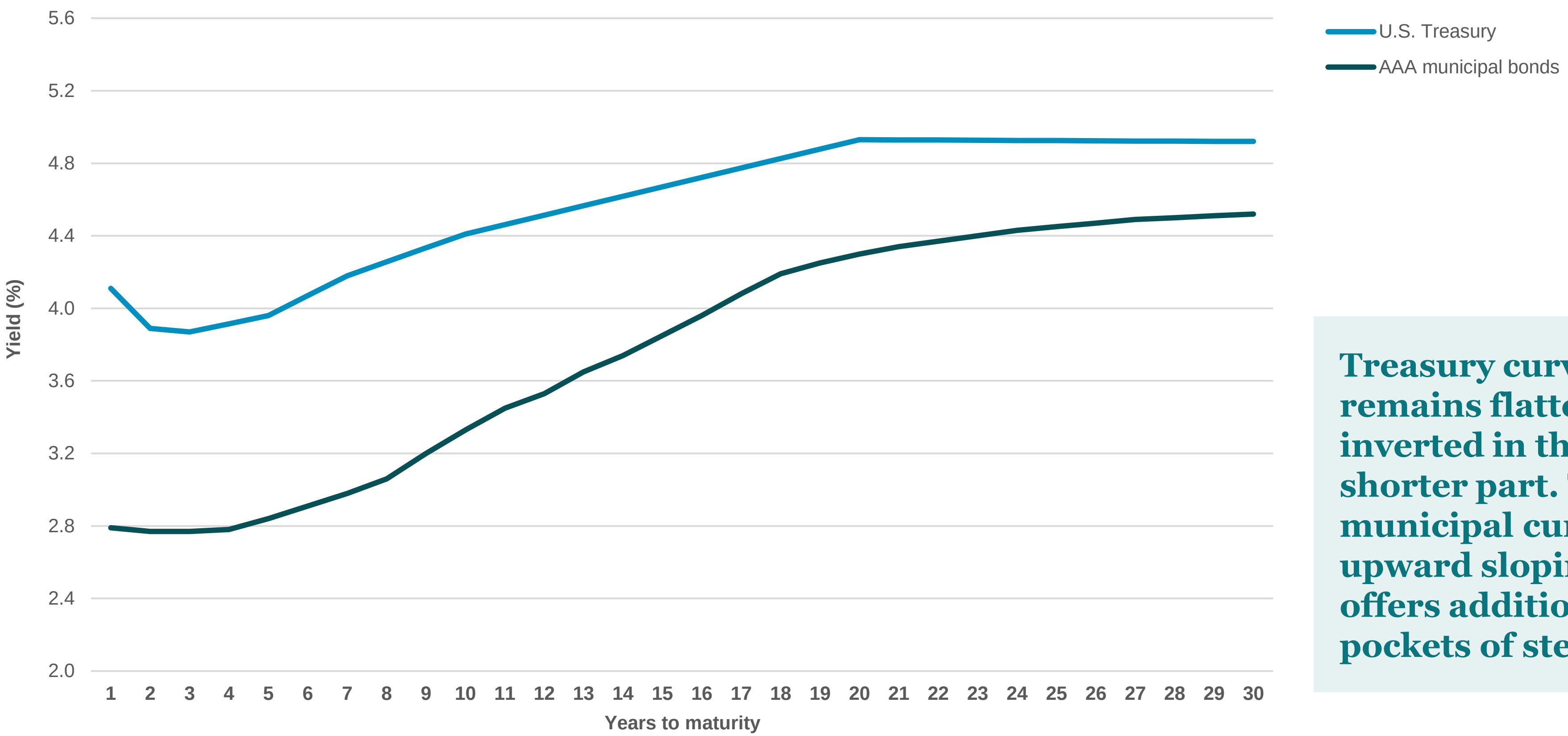
Municipal yield curve has more of a normal shape

U.S. Treasuries vs. AAA-rated G.O. municipal yield curve



Treasury curve remains flatter and inverted in the shorter part. The municipal curve is upward sloping and offers additional pockets of steepness.

Data sources: U.S. Department of the Treasury; Refinitiv MMD, 31 May 2025. **Performance data shown represents past performance and does not predict or guarantee future results.** AAA municipals represented by Municipal Market Data (MMD) scale.

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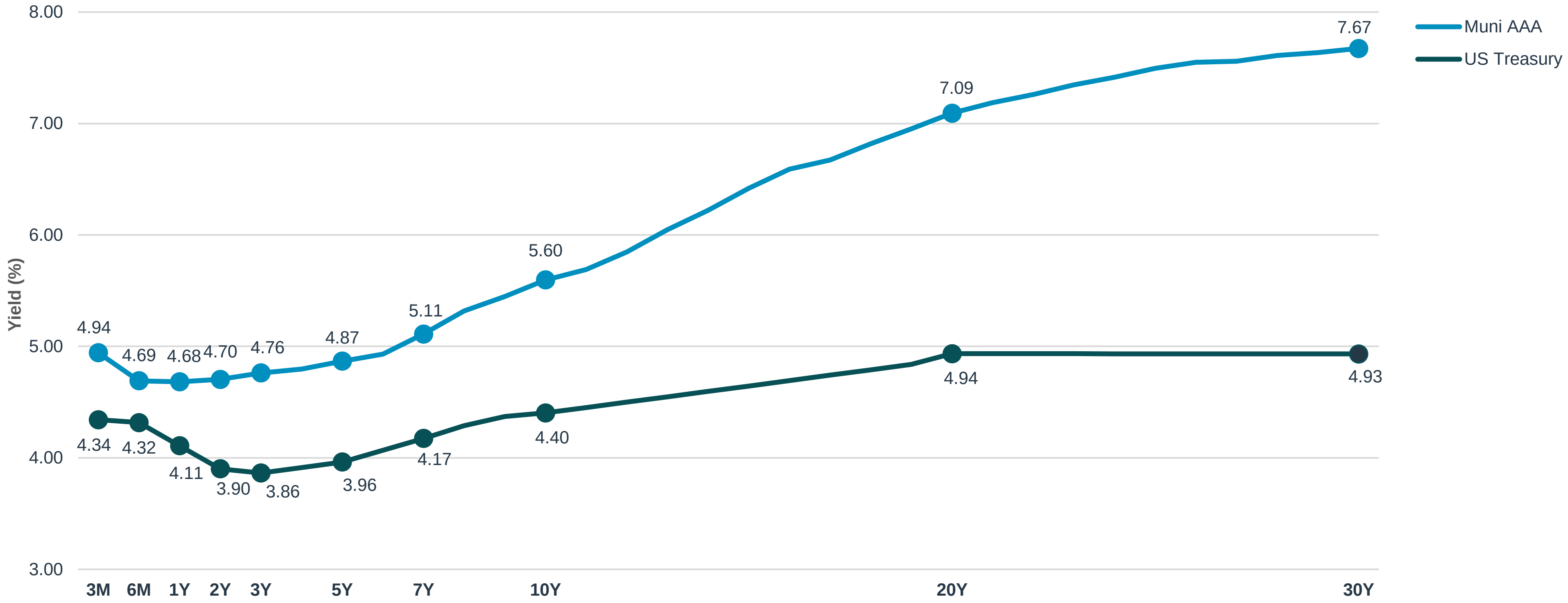
Municipals remain attractive on an after-tax basis

The shape of the municipal curve offers meaningful opportunity to achieve higher tax-efficient yields by extending duration, as the curve has more of an upward slope.

U.S. Treasuries vs. AAA municipal yield curve (taxable equivalent yield)



Data source: Bloomberg; Nuveen Portfolio Strategy & Solutions, as of 31 May 2025. **Taxable-equivalent yield (TEY)** is the yield a taxable investment needs to possess (before taxes) for its yield to be equal to that of a tax-free municipal investment. The yields shown are based on the highest individual marginal federal tax rate of 37%, plus the 3.8% Medicare tax on investment income. Individual tax rates may vary. They do not take into account the effects of the federal alternative minimum tax (AMT) or capital gains taxes.

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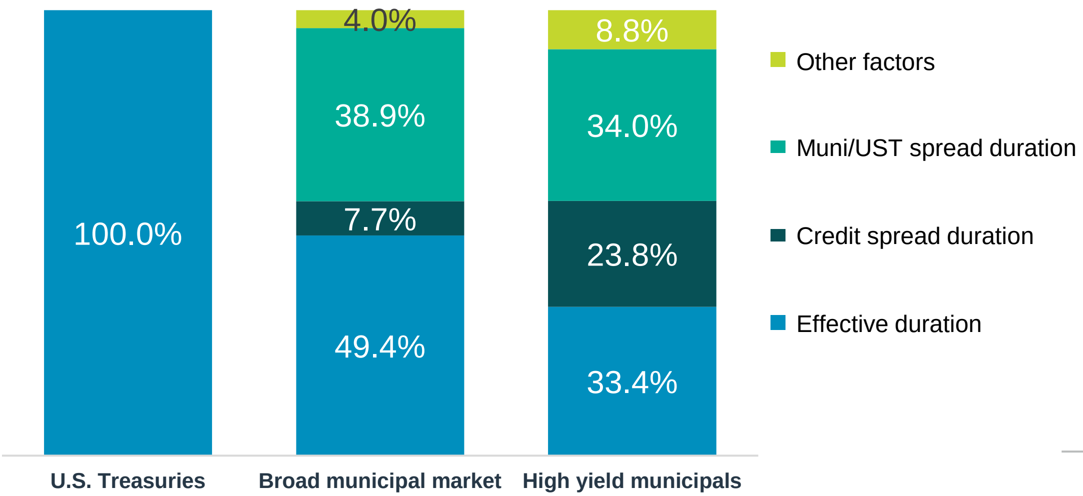
Key factors in municipal bond returns

Municipal bonds react differently to market conditions when compared to U.S. Treasuries, while income drives overall returns.

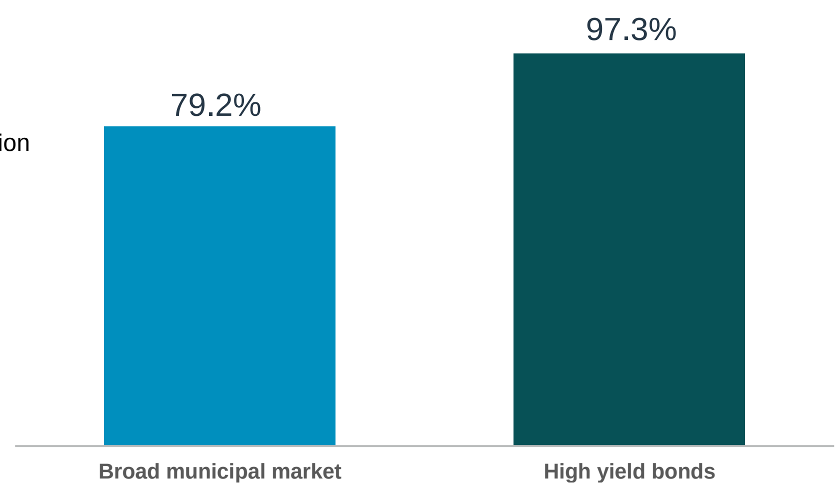
Drivers of risk[1]

Municipal bonds tend to be influenced by duration and spreads, whereas high yield municipals are primarily driven by credit spreads



Income as a portion of total return (%)

Income has dominated total return over time and can help offset any price declines due to rising rates



1 Risk defined as volatility of returns. Data source: Nuveen, monthly returns 30 Jun 2009 – 30 Jun 2024. Broad municipal market defined as S&P Municipal Bond Index, and high yield market defined as S&P Municipal Yield TR Index. It is not possible to invest in an index. Other factors can be attributed to credit selection and individual security selection. **Past performance is no guarantee of future results.**

Data source: Bloomberg, L.P. As of 30 Jun 2024.
Chart shows the percent of annualized total return derived from coupon return (as opposed to price appreciation) since index inception. Investment grade bonds are represented by the S&P Municipal Bond Index, which has an inception date of 01 Jan 1976; returns from 30 Jun 2009 – 30 Jun 2024. High yield bonds are represented by the S&P Municipal Yield Index, which has an inception date of 31 Jan 1993; returns from 30 Jun 2009 – 30 Jun 2024. The index return presented is for illustration purposes only and does not represent or predict performance of any Nuveen product. It is not possible to invest directly in an index. **Performance data shown represents past performance and does not predict or guarantee future results.**

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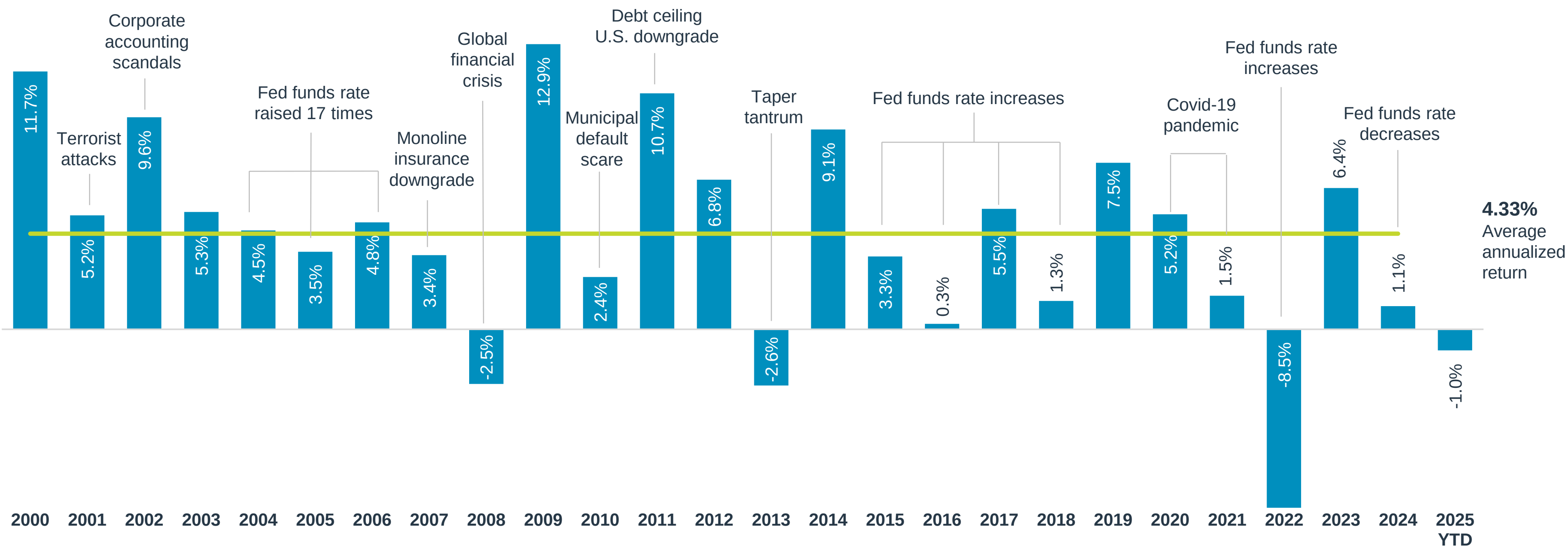
Municipals have had a slow start to 2025, but historically we see resilience in the asset class

Bloomberg Municipal Bond Index Returns (%)



2025 YTD index performance has returned -0.96% through May.

Data source: Bloomberg, L.P., 31 May 2025. The average annualized return shown is for the period 01 Jan 2000 – 31 Dec 2024. **Performance data shown represents past performance and does not predict or guarantee future results.** All investments carry a certain degree of risk, including possible loss of principal, and there is no assurance that an investment will provide positive performance over any period of time. Index returns include reinvestment of income and do not reflect investment professional and other fees that would reduce performance in an actual client account.

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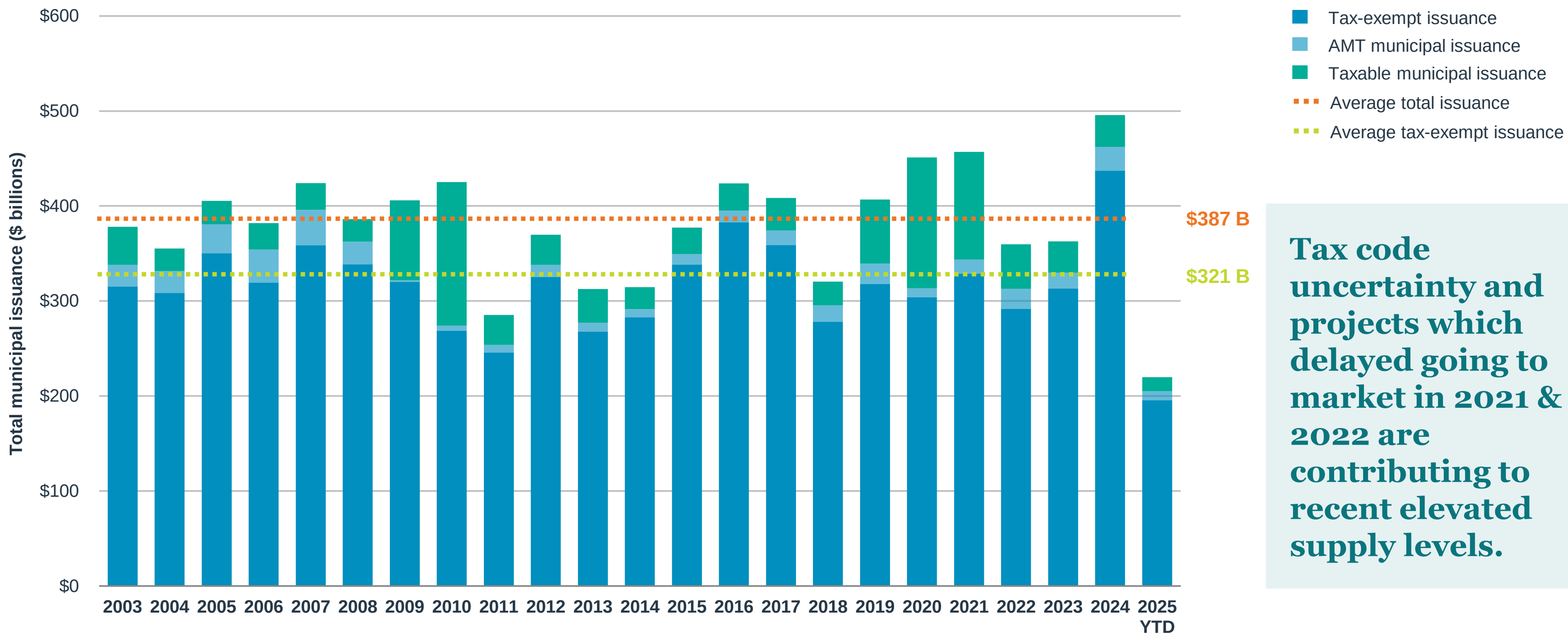
Tax-exempt issuance begins 2025 at elevated levels

Overall issuance through May was 16.1% higher than 2024 levels, placing pressure on performance.

Municipal issuance



Tax code uncertainty and projects which delayed going to market in 2021 & 2022 are contributing to recent elevated supply levels.

Data source: Securities Industry and Financial Markets Association (SIFMA.org), *U.S. Bond Market Issuance and Outstanding*, 03 Jun 2025 for period ending 31 May 2025. The average total issuance and average tax-exempt issuance shown are for the period 01 Jan 2003 – 31 Dec 2024. AMT municipal issuance is part of the tax-exempt municipal market.

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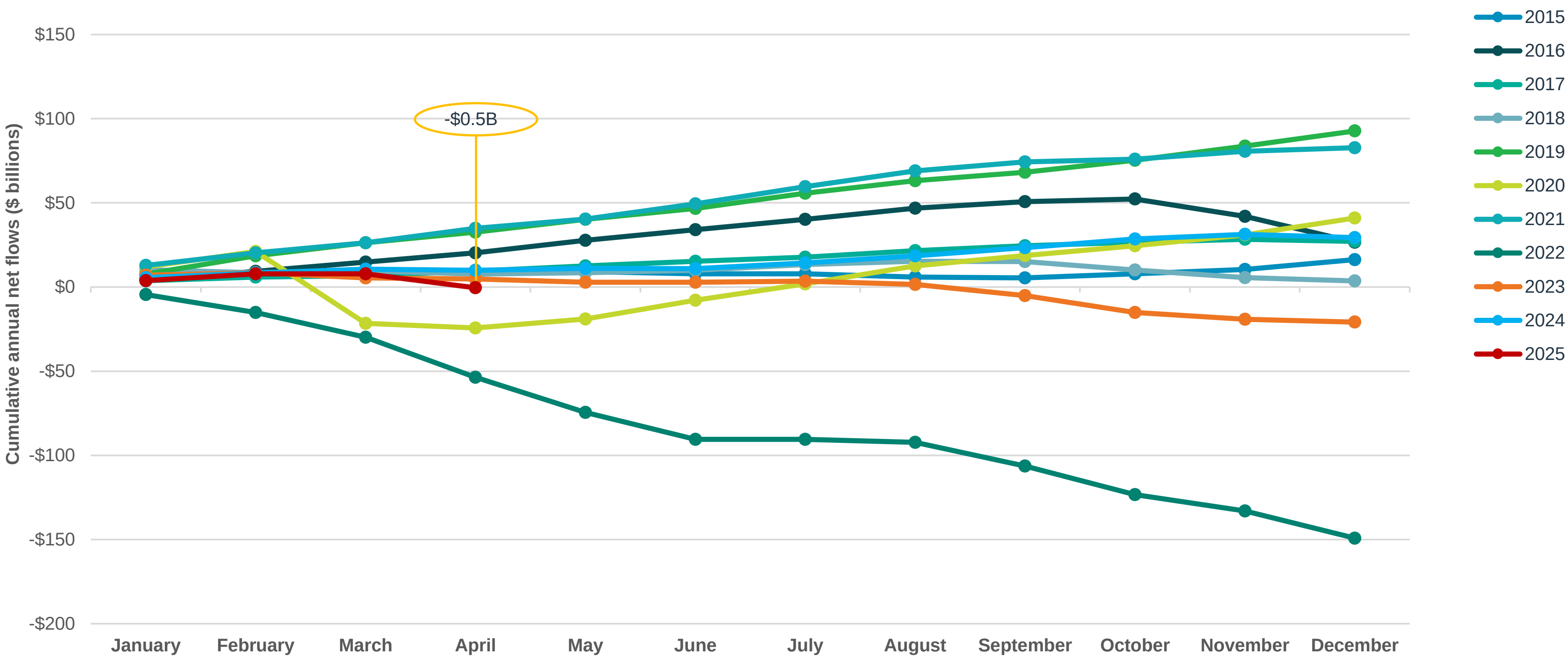
Fund flows were upset by policy uncertainty amidst the tariff news

Municipal open-end fund net inflows were -$445 million through April 2025.

Annual municipal bond fund flows by month

2015 – 2025 YTD



Data source: Morningstar Direct, 01 Jan 2015 – 30 Apr 2025, cumulative flows for each calendar year, shown monthly. Net flows represent the total of all municipal bond open-end funds.

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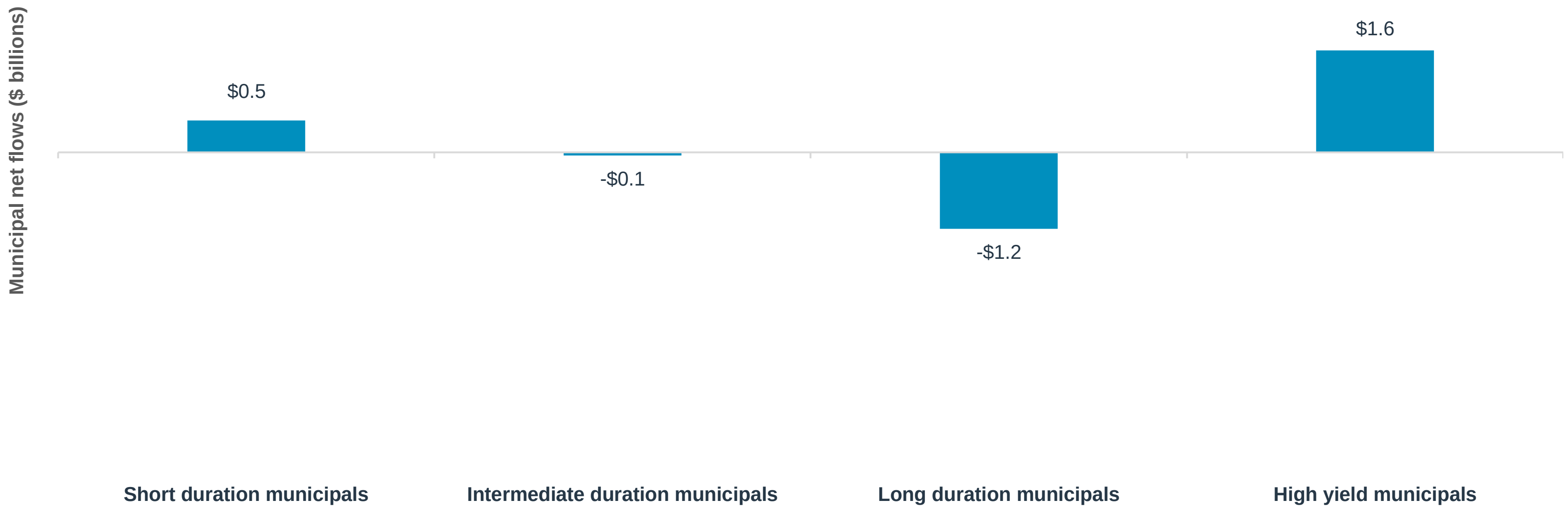
Investor flows felt pressure in April, but continue to favor credit risk

Fund flows favor high yield municipals due to a strong credit fundamental backdrop.

2025 YTD inflow or outflow by municipal bond category



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Data source: Morningstar Direct, 01 Jan 2025 – 30 Apr 2025. Net flows represent the total of all municipal bond open-end funds. **Respective Morningstar categories: Short duration municipals:** Muni National Short**; Intermediate duration municipals:** Muni National Interm**; Long duration municipals:** Muni National Long**; High yield municipals:** High Yield Muni.

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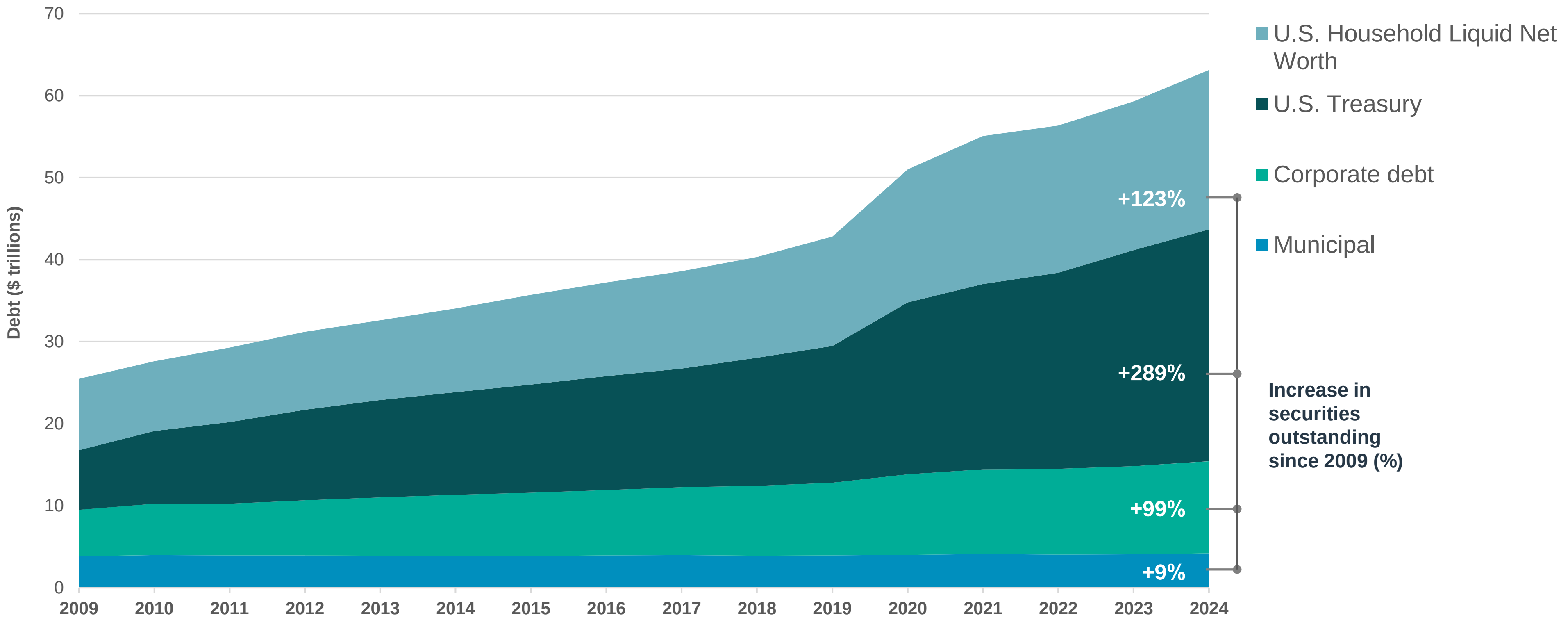
Municipal securities outstanding are not growing as quickly as other fixed income markets

The municipal market has experienced slower growth than other markets, and U.S. household wealth has grown over time, supporting demand for the asset class.



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Data sources: SIFMA, Bloomberg, Federal Reserve, U.S. Treasury, 31 Mar 2025 for period ending 31 Dec 2024.

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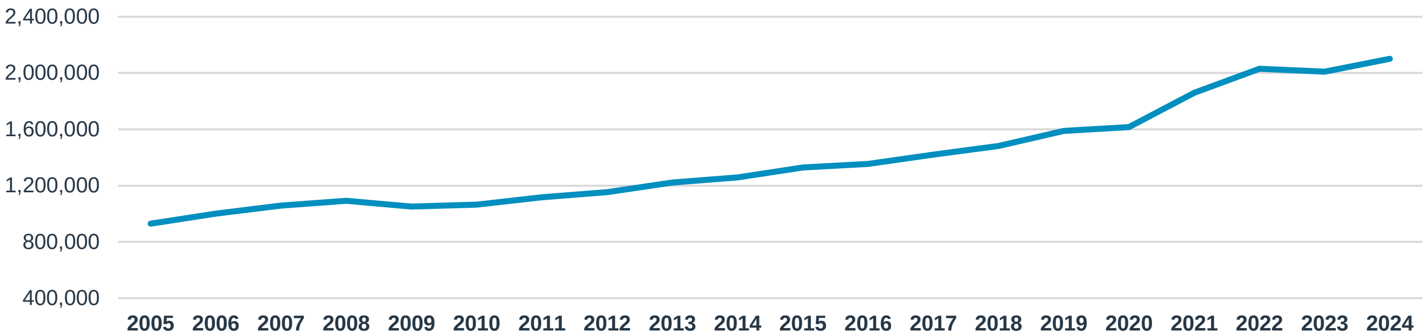
Municipalities are in a strong financial position

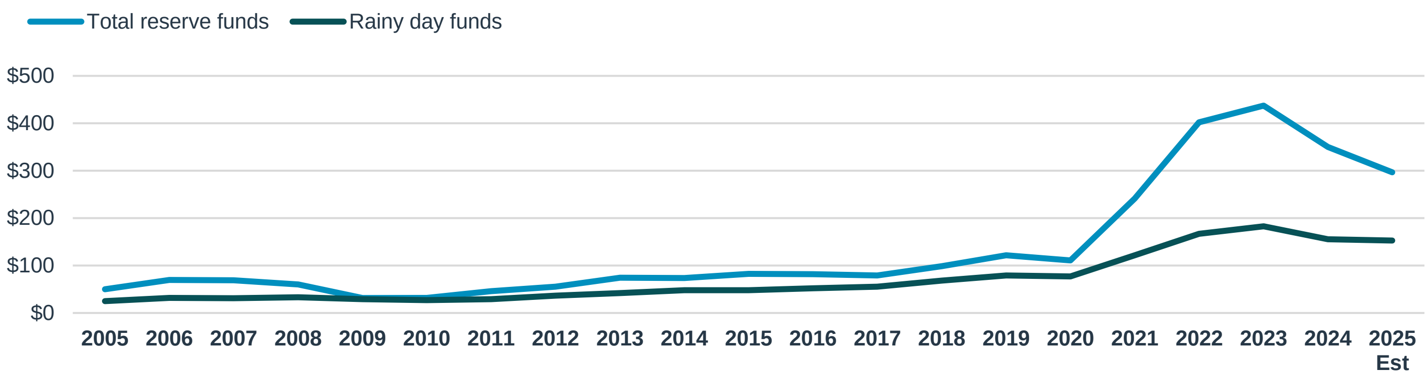
Revenue collections and reserves are near the highest levels in more than 40 years.

State & local government tax revenue collections ($ millions)[1]



Total tax collections increased modestly in 2024.

State government funds ($ billions)[2]



While excess reserves are being spent down, reserves remain near all-time-high levels.

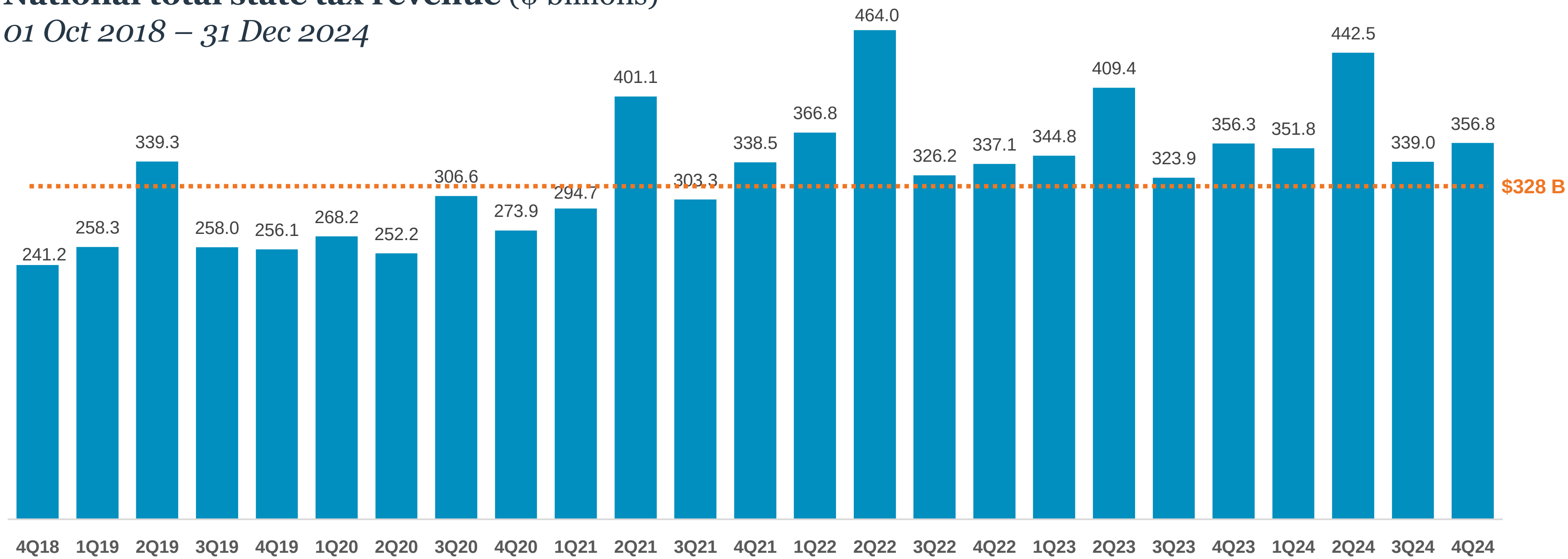
1 Data source: census.gov, 31 Dec 2024; updated annually.

2 Data sources: National Association of State Budget Officers (NASBO), *The Fiscal Survey of States*, Spring 2022. Pew Charitable Trust, *States Build Their Reserves Amid Growing Uncertainties*, 31 Jan 2025.

Post-pandemic revenue growth collection remains strong

Credit research can be an important driver of investment success, despite expectation of near-term fiscal stability.

National total state tax revenue ($ billions)
01 Oct 2018 – 31 Dec 2024



Average tax collections have remained strong, averaging $328 billion per quarter from 4Q18 to 4Q24.

Data source: Nuveen; census.gov, as of 31 Mar 2025, with data as of 31 Dec 2024.

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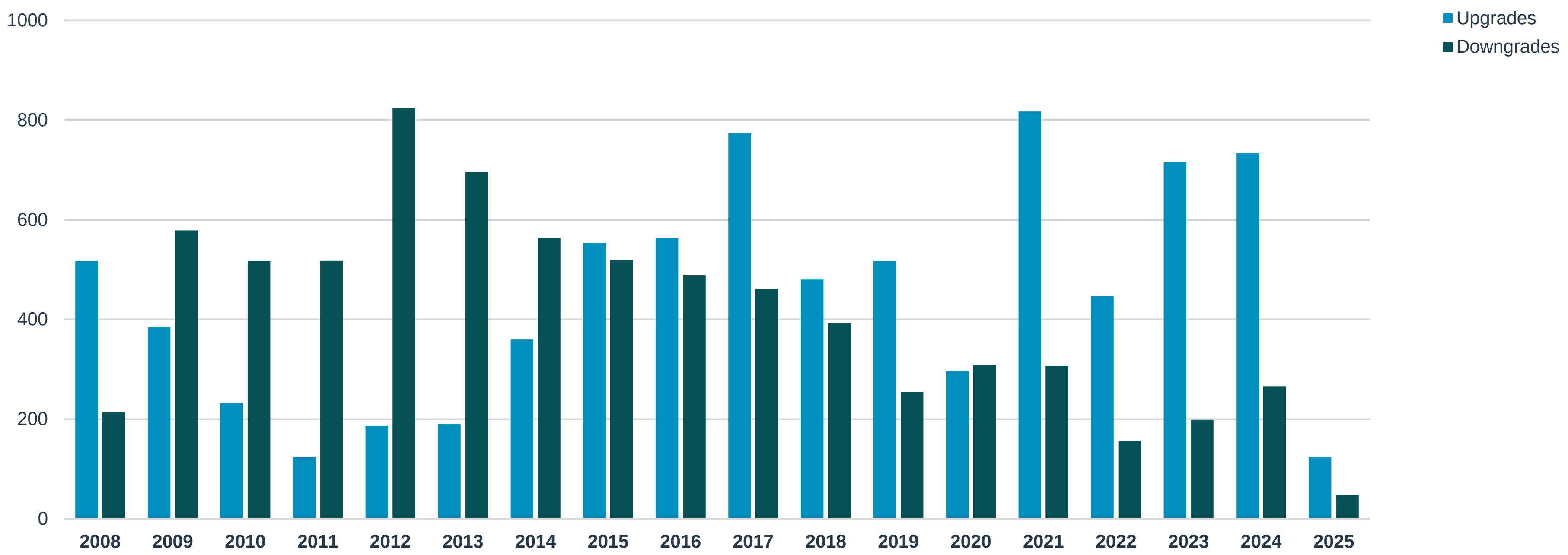
Rating upgrades have continued to exceed downgrades in recent history

Upgrades outpaced downgrades by nearly 2.75:1 in the first quarter of 2025.

Number of rating changes for public finance



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Data sources: Moody's Ratings, *Quarterly and Annual Municipal Rating Revisions*, 15 May 2025, data as of 31 Mar 2025; most recent data available.

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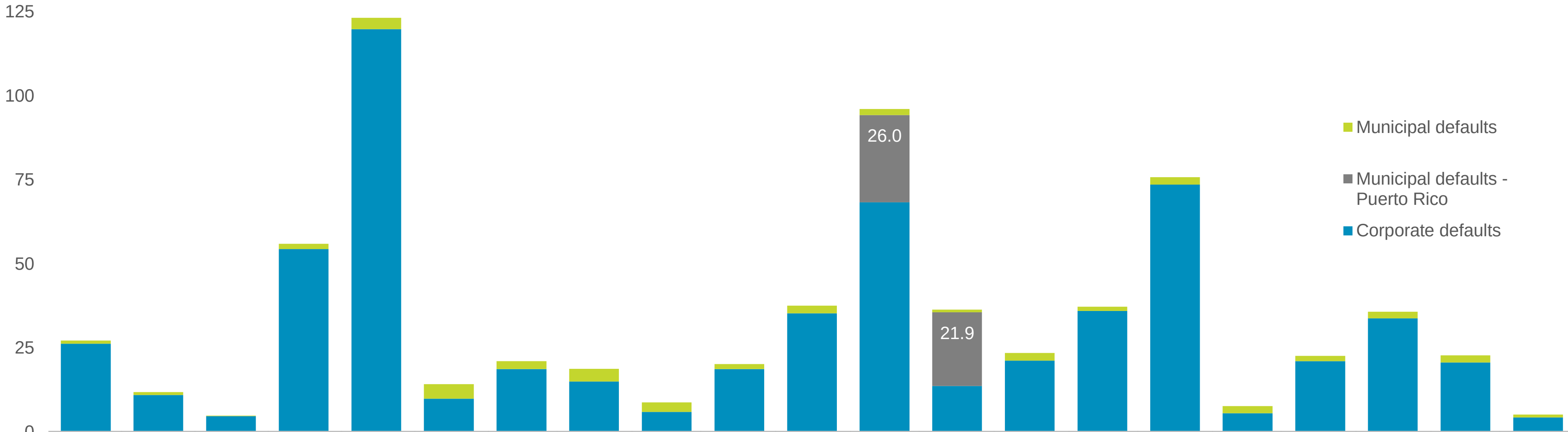
Defaults remain in line with historical trends

Municipal and corporate payment defaults ($ billions)



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 YTD
	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	1.6	2.0	2.1	0.9
	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	21.1	33.8	20.7	4.3

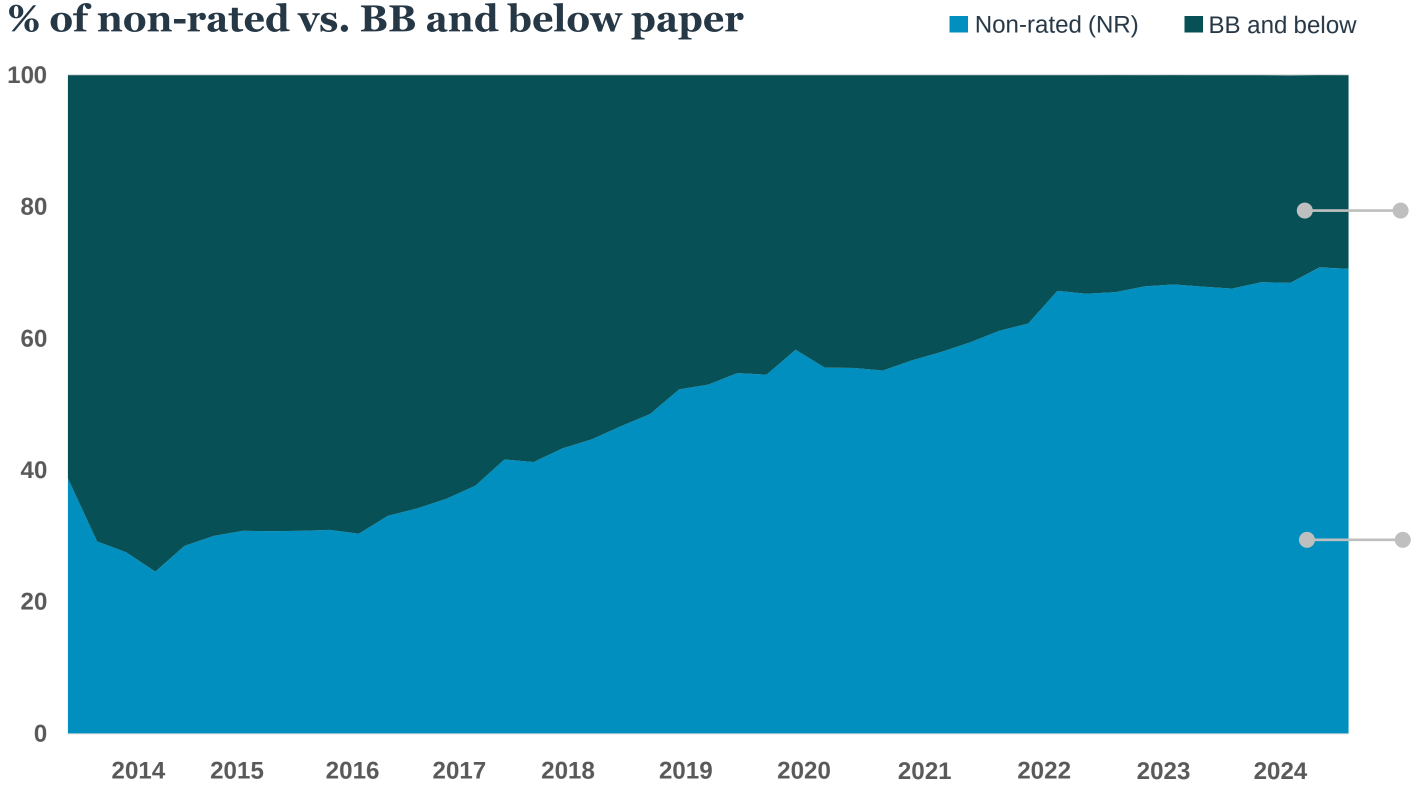
Municipal defaults through 31 May 2025 were primarily concentrated in hospitals (44%), industrial development (26%), and nursing homes (15%).

Data sources: Bank of America/Merrill Lynch Research, 06 Jun 2025, municipal default data as of 31 May 2025. Bank of America/Merrill Lynch Research HY Credit Chart book, corporate default data as of 31 May 2025. 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; $26.0B (2016) and $21.9B (2017).

High yield market increasingly moving toward non-rated bonds

Fundamental credit research at the sector and issuer level guides our selective participation in deals that can help drive performance.

% of non-rated vs. BB and below paper



The rated portion of the high yield market features more fallen angels and now represents a smaller percentage of the market.

The NR space consists of infrastructure projects and has grown over the last 10 years.

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Data source: Bloomberg, 01 Jan 2014 – 31 Dec 2024. Represented by the Bloomberg Municipal Bond High Yield Index.

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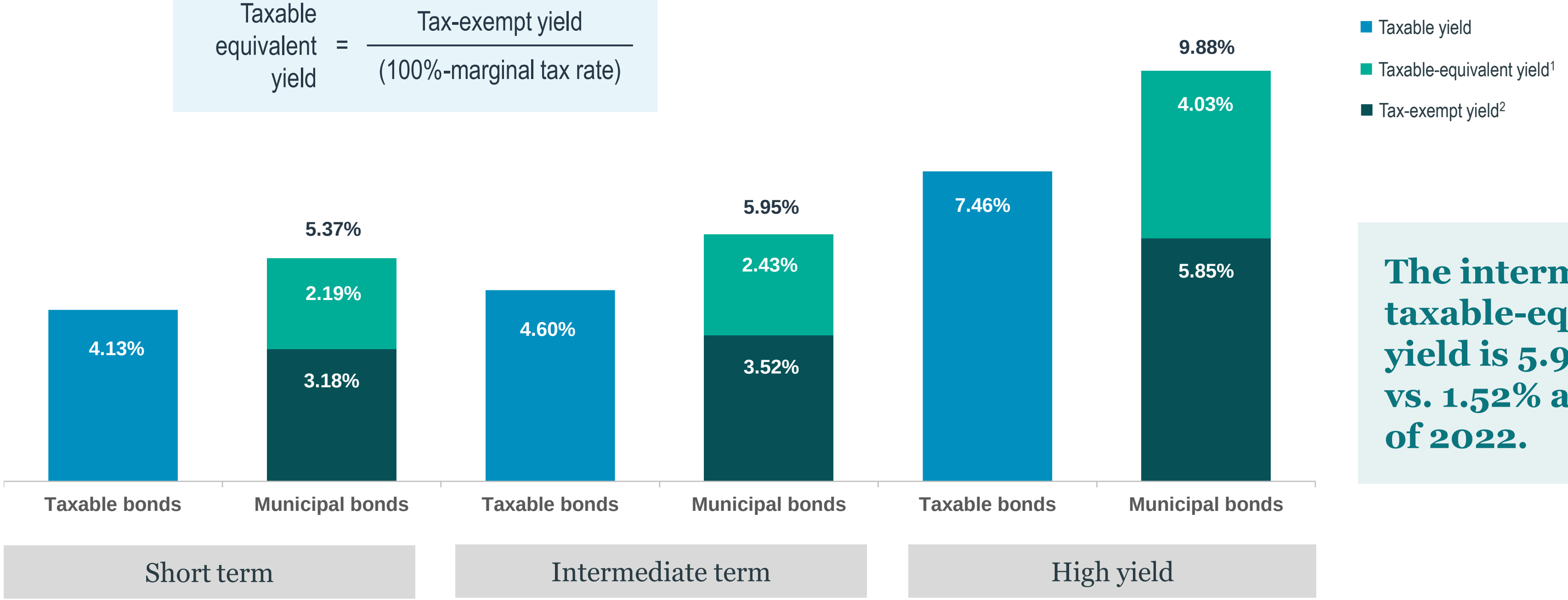
Municipals are attractive on an after-tax basis

Yield comparison

$$\text{Taxable equivalent yield} = \frac{\text{Tax-exempt yield}}{(100\%\text{-marginal tax rate})}$$



The intermediate taxable-equivalent yield is 5.95% today vs. 1.52% at the start of 2022.

1 The taxable-equivalent yield is based on the highest individual marginal federal tax rate of 37.0%, plus the 3.8% Medicare tax on investment income (the Net Investment Income Tax). Individual tax rates may vary.

2 Some income may be subject to state and local taxes and the federal alternative minimum tax.

Data source: Bloomberg L.P., 31 May 2025. **Performance data shown represents past performance and does not predict or guarantee future results.** Yields are yield to worst. **Yield to worst** is the lowest potential yield that can be received on a bond without the issuer defaulting. **Taxable-equivalent yield** is the yield a taxable investment needs to possess (before taxes) for its yield to be equal to that of a tax-free municipal investment. The yields shown are based on the highest individual marginal federal tax rate of 37%, plus the 3.8% Medicare tax on investment income. Individual tax rates may vary. They do not take into account the effects of the federal alternative minimum tax (AMT) or capital gains taxes. **Representative indexes: Short term taxable bonds:** Bloomberg U.S. Government/Credit 1-5 Year Index; **Short term municipal bonds:** Bloomberg Municipal Short Index; **Intermediate term taxable bonds:** Bloomberg U.S. Government/Credit 5-10 Year Index; **Intermediate term municipal bonds:** Bloomberg Municipal Intermediate Index; **High yield taxable bonds:** Bloomberg Corporate High Yield 2% Issuer Capped Index; **High yield municipal bonds:** Bloomberg High Yield Municipal Bond Index. Different benchmarks, economic periods, methodologies and market conditions will produce different results.

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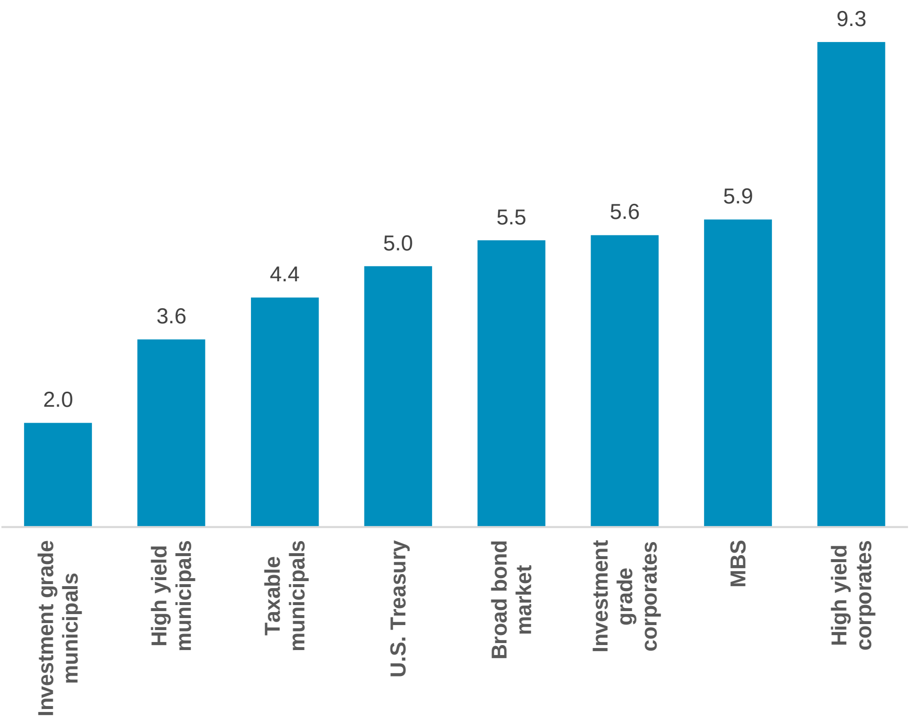
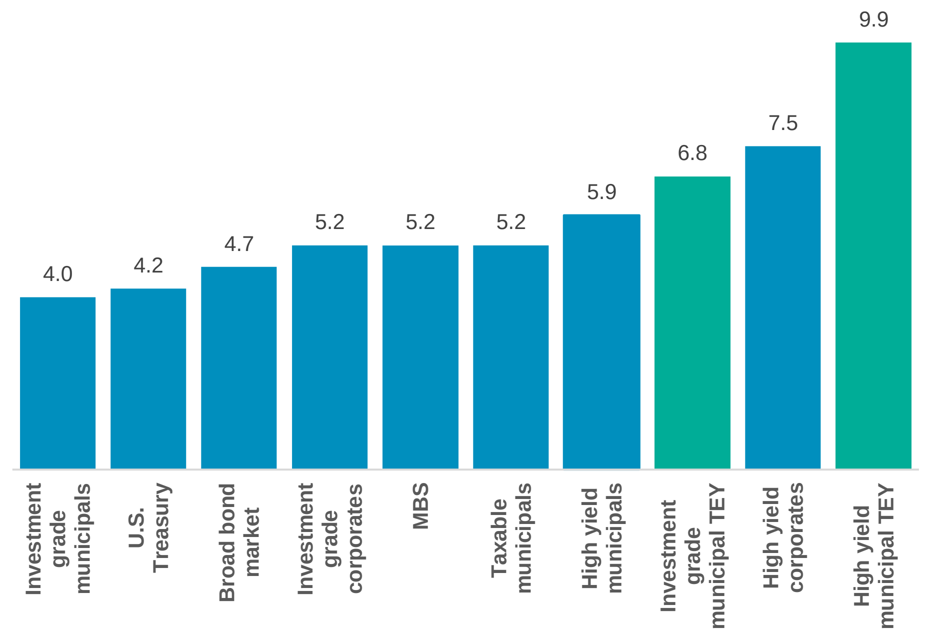
Fixed income sector performance is mixed, and investment grade municipals can show resilience

While recent municipal performance has been lagging, yield levels remain attractive.

Trailing 12 month returns (%)



Yield to worst (%)



Data source: Bloomberg, L.P., trailing 12 month returns from 31 May 2024 – 31 May 2025; yield to worst as of 31 May 2025. **Performance data shown represents past performance and does not predict or guarantee future results.** Yields are yield to worst. **Yield to worst** is the lowest potential yield that can be received on a bond without the issuer defaulting. **Representative indexes: Broad bond market:** Bloomberg U.S. Aggregate Bond Index. **High yield corporates:** Bloomberg U.S. Corporate High Yield Index; **High yield municipals:** Bloomberg High Yield Municipal Bond Index; **Investment grade corporates:** Bloomberg U.S. Corporate Investment Grade Index; **Investment grade municipals:** Bloomberg Municipal Bond Index; **Mortgage-backed securities (MBS):** Bloomberg MBS (fixed rate) Index; **Taxable municipals:** Bloomberg Taxable Municipal Bond Index; **U.S. Treasury:** Bloomberg U.S. Treasury Index; 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.

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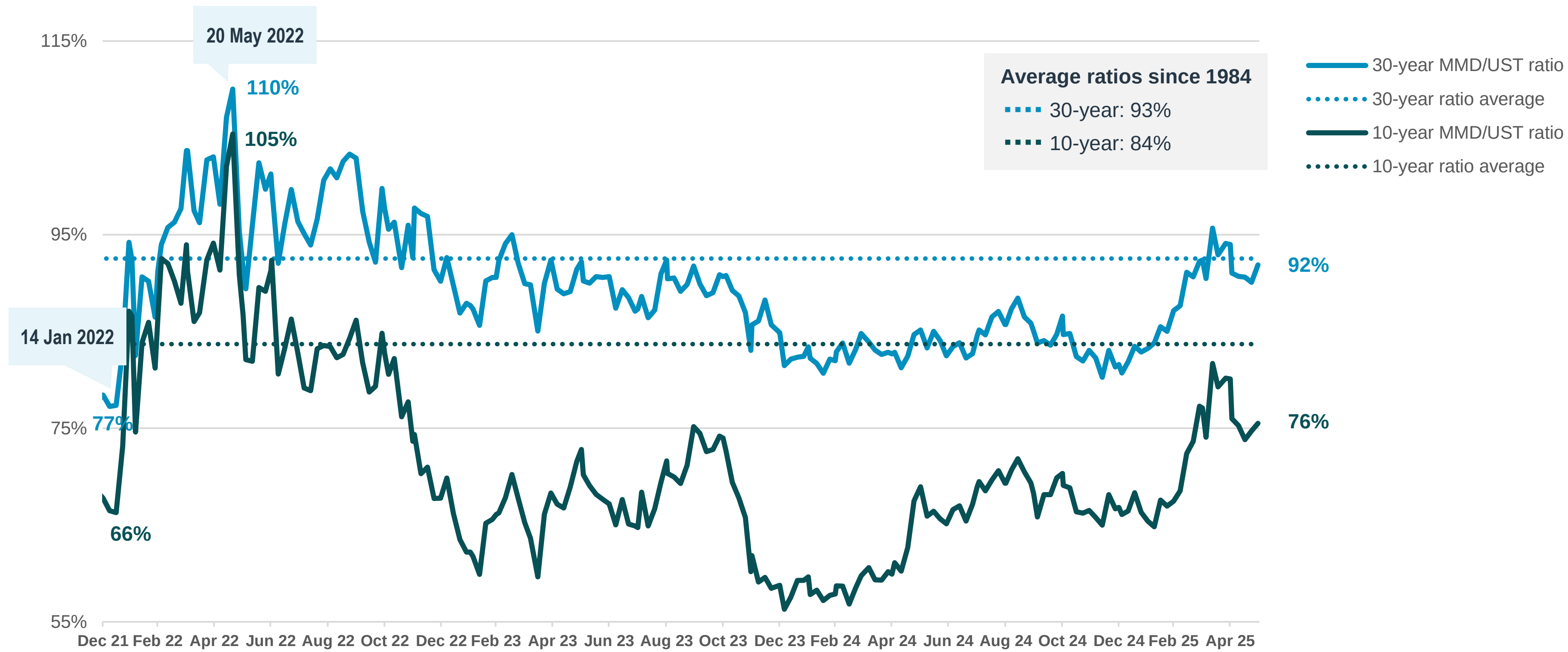
Absolute yield levels are attractive, and technical conditions are growing more favorable

Municipal-to-Treasury ratios: AAA municipal bonds value relative to Treasuries



Data source: Refinitiv MMD for fair value Municipal 10- and 30-Year Index AAA General Obligation bonds; Bloomberg for 10- and 30-year U.S. Treasury yields, shown weekly, 31 Dec 2021 – 31 May 2025, averages shown from 01 Jan 1984 – 31 May 2025. **Performance data shown represents past performance and does not predict or guarantee future results.** Municipal-to-Treasury ratio represents the value of AAA municipal yields relative to U.S. Treasury yields.

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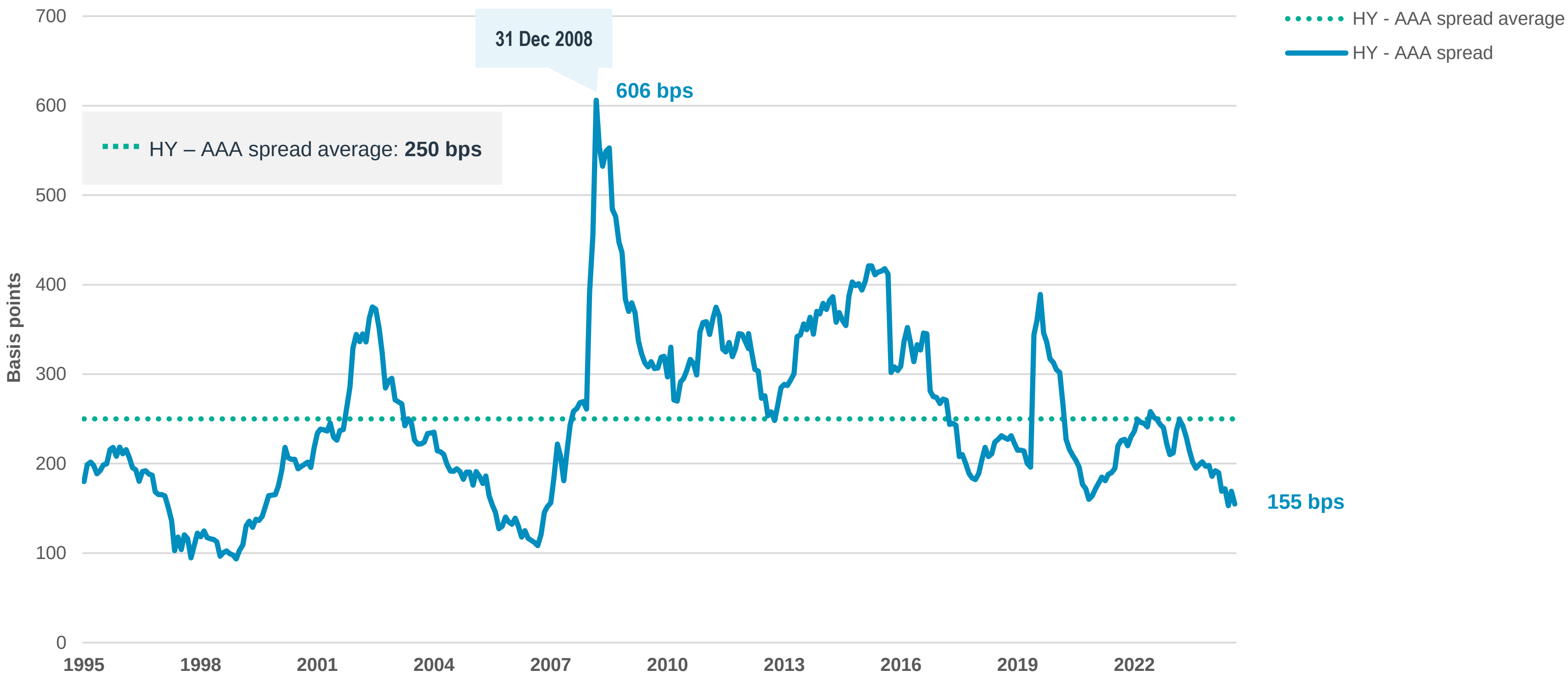
High yield credit spreads are below historical averages as flows continue to return

Bloomberg High Yield Municipal Index versus AAA yields



Data source: Bloomberg, Refinitiv MMD, 31 Oct 1995 – 31 May 2025, shown monthly. Chart shows data to the earliest period available. **Performance data shown represents past performance and does not predict or guarantee future results.** High yield municipal yields represented by the Bloomberg High Yield Municipal Index; AAA municipal yields represented by Municipal Market Data (MMD) yields for AAA rated 20-year bonds. High yield or lower-rated bonds and municipal bonds carry greater credit risk, and are subject to greater price volatility. Ratings shown are from S&P and are subject to change. AAA,AA,A, and BBB are investment grade ratings; BB,B, CCC/CC/C and D are below-investment grade ratings. Different benchmarks, economic periods, methodologies and market conditions will produce different results.

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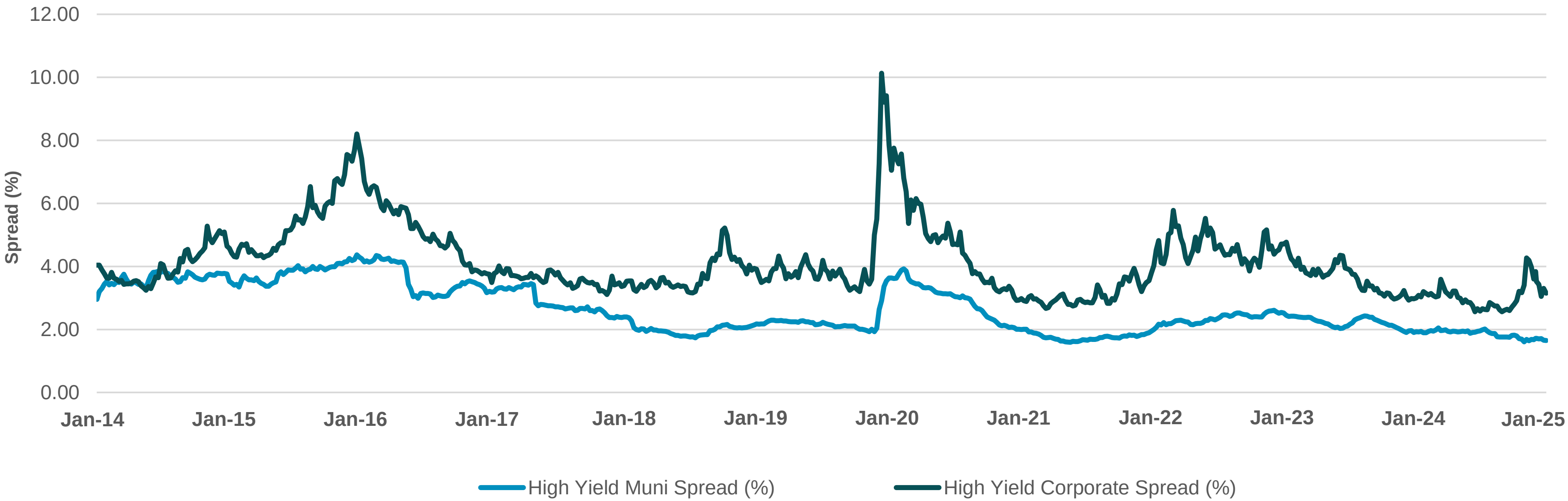
High yield municipal bond spreads have remained relatively stable over time

High yield municipal spreads are stable, even during equity selloffs



We favor fixed income sectors such as high yield municipals that could withstand an equity drawdown while rewarding investors with attractive income.

Data source: Bloomberg, L.P., 01 Jan 2014 – 31 May 2025. **Performance data shown represents past performance and does not predict or guarantee future results. Representative indexes: high yield municipal spread:** Bloomberg Municipal High Yield Index yield-to-worst minus BVAL AAA Municipal 20-year tenor; **high yield corporate spread:** Bloomberg U.S. Corporate High Yield Option Adjusted Spread Index. Shaded areas represent S&P 500 Total Return drawdown periods of 10% or greater. Yield-to-worst is the lowest potential yield that can be received on a bond without the issuer actually defaulting.

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Outlook

Opportunities

- Interest rate volatility and elevated yields offer opportunity across various municipal strategies.
- Higher-for-longer yields are providing meaningful taxable-equivalent yields.
- Valuations have returned in favor of municipal investors, creating opportunity.
- The shape of the yield curve is positively sloped, providing strong opportunity in the intermediate area.
- Municipal credit remains strong, with resilient revenue collections and ample levels of reserve funds.
- Credit selection and a willingness to own duration could help support performance.

Challenges

- Expected 2025 overall supply near $500B could create volatility as supply is absorbed.
- Demand for owning municipals felt pressure amidst the tariff announcement and policy uncertainty.
- Spend down of remaining Covid aid will shrink excess municipal reserves from all-time high levels.
- Policy impacts regarding fiscal deficits, tariffs, deregulation and immigration, combined with timing and magnitude of rate cuts, could cause yield volatility.
- A slower pace of Fed rate cuts may keep cash on the sidelines as short-term rates remain attractive.
- Lower dealer inventories post-pandemic can add to volatility when liquidity is strained in the market.

Source: Nuveen as of 31 May 2025. Certain statements may be deemed forward-looking statements. Please note that any such statements are not guarantees or intended to constitute a prediction of any future performance; actual results or developments may differ materially from those projected. Investing involves risk, including possible loss of principal. This information should not be relied upon as investment advice or recommendations. For additional information, please refer to Risks and Important Disclosures provided at the end of this presentation.

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Taxable municipal market

Fundamentals and technical strength continue to be a tailwind

Characteristics and performance

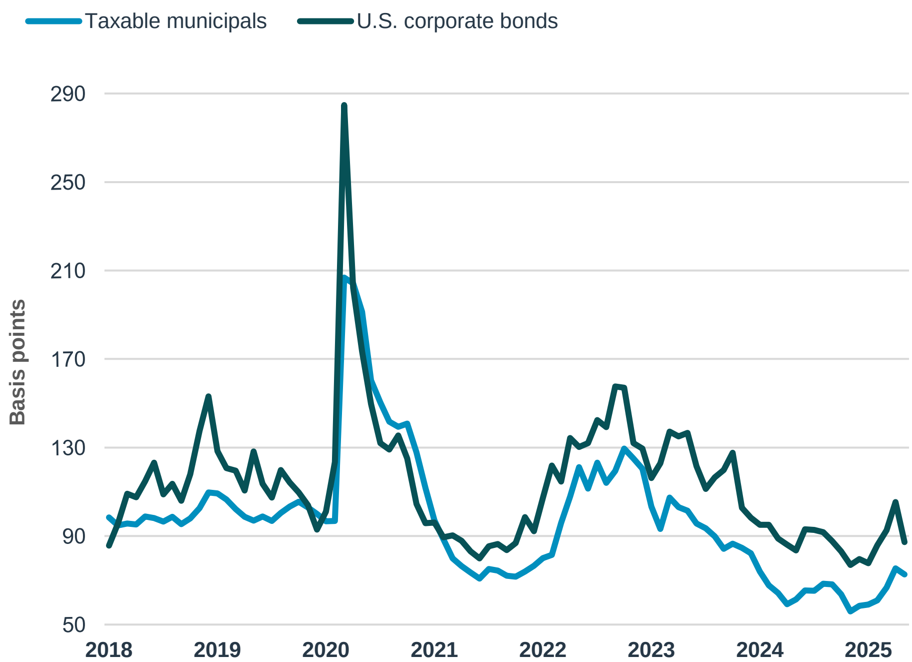
Index	Yield to worst (%)	Spread (bps)	Effective duration (years)	Returns (%) May 2025	Returns (%) 1Q 2025	Returns (%) 2024
Taxable municipal (AA-)	5.20	73	7.47	-1.23	2.99	1.57
U.S. asset-backed securities (AA+)	4.62	58	2.52	0.02	1.53	5.02
U.S. mortgage-backed securities (AA+)	5.15	41	6.09	-0.91	3.06	1.20
U.S. corporate investment grade (BBB+)	5.21	87	6.69	-0.01	2.31	2.13
U.S. aggregate bond (AA)	4.71	34	5.98	-0.72	2.78	1.25
U.S. Treasury (AAA)	4.19	-1	5.71	-1.03	2.92	0.58
Global corporate bonds (BBB+)	4.59	93	5.77	0.18	2.84	1.10
Global aggregate (unhedged) (A+)	3.56	33	6.44	-0.36	2.64	-1.69

Data sources: Bloomberg, L.P., Bloomberg indexes, as of 31 May 2025. **Performance data shown represents past performance and does not predict or guarantee future results.** Total returns for a period of less than one year are cumulative.

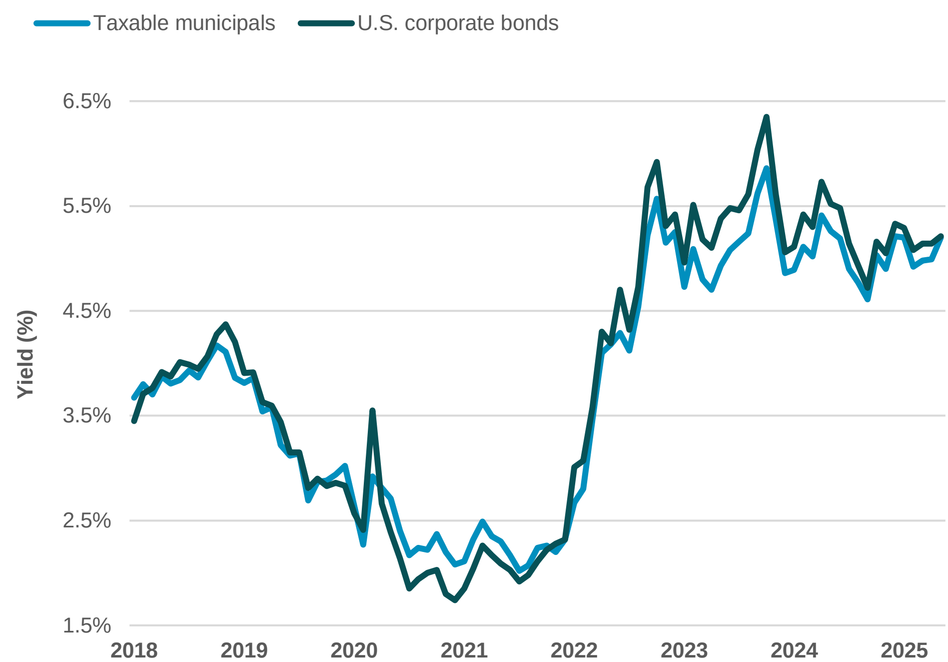
Taxable municipals can have higher credit quality than corporates but similar spreads and yields

Taxable municipals have historically been more defensive during economic downturns.

Credit spreads



Yield



Data source: Bloomberg, L.P., 31 Jan 2018 – 31 May 2025, shown monthly. **Spread** represents option-adjusted spread (OAS). **Performance data shown represents past performance and does not predict or guarantee future results.** **Representative indexes: taxable municipals:** Bloomberg U.S. Taxable Municipal Bond Index; **U.S. corporate bonds:** Bloomberg U.S. Corporate Bond Index.

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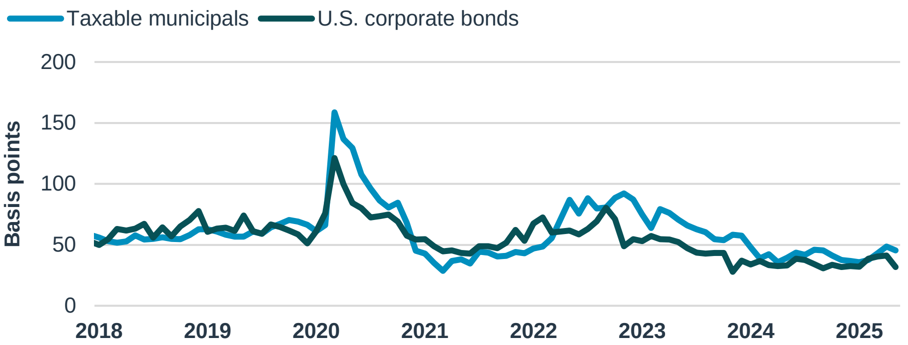
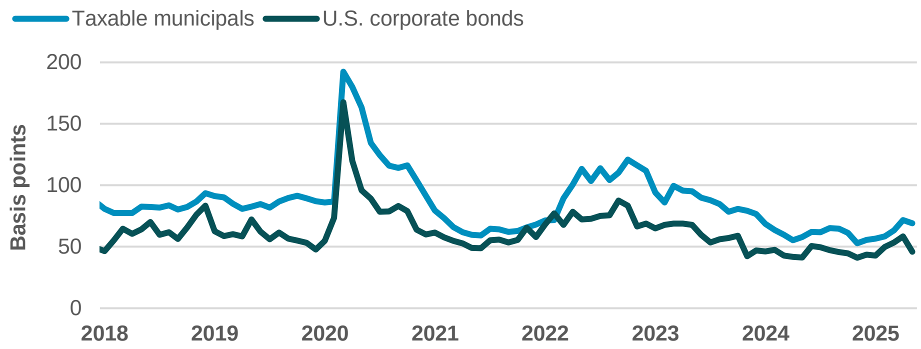
Looking across the credit spectrum in taxable municipals can provide yield premium

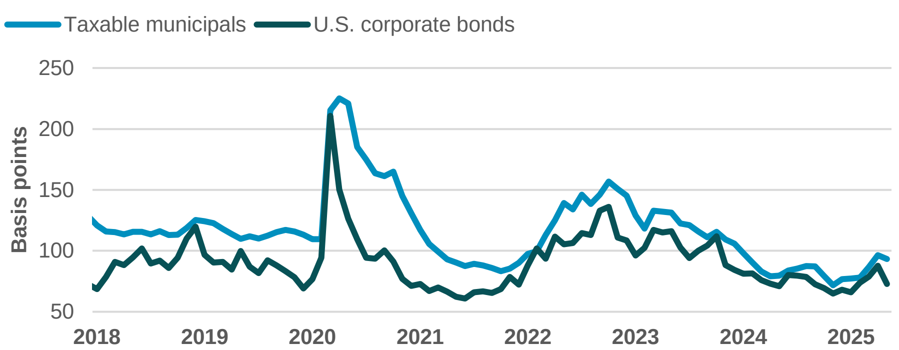
AAA-rated spread



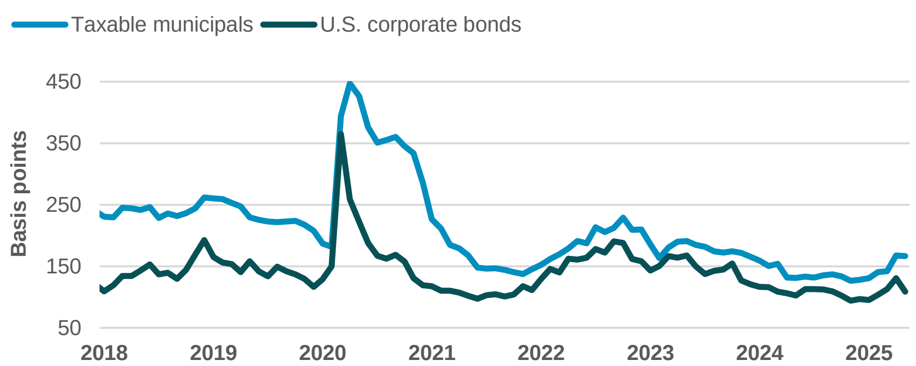
AA-rated spread



A-rated spread



BBB-rated spread



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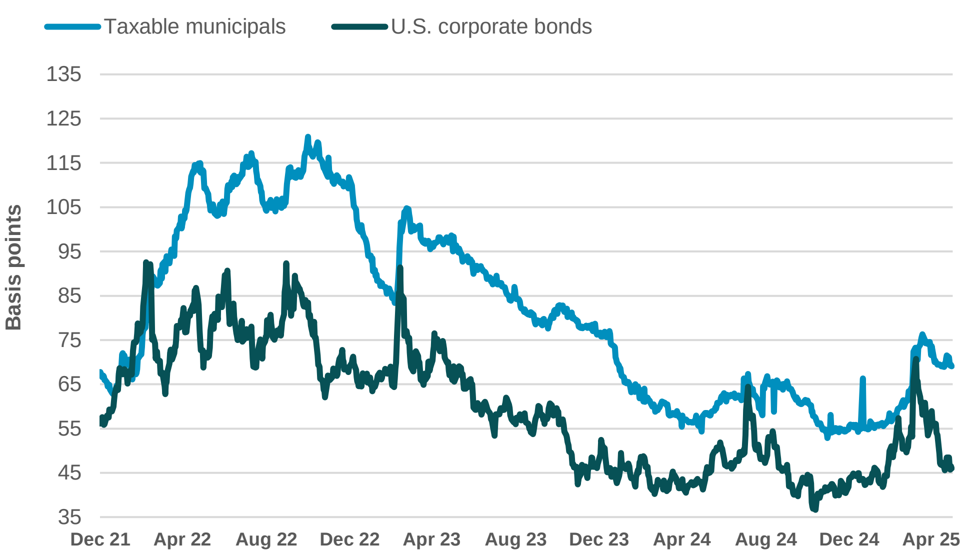
Data source: Bloomberg, L.P., 31 Jan 2018 – 31 May 2025, shown monthly. **Spread** represents option-adjusted spread (OAS). **Performance data shown represents past performance and does not predict or guarantee future results.** **Representative indexes: taxable municipals:** Bloomberg U.S. Taxable Municipal Bond Index; **U.S. corporate bonds:** Bloomberg U.S. Corporate Bond Index.

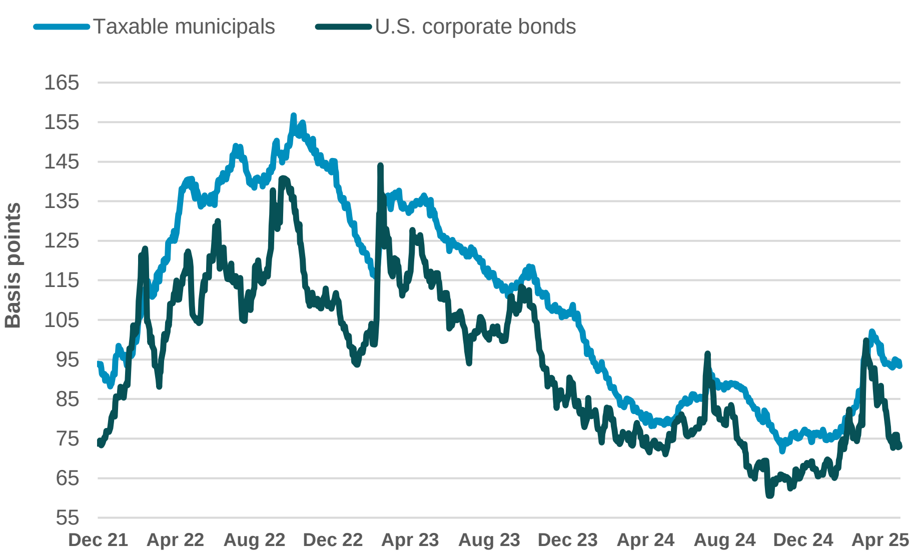
Taxable municipal credit spreads remain wider relative to corporate bonds

Municipal bonds provide financing for essential services, which can help provide insulation from economic downturns.

AA-rated spread



A-rated spread



Credit spreads are narrowing but taxable municipals continue to offer an advantage over similarly rated corporate bonds.

Data source: Bloomberg, L.P., 31 Dec 2021 – 31 May 2025, shown daily. Spread represents option-adjusted spread (OAS). **Performance data shown represents past performance and does not predict or guarantee future results.**
Representative indexes: taxable municipals: Bloomberg U.S. Taxable Municipal Bond Index; **U.S. corporate bonds:** Bloomberg U.S. Corporate Bond Index.

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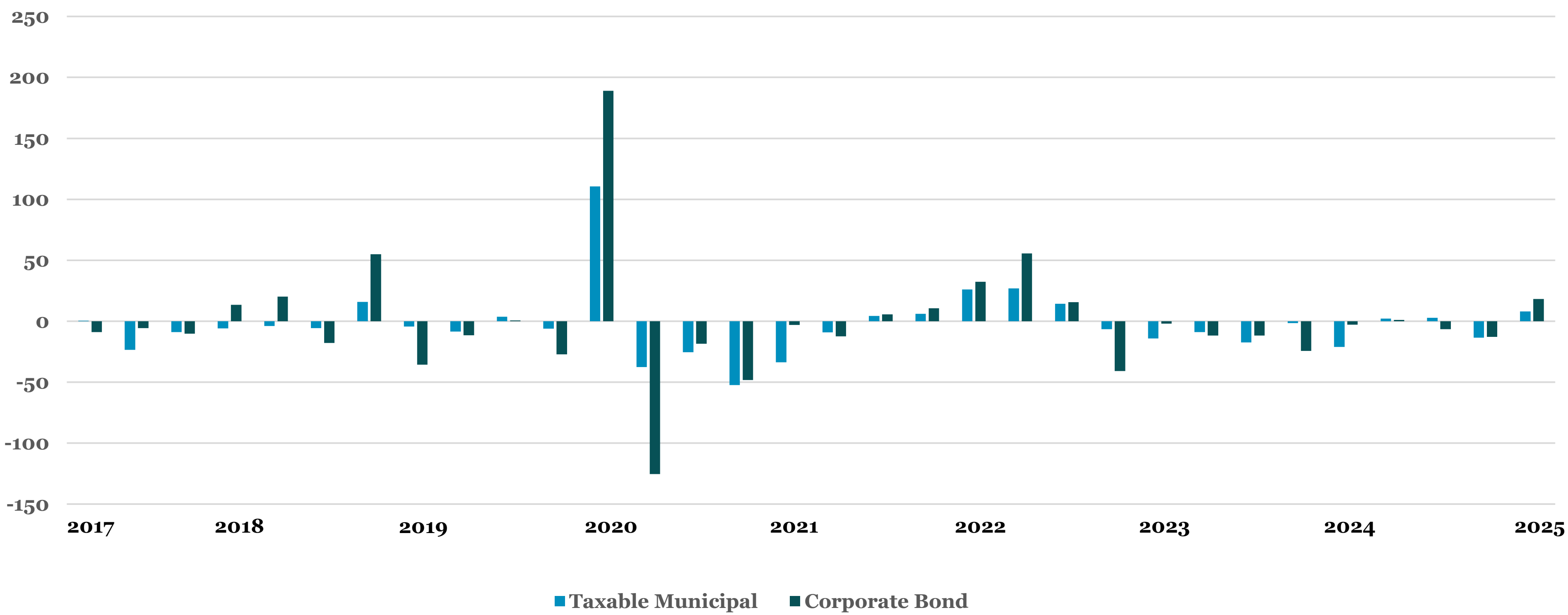
Taxable municipal bonds have displayed less credit spread volatility

Taxable municipals' spread movements reflect a more stable market for investors

Quarterly option adjusted spread changes



Data source: Bloomberg Taxable Municipal Bond Index and Bloomberg Corporate Bond Index. 7-10 year duration bonds only, data through 31 Mar 2025.

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Appendix

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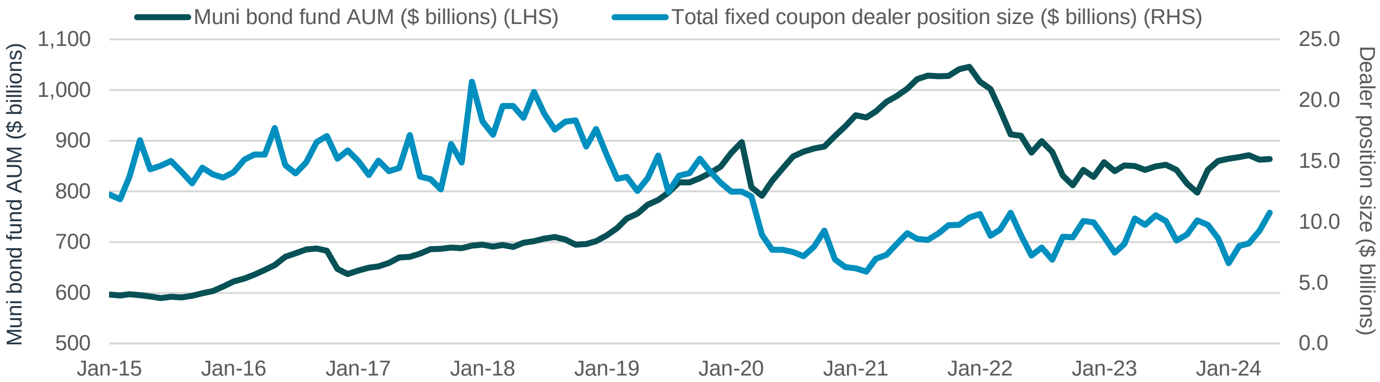
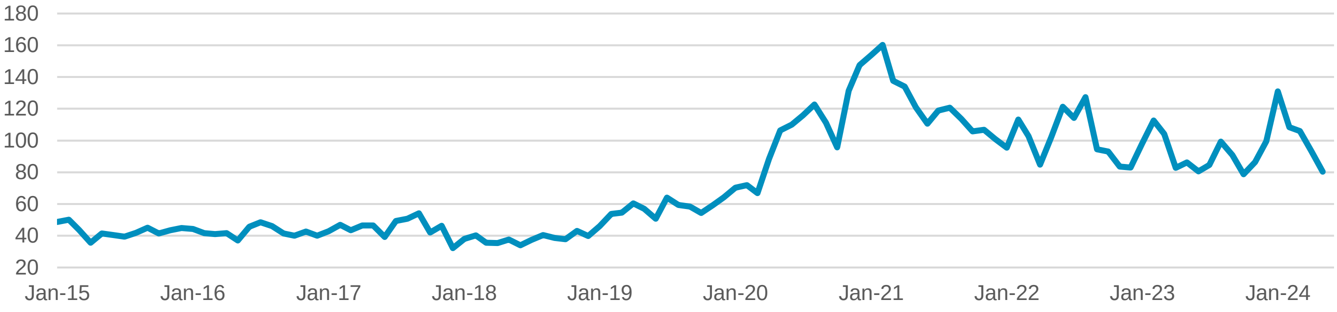
Diminished dealer participation has created elevated volatility within the municipal market

Muni fund AUM vs. average dealer position size[1]



Increased cost of capital has diminished dealer inventory. An institutional manager can help capitalize on market dislocations.

Muni fund AUM over dealer inventory ratio[2]



Muni fund AUM is 80x the size of dealer inventory levels, contributing to more volatile markets.

1 Data sources: Fund AUM data is sourced from Morningstar. Coupon dealer position size is sourced from Bloomberg. Both data sets span from 31 Dec 2014 to 31 May 2024.

2 Data sources: Fund AUM data is sourced from Morningstar. Dealer inventory ratio data is sourced from Bloomberg. Both data sets span from 31 Dec 2014 to 31 May 2024.

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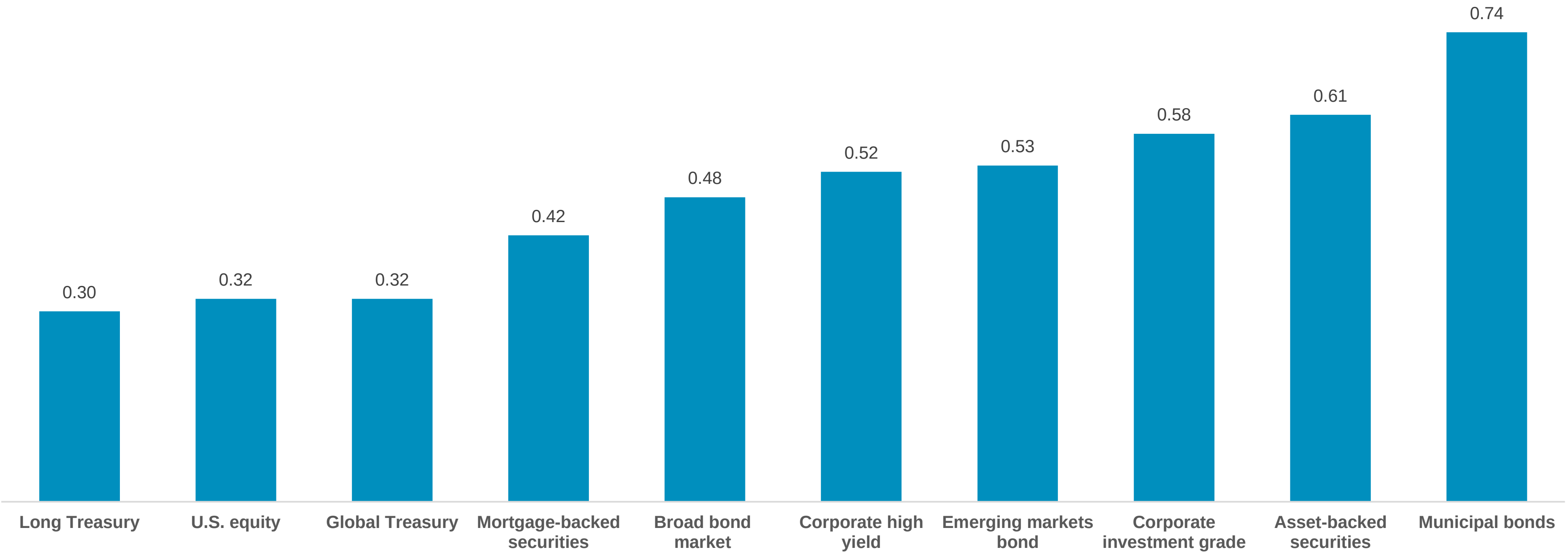
High yield municipal bonds have a low correlation to other asset classes

High yield municipal bonds tend to be less cyclical than corporate bonds due to the essential nature of the projects being financed.

Correlation to Bloomberg High Yield Municipal Bond Index

01 Jul 1999 –31 May 2025



Data source: Morningstar Direct; 01 Jul 1999 – 31 May 2025. **Performance data shown represents past performance and does not predict or guarantee future results. Representative indexes: Asset-backed securities:** Bloomberg Asset-Backed Securities Index; **Broad bond market:** Bloomberg U.S. Aggregate Bond Index; **Corporate high yield:** Bloomberg U.S. Corporate High Yield Index; **Corporate investment grade:** Bloomberg U.S. Corporate Investment Grade Index; **Emerging markets bond:** Bloomberg Emerging Markets Bond Index; **Global Treasury:** Bloomberg Global Ex U.S. Treasury Bond Index; **Long Treasury:** Bloomberg U.S. Treasury Long Index; **Mortgage-backed securities:** Bloomberg MBS (fixed rate) Index; **Municipal bonds:** Bloomberg U.S. Municipal Bond Index; **U.S. equity:** S&P 500 Index.

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Municipal bond default rates have fared better than for similarly rated corporate bonds

A-rated municipal default rates are lower than for Aaa corporate bonds.

Moody's average cumulative default rates of municipals vs. global corporates, 1970-2023[1]

	Rating	Aaa	Aa	A	Baa	Ba	B	Caa-C	Investment Grade	Below Investment Grade
5-Year	**Municipal**	0.00%	0.01%	**0.03%**	0.46%	1.93%	11.90%	20.62%	0.04%	4.81%
	Corporate	**0.08%**	0.29%	0.71%	1.43%	7.63%	20.56%	35.25%	0.87%	18.98%
10-Year	**Municipal**	0.00%	0.02%	**0.10%**	1.09%	3.49%	17.07%	25.59%	0.10%	7.14%
	Corporate	**0.36%**	0.77%	2.03%	3.61%	15.25%	34.31%	51.44%	2.24%	29.74%

Municipal recovery rates are significantly higher than for corporates, with an average weighted recovery of 65% for municipals vs. 47% for corporates.

1 Data source: Moody's Ratings, *U.S. Municipal Bond Defaults and Recoveries, 1970 – 2023*, 24 Oct 2024, with data as of 31 Dec 2023; updated annually. **Performance data shown represents past performance and does not predict or guarantee future results.** The universe for the study represents approximately 12,500 fundamental U.S. public finance ratings from Moody's.

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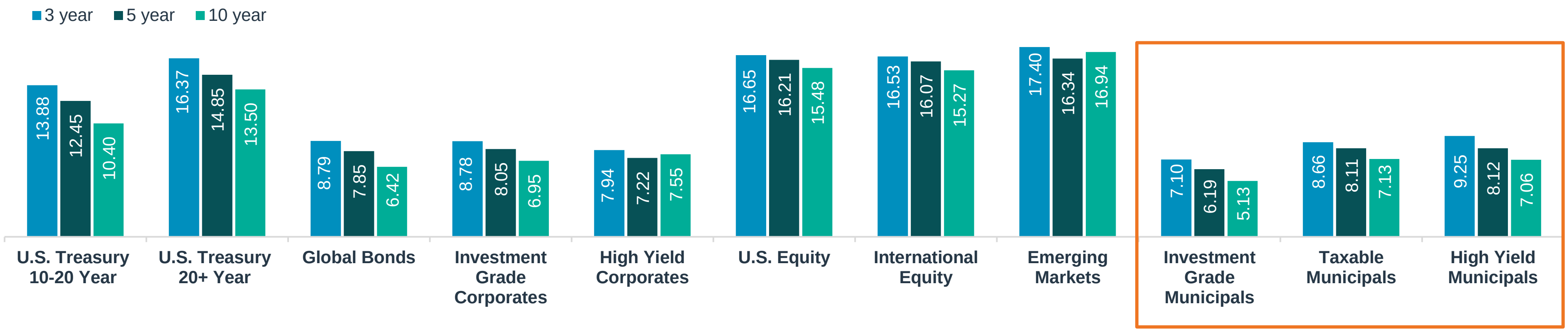
Municipals have exhibited lower volatility with strong risk-adjusted returns

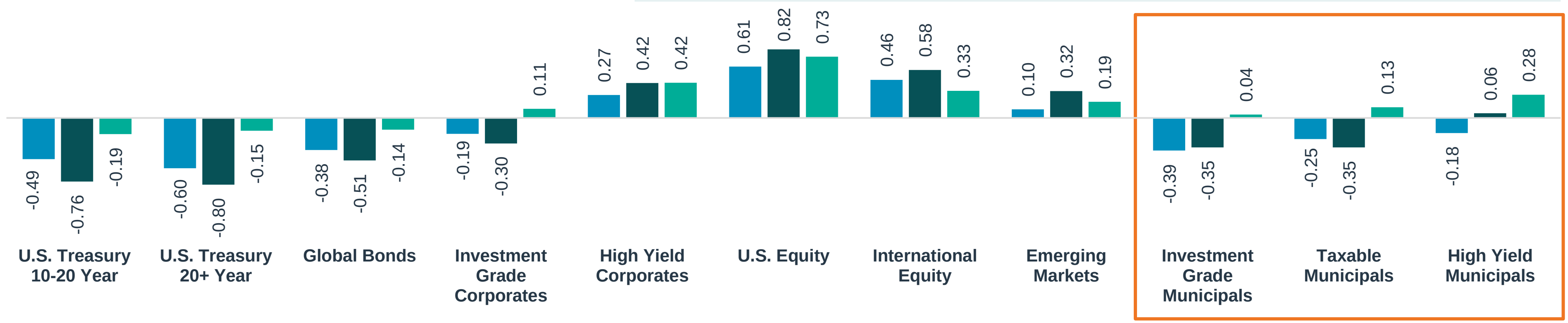
Standard deviation

Municipals have exhibited low volatility among asset classes.



Sharpe ratio

Municipals have been relatively attractive on a risk-adjusted basis.



Data source: Morningstar, period ending 31 May 2025. **Performance data shown represents past performance and does not predict or guarantee future results. Representative Indexes: Treasuries:** Bloomberg U.S. 10-20 Year Treasury Index and the Bloomberg U.S. 20+ Year Treasury Index; **Global bonds:** Bloomberg Global Aggregate Unhedged Index; **Investment grade corporates:** Bloomberg US Corporate Bond Index; **High yield corporates:** Bloomberg High Yield Corporate Index; **U.S. equity:** S&P 500 Index; **International equity:** MSCI EAFE Index; **Emerging markets:** MSCI Emerging Markets Index; **Investment grade municipals:** Bloomberg Municipal Bond Index; **Taxable municipals:** Bloomberg Taxable Municipal Bond Index; **High yield municipals:** S&P Municipal Yield Index.

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