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BofA GLOBAL RESEARCH

BofA SECURITIES

Municipals Weekly

Collapsing vol supports narrowing spreads

Industry Overview

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Municipals
United States

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Recent Municipals Research

Key takeaways

- Munis are a buy with vol collapsing; spreads should tighten more and any rate spike should be contained.
- We expect 4Q spread widening to fully retrace in 1H24. Recoveries lagging in some sectors.
- S&P upgrades outpaced downgrades with a ratio of 2.6 to 1in January; outlook revisions were heavily positive.

Collapsing vol is good for buying munis

Volatilities in the macro market and munis have been in a systematic decline, implying reduced probability of economic or market shocks in a soft landing environment. A low volatility environment provides a favorable backdrop for picking and choosing munis to buy. Credit spreads will continue to narrow. Any spike in muni rates will be contained.

Uneven spread narrowing

OAS spreads widened in November and December as the market traded with a recessionary view. Since early-to-mid January, spreads narrowed, but unevenly. Given stronger economic data and the low vol environment, we expect 4Q widenings to retrace fully in 1H24, and see spread value in those sectors materially lagging the fastest sectors' recoveries.

Buy/sell ratios in February and March

We reviewed muni Buy/Sell ratio patterns in February and March from 2017 through 2023. Although the pattern differed yearly, Buy/Sell ratios tend to improve into mid-Feb, before weakening for the next month, then improving again towards the end of Mar.

Key figures: issuance, returns, spreads & trade activity

Supply: YTD issuance through 7 February totals $37.6bn, up 38% y/y. YTD issuance is 96% tax-exempt and 4% taxable; 76% is new money and 24% is refundings. **Returns:** The Muni Master index (U0A0) returned -0.48% YTD through 7 February, outperforming govies and corporates, but not taxable and HY munis. The Muni High Yield index (U0HY) returned 0.77% YTD. Among IG ratings, BBBs' YTD returns strongest at -0.28%, as are the 1-3yr maturities' -0.10%. **Spreads:** For the week ending 7 February, IG spreads were 2bp tighter w/w at 21bp, while HY spreads narrowed 4bp to 200bp. **Trade activity:** MTD as of 7 February, $39.2bn of muni par value traded in the secondary, with a daily avg of $7.8bn. That avg is down 26% m/m and 34% y/y.

Credit corner

S&P's Jan-24 public finance rating activity (more ups than downs), ICE index net upgrade rates (8 out of 19 sectors saw m/m improvement in Jan-24), early January state collection medians (indications point to slight weakening vs Dec-23), S&P and Fitch thoughts on CA's budget, state and local government nonfarm payroll recovery (now over 107%), and NY comptroller's analysis of MTA's needs assessment, among other topics.

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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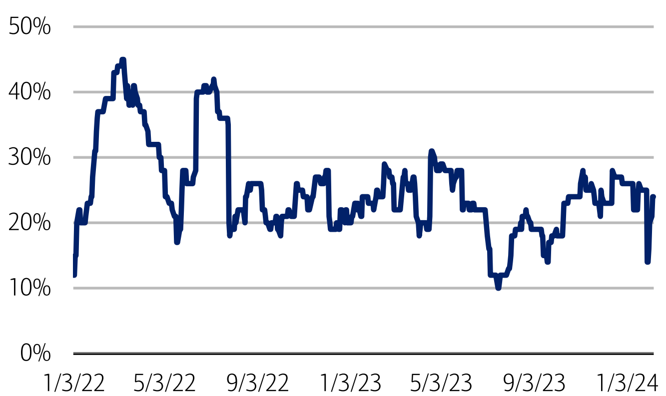
Market views & strategies

Collapsing vol good for buying munis

We will see more detailed data of January 2024 economic performance throughout February. Up to this point, employment, manufacturing and service data all confirmed continued economic firming in January, justifying the Fed's most recent stance and the market's legitimate concern about inflation's track. We believe much of the market's concern is largely factored in, evidenced by slowly rising yields in January and then a V-shape yield bounce recently. The Fed's stance of holding rates higher for longer should, in principle, keep inflation in check and ensure that a downward track remains in place. If there are no upside surprises in next week's CPI report, we expect muni yields to stay in a slow and sideways declining pattern in February. Of course, an upside surprise may lead to slightly higher, but largely contained yields.

From a trading perspective, although the Jan-23 employment report was a macro shock for rates and high grade traders, we need to recognize that the market reaction has been much more muted vs 2022 and 2023. Indeed, overall market volatilities have been on a systematic decline since Mar-23 when regional bank problems emerged. Even in a seemingly unhinged bond market selloff in Oct-23, macro market volatilities, such as the equity market's VIX Index and Treasury market's ICE BofA MOVE Index, all stayed much lower vs Mar-23 (Exhibit 3). Exhibit 2 shows 30-day AAA muni volatility since Jan-22; this vol also declined systematically ever since the first Fed rate hike in Mar-22.

Exhibit 2: 30-day AAA muni volatility
This volatility has declined systematically since the first rate hike in 2022



Source: Refinitiv

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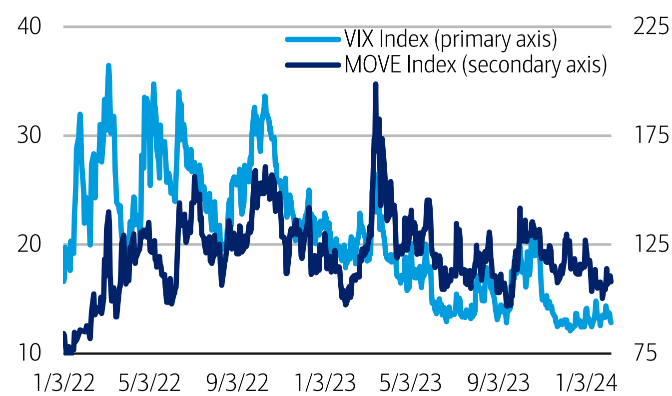
Exhibit 3: VIX Index and MOVE Index
Both VIX and MOVE indexes have fallen systematically since March 2023



Source: Bloomberg

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Low volatilities suggest a reduced likelihood of economic or market shocks and should work well for the soft landing camp. Such an environment should be ripe for investors to pick and choose muni bonds before inflation more surely approaches the Fed's desired target. Indeed, **it appears to us that successful Fed management of this tightening cycle has made it possible for volatilities to collapse, first in equities and then in bonds**. As long as there is no credit event, high grade yields will decline slowly and any backup will be contained.

Muni credit spreads should continue to recover from the November/December 2023 widening even if AAA benchmark yields begin to fall again. For detailed color of the credit sectors, see the section below for their moves during the past few months. High grade muni investors should continue to stay in 4%-5% coupons.

Uneven spread narrowing

From 1 November 2023 through 9 January, the OAS for the ICE BofA New York Core Municipal Securities Index (U0NY) widened 15bp, while the OAS for the ICE BofA California Core Municipal Securities Index (U0CA) widened 21bp. Since 9 January, U0CA's OAS narrowed 12bp while U0NY's narrowed just 6bp. In other words, U0NY's OAS recovery of 40% is lagging behind U0CA's 57%. Given stronger economic data and the low vol environment discussed above, we expect munis spreads to retrace their 4Q widening during the 1H24. As a result, we currently see relatively more spread value in New York than we do in California and in sectors where recoveries are materially lagging those with the fastest recoveries.

Exhibit 4: OAS recovery among muni indexes since 9 January 2024 (bp)
The lower rated indexes have generally had stronger recoveries in OAS

Index	Ticker	OAS	Bp widening, 11/1/23 to 1/9/24	Bp narrowing since 1/9/24	OAS recovery	Index	Ticker	OAS	Bp widening, 11/1/23 to 1/9/24	Bp narrowing since 1/9/24	OAS recovery
Muni master	U0A0	18	20	6	30%	A	URA3	39	21	6	29%
AAA	U0A1	5	20	4	20%	BBB	URA4	85	20	8	40%
AA	U0A2	5	21	6	29%	Airport	U0AV	33	32	9	28%
A	U0A3	40	19	5	26%	Education	U0AE	4	20	7	35%
BBB	U0A4	86	21	8	38%	Health	U0HL	99	21	14	67%
HY munis	U0HY	178	24	8	33%	Hospital	U0AH	25	15	7	47%
Non-rated	U0NR	188	23	10	43%	Industrial Dev Rev	U0ID	68	17	13	76%
General Obligation	U0AG	4	16	4	25%	Leases, COPs & Approps	U0AL	14	12	3	25%
AAA	UGA1	1	13	2	15%	Miscellaneous	U0AM	28	20	-4	-20%
AA	UGA2	-1	18	3	17%	Multi-family Housing	U0AU	47	16	26	163%
A	UGA3	44	3	5	167%	Pollution Control	U0AQ	71	10	-12	-120%
BBB	UGA4	101	26	6	23%	Power	U0AP	23	23	12	52%
State	U0AA	2	15	2	13%	Single-family Housing	U0AS	54	88	8	9%
Local	U0AB	7	16	5	31%	Tax Revenue	U0TX	11	19	4	21%
California	U0CA	0	21	12	57%	Tobacco	U0TB	62	24	13	54%
New York	U0NY	13	15	6	40%	Toll & Turnpike	U0TL	12	26	11	42%
Revenue	U0AR	23	22	7	32%	Transportation - other	U0AT	26	17	6	35%
AAA	URA1	8	24	5	21%	Utilities - other	U0UT	73	16	-5	-31%
AA	URA2	7	23	8	35%	Water & Sewer	U0AW	-5	27	8	30%

Note: Data as of 6 February 2024.
Source: BofA Global Research, ICE Data Indices LLC

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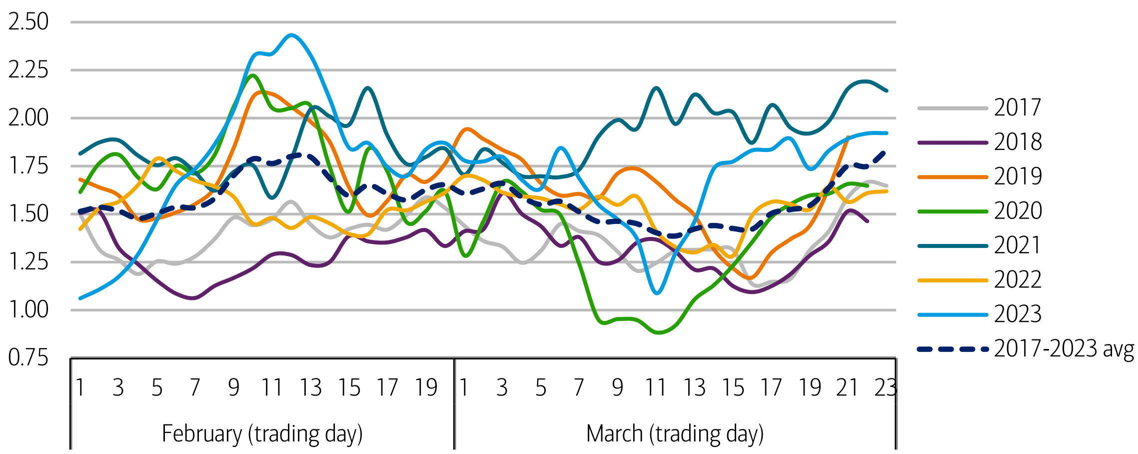
Exhibit 4 shows OAS recovery across many muni indexes. For example, it shows that among the GO indexes, single-A GOs recovery is strongest at 167%, which is materially above single-A revenues' 29% recovery. Among the revenue bond indexes, multi-family housing's 163% recovery is strongest, while pollution control, utilities-other and miscellaneous all saw OAS widen since 9 January.

Buy/sell ratios in February and March

We reviewed muni Buy/Sell ratio patterns in February and March from 2017 through 2023 using MSRB data on daily par amount traded. To get rid of the weekly cyclical pattern of Buy/Sell ratios, a trading day's Buy/Sell ratio in Exhibit 5 below reflects the ratio of the total amount of par value traded on that day, as well as two trading dates prior to that day and two trading days after. We define the "Buy Side" as the total par amount of trades of customers' purchases from dealers and the "Sell Side" as the total par amount of trades of customers' sells to dealers. While Exhibit 5 shows that, although the pattern differed yearly, the Buy/Sell ratios tended to improve into mid-February, before weakening for the next month, before improving again towards the end of March.

Exhibit 5: Buy/Sell ratios in February and March, 2017-2023

Ratios strongest around mid-February and weakest around mid-March



Note: Reflects trading day, rather than date. From 2017-2023, there were 20 trading days in each February and up to 23 trading days in March.
Source: BofA Global Research, Bloomberg

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Performance

From under to outperformance: munis > taxables

Exempt IG's -26bp total return for the week ending 7 February was strong enough to outperform govies by 60bp, corporates by 55bp and taxable munis by 41bp. That brought exempt IG's YTD total returns to -48bp, which is 54bp better than govies' and 18bp better than corporates'. HY munis returns for both the week and YTD, however, are stronger than IG's: HY's returns are 5bp stronger for the week and are 125bp stronger for the YTD. Among the IG rating brackets, BBBs' returns are strongest YTD with their -28bp of total returns while AAAs' -71bp are weakest. Note that GOs' performance is lagging revenue bonds' by 8bp YTD, though both single-A and BBB GOs are still outperforming their revenue counterparts. Among the maturity indexes, the shortest maturities' (1-3yr) have the strongest returns YTD, returning -10bp while the longest maturity indexes returns (the 22yr+ index) are weakest at -68bp.

Exhibit 6: Municipal total returns (%) monitor, as of 7 February 2024

Exempt IG munis turn in a negative January, underperforming govies, corporates and taxable munis

Index	Ticker	1d	1wk	MTD	1mo	3mo	YTD	1yr
Govt Master	G0A0	-0.150	-0.860	-0.860	-0.131	3.942	-1.025	1.222
Corporate Master	C0A0	-0.176	-0.805	-0.805	0.603	6.602	-0.658	4.402
IG munis	**U0A0**	**0.093**	**-0.260**	**-0.260**	**-0.447**	**5.924**	**-0.483**	**3.097**
AAA	U0A1	0.074	-0.333	-0.333	-0.658	5.757	-0.705	2.441
AA	U0A2	0.094	-0.259	-0.259	-0.497	5.729	-0.521	2.747
A	U0A3	0.093	-0.224	-0.224	-0.268	6.156	-0.328	3.835
BBB	U0A4	0.121	-0.272	-0.272	-0.262	7.126	-0.282	4.542
1-3yr	U1A0	0.017	-0.094	-0.094	-0.088	1.837	-0.102	2.387
3-7yr	U2A0	0.052	-0.131	-0.131	-0.355	3.710	-0.404	1.961
7-12yr	U3A0	0.069	-0.210	-0.210	-0.543	5.302	-0.519	2.220
12-22yr	U4A0	0.101	-0.283	-0.283	-0.490	7.087	-0.509	3.985
22+yr	U5A0	0.163	-0.442	-0.442	-0.580	8.734	-0.677	3.656
HY munis	**U0HY**	**0.090**	**-0.214**	**-0.214**	**0.697**	**6.984**	**0.768**	**3.699**
Non-rated	U0NR	0.174	-0.204	-0.204	0.601	7.606	0.359	4.837
General Obligation	**U0AG**	**0.076**	**-0.249**	**-0.249**	**-0.527**	**5.417**	**-0.546**	**2.620**
AAA	UGA1	0.075	-0.313	-0.313	-0.681	5.709	-0.756	2.170
AA	UGA2	0.079	-0.241	-0.241	-0.511	5.340	-0.533	2.550

Exhibit 6: Municipal total returns (%) monitor, as of 7 February 2024
Exempt IG munis turn in a negative January, underperforming govies, corporates and taxable munis

Index	Ticker	1d	1wk	MTD	1mo	3mo	YTD	1yr
A	UGA3	0.065	-0.142	-0.142	-0.313	5.387	-0.174	2.967
BBB	UGA4	0.028	-0.226	-0.226	-0.210	5.025	-0.099	5.369
State	U0AA	0.060	-0.193	-0.193	-0.439	4.597	-0.441	2.496
Local	U0AB	0.095	-0.314	-0.314	-0.631	6.369	-0.667	2.746
Revenue	**U0AR**	**0.098**	**-0.264**	**-0.264**	**-0.421**	**6.089**	**-0.463**	**3.251**
AAA	URA1	0.073	-0.348	-0.348	-0.643	5.788	-0.671	2.629
AA	URA2	0.101	-0.266	-0.266	-0.491	5.895	-0.517	2.829
A	URA3	0.096	-0.231	-0.231	-0.264	6.222	-0.342	3.916
BBB	URA4	0.127	-0.276	-0.276	-0.267	7.299	-0.297	4.162
Airport	U0AV	0.078	-0.157	-0.157	-0.305	5.727	-0.357	3.444
Education	U0AE	0.095	-0.296	-0.296	-0.509	6.426	-0.536	2.976
Health	U0HL	0.070	-0.419	-0.419	0.078	9.085	0.144	4.541
Hospital	U0AH	0.118	-0.298	-0.298	-0.357	7.526	-0.445	3.383
Industrial Development Rev	U0ID	0.143	-0.178	-0.178	-0.169	7.050	-0.220	4.813
Leases, COPs & Appropriations	U0AL	0.097	-0.220	-0.220	-0.461	5.559	-0.491	2.794
Miscellaneous	U0AM	0.130	-0.455	-0.455	-0.792	5.367	-0.854	2.096
Multi-family Housing	U0AU	0.149	-0.221	-0.221	-0.542	5.982	-0.579	2.857
Pollution Control	U0AQ	0.054	-0.197	-0.197	-0.359	4.906	-0.334	2.296
Power	U0AP	0.092	-0.244	-0.244	-0.365	5.057	-0.395	2.680
Single-family Housing	U0AS	0.098	-0.220	-0.220	-0.577	5.175	-0.598	2.204
Tax Revenue	U0TX	0.090	-0.344	-0.344	-0.647	6.219	-0.689	3.141
Tobacco	U0TB	0.090	-0.212	-0.212	0.086	4.992	0.109	3.608
Toll & Turnpike	U0TL	0.100	-0.240	-0.240	-0.296	5.832	-0.344	3.298
Transportation - other	U0AT	0.097	-0.277	-0.277	-0.458	6.088	-0.518	4.089
Utilities - other	U0UT	0.084	-0.098	-0.098	-0.015	5.304	-0.071	3.870
Water & Sewer	U0AW	0.099	-0.284	-0.284	-0.437	5.753	-0.433	2.807
Taxable	**TXMB**	**-0.214**	**-0.670**	**-0.670**	**0.681**	**6.423**	**-0.390**	**3.385**
Build America Bonds	BABS	-0.242	-0.686	-0.686	0.720	6.474	-0.301	2.735
VRDOs	**VRDO**	**0.008**	**0.055**	**0.055**	**0.248**	**0.798**	**0.303**	**3.253**
Daily reset	VRDD	0.006	0.033	0.033	0.193	0.701	0.228	3.051
Weekly reset	VRDW	0.009	0.069	0.069	0.281	0.856	0.347	3.368

Source: ICE Data Indices, LLC

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IG spreads 2bp tighter w/w overall; HY spreads 4bp tighter

IG muni spreads tightened 2bp w/w overall to 21bp and are sitting at the 12th percentile of their 52-week range. Muni HY spreads tightened 4bp to 200bp or the 14th percentile. GO spreads tightened 1bp w/w as revenue bond spreads tightened 2bp. Among IG muni revenue bond sectors, the Utilities - other sector narrowed the most by 5bp. All of the IG muni revenue bond sectors tightened over the past one week.

Exhibit 7: Muni YTW spread monitor as of 7 February 2024
IG muni spreads tightened 2bp w/w overall while HY spreads tightened 4bp

	52wk				Current	Change from				Current as %		
	Tights	Wides	T-1wk	T-1d	2/7/24	Tights	Wides	T-1wk	T-1d	of 52wk range	Price	Yield
Investment Grade	**19**	**35**	**23**	**21**	**21**	**2**	**-14**	**-2**	**0**	**12**	**102**	**3.54**
AA	2	12	5	4	3	1	-9	-2	-1	10	103	3.36
A	49	77	54	51	51	2	-26	-3	0	7	100	3.84
BBB	94	142	108	106	105	11	-37	-3	-1	23	97	4.38
High Yield	**176**	**350**	**204**	**200**	**200**	**24**	**-150**	**-4**	**0**	**14**	**95**	**5.33**
Non-rated	174	247	223	209	209	35	-38	-14	0	48	65	5.42
General Obligation	**-12**	**-4**	**-9**	**-10**	**-10**	**2**	**-6**	**-1**	**0**	**25**	**102**	**3.23**
AA	-19	-9	-15	-16	-17	2	-8	-2	-1	20	102	3.16
A	-15	29	4	2	2	17	-27	-2	0	39	105	3.35
BBB	50	115	81	79	80	30	-35	-1	1	46	96	4.13
State	-30	-20	-27	-29	-29	1	-9	-2	0	10	106	3.04
Local	7	17	13	12	12	5	-5	-1	0	50	98	3.45
Revenue	**30**	**49**	**33**	**31**	**31**	**1**	**-18**	**-2**	**0**	**5**	**102**	**3.64**
AA	10	22	14	12	12	2	-10	-2	0	17	103	3.45
A	53	81	58	55	55	2	-26	-3	0	7	99	3.88
BBB	96	147	110	108	107	11	-40	-3	-1	22	97	4.40
Airport	52	84	63	60	59	7	-25	-4	-1	22	104	3.92

Exhibit 7: Muni YTW spread monitor as of 7 February 2024

IG muni spreads tightened 2bp w/w overall while HY spreads tightened 4bp

	52wk				Current	Change from				Current as %		
	Tights	Wides	T-1wk	T-1d	2/7/24	Tights	Wides	T-1wk	T-1d	of 52wk range	Price	Yield
Education	9	31	13	12	11	2	-20	-2	-1	9	104	3.44
Health	135	174	150	147	148	13	-26	-2	1	33	94	4.81
Hospital	60	89	65	63	62	2	-27	-3	-1	7	100	3.95
Industrial Development Rev	67	123	84	81	80	13	-43	-4	-1	23	100	4.13
Leases, COPs & Appropriations	-4	13	2	0	0	4	-13	-2	0	24	104	3.33
Miscellaneous	-3	17	16	16	15	18	-2	-1	-1	90	103	3.48
Multi-family Housing	54	89	66	64	63	9	-26	-3	-1	26	95	3.96
Pollution Control	30	64	60	58	59	29	-5	-1	1	85	98	3.92
Power	22	39	25	24	24	2	-15	-1	0	12	105	3.57
Single-family Housing	69	89	89	86	86	17	-3	-3	0	85	98	4.19
Tax Revenue	3	16	4	3	3	0	-13	-1	0	0	101	3.36
Tobacco	-22	37	4	2	2	24	-35	-2	0	41	101	3.35
Toll & Turnpike	23	49	31	28	28	5	-21	-3	0	19	98	3.61
Transportation - other	24	54	30	28	28	4	-26	-2	0	13	100	3.61
Utilities - other	65	105	70	66	65	0	-40	-5	-1	0	104	3.98
Water & Sewer	3	20	13	12	12	9	-8	-1	0	53	103	3.45

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

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Supply & demand

YTD issuance totals $37.6bn, up 38% y/y

YTD issuance as of 7 February 2024 totaled $37.6bn, up 38% y/y. 76% of YTD issuance is new money and 24% is refundings. New money volumes are up 40% y/y while refunding volumes are up 32% y/y.

Exhibit 8: Issuance summary ($mn)

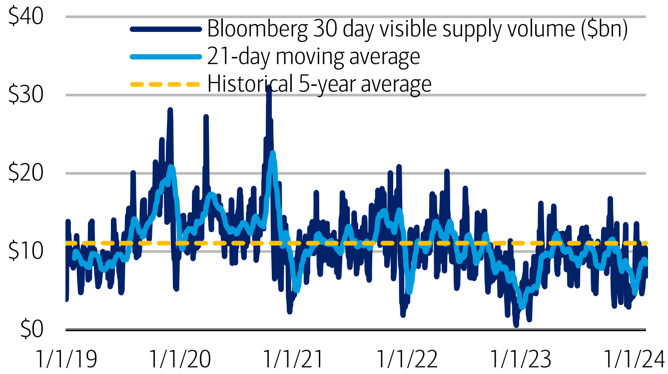
YTD-24 issuance of $37.6bn was up 38% y/y; new money up 40% y/y while refundings up 32% y/y

	Month-to-date			Year-to-date		
	2/7/24	2/7/23	y/y % Δ	2/7/24	2/7/23	y/y % Δ
Total	**6,999.2**	**3,144.1**	**123%**	**37,644.1**	**27,200.2**	**38%**
New Money	5,888.2	2,900.9	103%	28,562.9	20,333.0	40%
Total Refunding	1,111.0	243.2	357%	9,081.2	6,867.2	32%
Advanced refunding	0.0	0.0	-	1,267.3	1,375.5	-8%
Unknown refunding	1,111.0	228.4	386%	7,813.9	4,322.1	81%
Current & Forward refunding	0.0	14.9	-100%	0.0	1,169.7	-100%
Insured	221.9	232.2	-4%	2,308.6	2,491.0	-7%
Fixed Rate	5,841.5	2,182.5	168%	32,424.1	23,366.2	39%
Variable Rate Long	840.8	887.3	-5%	4,111.1	3,159.0	30%
Variable Rate Short	316.9	65.9	381%	803.3	598.5	34%
Zero Coupon	0.0	8.4	-100%	305.5	22.3	1268%
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	6,634.6	2,845.1	133%	36,100.0	23,052.8	57%
Taxable	364.6	273.1	33%	1,518.4	3,564.8	-57%
Alternate Minimum Tax	0.0	25.9	-100%	25.7	582.6	-96%
Education	2,135.2	1,015.0	110%	10,395.9	9,416.9	10%
Transportation	1,681.3	29.5	5592%	4,313.4	3,464.8	24%
General Purpose	1,433.2	363.9	294%	6,746.5	3,979.5	70%
Utilities	1,000.2	887.4	13%	7,331.0	4,203.5	74%
Housing	451.9	483.9	-7%	2,536.3	2,429.9	4%
Healthcare	281.5	192.0	47%	3,657.7	771.7	374%
Public Facilities	11.4	59.1	-81%	239.1	306.7	-22%
Development	4.3	113.3	-96%	413.2	831.8	-50%
Electric Power	0.0	0.0	-	1,975.9	1,645.5	20%
Environmental Facilities	0.0	0.0	-	35.1	150.0	-77%
Muni-backed corporates	0.0	76.3	-	0.0	76.3	-100%

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

BofA GLOBAL RESEARCH

Exhibit 9: Bloomberg 30-day visible supply ($bn)
30-day visible supply was $6.9bn as of 8 February 2024



Source: Bloomberg

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Exhibit 10: 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	7*	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 7 February 2024.
Source: BofA Global Research, LSEG, Bloomberg

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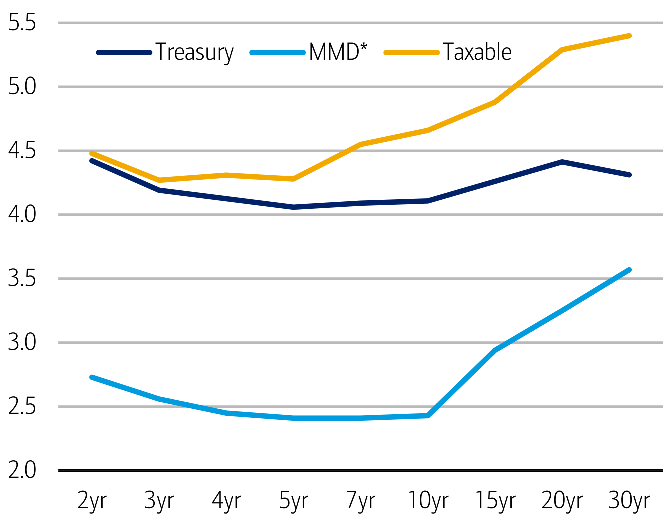
Curve

Curve shifts up 5bp w/w on avg and up 15bp m/m

The AAA MMD curve cheapened 5bp w/w on average, and cheapened by 15bp m/m. For the week, the 1s5s slope was inverted a further 2bp to -58bp, 14bp flatter than one year ago; the 5s10s slope was flat w/w at 2bp and is 12bp flatter than it was one year ago; the 10s20s slope was flat w/w at 82bp and is 1bp steeper than one year ago, the 20s30s was also flat w/w at 32bp and is 12bp steeper than it was one year ago. Investors should continue to position for a flattener led by the back end.

Exhibit 11: 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 7 February 2024.
Source: BofA Global Research, Refinitiv, Bloomberg

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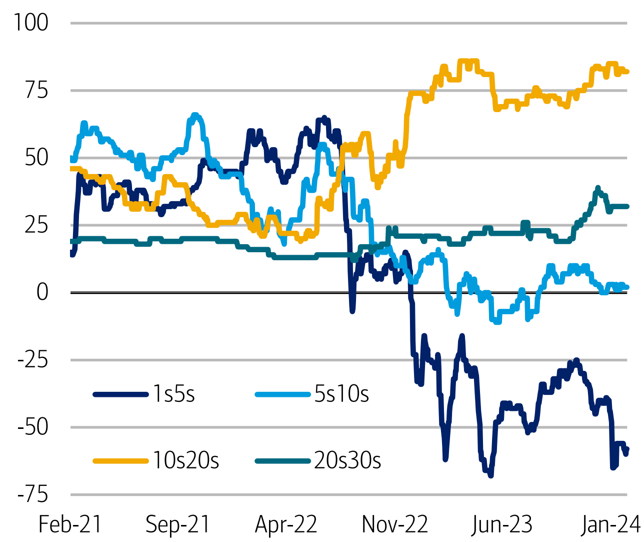
Exhibit 12: Curve slope (bp)
All but the 1s5s were flat w/w



Source: Refinitiv

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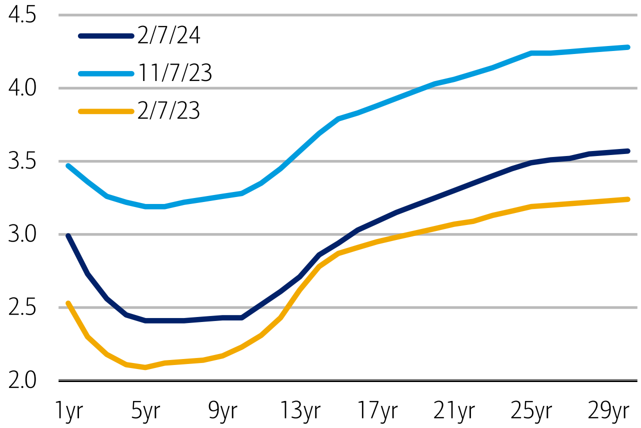
Exhibit 13: AAA GO municipal curve movement (%)
AAA is richer than three months ago across the curve



Source: Refinitiv

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Relative value

Ratios mostly neutral while slopes mostly flat

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

Exhibit 14: Rich/cheap analysis of MMD*/Treasury ratios as of 7 February 2024
The muni market is mostly neutral on both a ST and LT 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	4.192%	61.1%	Neutral	71.9%	57.1%	62.2%	Neutral	130.7%	26.7%	61.6%
5yr	4.059%	59.4%	Neutral	72.7%	56.2%	61.5%	Neutral	92.0%	39.3%	63.4%
10yr	4.108%	59.2%	Neutral	73.7%	56.4%	61.9%	Rich	105.3%	54.7%	72.3%
30yr	4.312%	82.8%	Neutral	92.3%	80.7%	85.7%	Neutral	110.0%	63.5%	86.9%

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 15: Rich/cheap analysis of MMD* slopes (bp) as of 7 February 2024
The slopes are mostly Flat on both a ST and 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	-58	Flat	-27	-65	-44	Flat	65	-68	8
1s10s	-56	Flat	-18	-63	-40	Flat	120	-74	34
10s30s	114	Neutral	123	100	113	Steep	123	32	72
1s30s	58	Flat	84	54	73	Flat	170	26	105

Note: See note in above.
Source: BofA Global Research, Refinitiv, Bloomberg

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OAS rich/cheap analysis

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

Exhibit 16: Rich/cheap analysis of 7-12yr indexes' OAS (bp)
AA Utilities – Other's current OAS of 30bp at 7-12yrs is currently Very Cheap against its 3yr OAS average of 10bp

	Current OAS				Rich/cheap analysis				3yr OAS average			
Sector	**AAA**	**AA**	**A**	**BBB**	**AAA**	**AA**	**A**	**BBB**	**AAA**	**AA**	**A**	**BBB**
Airports		39	34	65		N	N	N		32	30	54
Higher Education	-13	-10	33		N	C	N		-8	-4	39	
GO Local	1	4	49	109	R	N	N	N	-2	7	43	110
GO State	-5	-6	47	0	N	N	N	R	-7	-5	43	94
Health		22	73	125		N	N	N		19	71	107
Hospital		6	34	92		N	N	N		16	37	96
IDR		57	68	73		N	N	N		37	53	79
Leases COPs & Appr.		12	21	122		N	N	N		10	34	110
Pollution Control	1		105		R		N		-1		73	
Power	-5	-7	53		N	N	N		-5	-5	27	
Tax Revenues	-4	2	58	109	VR	N	N	N	2	5	55	115
Tobacco			33				N				48	
Toll & Turnpike		17	17	82		N	N	N		20	17	80
Transportation - Other	0	14	43	0	R	N	N	R	4	12	53	86
Utilities - Other	0	30	92		R	VC	C		-3	10	45	
Water & Sewer	-12	-12	15	4	C	N	N	N	-6	-7	12	102

Note: Data as of 6 February 2024. Only includes non-prerefunded bonds. Benchmark is 3-yr avg.
Source: ICE Data Indices, LLC

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Exhibit 17: 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 6 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 the Industrial Development Rev and Utilities decreasing the most. Multi-Family Housing's MWI is the lowest.

Exhibit 18: MWIs – sector momentum (%) as of 6 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%**	**-0.2%**	Miscellaneous	100.0%	0.0%
ETM	96.5%	-0.1%	Multi-Family Housing	95.3%	1.3%
GO - Local	99.4%	-0.2%	Pollution Control	98.5%	0.0%
GO - State	99.3%	-0.5%	Power	98.3%	-0.4%
Pre-Re	100.0%	0.0%	Single Family Housing	96.9%	0.1%
Airport	99.3%	-0.3%	Tax revenue	99.6%	-0.2%
Education	99.7%	-0.2%	Tobacco	97.5%	1.3%

Exhibit 18: MWIs – sector momentum (%) as of 6 February 2024
Most sectors' MWIs had small decreases over the past week

Sector	MWI	m/m Δ	Sector	MWI	m/m Δ
Health	100.0%	0.9%	Toll & Turnpike	99.9%	0.0%
Hospitals	99.6%	0.0%	Transportation	99.6%	-0.2%
Industrial Development Rev	96.3%	-2.3%	Utilities - Other	97.6%	-1.2%
Leasing COPS & Appropriations	99.2%	-0.7%	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 and number of trades was 896035DG4, totaling $352mn. Those are newly issued Triborough Bridge and Tunnel Authority sales tax revenue bonds due in 2064.

Exhibit 19: Most actively traded muni CUSIPs over the week ending 7 February 2024
896035DG4 was the most frequently traded CUSIP. [1]Last trade

CUSIP	Short name	ST	Coupon/Maturity	Yield[1]	Spread	# of trades	Avg Vol ($mn)
896035DG4	TRIBOROUGH BRIDGE-A-1	NY	4.125s of '64	4.27	67	708	0.50
896035DH2	TRIBOROUGH BRIDGE-A-1	NY	5.25s of '64	4.04	44	170	1.72
74514L3T2	CVI-SUBSER CW NT	PR	0s of '43	3.23	0	171	0.81
452151LF8	IL ST TXB-PENSION	IL	5.1s of '33	5.43	154	63	1.71
014393ZT2	ALDINE ISD	TX	4s of '54	4.13	53	96	1.08
118217DA3	BUCKEYE OH TOBACCO-B3	OH	0s of '57	6.95	335	18	5.00
014393ZS4	ALDINE ISD	TX	4s of '49	4.13	60	48	1.82
235308Q22	DALLAS ISD	TX	4s of '54	4.14	55	196	0.32
13062RG77	CA VAR-B-SUBSER B-5	CA	1.5s of '40	--	-98	23	2.31
64966MSD2	NY CITY-B5-VAR	NY	1.95s of '46	--	-120	16	2.97
544532HU1	LOS ANGELES WTR PWR-F	CA	1.7s of '48	--	-151	10	4.74
46940XAJ2	JACKSONVILLE HSG AUTH	FL	5s of '34	3.85	136	31	1.50
414009PV6	HARRIS ED-VAR-B-REF	TX	1.85s of '59	--	-150	22	2.01
896035CY6	TRIBOROUGH BRIDGE-A-1	NY	5s of '43	3.41	12	38	1.16
60637AMW9	MO HLTH & EDU FACS-A	MO	4s of '48	4.25	73	90	0.49
13057EBD5	CA PUB FIN AUTH-B	CA	1.7s of '52	--	-154	16	2.70
983069BW4	WYLIE ISD	TX	4.25s of '54	4.07	47	143	0.30
157432LD5	CHAFFEY CMNTY CLG DT	CA	5s of '48	3.20	-30	75	0.57
64971XDT2	NEW YORK CITY TRANS	NY	4s of '44	4.09	76	213	0.20
45505TT68	INDIANA HSG&CMNTY-A-1	IN	4.75s of '54	4.41	81	179	0.24

Source: Bloomberg

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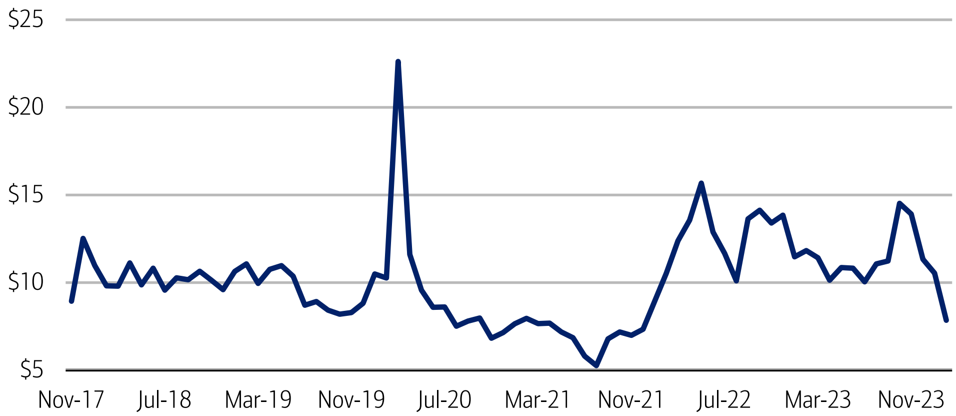
Feb-24's avg daily secondary trading at $7.8bn

Revised data shows secondary trading volumes in January were, while more moderate relative to recent months', more robust than original figures showed. We now see an average daily secondary trading volume of $10.5bn, which was down just 7.0% m/m and 8.1% y/y. In total, $221.3bn of muni bond par value traded in January.

Initial figures for February show a step back in volumes. While daily trading data is subject to revision over the course of the month, we see a daily average of $7.8bn through 7 February, which represents a 25.6% decrease on a m/m basis and 33.7% decrease y/y. Note that, for the MTD, data shows $39.2bn of muni bond par value traded. Of course, we expect that as the month progresses and data is revised and updated, the daily average will climb as it has in the past.

Exhibit 20: Daily avg secondary trading volume ($bn)
Jan-24 daily avg volume of $9.7bn down roughly 15% m/m



Note: Data as of 7 February 2024.
Source: BofA Global Research, Bloomberg

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Credit corner

Rating activity

S&P's upgrades outpace downgrades 2.6 to 1 in January

S&P's January rating activity skewed positive again, though at a more moderate degree than we saw throughout much of 2023, with just 39 ratings upgraded versus 15 downgraded, for an upgrade to downgrade ratio of 2.6 to 1. Local governments again accounted for the most upgrades with 23, but also the most downgrades, with 11. Outlook revisions were heavily positive in January: S&P revised 54 outlooks to positive, 16 to stable and just 8 to negative. Additionally, 3 ratings were removed from CreditWatch in January, while none were placed on CreditWatch negative. All told, favorable outlook and CreditWatch changes outpaced unfavorable changes during the month 3.3 to 1.

UGRs improve for 8 of 19 sectors m/m in January

We previously discussed muni index net upgrade rates (UGR; the trailing 12-month total of par upgrades less downgrades divided by the total index par) in our Weeklies. We now have data through January 2024 and find that, of the 19 different muni sector indexes maintained by ICE, 8 saw m/m increases in their UGRs. That is down from 11 sectors in December 2023. That said, only three indexes' UGRs are currently at a 12-month high: the Healthcare (U0HL) index's at -0.8%, the Toll & Turnpike (U0TL) index's at 26.0% and the Water & Sewer (U0AW) index's at 5.2%. In contrast, six indexes; UGRs are at 12-month lows: Education (U0AE) at 0.0%; Industrial Development Revenue (U0ID) at 0.0%; Leases, COPs & Appropriations (U0AL) at 7.9%; Miscellaneous (U0AM) at -2.5%; Single Family Housing (U0AS) at 0.1%; and Tobacco (U0TB) at -0.7%. This data supports our view, expressed in our Municipals Year Ahead 2024 report, that while 2024 will be a positive rating year, activity will moderate from recent years' levels.

Exhibit 21: Muni sector UGRs, Feb-23 through Jan-24
8 of 19 sectors' UGRs improved m/m; only 3 sectors' are at 12-month highs while 6 are at 12-month lows

Index	Ticker	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24
IG munis	U0A0	10.2%	9.6%	8.0%	6.6%	6.2%	6.3%	6.1%	5.7%	6.1%	6.3%	6.3%	6.4%
AA	U0A2	3.6%	3.9%	1.1%	1.1%	1.0%	0.7%	0.6%	0.6%	1.0%	1.0%	1.2%	1.1%
A	U0A3	14.4%	10.8%	16.5%	14.2%	13.1%	14.8%	14.9%	14.9%	14.8%	14.8%	14.3%	15.7%
BBB	U0A4	41.3%	43.7%	44.3%	36.5%	37.4%	37.0%	36.7%	19.4%	22.7%	26.3%	25.3%	23.7%
HY munis	U0HY	2.8%	0.5%	16.8%	16.6%	16.2%	19.7%	19.2%	20.3%	19.7%	13.8%	12.5%	13.4%
GO-S	U0AA	9.9%	11.2%	11.3%	10.1%	10.1%	10.2%	10.3%	10.2%	10.1%	10.2%	11.0%	10.8%
GO-L	U0AB	1.9%	1.0%	1.2%	1.4%	0.7%	0.2%	-0.4%	-0.1%	1.0%	1.0%	1.0%	0.6%
AIR	U0AV	25.4%	26.4%	25.1%	27.4%	19.1%	18.2%	7.2%	5.1%	2.3%	2.7%	2.6%	2.7%
EDU	U0AE	3.2%	2.9%	1.3%	1.3%	1.3%	1.2%	0.8%	1.1%	1.0%	0.8%	0.4%	0.0%

Exhibit 21: Muni sector UGRs, Feb-23 through Jan-24

8 of 19 sectors' UGRs improved m/m; only 3 sectors' are at 12-month highs while 6 are at 12-month lows

Index	Ticker	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24
HLTH	U0HL	-4.7%	-4.0%	-3.5%	-3.3%	-3.3%	-3.6%	-3.2%	-3.1%	-5.1%	-4.7%	-2.2%	0.8%
HOSP	U0AH	0.5%	-0.8%	-0.3%	0.2%	-0.2%	0.1%	-0.5%	-3.2%	-4.1%	-3.6%	-3.0%	-2.2%
IDR	U0ID	0.6%	4.6%	4.6%	12.4%	12.2%	8.9%	9.2%	8.2%	8.1%	8.1%	4.8%	0.0%
LCA	U0AL	17.3%	13.1%	14.6%	13.2%	12.7%	10.3%	10.3%	8.6%	8.5%	8.4%	8.4%	7.9%
MISC	U0AM	5.4%	1.8%	2.0%	2.6%	1.9%	2.0%	0.2%	-0.6%	-0.6%	-0.6%	-0.6%	-2.5%
MFH	U0AU	3.3%	3.3%	2.6%	2.6%	2.6%	2.5%	2.5%	2.5%	1.9%	1.9%	1.8%	1.8%
PC	U0AQ	-0.1%	-0.1%	-0.1%	-0.1%	-1.7%	-1.6%	0.0%	0.0%	0.4%	0.4%	0.4%	0.4%
PWR	U0AP	0.6%	-0.8%	-0.6%	-0.8%	-0.8%	0.3%	-0.7%	-1.1%	-1.1%	-1.1%	-1.0%	-1.0%
SFH	U0AS	4.9%	4.9%	4.9%	6.6%	6.3%	6.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
TAX	U0TX	19.8%	18.3%	6.6%	1.8%	1.9%	2.1%	2.6%	2.6%	4.1%	7.0%	7.1%	7.0%
TBCO	U0TB	5.0%	5.0%	5.0%	5.1%	5.1%	5.1%	4.2%	4.0%	7.1%	2.9%	-0.7%	-0.7%
T&T	U0TL	7.9%	7.9%	7.2%	7.1%	7.2%	8.0%	17.3%	17.1%	18.5%	19.5%	20.3%	26.0%
TRAN	U0AT	36.5%	35.6%	37.6%	26.1%	26.6%	25.4%	24.8%	23.7%	24.3%	24.6%	22.8%	23.2%
UTL	U0UT	-0.8%	-1.2%	-1.1%	2.2%	4.9%	12.2%	12.2%	12.5%	12.3%	6.3%	5.9%	5.9%
W&S	U0AW	3.1%	2.2%	2.8%	1.4%	1.7%	1.8%	2.4%	2.5%	4.6%	5.1%	5.1%	5.2%

Note: See sector definitions in Exhibit 28 below.

Source: BofA Global Research, ICE Data Indices, LLC

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State and local governments

Early indications point to weaker collections in January

42 states we survey for monthly collection data reported collections for the month of December. For these states, we see median y/y total collection growth of -0.4%, with median personal income collections effectively flat y/y on median. Meanwhile, corporate collections declined 3.3% y/y on median, but sales tax collections grew 1.6%. We also now have data for 13 states' collections for the month of January. The data shows a weaker relative month to December, with overall collections down 0.5% y/y: for January, personal income collections are down 1.7% y/y on median, while sales collections are up 1.6%. Corporate collections are down 3.8% on median. While these medians are still early, they will typically hold within a percentage point or two of current medians as additional states report. Meanwhile, reporting from both TX and OK in January showed continued weakening in oil and natural gas production taxes from peak levels. TX collected $8.3bn in oil and natural gas production taxes over the 12-mos ending in January, which is down almost 30% vs the 12-mo period ending Jan-23 which was the state's peak level dating back to at least 2013. OK collected $1.2bn, which is down 29% vs the 12-mo period ending Jan-23 and is nearly 40% below its peak level from Feb-23.

S&P and Fitch chime in on CA's FY25 budget proposal

This week, both S&P and Fitch released reports commenting on Governor Newsom's FY25 budget proposal for CA, which we discussed in our 12 January Municipals Weekly. S&P said that the surplus-to-outsize budget gaps "highlight California's volatile revenue cycles" and that its strong reserve levels should relieve some budget pressure. S&P also said that long-term structural balance will be difficult to achieve if CA continues to rely on volatile revenue sources absent a new recurring revenue stream or an equivalent expenditure reduction. Fitch said the proposed CA budget "could reduce its resilience to future downturns and limit rating upside." It sees the drawdown of more than half of the rainy-day fund as the most significant. However, it also believes the proposed budget allows CA to retain "very strong gap-closing capacity" with $18.4bn of remaining reserves and is supportive of its current AA/stable rating. Fitch acknowledged that the enacted final budget may look significantly different than the proposal.

AK Senate votes to reopen defined benefit pension plans

By a 12-5 vote, Alaska's Senate approved a bill that would create new tiers in two defined benefit plans: the Public Employees' Retirement System and the Teachers' Retirement System, both of which have been closed to new hires since 2006. The co-chair of the Senate's Finance Committee, who is also a professor of economics, estimated that the state could save $76mn if the bill is enacted into law, and that the plan is necessary to reduce turnover in police, firefighters and teachers. The bill is now being considered by the House's State Affairs Committee.

PREPA creditors seek to delay March confirmation hearings

In a filing, PREPA creditors that argued an appeal before the First Circuit Court in Boston asked the US District Court overseeing PREPA's PROMESA Title III bankruptcy to delay the currently-scheduled plan confirmation hearings set to begin early next month. Per the filing: "While the outcome of the appeal is uncertain, that outcome may require significant amendments to the plan and disclosure statement, or even a new plan," the bondholders told the Puerto Rico court. "Rather than continue to expend time and other resources on preparing for the Confirmation Proceedings while the outcome of the appeal remains uncertain, Movants submit that it would be in the best interests of the Court and all parties in interest to adjourn or stay the Confirmation Proceedings until the First Circuit has ruled." How Judge Swain may rule on this motion remains unclear at this point, though she has set a briefing schedule on creditors' motion. She asked that the mediation team respond by today, 9 February, and also ordered the FOMB to explain if and how PREPA's plan of adjustment complies with PROMESA's plan confirmation requirements. Otherwise, we highlight: (a) hotel and paradores registrations for the 12 months ending in Dec-23 of 2.5mn, which is 3.2% vs the 12-month period ending Dec-22, with increases stronger for nonresidents (+7.6%) relative to residents, which declined 7.7% over that period; (b) TSA balances of $9.5bn as of 26 January that were up $66mn w/w, and for the YTD are up 29.3% above adopted liquidity plan (LP) estimates; and (c) FY24 General Fund collections through 26 January of $7.9bn that were up 8.0% vs collections LP estimates.

NY local sales taxes grow 4% y/y in 2023; NYC's grow 6%

NY's comptroller released local sales tax collection data for the 4Q and full year 2023. Statewide, nearly $5.9bn of local sales taxes were collected in 4Q23 – up 3.1% vs those collected in 4Q22. For full 2023, local sales tax collections of $23.0bn are up 4.2% y/y. New York City's 4Q23 collections were up 4.4% y/y, and its 2023 collections of $10.1bn were up 5.9% y/y – the fastest growing region detailed in the comptroller's report. New York City's collections in 2023 were "boosted by increases in domestic and international tourism, which approached pre-pandemic levels this past holiday season," per the comptroller. As statewide local sales collection growth moderates after "two years of double-digit increases," the comptroller continues to suggest that "[l]ocal officials should plan for sales tax revenue with more stable and modest growth rates."

State and local payrolls fully recovered as of Dec-23, per BLS data

Our economists called the January jobs report a "blowout", with the US adding 353K payrolls during the month, well above expectations. The US unemployment rate remained unchanged at 3.7%. Note that November's payroll increase was revised up by 9K while December's estimate was revised up by 117K. State and local government payrolls grew 25K m/m in January (state payrolls up 10K m/m and local payrolls up 15K m/m), bringing the sector's combined payroll recovery after taking into account revisions of previous months' jobs added to 107.4%, a 1.7ppt m/m increase. Based on revised data, state and local governments' recovery first crested 100% in Oct-23. All the same, state and local governments' combined recovery is materially lower than the overall 124.6% nonfarm payroll recovery and private industry's 124.7% recovery. Local governments' recovery as of Jan-24 is at 101.5% and state governments at 134.0% (state government payrolls as of Jan-24 of 5.41mn set a new all-time high dating back to Jan-55). On a combined basis, state and local government education payrolls recovered 99.3% of jobs lost – lower than the 121.4% for non-education.

15-largest MSAs aggregate nonfarm payroll recovery at 123.3% as of Dec-23

Data from the BLS showed that the 15-largest MSAs by seasonally adjusted December 2023 payrolls recovered, in the aggregate, 123.3% of jobs lost during the pandemic crisis, or 2.1ppt below the aggregate 125.4% recovery for the other 374 MSAs. Among the 15 largest MSAs, Dallas-Fort Worth-Arlington, TX's 203.3% payroll recovery is strongest; Detroit-Warren-Dearborn, MI MSA's 93.6% recovery is weakest. The New York-Newark-Jersey City, NY-NJ-PA MSA's recovery is 101.6%; the Los Angeles-Long Beach-Anaheim, CA MSA's recovery is 109.0%; and, Chicago-Naperville-Elgin, IL-IN-WI's is 100.1%. Overall, nonfarm payroll recoveries are led by The Villages, FL's 314.7% recovery and Idaho Falls, ID's 296.6% recovery, followed by a number of other MSAs in UT, ID, TX and FL. The lowest overall is Kokomo, IN's 28.0%.

S&L comp cost growth outpaces private industry's for fourth-straight quarter

For the fourth consecutive quarter, state and local governments' compensation cost growth outpaced private industry's: private industry's climbed 4.1% in December y/y versus state and local governments' 4.6%, according to Bureau of Labor Statistics' data. For the 12 months ending in December, both state and local government's wage and salary cost and benefit cost growth was larger than private industry's (4.7% vs 4.3% and 4.6% vs 3.6%, respectively). Prior to March 2023, private industry's compensation cost growth outpaced state and local government's for 10 consecutive quarters.

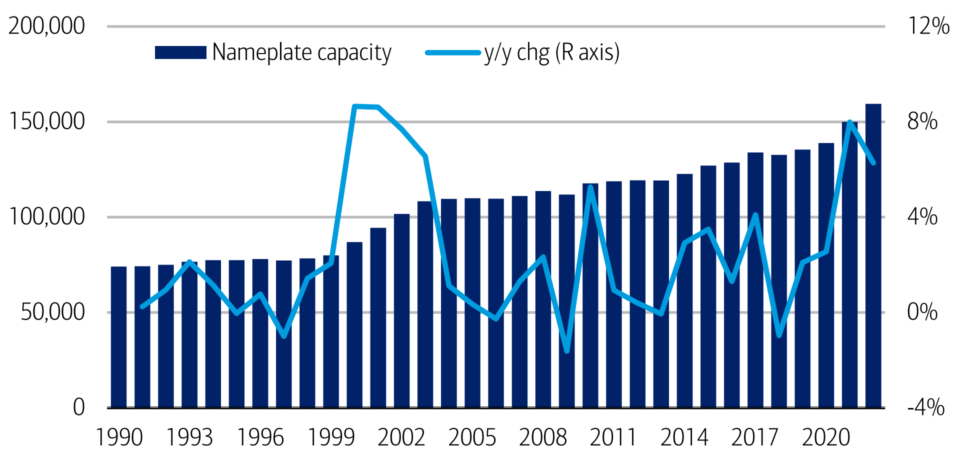
Power

TX power capacity needs to increase 10-15% annually to meet growing demand

As reported by *Bloomberg*, Texas Governor Abbott said that the state needs to grow its power supply capacity by 10-15% per year at the NAPE Summit energy conference in Houston this week. The state is experiencing rising demand from businesses relocating to the state. Household demand has also increased due to the volatile weather across the state in recent years. The Electric Reliability Council of Texas grid, which serves most of the state, saw it highest demand ever last summer amid the heat.

Exhibit 22: Nameplate capacity for TX's total electric power industry (megawatts)

Nameplate capacity hit 159.4 GW in 2022, up 6% y/y



Source: US Energy Information Administration

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Nameplate capacity for TX's total electric power industry has been steadily increasing and reached 159.4 gigawatts at the end of 2022. Increased capacity has grown at an average annual rate of 2% since 1990. However, growth has improved in recent years with an average annual rate of 4% for the past 5 years and 6% for the past 3 years.

Mass transit

NY comptroller releases analysis of MTA's Twenty Year Need's Assessment

NY's comptroller released its analysis of the MTA's December update to its' Twenty Year Need's Assessment (TYNA). The comptroller found that $69bn in funding was required to cover the MTA's two capital programs spanning 2015-2019 and 2020-2024, while an additional $43bn alone will be needed for the 2025-2029 capital program. The report notes that the 2013 TYNA outlined inflation adjusted investment in signals and communication infrastructure totaling $10.9bn from 2013-2024. However, through December 2023, the comptroller reports that just $1.9bn in improvements had been implemented, with an additional $3bn having been committed. Continued investment is needed in signals and communication infrastructure after lagging other areas of subway improvement for the last 10 years. The comptroller calls for the MTA to explain "why it decides to fund investments in other areas instead of making investments where asset component conditions are in the most poor or marginal conditions."

WMATA releases revised FY25 budget featuring a 12.5% fare hike

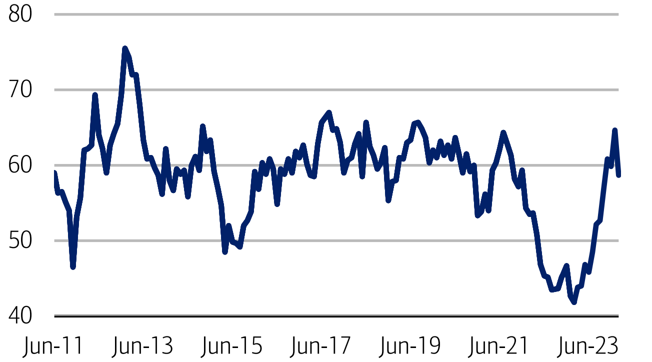
The Washington Metropolitan Area Transit Authority (WMATA) released its revised FY25 budget in which WMATA highlights a $750mn budget shortfall the authority faces in FY25. With WMATA legally obligated to pass a balanced budget annually, the transit system previously flagged the likelihood of severe service reductions, station closures, staff cuts and fare hikes should the FY25 financial outlook not improve. The $750mn deficit is equal to more than 25% of the WMATA's operating budget; the system is looking to savings and cost cutting measures through the remainder of FY24 to provide an additional $95mn in savings for the FY25 deficit. Additional funding is expected to arrive via the surrounding jurisdictions of Washington D.C., Maryland and Virginia, totaling $480mn for FY25 which will allow severe service cuts to be avoided. Some routes may still see service reductions. WMATA outlined an additional $119mn in additional savings through operating and budget efficiencies and task force savings. Despite the additional funding and savings, fares are set to rise at least 12.5% across the system starting this July. Like the MTA, WMATA plans further investment in fare evasion prevention via new faregates and fare enforcement measures.

Defaults, distress & HY

Tracking: material credit events and Ch. 9 filings

For the week ending 7 February, our tracking of those Moody's-defined material credit events (MCEs) shows 12 postings, down 6 on a w/w basis, with the MTD total of 12 as of 7 February. See Exhibit 23. There were no new Chapter 9 bankruptcy petitions filed for the week ending on 7 February; it has now been 260 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 23: 6-mo mov avg of material credit events posted to EMMA
Filings posted to EMMA end January at 70, up 10 from December



Note: Data as of 7 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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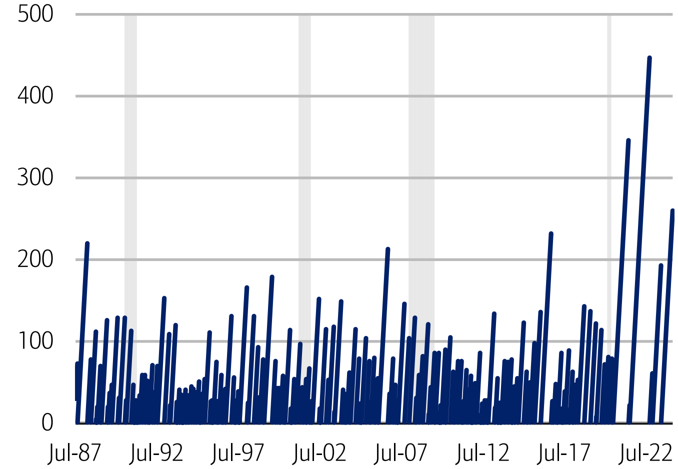
Exhibit 24: Calendar days since last Chapter 9 petition filed
260 days since Hazel Hawkins Memorial Hosp. filed Ch. 9 petition



Source: BofA Global Research, PACER, US Courts

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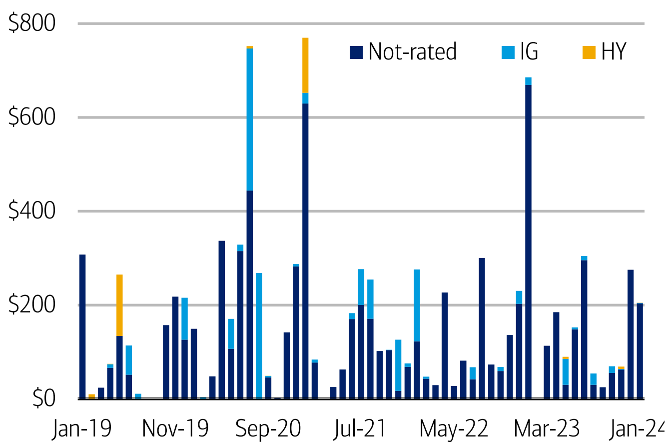
YTD default & distress through Jan-24

As discussed in our last 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 25: 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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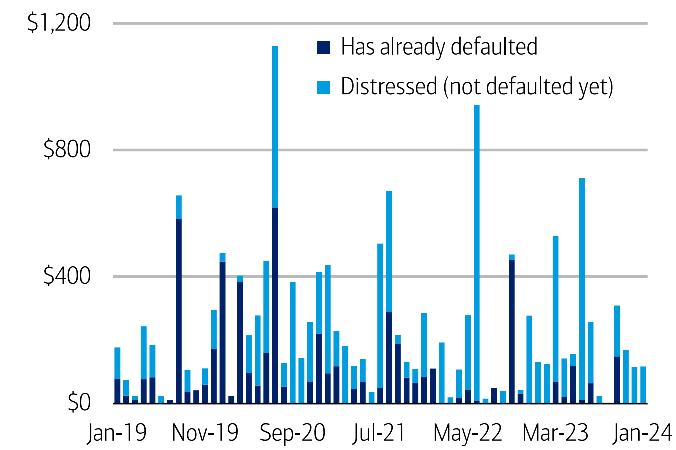
Exhibit 26: Monthly first-time distressed debt ($mn)
First-time distress totaled $116mn in Jan-24, down 11% y/y



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 Japan and South Korea.

Exhibit 27: Cross currency equivalent yields as of 8 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 (4.117)**	**10 yr (4.164)**	**30 yr (4.369)**	**5 yr (4.28)**	**10 yr (4.66)**	**30 yr (5.4)**	**5 yr**	**10 yr**	**30 yr**	**5 yr**	**10 yr**	**30 yr**
Canada	3.652	3.564	3.442	3.805	3.847	4.214	3.966	4.342	5.238	Yes	Yes	Yes	Yes	Yes	Yes
United Kingdom	4.042	4.046	4.604	4.000	3.989	4.285	4.160	4.485	5.313				Yes	Yes	Yes
France	2.631	2.864	3.416	2.602	2.739	3.673	2.762	3.231	4.673			Yes	Yes	Yes	Yes
Germany	2.280	2.351	2.562	2.602	2.739	3.673	2.762	3.231	4.673	Yes	Yes	Yes	Yes	Yes	Yes
Italy	3.344	3.922	4.544	2.602	2.739	3.673	2.762	3.231	4.673						Yes
Spain	2.916	3.275	3.950	2.602	2.739	3.673	2.762	3.231	4.673						Yes
Portugal	2.576	3.147	3.620	2.602	2.739	3.673	2.762	3.231	4.673	Yes		Yes	Yes	Yes	Yes
Netherlands	2.474	2.687	2.778	2.602	2.739	3.673	2.762	3.231	4.673	Yes	Yes	Yes	Yes	Yes	Yes
Switzerland	0.841	0.838	0.857	2.602	2.739	3.673	2.762	3.231	4.673	Yes	Yes	Yes	Yes	Yes	Yes
Japan	0.299	0.694	1.760	0.069	0.458	2.580	0.225	0.943	3.531			Yes		Yes	Yes
Australia	3.712	4.103	4.457	4.227	4.686	4.621	4.385	5.180	5.657	Yes	Yes	Yes	Yes	Yes	Yes
South Korea	3.298	3.370	3.305	2.527	3.292	3.938	2.689	3.784	4.944			Yes		Yes	Yes
China	2.286	2.428	2.642	3.956	4.078	4.324	4.119	4.572	5.347	Yes	Yes	Yes	Yes	Yes	Yes
Taiwan	1.120	1.220	1.505	1.053	2.484	3.544	1.213	2.972	4.526		Yes	Yes	Yes	Yes	Yes
Singapore	2.864	2.945	2.819	3.547	3.855	4.214	3.709	4.349	5.233	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 28: 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 28: 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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