

nuveen

A TIAA Company

Municipal market update

March 2025

As of 28 February 2025

NOT FDIC INSURED | NO BANK GUARANTEE | MAY LOSE VALUE
OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

2025 municipal market themes

Economic environment	
Inflation	<ul style="list-style-type: none"> Core inflation continues to drift lower, driven by housing and services. The market anticipates inflation will trend lower, but we do not expect it will reach the Fed's stated goal of 2.0% by year end 2025.
Policy	<ul style="list-style-type: none"> The Fed has been sidelined by sticky inflation; however, weak labor readings should result in further rate cuts. Policy impacts from tariffs, deregulation, immigration and taxes are being closely watched by the Fed.
Economic growth	<ul style="list-style-type: none"> U.S. growth has defied persistent downbeat forecasts; however, recent data points to signs of weakening. Recession remains a risk, and we continue to monitor developments closely.
Interest rates	<ul style="list-style-type: none"> With the magnitude & intensity of rate cut expectations being scaled back for the year, the higher-for-longer yield environment could persist.

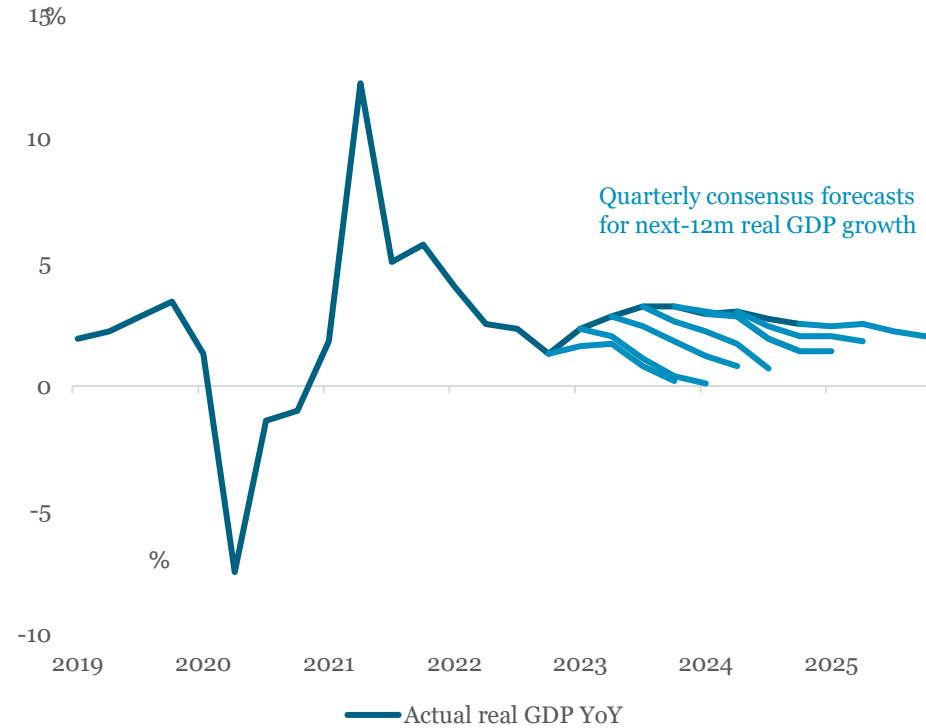
Municipal market environment	
Credit fundamentals	<ul style="list-style-type: none"> Credit remains strong, with robust revenue collections and reserve funds. Governments are spending down reserve funds, but overall reserve levels remain strong. We expect municipal defaults will remain low, rare and idiosyncratic.
Supply & demand	<ul style="list-style-type: none"> We anticipate another year of heavy supply in 2025, approaching \$500 billion. Taxable municipal supply remains muted in the elevated rate environment and is roughly 10% of the overall market. Demand for owning duration continues, driven by higher-for-longer yields.
Valuations	<ul style="list-style-type: none"> High yield credit spreads remain below historical averages, supported by inflows. Despite tight ratios, municipals can generate attractive returns based on elevated income. The municipal yield curve is upward sloping, with the intermediate portion offering heightened opportunity.

Source: Nuveen as of 28 Feb 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.

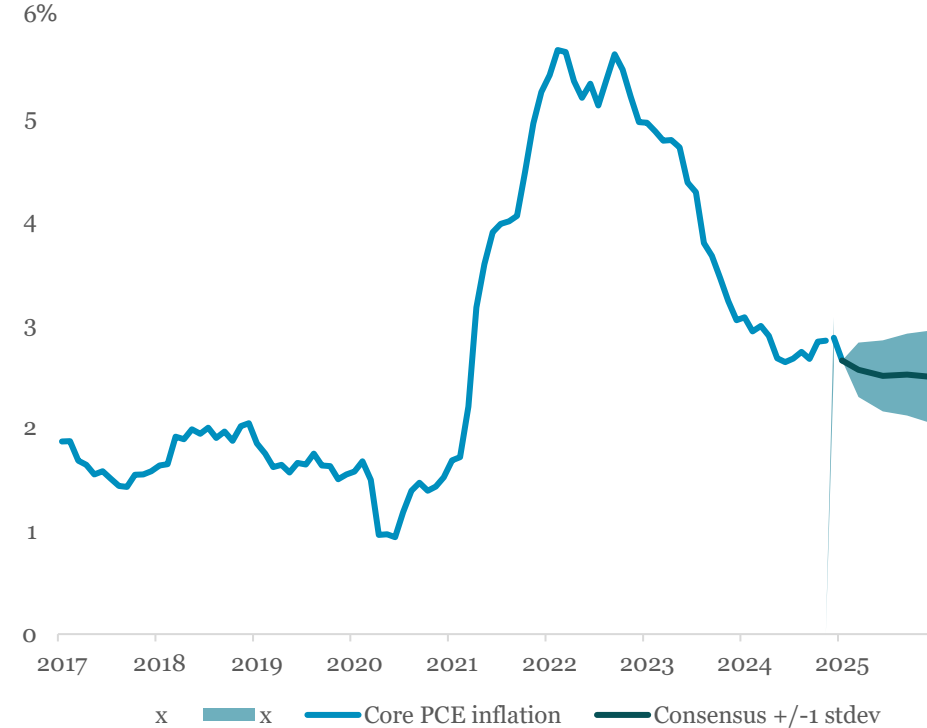
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Baseline expectations are for a slowdown in growth and inflation

Consensus growth expectations have consistently been overly pessimistic



Core PCE inflation is expected to slow to around 2.5% by end-2025

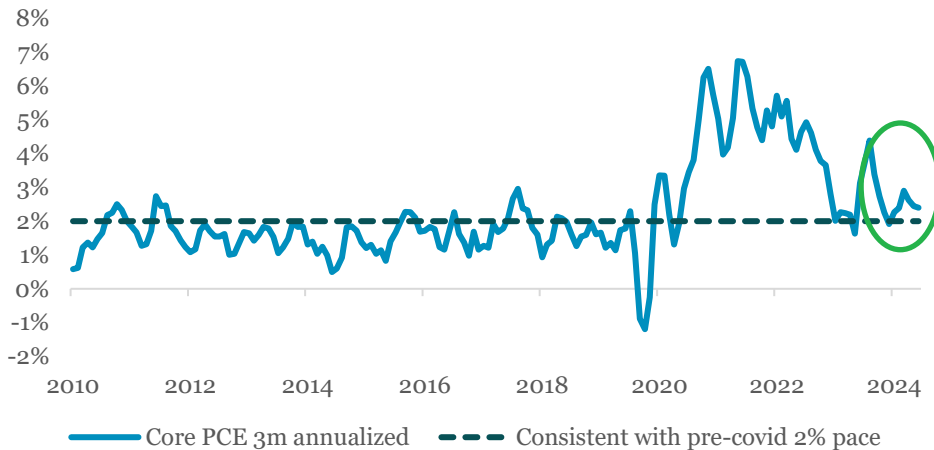


Source: Bloomberg, BEA, as of 31 Jan 2025.

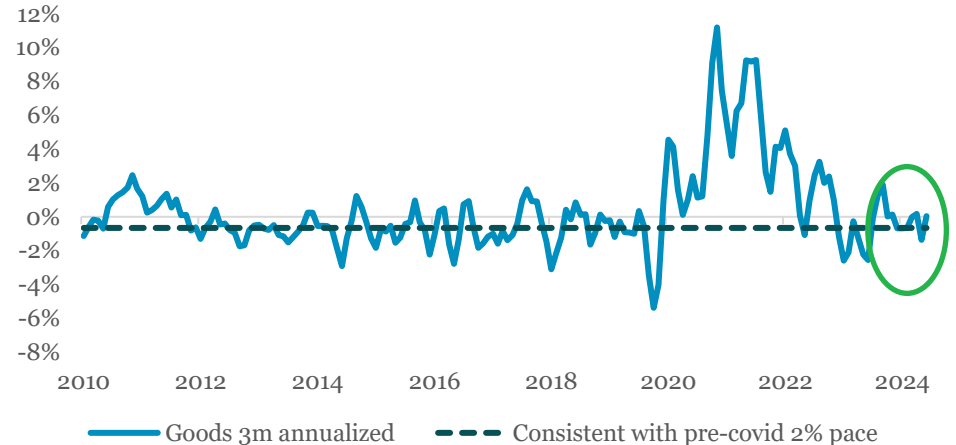
OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

Core inflation is much closer to target on three-month annualized basis, with a material deceleration in housing

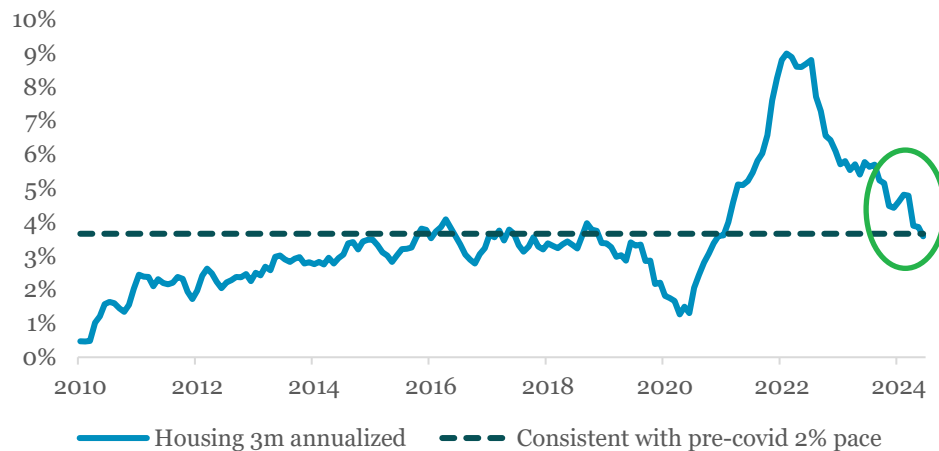
After a spike in Q1, **core inflation is back near target**



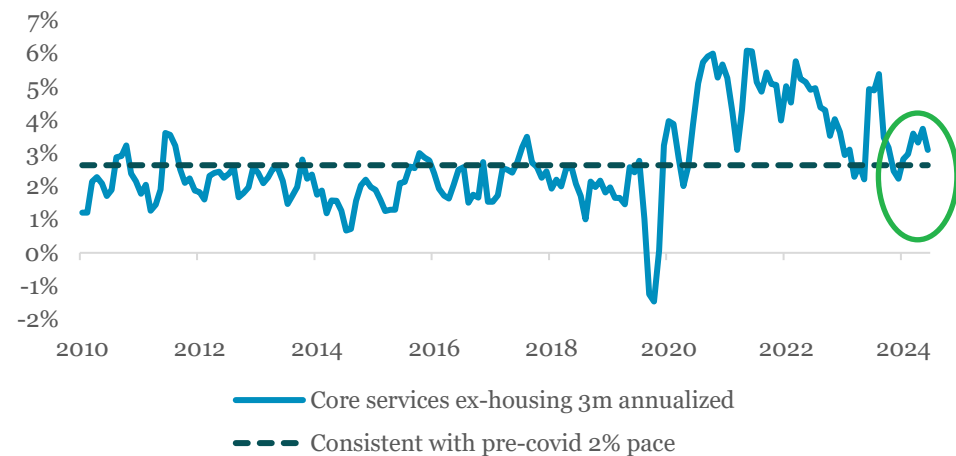
Goods inflation is ~zero, in line with its historical average



Housing inflation is back to target over last few months



Other core services around target pace as well



Sources: Bloomberg, BEA, as of 31 Jan 2025.

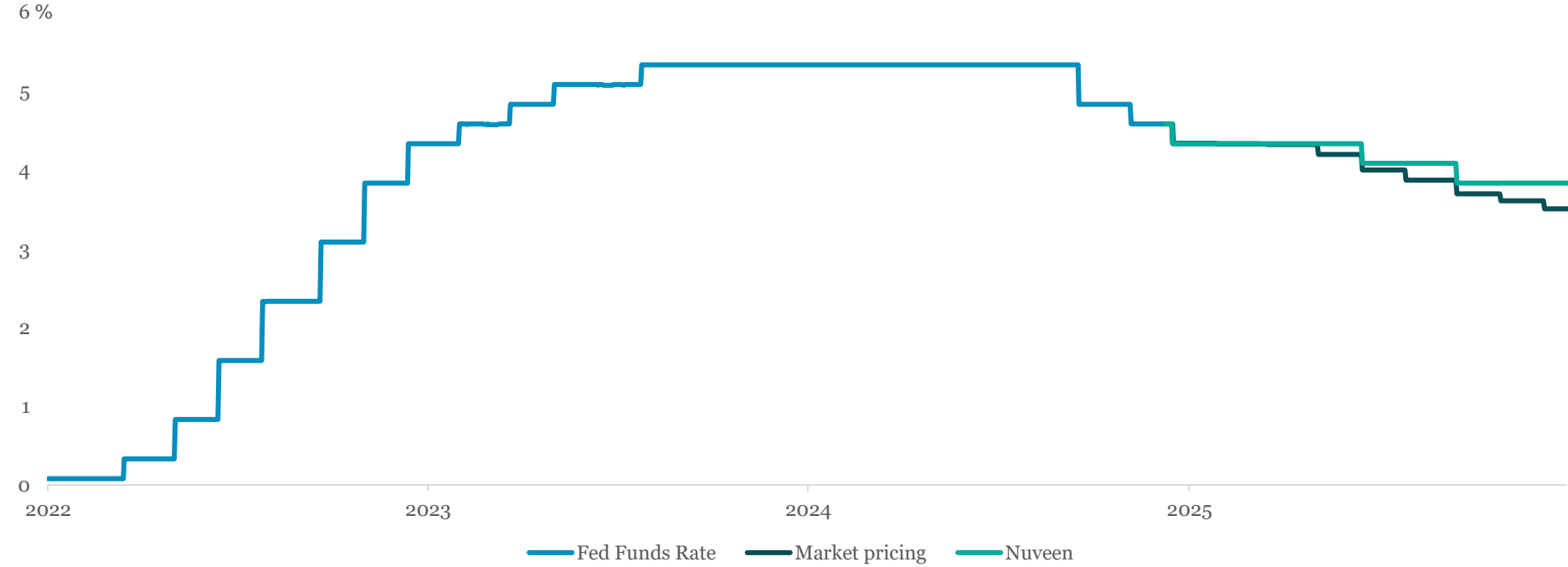
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Fed Outlook: pace of cuts to continue but slow this year

We only expect two more 25bps cuts this year

- We forecast a “terminal” rate of 3.75-4.00%, 50bps higher than previously, due to expected fiscal stimulus.
- The pace of cuts this year could be faster or slower, depending on incoming inflation and labor market data.

We anticipate 50bps more of rate cuts this year



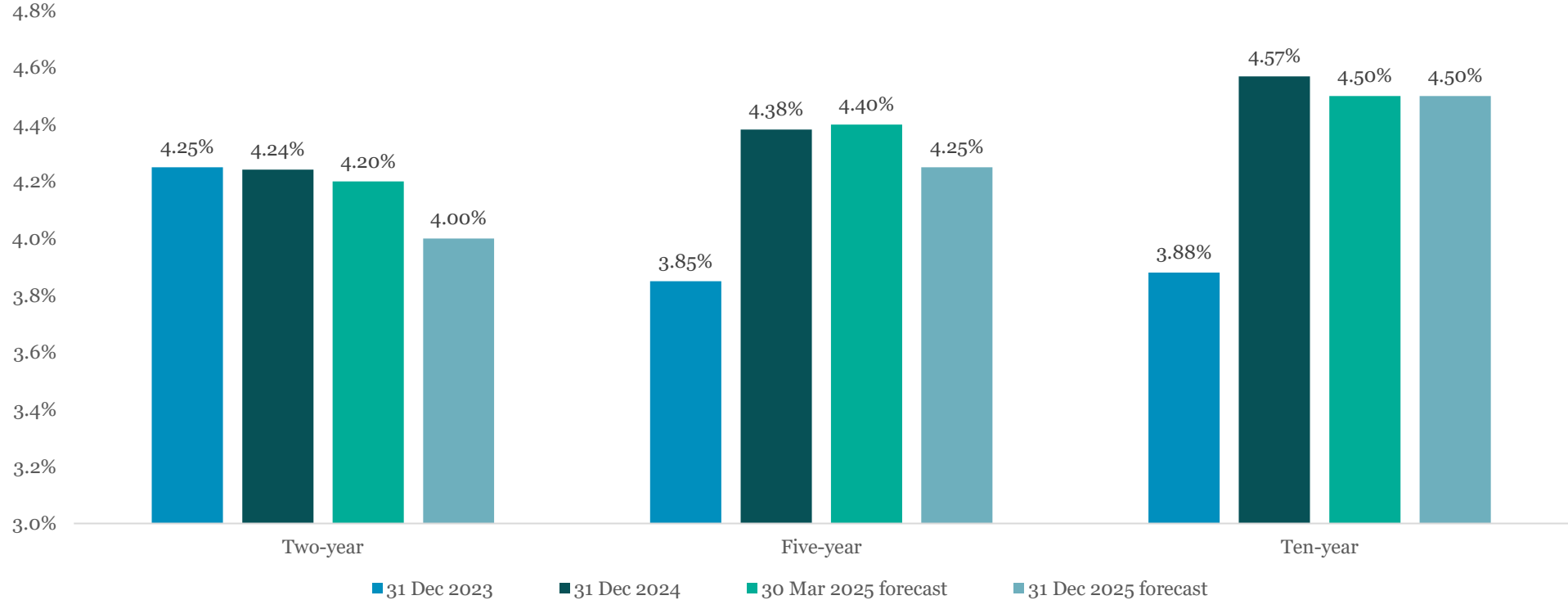
Source: Bloomberg, Federal Reserve, as of 31 Jan 2025.

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Interest rates are likely to be range-bound through year-end

Bull steepening could come to light during 2025.

Treasury yields



Estimates as of 20 September 2024.

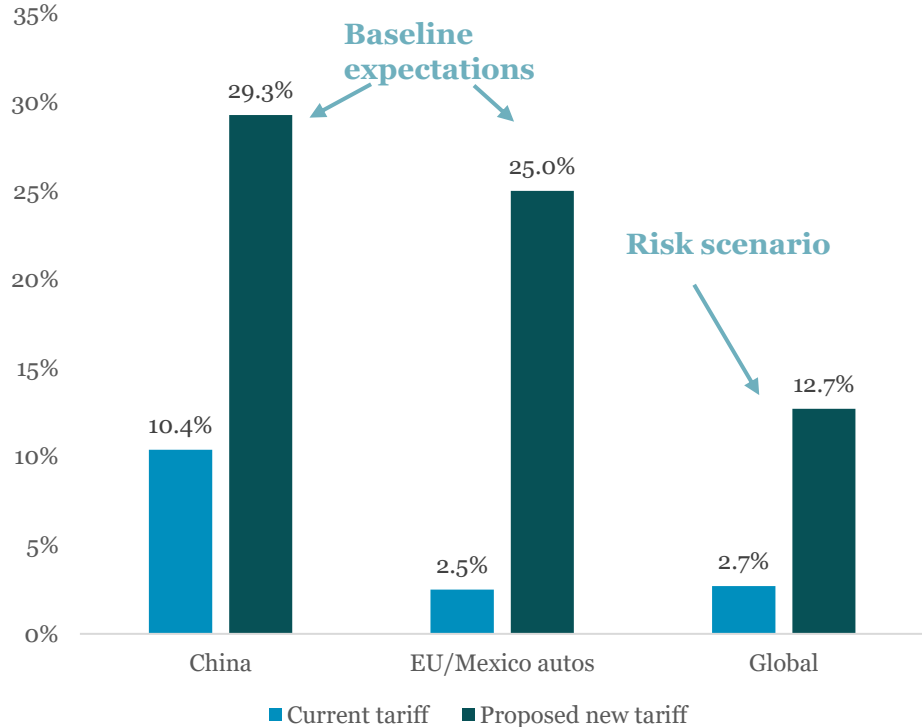
Sources: Bloomberg; Nuveen, as of 31 Dec 2024.

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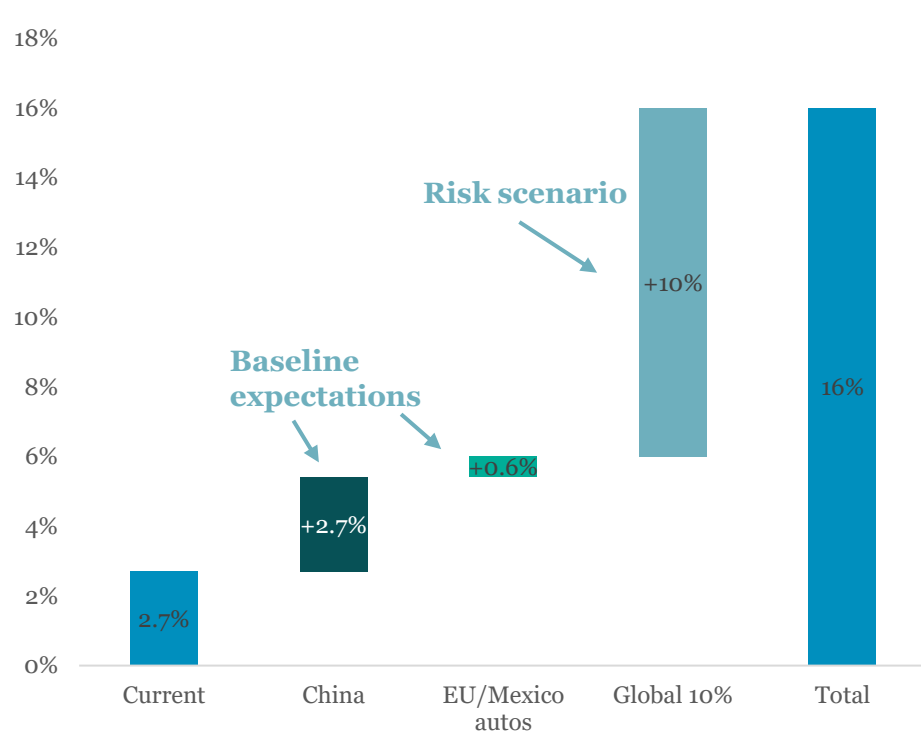
Tariffs may impact growth by raising prices in the near-term, but the effect should reverse over time

Incoming presidential administration has proposed a wide range of new tariffs

Main areas of proposed new tariff increases



Impact of proposed tariffs on overall U.S. effective tariff rate



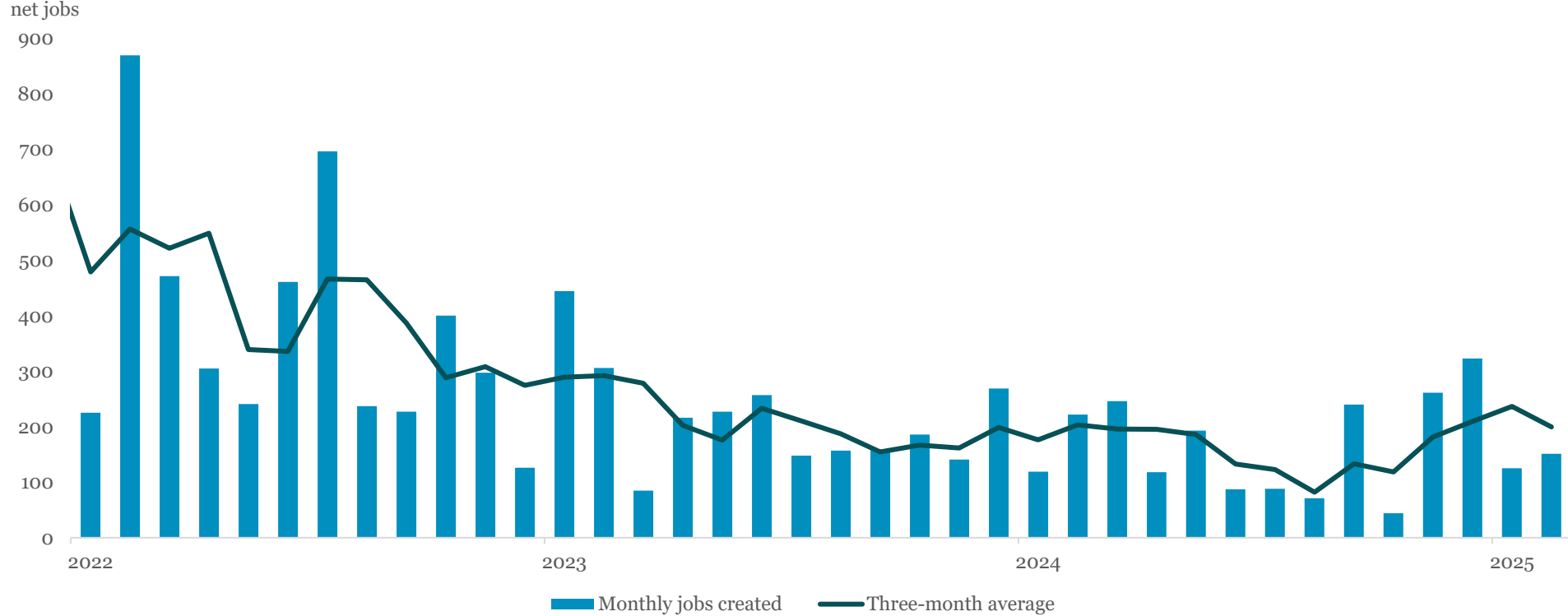
Source: Census, Bloomberg, as of 31 Dec 2024.

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

Headline job growth has rebounded over the last few months

February job creation was healthy at +151,000, consistent with a stable labor market from here

Three-month average job creation has bounced after last summer's soft patch



Source: Bloomberg, BLS, as of 31 Jan 2025.

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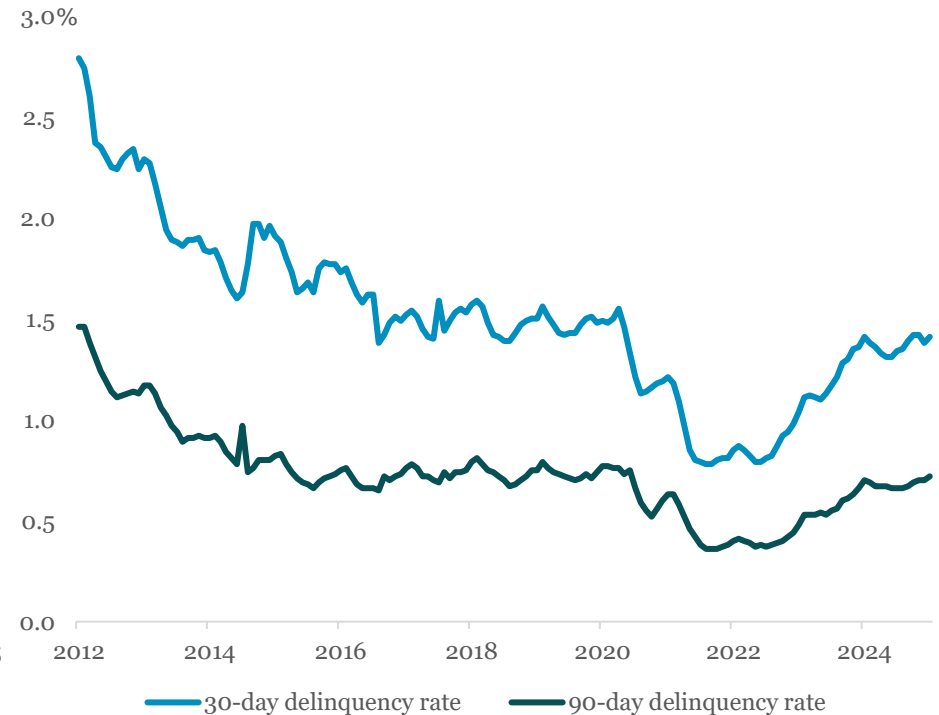
Consumer has normalized despite fading support

The latent impact of prior fiscal stimulus has faded

Consumer spending has stabilized around pre-covid trend levels



After three strong years, credit card delinquency rates are back to pre-covid levels



Source: BEA, Bloomberg, as of 31 Jan 2025.

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Source: Haver, as of 31 Jan 2025.

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
- Chinese tariffs may be particularly damaging to port volumes, though many are coming off record volumes
- 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 gives water and sewer utilities more flexibility to deal with environmental capital projects
- Healthcare M&A may be easier to execute due to less focus on regulation, which could support smaller, struggling hospitals

Immigration

- Cost burden for cities facing migrant crisis should be reduced
- Potential labor shortfalls could create inflationary pressures
- School districts enrolling large portions of undocumented migrant students could see enrollment declines. For example, large urban districts like Chicago Public Schools may lose students and be vulnerable to federal K-12 aid cuts

Muni tax exemption

- There are no current indications that the muni tax exemption will be broadly revised
- The exemption is important to municipals that help finance local infrastructure
- Historically, private activity bond restrictions have been discussed but not enacted (e.g., not-for-profit hospitals and higher education during 2017)

State and Local Tax (SALT)

- If maintained, SALT deduction could stay capped at \$10K
- Deduction cap supports higher federal and state income tax collections

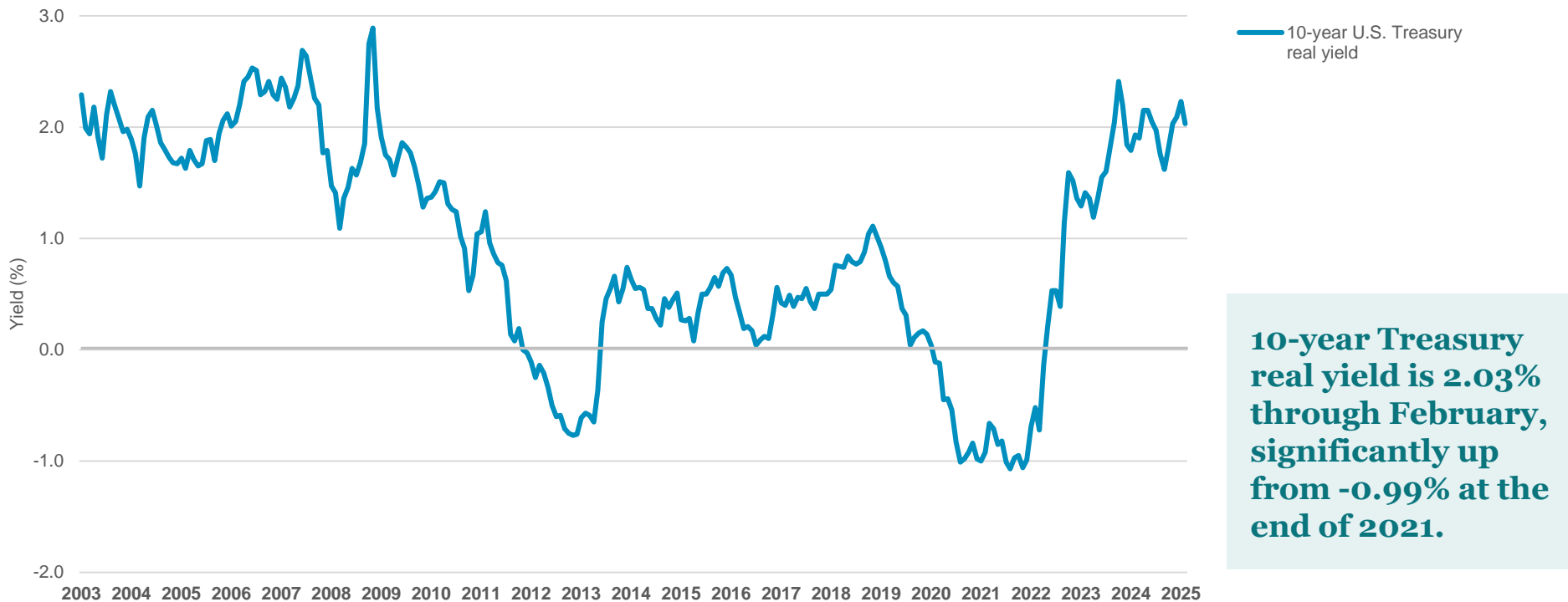
Source: Nuveen, 26 Feb 2025.

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

Real yield levels are outpacing inflation

Treasury yield minus inflation remains at levels not seen in over a decade.

10-year U.S. Treasury real yield

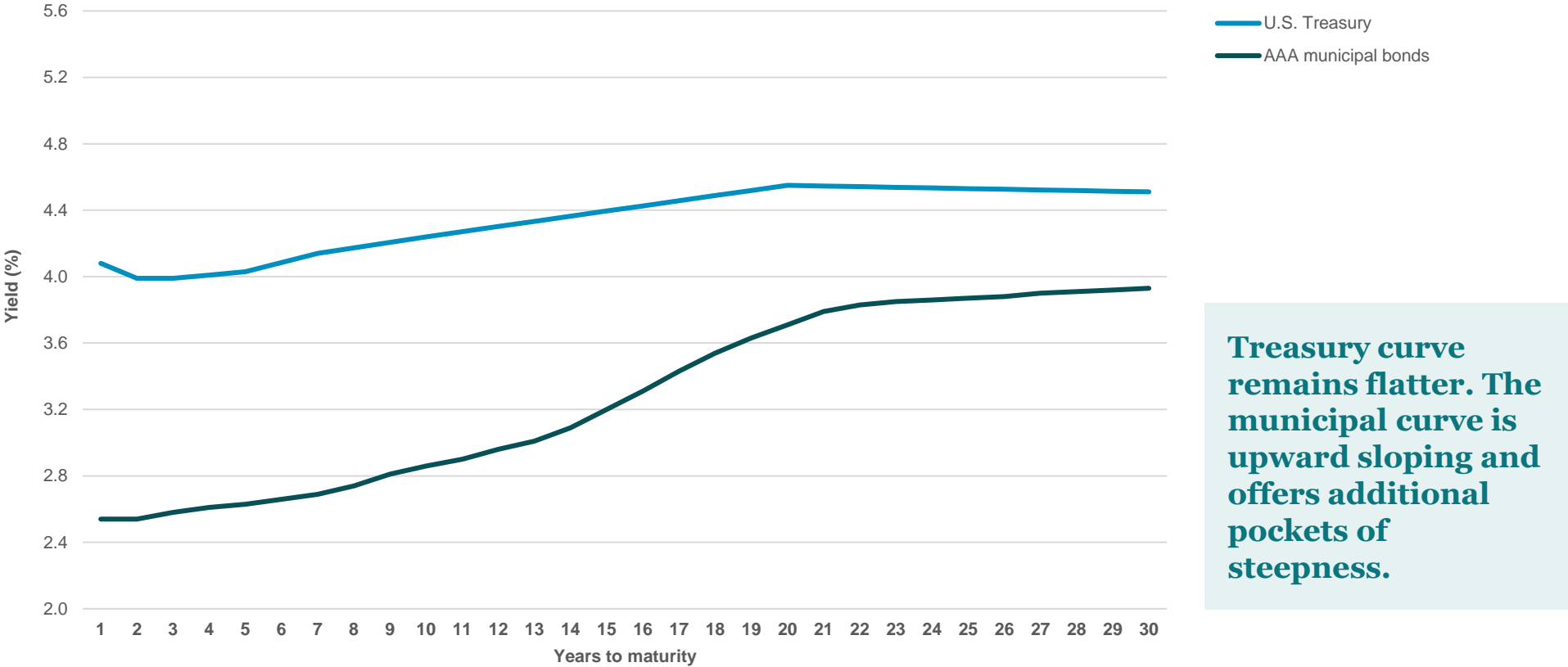


Data source: FRED, 31 Jan 2003 – 28 Feb 2025, shown monthly. The real yield is a measure of the stated return on Treasury bonds, minus inflation, as of 28 Feb 2025.

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Municipal yield curve has more of a normal shape

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



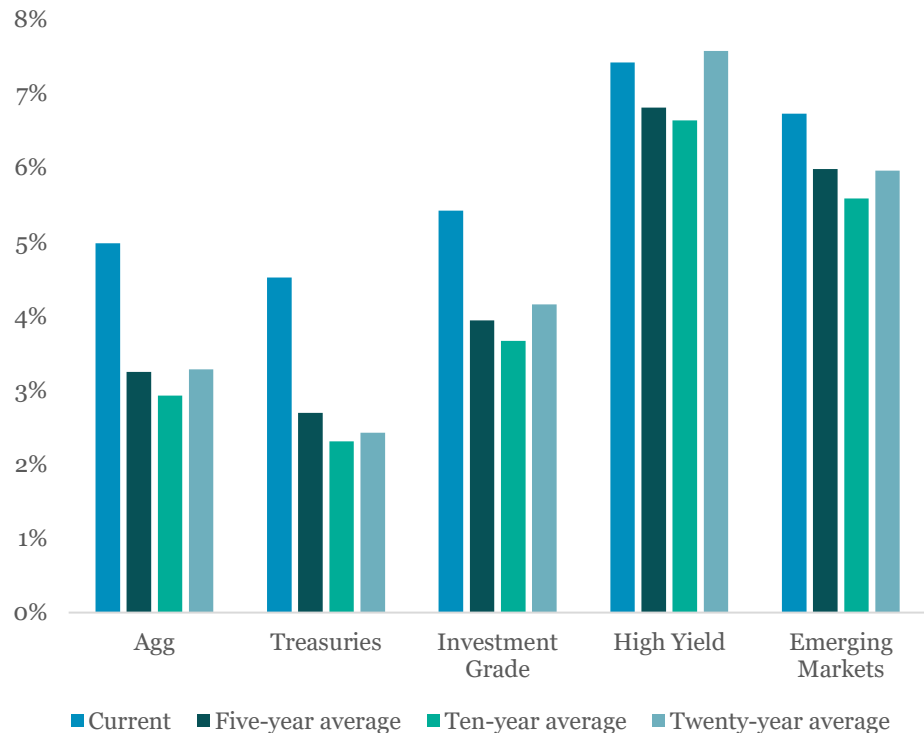
Data sources: U.S. Department of the Treasury; Refinitiv MMD, 28 Feb 2025. Performance data shown represents past performance and does not predict or guarantee future results. AAA municipals represented by Municipal Market Data (MMD) scale.

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The primary driver of future fixed income returns is starting yield

Current starting yield levels are very attractive across the fixed income markets

Starting yield levels are elevated across all major fixed income sectors



For the Bloomberg Agg Index, future returns are highly correlated (0.91) with starting yield levels



Source: Bloomberg, as of 10 Jan 2024.

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Source: Bloomberg, as of 31 Dec 2024.

Key factors in municipal bond returns

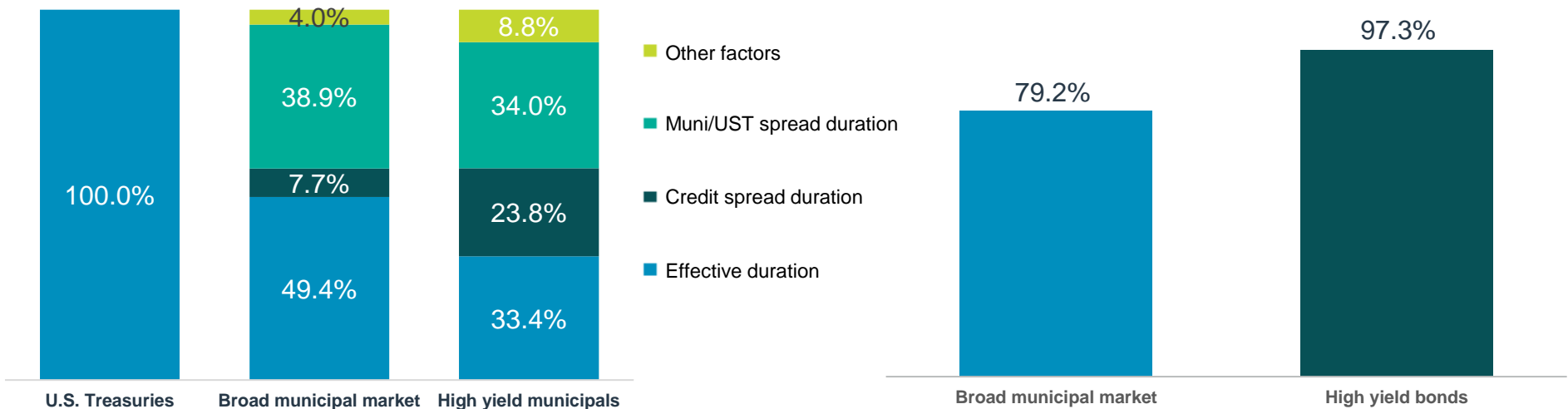
Municipal bonds react differently to market conditions when compared to U.S. Treasuries, while income drives overall returns.

Drivers of risk¹

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.

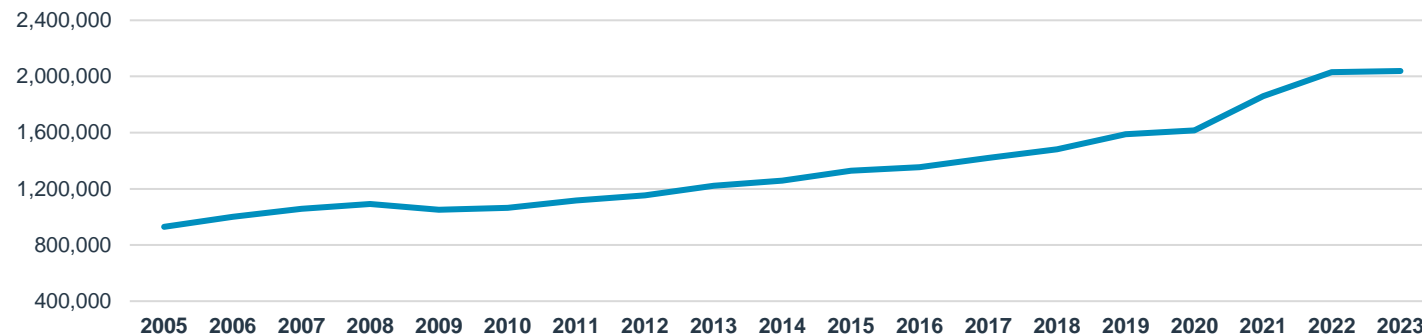
Chart shows the percent of annualized total return derived from coupon return (as opposed to price appreciation) since index inception. Investment grade bonds are represented by the S&P Municipal Bond Index, which has an inception date of 01 Jan 1976; returns from 30 Jun 2009 – 30 Jun 2024. High yield 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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Municipalities are in a strong financial position

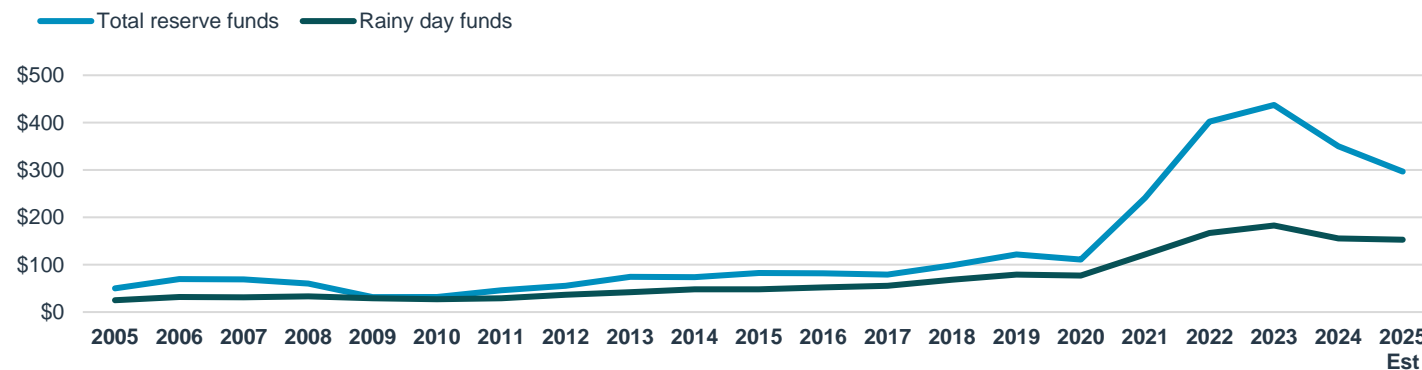
Revenue collections and reserves are near the highest levels in more than 40 years.

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



Total tax collections for 3Q24 outpaced 3Q23 levels by 4.7%.

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 2023; updated annually.

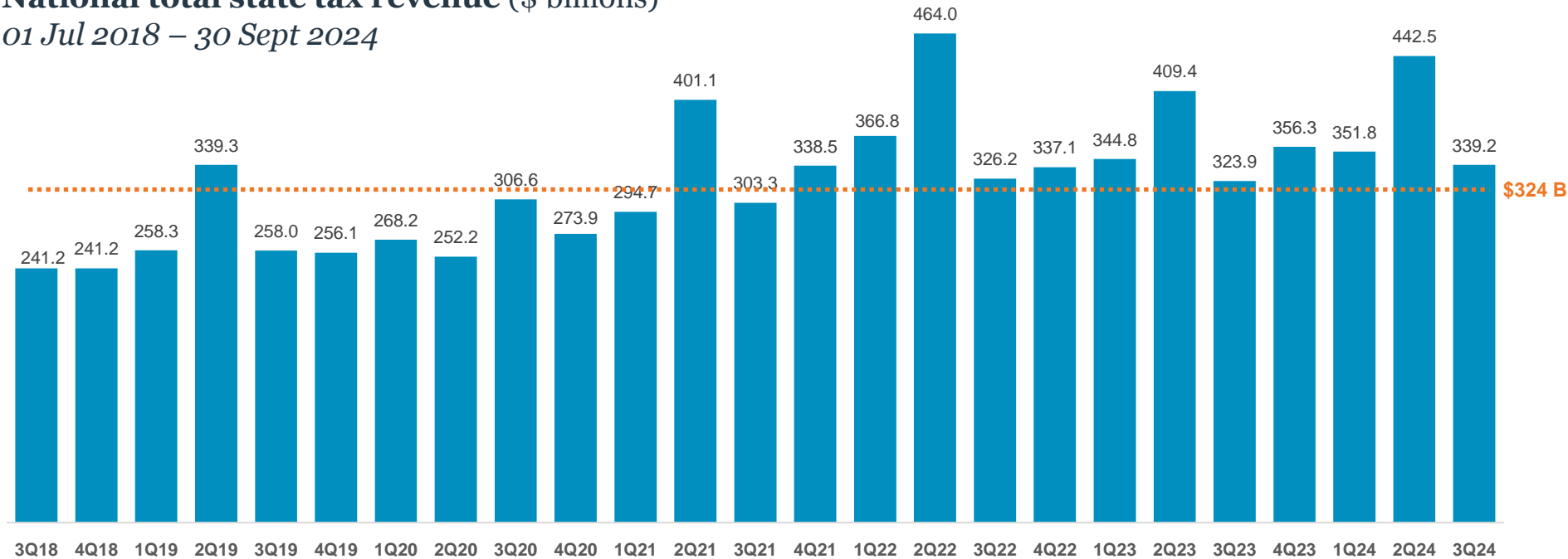
² Data sources: National Association of State Budget Officers (NASBO), *The Fiscal Survey of States*, Spring 2022. Pew Charitable Trust, *States Build Their Reserves Amid Growing Uncertainties*, 31 Jan 2025.

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

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 Jul 2018 – 30 Sept 2024



Average tax collections have remained strong, averaging \$324 billion per quarter from 3Q18 to 3Q24.

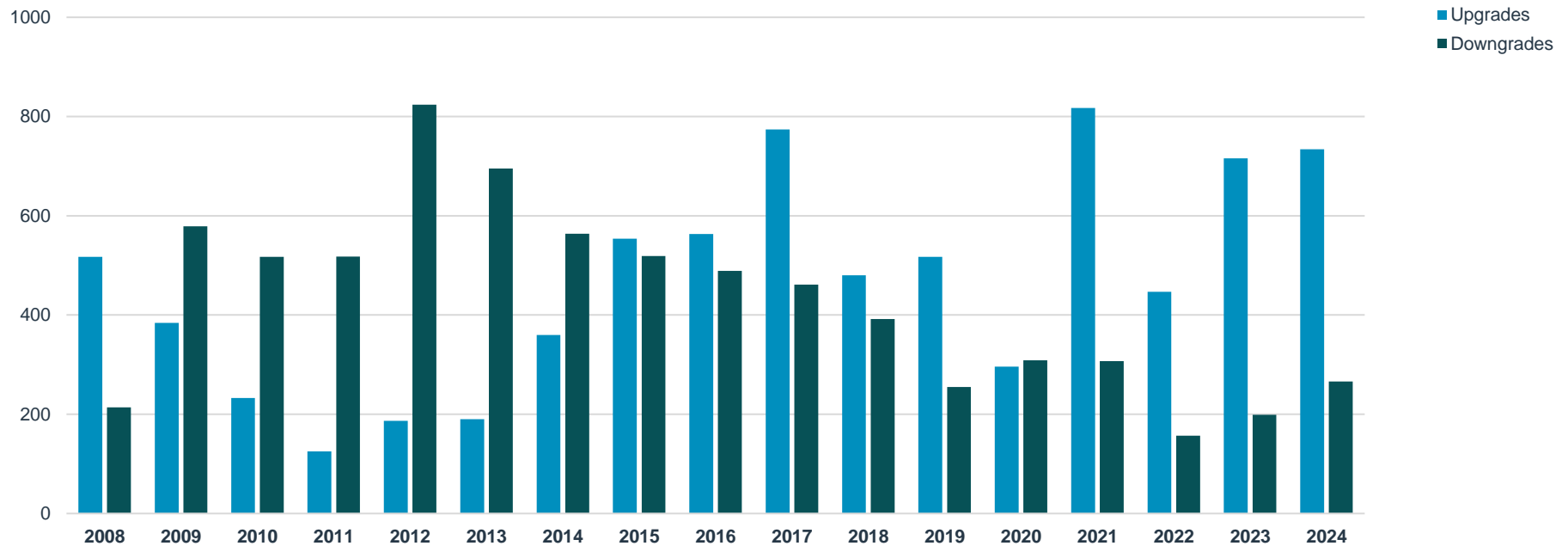
Data source: Nuveen; census.gov, as of 31 Dec 2024, with data as of 30 Sept 2024.

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Rating upgrades have continued to exceed downgrades in recent history

Upgrades outpaced downgrades by nearly 3:1 in 2024.

Number of rating changes for public finance



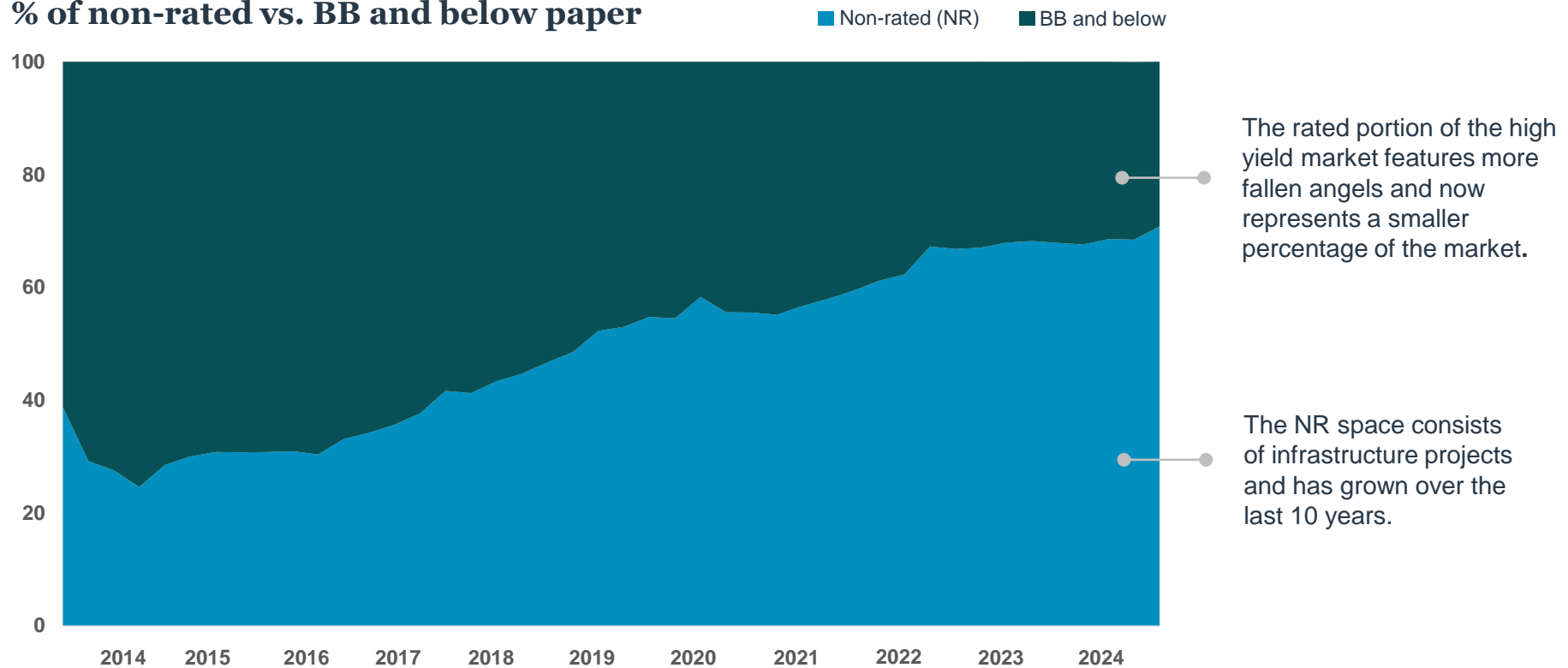
Data sources: Moody's Investors Service, *Quarterly and Annual Municipal Rating Revisions*, 14 Feb 2025, data as of 31 Dec 2024; most recent data available.

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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



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

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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 responses and 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 could gain momentum and support charter schools over public K-12 schools
- Pro-union policies may see reduced support, which could offset salary pressures on public K-12 schools
- Student loan forgiveness could be rolled back
- Private higher education endowments may be taxed, creating potential impacts
- National Institutes of Health grant cuts may impact less-prestigious, research-heavy 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 could see lower container volumes as tariffs reduce overseas goods entering the U.S. Currently, ports are experiencing record volumes as international trade partners are shipping goods ahead of higher trade costs.

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

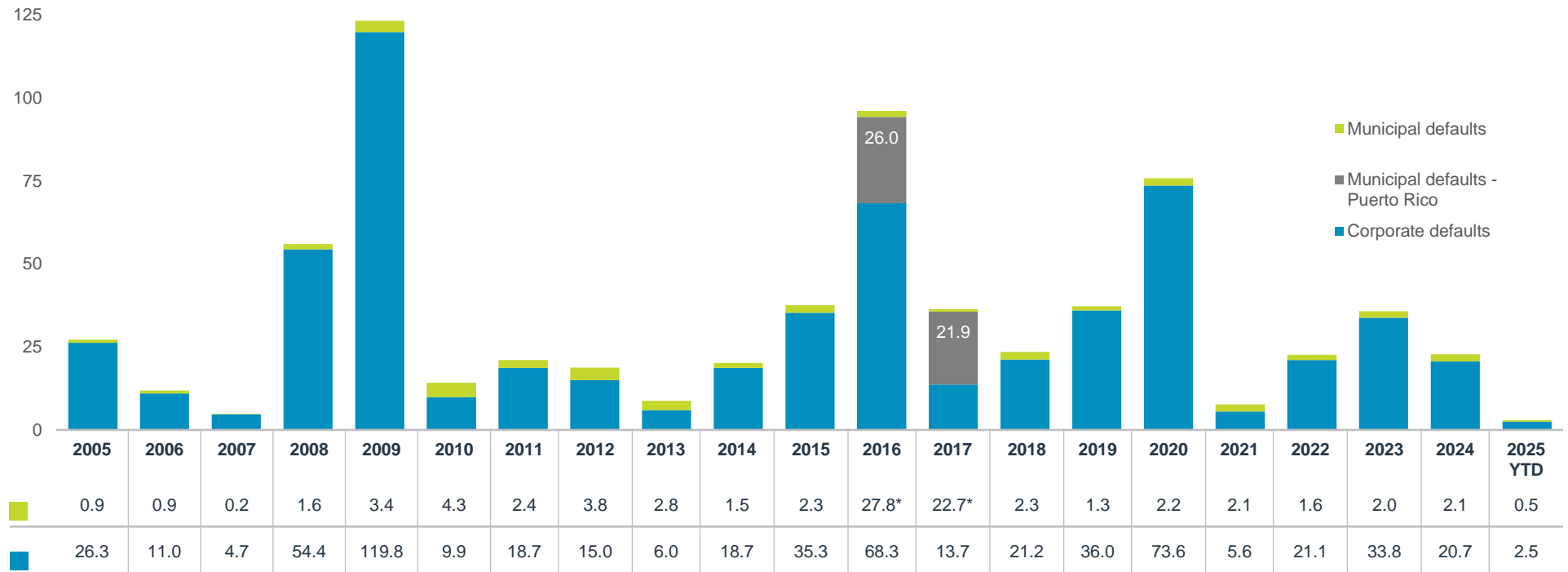
- Medicaid may shift toward privatization, which may challenge profitability for some hospitals
- State funding may shift toward block grants, pressuring state budgets

Source: Nuveen, 26 Feb 2025.

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

Defaults remain in line with historical trends

Municipal payment defaults (\$ billions)



Municipal defaults through 28 February 2025 were primarily concentrated in hospitals (74%) and nursing homes (20%).

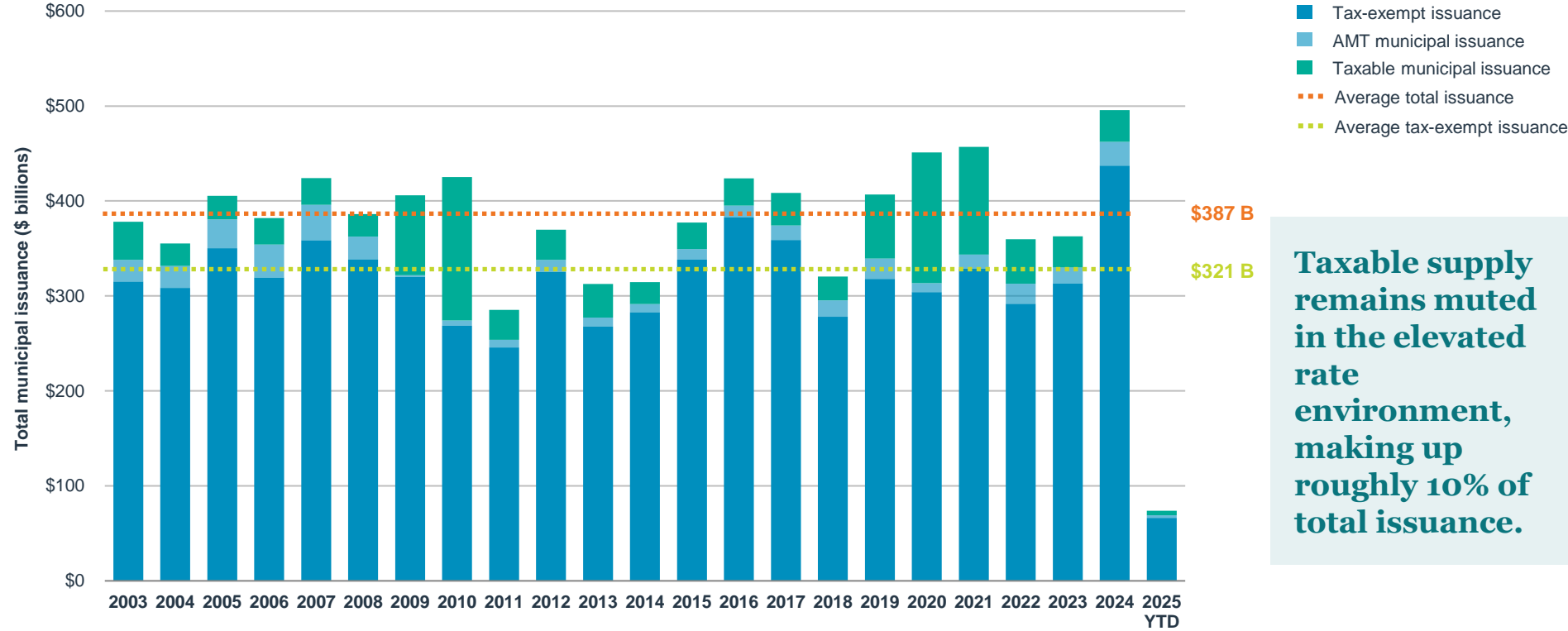
Data sources: Bank of America/Merrill Lynch Research, 03 Mar 2025, municipal default data as of 28 Feb 2025. Bank of America/Merrill Lynch Research HY Credit Chart book, corporate default data as of 28 Feb 2025. Data represents defaults on the entire universe of bonds, both rated and unrated, and includes 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).

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Tax-exempt issuance begins 2025 at elevated levels

Overall issuance through February was 17.8% higher than 2024 levels.

Municipal issuance



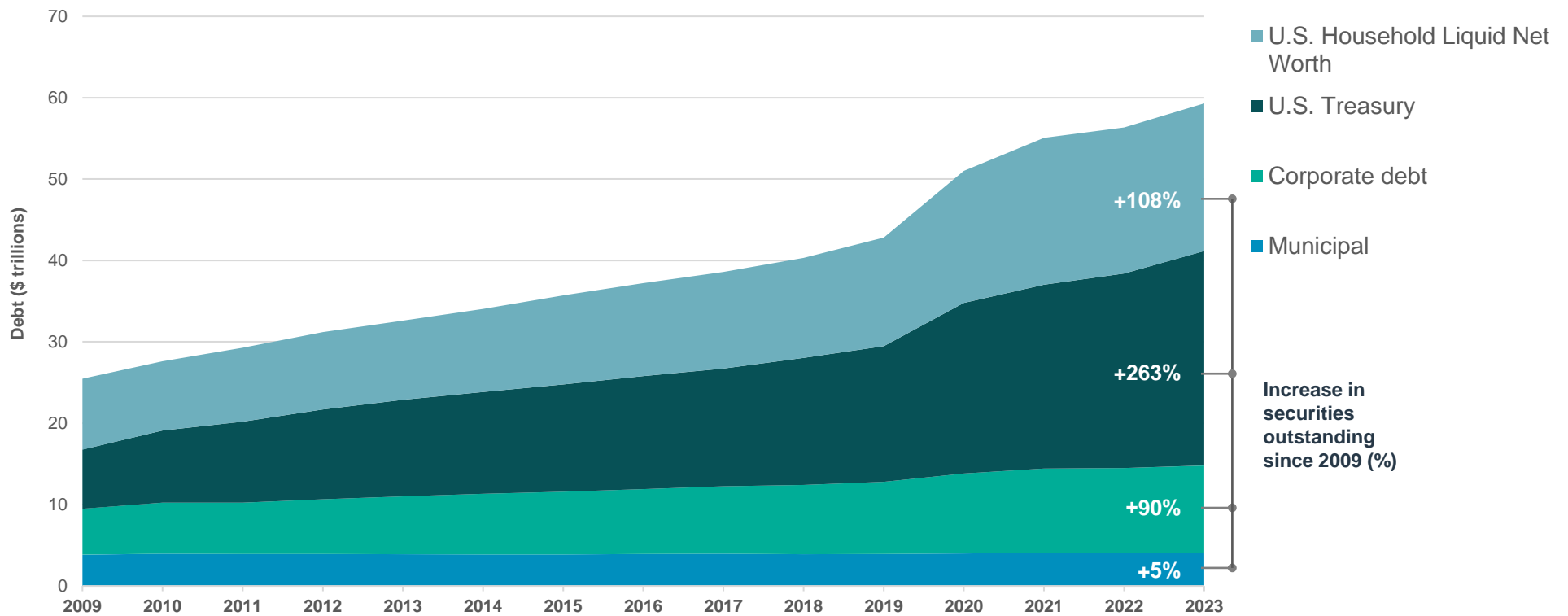
Taxable supply remains muted in the elevated rate environment, making up roughly 10% of total issuance.

Data source: Securities Industry and Financial Markets Association (SIFMA.org), U.S. Bond Market Issuance and Outstanding, 03 Mar 2025 for period ending 28 Feb 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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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.



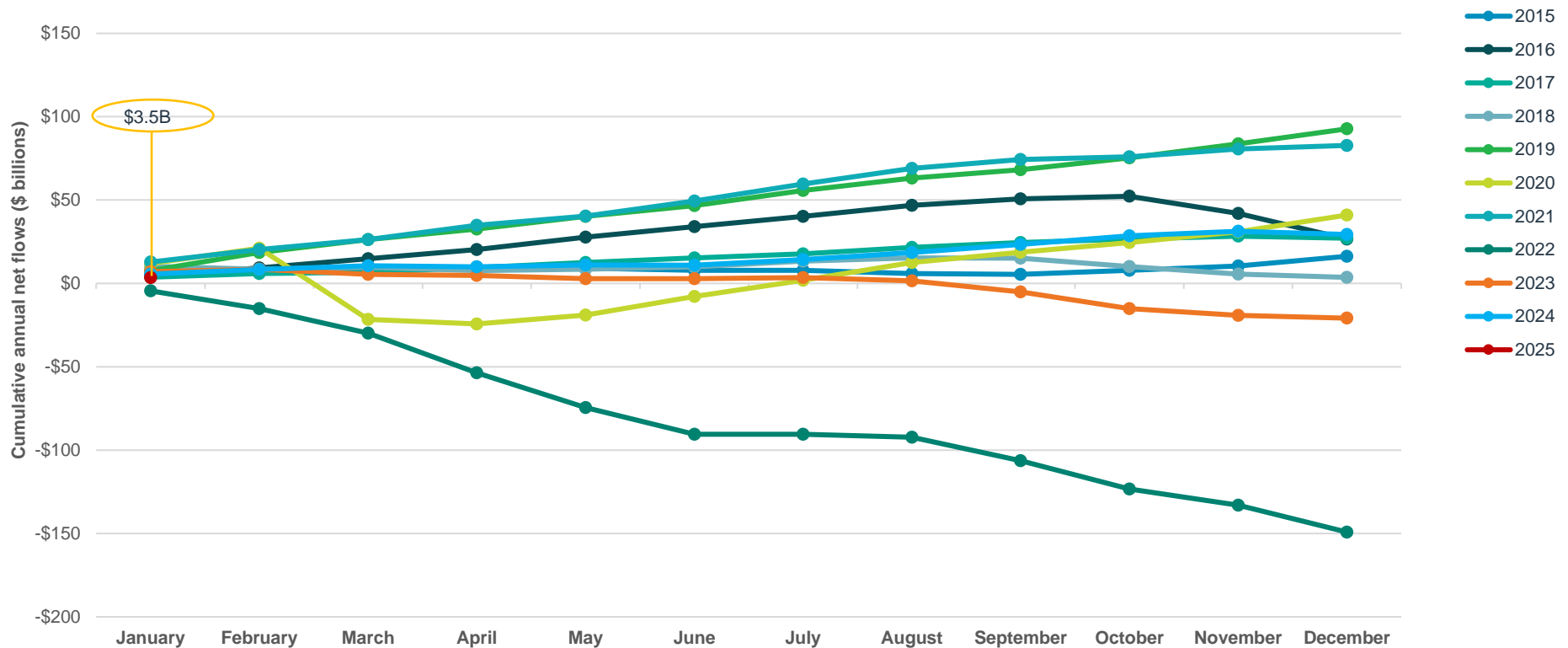
Data sources: SIFMA, Bloomberg, Federal Reserve, U.S. Treasury, 30 Jun 2024 for period ending 31 Dec 2023.

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Fund flows remain positive to start 2025

Municipal open-end fund net inflows were \$3.46 billion through January 2025.

Annual municipal bond fund flows by month 2015 – 2025 YTD



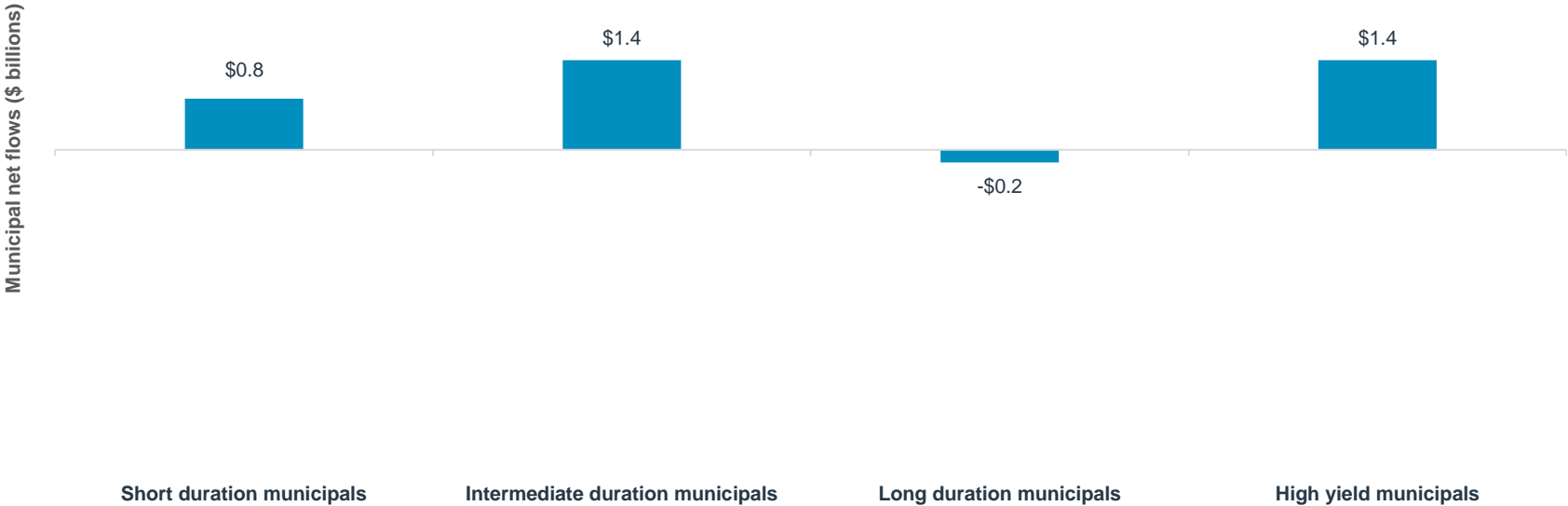
Data source: Morningstar Direct, 01 Jan 2015 – 31 Jan 2025, cumulative flows for each calendar year, shown monthly. Net flows represent the total of all municipal bond open-end funds.

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Investors continue to take on duration and credit risk

Fund flows favor intermediate duration and high yield municipals.

2025 YTD inflow or outflow by municipal bond category



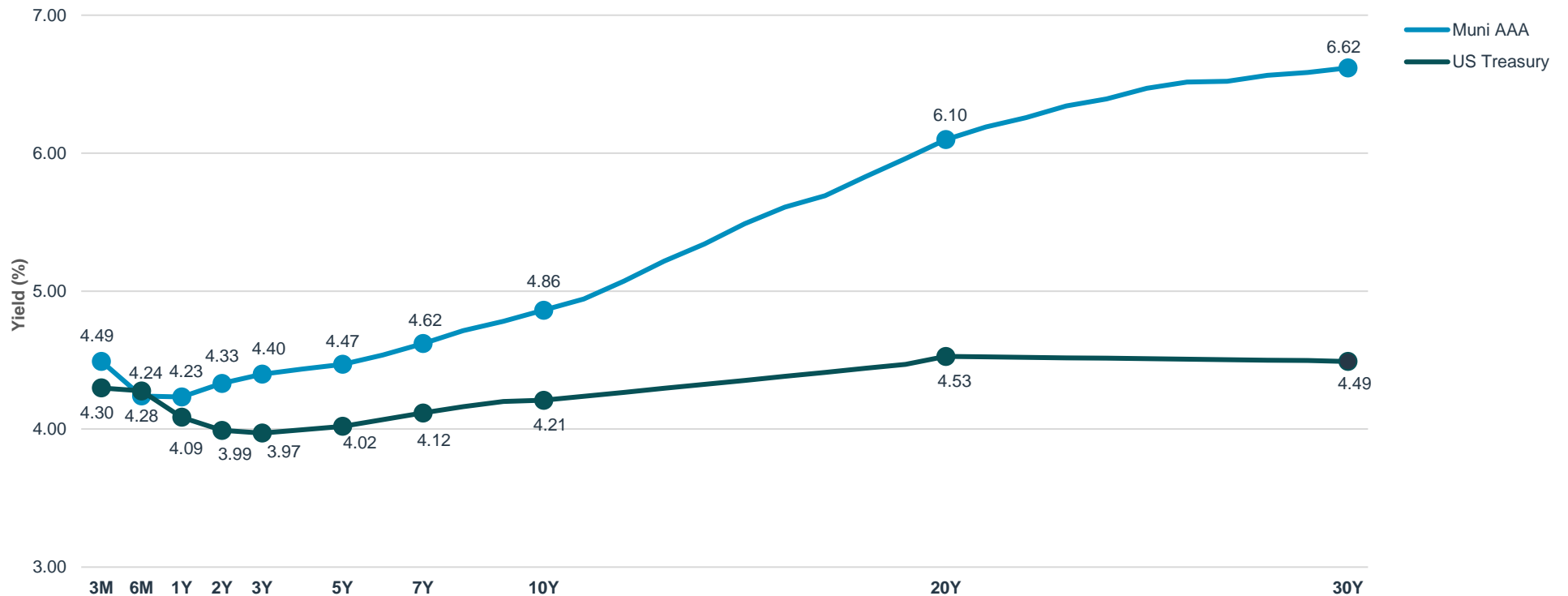
Data source: Morningstar Direct, 01 Jan 2025 – 31 Jan 2025. Net flows represent the total of all municipal bond open-end funds. Respective Morningstar categories: Short duration municipals: Muni National Short; Intermediate duration municipals: Muni National Interm; Long duration municipals: Muni National Long; High yield municipals: High Yield Muni.

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Municipals are attractive on an after-tax basis

The shape of the municipal curve offers 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)

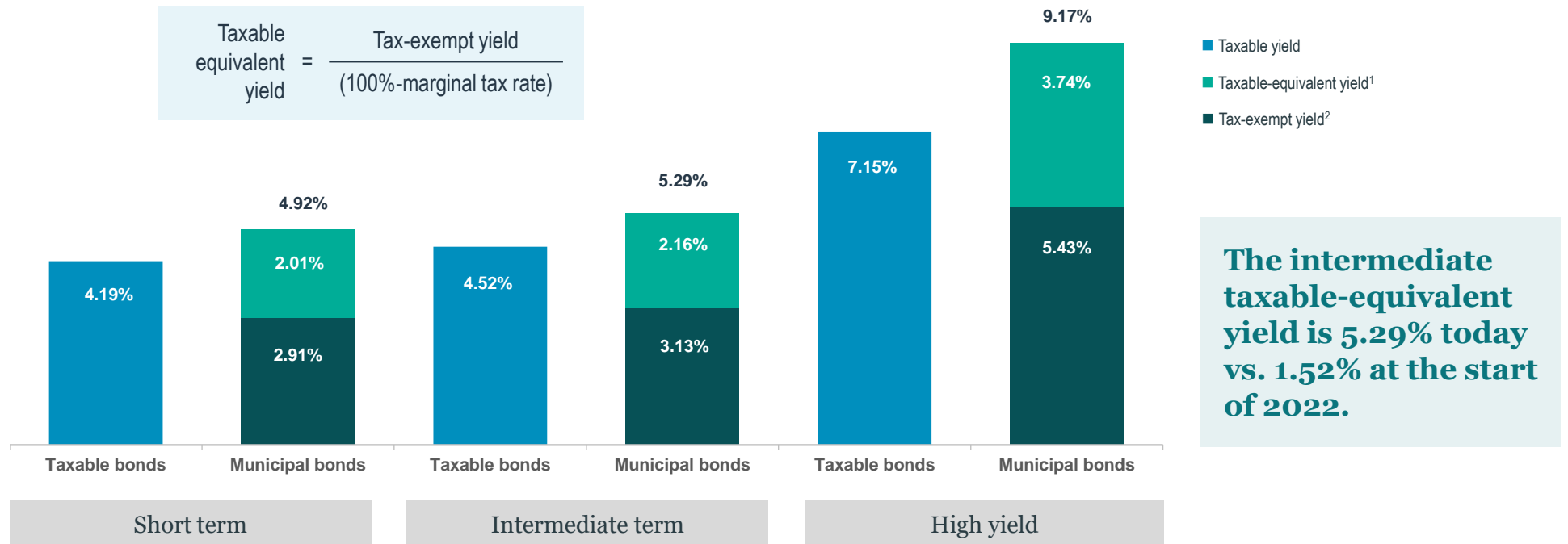


Data source: Bloomberg; Nuveen Portfolio Strategy & Solutions, as of 28 Feb 2025. **Taxable-equivalent yield (TEY)** is the yield a taxable investment needs to possess (before taxes) for its yield to be equal to that of a tax-free municipal investment. The yields shown are based on the highest individual 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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Municipals are attractive on an after-tax basis

Yield comparison



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.

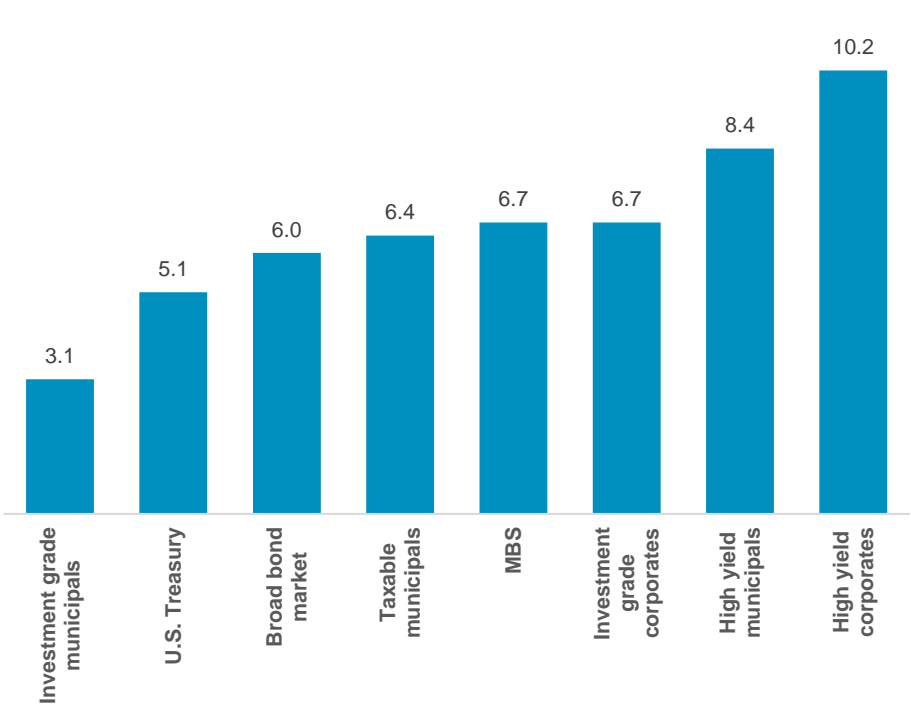
Data source: Bloomberg L.P., 28 Feb 2025. **Performance data shown represents past performance and does not predict or guarantee future results.** Yields are yield to worst. **Yield to worst** is the lowest potential yield that can be received on a bond without the issuer defaulting. **Taxable-equivalent 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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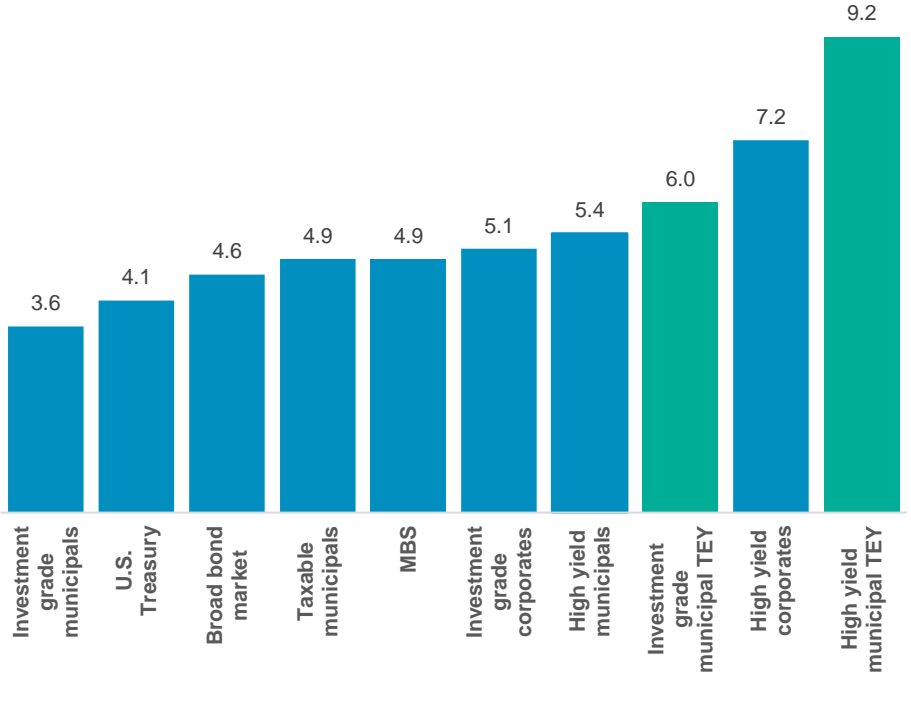
Fixed income sector performance is mixed, and investment grade municipals show resilience

Comparing asset class returns and yields

Trailing 12 month returns (%)



Yield to worst (%)

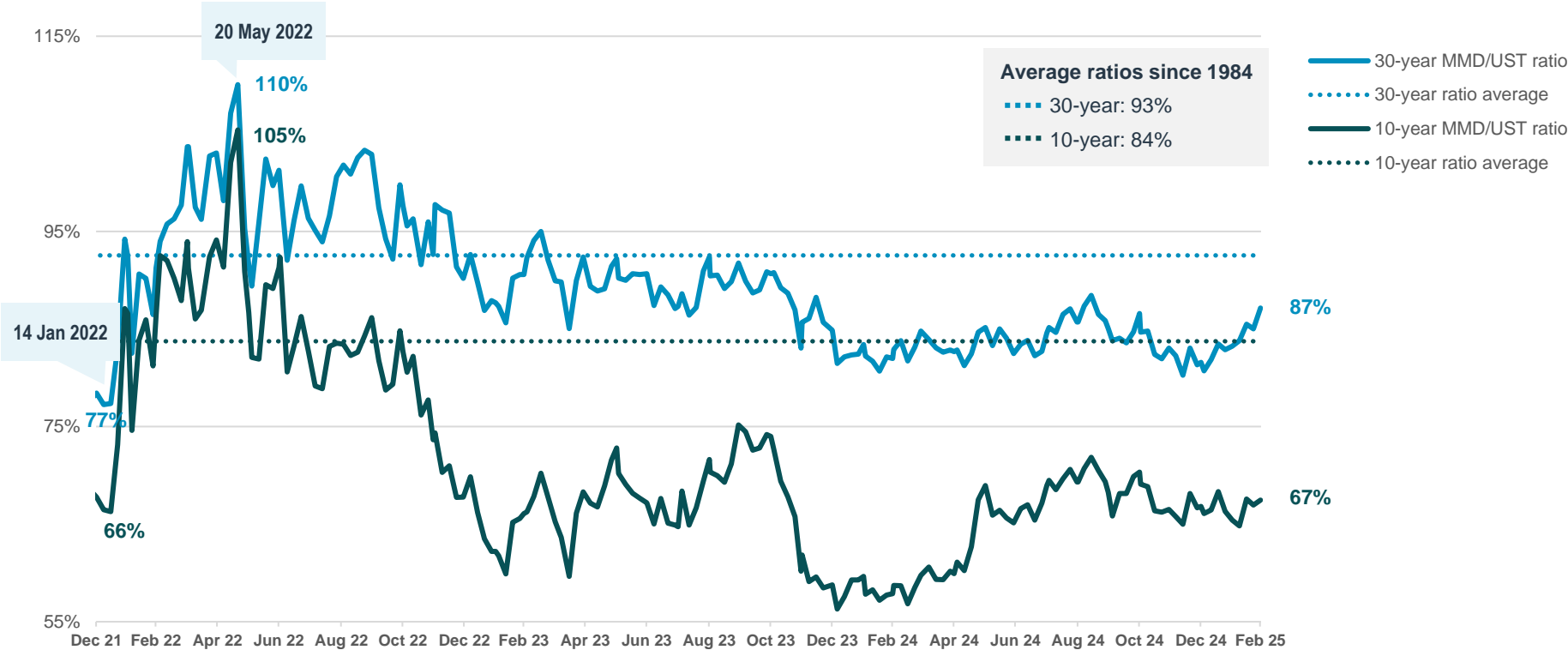


Data source: Bloomberg, L.P., trailing 12 month returns from 29 Feb 2024 – 28 Feb 2025; yield to worst as of 28 Feb 2025. Performance data shown represents past performance and does not predict or guarantee future results. Yields are yield to worst. Yield to worst is the lowest potential yield that can 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, but technical conditions have lagged

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

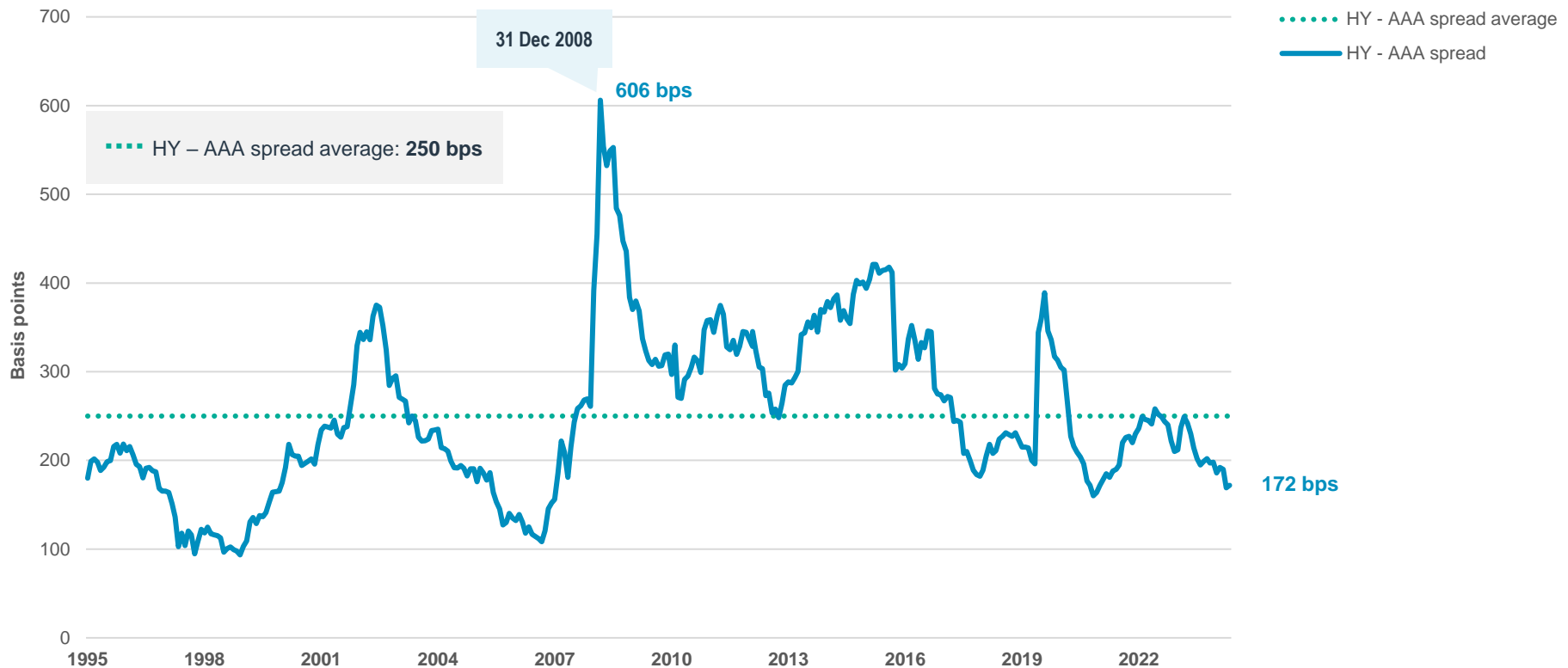


Data source: Refinitiv MMD for fair value Municipal 10- and 30-Year Index AAA General Obligation bonds; Bloomberg for 10- and 30-year U.S. Treasury yields, shown weekly, 31 Dec 2021 – 28 Feb 2025, averages shown from 01 Jan 1984 – 28 Feb 2025. Performance data shown represents past performance and does 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

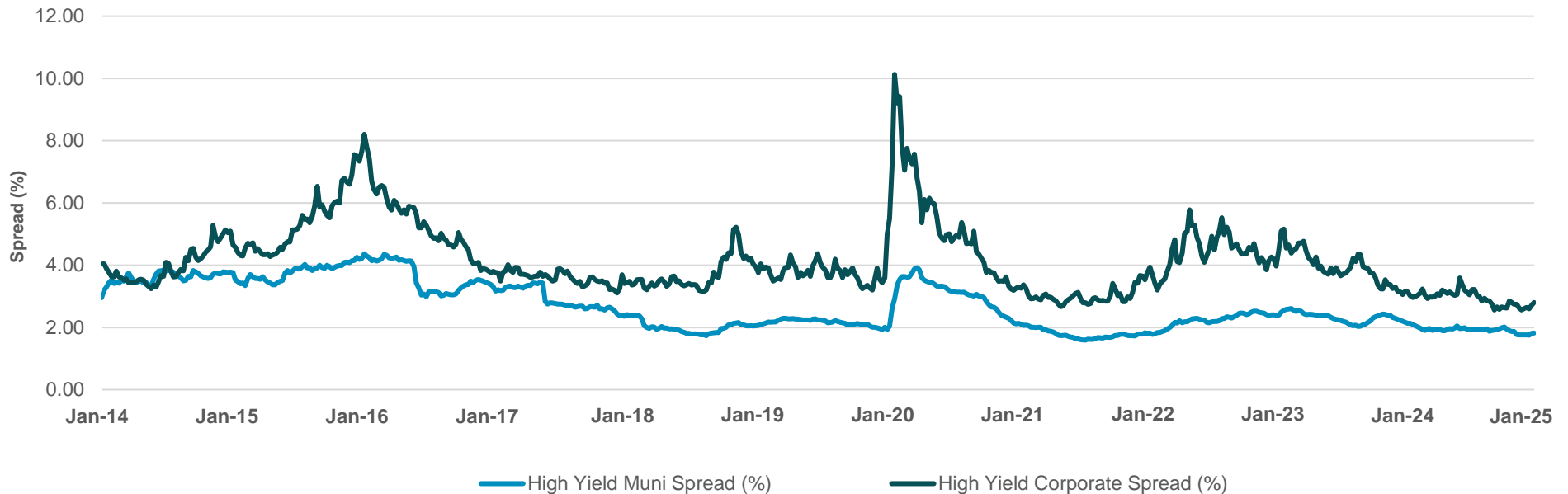


Data source: Bloomberg, Refinitiv MMD, 31 Oct 1995 – 28 Feb 2025, shown monthly. Chart shows data to the earliest period available. Performance data shown represents past performance and does not predict or guarantee future results. High yield municipal yields represented by the Bloomberg High Yield 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 – 28 Feb 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.
- The shape of the yield curve is positively sloped, providing strong opportunity in the intermediate area.
- Municipal credit remains strong, with robust revenue collections and reserve funds.
- Credit selection and a willingness to own duration could help support performance.

Challenges

- Expected 2025 overall supply of \$450B-\$500B could create volatility as supply is absorbed.
- 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.
- Acceleration of growth could reignite inflation, a worry for fixed income investors.

Source: Nuveen as of 28 Feb 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

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Fundamentals and technical strength continue to be a tailwind

Characteristics and performance

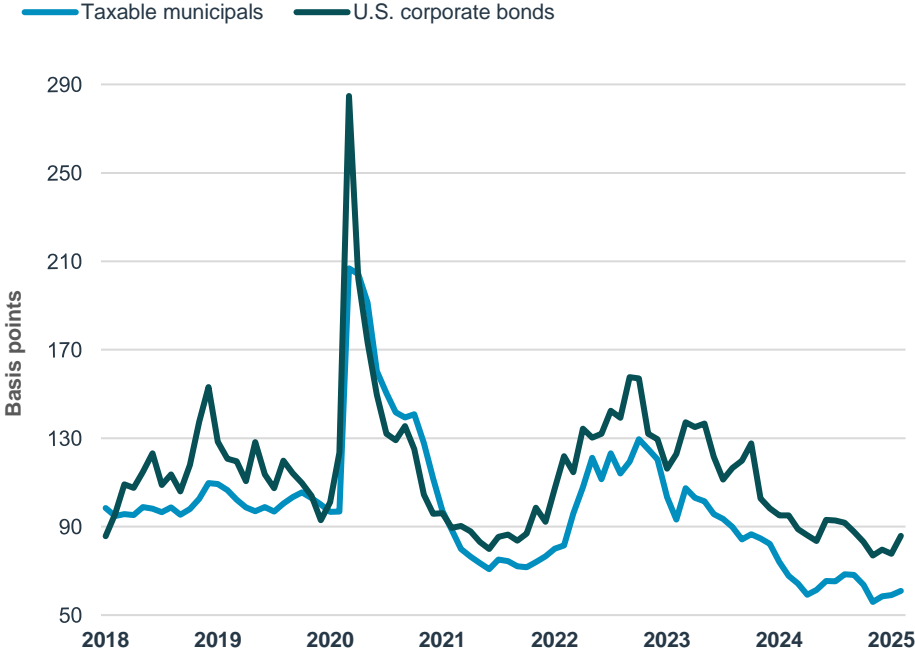
Index	Yield to worst (%)	Spread (bps)	Effective duration (years)	Returns (%)		
				February 2025	4Q 2024	2024
Taxable municipal (AA-)	4.92	61	7.55	2.85	-3.57	1.57
U.S. asset-backed securities (AA+)	4.55	50	2.59	0.97	-0.05	5.02
U.S. mortgage-backed securities (AA+)	4.85	31	5.85	2.55	-3.16	1.20
U.S. corporate investment grade (BBB+)	5.08	86	6.83	2.04	-3.04	2.13
U.S. aggregate bond (AA)	4.58	32	6.02	2.20	-3.06	1.25
U.S. Treasury (AAA)	4.14	-1	5.85	2.16	-3.14	0.58
Global corporate bonds (BBB+)	4.53	89	5.89	1.64	-4.01	1.10
Global aggregate (unhedged) (A+)	3.54	33	6.47	1.43	-5.10	-1.69

Data sources: Bloomberg, L.P., Bloomberg indexes, as of 28 Feb 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. OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

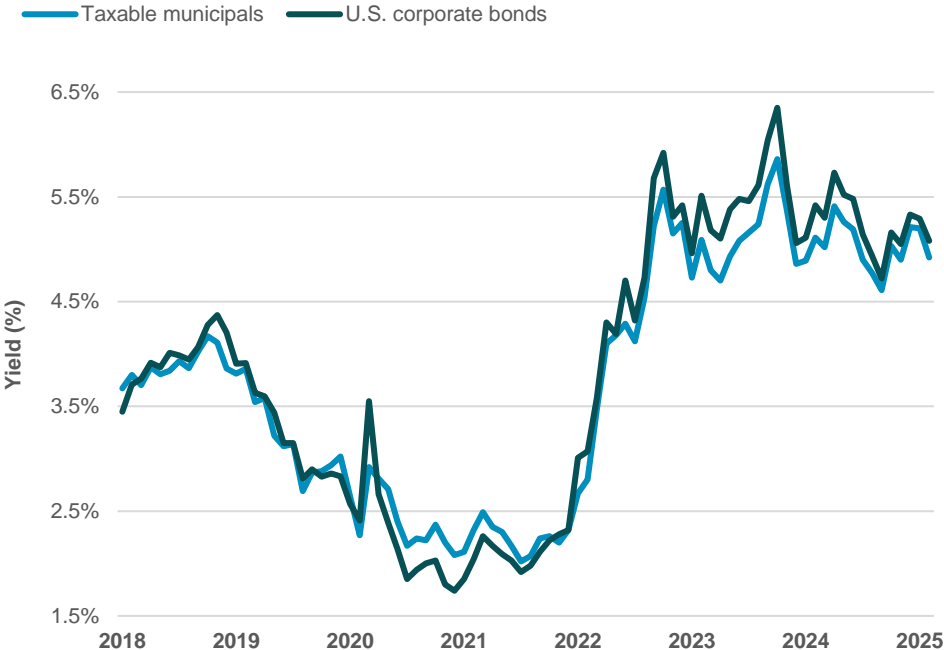
Taxable municipals can have higher credit quality than corporates but similar spreads and yields

Taxable municipals have historically been more defensive during economic downturns.

Credit spreads



Yield



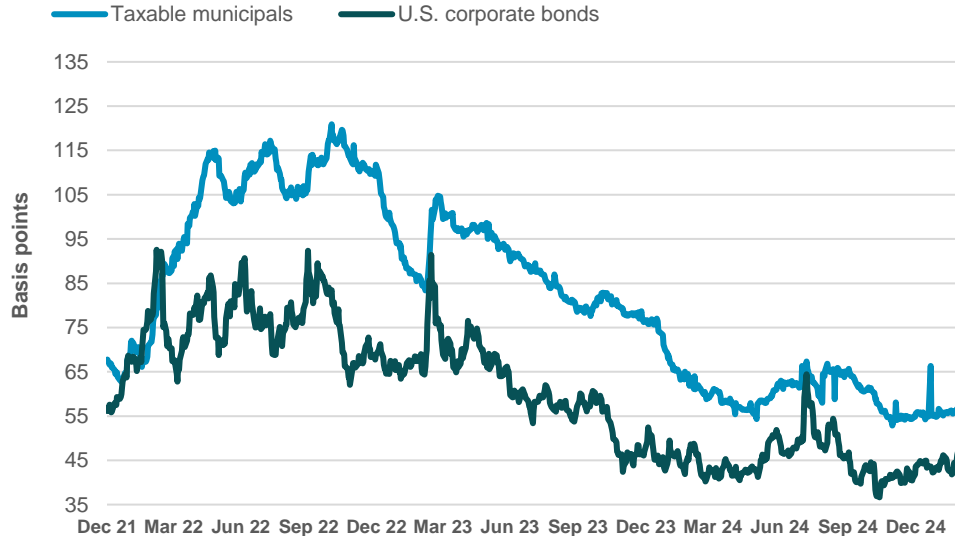
Data source: Bloomberg, L.P., 31 Jan 2018 – 28 Feb 2025, shown monthly. Spread represents option-adjusted spread (OAS). Performance data shown represents past performance and does not predict or guarantee future results. Representative indexes: taxable municipals: Bloomberg U.S. Taxable Municipal Bond Index; U.S. corporate bonds: Bloomberg U.S. Corporate Bond Index.

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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



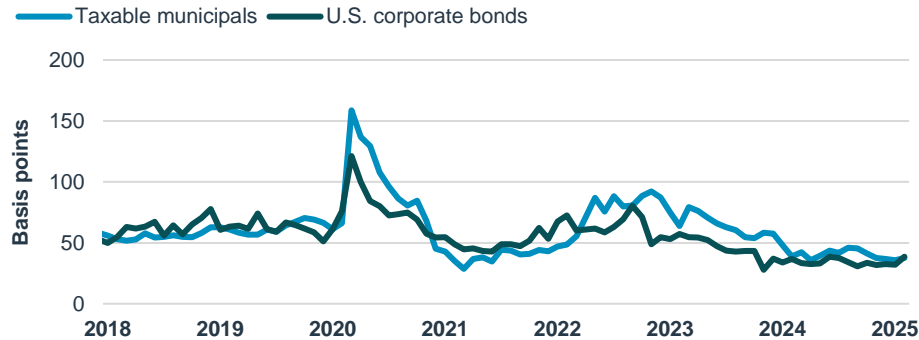
Credit spreads are narrowing but taxable municipals continue to offer an advantage over similarly rated corporate bonds.

Data source: Bloomberg, L.P., 31 Dec 2021 – 28 Feb 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.

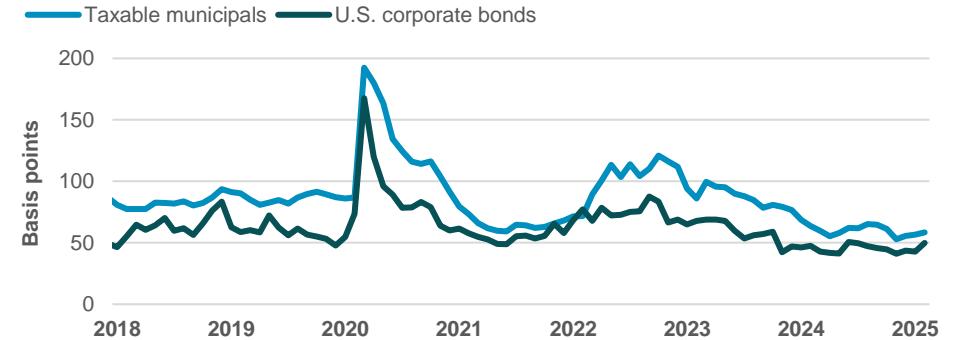
OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

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

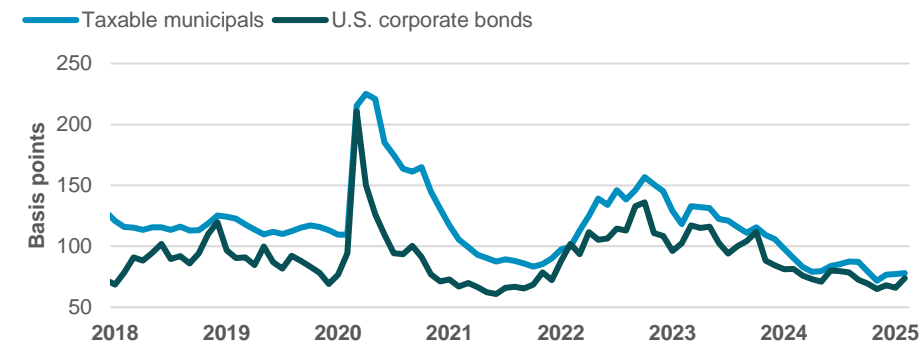
AAA-rated spread



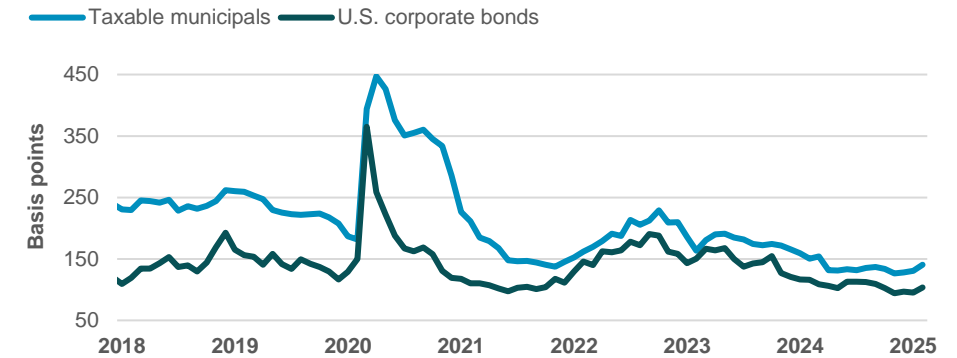
AA-rated spread



A-rated spread



BBB-rated spread



Data source: Bloomberg, L.P., 31 Jan 2018 – 28 Feb 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.

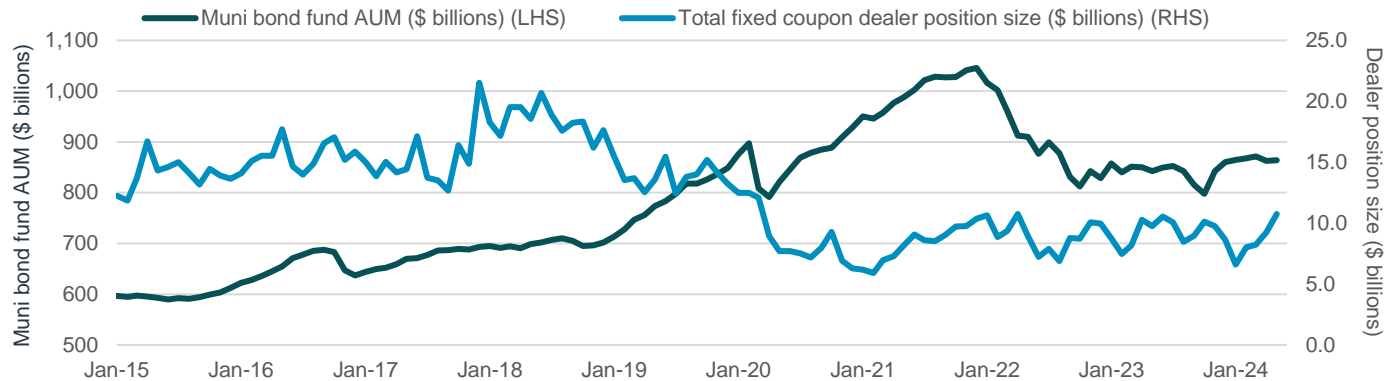
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Appendix

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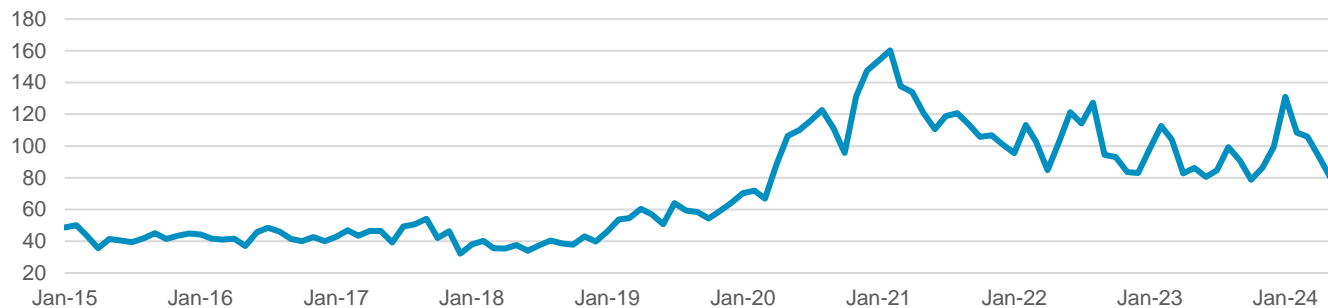
Diminished dealer participation has created elevated volatility within the municipal market

Muni fund AUM vs. average dealer position size¹



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

Muni fund AUM over dealer inventory ratio²



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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Owning municipal credit and duration prior to first rate cut contributes to returns

	Period 1 Last Rate Hike: 30 Jun 2006 First Rate Cut: 18 Sep 2007			Period 2 Last Rate Hike: 19 Dec 2018 First Rate Cut: 31 Jul 2019			Period 3 Last Rate Hike: 26 Jul 2023 First Rate Cut: 18 September 2024		
Bloomberg Municipal Bond Index	3-month return before first cut	12-month return after last hike	3-month return after first cut	3-month return before first cut	12-month return after last hike	3-month return after first cut	3-month return before first cut	12-month return after last hike	3-month return after first cut
1-year	1.37%	3.69%	1.49%	1.01%	2.49%	0.22%	1.62%	3.49%	0.30%
5-year	2.82%	3.85%	1.98%	2.48%	5.61%	0.23%	2.76%	2.67%	-0.49%
10-year	3.18%	4.77%	1.38%	2.76%	8.50%	0.70%	2.26%	1.95%	-0.75%
22+year	0.74%	5.56%	0.20%	2.93%	10.82%	1.75%	2.59%	4.24%	-1.11%
Muni Agg	2.29%	4.70%	2.25%	2.57%	7.89%	2.35%	2.36%	3.34%	-0.64%
HY Muni	-0.86%	7.71%	-2.73%	2.79%	10.83%	2.42%	2.83%	8.68%	-0.52%
	Size of 1 st rate cut: 50 bps Best performers: 10-year and HY			Size of 1 st rate cut: 25 bps Best performers: 22+ year and HY			Size of 1 st rate cut: 50 bps Best performer: HY and 1-year		

During prior Fed rate cuts, intermediate and long areas of curve have typically shown strong returns in the investment-grade space, while high yield has shown stronger overall returns.

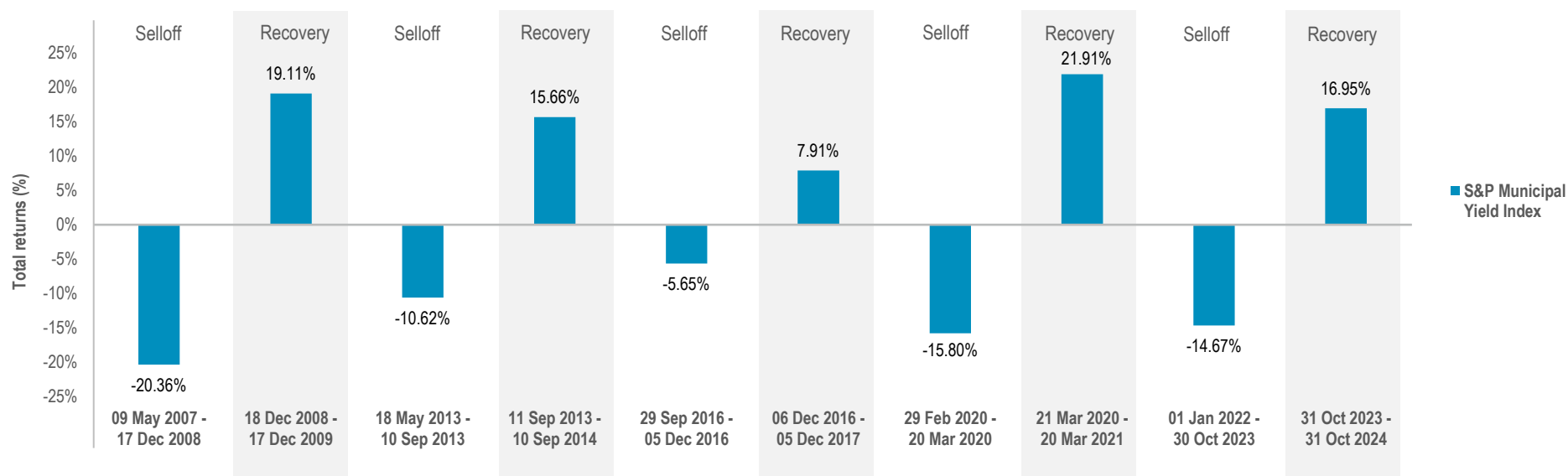
Data source: Bloomberg, L.P. Data shown applies to the actual time periods noted in the table. Performance data shown represents past performance and does not predict or guarantee future results. Representative indexes: 1-year bonds: Bloomberg 1-Year Municipal Bond Index; 5-year bonds: Bloomberg 5-Year Municipal Bond Index; 10-year bonds: Bloomberg 10-Year Municipal Bond Index; 22+-year bonds: Bloomberg Long Municipal Bond Index; Municipal bond market: Bloomberg Municipal Bond Index. Municipal Agg: Bloomberg U.S. Aggregate Index. High Yield Municipal Agg: Bloomberg Municipal Bond High Yield Index. 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. 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. Each period has its own specific factors that may help or hurt the total returns of bonds. These may be economic in nature or technically driven.

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High yield municipals have performed well within one year after significant declines

High yield municipal performance during selloffs and subsequent 1-year recoveries

S&P Municipal Yield Index total returns



High yield municipal returns were positive over the twelve-month recovery period, with a cumulative return of 16.95% from 31 October 2023 through 31 October 2024.

Data source: Morningstar Direct. Data shown applies to the actual time periods noted in the table. Performance data shown represents past performance and does not predict or guarantee future results. The drawdown time periods are based on periods where the S&P Municipal Yield Index declined 5% or more. The recovery periods are 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.

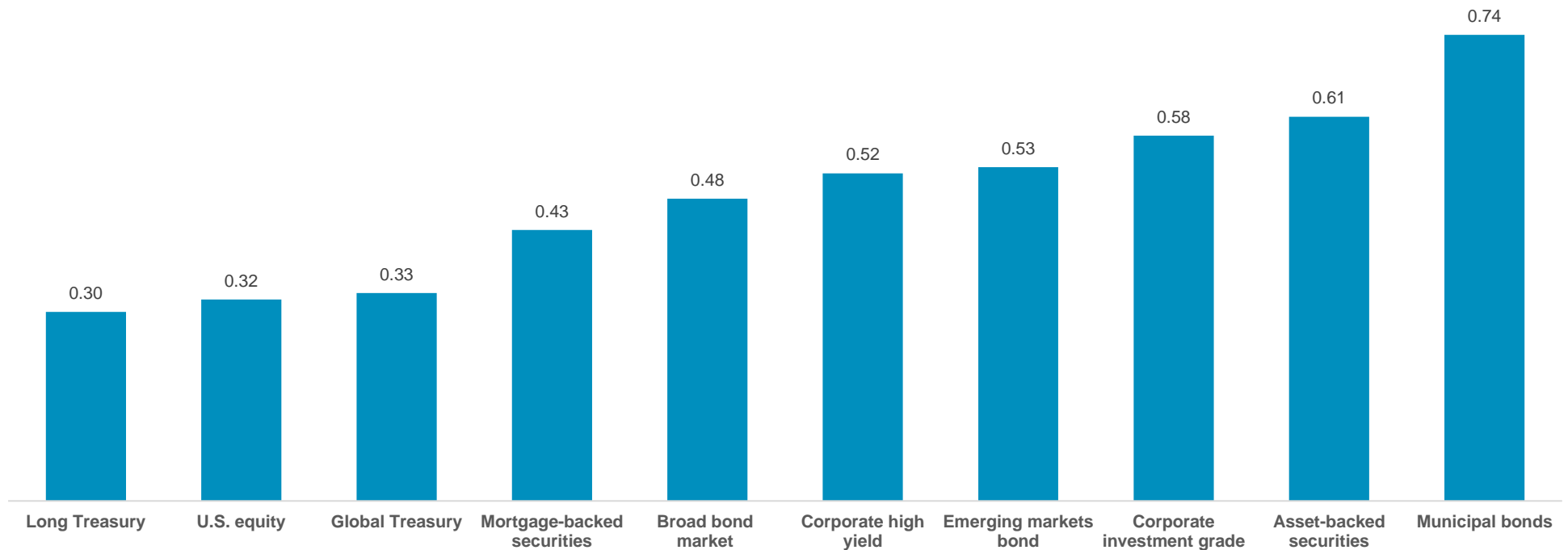
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High yield municipal bonds have a low correlation to other asset classes

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 – 28 Feb 2025



Data source: Morningstar Direct; 01 Jul 1999 – 28 Feb 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, 1970-2023¹

	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.

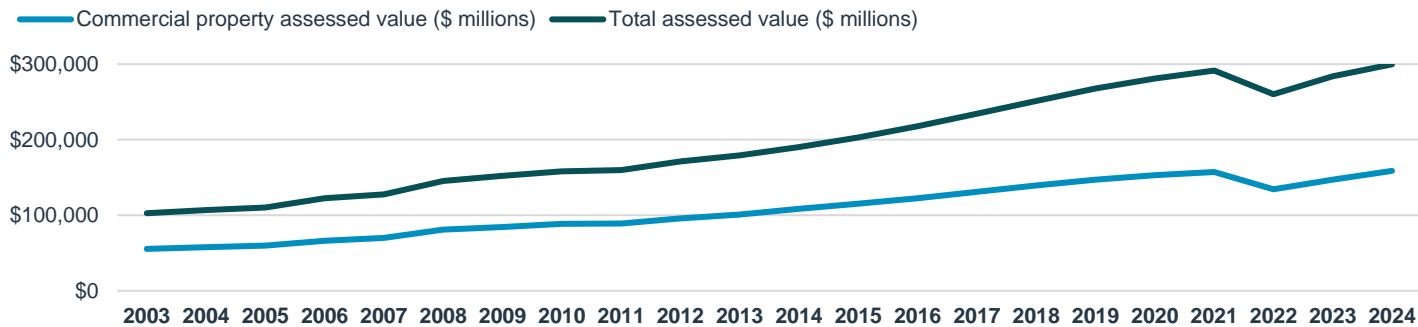
¹ Data source: Moody's Investors Service, *U.S. Municipal Bond Defaults and Recoveries, 1970 – 2023*, 24 Oct 2024, with data as of 31 Dec 2023; updated annually. Performance data shown represents past performance and does not predict or guarantee future results. The universe for the study represents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

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Revenue collections can remain resilient through economic downturns

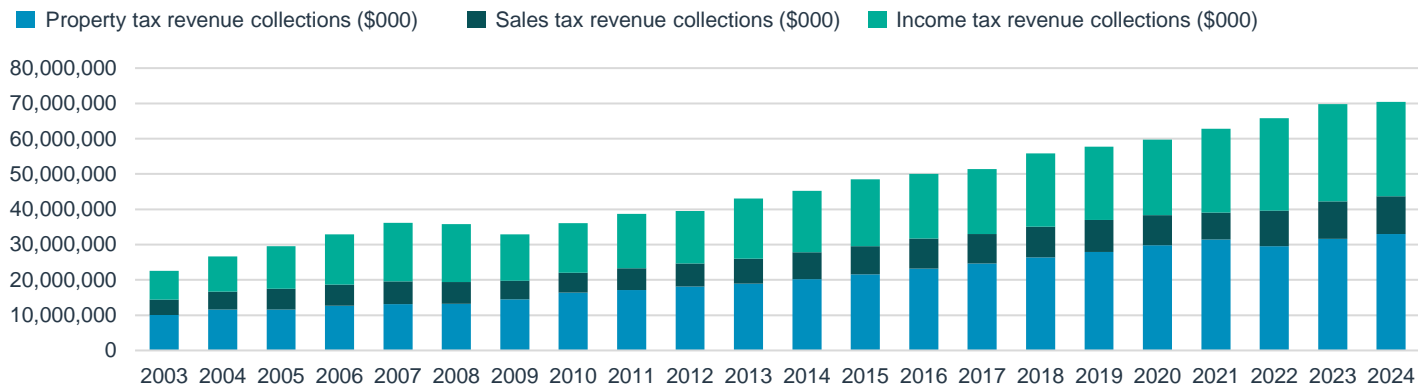
New York City case studies show that many factors contribute to financial health.

Commercial property assessed value vs. total assessed value



Assessed valuations can fluctuate over time.

Tax revenues are diverse



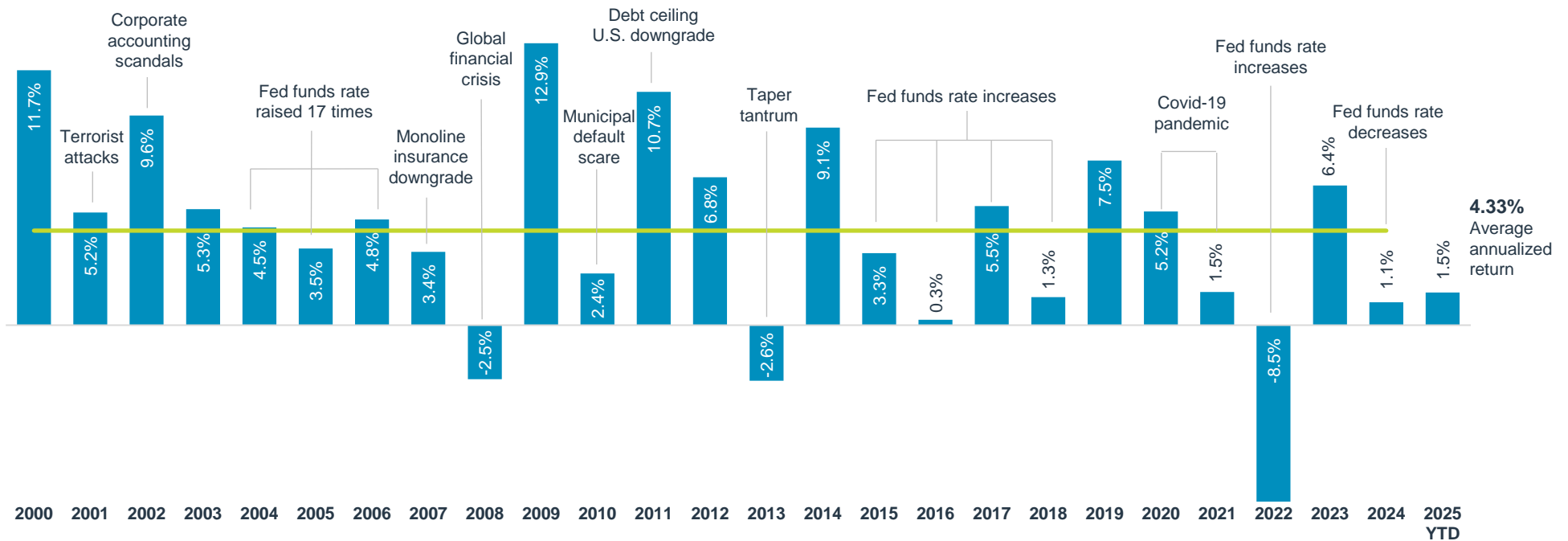
Cities can increase taxes to provide stability.

Data source: The City of New York, New York, Annual Comprehensive Financial Report of the Comptroller for the fiscal years ended June 30, 2023 and 2022, October 31, 2024.

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Municipals have typically rebounded after challenging years

Bloomberg Municipal Bond Index Returns (%)



2025 YTD index performance has returned 1.50% through February.

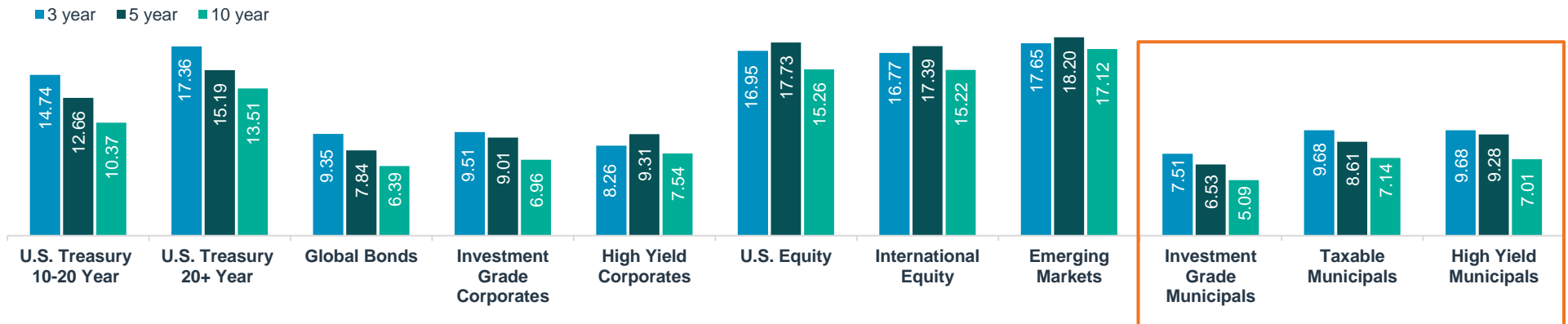
Data source: Bloomberg, L.P., 28 Feb 2025. The average annualized return shown is for the period 01 Jan 2000 – 31 Dec 2024. Performance data shown represents past performance and does not predict or guarantee future results. All investments carry a certain degree of risk, including possible loss of principal, 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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Municipals have exhibited lower volatility with strong risk-adjusted returns

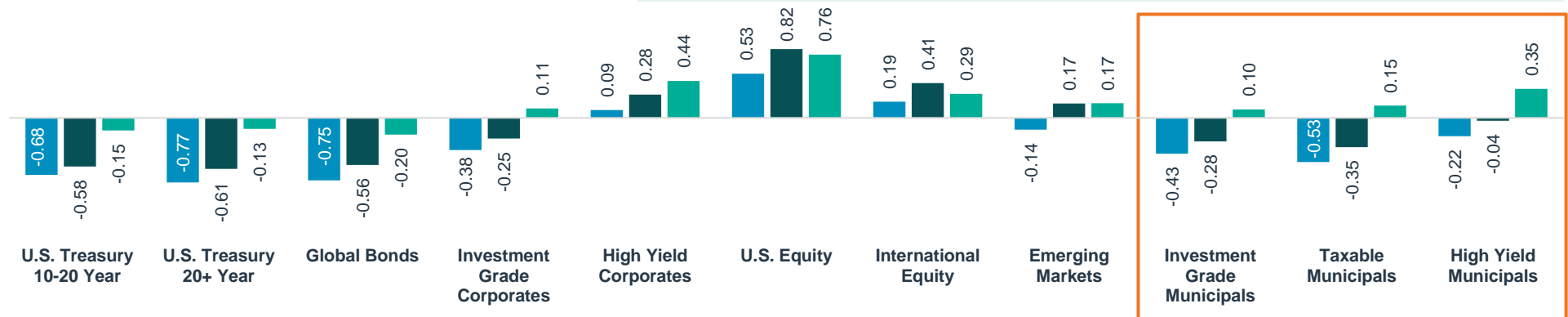
Standard deviation

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 28 Feb 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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