Municipal Market Weekly

Ramirez Municipal Strategy

The Change Curve

The Kubler-Ross Change Curve, also known as the "five stages of grief," is a widely accepted decision model consisting of the various levels of emotions experienced by a person who is soon going to experience grief. The curve is comprised of various emotions, including shock and denial, frustration, depression, experiment, and integration. Muni market investors went through all five stages of the Kubler-Ross change curve last week as the Senate machinated over tax reform legislation that, together with the recently passed House legislation, will likely adversely affect the supply of Muni bonds in the future, beginning in Jan, 2018. The Senate on Friday passed tax legislation along party lines that, among other factors, cuts the corporate tax rate to 20% from 35% along with an assortment of tax increases to "pay for" the dramatic cut. The Senate's pay-for most relevant to the Municipal bond market is complete elimination of tax-exempt advance refunding bonds as of Jan 1, 2018. The Senate bill will now be reconciled with the House legislation that also eliminates private-activity bonds (PABs). We tend to believe (hope) that the final bill will look much like the Senate version, which preserves PABs and that Trump will most certainly sign into law. In response, issuers this month are rushing to market with mostly advance refunding supply in order to beat the Jan 1 deadline.

On Mon-Wed the market responded to the expected supply surge through FYE17 -- with this week estimated at $19.4 bil. and consisting of 43 transactions in excess of $100 mil. – as it normally would to outsized supply -- by selling bonds across the curve at cheaper levels. At COB on Wed, MMD had been cut -15 bps in 5yrs, -12 bps in 10yrs and -9bps in 30yrs. The sharp sell-off through Wed signified investors' shock and denial stage, in that it was as if the market had not yet fully accepted that tax-exempt advance refundings and/or PABs would be eliminated in 2018. However, beginning Thursday and through COB Friday — as it became clear that the Senate would have sufficient Republican votes to pass its tax bill — Muni investors quickly moved from shock and denial, blowing past frustration and depression, and went straight to decision and full integration in the now firm belief that Munis would likely suffer an acute supply shortage beginning in 2018. By COB on Friday, MMD had retraced some, but not all, of what it had lost during the beginning of the week during the shock and denial phase, gaining back +7 bps in 5yrs, +14bps in 10yrs, and +17 bps in 30yrs in the integration phase. The Thurs-Fri Muni rally purely reflected fear of "scarcity" of tax-exempts in 2018. Net-net on the week, MMD 2s30s bear flattened 20 bps to a decade low 116bps, underperforming Treasuries 5 yrs and in, while outperforming 10yrs and out. The Treasury market was weaker across the curve on tax reform, although reassured by Yellen's testimony (last time) that the economy is improving, along with better than expected economic releases. Treasury 5s30s bear flattened by 4bps to a decade-low 64bps on Fed chair nominee Powell's testimony that he would stay the course for a rate hike in Dec. On the month of Nov, Munis in 2yrs and 5yrs significantly underperformed Treasuries (6-8 ratios) as investors nervous about curve flattening amidst Fed rate hikes sold bonds in this part of the curve. The broad S&P Main Muni index was down -42 bp in Nov (+7 bps for 3Q17, +435 bps YTD) vs the broad Treasury index, which lost an average of -14 bps in Nov (+7 for 3Q17, +233 bps YTD).

This week's monster $19.4 bil. calendar is led in the negotiated space by $1.7 bil. San Jose Redev (taxable); $991 mil. Trinity Health; $959 mil. Miami-Dade Water; $850 mil. NYC GO; and $575 mil. Sales Tax Sec Auth (Chicago). Chicago will be a very interesting deal to watch due to the bankruptcy-remote structure and AAA ratings vs Chicago's BBB-level GO ratings. Over the next 30 days we see net muni market supply at +$4.51 bil., comprised of $26.03 bil. new issues, $11.77 bil. maturing, and $9.75 bil. announced calls. The states that stand to experience the largest change in outstanding debt include New York (+$2.40 bil.), California (+$2.17 bil.), Illinois (-$1.72 bil.), Georgia (-$1.29 bil.), and New Jersey (-$1.23 bil.). Our revised gross supply target for 2017 is ~$397 bil. (-11% YoY). Issuance YTD 2017 is $354 bil., (-14% YoY) and therefore, we expect an additional $43 bil. to be issued in the remaining weeks of 2017, including this week's $19.3 bil. We revised our 2017 gross supply estimate recently to account for pending tax reform proposals.

2018 Gross Supply: Last week we presented three scenarios for potential Muni bond supply in 2018, including best-case (no tax reform), base-case (Senate version), and worst-case (House version). This week, we unfortunately concede that tax reform stands a very high chance of passage by Congress in Dec. For the Muni market, this likely means the complete elimination of tax-exempt advance refunding bonds beginning Jan 1, 2018 (Senate version). Our preliminary base-case scenario projects gross supply in 2018 at $268 bil., or -32% YoY, consisting of $182 bil. new money (-9.9% YoY) at 68% of the total (and includes PABs), and $86 bil. current refundings (-56% YoY) at 32% of the total. We assume that the effective date of the law will be Jan 1, 2018 whether the bill actually is passed on/prior to that date or is pushed into 2018. Our preliminary estimates account for the relatively smaller universe of refundable bonds in 2018 (-$40 bil., or -8% YoY), expectation of higher rates on the front-end of the curve adversely affecting refundings and new money bonds generally, in addition to an uncertain political environment. However, the estimates do not incorporate taxable or taxable/tax-exempt variable rate Muni supply, which in the event tax reform is enacted, could account for a meaningful portion of total issuance in 2018 (see below). The estimate also does not include any amount of tax-exempt current refundings of BABs that could occur due to the triggered PAYGO rule that could eliminate BAB subsidies. We will revise our projection in early Jan, 2018 once more details regarding tax reform's impact on Munis emerges.

Potential Alternatives to Tax-Exempt Advance Refunding: If tax-exempt advance refunding is eliminated as of Jan 1, 2018, many issuers will likely forego advance refunding altogether, opting instead only to issue current refunding tax-exempt bonds. This would account for some loss of supply as noted above. However, depending upon the economics of a transaction and market conditions, some issuers may choose to advance refund bonds on a taxable basis, adding to Muni supply. There are various potential "flavors" of taxable Munis that may become more prevalent, depending on investor appetite, market conditions, and issuer sophistication, including: step-coupons that adjust on the current refunding date, variable rate demand bonds; floating rate notes; and/or fixed rate bonds in a term rate mode. In lieu of issuing bonds, certain more sophisticated issuers may choose to enter into long-dated floating-to-fixed interest rate swaps with an automatic termination date on the current refunding date, as a "rate lock," in order to replicate the economics of a tax-exempt advance refunding. Given potentially volatile marks, however, swaps could be politically or optically unpalatable to general governments, so these transactions may be limited to corporate-style issuers in the higher education or healthcare sectors with lower levels of political constraints.

<u>On deck this week:</u> Gov't shutdown?! NO Fed speakers (black out period), employment report, PMI, ISM non-manuf, unit labor costs, ini claims, Trump vs Flynn.

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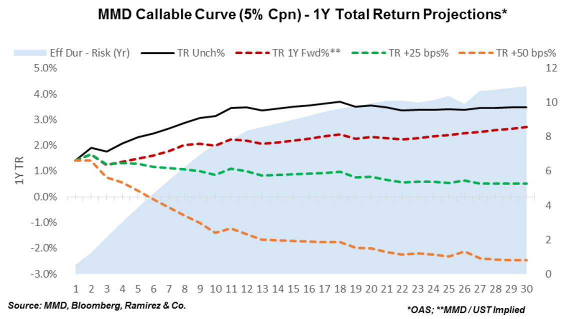
2017 Strategy (revised)

The significant curve flattening of late indicates a more balanced, yet longer duration weighted portfolio with effective duration of about 7.5yrs (11yr avg maturity), to both hedge downside risk (short) and preserve income (long).



MMD Callable Curve (5% Cpn) - 1Y Total Return Projections*								
	Mty	1-30y	1-5y	6-10y	11-15y	16-20y	21-25y	26-30y
	Eff Dur	9.4	2.7	6.4	8.5	9.6	10.2	10.6
Scenarios	Unch	3.33%	2.05%	2.88%	3.44%	3.59%	3.40%	3.45%
	1Y Fwd	2.26%	1.41%	1.91%	2.16%	2.32%	2.31%	2.59%
	+25 bps	0.78%	1.33%	1.02%	0.93%	0.87%	0.58%	0.53%
	+50 bps	-1.75%	0.63%	-0.80%	-1.56%	-1.85%	-2.23%	-2.38%
			1-10y		11-20y		21-30y	
	Optimal Strate- Proj. TR:	2.32%	26% Eff Dur (yrs): 7.4		26% WAM*: 10.8		47%	

Market Performance Indicators

WEEK ENDING: 12/1/17

INDEX MONITOR

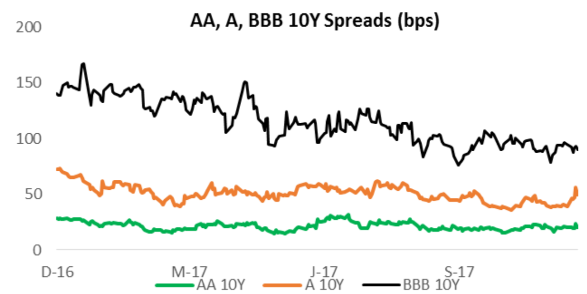
INDEX	Eff Dur	TOTAL RETURN (%) WTD	Nov	QTD	YTD	YTD risk adj	12M	12M risk adj	3Y	5Y	YIELD (%) 12/1/17	WTD Δ	YTD Δ	Lo 12M	Hi 12M	Mean 12M	Vol 12M	Z-score 12M	Z-score 3Y
TREASURY-TERM																			
TREASURY - ALL	6.3	-0.11	-0.14	0.07	**2.33**	0.84	**2.33**	0.75	1.57	1.20	2.13	0.04	0.21	1.73	2.15	1.91	0.09	2.48	2.03
SHORT	2.0	-0.05	-0.17	-0.20	**0.86**	1.48	**0.91**	1.31	0.90	0.88	1.95	0.04	0.46	1.39	1.96	1.57	0.12	3.22	1.28
SHORT-INT	3.8	-0.18	-0.32	-0.32	**1.79**	1.18	**1.80**	0.95	1.78	1.69	2.32	0.04	0.16	1.91	2.34	2.10	0.09	2.29	1.15
INTRMD	5.2	-0.17	-0.22	-0.14	**2.56**	1.39	**2.59**	1.03	1.99	1.84	2.74	0.04	0.05	2.47	2.86	2.63	0.08	1.41	1.25
LONG-INT	6.7	-0.18	-0.15	0.13	**3.33**	1.24	**3.49**	1.02	2.46	2.04	2.97	0.03	-0.08	2.73	3.24	2.96	0.10	0.12	1.13
LONG	15.4	0.23	0.35	2.00	**9.57**	1.37	**10.83**	1.45	5.26	4.00	3.53	-0.01	-0.36	3.49	4.02	3.72	0.14	-1.38	1.64
MUNICIPAL-TERM																			
SHORT	2.0	-0.14	-0.59	-0.64	**1.10**	2.19	**1.43**	2.90	0.73	0.89	1.63	0.11	0.12	1.03	1.65	1.25	0.14	2.81	2.93
SHORT-INT	3.3	-0.22	-0.89	-0.82	**2.18**	2.23	**2.88**	2.70	1.35	1.50	1.87	0.11	-0.05	1.30	2.03	1.58	0.22	1.62	2.25
INTRMD	4.8	-0.05	-0.78	-0.38	**4.23**	2.58	**5.70**	3.00	2.67	2.57	2.22	0.05	-0.31	1.84	2.70	2.17	0.22	0.24	0.81
LONG-INT	5.2	0.01	-0.71	-0.20	**4.80**	2.62	**6.48**	3.02	3.10	2.88	2.32	0.04	-0.35	1.99	2.86	2.33	0.23	-0.02	0.52
LONG	6.5	0.47	0.16	1.23	**7.13**	2.85	**9.43**	3.07	4.60	4.03	3.01	-0.02	-0.48	2.83	3.69	3.15	0.24	-0.63	-0.10
MUNICIPAL-QUALITY																			
MUNI-EXEMPT	8.4	0.08	-0.42	0.07	**4.35**	2.67	**5.84**	3.22	3.03	2.83	2.39	0.03	-0.28	2.05	2.83	2.36	0.19	0.15	0.54
MUNI-TAXABLE	9.5	-0.02	0.33	1.39	**6.62**	1.72	**6.79**	1.68	4.93	4.53	3.71	0.01	-0.22	3.59	4.03	3.81	0.10	-0.97	-0.28
HIGH-GRADE	8.4	-0.07	-0.88	-0.51	**3.72**	2.23	**5.27**	2.52	2.32	2.16	2.04	0.05	-0.15	1.54	2.36	1.85	0.21	0.91	1.43
'A' RATED	8.7	0.26	-0.40	0.17	**4.77**	2.84	**6.27**	3.24	3.27	3.13	2.39	0.02	-0.29	2.08	2.83	2.38	0.19	0.08	0.68
'BBB' RATED	9.6	0.22	0.01	0.79	**7.27**	4.22	**8.67**	4.13	4.49	3.68	2.95	0.05	-0.65	2.79	3.71	3.21	0.27	-1.00	-0.22
HIGH YIELD	7.3	0.70	0.19	1.07	**8.87**	3.55	**10.74**	3.29	4.75	4.53	5.34	0.02	-1.09	5.18	6.52	5.84	0.45	-1.11	0.67
MUNICIPAL-SECTOR																			
PRE-RE	2.4	-0.10	-0.53	-0.54	**1.06**	2.02	**1.46**	2.82	0.75	0.82	1.55	0.08	0.21	0.93	1.58	1.12	0.14	3.18	3.51
GO	7.9	0.06	-0.56	-0.06	**3.96**	2.25	**5.40**	2.83	2.47	2.23	2.24	0.05	-0.09	1.76	2.48	2.06	0.17	1.08	1.31
DED TAX	9.3	0.27	-0.52	-0.26	**3.08**	1.71	**4.50**	2.11	2.19	1.78	2.55	0.03	-0.53	2.21	3.22	2.72	0.30	-0.56	-0.30
WTR-SWR	10.0	0.09	-0.54	0.06	**4.57**	2.46	**6.43**	2.99	3.26	2.98	2.32	0.02	-0.28	1.97	2.79	2.29	0.20	0.15	0.64
PUB PWR	8.2	0.04	-0.53	-0.15	**2.65**	1.60	**4.30**	2.11	2.94	2.06	2.24	0.05	-0.70	1.77	3.10	2.39	0.39	-0.38	-0.28
HEALTHCARE	11.2	0.29	0.05	0.91	**6.14**	3.14	**8.08**	3.68	4.36	4.40	2.90	-0.02	-0.41	2.74	3.50	3.03	0.20	-0.62	0.26
HIGHER ED	10.0	0.32	-0.34	0.29	**5.44**	2.82	**7.29**	3.21	3.55	3.31	2.65	0.02	-0.32	2.38	3.16	2.67	0.19	-0.11	0.68
TRANSPORT	9.7	0.08	-0.36	0.30	**5.58**	3.14	**7.30**	3.59	3.67	3.44	2.44	0.04	-0.39	2.13	3.01	2.47	0.23	-0.13	0.33
HOUSING	12.0	0.16	0.05	0.72	**5.11**	3.67	**6.48**	3.86	3.63	3.97	2.83	-0.02	-0.43	2.66	3.36	3.01	0.16	-1.10	-0.97
TOBACCO	13.9	0.54	0.40	1.40	**17.31**	7.75	**20.13**	5.95	13.15	9.68	4.58	-0.04	-1.07	4.48	5.87	5.00	0.31	-1.34	-1.44
CORP-MUNI	9.0	0.09	-0.01	0.59	**5.83**	5.37	**6.91**	5.18	3.90	4.44	2.89	0.02	-0.69	2.73	3.73	3.18	0.25	-1.17	-0.33
GLOBAL / CORP																			
GLOBAL AGG	7.1	-0.26	1.24	0.75	**7.04**	1.71	**6.38**	1.24	1.86	0.59	1.61	0.00	-0.03	1.47	1.76	1.60	0.05	0.07	0.41
US CORP-IG	7.6	0.02	-0.17	0.67	**5.89**	1.92	**6.67**	1.90	4.07	3.57	3.24	0.02	-0.15	3.03	3.52	3.24	0.11	0.00	0.14
US CORP-HY	3.9	0.07	-0.29	0.17	**7.19**	3.88	**9.06**	4.37	6.41	6.74	5.69	-0.03	-0.32	5.31	6.47	5.69	0.23	-0.01	-0.89

Rich	Fair	Cheap
*Rich/Cheap: +/- 1.5 Z-scr		

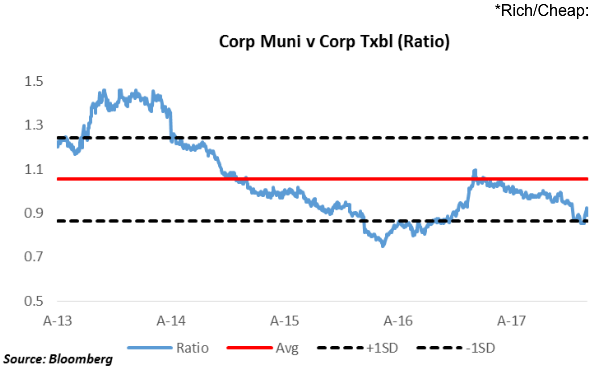
Rates & Ratios

	YIELDS (%)									
	12/1/2017	11/24/2017	1/3/2017	12/2/2016	Lo 12M	Hi 12M	Mean 12M	SD 12M	Z-Score 12M	Z-Score 4Y
AAA MMD / UST										
2 Yr	85%	80%	100%	108%	62%	107%	77%	10.76	0.757	0.227
5 Yr	80%	79%	91%	103%	62%	101%	75%	8.14	0.572	0.240
10 Yr	86%	89%	94%	105%	80%	103%	90%	4.76	-0.664	-1.132
30 Yr	96%	100%	99%	107%	92%	105%	99%	2.44	-1.153	-0.978
UST										
2 Yr	1.80	1.76	1.23	1.12	1.11	1.80	1.35	15.02	3.034	2.775
5 Yr	2.15	2.07	1.97	1.85	1.61	2.15	1.89	11.07	2.328	2.197
10 Yr	2.40	2.33	2.46	2.42	2.03	2.62	2.33	11.66	0.524	0.543
30 Yr	2.79	2.75	3.07	3.11	2.65	3.22	2.93	12.94	-1.024	-0.380
AAA MMD										
2 Yr	1.53	1.40	1.23	1.21	0.85	1.57	1.03	13.21	3.817	3.193
5 Yr	1.72	1.64	1.79	1.91	1.12	1.86	1.43	20.03	1.452	2.296
10 Yr	2.07	2.08	2.32	2.54	1.81	2.49	2.09	19.22	-0.125	0.076
30 Yr	2.68	2.76	3.05	3.34	2.58	3.25	2.89	17.30	-1.213	-0.668
							Legend:	Rich	Fair	Cheap

*Rich/Cheap: +/- 1.5 Z-score



Source: Bloomberg



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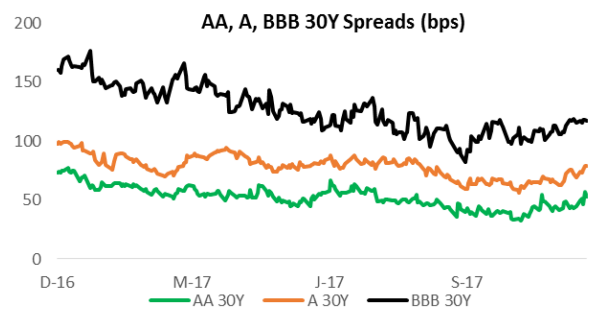

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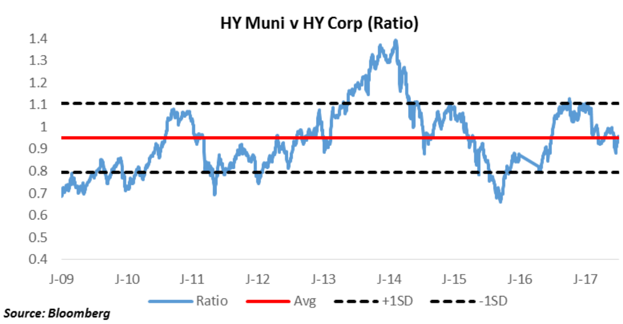

Source: Bloomberg

MUNI TAX-EXEMPT SPREADS							
		12/4/17	Avg	Min	Max	SD	Z-Scr
10Y	**AA**	21	22	15	31	4	-0.28
	A	50	51	35	73	7	-0.13
	BBB	90	115	76	167	20	-1.26
30Y	**AA**	53	53	32	77	9	0.05
	A	79	79	56	99	10	0.06
	BBB	117	126	82	176	20	-0.44
	HY	258	327	241	403	41	-1.71
10Y	**AA-->A**	29	29			9	0.00
	A-->BBB	41	65			20	-1.22
30Y	**AA-->A**	26	26			9	0.01
	A-->BBB	38	47			20	-0.47
	BBB-->HY	140	201			41	-1.49

Source: Bloomberg

Muni Primary Market

Gross Supply ($ in millions)

	As of 12/1/17
Last Week	15,122.4
12wk Moving Avg	8,657.5
YTD	353,902.3

Source: Bloomberg

Weekly Visible Supply ($ in millions)

	Week of 12/4/17
Total	19,374.7
Comp.	2,592.0
Neg.	16,782.7

Source: Bloomberg

30-Day Visible Supply

	Current	2017 High		2017 Low	
	Total	$	Date	$	Date
Total	22,780.0	22,780.0	(12/4)	2,461.7	(6/30)
Comp.	5,141.8	7,134.2	(10/13)	912.1	(11/17)
Neg.	17,638.2	17,638.2	(12/4)	1,153.6	(6/30)

Source: Bond Buyer

Top Competitive Issuances Coming to Market

Issuer	State	Amount ($ 000's)
FL St BOE PECO	FL	500,000
Westchester Cnty	NY	205,970
Florida St DOT Turnpike	FL	160,000
TX Hgr Ed Coordinating Brd	TX	156,840
Alpine SD BOE	UT	113,250

Source: Bloomberg

Top Negotiated Issuances Coming to Market

Issuer	State	Amount ($ 000's)
San Jose Redev Agy	CA	1,696,175
MI Fin Auth Hosp Rev (Trinity Health)	MI	990,670
Miami-Dade Cnty Wtr Rev	FL	958,740
New York	NY	850,000
Sales Tax Securitization	IL	574,525

Source: Bloomberg

Underwriters will attempt to market $19.37 bil. of municipals in the week of 12/4, led in the negotiated space by $1.70 bil. San Jose Redev Agy, $991 mil. MI Fin Auth Hosp Rev (Trinity Health), and $959 mil. Miami-Dade Cnty Wtr Rev. The competitive calendar is highlighted by $500 mil. FL St BOE PECO, $206 mil. Westchester Cnty, and $160 mil. Florida St DOT Turnpike.

Ramirez Negotiated Issuances Coming to Market

Issuer	State	Amount ($ 000's)	Senior Manager	Ramirez Role
New York City	NY	850,000	Ramirez	Senior Manager
El Paso Co	TX	50,585	Ramirez	Senior Manager
New York City HDC	NY	585,180	JP Morgan	Co-Senior Manager
Nassau Co TAN	NY	379,095	Citigroup	Co-Manager
Massachusetts HFA SFM	MA	110,670	RBC	Co-Manager
Ohio St Univ	OH	71,855	BAML	Co-Manager

Economic Calendar

Monday (12/4)	Tuesday (12/5)	Wednesday (12/6)	Thursday (12/7)	Friday (12/8)
Factor Orders	Trade Balance	MBA Mortgage Applications	Initial Jobless Claims	Change in Nonfarm Payrolls
Durable Goods Orders	Markit US Services PMI	ADP Employment Change	Continuing Claims	Change in Manufact. Payrolls
Gap Goods Orders	Markit US Composite PMI		Bloomberg Consumer Comfort	Unemployment Rate
3-Month Bill Auction	ISM Non-Manf. Composite			Wholesale Inventories
6-Month Bill Auction	4-Week Bill Auction			U. of Mich. Sentiment
	52-Week Bill Auction			

Source: Bloomberg

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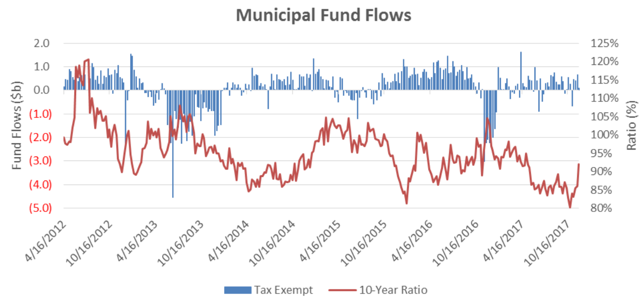
Ramirez Municipal Strategy

December 4, 2017

Muni Market Demand

Tax-exempt mutual funds experienced inflows of $100 million in the week ending November 29. This was 58% below the 12-week moving average of $240 million.

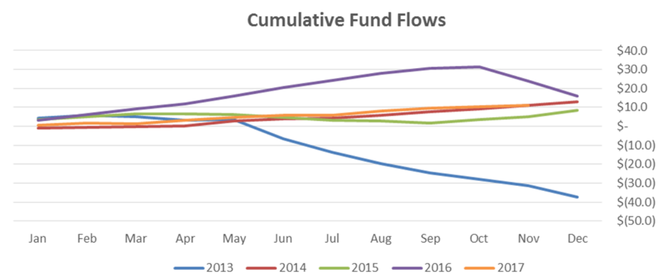


Source: Lipper Fund Flows

US Lipper Fund Flows

Sector	Flow Change ($B)	YTD ($B)
Tax-Exempt	Inflow: 0.100	Inflow: 11.273
Money Market	Inflow: 33.121	Inflow: 60.466
Taxable	Inflow: 1.562	Inflow: 126.927
Equities	Inflow: 2.449	Inflow: 35.774

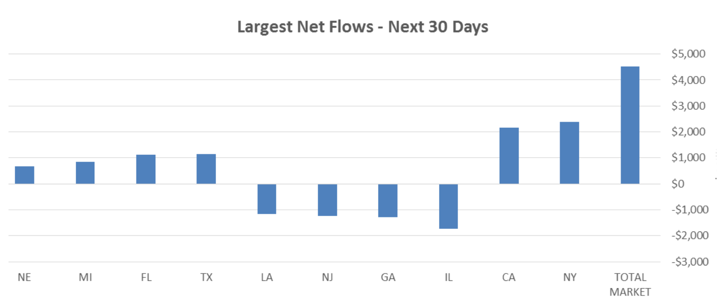
Source: Lipper Fund Flows



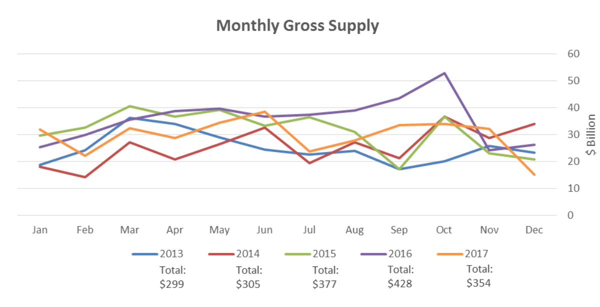
Source: Bloomberg

Muni Market Supply

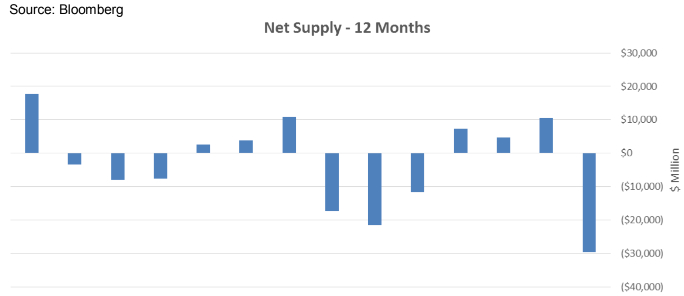
Over the next 30 days we see net muni market supply at +$4.51 bil., comprised of $26.03 bil. new issues, $11.77 bil. maturing, and $9.75 bil. announced calls. The states that stand to experience the largest change in outstanding debt include New York (+$2.40 bil.), California (+$2.17 bil.), Illinois (-$1.72 bil.), Georgia (-$1.29 bil.), and New Jersey (-$1.23 bil.). Our revised gross supply target for 2017 is ~$397 bil. (-11% YoY). Issuance YTD 2017 is $354 bil., (-14% YoY) and therefore, we expect an additional $43 bil. to be issued in the remaining weeks of 2017, including this week's $19.3 bil. We revised our 2017 gross supply estimate recently to account for pending tax reform proposals.



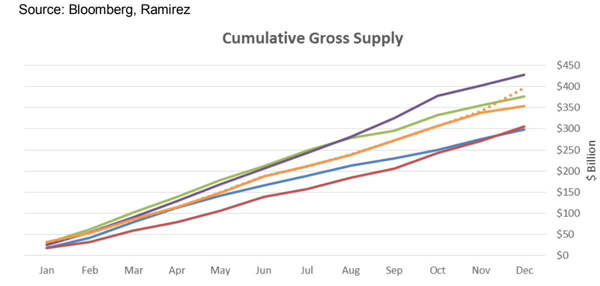
Source: Bloomberg



Source: Bloomberg, Ramirez



Source: Bloomberg



Source: Bloomberg, Ramirez

Ramirez Managed Deals

$850,000,000
The City of New York
General Obligation Bonds, Fiscal 2018 Series C and Series D

Issue: Bonds are rated Aa2/AA/AA. Pricing Wednesday, December 6, 2017. Ramirez & Co. is **Senior Manager** of this transaction. The City of New York (City) General Obligation Bonds, Fiscal 2018 Series C and Series D (Bonds) refund certain debt outstanding and pay issuance costs.

Security: Bonds are general obligations of the City, secured by the City's full faith and credit pledge and payable from ad valorem taxes on all real property located in the City subject to taxation, unlimited as to rate or amount. The City is not subject to the statewide property tax cap for debt. Total City GO debt outstanding was about $36 bil. at Sept 30, 2017.

Credit Overview: The City is the nation's largest city with a 2017 estimated population of 8.5 mil. The City serves as an international center of business and culture, with a diverse and broad economy, driven by banking, insurance, communications, design, and retail. The City is divided into five boroughs: Bronx, Brooklyn, Manhattan, Queens, and Staten Island. The City is governed by the mayor, city comptroller, city council, public advocate, and borough presidents. City wealth levels are above average with FY18 full value of $1.17 tril. ($135,000 per capita) and total income of $548 bil. ($64,000 per capita), or about 130% of the US average. The City unemployment rate in Sept, 2017 was 5.0%, above the U.S. average of 4.1%. City general fund revenues primarily consist of local taxes (66% of revenue), state aid (17%), and federal aid (10%). The City has enacted balanced budgets for the prior 37 fiscal years. The City projects and monitors fiscal health through annual preparation and periodic updates of four-year financial plans. In FY17, the City reported a general fund surplus of $4.2 bil. on total revenue and transfers of about $83 bil., an ending balance of $478 mil. (0.57% of expenditures), and liquidity of $9.3 bil. (11% revenue). The FY18-FY21 financial plan for the general fund projects average annual deficits beginning in FY19 of 2.5% of expenditures. The City historically funds actuarially required contribution for pensions, which in FY17 were about 71% funded ($195 bil. unfunded). Costs for pensions, OPEBs, and debt service are projected to average about 21% of expenditures through FY21. The 10-year capital strategy totals $89.6 bil,, of which 93% is expected to be bond financed. Total tax-supported debt outstanding in FY17 of $70 bil. was about 0.84x general fund revenue and 6% of full value.

$50,585,000
El Paso County, Texas
General Obligation Refunding Bonds, Series 2017

Issue: Bonds are rated Aa2/AA. Pricing Tuesday, December 5, 2017. Ramirez & Co. is **Senior Manager** of this transaction. El Paso County, Texas (County) General Obligation Refunding Bonds, Series 2017 (Bonds) advance refund a portion of the County's Certificates of Obligation, Series 2012 and pay issuance costs.

Security: Bonds are payable from a direct annual ad valorem tax, limited to 8 mills, levied against all taxable property within the County. The County has $187 mil. of total ad valorem debt outstanding.

Credit Overview: The County, which includes the City of El Paso, has a 2017 population of 904,586 and is located in western Texas on the Mexico border with a geographic area of about 1,000 square miles. The County's proximity to Mexico has made the County a significant gateway between the two countries with five ports of entry that facilitate trade. In addition to trade, the County's economy includes manufacturing and distribution, the U.S. Army's second largest installation (Fort Bliss), and numerous medical, education, and local government employers. County taxable value of $40.3 bil. in 2017 ($44,553 per capita) grew at a 5.3% CAGR since FY03 and is mostly (63%) residential. Top ten taxpayers account for 5.54% of taxable value. The County unemployment rate in Sept., 2017 was 4.2%, slightly above the state (4%) and national average rate (4.1%). Median family incomes in the County are about 70% of state and national averages. The County's general fund ended FY17 (unaudited) with an operating surplus of $9.4 mil. and fund balance of $85 mil., or 33% of general fund expenditures and transfers out. The FY18 budget is +4.3% YoY due to increased wage and capital spending. County revenue consists primarily of property taxes (60% of total revenue), sales taxes (17%), and user fees (17%). The County's levy for operations and debt service in FY17 is about 4.53 mills, or 56.6% of the 8 mill limitation. The County has historically funds actuarially required contributions for its pension plans, which were 76% funded in FY16. The County's costs for debt service, pensions, and retiree healthcare premiums in FY17 was about 20% of total governmental expenditures. Overall net debt is 7.92% of taxable value and $3,529 per capita.

$585,180,000
New York City Housing Development Corporation
Multi-Family Housing Revenue Bonds

Issue: Bonds are rated Aa2/AA+. Pricing Tuesday, December 5, 2017. Ramirez & Co. is **Co-Senior Manager** of this transaction. Proceeds will be used to refund prior bonds and finance new multi-family mortgage loans. This issuance will finance 8 projects throughout New York City.

Security: Bonds are special obligations of New York City Housing Development Corporation (HDC) secured by pledged assets under the Multi-Family Housing Revenue Bond resolution (Resolution), including multifamily mortgage loans and other assets including a debt service reserve fund. Mortgages are uninsured or enhanced by supplemental security, including mortgage insurance policies, GSE wraps, or LOCs. Most properties securing mortgages also receive State and/or Federal rental assistance.

Credit Overview: HDC is a self-supported public benefit corporation of New York State formed to increase the accessibility of multifamily housing projects within the City of New York. As of October 31, 2017, total parity debt outstanding under the Resolution was $6.04 billion, consisting of about 81% fixed rate bonds and 19% variable rate bonds. As of July 31, 2017, the Resolution's loan portfolio consisted of 917 multifamily mortgage loans with a principal balance of $5.42 billion, of which 76% are permanent loans and 24% are construction loans. Supplemental security exists on 68% of loans, with the remaining 32% being uninsured. Delinquency rates of greater than 60 days are minimal (less than 1%). About 93% of the Resolution's properties occupancy rates are 95% or greater. The Resolution's loan loss coverage is provided by a high level of overcollateralization, given an asset to liability ratio of 130% in fiscal 2016, which is unchanged from the previous year.

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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 define under the Exchange Act) and any US Treasury (as defined in FINRA Rule 6710 (p)).