

Municipal Market Weekly

Ramirez Municipal Strategy



February 4, 2019

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Bonds and equities posted a significant rally last week on numerous events, including dovish Fed comments on Wed., strong earnings from major tech companies, and a better-than-expected nonfarm payroll report for Jan (304K jobs vs 165k exp.) on Fri. Munis rallied in sympathy with Treasuries, aided by a fourth consecutive week of fund inflows (+\$1 bil.) and a light new issue calendar (\$4.3 bil.), but underperformed in the front-end of the curve (2-5yrs) as a surging Treasury market expressed high confidence that the Fed would pause rate increases throughout 2019. The long-end of the Muni curve (10-30yrs) outperformed Treasuries on a significantly stronger bid for duration in the secondary market following the dovish Fed comments, although weakened slightly on a higher unemployment rate (4%). The Fed policy statement removed the reference to “further gradual” increases in the target Fed funds rate and stated that the Fed “will be patient as it determines what future adjustments to the target range for the federal funds rate may be appropriate to support” a strong labor market and inflation near 2%. Powell also provided signals at the press conference that the Fed is prepared to adjust its balance sheet normalization as necessary. Fed fund futures are now implying an interest rate cut by the Fed as early as Jan. 2020. The positive news on interest rate policy overshadowed a disappointing sales forecast from Amazon, stalled US-China trade discussion, and signs of growing weakness in Asia and the EU. In other news, the US imposed sanctions on Venezuela and PG&E filed for bankruptcy.

The S&P Main Muni index gained +41 bps on the week (+73 bps YTD in Jan) led by a +51 bps gain in the long duration index as MMD was bumped between 6-8 bps in 10yr-30yrs on the dovish Fed comments. The sharp rally in 30yr MMD last week combined with a -14 bps rally in 2yr MMD in Jan. caused MMD 2s30s to end Jan +14 bps steeper at 138 bps. In contrast, Treasury 2s30s ended Jan, 2019 unchanged at 53 bps as both the 2yr and 30yr yields rose +3 bps on the end the month at 2.51% and 3.04%, respectively. Last week's gains across the Treasury curve resulted in a +37 bps gain on the week, which boosted the Treasury index to a positive result YTD at +19 bps. Treasury gains were led by the 2yr (-10 bps to 2.51%) with the 10yr declining -6 bps to end at 2.70% and the 30yr declining -3 bps to end at 3.04%. Stocks finished strong on the week with all major US equity indices posting gains, including the S&P 500 large cap index, up +1.57% on the week and +7.97% YTD.

Last week's \$4.5 bil (\$2.6 bil in negotiated offerings) calendar priced with the same theme of strong sponsorship in the first 10-12 yrs driven by SMA demand, while the long-end beyond 20 years lacked depth and breadth of buyers. We think this dynamic is about to change in the near term. Munis have experienced four consecutive week of very healthy inflows of \$4.4 bil. (\$600 mil. outflows first week of the year; \$3.8 bil. YTD), including last week's \$1.1 bil. Prior to last week's Fed comments, investor mandates for inflows were for limited term duration, but likely expanded slightly last week into longer durations, evidenced by outperformance in those sectors (10yrs and 30yrs). Should the economic data, some of which has been delayed by the Fed Gov't shutdown, continue to come in with muted inflationary expectations, longer durations should continue to garner a bid, which would aid the primary market. The one caveat is valuations. The heavy demand for shorter term bonds in the primary market in Jan. combined with last week's long-end outperformance has resulted in compression of Muni/Treasury ratios to valuations below 1yr and 3yr averages. Credit spreads are also reading fair-to-rich vs 3yr averages. For these reasons, we think Munis may cheapen up a bit this week but continue to outperform Treasuries in Feb., particularly given strong Feb. reinvestment (discussed below), but also on the year. In terms of positioning (as we have discussed in previous editions of this newsletter), we think that longer durations (20-30yrs) should outperform shorter and intermediate durations in 2019 as US and global growth slow. Our favorite part of the curve is the 18-21yr maturity range given current roll down and higher than average projected returns. We like a 70/30 barbell (70% in 1yr-6yr mtys; 30% in 19-21yr mtys) with effective duration of ~7.5 yrs and average maturity of 16 yrs. This strategy captures 95% of the MMD yield curve, maximizes credit spread and rolldown while limiting volatility. We also like generally maintaining higher than average credit quality of AA- or higher rated GO names and 'A' or better revenue names.

This week's primary market calendar picks up to \$7.8 bil. after issuers delayed issuance last week due to the Fed meeting, resulting in a lackluster \$4.5 bil. of offerings. This week's negotiated calendar includes \$625 mil. Michigan State Univ (Aa2/AA) – \$325 mil. taxables pricing on Wed. and \$300 mil. tax-exempts on Thur.; \$550 mil. Hawaii GO (AA+/AA) pricing on Wed., \$545 mil. LA MTA (Aa2/AAA/AA+) pricing on Wed, and \$415 mil. Massport (Aa2/AA) pricing on Wed. Competitively, the market is led by \$639 mil. Wash St. GO (Aa1/AA+) pricing on Tues. and \$154 mil. Maryland Univ. System (Aa1/AA+) pricing on Wed. Gross supply YTD is \$24.8 bil. (+14% YoY). Over the next 30 days, we see net muni market supply at -\$10.33 bil., comprised of +\$11.37 bil. new issues against \$22.5 bil. of maturing (\$16.09 bil.), and called (\$5.61 bil.) bonds. The states that stand to experience the largest change in outstanding debt include Texas (-\$3.86 bil.), New York (-\$2.01 bil.), Illinois (-\$1.07 bil.), South Carolina (-\$952.6 mil.), and New Jersey (-\$943.3 mil.). We project total net supply in 2019 at -\$32 bil. (-\$2.7 bil. avg / mo), which includes gross supply of ~+\$342 bil. (+8% YoY) against -\$374 bil. of maturities (-\$282 bil.) and calls (-\$92 bil.). The projected -\$32 bil. of negative net supply is further enhanced by coupon reinvestment; assuming reinvestment of ~50% of coupon, funds available for reinvestment should be ~+\$111 bil. for the year, or +\$9.2 bil. / month avg. However, we expect net February reinvestment to be +\$19 bil., which exceeds the 2019 average by ~\$10 bil., a positive development that should provide price support.

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2019 Strategy

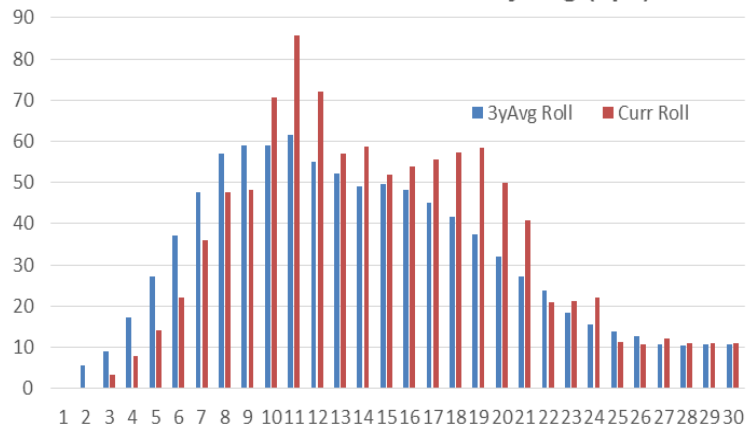
- 70/30 Barbell strategy: 70% 1-6 yrs; 30% 19-21 yrs
- Eff duration of 7.5-8.5 yrs.
- Short and Intermediate bonds (with 8-10yrs calcs); capture ~95% of curve, fast reinvestment, optimal rolldown
- Best rolldown is generally 8-19yrs.
- Coupon: 5%+ (lower convexity vs 4%)
- Credit: 'AA-' or better GO; '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	5	5
Quality	AA GO / A Rev	AA GO / A Rev		AA GO / A Rev	
Tot Rtrn % (Proj)	1.76%	3.40%	2.16%	4.31%	4.31%
OAS (bps)*	0	54	55	58	58
Eff Dur (yrs)	0.1	8.2	5.4	9.4	10.4
WAM	1.0	16.5	9.1	19.7	21.6
Cnvx	0.00	-0.94	-0.43	-1.41	-1.42

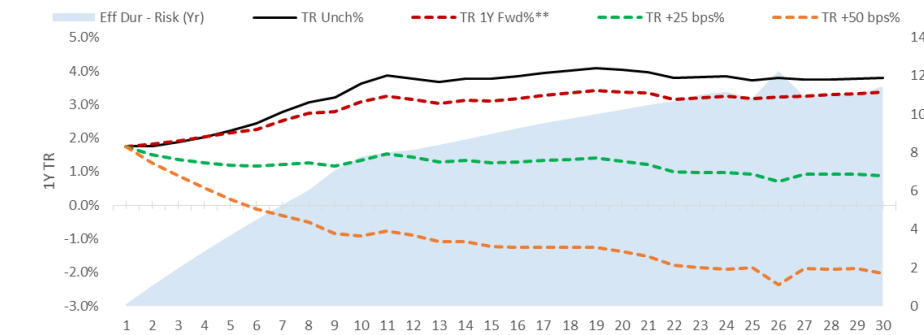
*W.A. bps shift = implied by FWD rates = 5

*OAS Vol = 20

bps MMD Roll Returns - Current v 3y Avg (bps)



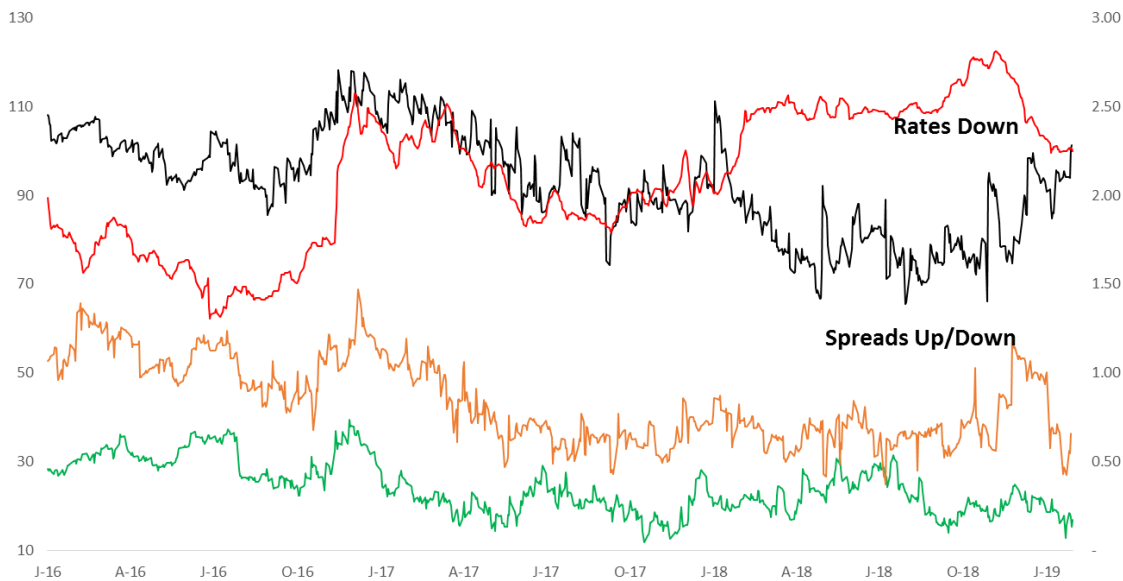
MMD Callable Curve (5% Cpn) - 12M FWD Total Return Projections*



Source: MMD, Bloomberg, Ramirez & Co.

*OAS; **MMD / UST Implied

MMD Callable Curve (5% Cpn) - 12M FWD Total Return Projections*								
	M ty	1-30y	1-5y	6-10y	11-15y	16-20y	21-25y	26-30y
	Eff Dur	8.2	2.5	6.3	8.5	9.8	10.8	11.3
Scenarios	Unch	3.67%	2.04%	3.10%	3.77%	3.98%	3.83%	3.77%
	1Y Fwd Rates	3.13%	2.03%	2.73%	3.13%	3.32%	3.22%	3.29%
	Parallel +25 bps	1.15%	1.29%	1.24%	1.37%	1.34%	1.01%	0.87%
	Parallel +50 bps	-1.37%	0.55%	-0.59%	-1.01%	-1.28%	-1.79%	-2.02%



Source: Bloomberg

— AA 10Y — A 10Y — BBB 10Y — AAA 10Y Muni

SECTOR CREDIT SPREADS (10Y)									
1/1/16-Current									
Sector	Rating	2/1/19	Avg	Min	Max	SD	Z-Scr	Value	Sharpe
GO	AA	17	24	12	40	6	-1.25	Rich	-0.5
	A	33	52	16	86	13	-1.51	Rich	1.0
HOSP	AA	33	37	24	60	6	-0.64	Fair	2.0
	A	54	64	48	102	7	-1.53	Rich	4.9
HI ED	AA	15	23	4	40	7	-1.11	Rich	-0.7
	A	35	51	33	94	10	-1.55	Rich	1.5
TRANS	AA	17	24	11	47	8	-1.01	Rich	-0.4
	A	34	44	23	87	10	-0.98	Fair	1.4
POWER	AA	17	17	5	39	6	0.10	Fair	-0.4
	A	32	45	29	72	8	-1.69	Rich	1.6
WTR / SWR	AA	20	22	5	41	5	-0.40	Fair	0.0
	A	39	56	27	104	16	-1.04	Rich	1.2
HY	<BBB-	184	267	159	472	75	-1.10	Rich	2.2

Source: Bloomberg

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Market Performance

WEEK ENDING: 2/1/19

INDEX	TOTAL RETURN (%)											YIELD (%)									
	WTD	Feb '19	Jan '19	Dec '18	2019	12M	risk adj	2018	2017	2016	3Y	5Y	2/1/19	WTD Δ	YTD Δ	Lo 12M	Hi 12M	Mean 12M	Vol 12M	Z-score	
																				12M	3Y
TREASURY - TERM																					
TREASURY - ALL	0.37	-0.28	0.47	2.15	0.19	3.15	1.00	0.86	2.31	0.63	0.62	1.79	2.62	-0.07	0.02	2.49	3.12	2.77	0.15	-1.03	0.96
SHORT	0.22	-0.08	0.40	0.78	0.32	2.22	2.61	1.60	0.87	1.25	1.17	1.09	2.71	-0.09	-0.05	2.26	3.14	2.77	0.20	-0.29	1.21
SHORT-INT	0.41	-0.21	0.77	1.38	0.55	2.83	1.43	1.14	1.75	1.84	1.34	1.83	2.90	-0.10	-0.08	2.67	3.40	3.06	0.16	-1.01	1.01
INTRMD	0.52	-0.29	1.04	1.58	0.74	3.27	1.25	0.90	2.59	1.78	1.53	2.27	3.22	-0.05	-0.04	3.03	3.61	3.32	0.12	-0.81	1.02
LONG-INT	0.58	-0.36	1.14	2.05	0.78	3.34	1.04	0.16	3.51	2.20	1.64	2.78	3.38	-0.09	-0.07	3.30	3.88	3.56	0.13	-1.37	0.77
LONG	0.99	-0.30	2.23	3.67	1.93	1.47	0.20	-4.55	10.47	5.77	3.94	5.15	3.95	-0.06	-0.08	3.75	4.29	4.00	0.12	-0.43	0.76
MUNICIPAL - TERM																					
SHORT	0.13	0.00	0.45	0.50	0.44	2.04	4.73	1.78	1.16	0.39	1.11	1.10	1.80	-0.04	-0.13	1.66	2.24	1.91	0.16	-0.67	0.95
SHORT-INT	0.26	0.00	0.78	0.83	0.78	2.80	3.53	1.78	2.39	0.12	1.37	1.88	1.96	-0.06	-0.15	1.95	2.48	2.16	0.13	-1.35	0.67
INTRMD	0.40	-0.01	0.99	1.22	0.98	3.66	2.61	1.55	4.74	0.28	2.05	3.37	2.36	-0.06	-0.14	2.35	2.90	2.57	0.13	-1.69	0.44
LONG-INT	0.45	0.00	1.04	1.32	1.04	3.95	2.48	1.46	5.42	0.38	2.26	3.85	2.47	-0.07	-0.13	2.46	3.02	2.69	0.13	-1.81	0.37
LONG	0.51	-0.04	0.56	1.37	0.52	3.21	1.35	0.34	8.19	0.97	2.84	5.72	3.41	-0.06	0.01	3.24	3.79	3.42	0.14	-0.10	0.77
MUNICIPAL - QUALITY																					
MUNI-EXEMPT	0.41	0.00	0.74	1.14	0.73	3.18	2.19	1.36	4.95	0.90	2.29	3.87	2.63	-0.06	-0.10	2.55	3.08	2.74	0.14	-0.83	0.70
MUNI-TAXABLE	0.47	-0.29	0.69	1.98	0.40	3.48	0.93	0.95	6.81	4.16	3.42	5.24	4.06	-0.05	0.01	3.91	4.38	4.12	0.10	-0.55	0.88
HIGH-GRADE	0.41	-0.01	0.99	1.26	0.99	3.49	2.39	1.28	4.22	-0.09	1.64	2.92	2.15	-0.07	-0.14	2.15	2.72	2.40	0.13	-1.84	0.53
'A' RATED	0.41	0.00	0.76	1.16	0.75	3.43	2.34	1.18	5.40	0.82	2.26	4.13	2.66	-0.06	-0.10	2.56	3.11	2.77	0.14	-0.77	0.74
'BBB' RATED	0.47	0.00	0.73	1.13	0.73	3.66	2.51	1.54	7.97	0.94	3.21	5.52	3.29	-0.06	-0.07	3.12	3.63	3.31	0.13	-0.12	0.61
HIGH YIELD	0.48	-0.01	0.67	0.86	0.66	6.95	3.13	4.76	9.69	3.52	6.02	6.70	4.94	-0.06	-0.06	4.64	5.39	5.00	0.19	-0.30	-1.00
MUNICIPAL - SECTOR																					
PRE-RE	0.14	0.00	0.46	0.51	0.45	1.97	3.96	1.64	1.07	0.32	1.00	1.16	1.71	-0.05	-0.13	1.60	2.14	1.84	0.15	-0.82	0.93
GO	0.41	0.00	0.79	1.22	0.78	3.19	2.06	1.14	4.56	0.08	1.83	3.18	2.42	-0.06	-0.11	2.41	2.93	2.60	0.13	-1.33	0.69
DED TAX	0.43	0.00	0.78	1.11	0.78	4.15	2.74	1.92	3.73	1.92	2.27	3.60	2.75	-0.06	-0.09	2.70	3.20	2.88	0.12	-1.08	0.30
WTR-SWR	0.44	0.00	0.78	1.28	0.78	3.08	1.89	1.01	5.31	0.53	2.17	4.13	2.49	-0.07	-0.10	2.48	3.01	2.67	0.14	-1.30	0.55
PUB PWR	0.36	-0.01	0.80	1.07	0.79	3.22	2.50	1.38	3.20	1.18	1.95	3.41	2.37	-0.06	-0.11	2.36	2.85	2.55	0.12	-1.44	0.03
HEALTHCARE	0.49	0.00	0.61	1.27	0.61	3.29	1.88	1.23	7.00	1.24	2.99	5.36	3.28	-0.07	-0.06	3.12	3.67	3.31	0.14	-0.27	0.81
HIGHER ED	0.46	0.00	0.72	1.33	0.72	3.65	2.11	1.18	6.20	0.62	2.44	4.36	2.88	-0.06	-0.08	2.84	3.33	3.01	0.12	-1.02	0.64
TRANSPORT	0.44	0.00	0.82	1.21	0.81	3.08	2.03	0.95	6.25	0.93	2.55	4.53	2.75	-0.06	-0.10	2.64	3.22	2.85	0.14	-0.71	0.73
HOUSING	0.48	-0.01	0.65	1.01	0.64	2.85	1.52	1.13	5.59	1.52	2.69	4.19	3.18	-0.01	-0.02	2.99	3.55	3.21	0.14	-0.23	0.75
TOBACCO	0.45	0.07	0.07	1.25	0.14	3.95	1.13	3.60	17.82	6.17	8.65	12.29	4.89	-0.01	0.04	3.18	5.09	4.22	0.60	1.13	0.35
IDB	0.43	0.00	0.78	0.77	0.78	3.18	2.76	1.56	6.41	1.53	3.08	5.11	3.20	-0.04	-0.07	3.05	3.53	3.25	0.12	-0.38	0.47
GLOBAL / CORP / EQUITY																					
S&P 500	1.57	0.09	7.87	-9.18	7.97	-2.13	-0.12	-6.24	19.42	10.77	13.71	10.80	2.16	-0.02	-0.15	1.84	2.35	1.99	0.10	0.12	0.66
GLOBAL AGG	0.61	-0.25	1.52	2.02	1.27	-0.40	-0.12	-1.20	7.39	1.77	2.28	1.09	1.96	-0.05	-0.06	1.82	2.27	2.03	0.12	-0.64	0.93
US CORP-IG	0.89	-0.14	2.35	1.47	2.21	1.42	0.41	-2.51	6.42	5.84	4.04	3.54	3.94	-0.12	-0.26	3.50	4.37	4.02	0.19	-0.38	1.09
US CORP-HY	0.79	0.13	4.52	-2.14	4.65	2.27	0.68	-2.08	7.50	18.37	10.73	5.11	6.88	-0.21	-1.07	5.97	8.12	6.55	0.48	0.70	0.54

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

Rates & Ratios

	This Wk	Last Wk	End Qtr	End Yr	Mean		Value		WTD	MTD		QTD		YTD		
	2/1/19	1/25/19	12/31/18	12/31/18	12M	3Y	12M	3Y	Perf	Perf	Perf	Perf	Perf	Perf		
AAA MMD / UST																
2 Yr	65%	65%	71%	71%	68%	77%	Fair	Fair	0.4	Under	-1.8	Out	-6.3	Out	-6.3	Out
5 Yr	70%	70%	78%	78%	74%	77%	Rich	Fair	0.0	Under	-2.2	Out	-8.0	Out	-8.0	Out
10 Yr	81%	81%	86%	86%	85%	89%	Rich	Rich	-0.3	Out	-2.1	Out	-5.6	Out	-5.6	Out
30 Yr	99%	101%	101%	101%	99%	98%	Fair	Fair	-1.6	Out	-1.4	Out	-2.0	Out	-2.0	Out
UST																
2 Yr	2.51	2.61	2.49	2.49	2.57	1.64	Fair	Cheap	-9.4		5.3		2.4		2.4	
5 Yr	2.51	2.60	2.49	2.49	2.76	2.03	Rich	Fair	-8.7		7.7		2.7		2.7	
10 Yr	2.69	2.76	2.65	2.65	2.92	2.38	Rich	Fair	-6.4		6.8		4.6		4.6	
30 Yr	3.04	3.07	2.98	2.98	3.13	2.88	Fair	Fair	-3.1		4.4		5.9		5.9	
AAA MMD																
2 Yr	1.64	1.69	1.78	1.78	1.76	1.20	Fair	Fair	-5.0		-1.0		-14.0		-14.0	
5 Yr	1.76	1.82	1.94	1.94	2.05	1.54	Rich	Fair	-6.0		0.0		-18.0		-18.0	
10 Yr	2.17	2.23	2.28	2.28	2.47	2.09	Rich	Fair	-6.0		0.0		-11.0		-11.0	
30 Yr	3.02	3.10	3.02	3.02	3.08	2.82	Fair	Fair	-8.0		0.0		0.0		0.0	

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

Muni Primary Market

Gross Supply (\$ in millions)

	As of 2/1/19
Last Week	4,511.6
12wk Moving Avg.	5,328.6
YTD	24,751.5

Source: Bloomberg

Weekly Visible Supply (\$ in millions)

	Week of 2/4/19
Total	7,782.9
Comp.	1,673.9
Neg.	6,109.0

Source: Bloomberg, Ramirez

30-Day Visible Supply (\$ in millions)

	Current Total	2019 High		2019 Low	
		\$	Date	\$	Date
Total	9,498.2	11,160.2	(1/7)	5,231.7	(1/3)
Comp.	2,346.5	4,496.2	(1/7)	1,976.8	(1/31)
Neg.	3,967.2	6,664.0	(1/7)	3,199.3	(1/3)

Source: Bond Buyer

Top Competitive Issuances Coming to Market

Issuer	State	Amount (\$ 000's)
Washington St	WA	638,595
Maryland Univ Sys	MD	154,215
Spokane SD #81	WA	128,645
Elk Grove Unif SD	CA	121,000
Lexington Town	MA	57,430

Source: Bloomberg

Top Negotiated Issuances Coming to Market

Issuer	State	Amount (\$ 000's)
Michigan St Univ	MI	625,000
Hawaii St	HI	550,000
Los Angeles Cnty Met	CA	545,000
Massachusetts Dev Fin Agy (Wellforce)	MA	415,080
MA Port Auth	MA	325,000

Source: Bloomberg

Ramirez Negotiated Issuances Coming to Market

Underwriters will attempt to market \$7.8 bil. of munis in the week of 2/4, led in the negotiated space by \$625 mil. Michigan St. Univ., \$550 mil. Hawaii St., and \$545 mil. Los Angeles MTA. The competitive calendar is highlighted by \$639 mil. Washington St.

Issuer	State	Amount (\$ 000's)	Senior Manager	Ramirez Role
Baldwin Pk Muni Fing Auth	CA	6,150	SAR	Senior
Los Angeles Cnty Met	CA	545,000	Siebert	Co-Manager
MA Port Auth	MA	325,000	GS	Co-Manager
El Paso	TX	190,400	Citi	Co-Manager
Texas Dept Hsg & Cmnty Affairs	TX	166,340	Jefferies	Co-Manager
New York City HDC	NY	149,770	Wells	Co-Manager
San Jacinto CCD	TX	143,975	MS	Co-Manager
Connecticut HFA	CT	122,735	Citi	Co-Manager

Economic Calendar

Monday (2/4)	Tuesday (2/5)	Wednesday (2/6)	Thursday (2/7)	Friday (2/8)
Factory Orders	Markit US Services PMI	MBA Mortgage Applications	Initial Jobless Claims	Fed Speaker - Daly
Durable Goods Orders	Markit US Composite PMI	Trade Balance	Continuing Claims	
Durables Ex Transportation	ISM Non-Manufacturing Index	U.S. to Sell USD 50 Bln 18-Day CMB	Bloomberg Consumer Comfort	
Cap Goods Orders Nondef Ex Air	U.S. to Sell USD38 Bln 3-Year Notes	U.S. to Sell USD27 Bln 10-Year Notes	U.S. to Sell 4-Week Bills	
Cap Goods Ship Nondef Ex Air		Fed Speakers - Powell/Quarles	U.S. to Sell 8-Week Bills	
U.S. to Sell USD45 Bln 3-Month Bills			U.S. to Sell USD19 Bln 30-Year Bonds	
U.S. to Sell USD39 Bln 6-Month Bills			Fed Speakers - Bullard/Clarida/Kaplan	
Fed Speaker - Mester				

Source: Bloomberg

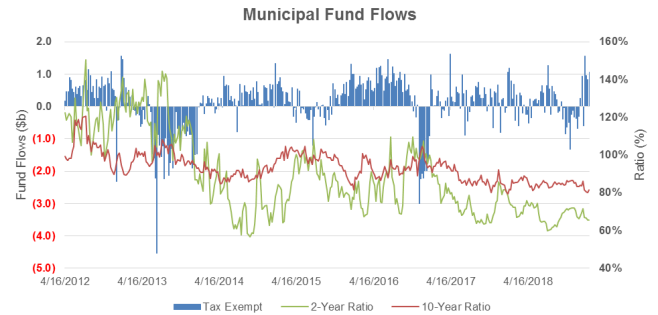
Muni Market Demand

Tax-exempt mutual funds reported inflows for the fourth consecutive week with inflows of \$1.06 billion for the week ended January 30th. This compares to the 12-week moving average of a \$261 million inflow.

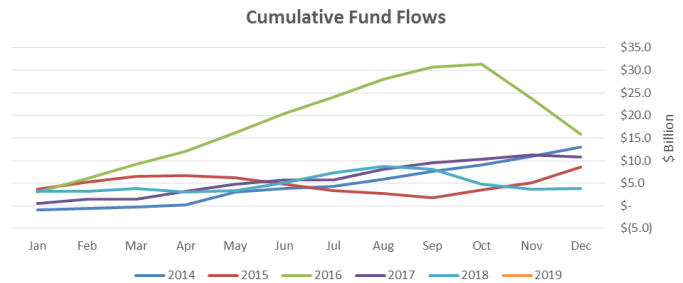
US Lipper Fund Flows

Sector	Flow Change (\$B)	YTD (\$B)
Tax-Exempt	Inflow: 1.064	Inflow: 3.799
Money Market	Outflow: -12.812	Outflow: -3.839
Taxable	Inflow: 1.568	Inflow: 2.238
Equities	Outflow: -13.554	Outflow: -24.471

Source: Lipper Fund Flows



Source: Lipper Fund Flows

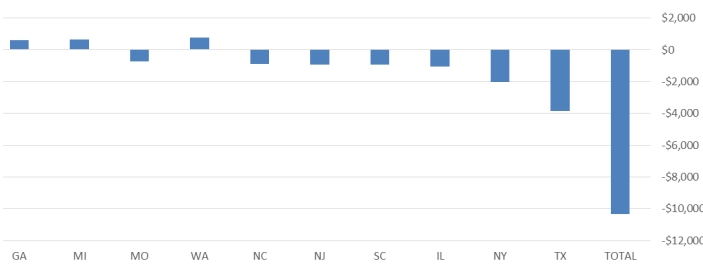


Source: Bloomberg

Muni Market Supply

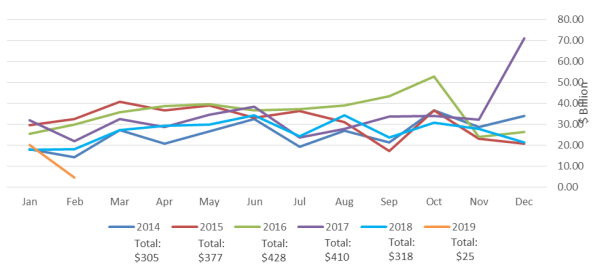
Over the next 30 days, we see net muni market supply at $-\$10.33$ bil., comprised of $\$11.37$ bil. new issues, $\$16.09$ bil. maturing, and $\$5.61$ bil. announced calls. The states that stand to experience the largest change in outstanding debt include Texas ($-\$3.86$ bil.), New York ($-\$2.01$ bil.), Illinois ($-\$1.07$ bil.), South Carolina ($-\$952.6$ mil.), and New Jersey ($-\$943.3$ mil.).

Largest Net Flows - Next 30 Days



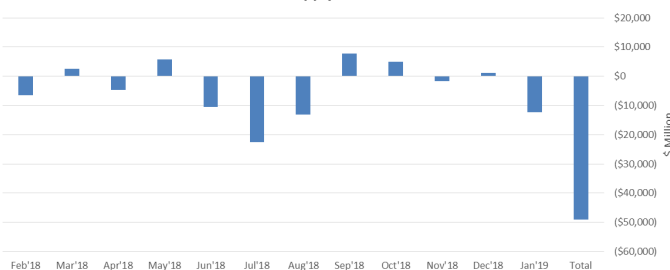
Source: Bloomberg

Monthly Gross Supply



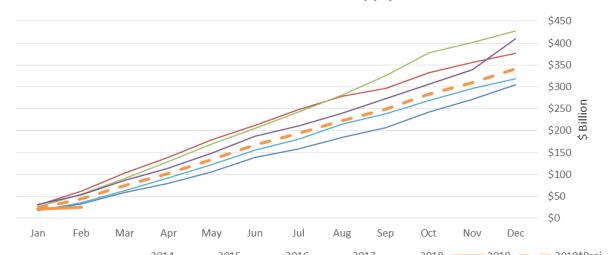
Source: Bloomberg, Ramirez

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)).