Municipals Weekly

Counting votes: General Elections & muni rates, issuance and returns

Industry Overview

16 February 2024

Municipals
United States

Key takeaways

- Sideways muni rates and credit spread compression should extend through April after an upside surprise in the CPI report.
- We review historical control in DC and muni returns, and look at rate and issuance patterns during general election years.
- While the value of the muni tax exemption has retraced some, it's still at the 71st percentile of its 20yr range.

Expect sideways market to be extended after CPI report

An upside surprise in the January CPI report caused the market to delay the first Fed rate cut expectation to June. We expect sideways muni rates and credit spread compression to extend through April.

General elections, muni rates, issuance & returns

To be sure, key policy issues will be impacted depending on which party controls Congress and the White House following the 2024 election. Current polling suggests Republicans enjoy an advantage for both Congress and the White House. We review control in Washington and historical muni returns (divided government is best), rate behavior (higher through June, lower into September, higher into Election Day), issuance trends (similar patterns to non-General Election years through October, but material drop off in November and December of General Election years) and sector risk-returns during the last period of heightened trade tensions under the Trump Administration (the Hospital and Miscellaneous sectors are the only two sectors that had both higher returns and less risk than the market overall, though Healthcare and Airports only had slightly higher risk than the market).

Exemption value lower, but still elevated

After reaching a two decade-plus high last Halloween, the value of the muni tax exemption (in other words, the difference between the ICE BofA Muni Master Index's YTW and its taxable equivalent YTW) retreated to 244bp by 14 February. While lower, it is still at the 71st percentile of its range over the last 20 years.

Key figures: issuance, returns, spreads & trade activity

Supply: YTD issuance through 14 February totals \$45.1bn, up 33% y/y. YTD issuance is 96% tax-exempt and 4% taxable; 70% is new money and 30% is refundings. **Returns:** The Muni Master index (U0A0) returned -0.57% YTD through 14 February, outperforming govies, corporates and taxable munis. The Muni High Yield index (U0HY) returned 0.83% YTD. BBBs' YTD returns strongest at -0.34%, as are the 1-3yr maturities' -0.06%. **Spreads:** For the week ending 14 February, IG spreads were flat w/w at 21bp, while HY spreads narrowed 2bp to 198bp. **Trade activity:** MTD in February, \$93.5bn of muni par value traded in the secondary, with a daily avg of \$9.3bn. That avg is down 11% m/m and 21% y/y.

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Recent Municipals Research

Municipals Weekly: Collapsing vol supports narrowing spreads 09 February 2024

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Municipals Weekly: 4% coupons are wide 26 January 2024

Monthly Municipal ESG Monitor: December 2023 19 January 2024

Municipals Educational Series: Primer on make-whole calls 17 January 2024

Exhibit 1: Strategic and tactical views & key forecasts
Buy long duration high grade bonds, especially 4% coupons

Strategic views
• (1) 15-30yr part of the curve, particularly 4% coupon bonds; (2) AMT bonds*: overweight
• BBBs and high yield: neutral
• (1) Territories; (2) small private colleges; (3) rural, single-facility hospitals: underweight
Tactical views
• Position for ratios to reach historically-rich levels
• 4% coupon bracket to benefit more in a rally
• Swap long-end muni taxables for long-end tax-exempts
Key forecasts
• 2024 issuance to total $400bn; $300bn of new money and $100bn of refundings
• 2024 principal redemptions to total $416bn and coupon payments $158bn. Cumulative fund inflows positive
• 1s10s slope to stay inverted in 2024; 10s30s to steepen, then flatten; 10s30s max slope of 110bp in 2024
• 10yr muni/Tsy ratio range of 55%-80% and 30yr 75%-92%
• Stable credit spreads in 2024 given non-recessionary environment; any material widening is an opportunity

Note: *If the holder is certain they are not subject to the AMT under current tax law.
Source: BofA Global Research

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Market views & strategies

Expect extended sideways market after January CPI report

A consistent stream of upbeat January economic data, and finally an upside surprise in the CPI report, have conclusively quieted all the debate about a March Fed rate cut. Moreover, even the probability of a May Fed rate cut, which was priced at 100% probability at the beginning of the year, is now downgraded to a minor probability of 41%.

Still, bond bulls could cling to the hope that the Fed's preferred inflation gauge, the PCE index, may behave better as it has run below the 2% desired target since May 2023, except for September. It seems to have become a matter of time and circumstance when the Fed will feel confident to start the rate reduction after the clear dovish shift a few weeks ago. Two more months of economic data seems to be needed. BofA's economists keep their call of the first Fed rate cut in June. If so, that would mean the sideways muni rates market and continued credit spread compression will be extended through April. There is no change in our recommendation for picking and choosing bonds during such a period.

While the focus is now all about the first Fed rate cut, the evolution of the market expectation has taught us a good lesson regarding what may lie ahead following the first rate cut in June 2024. In all likelihood, the market may slowly diverge to a dual focus in 2H24, especially by August. One lens is on the Fed and the other is on the possible election outcome. Since the Fed would have to take into consideration the fiscal environment, the two focuses are not entirely independent. However, the muni market appears to have some consistent behavior during such a year.

General elections, muni rates, issuance & returns

The US election is now just over 260 days away. As of 15 February, Realclearpolitics' (RCP) generic congressional ballot, which is an average of recent polls, gives Republicans a 2.1ppt advantage over Democrats, at 45.1% versus 43.0%. Meanwhile, the Cook Political Report (CPR) currently has 171 House seats solidly, 18 seats likely and 14 seats leaning Democrat vs 192 seats solidly, 10 seats likely and 8 seats leaning Republican, with 22 seats rated as toss ups. For the Senate, 23 Democrat-controlled seats are up for reelection, and 11 for Republicans. Among those 23 Democrat-controlled seats, CPR ranks 13 as solid Democrat, 2 likely Democrat and 4 that lean Democrat. Three seats are ranked as toss-ups and one – Senator Joe Manchin's seat, is rated as solid Republican. For the 11 Republican-controlled seats, 9 are ranked as solid Republican and 2 as likely Republican.

On the presidential front, RCP shows former President Trump has an average polling advantage since the end of January of 1.1ppt over President Biden, while the CPR shows 209 electoral votes are solidly Democrat and 17 are likely Democrat; 148 electoral votes are solidly Republican, 71 are likely Republican and 16 lean Republican; 77 electoral votes (from AZ, GA, MI, NV, PA and WI) are currently rated as tossups.

The election will impact a myriad of different policies depending on which party controls Congress and the White House, according to BofA's Global Macro Year Ahead report released last November. See Exhibit 2 below.

Exhibit 2: The outcome of the election has different implications for key policy issues
Hypothetical US election scenarios

Key Issue	Republican Sweep	Democratic Sweep	Divided Government, Republican President	Divided Government, Democratic President
Fiscal policy	Looser (tax cuts)	Looser (spending increases)	Neutral (Gridlock)	Neutral (Gridlock)
Trade policy	Increased use of tariffs and tech restrictions	Tech restrictions	Increased use of tariffs	Ongoing restrictions tied to technology
Monetary policy/Fed	New chair, more political pressure	Possible, still independent Fed	New chair, political pressure	Possible, still independent Fed
Climate policy	Reversal of climate agenda	Expansion of climate agenda	No change (Gridlock)	No change (Gridlock)
Foreign Policy	Increased risk of isolationism	Increased engagement with US allies	Increased risk of isolationism	Increased engagement with US allies

Source: BofA Global Research; see Ex. 19 in the Global Macro Year Ahead: Hope for the best, prepare for the worst 19 November 2023

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Below, we discuss ICE BofA Muni Master Index (U0A0) returns based on control in Washington, 10yr AAA MMD rate and long term issuance patterns during General Election years, as well as muni sector returns during the last period of heightened trade tensions under the Trump Administration.

Control in DC: one-party control not optimal for muni returns

Reviewing control of Congress and the executive branch since the early 1990s to determine if certain control compositions are more conducive to stronger muni returns, we find that one-party control returns for the ICE BofA Muni Master Index (U0A0) were weaker on a weighted average basis (9.88%) than divided control returns (28.57%) for roughly the same risk (3.96% for one-party control versus 4.36% for divided control). We calculate "risk" here as the standard deviation of 12-month total returns over the control periods. As Exhibit 3 shows, the weakest weighted average return by control period length is Democrat control of both Congress and the White House, due in large measure to 2022's bond market rout; the strongest weighted average return is under a Republican-controlled Congress with a Democrat occupying the White House.

Exhibit 3: Risk/return (%) of U0A0 under different control scenarios, historically
Historically, returns during one-party control have not been the best

House	Senate	President	Period	TR	Risk	Period	TR	Risk	Period	TR	Risk	WA TR	WA risk
D	D	D	12/31/93*-1/3/95	-6.7	5.4	1/20/09-1/3/11	11.9	5.1	1/20/21-12/31/22	-7.5	6.5	0.3	5.7
D	R	D	-	-	-	-	-	-	-	-	-	-	-
R	D	D	1/4/01-1/19/01	0.2	0.4	1/4/11-1/2/15	27.2	5.2	1/3/23-current**	5.7	3.3	22.2	4.7
R	R	D	1/4/95-1/3/01	60.6	5.8	1/5/15-1/19/17	4.3	2.3	-	-	-	46.4	4.9
R	R	R	1/6/03-1/3/07	23.3	2.9	1/20/17-1/3/19	6.6	1.7	-	-	-	17.8	2.5
R	D	R	1/22/01-1/3/03	14.1	4.1	-	-	-	-	-	-	14.1	4.1
D	R	R	1/4/19-12/31/20	12.9	2.4	-	-	-	-	-	-	12.9	2.4
D	D	R	1/4/07-1/16/09	4.3	3.3	1/4/21-1/19/21	0.0	0.0	-	-	-	4.2	3.3

Note: D refers to Democrat, R refers to Republican. TR refers to total return, WA refers to weighted average (based on length of period). *Daily data fpr the index begins on 12/31/93. **Through 2/9/24. Congress' term begins before a president is inaugurated; as such, there may be short periods in which control of Congress has shifted before a president is sworn into office.
Source: BofA Global Research, ICE Data Indices, LLC

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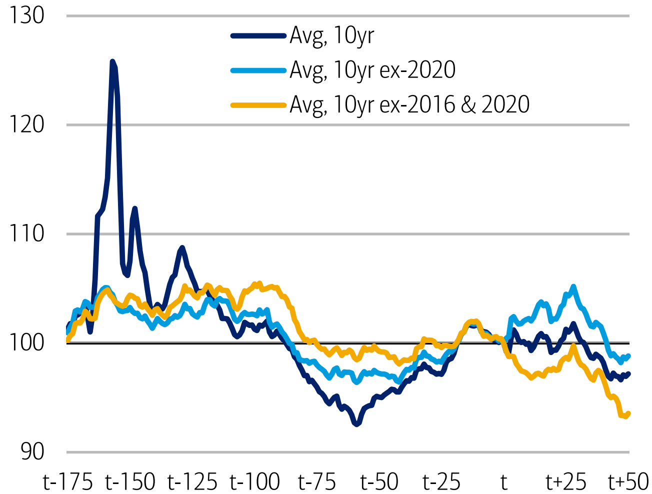
Rate behavior: expect a late summer rise into Election Day

Reviewing rate behavior during a general election year, Exhibit 4 shows that over the last 9 general election years, 10yr AAA MMD rates tended to be higher through June, move lower into September and rise into Election Day. 10yr AAA rates then move sideways into mid-December before falling into Inauguration. Of course, rate moves in both 2016 (when Trump was elected) and 2020 (when Biden was elected) were significant, particularly after Election Day. Exhibit 5 shows that rates followed a similar path leading into Election Day, but diverged significantly thereafter: in 2020, rates moved significantly lower post-Election Day but in 2016 they spiked after President Trump's surprise electoral victory.

Exhibit 4: 10yr AAA avg rate path during general election years
Index of 10-yr MMD AAA rates. Election Day, "t" = 100



Source: BofA Global Research, Refinitiv

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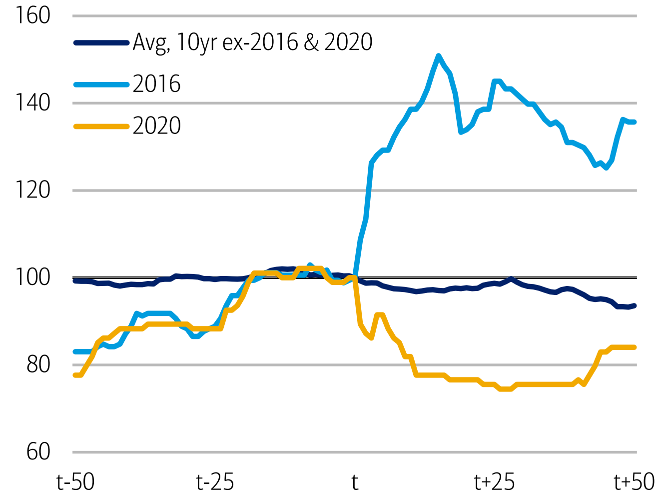
Exhibit 5: 10yr AAA MMD behavior in 2016 and 2020
Rate paths similar pre-election, diverged after. Index values; "t"=100



Source: BofA Global Research, Refinitiv

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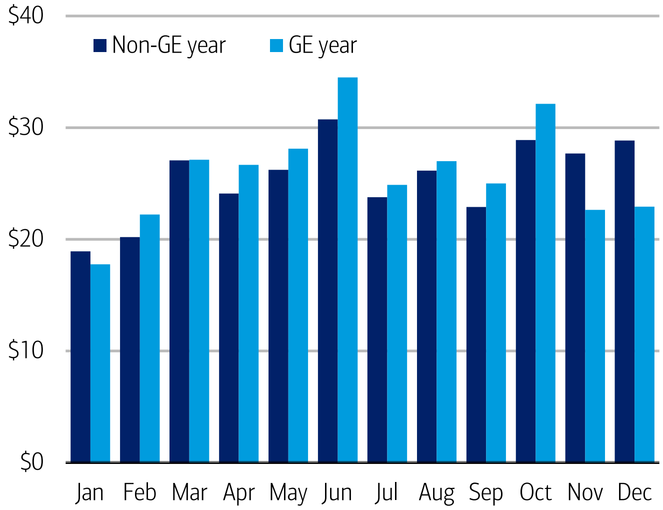
Issuance drops off in November and December of General Election years

The overall pattern of monthly issuance is similar in General Election and non-General Election years, at least through October. That is, on average, monthly issuance rises through March, takes a step back in April, before rising to a high in June. Thereafter, it takes a step back in July through August before climbing again in October. In November and December of non-General Election years, issuance remains elevated; that is not the case in General Election years, when average issuance drops materially versus October.

Exhibit 6: Avg monthly issuance, Jan-85 thru Dec-23 ($bn)
Patterns similar except for November and December of General Election year



Note: GE refers to General Election. Jan-85 thru Dec-23.
Source: BofA Global Research, Refinitiv

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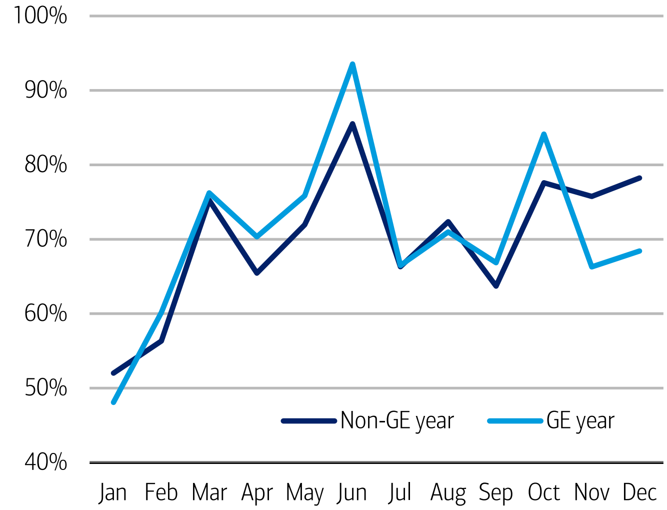
Exhibit 7: Monthly issuance as % of peak monthly issuance
Avg, GE years vs non-GE years, 1985-2023



Note: GE refers to General Election. Jan-85 thru Dec-23.
Source: BofA Global Research, Refinitiv

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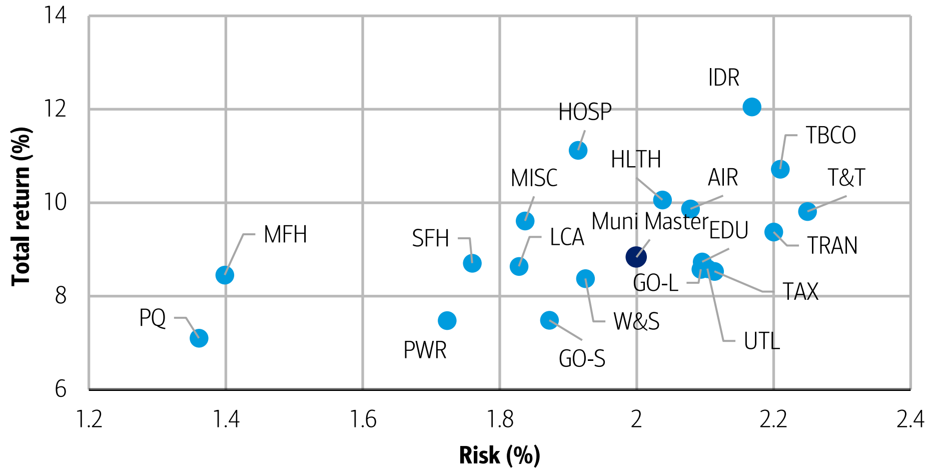
For Exhibit 7 above right, we calculate each month's issuance as a percentage of the maximum monthly issuance for a given year. We then averaged those percentages for each month across all non-General Election and General Election years since 1985. Exhibit 7 shows that issuance during November and December in General Election years amounts to an average of 66%-68% of peak monthly issuance, or about 10ppt lower than in non-General Election years.

Trade tensions: sector returns during last go around

Our IG corporate analysts recently highlighted former President Trump's comments suggesting the imposition of a 10% universal tariff and 60% China tariff, raising the possibility of a renewed trade war should Trump be elected come November. As they noted there, trade wars were at the top of investors' concerns back in 2019.

Using the Nov-16 through May-19 timeframe our IG analysts used as part of their look back spread performance analysis, in Exhibit 8 we compare risk versus return for the ICE BofA Muni Master Index (U0A0) with the various muni sectors. We calculate "risk" as the standard deviation of total returns from 1 November 2016 to 31 May 2019 versus the total return over that period. As Exhibit 8 shows, while the Industrial Development, Tobacco, Toll & Turnpike and Transportation sectors all had higher returns than the market broadly, they also had more risk. The Education, Local GO, Tax Revenue and Utilities-other sectors also had roughly the same returns as the market, but more risk; conversely, the Multi-family housing, Single family housing and Lease, COPs & Appropriations sectors had similar returns but less risk. The Hospital and Miscellaneous sectors are the only two that had both higher returns and less risk than the market overall, though Healthcare and Airports only had slightly higher risk than the market.

Exhibit 8: Risk and return of sector indexes vs the muni market, Nov-16 thru May-19
HOSP and MISC had higher returns and less risk than market broadly during heightened trade tensions



Note: See sector definitions in Exhibit 37 below.
Source: BofA Global Research, ICE Data Indices LLC

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Which goods are impacted by potential tariffs will likely drive the geographic impact in the US, as it did during Trump's first term. Our nation's ports will be at the front line of any trade war, with the West Coast ports in particular exposed to heightened trade tensions with China. We would anticipate that, should President Trump win reelection, West Coast ports – particularly the Ports of Los Angeles and Long Beach – would see a surge in volumes as companies accelerate shipments before tariffs go into effect.

Exemption's value lower, but still elevated

Back in mid-November, we wrote that the value of the muni tax exemption – or, in other words the difference between the ICE BofA Muni Master index's (U0A0) YTW and its taxable equivalent YTW – had reached a two-decade high at 319bp on 31 October. While lower exempt rates since decreased the value of the exemption, it is still at the 71st percentile of its last two-decade long range at 244bp as of 14 February. So, even though ratios to Treasuries are currently at richer levels (58% at the 10yr and 81% at the 30yr), we still view munis' taxable equivalent yields as attractive given the fundamental credit strength in the muni market, and also on a relative basis versus taxable markets' yields.

Exhibit 9: Value of munis' tax exemption*, historically (bp)
Current value is at the 71st percentile of last 20yr range

Note: *Reflects the bp difference between U0A0's YTW and its taxable equivalent yield calculated using only the top federal marginal tax rate in effect for a given tax year.
Source: BofA Global Research, ICE Data Indices, LLC, St. Louis FRED

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Performance

Exempt IG extends outperformance vs taxables

Through 14 February, exempt IG returned -57bp. As Exhibit 10 shows, exempt IG is outperforming govies for the YTD by 129bp, corporates by 100bp and taxable munis by 75bp. Still, exempt IG is underperforming HY munis by 140bp. Among IG rating brackets, BBBs' returns remain strongest thus far in 2024, with their -34bp of total returns while AAAs' -79bp are weakest.

Note that while GOs are slightly outperforming revenue bonds for the MTD, their returns are lagging revenue bonds' by 9bp for the YTD, though both single-A and BBB GOs continue to outperform their revenue counterparts. We continue to see the shorter maturity indexes outperform for the YTD: among the maturity indexes, the shortest maturities' (1-3yr) have the strongest returns YTD at -6bp while the longest maturity indexes returns' (the 22+yr index) are weakest at -86bp.

Exhibit 10: Municipal total returns (%) monitor, as of 14 February 2024

Exempt IG munis extend their outperformance vs govies and corporates this week

Index	Ticker	1d	1wk	MTD	1mo	3mo	YTD	1yr
Govt Master	G0A0	0.293	-0.842	-1.695	-1.611	2.288	-1.858	0.979
Corporate Master	C0A0	0.334	-0.919	-1.717	-1.475	4.339	-1.571	4.404
IG munis	**U0A0**	**0.062**	**-0.087**	**-0.347**	**-0.460**	**4.410**	**-0.569**	**3.470**
AAA	U0A1	0.074	-0.087	-0.420	-0.586	4.168	-0.791	2.895
AA	U0A2	0.054	-0.102	-0.360	-0.478	4.187	-0.623	3.129
A	U0A3	0.064	-0.060	-0.284	-0.341	4.789	-0.388	4.171
BBB	U0A4	0.096	-0.061	-0.333	-0.514	5.443	-0.343	4.826
1-3yr	U1A0	0.048	0.042	-0.053	0.111	1.463	-0.060	2.724
3-7yr	U2A0	0.054	-0.035	-0.166	-0.233	2.908	-0.439	2.233
7-12yr	U3A0	0.064	-0.086	-0.295	-0.620	4.181	-0.605	2.456
12-22yr	U4A0	0.056	-0.091	-0.373	-0.579	5.183	-0.599	4.407
22+yr	U5A0	0.077	-0.180	-0.622	-0.666	6.255	-0.856	4.157
HY munis	**U0HY**	**0.123**	**0.064**	**-0.150**	**0.286**	**5.953**	**0.832**	**4.046**
Non-rated	U0NR	0.151	0.042	-0.163	0.153	6.248	0.401	5.513
General Obligation	**U0AG**	**0.049**	**-0.091**	**-0.339**	**-0.493**	**4.011**	**-0.636**	**2.985**
AAA	UGA1	0.069	-0.067	-0.380	-0.570	4.125	-0.822	2.600
AA	UGA2	0.055	-0.101	-0.342	-0.498	3.933	-0.634	2.929
A	UGA3	-0.065	-0.102	-0.244	-0.303	4.332	-0.276	3.217
BBB	UGA4	0.057	0.062	-0.164	-0.212	4.181	-0.037	5.544
State	U0AA	0.045	-0.087	-0.279	-0.416	3.563	-0.527	2.801
Local	U0AB	0.053	-0.096	-0.409	-0.582	4.525	-0.763	3.186
Revenue	**U0AR**	**0.066**	**-0.086**	**-0.350**	**-0.449**	**4.540**	**-0.548**	**3.626**
AAA	URA1	0.078	-0.100	-0.448	-0.598	4.195	-0.770	3.101
AA	URA2	0.053	-0.102	-0.368	-0.470	4.294	-0.618	3.211
A	URA3	0.075	-0.056	-0.287	-0.344	4.826	-0.398	4.259
BBB	URA4	0.099	-0.070	-0.346	-0.538	5.548	-0.367	4.500
Airport	U0AV	0.066	-0.039	-0.196	-0.347	4.376	-0.396	3.916
Education	U0AE	0.052	-0.136	-0.431	-0.595	4.737	-0.671	3.312
Health	U0HL	0.278	0.137	-0.283	-0.133	7.505	0.281	5.126
Hospital	U0AH	0.062	-0.100	-0.397	-0.363	5.646	-0.544	3.839
Industrial Development Rev	U0ID	0.161	-0.030	-0.207	-0.398	5.478	-0.250	5.002
Leases, COPs & Appropriations	U0AL	0.055	-0.072	-0.291	-0.430	4.209	-0.562	3.159
Miscellaneous	U0AM	0.053	-0.094	-0.549	-0.831	3.893	-0.947	2.467
Multi-family Housing	U0AU	0.069	-0.116	-0.337	-0.561	4.407	-0.695	3.300
Pollution Control	U0AQ	0.062	0.007	-0.190	-0.255	3.872	-0.327	2.780
Power	U0AP	0.044	-0.059	-0.303	-0.374	3.841	-0.454	2.969
Single-family Housing	U0AS	0.066	-0.093	-0.312	-0.442	3.900	-0.691	2.513
Tax Revenue	U0TX	0.065	-0.120	-0.463	-0.623	4.451	-0.808	3.568
Tobacco	U0TB	0.170	0.184	-0.029	0.191	4.225	0.294	4.080
Toll & Turnpike	U0TL	0.088	-0.070	-0.309	-0.401	4.355	-0.414	3.647
Transportation - other	U0AT	0.070	-0.016	-0.293	-0.457	4.694	-0.534	4.412
Utilities - other	U0UT	0.059	-0.165	-0.264	-0.274	4.105	-0.236	3.986
Water & Sewer	U0AW	0.047	-0.080	-0.364	-0.401	4.135	-0.512	3.222
Taxable	**TXMB**	**0.325**	**-0.930**	**-1.594**	**-1.011**	**4.339**	**-1.317**	**2.902**
Build America Bonds	BABS	0.297	-1.005	-1.684	-0.937	4.360	-1.303	2.138
VRDOs	**VRDO**	**0.009**	**0.064**	**0.119**	**0.275**	**0.807**	**0.367**	**3.247**
Daily reset	VRDD	0.009	0.068	0.101	0.244	0.721	0.297	3.047
Weekly reset	VRDW	0.009	0.061	0.130	0.292	0.858	0.408	3.362

Source: ICE Data Indices, LLC

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As Exhibit 11 shows, the strongest YTD returns among exempt IG is in 1-3yr BBB-rated revenue bonds at 26bp, followed by 1-3yr BBB-rated GOs and 1-3yr single-A rated revenue bonds at 8bp. Conversely, the weakest returns are in 22+yr AAA-rated GOs at -150bp, followed by 22+yr AAA-rated revenue bonds at -122bp and 22+yr AA-rated GOs at -106bp.

Exhibit 11: YTD total returns (%) by maturity, rating and bond type
Strongest returns in BBB-rated short maturities; weakest in AAA-rated long maturities

	1-3yr		3-7yr		7-12yr		12-22yr		22+yr	
Rating	**GO**	**REV**	**GO**	**REV**	**GO**	**REV**	**GO**	**REV**	**GO**	**REV**
AAA	-0.105	-0.154	-0.548	-0.528	-0.841	-0.675	-0.964	-0.861	-1.501	-1.221
AA	-0.136	-0.073	-0.507	-0.493	-0.664	-0.658	-0.709	-0.576	-1.062	-0.918
A	-0.165	0.081	-0.399	-0.313	-0.033	-0.414	-0.355	-0.377	-0.416	-0.644
BBB	0.161	0.26	-0.238	0.05	-0.031	-0.706	0.068	-0.671	-0.216	-0.26

Note: GO refers to General Obligation while REV refers to Revenue.
Source: ICE Data Indices, LLC

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IG spreads flat w/w overall; HY spreads 2bp tighter

IG muni spreads were flat w/w overall at 21bp and are sitting at the 12th percentile of their 52-week range. Muni HY spreads tightened 2bp to 198bp or the 13th percentile. Non-rated spreads tightened 2bp w/w to 207bp. GO spreads were flat w/w as Revenue bond spreads widened 1bp. Among IG muni revenue bond sectors, the Tobacco sector narrowed the most by 5bp. The Utilities-other sector saw the most widening at 4bp for the week.

Exhibit 12: Muni YTW spread monitor as of 14 February 2024
IG muni spreads were flat w/w overall while HY spreads tightened 2bp

	52wk				Current	Change from				Current as %		
	Tights	**Wides**	**T-1wk**	**T-1d**	**2/14/24**	**Tights**	**Wides**	**T-1wk**	**T-1d**	**of 52wk range**	**Price**	**Yield**
Investment Grade	**19**	**35**	**21**	**21**	**21**	**2**	**-14**	**0**	**0**	**12**	**102**	**3.55**
AA	2	12	3	4	4	2	-8	1	0	20	103	3.38
A	49	77	51	51	51	2	-26	0	0	7	99	3.85
BBB	94	142	105	105	106	12	-36	1	1	25	97	4.40
High Yield	**176**	**350**	**200**	**198**	**198**	**22**	**-152**	**-2**	**0**	**13**	**95**	**5.32**
Non-rated	174	247	209	207	207	33	-40	-2	0	45	65	5.41
General Obligation	**-12**	**-4**	**-10**	**-10**	**-10**	**2**	**-6**	**0**	**0**	**25**	**102**	**3.24**
AA	-19	-9	-17	-16	-16	3	-7	1	0	30	102	3.18
A	-15	29	2	1	4	19	-25	2	3	43	105	3.38
BBB	50	115	80	78	78	28	-37	-2	0	43	96	4.12
State	-30	-20	-29	-29	-28	2	-8	1	1	20	106	3.06
Local	7	17	12	12	11	4	-6	-1	-1	40	98	3.45
Revenue	**30**	**49**	**31**	**31**	**32**	**2**	**-17**	**1**	**1**	**11**	**101**	**3.66**
AA	10	22	12	12	13	3	-9	1	1	25	103	3.47
A	53	81	55	55	55	2	-26	0	0	7	99	3.89
BBB	96	147	107	107	108	12	-39	1	1	24	97	4.42
Airport	52	84	59	58	59	7	-25	0	1	22	104	3.93
Education	9	30	11	13	13	4	-17	2	0	19	104	3.47
Health	135	174	148	147	147	12	-27	-1	0	31	94	4.81
Hospital	60	89	62	62	62	2	-27	0	0	7	100	3.96
Industrial Development Rev	67	123	80	80	80	13	-43	0	0	23	100	4.14
Leases, COPs & Appropriations	-4	13	0	0	1	5	-12	1	1	29	104	3.35
Miscellaneous	-3	17	15	15	16	19	-1	1	1	95	102	3.50
Multi-family Housing	54	89	63	64	64	10	-25	1	0	29	95	3.98
Pollution Control	30	64	59	59	59	29	-5	0	0	85	98	3.93
Power	22	39	24	24	24	2	-15	0	0	12	104	3.58
Single-family Housing	69	89	86	86	87	18	-2	1	1	90	98	4.21
Tax Revenue	3	16	3	3	4	1	-12	1	1	8	101	3.38
Tobacco	-22	37	2	-2	-3	19	-40	-5	-1	32	101	3.31
Toll & Turnpike	23	49	28	28	29	6	-20	1	1	23	98	3.63
Transportation - other	24	52	28	27	27	3	-25	-1	0	11	100	3.61
Utilities - other	65	105	65	68	69	4	-36	4	1	10	104	4.03
Water & Sewer	3	20	12	12	13	10	-7	1	1	59	103	3.47

Note: YTW spread to the ICE BofA AAA US Municipal Securities Index (U0A1).
Source: BofA Global Research, ICE Data Indices, LLC

BofA GLOBAL RESEARCH

Supply & demand

YTD issuance totals $45.1bn, up 33% y/y

YTD issuance as of 14 February 2024 totaled $45.1bn, up 33% y/y. 70% of YTD issuance is new money and 30% is refundings. New money volumes are up 20% y/y while refunding volumes are up 76% y/y.

Exhibit 13: Issuance summary ($mn)

YTD-24 issuance of $45.1bn was up 33% y/y; new money up 20% y/y while refundings up 76% y/y

	Month-to-date			Year-to-date		
	2/14/24	2/14/23	y/y % Δ	2/14/24	2/14/23	y/y % Δ
Total	**14,275.6**	**9,907.4**	**44%**	**45,134.1**	**33,963.4**	**33%**
New Money	11,059.8	8,922.0	24%	31,705.4	26,354.1	20%
Total Refunding	3,215.8	985.3	226%	13,428.7	7,609.3	76%
Advanced refunding	0.0	5.4	-	5,392.2	1,380.9	290%
Unknown refunding	3,215.8	890.7	261%	8,036.5	4,984.5	61%
Current & Forward refunding	0.0	89.1	-100%	0.0	1,243.9	-100%
Insured	942.3	664.3	42%	3,029.1	2,923.1	4%
Fixed Rate	12,729.0	8,431.2	51%	39,500.2	29,614.9	33%
Variable Rate Long	974.3	1,049.9	-7%	4,244.7	3,321.6	28%
Variable Rate Short	552.9	417.9	32%	1,064.3	950.5	12%
Zero Coupon	19.3	8.4	129%	324.9	22.3	1355%
Linked Rate	0.0	0.0	-	0.0	50.0	-100%
Convertible	0.0	0.0	-	0.0	4.1	-100%
Variable rate no put	0.0	0.0	-	-	-	-
Tax Exempt	13,477.0	8,766.7	54%	43,156.0	28,974.4	49%
Taxable	798.6	1,114.8	-28%	1,952.4	4,406.5	-56%
Alternate Minimum Tax	0.0	25.9	-100%	25.7	582.6	-96%
Education	4,765.8	3,387.2	41%	13,026.5	11,789.1	10%
General Purpose	3,533.2	2,684.9	32%	9,000.8	6,300.4	43%
Utilities	2,013.8	1,516.3	33%	8,360.4	4,832.4	73%
Transportation	1,697.2	75.9	2137%	4,315.1	3,511.1	23%
Housing	1,533.6	1,052.6	46%	3,643.1	2,998.7	21%
Healthcare	570.8	823.6	-31%	3,947.0	1,403.3	181%
Development	133.5	268.3	-50%	575.0	986.8	-42%
Public Facilities	23.3	98.6	-76%	250.9	346.2	-28%
Electric Power	4.3	0.0	-	1,980.2	1,645.5	20%
Environmental Facilities	0.0	0.0	-	35.1	150.0	-77%
Muni-backed corporates	0.0	88.7	-	0.0	88.7	-100%

Note: Long-term bonds only. Reflects any data revisions by LSEG or Bloomberg.
Source: BofA Global Research, LSEG, Bloomberg

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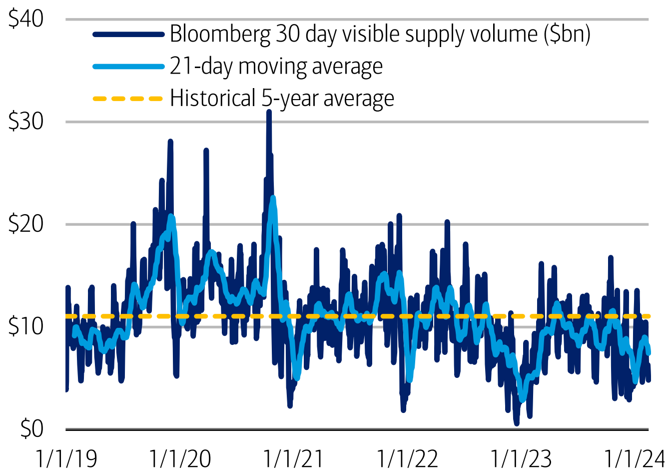
Exhibit 14: Bloomberg 30-day visible supply ($bn)
30-day visible supply was $4.8bn as of 15 February 2024



Source: Bloomberg

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Exhibit 15: 2024 gross issuance, redemption forecasts vs actuals ($bn)
Gross issuance forecast of $400bn vs $574bn of prin. & cpn. redemptions

	Issuance		Prin. & cpn redemptions	
Month	**Forecast**	**Actual**	**Forecast**	**Actual**
January	$26	30	$46	$45
February	27	14*	49	
March	32		39	
April[1]	31		31	
May	32		39	
June	39		63	
July	30		63	
August	38		66	
September	34		37	
October	42		45	
November	33		43	
December	36		52	

Note: Totals may not add up due to rounding. Data as of 14 February 2024.
Source: BofA Global Research, LSEG, Bloomberg

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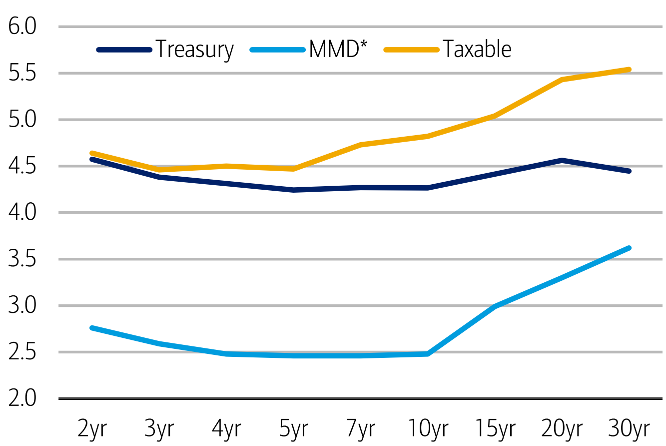
Curve

Curve shifts up 4bp w/w on avg and up 16bp m/m

The AAA MMD curve cheapened 4bp w/w on average, and cheapened by 16bp m/m. For the week, the 1s5s slope inversion decreased 8bp to -50bp, 7bp steeper than one year ago; the 5s10s was unchanged w/w at 2bp and is 10bp flatter than it was one year ago; the 10s20s slope was unchanged w/w at 82bp and is 2bp flatter than one year ago, the 20s30s was unchanged w/w at 32bp but is 12bp steeper than it was one year ago.

We expect the 1s10s muni AAA curve to stay lightly inverted throughout 2024 unless the Fed's rate cutting becomes more aggressive than currently anticipated. The 10s30s should steepen mildly during the start of the year, and then flatten some when the 30-year AAA yield crosses a key level to alleviate the fear for the long end. Investors should continue to position for a curve flattener led by the back end.

Exhibit 16: AAA GO muni, Treasury and taxable yield curves (%)
On average Tsy, MMD and Taxable cheapened w/w



Note: *MMD AAA GO yield curve. As of 14 February 2024.
Source: BofA Global Research, Refinitiv, Bloomberg

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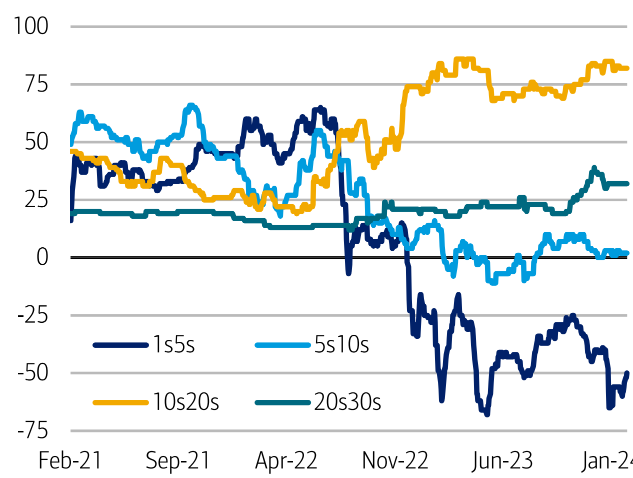
Exhibit 17: Curve slope (bp)
All but the 1s5s were unchanged w/w



Source: Refinitiv

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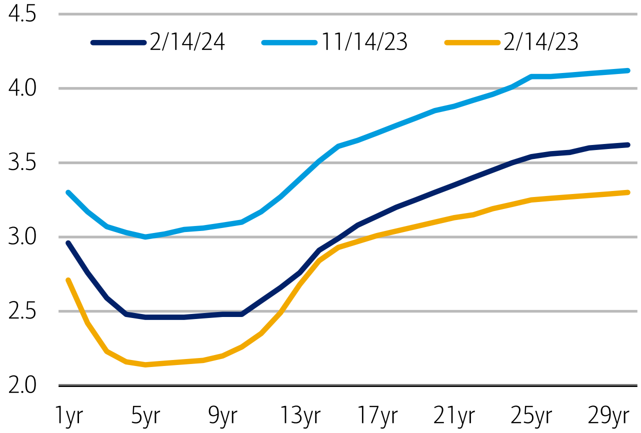
Exhibit 18: AAA GO municipal curve movement (%)

AAA is richer than three months ago across the curve



Source: Refinitiv

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Relative value

Ratios mostly rich while slopes neutral on a ST basis

We screen the muni market for parts of the curve, sectors and ratings that are rich or cheap. Muni/Treasury ratios are mostly Rich on a short-term basis. Meanwhile, curve slopes are Neutral on a short-term basis and mostly flat on a long-term basis.

Exhibit 19: Rich/cheap analysis of MMD*/Treasury ratios as of 14 February 2024

The muni market is mostly Rich on a ST basis

Maturity	Current Tsy	Muni/Tsy	MMD R/C (short-term)	3 mo. max	3 mo. min	3 mo. avg	MMD R/C (long-term)	3 year max	3 year min	3 year avg
3yr	4.381%	59.1%	Rich	67.2%	57.1%	61.4%	Neutral	130.7%	26.7%	61.6%
5yr	4.243%	58.0%	Rich	67.9%	56.2%	60.5%	Rich	92.0%	39.3%	63.5%
10yr	4.265%	58.1%	Neutral	69.9%	56.4%	60.8%	Rich	105.3%	54.7%	72.2%
30yr	4.447%	81.4%	Rich	89.4%	80.7%	85.0%	Neutral	110.0%	63.5%	87.0%

Note: *MMD AAA GO yield curve. R/C = Rich/Cheap Note the benchmark for short-term is the 3-month average and for long-term is the 3-year average. Rich/cheap is based on z-scores: if z-score is >2, then "Very Cheap"; if >1 but <2, then "Cheap"; if between -1 and 1, then "Neutral"; if <-1 but >-2, then "Rich"; if <-2, then "Very Rich".

Source: BofA Global Research, Refinitiv, Bloomberg

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Exhibit 20: Rich/cheap analysis of MMD* slopes (bp) as of 14 February 2024

The slopes are Neutral on a ST basis and mostly Flat on a LT basis

Slope	Current slope	Slope S/F (short-term)	3 mo. max	3 mo. min	3 mo. avg	Slope S/F (long-term)	3 year max	3 year min	3 year avg
1s5s	-52	Neutral	-30	-65	-46	Flat	65	-68	7
1s10s	-50	Neutral	-20	-63	-43	Flat	120	-74	33
10s30s	114	Neutral	123	102	114	Steep	123	32	72
1s30s	64	Neutral	84	54	71	Flat	170	26	105

Note: See note in Exhibit 19.

Source: BofA Global Research, Refinitiv, Bloomberg

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OAS rich/cheap analysis

At 7-12yr maturities, Single-A Power's OAS is Very Cheap among others, while AAA Water & Sewer is Cheap, among others. AAA Local GO and Tax Revenue are Very Rich. At 22+yr maturities, BBB State GO and Utilities - Other are Very Rich, while AAA Local GO and BBB Health are cheap, among others.

Exhibit 21: Rich/cheap analysis of 7-12yr indexes' OAS (bp)
Single-A Power's current OAS of 105bp at 7-12yrs is currently Very Cheap against its 3yr OAS average of 27bp

	Current OAS				Rich/cheap analysis				3yr OAS average			
Sector	**AAA**	**AA**	**A**	**BBB**	**AAA**	**AA**	**A**	**BBB**	**AAA**	**AA**	**A**	**BBB**
Airports		39	31	69		N	N	N		32	30	54
Higher Education	-11	-10	43		N	C	N		-8	-4	39	
GO Local	2	4	51	107	VR	N	N	N	-2	7	43	110
GO State	-5	-7	45	0	N	N	N	R	-7	-5	43	94
Health		23	70	127		N	N	N		19	71	107
Hospital		13	40	82		N	N	N		16	37	96
IDR		58	76	89		N	N	N		37	53	79
Leases COPs & Appr.		9	19	124		N	N	N		10	34	110
Pollution Control	1		104		R		N		-1		73	
Power	-9	-6	105		N	N	VC		-5	-5	27	
Tax Revenues	-5	2	57	110	VR	N	N	N	2	5	55	115
Tobacco			30				N				48	
Toll & Turnpike		17	17	78		N	N	N		20	17	80
Transportation - Other	0	14	39	0	R	N	N	R	4	12	53	86
Utilities - Other	0	98	142		R	VC	VC		-3	10	45	
Water & Sewer	-13	-13	14	7	C	N	N	N	-6	-7	12	102

Note: Data as of 13 February 2024. Only includes non-prerefunded bonds. Benchmark is 3-yr avg.
Source: ICE Data Indices, LLC

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Exhibit 22: Rich/cheap analysis of 22yr+ indexes' OAS (bp)
BBB Utilities – Other's current OAS of 0bp at 22yr+ is currently Very Rich against its 3yr OAS average of 53bp

	Current OAS				Rich/cheap analysis				3yr OAS average			
Sector	**AAA**	**AA**	**A**	**BBB**	**AAA**	**AA**	**A**	**BBB**	**AAA**	**AA**	**A**	**BBB**
Airports		39	35	-9		N	N	N		26	25	10
Higher Education	40	9	25	93	N	N	N	N	25	-8	18	75
GO Local	16	13	19	91	C	N	N	N	-8	2	21	75
GO State	-9	6		0	N	C		VR	-25	-19		80
Health		-28	57	178		N	N	C		-17	38	113
Hospital		22	31	74		N	N	N		7	25	56
IDR			63	82			N	N			54	69
Leases COPs & Appr.	24	11	20	58	C	N	N	N	-5	-5	29	47
Pollution Control			32				N				17	
Power		12	23	43		N	N	N		-5	16	44
Tax Revenues	26	14	63	70	C	N	N	N	8	3	49	72
Tobacco				98				N				85
Toll & Turnpike			17	45			N	N			11	41
Transportation - Other		0	27	72		N	N	N		10	31	49
Utilities - Other		22	36	0		C	N	VR	-8	-7	22	53
Water & Sewer	3	4	12		C	N	N		-18	-14	-3	

Note: Data as of 13 February 2024. Only includes non-prerefunded bonds. Benchmark is 3-yr avg.
Source: ICE Data Indices, LLC

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MWIs had small decreases in the overpriced space

Our market width indicator (MWI) – which measures muni sectors' recent market momentum by calculating the percentage of a sectors' CUSIPs whose current YTW are below their moving 20-week average – shows that most sectors' MWIs had small decreases in the overpriced space w/w, with Industrial Development Rev and Utilities decreasing the most. Multi-Family Housing's MWI is the lowest.

Exhibit 23: MWIs – sector momentum (%) as of 13 February 2024
Most sectors' MWIs had small decreases over the past week

Sector	MWI	m/m Δ	Sector	MWI	m/m Δ
U0A0 Index	**99.2%**	**-0.3%**	Miscellaneous	100.0%	0.0%
ETM	96.5%	-0.1%	Multi-Family Housing	95.0%	1.0%
GO - Local	99.4%	-0.2%	Pollution Control	98.5%	0.0%
GO - State	99.2%	-0.6%	Power	98.0%	-0.7%
Pre-Re	100.0%	0.0%	Single Family Housing	96.9%	0.1%
Airport	99.2%	-0.5%	Tax revenue	99.8%	0.0%

Exhibit 23: MWIs – sector momentum (%) as of 13 February 2024
Most sectors' MWIs had small decreases over the past week

Sector	MWI	m/m Δ	Sector	MWI	m/m Δ
Education	99.6%	-0.2%	Tobacco	96.3%	0.0%
Health	100.0%	0.9%	Toll & Turnpike	99.9%	0.0%
Hospitals	99.4%	-0.2%	Transportation	99.6%	-0.2%
Industrial Development Rev	97.1%	-1.6%	Utilities - Other	97.6%	-1.2%
Leasing COPS & Appropriations	99.4%	-0.5%	Water & Sewer	99.2%	-0.3%

Source: BofA Global Research, ICE Data Indices, LLC

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Trade activity

Most actively traded CUSIPs for the week

The most actively traded CUSIP over the last week by total volume was 64972JGW2, totaling $339.4mn. Those are newly issued New York City Transitional Finance Authority due in 2053. By number trades it was 64972JGX0, totaling 730 trades. These too are New York City Transitional Finance Authority bonds, due in 2054.

Exhibit 24: Most actively traded muni CUSIPs over the week ending 14 February 2024
64972JGX0 was the most frequently traded CUSIP. [1]Last trade

CUSIP	Short name	ST	Coupon/Maturity	Yield[1]	Spread	# of trades	Avg Vol ($mn)
64972JGW2	NYC TRANSIT FIN-F-1	NY	5.25s of '53	3.96	31	256	1.33
64972JGX0	NYC TRANSIT FIN-F-1	NY	4.25s of '54	4.25	60	730	0.27
414009PV6	HARRIS ED-VAR-B-REF	TX	3s of '59	--	-50	29	3.44
271014Q62	E BAY MUD-A	CA	5s of '49	3.42	-16	80	1.18
896035DG4	TRIBOROUGH BRIDGE-A-1	NY	4.125s of '64	4.35	70	363	0.25
7436003S5	PROSPER ISD	TX	4s of '54	--	0	35	2.51
402207AD6	GULF COAST INDL DEV	TX	3.25s of '41	--	-27	21	4.18
64972JGV4	NYC TRANSIT FIN-F-1	NY	5s of '49	3.91	33	84	0.98
187145SU2	CLIFTON HGR EDU-A-REF	TX	4.125s of '49	4.25	66	188	0.43
896035DD1	TRIBOROUGH BRIDGE-A-1	NY	4s of '54	4.26	61	178	0.44
57582R7B6	MA CMNWLTH-B-REF	MA	5s of '43	3.50	14	32	2.20
64987JQ20	NY ST HSG FIN AGY-A	NY	3.45s of '63	--	107	97	0.64
64972JGU6	NYC TRANSIT FIN-F-1	NY	5s of '48	3.81	26	54	1.14
349461FE8	FORT WORTH ISD	TX	4s of '49	4.07	49	331	0.19
45203MXE6	IL ST HSG DEV AUTH-B	IL	5.884s of '49	5.88	163	13	4.43
64971XHT8	NYC TRANS FIN AUTH-B4	NY	3s of '42	--	-16	14	4.10
64966LU25	NYC-F6-ADJ	NY	3s of '44	--	-24	18	3.02
014393ZS4	ALDINE ISD	TX	4s of '49	4.09	51	180	0.30
914054NU1	UNIV AREA JT AUTH-REV	PA	4.125s of '49	4.13	54	295	0.16
650035U89	NEW YORK ST URBAN DEV	NY	5s of '34	3.21	66	9	5.00

Source: Bloomberg

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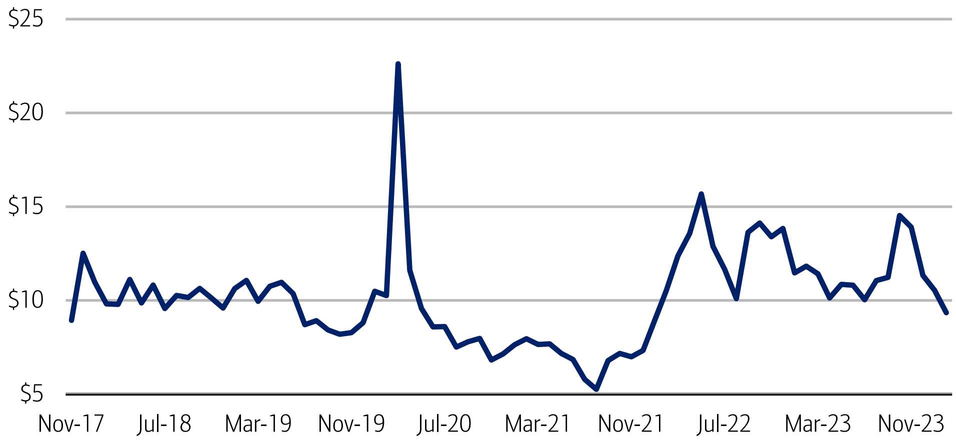
Feb-24's avg daily secondary trading at $9.3bn

Current data shows secondary trading volumes in February remain moderate relative to recent months'. As of 14 February, we see an average daily secondary trading volume of just $9.3bn. While daily trading data is subject to revision over the course of the month, it currently represents a roughly 11% decrease a m/m basis and 21% decrease y/y. Note that, for the MTD, $93.5bn of muni bond par value traded.

Exhibit 25: Daily avg secondary trading volume ($bn)
Feb-24 daily avg volume of $9.3bn down roughly 11% m/m



Note: Data as of 14 February 2024.
Source: BofA Global Research, Bloomberg

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Credit corner

State and local governments

January collection medians strengthen as more states report

January's median state collection growth significantly improved as more states reported this week: for the earliest-27 states reporting collections for the month, we see median year-over-year growth of 3.3%. That is coming largely on the back of personal income and sales tax collections, with median growth thus far of 3.8% and 1.5% year-over-year, respectively. Corporate collections growth medians for these 27-reporting states is, while positive, weaker at just 0.8% on median. Should these medians hold, January's growth would be the strongest since February 2023.

Migrant influx stresses city budgets; NYC able to manage pressures – S&P

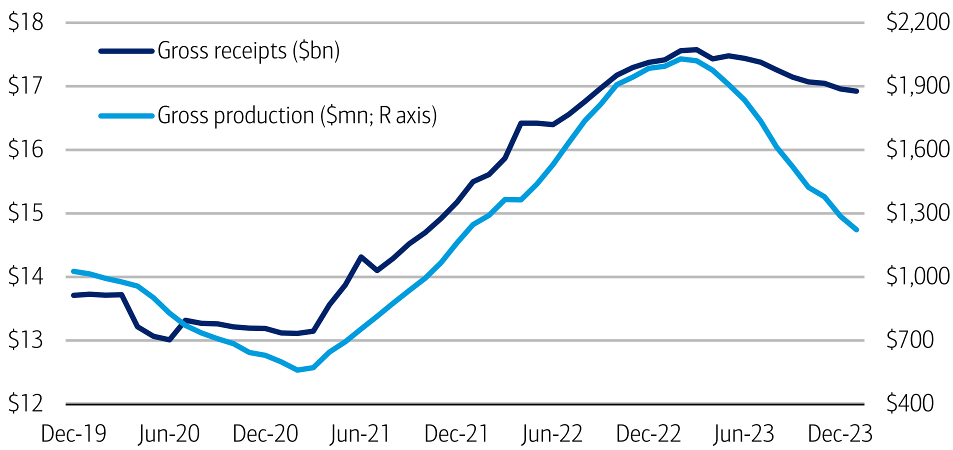
Budgets in New York City and Chicago are being stressed by the influx of migrants, per a 13 February S&P report. S&P believes that "[i]f this issue remains significant enough for long enough, the increase in costs and social service requirements could affect states' and local governments' credit quality." In NYC, asylum seeker costs in FY24 and FY25 are expected to be 3.7% and 4.5% of general fund expenditures. In S&P's view, while NYC will "struggle to materially reduce asylum-seeker costs, given the already implemented cost-saving measures," the rating agency believes the city will "take necessary steps to adjust other expenditures to ensure budgetary balance" and that absent a "significant increase in asylum seekers or a more pronounced economic slowdown," the budgetary impact will "ultimately be manageable." We share that view. On Chicago, S&P highlights the city's $150mn cap on migrant costs in its FY24 budget. S&P suggests that without new revenues, any amounts above the cap "might have to come, at least in part, from reserves," and that if "support from the state and federal governments does not materialize as expected, the impact on Chicago's bottom line could be sizable." Importantly, S&P highlights current political dynamics in Washington: the rating agency says that, given the upcoming elections, additional federal support is unlikely. That means cities "will have to face the uncertainty of rising costs without a guarantee of revenues to offset the expenditures."

Notable rating activity: Oklahoma, JeffCo and Suffolk County, NY

Here, we highlight a few notable recent rating changes. First, Fitch revised its outlook on Oklahoma on 9 February to positive from stable, and affirmed the state's AA issuer default rating. Per Fitch, the revised outlook reflects OK's "sustained improvements in expenditure flexibility and overall fiscal management," but also Fitch's view that OK takes "timely action to address revenue shortfalls" and has a "long pattern of supplemental pension contributions." Exhibit 26 shows a significant rise of gross receipts following the onset of the pandemic, but a moderation since mid-2023. It also shows a material decline in gross production tax receipts – as we noted in our last Weekly, OK collected $1.2bn for the 12 months ending Jan-24, which is down 29% vs the 12-mo period ending Jan-23 and is nearly 40% below its peak level from Feb-23. Note that OK has no outstanding GO debt per Bloomberg data.

Exhibit 26: OK's trailing 12-mo gross receipts and gross production collections

L12M gross receipts as of Jan-24 of $16.9bn down 3.7% vs peak; L12M gross production down 40.0% vs peak



Source: BofA Global Research, state reports

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Fitch also upgraded Jefferson County, AL's (JeffCo) limited obligation and GO warrants, as well as its long-term issuer default rating (IDR) to AA from AA-, citing a reduction in risk of general fund exposure to the county's water enterprise after a debt restructuring. It also reflects "expectations for continued solid revenue growth and maintenance of strong reserves, which support the county's high financial resilience."

Meanwhile, S&P upgraded Suffolk County, NY's long-term and GO rating one notch to AA- on 15 February, pointing to the county's "ongoing improvement to [its] financial position." According to S&P, "[t]he combination of stronger financial management and financial performance, the historic level of reserves and budgetary flexibility, a sizable affluent economy that is more resilient than in years past, and a manageable debt burden are factors that align with a high-investment-grade rating."

Judge Swain keeps her PREPA confirmation schedule unchanged

Judge Swain denied certain creditors' motion to push back PREPA's plan of adjustment confirmation hearing, set to begin on 4 March, until after the First Circuit Court of Appeals in Boston rules on their appeals of Judge Swain's bondholder lien limitation and unsecured net revenue claim estimation rulings. Judge Swain in her order said that delaying the confirmation hearing would "leave the Debtor, the Commonwealth, and the people of Puerto Rico in a further prolonged state of uncertainty and impede progress toward renewal of the critical service infrastructure necessary to Puerto Rico's return to the capital markets" and that "the Court is capable of adapting and reacting appropriately as necessary" should the First Circuit's ruling require changes to PREPA's plan of adjustment. Meanwhile, the US Government Accountability Office (GAO) released a report focusing on the work still to do in Puerto Rico to recovery from 2017's hurricanes and 2019's and 2020's earthquakes. In all, FEMA awarded $23.4bn in public assistance to Puerto Rico for recovery work, but only $1.8bn of that has been expended. Otherwise, we highlight: (a) TSA balances of $9.6bn as of 2 February that were up $151mn w/w, and for the YTD are up 32.0% above adopted liquidity plan (LP) estimates; (b) FY24 General Fund collections through 2 February of $8.1bn that were up 8.1% vs collections LP estimates; and, (c) cement sales – a bellwether for construction on island – that were down roughly 14% m/m and 8% y/y in Jan-24.

Higher Education

State support for Higher Education up 10.2% in FY24

The State Higher Education Executive Officers Association (SHEEO) released its annual Grapevine data, reporting initial approved state support for higher ed institutions at $126.5bn for FY24, up 10.2% y/y, marking the third year in a row where total state fiscal support topped $100bn. Initial funding levels indicate two-year institutions will receive $27.3bn in funding, four-year institutions will receive $59.8bn in funding, $16.4bn will go towards state-level student financial aid, $16.8bn to research programs, agricultural extension, hospital extension and medical schools, while the remaining $6.1bn in funding is directed to other uses.

Endowments see growth of 7.7% in FY23

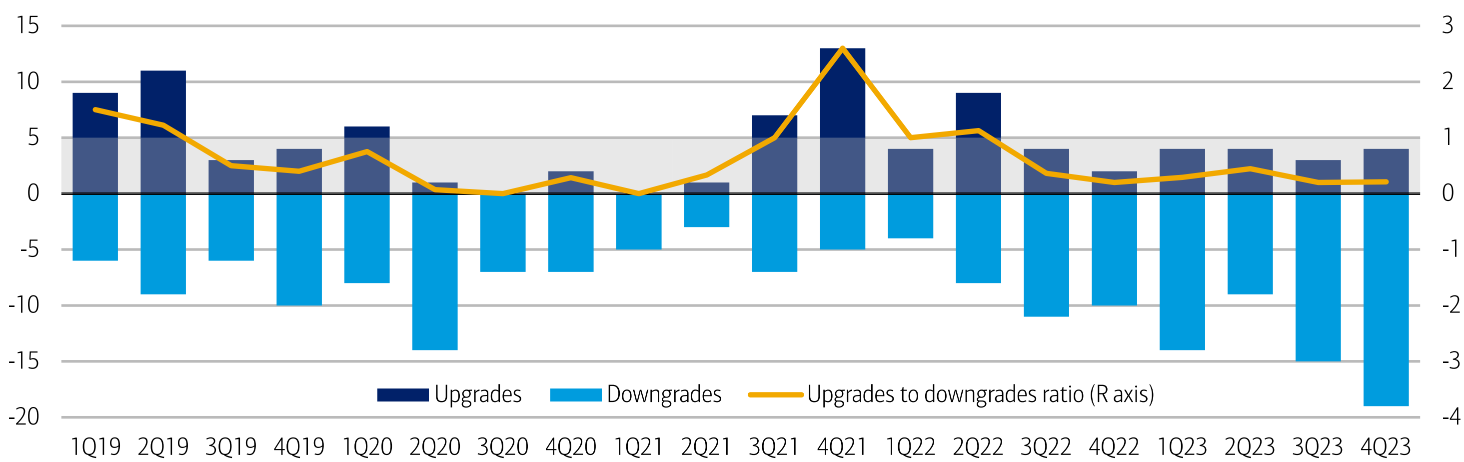
The 2023 NACUBO-Commonfund Study of Endowments (NCSE) report was released Thursday on 688 colleges and universities across the nation and their endowment returns in FY23. Endowments were up 7.7% in FY23, up from the -8% drop in FY22, with 10 year returns averaging 7.2%. Across the 688 colleges and universities partaking in the study, endowment assets totaled $839.1bn, with the median endowment size at $209mn and a third of endowments under $100mn. Large endowments continue to dominate the total market value of endowments, with 58% of total market value held by endowments larger than $5bn. Asset allocation across all study participants saw fixed income receive an 11% allocation, with private equity receiving the largest allocation of 17.1% and US equities at 12.5%.

Healthcare

S&P rating activity and OAS performance; AA hospitals cheap on a 1yr basis

S&P upgraded 15 hospital ratings and downgraded 57 in 2023, or a ratio of 0.26, down from 2022's ratio of 0.58 and just slightly beating 2020's 0.25. Eight of the 15 upgrades were related to M&A activity. The 57 downgrades were the highest amount in at least the past five years, with the next closest being 2020's 36. Outlook revisions also skewed negative, with 72% being unfavorable, up from 70% last year. These actions primarily reflected "challenging labor and inflationary environments."

Exhibit 27: S&P hospital sector rating activity trends
Upgrades to downgrades ratio of 0.21 for 4Q23 and 0.26 for full year 2023



Note: Shaded area represents an upgrades to downgrades ratio below 1.0.
Source: BofA Global Research, S&P Global Ratings

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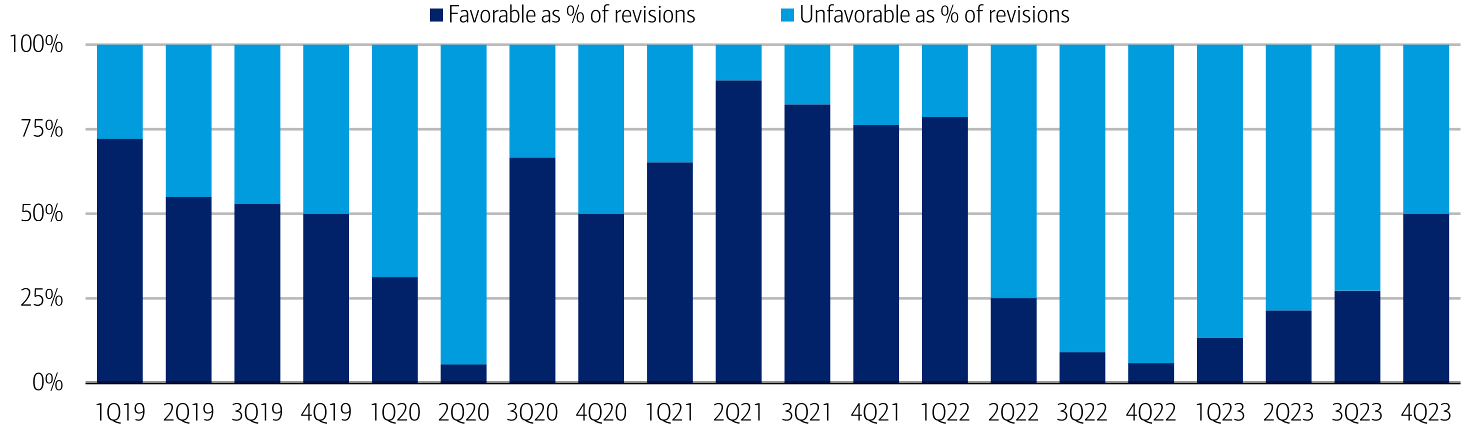
As shown in Exhibit 27, 4Q23 saw 4 upgrades against 19 downgrades, or a ratio of 0.21, marking the sixth-straight quarter of downgrades outpacing upgrades. 4Q23's 19 downgrades were also the highest amount since at least 1Q19. The number of outlook revisions were even between favorable and unfavorable, a bright spot after a trend of skewing unfavorable since the start of 2Q22. Like us, S&P has a negative outlook on the sector for this year and expects the operating environment to be constrained even though there have been signs of gradual improvement in the labor market and inflation. Strategic capital spending and debt issuance is expected to tick up this year, which "could continue to further pressure certain credit ratings."

Exhibit 28: S&P hospital sector outlook revision trends
After skewing negative since 2Q22, outlook revisions were 50/50 between favorable and unfavorable in 4Q23



Source: BofA Global Research, S&P Global Ratings

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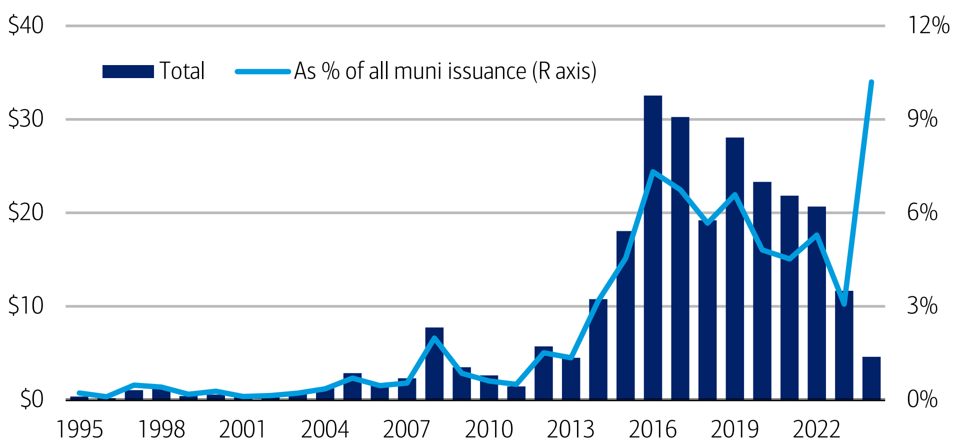
On that note, muni issuance by hospitals has been strong so far this year. As shown in Exhibit 29, hospital muni issuance of $4.6bn for YTD-24 amounts to 39% of last year's total issuance. After hitting pause on capital projects during the pandemic, issuers are ramping up on projects again. As a % of total muni market issuance, hospitals account for 10.2% for YTD-24, almost double the 10yr avg of 5.2%.

Exhibit 29: Annual hospital issuance ($bn)
YTD-24 hospital issuance already amounts to 39% of last year's total and 10% of muni issuance this year



Note: Long-term bonds only. Data as of 14 February 2024.
Source: BofA Global Research, Bloomberg, Refinitiv

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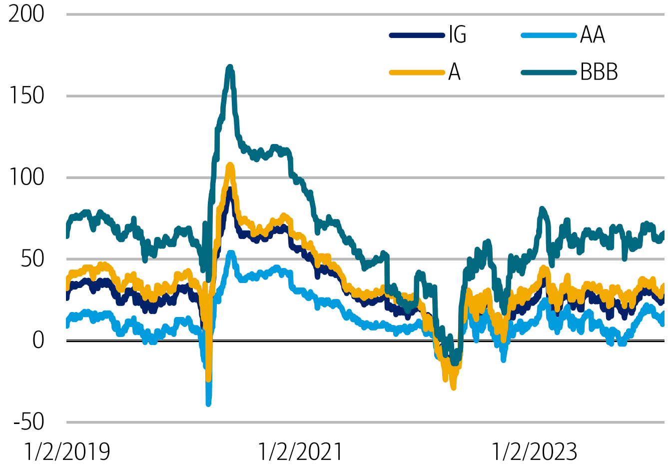
We reviewed OAS performance for the ICE BofA US Hospital Municipal Securities Index (U0AH) and its subindices by rating since 2019. We found that spreads are roughly the same since that point: U0AH widened 2bp; AAs widened 7bp; and As and BBBs both tightened 1bp. Moving forward to when S&P's downgrade cycle began in July 2022, or the point when the upgrades to downgrades ratio dropped below 1.0, spreads have widened out across the board since then. U0AH widened 16bp, while AAs, As and BBBs widened 14bp, 18bp and 21bp, respectively. We currently find hospital OAS to be Neutral in general. However, AA hospital's OAS of 17bp is cheap on an intermediate, or one-year basis as of 14 February compared to an average of 11bp over the past year.

Exhibit 30: Hospital OAS since 2019 (bp)
Spreads are generally where they were at the start of 2019; AAs 7bp wider



Note: IG=U0AH; AA=UHA2; A=UHA3; BBB=UHA4. Data as of 14 February 2024.
Source: BofA Global Research, ICE Data Indices LLC

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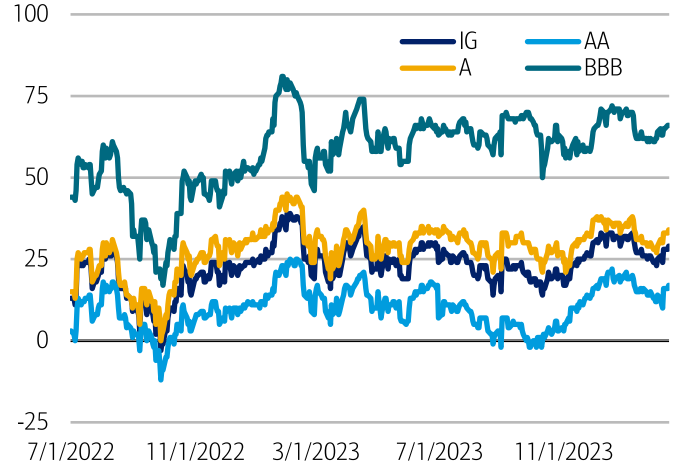
Exhibit 31: Hospital OAS since July 2022 (bp)
Spreads wider since the start of the 2022 downgrade cycle



Note: IG=U0AH; AA=UHA2; A=UHA3; BBB=UHA4. Data as of 14 February 2024.
Source: BofA Global Research, ICE Data Indices

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Fitch upgrades King Farm Presbyterian Retirement Community two notches

This week, Fitch upgraded King Farm Presbyterian Retirement Community, Inc. d/b/a Ingleside at King Farm, MD (IKF) two notches to BB- from B and assigned a stable outlook. The upgrade reflects IKF's "strengthened financial profile after another strong year of operational performance that contributed to material improvement to the balance sheet." IKF's unrestricted liquidity grew by 56% in 2023 and its cash to adjusted debt increased to 28.3% from 19.8% the prior year. IKF also benefited from higher occupancy across all three levels of care, a trend generally being experienced across the sector. In our 26 January Municipals Weekly, we discussed that senior housing occupancy improved for the 10th consecutive quarter to 85.1% in 4Q23.

Mass Transit

MTA halts new construction contracts amid congestion pricing lawsuits

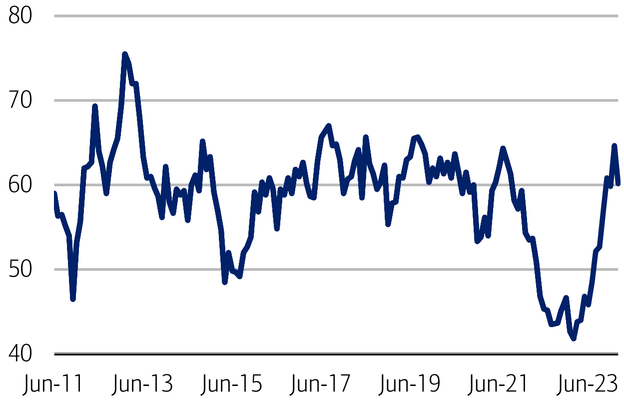
The new NYC congestion pricing plan, set to go into effect later this year, faces multiple lawsuits looking to halt its implementation. Expected to generate $1bn a year, the MTA looks to utilize revenue from the plan to finance $15bn in bonds for capital improvements and projects systemwide. However, the MTA recently penned a letter to contracting and construction partners informing them that new construction contracts would not be issued, outside of emergency work and other concerns, given the ongoing litigation per *Bloomberg*. Lawsuits challenging aspects of the new congestion pricing plan, which would charge motorists a toll in the new central business district south of 60th St. in Manhattan, has lawsuits pending from NJ's Governor, among others.

Defaults, distress & HY

Tracking: material credit events and Ch. 9 filings

For the week ending 14 February, our tracking of those Moody's-defined material credit events (MCEs) shows 9 postings, down 3 on a w/w basis, with the MTD total of 21 as of 14 February. See Exhibit 32. There were no new Chapter 9 bankruptcy petitions filed for the week ending on 14 February; it has now been 267 days since the last bankruptcy petition was filed by Hazel Hawkins Memorial Hospital on 23 May 2023 – that is the 3rd longest period since July 1987 between Chapter 9 filings. Note that the only longer periods – 346 days and 447 days – began in the post-pandemic period.

Exhibit 32: 6-mo mov avg of material credit events posted to EMMA
Filings posted to EMMA down w/w and continue slow start



Note: Data as of 14 February 2024. Material credit events (MCE) reflect: 1. Bankruptcy, insolvency, receivership or similar event, 2. Financial obligation-event reflecting financial difficulties, 3. Nonpayment related default, 4. Principal/interest payment delinquency, 5. Unscheduled draw on credit enhancement reflecting financial difficulties, and 6. Unscheduled draw on debt service reserve reflecting financial difficulties.
Source: EMMA

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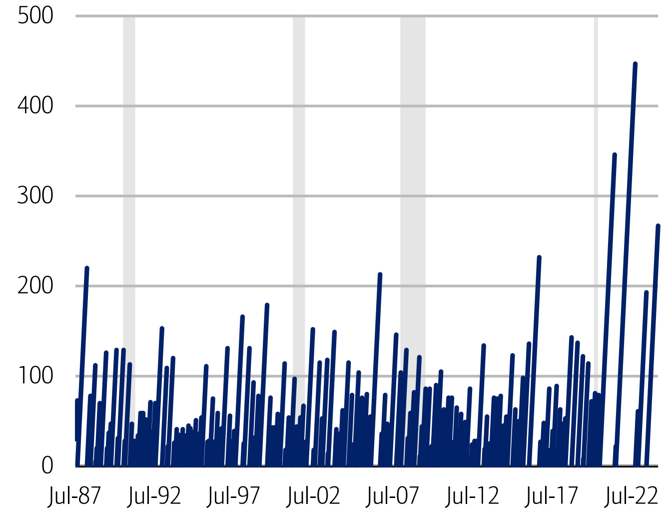
Exhibit 33: Calendar days since last Chapter 9 petition filed
267 days since Hazel Hawkins Memorial Hosp. filed Ch. 9 petition



Source: BofA Global Research, PACER, US Courts

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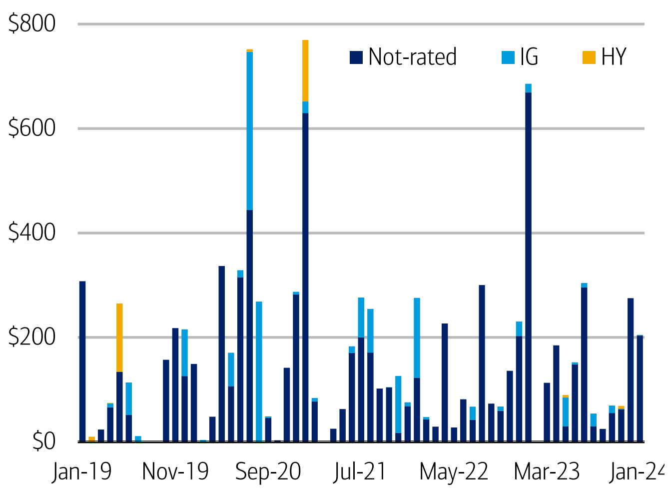
YTD default & distress through Jan-24

As discussed in our 9 February Municipals Weekly report, first-time payment defaults totaled $205mn in January, down 70% y/y. First-time distressed debt reported in January totaled $116mn, down 11% y/y; that leaves the YTD total at $1.84bn, which is up 5.8% y/y. The total cumulative first-time distressed debt since 2019 totals $14.6bn; of that, 37.6% defaulted while 6% exited distressed status and 5% is no longer outstanding. As a reminder, total defaults in 2023 were $2.0bn – hitting our estimate. Our forecast for first time payment defaults in 2024 is $1.9bn-$2.3bn. See our Municipals Year Ahead 2024. We expect defaults emanating from this distress to be concentrated in the Nursing Home, Hospital, and Industrial Development sectors.

Exhibit 34: Monthly first-time defaults ($mn) by avg rating at issue
First-time defaults $205mn in Jan-24, down 70% y/y



Note: We may revise data if Bloomberg revises its data.
Source: BofA Global Research, Bloomberg

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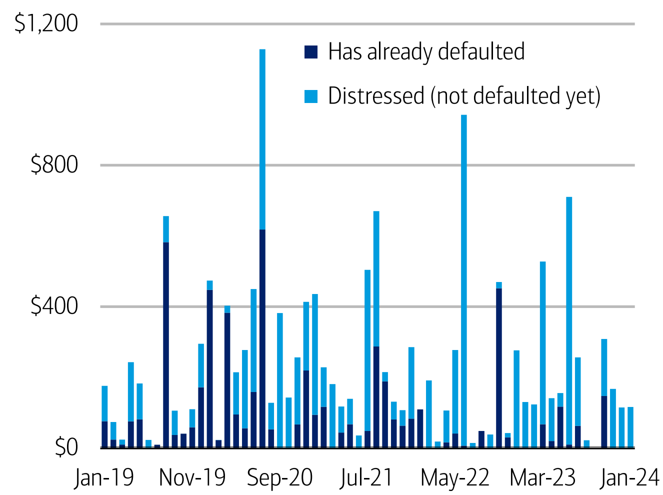
Exhibit 35: Monthly first-time distressed debt ($mn)
First-time distress totaled $116mn in Jan-24, down 11% y/y



Note: We may revise data if Bloomberg revises its data.
Source: BofA Global Research, Bloomberg

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Cross currency equivalent yields

Taxable munis look attractive for most countries on a cross-currency equivalent basis, with only a few exceptions: 5yr and 10yr taxable munis are less attractive for Italy and Spain; 5yr taxable munis are less attractive for South Korea.

Exhibit 36: Cross currency equivalent yields as of 15 February 2024

Taxable munis are generally attractive for foreign investors with a few exceptions

	Government bond yield (in investor country's currency)			Cross currency equivalent yield*						Can foreign investors buy?					
				US Treasury			US AAA taxable muni			US Treasury			US AAA taxable muni		
Country	**5 yr**	**10 yr**	**30 yr**	**5 yr (4.211)**	**10 yr (4.236)**	**30 yr (4.421)**	**5 yr (4.47)**	**10 yr (4.82)**	**30 yr (5.54)**	**5 yr**	**10 yr**	**30 yr**	**5 yr**	**10 yr**	**30 yr**
Canada	3.671	3.529	3.398	3.790	3.826	4.224	4.048	4.409	5.333	Yes	Yes	Yes	Yes	Yes	Yes
United Kingdom	4.054	4.050	4.600	3.990	3.983	4.298	4.245	4.566	5.412				Yes	Yes	Yes
France	2.659	2.839	3.326	2.576	2.683	3.678	2.832	3.262	4.761			Yes	Yes	Yes	Yes
Germany	2.328	2.357	2.527	2.576	2.683	3.678	2.832	3.262	4.761	Yes	Yes	Yes	Yes	Yes	Yes
Italy	3.325	3.850	4.427	2.576	2.683	3.678	2.832	3.262	4.761						Yes
Spain	2.921	3.269	3.849	2.576	2.683	3.678	2.832	3.262	4.761						Yes
Portugal	2.609	3.108	3.535	2.576	2.683	3.678	2.832	3.262	4.761			Yes	Yes	Yes	Yes
Netherlands	2.514	2.679	2.728	2.576	2.683	3.678	2.832	3.262	4.761	Yes	Yes	Yes	Yes	Yes	Yes
Switzerland	0.772	0.783	0.787	2.576	2.683	3.678	2.832	3.262	4.761	Yes	Yes	Yes	Yes	Yes	Yes
Japan	0.329	0.712	1.790	0.079	0.451	2.632	0.330	1.020	3.665			Yes	Yes	Yes	Yes
Australia	3.764	4.133	4.464	4.252	4.710	4.647	4.510	5.292	5.771	Yes	Yes	Yes	Yes	Yes	Yes
South Korea	3.404	3.451	3.324	2.636	3.373	4.005	2.899	3.951	5.096			Yes		Yes	Yes
China	2.286	2.428	2.642	4.329	4.305	4.453	4.585	4.888	5.571	Yes	Yes	Yes	Yes	Yes	Yes
Taiwan	1.179	1.230	1.540	1.178	2.569	3.622	1.433	3.144	4.689		Yes	Yes	Yes	Yes	Yes
Singapore	2.966	3.022	2.866	3.624	3.916	4.265	3.882	4.497	5.372	Yes	Yes	Yes	Yes	Yes	Yes

Note: Cross currency equivalent yield is the yield for an international buyer to purchase US bond in dollar and convert back to its own country's currency.
Source: BofA Global Research, Bloomberg

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Acronyms

Exhibit 37: Common acronyms used in our Municipals reports

This list is subject to change

Acronym	Definition	Acronym	Definition	Acronym	Definition
1Q	First Quarter	HOSP	Hospital	PA	Pennsylvania
2Q	Second Quarter	HY	High Yield	PC	Pollution Control
3Q	Third Quarter	IA	Iowa	PL	Plains
4Q	Fourth Quarter	ICE	Intercontinental Exchange	PPFI	Milliman's Public Pension Funding Index
AIR	Airport	ICMA	International Capital Market Association	Ppt	Percentage point
AK	Alaska	ID	Idaho	PR	Puerto Rico
AL	Alabama	IDR	Industrial Development Revenue	PRE-RE	Pre-refunded
AMT	Alternative Minimum Tax	IG	Investment Grade	PREPA	Puerto Rico Electric Power Authority
Apr	April	IL	Illinois	PROMESA	Puerto Rico Oversight, Management, and Economic Stability Act
AR	Arkansas	IN	Indiana	PWR	Power
ARPA	American Rescue Plan Act	INT	Intermediate term	Q/Q	Quarter-over-quarter
Aug	August	Jan	January	QTD	Quarter-to-date
Avg	Average	Jun	June	R	Rich
AZ	Arizona	KS	Kansas	RI	Rhode Island
BEA	Bureau of Economic Analysis	KY	Kentucky	RM	Rocky Mountain
BLS	Bureau of Labor Statistics	LA	Louisiana	S&L	State and Local
BofA	Bank of America	LCA	Leases, COPs & Appropriations	S&P	Standard & Poor's
Bp	Basis points	LT	Long term	SC	South Carolina
BTN	Back-to-Normal Index	M	Mideast	SD	South Dakota
C	Cheap	M/M	Month-over-month	SE	Southeast
CA	California	MA	Massachusetts	Sep	September
CARES	Coronavirus Aid, Relief, and Economic Security Act	Mar	March	SFH	Single Family Housing
CB	Census Bureau	MD	Maryland	ST	Short term
CO	Colorado	ME	Maine	SA	Seasonally adjusted
COPs	Certificates of Participation	MFH	Multi-Family Housing	T&T	Toll & Turnpike
CPI	Consumer Price Index	MI	Michigan	TAX	Tax Revenue
CT	Connecticut	MISC	Miscellaneous	TBCO	Tobacco
CUSIP	Committee on Uniform Security Identification Procedures	MMD	Municipal Market Data	TEU	Twenty-Foot Equivalent Units
DC	District of Columbia	MN	Minnesota	TN	Tennessee
DE	Delaware	MO	Missouri	TRAN	Transportation - other
Dec	December	MS	Mississippi	TSA	For Puerto Rico, Treasury Single Account; otherwise, Transportation Security Administration
EAI	Puerto Rico Economic Activity Index	MSA	Metropolitan Statistical Area	TX	Texas
EDU	Education	MT	Montana	US	United States

Exhibit 37: Common acronyms used in our Municipals reports
This list is subject to change

Acronym	Definition	Acronym	Definition	Acronym	Definition
ESG	Environmental, Social, Governance	MTD	Month-to-date	USVI	US Virgin Islands
ETF	Exchange Traded Fund	N	Neutral	UT	Utah
ETM	Escrowed to Maturity	NASBO	National Association of State Budget Officers	UTL	Utilities - other
Feb	February	NC	North Carolina	VA	Virginia
Fed	Federal Reserve	ND	North Dakota	VC	Very Cheap
FEMA	Federal Emergency Management Agency	NE	Nebraska	VPIP	Value of construction put in place
FL	Florida	NED	New England	VR	Very Rich
FOMB	Financial Oversight & Management Board for Puerto Rico	NH	New Hampshire	VRDO	Variable Rate Demand Obligation
FW	Far West	NJ	New Jersey	VT	Vermont
FY	Fiscal year	NM	New Mexico	W&S	Water & Sewer
GA	Georgia	Nov	November	W/W	Week-over-week
GDP	Gross Domestic Product	NV	Nevada	WA	Washington
GL	Great Lakes	NY	New York	WI	Wisconsin
GO	General Obligation	OAS	Option Adjusted Spread	WV	West Virginia
GO-L	Local GO	Oct	October	WY	Wyoming
GO-S	State GO	OH	Ohio	Y/Y	Year-over-year
Govt	Government	OK	Oklahoma	YTD	Year-to-date
HI	Hawaii	OR	Oregon	YTM	Yield to Maturity
HLTH	Healthcare	P&C	Property & Casualty insurance company	YTW	Yield to Worst

Source: BofA Global Research

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