

Ramirez Municipal Strategy



March 11, 2019

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Municipal Market Weekly

Credit & Market Strategy

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Munis followed Treasuries higher on the week, bolstered by another round of very strong fund inflows (+\$798 mil. wk; +\$10.372 bil. YTD), negative weekly net supply of -\$7.5 bil., and gross supply of \$6.7 bil., with roughly half being encapsulated by two super-sized transactions in two high-tax states (\$2.3 bil. CA GO and \$914 mil. NYC GO). Given the backdrop, all new issue did unsurprisingly well, the Cal deal in particular with 3.2x subscription (\$8.2 bil. of orders) between retail and institutional investors. The secondary market was also robust with trading at ~20% above average and BWICS ~6% below average that resulted in steadily increasing prices. Clearly, the -\$74 bil. reduction of tax-exempts by banks during 2018 (recently reported by the Fed) has had zero effect on Muni market demand as the slack has been picked up by retail investors, particularly those in high-tax states. Last week the MMD scale was unchanged in 2yrs at 1.58%, but bumped aggressively in the higher yielding spots -- 10yrs and out, led by the 30yr spot, which fell -11 bps to end at 2.89%. SIFMA was lower by -7 bps to 1.67%, or 105% of 1yr MMD, 100% of 5yr MMD, and 67% of 1mL. The S&P Main Muni index returned +39 bps (+1.60% YTD) underperforming Treasuries for the week, which returned +79 bps (+74 bps YTD).

Peak Muni. Although **Munis mostly underperformed Treasuries** on the week, the frenzied clamor for tax-exempts has sent Muni valuations to **peak valuations of the 2000s**. As indicated by the 10yr ratio, which as of last Friday hit 77.7%, current valuations are 10 ratios rich vs the 3yr average (88%) and 15 ratios rich vs the average since 2000 (93%). Provided fund inflows remain robust, Munis could experience bouts of outperformance (still lower ratios), although "regression to the mean" implies that current valuations are likely temporary. We like effective duration of between 8-9 yrs in a 70/30 barbell (70% 1-6yr / 30% 18-21yr), including laddered fixed rate and/or floating rate (given SIFMA at 100% of 5yr MMD) and longer maturities (20-30yrs) with 8-10yr calls. This strategy captures 95% of the MMD yield curve, limits vol, and maximizes credit spread and rolldown in the 7-13yr range, the historical sweet spot for roll. High valuations amidst the current low growth backdrop also argues for conservative credit quality, but slightly more aggressive on duration for a portion of the portfolio, including bonds with lower coupons (sub-5%).

Treasury yields were lower across the curve by an average of about -9 bps, led by the 5yr, which declined -10 bps to 2.45%. Treasuries were heavily influenced by European bond yields, including the benchmark 10yr German bund, that declined -11 bps to 0.06%. The primary risk-off catalyst was the ECB announcement by Draghi on Thurs where he said that the euro-zone will likely grow only +1.1% in 2019, or -60 bps less than forecast in Dec. Draghi also said that the ECB will revive its quantitative easing program and will hold rates at -0.40% through the end of 2019. Other catalysts included dovish Fed comments, lower Chinese exports, US-China trade concerns, and a much lower than expected Feb US jobs report on Friday (20K vs 180K exptd). Last week's risk-off rally halted a 10-week risk-on rally that began in early Feb after Fed Chair Powell said that the Fed would be "patient" on rate increases. The FOMC will meet again next week (Mar 19-20), with investors and most economists expecting the Fed to keep rates on hold. Fed-funds futures now indicate a 27% probability of an interest rate cut by Jan. 2020. Treasury 2s10s contracted 2bps to about 17 bps, the lowest since June 2007, preceding the financial crisis, while 2s30s was unchanged at 56 bps. Treasuries returned +79 bps (0.74% YTD), and equities finished lower with the S&P 500 returning -2.16% on the week to finish at +9.42% YTD.

Weekly muni supply this week totals \$6.3 bil., including \$4 bil. negotiated, led by \$655 mil. Univ of Cal (Aa2/AA) pricing on Tues, \$370 mil. Lower CO River Auth (A/A+) pricing on Wed, \$312 mil. Mt. San Antonio CCD, CA (Aa1/AA) pricing Wed, \$304 mil. Dallas Area Rapid Transit (Aa2/AA+) pricing on Thurs, and \$228 mil. Texas Water Dev Auth (AAA/AAA) on Wed. Competitively, the market is led by \$750 mil. MTA BANs (F1+) selling on Tues, \$337 mil. VA Pub Bldg Auth (Aa1/AA+) selling on Wed. As of March 8, **gross supply YTD** totaled \$56.4 bil., or +14% YoY; however, we are **projecting year-end gross supply** at only +8% YoY (\$341.8 bil.). We see **net supply for 2019** at -\$31 bil. (-\$2.6 bil. avg./mo.). Over the next 30 days, we see **net muni market supply** at -\$6.88 bil., comprised of +\$8.92 bil. new issues against \$15.8 bil. of maturing (-\$10.58 bil.) and announced calls (-\$5.22 bil.). The states that stand to experience the largest change in outstanding debt include New York (-\$1.94 bil.), Georgia (-\$979.9 mil.), California (+\$807.2 mil.), Maryland (-\$712.9 mil.), and Illinois (-\$693.3 mil.).

This week...Fed speakers, inc. Powell., blackout period begins prior to next week's Fed meeting...Brexit, continued US-China trade talks, Mueller report (?), jobless claims, new home sales, durable goods, Trump vs World.

2019 Strategy

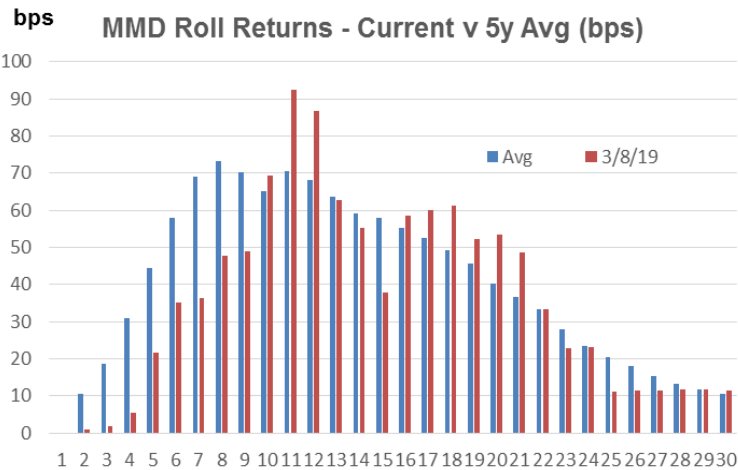
- 70/30 Barbell strategy: 70% 1-6 yrs; 30% 18-21 yrs
- Eff duration of 8-9 yrs.
- Short or floating thru 5yrs; Long-intermediate and long (with 8-10yrs calcs); capture ~95% of curve, fast reinvestment, optimal rolldown
- Best rolldown is generally 7-13yrs.
- Coupon: 5%+ (lower convexity vs 4%)
- Credit: 'AA-' or better GO; 'A' or better Revenue (select names)

Scenarios (1Y)					
Scenario	Bear	Base		Bull	
Strategy	Ladder	Barbell	Ladder	Barbell	Ladder
Crv Shift (avg bps)*	50	25	25	6	6
Quality	AA GO / A Rev	AA GO / A Rev		AA GO / A Rev	
Tot Rtrn % (Proj)	1.97%	3.04%	1.77%	3.90%	3.94%
OAS (bps)*	25	36	31	42	42
Eff Dur (yrs)	1.0	8.8	5.4	10.2	11.4
WAM	1.0	16.1	7.4	19.7	22.2
Cnvx	0.01	-0.52	0.01	-0.94	-0.97

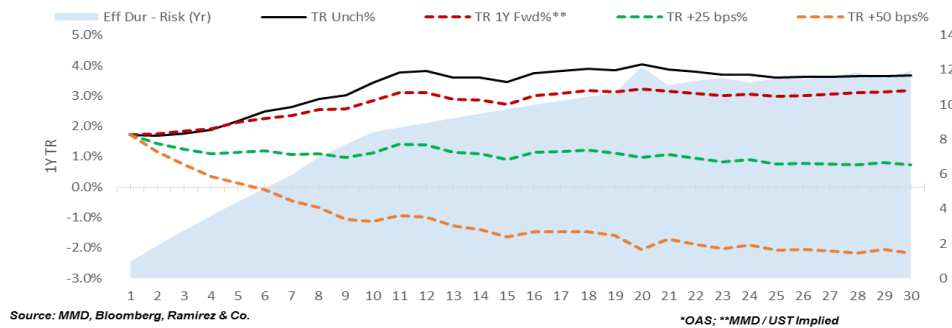
*W.A. bps shift = implied by FWD rates =

6

*OAS Vol = 20



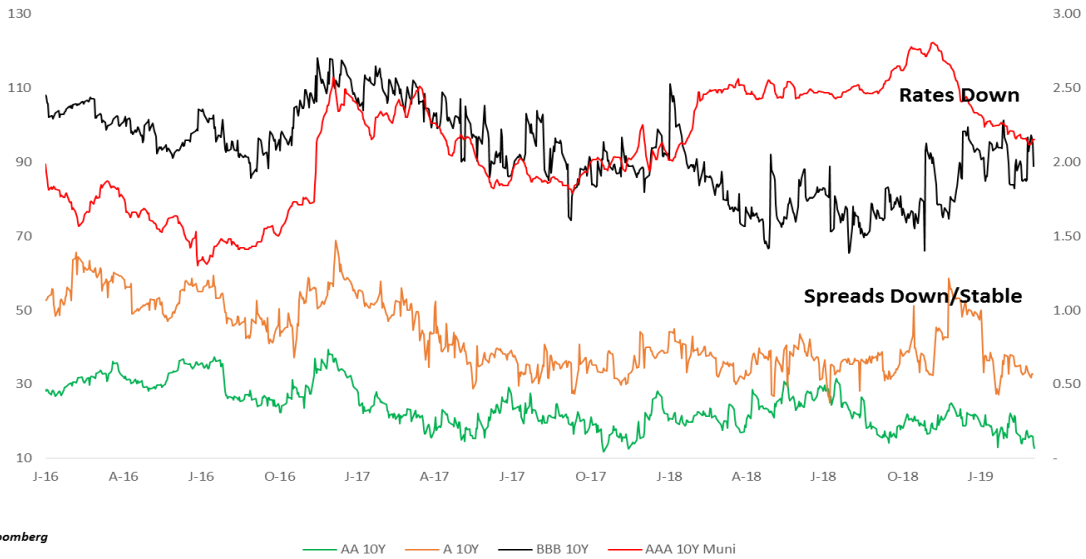
MMD Callable Curve (5% Cpn) - 12M FWD Total Return Projections*



Source: MMD, Bloomberg, Ramirez & Co.

*OAS; **MMD / UST Implied

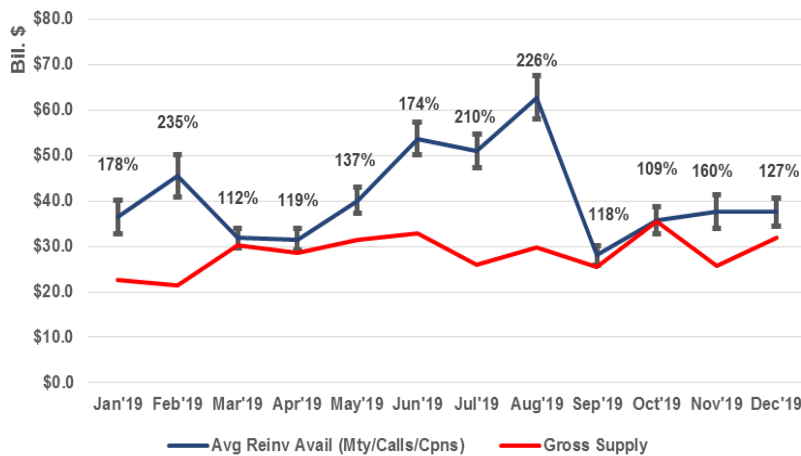
MMD Callable Curve (5% Cpn) - 12M FWD Total Return Projections*								
Scenarios	M ty	1-30y	1-5y	6-10y	11-15y	16-20y	21-26y	26-30y
		Eff Dur	8.8	3.3	7.1	9.3	10.7	11.4
	Unch	3.53%	1.91%	2.95%	3.64%	3.87%	3.73%	3.65%
	1Y Fwd Rates	2.93%	1.93%	2.55%	2.94%	3.13%	3.05%	3.09%
	Parallel +25 bps	1.00%	1.23%	1.08%	1.18%	1.12%	0.90%	0.76%
	Parallel +50 bps	-1.51%	0.56%	-0.75%	-1.26%	-1.62%	-1.92%	-2.11%



Source: Bloomberg

SECTOR CREDIT SPREADS (10Y)									
1/1/16-Current									
Sector	Rating	3/8/19	Avg	Min	Max	SD	Z-Scr	Value	Sharpe
GO	AA	13	24	12	40	6	-1.92	Rich	0.5
	A	37	52	16	86	13	-1.13	Rich	2.1
HOSP	AA	21	36	20	60	7	-2.38	Rich	1.7
	A	50	64	48	102	7	-2.01	Rich	5.7
HI ED	AA	11	23	4	40	8	-1.59	Rich	0.1
	A	29	50	29	94	10	-1.97	Rich	1.9
TRANS	AA	13	24	11	47	8	-1.42	Rich	0.5
	A	32	44	23	87	10	-1.17	Rich	2.2
POWER	AA	6	16	5	39	6	-1.68	Rich	-0.5
	A	34	45	29	72	8	-1.44	Rich	3.1
WTR / SWR	AA	10	22	5	41	5	-2.21	Rich	0.0
	A	44	55	27	104	16	-0.69	Fair	2.1
HY	<BBB-	188	264	159	472	75	-1.01	Rich	2.4

Reinvestment Avail % Gross Supply - 2019 Proj



Source: Bloomberg

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Market Performance

WEEK ENDING: 3/8/19

INDEX	TOTAL RETURN (%)											YIELD (%)									
	WTD	Mar '19	Feb '19	Jan '19	2019	12M	risk adj	2018	2017	2016	3Y	5Y	3/8/19	WTD Δ	YTD Δ	Lo 12M	Hi 12M	Mean 12M	Vol 12M	Z-score 12M	Z-score 3Y
TREASURY - TERM																					
TREASURY - ALL	0.79	0.54	-0.27	0.47	0.74	3.83	1.24	0.86	2.31	0.63	1.02	2.00	2.57	-0.11	-0.04	2.49	3.12	2.78	0.14	-1.45	0.81
SHORT	0.22	0.15	0.16	0.40	0.71	2.67	3.18	1.60	0.87	1.25	1.37	1.16	2.64	-0.09	-0.12	2.48	3.14	2.80	0.16	-0.95	1.04
SHORT-INT	0.47	0.33	0.09	0.77	1.19	3.61	1.86	1.14	1.75	1.84	1.65	1.98	2.82	-0.10	-0.16	2.81	3.40	3.07	0.15	-1.73	0.79
INTRMD	0.59	0.43	0.00	1.04	1.47	4.19	1.65	0.90	2.59	1.78	1.86	2.45	3.15	-0.08	-0.11	3.13	3.61	3.33	0.12	-1.57	0.80
LONG-INT	0.77	0.55	-0.08	1.14	1.62	4.48	1.45	0.16	3.51	2.20	1.97	3.03	3.31	-0.12	-0.14	3.31	3.88	3.55	0.14	-1.75	0.57
LONG	1.52	1.06	-0.55	2.23	2.74	4.05	0.58	-4.55	10.47	5.77	3.67	5.45	3.92	-0.10	-0.10	3.80	4.29	4.00	0.11	-0.73	0.66
MUNICIPAL - TERM																					
SHORT	0.08	0.10	0.25	0.45	0.79	2.27	5.38	1.78	1.16	0.39	1.17	1.12	1.73	-0.02	-0.20	1.70	2.24	1.92	0.15	-1.22	0.72
SHORT-INT	0.17	0.15	0.39	0.78	1.32	3.37	4.57	1.78	2.39	0.12	1.57	1.89	1.87	-0.03	-0.24	1.87	2.48	2.15	0.15	-1.81	0.39
INTRMD	0.32	0.26	0.53	0.99	1.79	4.65	3.66	1.55	4.74	0.28	2.43	3.37	2.25	-0.05	-0.24	2.25	2.90	2.56	0.15	-2.03	0.11
LONG-INT	0.36	0.29	0.56	1.04	1.91	5.04	3.52	1.46	5.42	0.38	2.69	3.84	2.36	-0.06	-0.24	2.36	3.02	2.68	0.15	-2.09	0.04
LONG	0.69	0.60	0.64	0.56	1.81	4.54	1.98	0.34	8.19	0.97	3.41	5.72	3.27	-0.09	-0.12	3.25	3.79	3.43	0.14	-1.13	0.28
MUNICIPAL - QUALITY																					
MUNI-EXEMPT	0.39	0.34	0.53	0.74	1.60	4.24	3.15	1.36	4.95	0.90	2.64	3.85	2.53	-0.06	-0.20	2.53	3.08	2.74	0.14	-1.51	0.36
MUNI-TAXABLE	1.06	0.82	0.01	0.69	1.53	4.73	1.32	0.95	6.81	4.16	3.89	5.55	3.98	-0.11	-0.07	3.93	4.38	4.12	0.10	-1.40	0.50
HIGH-GRADE	0.31	0.25	0.51	0.99	1.76	4.44	3.37	1.28	4.22	-0.09	2.03	2.95	2.05	-0.05	-0.24	2.05	2.72	2.38	0.16	-2.07	0.25
'A' RATED	0.39	0.34	0.53	0.76	1.64	4.29	3.17	1.18	5.40	0.82	2.73	4.15	2.55	-0.06	-0.21	2.55	3.11	2.77	0.14	-1.53	0.40
'BBB' RATED	0.46	0.41	0.64	0.73	1.79	4.79	3.47	1.54	7.97	0.94	3.74	5.33	3.17	-0.06	-0.19	3.12	3.63	3.31	0.13	-1.10	0.23
HIGH YIELD	0.77	0.67	0.54	0.67	1.89	7.52	3.53	4.76	9.69	3.52	6.15	6.31	4.87	-0.07	-0.13	4.64	5.38	4.96	0.16	-0.59	-1.07
MUNICIPAL - SECTOR																					
PRE-RE	0.08	0.10	0.23	0.46	0.79	2.29	4.92	1.64	1.07	0.32	1.11	1.18	1.64	-0.02	-0.20	1.62	2.14	1.84	0.15	-1.35	0.71
GO	0.37	0.30	0.50	0.79	1.59	4.25	2.98	1.14	4.56	0.08	2.21	3.18	2.32	-0.05	-0.20	2.32	2.93	2.59	0.15	-1.80	0.40
DED TAX	0.44	0.39	0.63	0.78	1.81	5.10	3.64	1.92	3.73	1.92	2.74	3.54	2.65	-0.07	-0.19	2.64	3.20	2.88	0.13	-1.70	-0.06
WTR-SWR	0.35	0.27	0.50	0.78	1.56	4.14	2.75	1.01	5.31	0.53	2.52	4.14	2.40	-0.05	-0.19	2.40	3.01	2.66	0.15	-1.75	0.27
PUB PWR	0.31	0.27	0.45	0.80	1.52	4.15	3.53	1.38	3.20	1.18	2.11	3.27	2.28	-0.05	-0.20	2.28	2.85	2.54	0.14	-1.86	-0.28
HEALTHCARE	0.49	0.44	0.58	0.61	1.64	4.45	2.72	1.23	7.00	1.24	3.38	5.37	3.17	-0.07	-0.17	3.12	3.67	3.31	0.14	-1.04	0.49
HIGHER ED	0.46	0.40	0.57	0.72	1.70	4.62	2.89	1.18	6.20	0.62	2.94	4.46	2.77	-0.06	-0.19	2.77	3.33	3.00	0.13	-1.73	0.30
TRANSPORT	0.43	0.38	0.54	0.82	1.74	4.26	3.03	0.95	6.25	0.93	2.96	4.53	2.64	-0.06	-0.21	2.64	3.22	2.85	0.14	-1.47	0.39
HOUSING	0.49	0.45	0.52	0.65	1.63	3.92	2.17	1.13	5.59	1.52	3.07	4.29	3.07	-0.06	-0.12	3.06	3.55	3.21	0.13	-1.11	0.24
TOBACCO	1.24	1.28	0.90	0.07	2.26	5.50	1.58	3.60	17.82	6.17	9.10	11.77	4.73	-0.09	-0.12	3.18	5.09	4.23	0.61	0.82	0.09
IDB	0.38	0.35	0.64	0.78	1.78	4.10	3.67	1.56	6.41	1.53	3.44	5.07	3.03	-0.06	-0.24	3.03	3.53	3.24	0.13	-1.64	-0.08
GLOBAL / CORP / EQUITY																					
S&P 500	-2.16	-1.49	2.97	7.87	9.42	-0.81	-0.05	-6.24	19.42	10.77	12.23	9.60	2.06	0.04	-0.19	1.84	2.35	2.00	0.10	0.11	0.50
GLOBAL AGG	0.25	0.00	-0.58	1.52	0.94	-0.82	-0.26	-1.20	7.39	1.77	1.78	0.85	1.91	-0.08	-0.11	1.83	2.27	2.04	0.11	-1.17	0.73
US CORP-IG	0.66	0.50	0.22	2.35	3.08	3.57	1.07	-2.51	6.42	5.84	3.90	3.72	3.86	-0.09	-0.34	3.76	4.37	4.04	0.16	-1.13	0.87
US CORP-HY	-0.46	-0.42	1.66	4.52	5.82	4.03	1.27	-2.08	7.50	18.37	9.02	4.91	6.74	0.19	-1.22	5.97	8.12	6.60	0.47	0.31	0.60

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

Rates & Ratios

	This Wk	Last Wk	End Qtr	End Yr	Mean	Value	WTD	MTD	QTD	YTD		
	3/8/19	3/1/19	12/31/18	12/31/18	12M	3Y	Perf	Perf	Perf	Perf		
AAA MMD / UST							Ratios		Ratios		Ratios	
2 Yr	64%	62%	71%	71%	68%	77%	Fair Rich	1.9 Under	1.0 Under	-7.7 Out	-7.7 Out	
5 Yr	68%	66%	78%	78%	74%	76%	Rich Rich	2.4 Under	1.9 Under	-9.7 Out	-9.7 Out	
10 Yr	78%	78%	86%	86%	84%	88%	Rich Rich	0.1 Under	0.5 Under	-8.3 Out	-8.3 Out	
30 Yr	95%	97%	101%	101%	99%	98%	Rich Fair	-1.3 Out	-1.6 Out	-5.9 Out	-5.9 Out	
UST							BPS		BPS		BPS	
2 Yr	2.48	2.55	2.49	2.49	2.60	1.69	Fair Cheap	-7.6	-3.9	-1.3	-1.3	
5 Yr	2.45	2.55	2.49	2.49	2.75	2.07	Rich Fair	-10.4	-7.1	-4.1	-4.1	
10 Yr	2.65	2.74	2.65	2.65	2.90	2.41	Rich Fair	-9.4	-6.9	0.1	0.1	
30 Yr	3.03	3.11	2.98	2.98	3.12	2.89	Fair Fair	-7.4	-4.4	4.9	4.9	
AAA MMD							BPS		BPS		BPS	
2 Yr	1.58	1.58	1.78	1.78	1.77	1.24	Rich Fair	0.0	0.0	-20.0	-20.0	
5 Yr	1.67	1.68	1.94	1.94	2.02	1.56	Rich Fair	-1.0	0.0	-27.0	-27.0	
10 Yr	2.06	2.13	2.28	2.28	2.44	2.11	Rich Fair	-7.0	-4.0	-22.0	-22.0	
30 Yr	2.89	3.00	3.02	3.02	3.08	2.83	Rich Fair	-11.0	-9.0	-13.0	-13.0	

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

Muni Primary Market

Gross Supply (\$ in millions)

	As of 3/8/19
Last Week	6,671.2
12wk Moving Avg.	4,862.5
YTD	56,404.7

Source: Bloomberg

Weekly Visible Supply (\$ in millions)

	Week of 3/11/19
Total	6,322.3
Comp.	2,377.6
Neg.	3,954.7

Source: Bloomberg, Ramirez

30-Day Visible Supply (\$ in millions)

	Current Total	2019 High		2019 Low	
		\$	Date	\$	Date
Total	7,084.1	11,160.2	(1/7)	4,339.1	(2/14)
Comp.	2,814.5	4,496.2	(1/7)	1,791.7	(2/5)
Neg.	4,269.6	7,151.7	(2/1)	1,482.4	(3/6)

Source: Bond Buyer

Top Competitive Issuances Coming to Market

Issuer	State	Amount (\$ 000's)
Met Transprtn Auth - BANS	NY	750,000
Virginia Pub Bldg Auth	VA	336,980
St WI Transportation	WI	156,555
New York St	NY	115,690
Belmont Twn	MA	108,100

Source: Bloomberg

Top Negotiated Issuances Coming to Market

Issuer	State	Amount (\$ 000's)
Univ of CA Regents	CA	654,295
Lower Co River Auth	TX	369,645
MT San Antonio CCD	CA	311,560
Dallas Area Rapid Transit	TX	304,235
TX Wtr Dev Brd	TX	228,275

Source: Bloomberg

Ramirez Negotiated Issuances Coming to Market

Underwriters will attempt to market \$6.3 bil. of munis in the week of 3/11, led in the negotiated space by \$654 mil. Univ of Cal Regents, \$370 mil. LCRA, and \$312 mil. MT San Antonio CCD. The competitive calendar is highlighted by \$750 mil. MTA BANS.

Issuer	State	Amount (\$ 000's)	Senior Manager	Ramirez Role
NY Energy Research Auth	NY	15,510	SAR	Senior
Dallas Area Rapid Transit	TX	304,235	BAML	Co-Manager
Austin ISD	TX	220,315	RBC	Co-Manager
New York St Hsg Fin Agy	NY	203,305	Citi	Co-Manager

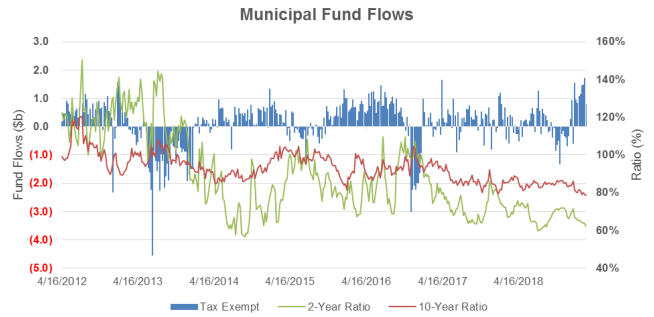
Economic Calendar

Monday (3/11)	Tuesday (3/12)	Wednesday (3/13)	Thursday (3/14)	Friday (3/15)
Retail Sales Advance MoM	NFIB Small Business Optimism	MBA Mortgage Applications	Import Price Index MoM	Empire Manufacturing
Retail Sales Ex Auto MoM	CPI MoM	PPI Final Demand MoM	Initial/Continuing Job Claims	Industrial Production MoM
Retails Sales Ex Auto and Gas MoM	CPI Ex Food and Energy MoM	PPI Final Demand YoY	Bloomberg Consumer Comfort	Capacity Utilization
U.S. to Sell 3-Month Bills	CPI YoY	Durable Goods Orders	New Home Sales	U. of Mich. Sentiment
U.S. to Sell 6-Month Bills	U.S. to Sell USD24 Bln 10-Year Note Reopening	Cap Goods Orders Nondef	U.S. to Sell 4-Week Bills	Net Long-Term TIC Flows
U.S. to Sell USD38 Bln 3-Year Notes	Fed Speaker - Brainard	Construction Spending MoM	U.S. to Sell 8-Week Bills	Total Net TIC Flows
Fed Speaker - Powell		U.S. to Sell USD16 Bln 30-Year Bonds Reopening		

Source: Bloomberg

Muni Market Demand

Tax-exempt mutual funds reported inflows for the ninth consecutive week with inflows of \$798 million for the week ended March 6th. This compares to the 12-week moving average of a \$963 million inflow.

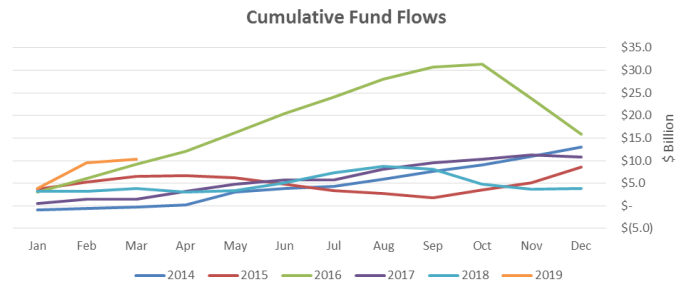


Source: Lipper Fund Flows

US Lipper Fund Flows

Sector	Flow Change (\$B)	YTD (\$B)
Tax-Exempt	Inflow: 0.798	Inflow: 10.372
Money Market	Inflow: 27.957	Inflow: 59.166
Taxable	Outflow: -1.488	Inflow: 19.159
Equities	Outflow: -6.966	Outflow: -27.051

Source: Lipper Fund Flows

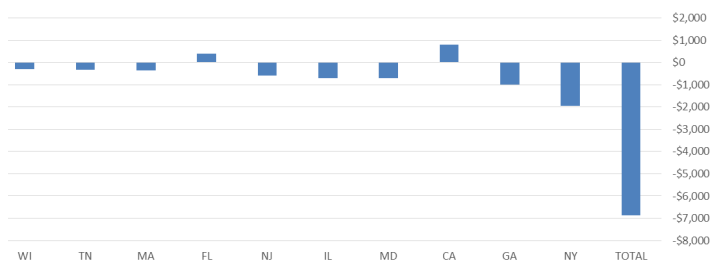


Source: Bloomberg

Muni Market Supply

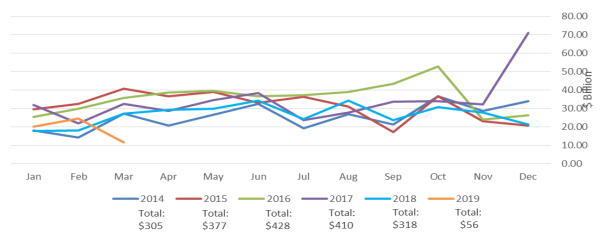
Over the next 30 days, we see net muni market supply at -\$6.88 bil., comprised of \$8.92 bil. new issues, \$10.58 bil. maturing, and \$5.22 bil. announced calls. The states that stand to experience the largest change in outstanding debt include New York (-\$1.94 bil.), Georgia (-\$979.9 mil.), California (+\$807.2 mil.), Maryland (-\$712.9 mil.), and Illinois (-\$693.3 mil.).

Largest Net Flows - Next 30 Days



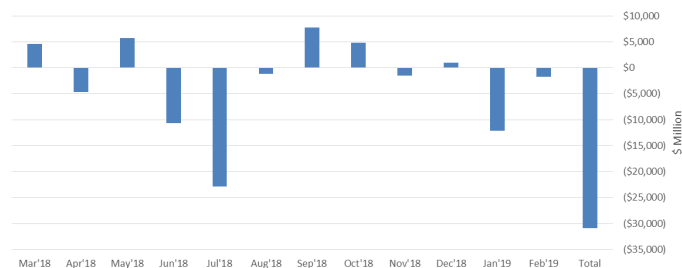
Source: Bloomberg

Monthly Gross Supply



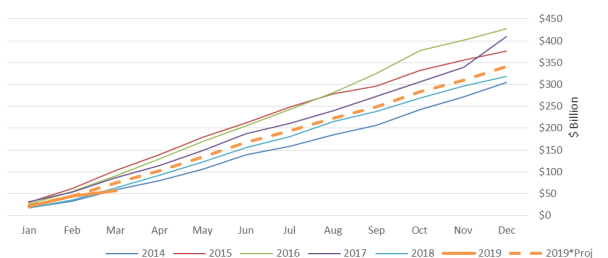
Source: Bloomberg, Ramirez

Net Supply - 12 Months



Source: Bloomberg

Cumulative Gross Supply



Source: Bloomberg, Ramirez

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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)).