



Ramirez Municipal Strategy

March 23, 2020

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Municipal Market Weekly

Credit & Market Strategy

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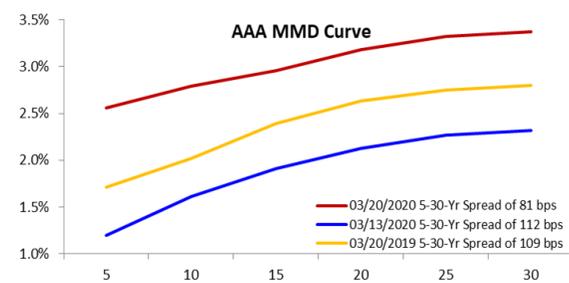
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Global Markets: Risk Off In Uncharted Waters

- ⇒ Global markets convulsed as governments across the globe closed borders and issued stay-at-home orders to residents in an effort to contain the spread of Covid-19. The abrupt economic shutdown sparked investor fear of a deep recession or depression as many scrambled to liquidate financial assets into the safety of cash, the ultimate risk-off trade. Selling accelerated throughout the week as government leaders and health experts predicted a wide range of scenarios and dire outcomes, fueled by mass media hyperbole.
- ⇒ The US Federal government grappled with how to best aid the economy and financial markets. The FOMC, in addition to dropping rates to 0%-0.25%, launched liquidity facilities to provide support for primary dealers, commercial paper, and money market mutual funds, including for short-dated Munis, inc CP and VRDOs (Money Market Mutual Fund Liquidity Facility, or MMLF). The Fed also today announced a second round of aid that includes buying an unlimited amount of Treasuries and agency-MBS. Trump signed a rescue bill for \$100 bil. to fund sick leave and free virus testing. Congress has yet to agree on a bipartisan plan, although we expect a plan to materialize this week as the health crisis worsens.
- ⇒ Deep equity market losses, the worst since Oct, 2008: DJIA down -17.3% to 19,173 (-32.8% YTD); S&P 500 lost -15.79% to 2,304 (-28.65% YTD); NASD lost -12.6% to 6,879 (-23.32% YTD).
- ⇒ Treasury yields finished dramatically lower on the week, led by the 5yr (-26 bps to 0.46%) as liquidity for government backed assets improved, although inter-week volatility was breathtaking as the 10yr yield whipsawed +/-50 bps, beginning Monday at 0.71%, peaking at 1.19% on Wed and ending the week at 0.85%. The 30yr yield declined -11 bps to 1.42%. Treasury 2s30s bull steepened +6 bps to 110 bps. The Treasury index returned +0.29% on the week (+6.34% YTD).
- ⇒ Corporate credit markets remained extremely pressured. Corp-IG CDS widened +10 bps on the week to 154 bps (vs +62bps avg) and HY CDS was wider by +66 bps to 838 bps (vs 357 bps avg). Corp-IG index lost -8.87% on the week (-10.58% YTD) while Corp-HY lost -10.17% (-18.11% YTD).
- ⇒ This week: Fiscal and monetary policy to counteract forced economic curtailments. Economic data releases this week will be muted as they are reflective of Feb before the economic disruptions. World vs Covid-19.

Municipals: Liquidity Crisis Slams Market

- ⇒ **Weekly Recap:** The Muni market experienced an unprecedented and acute liquidity crisis last week as investors withdrew \$12.2 bil. from Muni funds, fearful of disastrous impacts to Muni issuers from Covid-19. The fund outflows, in addition to the unwinding of over 70 tender option bond (TOB) trusts, caused bid-wanted lists to spike to nearly 4x average daily levels all week, including Tuesday with 11,843 items (\$2.4 bil.) and Thursday with 9,709 items (record \$4.1 bil.). The massive selling effectively overwhelmed dealer capacity and contributed to MMD scale cuts that in total averaged +120 bps across the curve, including +136 in 5yrs bps to 2.56% and +118 bps in 10yrs to 2.79%. The front-end of the curve had the most acute cuts as SIFMA reset +392 bps higher at 5.20%, which triggered the TOB unwinds. The outsized BWIC list on Thursday alone contributed to an across the curve, single-day +50 bp cut in the MMD scale. There was nothing to speak of in the primary market. Market returns were horrendous. The S&P Main Muni Index lost -6.68% on the week (-7.55% YTD), while certain individual credit sector losses were steeper, including High-Yield, which lost -11.19% on the week (-15.35% YTD), Dedicated Tax at -7.72% (-8.77% YTD), and Healthcare at -7.54% (-8.67% YTD). Taxable Muni index lost -5.89% and is down "only" -2.95% YTD.
- ⇒ **Valuation:** Tax-exempt Munis appear extraordinarily cheap when viewed through the lens of traditional metrics such as M/T ratios and spreads vs historical levels (pgs 5, 6). However, what is now considered "cheap" may not be when the dust settles. This is the difficulty of accurately valuing Munis, or any asset for that matter, at this time. We think that the return of normalcy for tax-exempts will depend heavily on the retail investor (or proxy) bid since, unlike the Meredith Whitney-fueled Muni market meltdown of Nov, 2011 or even the Fed taper-tantrum sell-off of 2013, non-traditional investors are unlikely to be a reliable backstop bid during this crisis. For example, liquidity for many bonds during 2011-2012 was buttressed by a cadre of distressed debt hedge funds and other crossover investors who at the time viewed the Muni market opportunistically amidst a very tight Corp-IG and Corp-HY spread environment. These investors are now foraging for assets on a global scale that appear even more dislocated than tax-exempts.
- ⇒ **Credit:** The extent of Muni credit impacts will depend on the depth and severity of this crisis, which at this time is too early to ascertain. We do not expect widespread defaults except for the most coverage sensitive and/or reserve constrained issuers, largely unrated and/or speculative credits; otherwise, downgrades in the most credit sensitive sectors are very likely. Rating agencies largely concur that the most immediate impacts are expected to be on hospitals, universities/colleges, and transportation (airports, ports, mass transit), and certain sales tax debt. In other words, these issuers are most likely to experience downgrades and/or outlook changes in the near term.
- ⇒ **Gross Supply:** Issuance is expected to remain on hold, although about \$1.35 bil. is scheduled. YTD issuance is \$89 bil., or 31% y/y.
- ⇒ **30-Day Forward Net Supply:** Over the next 30 days, we see net muni market supply at -\$3.98 bil., comprised of +\$16.10 bil. new issues, -\$10.32 bil. maturing, and -\$9.76 bil. announced calls. The states that stand to experience the largest change in outstanding debt include CA (-\$1.57 bil.), NY (-\$970 mil.), OH (\$955 mil.), MI (\$943 mil.), and PA (-\$895 mil.)



Muni Primary Market

Gross Supply (\$ in millions)

	As of 3/2020
Last Week	2,315
12wk Moving Avg.	7,440
YTD	89,285
Total Issuance YoY	31.1%

Source: Bloomberg

Weekly Visible Supply (\$ in millions)

	Week of 3/23/20
Total	1,354
Comp.	841
Neg.	513

Source: Bloomberg, Ramirez

30-Day Visible Supply (\$ in millions)

	Current Total	2020 High		2020 Low	
		\$	Date	\$	Date
Total	\$14,760	\$15,505	(3/19)	\$7,052	(1/29)
Comp.	1,847	5,326	(1/3)	1,847	(3/20)
Neg.	12,913	13,600	(3/19)	4,085	(2/19)

Source: Bond Buyer

Top Competitive Issuances Coming to Market

Issuer	State	Amount (\$mil.)
Anne Arundel Cnty	MD	381
Beaufort CSD	SC	125
City of Bend	OR	53
Davenport Ref	IA	41
Oakland Co Bldg Auth	MI	39

Source: Bloomberg

Top Negotiated Issuances Coming to Market

Issuer	State	Amount (\$mil.)
Aledo ISD	TX	133
Tomball ISD	TX	108
Chicago Heights Ref	IL	39
NM Fin Auth	NM	30
Gtr New Haven Wtr	CT	30

Source: Bloomberg

Ramirez Negotiated Issuances Coming to Market

Issuer	State	Amount (\$mil.)	Senior Manager	Ramirez Role
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Underwriters will attempt to market \$1.35 bil. of munis during the week of 3/23, led in the negotiated space by \$133 mil. Aledo ISD, \$108 mil. Tomball ISD, \$39 mil. Chicago Heights, \$30 mil. NM Fin Auth, and \$30 mil. Gtr. New Haven Wtr. The competitive calendar is highlighted by \$381 mil. Anne Arundel Cnty, \$125 mil. Beaufort CSD, and \$53 mil. City of Bend.

Economic Calendar

Monday (3/23)	Tuesday (3/24)	Wednesday (3/25)	Thursday (3/26)	Friday (3/27)
Chicago Fed Nat Activity Index	New Home Sales	Durable Goods Orders	Initial Jobless Claims	U. of Mich. Sentiment
US to Sell \$45 bil. 13-Week Bills	Markit US Manufacturing PMI	MBA Mortgage Applications	GDP Annualized QoQ	Personal Spending
US to Sell \$39 bil. 26-Week Bills	Richmond Fed Manufacturing Index	Durables Ex Transportation	Wholesale Inventories MoM	Personal Income
	Markit US Services PMI	FHFA House Price Index MoM	GDP Price Index	
	Markit US Composite PMI	US to Sell \$41 bil. 5-Year Notes	Continuing Claims	
	US to Sell \$26 bil. 52-Week Bills		Personal Consumption	
	US to Sell \$40 bil. 2-Year Notes		Bloomberg Consumer Comfort	

Source: Bloomberg

Taxable Muni Supply

Taxable Supply (\$ in millions)		Weekly Visible Supply(\$ in millions)	
	As of 3/20/20		Week of 3/23/20
Last Week	436	Total	43
12wk Moving Avg.	1,864	Comp.	
YTD	22,370	Neg.	43
% of Total Supply YTD	25.1%	Source: Bloomberg, Ramirez	
Taxable Issuance YoY	+301%		

Source: Bloomberg

Top Taxable Competitive Issuances Coming to Market

Issuer	State	Amount (\$mil.)

Source: Bloomberg

Top Taxable Negotiated Issuances Coming to Market

Issuer	State	Amount (\$mil.)
Golden Valley USD	CA	20
Yakima Ref	WA	20
Port of Gtr Cincinnati	OH	2
La Paz Cnty Indl Dev	AZ	1

Source: Bloomberg

Muni Taxable / IG Corporate --Ratio ('AA' 10Y)



Source: Bloomberg

— ratio — Avg — +1SD -1SD

Source: Bloomberg

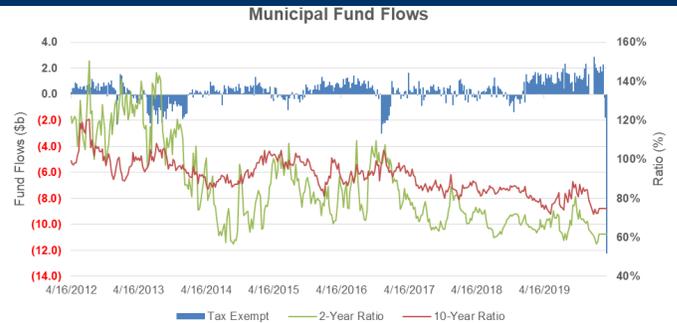
Muni Market Demand

Tax-exempt mutual funds reported outflows for the 3rd consecutive week with outflows of -\$12.21 bil. for the week ended March 18th. This compares to the 12-week moving average of a \$0.35 billion inflow.

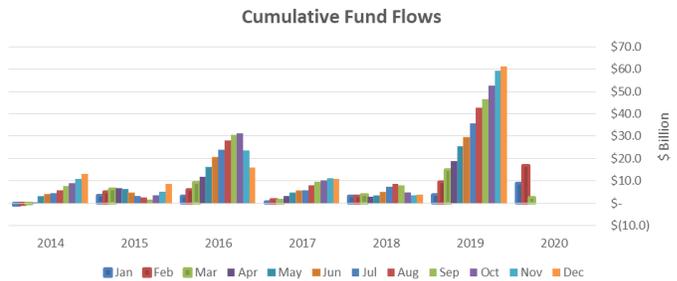
US Lipper Fund Flows

Sector	Flow Change (\$B)	YTD (\$B)
Tax-Exempt	Outflow: -12.214	Inflow: 2.625
Money Market	Inflow: 148.029	Inflow: 262.53
Taxable	Outflow: -55.913	Outflow: -9.882
Equities	Outflow: -14.77	Outflow: -71.985

Source: Lipper Fund Flows



Source: Lipper Fund Flows

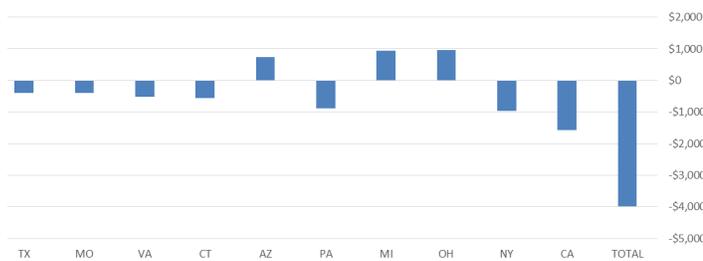


Source: Bloomberg

Muni Market Supply

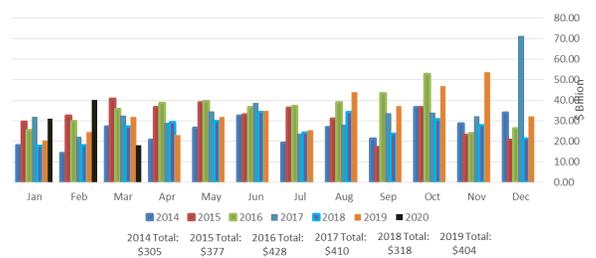
Over the next 30 days, we see net muni market supply at -\$3.98 bil., comprised of \$16.10 bil. new issues, \$10.32 bil. maturing, and \$9.76 bil. announced calls. The states that stand to experience the largest change in outstanding debt include California (-\$1.57 bil.), New York (-\$970 mil.), Ohio (\$955 mil.), Michigan (\$943 mil.), and Pennsylvania (-\$895 mil.).

Largest Net Flows - Next 30 Days



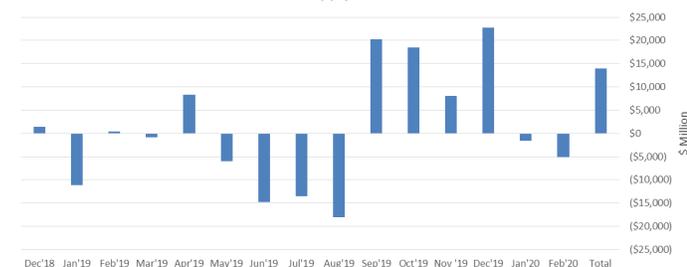
Source: Bloomberg

Monthly Gross Supply



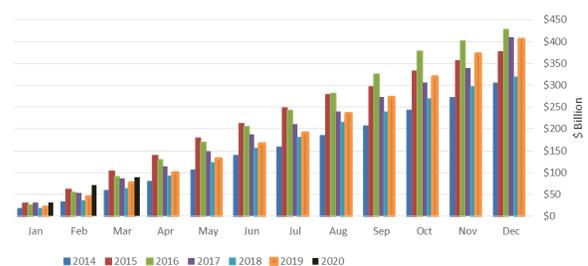
Source: Bloomberg, Ramirez

Net Supply - 12 Months



Source: Bloomberg

Cumulative Gross Supply



Source: Bloomberg, Ramirez

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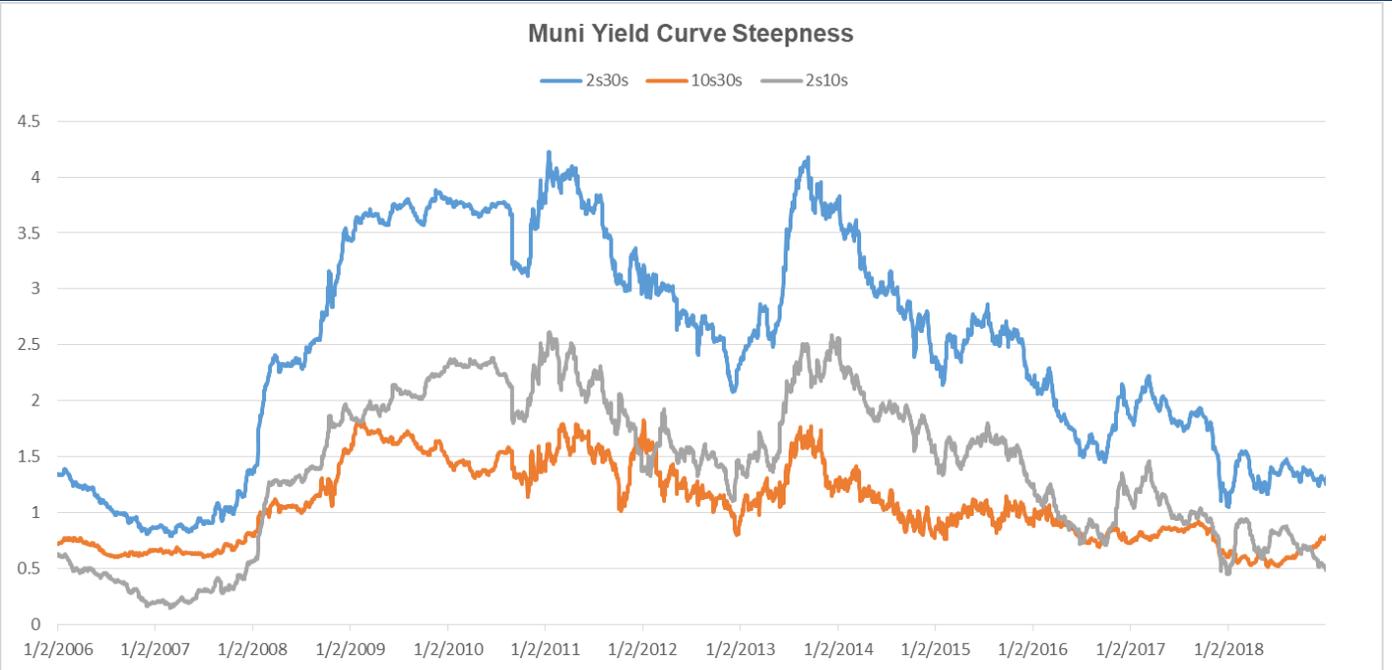
Market Performance																					
WEEK ENDING: 3/20/20																					
Ticker	INDEX	TOTAL RETURN (%)										YIELD (%)									
		WTD	Mar '20	Feb '20	1Q20	4Q19	2020	2019	2018	2017	3Y	5Y	3/20/20	WTD Δ	YTD Δ	Lo	Hi	Mean	Vol	Z-score	
TREASURY - TERM																					
LUATTRUU	TREASURY - ALL	0.29	1.12	2.65	6.34	-0.79	6.34	6.86	0.86	2.31	5.54	3.51	0.82	-0.11	-0.98	0.58	2.53	1.83	0.38	-2.66	-2.86
LU13TRUU	SHORT	-0.58	-0.66	0.82	0.71	0.57	0.71	4.03	1.60	0.87	2.33	1.80	1.52	0.35	-0.24	0.92	2.58	1.92	0.35	-1.17	-1.22
LU35TRUU	SHORT-INT	-0.60	-1.26	1.21	1.01	0.53	1.01	6.33	1.14	1.75	3.29	2.59	2.00	0.21	-0.13	1.22	2.77	2.22	0.29	-0.75	-1.08
LU57TRUU	INTRMD	-1.63	-2.74	1.62	0.12	0.50	0.12	7.32	0.90	2.60	3.53	2.68	2.15	0.12	-0.20	1.16	3.07	2.41	0.37	-0.70	-1.46
LU71TRUU	LONG-INT	-4.39	-6.60	2.22	-1.84	-0.03	-1.84	9.77	0.16	3.52	3.69	2.75	2.60	0.52	0.20	1.49	3.23	2.50	0.38	0.27	-0.84
LU10TRUU	LONG	-7.13	-10.72	4.01	-2.29	-1.12	-2.29	19.57	-4.55	10.47	7.26	4.52	3.21	0.46	0.16	2.06	3.80	3.15	0.36	0.16	-0.96
MUNICIPAL - TERM																					
SAPISH	SHORT	-3.16	-4.12	0.26	-3.37	0.67	-3.37	3.11	1.78	1.16	0.61	0.71	3.06	1.69	1.92	0.61	3.06	1.29	0.28	6.23	4.20
SAPISHI	SHORT-INT	-5.16	-7.09	0.47	-5.72	0.80	-5.72	4.73	1.78	2.39	0.64	0.85	3.21	1.69	1.94	0.72	3.21	1.40	0.30	6.27	3.84
SAPIINT	INTRMD	-6.95	-10.12	0.97	-7.77	0.70	-7.77	6.92	1.55	4.74	1.31	1.47	3.46	1.59	1.87	1.00	3.46	1.69	0.30	5.93	3.22
SAPILI	LONG-INT	-7.34	-10.85	1.11	-8.23	0.65	-8.23	7.51	1.46	5.42	1.55	1.68	3.51	1.55	1.84	1.07	3.51	1.77	0.30	5.79	2.97
LM22TR	LONG	-8.33	-13.82	2.15	-9.82	0.54	-9.82	10.26	0.34	8.19	2.15	2.37	4.03	1.27	1.64	1.71	4.03	2.49	0.33	4.66	2.33
MUNICIPAL - QUALITY																					
SAPIMAIN	MUNI-EXEMPT	-6.68	-10.11	1.21	-7.55	0.65	-7.55	7.26	1.36	4.95	1.54	1.72	3.63	1.53	1.81	1.22	3.63	1.93	0.30	5.58	3.32
SPMUTT	MUNI-TAXABLE	-5.89	-9.07	3.08	-2.95	-0.98	-2.95	9.85	0.95	6.81	4.50	3.83	3.51	0.61	0.28	2.34	3.91	3.31	0.32	6.02	-0.60
SAPIQI	HIGH-GRADE	-6.84	-9.72	0.89	-7.47	0.64	-7.47	6.57	1.28	4.22	1.06	1.24	3.21	1.56	1.79	0.81	3.21	1.52	0.29	5.89	3.08
SAPIRA	'A' RATED	-6.38	-9.77	1.18	-7.21	0.62	-7.21	7.37	1.19	5.41	1.69	1.90	3.62	1.53	1.80	1.21	3.62	1.93	0.30	5.56	3.18
SAPI3B	'BBB' RATED	-8.95	-14.23	1.81	-10.89	0.86	-10.89	9.18	1.54	7.97	1.70	2.11	4.66	1.83	2.36	1.72	4.66	2.45	0.36	6.12	3.96
LMHYTR	HIGH YIELD	-11.19	-19.09	2.11	-15.35	0.90	-15.35	10.68	4.76	9.69	1.27	2.22	6.13	1.36	2.13	3.29	6.13	4.18	0.40	4.88	1.94
MUNICIPAL - SECTOR																					
SAPIPRE	PRE-RE	-2.95	-3.86	0.27	-3.08	0.61	-3.08	3.03	1.64	1.07	0.65	0.71	2.87	1.58	1.77	0.53	2.87	1.24	0.27	6.00	3.89
SAPIGO	GO	-6.62	-9.73	1.13	-7.24	0.62	-7.24	7.00	1.14	4.56	1.42	1.41	3.39	1.53	1.75	1.00	3.39	1.74	0.30	5.51	3.04
SAPIDT	DED TAX	-7.72	-11.82	1.36	-8.77	0.66	-8.77	8.26	1.91	3.73	1.12	1.35	3.80	1.53	1.82	1.41	3.80	2.08	0.31	5.54	3.20
SAPIWRSR	WTR-SWR	-6.63	-9.83	1.19	-7.25	0.58	-7.25	7.25	1.01	5.31	1.71	1.83	3.41	1.51	1.72	1.03	3.41	1.78	0.30	5.42	2.84
SAPIPOW	PUB PWR	-6.08	-8.96	0.99	-6.75	0.63	-6.75	6.57	1.38	3.20	1.17	1.65	3.42	1.57	1.81	1.01	3.42	1.71	0.29	5.87	3.01
SAPIHE	HEALTHCARE	-7.54	-11.58	1.51	-8.67	0.62	-8.67	8.38	1.23	7.00	2.14	2.33	4.10	1.43	1.74	1.76	4.10	2.47	0.31	5.25	2.93
SAPIHD	HIGHER ED	-7.35	-11.08	1.32	-8.37	0.61	-8.37	7.94	1.18	6.20	1.62	1.92	3.81	1.48	1.75	1.46	3.81	2.15	0.30	5.57	3.03
SAPIHR	TRANSPORT	-7.36	-11.70	1.42	-8.78	0.69	-8.78	8.06	0.95	6.25	1.61	1.83	3.84	1.58	1.95	1.33	3.84	1.98	0.31	5.90	3.42
SAPITRAN	HOUSING	-6.82	-10.28	1.20	-7.77	0.59	-7.77	7.26	1.13	5.59	1.55	2.02	3.92	1.25	1.56	1.83	3.92	2.48	0.29	4.92	2.89
SAPIHOU	TOBACCO	-6.85	-12.08	3.71	-7.11	1.39	-7.11	11.86	3.60	17.82	5.35	9.03	5.56	1.25	2.65	2.30	5.56	3.52	0.74	2.76	1.77
SAPITB	IDB	-7.58	-13.01	1.37	-10.43	0.85	-10.43	7.89	1.56	6.40	0.99	1.60	4.87	1.80	2.55	1.78	4.87	2.46	0.35	6.81	4.85
GLOBAL / CORP / EQUITY																					
SPX	S&P 500	-14.98	-21.98	-8.41	-28.66	8.53	-28.66	28.88	-6.24	19.42	-1.13	1.54	2.33	0.40	0.83	1.82	2.73	1.98	0.12	0.21	7.34
LEGATRUU	GLOBAL AGG	-3.77	-5.17	0.67	-3.31	0.49	-3.31	6.84	-1.20	7.39	2.55	1.97	1.52	0.25	0.07	0.87	1.87	1.45	0.21	0.33	-0.67
LUACTRUU	US CORP-IG	-8.87	-13.79	1.34	-10.58	1.18	-10.58	14.54	-2.51	6.42	1.73	1.89	4.58	1.40	1.74	2.22	4.58	3.07	0.38	3.96	2.27
LF98TRUU	US CORP-HY	-10.17	-16.96	-1.41	-18.11	2.61	-18.11	14.32	-2.08	7.50	-1.02	1.59	10.93	2.66	5.80	4.98	10.93	5.91	0.77	6.52	7.34

Rich Fair Cheap
*Rich/Cheap: +/- 100 Z-scr

Rates & Ratios

	This Wk	Last Wk	End Qtr	End Yr	Mean	Value	WTD	MTD	QTD	YTD				
	3/20/20	3/13/20	12/31/19	12/30/19	12M 3Y	12M 3Y	Perf	Perf	Perf	Perf				
AAA MMD / UST							Ratios	Ratios	Ratios	Ratios				
2 Yr	800%	227%	66%	66%	77% 73%	Cheap Cheap	573.3	Under	720.2	Under	733.7	Under	733.7	Under
5 Yr	557%	167%	63%	63%	76% 74%	Cheap Cheap	389.4	Under	478.5	Under	493.2	Under	493.2	Under
10 Yr	329%	167%	75%	75%	83% 85%	Cheap Cheap	162.0	Under	248.1	Under	253.9	Under	253.9	Under
30 Yr	237%	151%	87%	87%	94% 97%	Cheap Cheap	86.3	Under	146.6	Under	149.8	Under	149.8	Under
UST							BPS	BPS	BPS	BPS				
2 Yr	0.32	0.49	1.57	1.57	1.71 1.95	Rich Rich	-17.9		-60.0		-125.4		-125.4	
5 Yr	0.46	0.72	1.69	1.69	1.71 2.16	Rich Rich	-25.8		-47.6		-123.1		-123.1	
10 Yr	0.85	0.96	1.92	1.92	1.90 2.39	Rich Rich	-11.6		-30.2		-107.0		-107.0	
30 Yr	1.42	1.54	2.39	2.39	2.37 2.79	Rich Rich	-11.6		-25.6		-96.9		-96.9	
AAA MMD							BPS	BPS	BPS	BPS				
2 Yr	2.52	1.12	1.04	1.04	1.18 1.36	Cheap Cheap	140.0		179.0		148.0		148.0	
5 Yr	2.56	1.20	1.07	1.07	1.23 1.57	Cheap Cheap	136.0		183.0		149.0		149.0	
10 Yr	2.79	1.61	1.44	1.44	1.53 2.01	Cheap Cheap	118.0		186.0		135.0		135.0	
30 Yr	3.37	2.32	2.09	2.09	2.19 2.69	Cheap Cheap	105.0		185.0		128.0		128.0	

*Rich/Cheap: +/- 1.0 Z-Score



MUNI TAX-EXEMPT SECTOR CREDIT SPREADS (10Y)									
2y Historical									
Sector	Rating	3/20/20	Avg	Min	Max	SD	Z-Scr	Value	Sharpe
GO	AA	28	20	11	32	5	1.72	Cheap	1.0
	A	26	40	16	67	8	-1.60	Rich	0.3
HOSP	AA	26	26	11	41	5	-0.04	Fair	0.6
	A	67	53	32	75	9	1.55	Cheap	5.0
HI ED	AA	34	15	4	34	4	4.42	Cheap	2.6
	A	44	40	16	59	7	0.69	Fair	3.1
TRANS	AA	28	16	5	29	4	2.79	Cheap	1.1
	A	61	34	21	61	5	5.63	Cheap	7.8
POWER	AA	28	15	3	39	4	3.01	Cheap	1.1
	A	32	36	21	53	6	-0.56	Fair	1.4
WTR / SWR	AA	23	17	5	27	4	1.58	Cheap	0.0
	A	35	40	26	83	7	-0.61	Fair	1.6
HY	<BBB-	291	270	173	437	75	0.28	Fair	3.6

Source: Bloomberg

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¹ For purposes of the debt Rule FINRA 2242, a "debt security" excludes any equity security, municipal security and security-based swap (each as defined under the Exchange Act) and any US Treasury (as defined in FINRA Rule 6710 (p)).