Municipal Market
UPDATE
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SternBrothers&Co.
INVESTMENT BANKING SINCE 1917

- **Municipal Volume Soars Upward in June**
- **Variable Rate Market Update**
- **2016 First Half in Review**

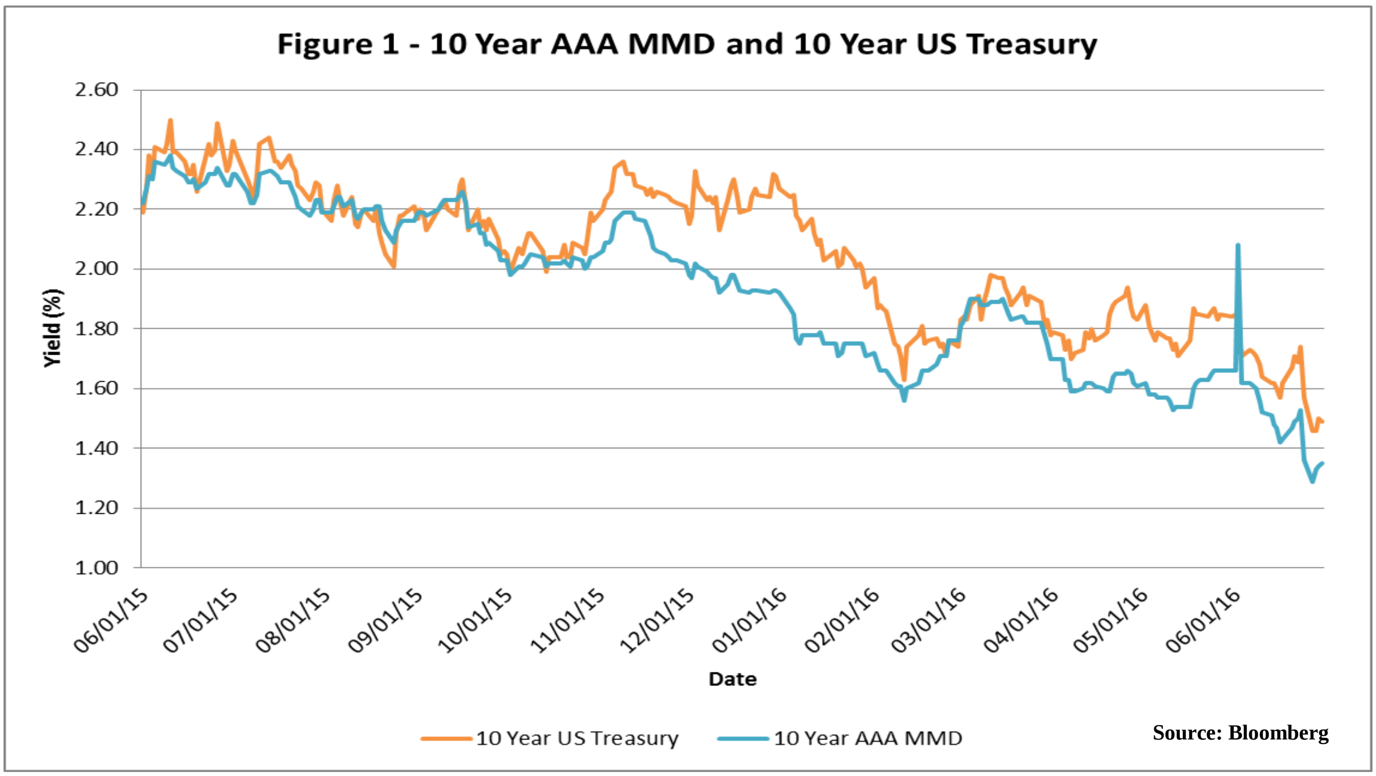
Municipal Volume Soars Upward in June

In the month of June, long-term municipal volume grew by 9%, reaching $43.2 billion in 1,292 transactions compared to $40.29 billion in 1,430 transactions in June 2015. Due to a fall in interest rates, refundings made up a large portion of June's volume. Refunding volume rose 30.8%, reaching $18.38 billion in June 2016, compared to $14.05 billion in June 2015. New money transactions also increased in volume, although more moderately, rising 6.1% above issuance the year before to $20.57 billion.

The Municipal Market Data ("MMD") 'AAA' Muni Market 10-year yield ended June at 1.35% - 31 basis points ("bps") below its level at the end of May. The 30-year yield also decreased, ending June at 2.02%, 43 bps lower than 2.45% at the end of May. The 10-year US Treasury yield ended June at 1.49%, 35 bps below 1.84% at the end of May. The 30-year Treasury yield dropped 34 bps, ending June at 2.30%. As of June 30th, the ratios of 'AAA' General Obligation municipal yields to Treasury yields were:

Year	Yield	% Yield
1-Year	0.52 / 0.45	115.56%
5-Year	0.89 / 1.01	88.12%
10-Year	1.35 / 1.49	90.60%
30-Year	2.02 / 2.3	87.83%

Sources: The Bond Buyer, Bloomberg, US Department of Treasury, US Federal Reserve



Variable Rate Market Update

The SIFMA Municipal Swap Index, an average of high-grade, tax-exempt, variable rate bonds, ended the month at .41%, up three basis points from the level at which it ended May. The 30-day LIBOR fell slightly in June, ending the month at .4603%, down from .4689% at the end of May. Please refer to Figure 2 for historical SIFMA and LIBOR rates.

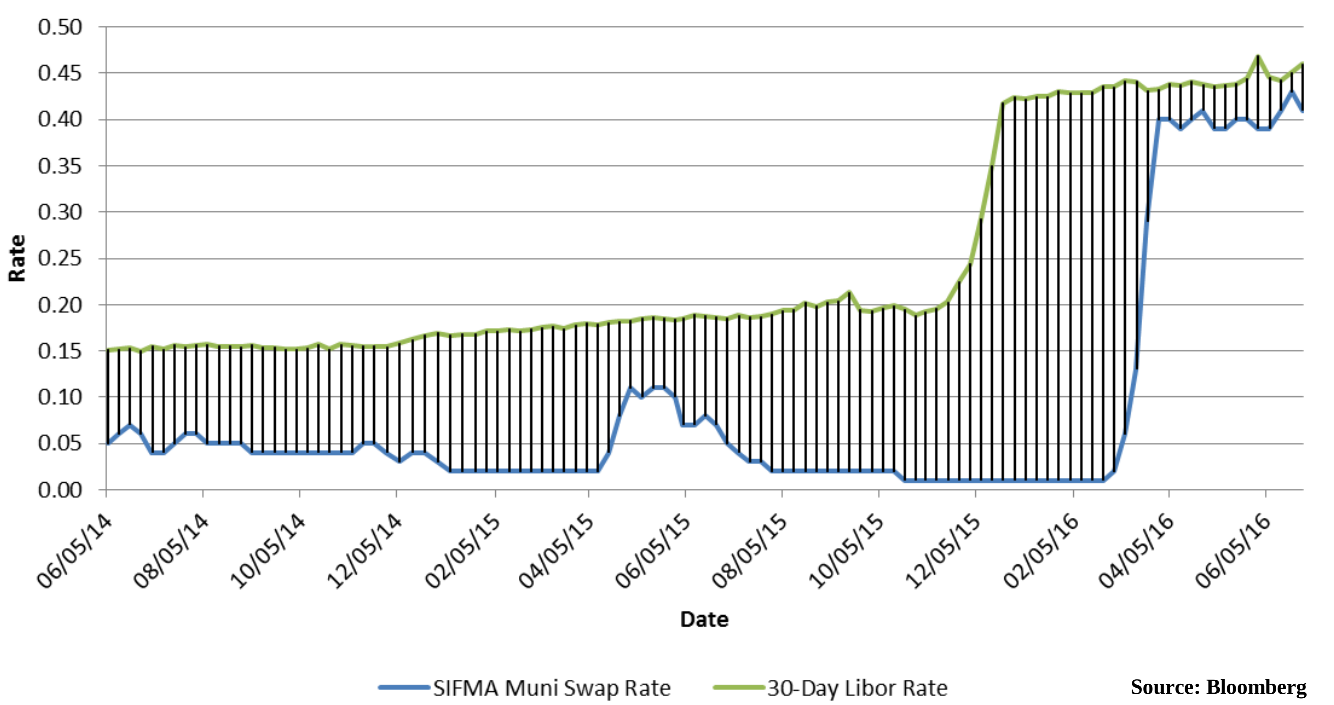
2016 First Half in Review

A quick synopsis of what has happened with issuance and trading, rates, and credit for the first 6 months of 2016.

#1 Bond Issuance Ticked Down

Much like the first half of 2015, the opening months of this year started with slow issuance in response to a brief uptick in interest rates. Like the previous year, January was the month that experienced the lowest amount of issuance. In 2016, January's volume of $25.4 billion was even lower than $29.5 billion the year prior. Overall, municipalities issued $8.2 billion less in the first half of this year and it's fair to say that the brief uptick in rates was the primary culprit. Pure refundings were down $11 billion year over year and combined refunding and new money deals were also down 14%; or almost $7 billion in dollar terms. There was, however, a significant uptick in

Figure 2 - SIFMA & LIBOR Rates



new money borrowings of 13% (or almost $10 billion) as issuers appeared to finally begin to ramp up borrowings after years of tepid interest in taking on capital projects.

Secondary market trading also followed a 2015-like pattern in the first five months of the year for which SIFMA has reported data. In both years, there was a winter lull before a spring pick-up. 2016 generated less volume than 2015, except in the month of May when in 2016 daily volume averaged $11 billion par, versus $10.9 billion for May 2015. It appears that the long term secular trend of declining volume persists in the municipal bond secondary market. Overall, volume was down 3.2% for the five months reported.

#2 Rates Hit From Both Sides

Interest rates began 2016 following an up and down pattern as they contended with conflicting market pressures. After the Fed increased its short term lending rate on December 15th, 2015, the first rate increase of what was anticipated to be several on the road to “rate normalization”, the stock market began to fall rapidly. The S&P 500 stood at 2073 on the date of the rate hike and had fallen 3% by the end of the year. In the next three weeks it fell an additional 7.6% and did not hit bottom until February 11th when it stood down nearly 12% from its December 15th level. With the Fed on one side trying to boost and the equity market on the other spurring a flight to quality, bond rates, including munis, primarily traded sideways through the first few months of the year before the Fed seemed to soften its stance and rates declined. Towards the end of June, of course, after the United Kingdom’s surprise referendum result seeking to leave the European Union sparked another global flight to quality, yields declined even further. The Bond Buyer 20 Municipal Bond Index ended June of this year at a yield of 3.18%, the lowest since May 11th of 1965.

#3 Puerto Rico Resolution

The biggest story in the credit market for the first half of 2016 was, once again, the Commonwealth of Puerto Rico. Although the ending of that story may finally be in sight, it is not likely to be a happy one for anyone. On June 30th President Obama signed bipartisan legislation creating a financial control board for Puerto Rico which will be authorized to control current budgets in addition to handing out haircuts on outstanding debts. The Commonwealth cannot legally file for Chapter 9 bankruptcy, but it also cannot pay back its debt in its entirety as nearly everyone concedes. The control board will attempt to find a fair resolution, although it is unlikely that either the bondholders (i.e. just about anyone who owns a municipal bond mutual fund) or Puerto Rican residents will be happy with the result. That aside, it appears to be the only non-bailout path out of the morass that the island got itself into with excessive borrowing.

Sources: The Bond Buyer, SIFMA, The Federal Reserve, The Wall Street Journal, Bloomberg News

June 2016 Selected Bond Issues

General Obligation and Essential Service Revenue

Sale Date	Par ($ mil)	Issuer	Project	Ratings	Final Maturity	Yield	Spread to MMD	Notes
6/6/2016	$5.14	Fort Scott, KS	General Obligation Refunding Bonds	A2/AA/	10/1/2045	3.250%	86	Insured
6/13/2016	$10.92	City of Berlin, CT	General Obligation Refunding Bonds	/AA+/	9/1/2025	1.510%	10	
6/20/2016	$6.10	City of Rock Hill, MO	General Obligation Bonds	/AA/	3/1/2036	2.140%	11	Bank Qualified
6/13/2016	$29.55	Atlantic County, NJ	General Obligation Refunding Bonds	Aa2/AA/	10/1/2024	2.000%	69	Insured

Education Sector

Sale Date	Par ($ mil)	Issuer	Project	Ratings	Final Maturity	Yield	Spread to MMD	Notes
6/13/2016	$72.62	Red River Educational Financing Corp.	Revenue Refunding Bonds	Baa2/BBB+/	6/1/2046	3.050%	83	
6/13/2016	$13.44	Crawford County PA Industrial Authority (Allegheny College)	Revenue Refunding Bonds	Baa1/A-/	5/1/2036	3.280%	121	
6/20/2016	$45.30	New Jersey State Educational Facilities (Rowan University)	Revenue Refunding Bonds	A2/AA/	7/1/2031	2.760%	97	Insured
6/27/2016	$64.65	Massachusetts State Development Finance Agency (Williams College)	Revenue Refunding Bonds	Aa1/AA+/	7/1/2046	2.290%	29	

Water/Utility Sector

Sale Date	Par ($ mil)	Issuer	Project	Ratings	Final Maturity	Yield	Spread to MMD	Notes
6/6/2016	$89.45	City of Clarksville, TN	Water Sewer & Gas Revenue Refunding Bonds	Aa2/ /AA-	2/1/2041	2.530%	18	
6/13/2016	$19.72	Desert Water Agency, CA	Water Revenue Refunding Bonds	/AA/	5/1/2037	3.057%	96	
6/6/2016	$9.97	Mon Valley PA Sewage Authority	Sewer Revenue Refunding Bonds	/AA/	11/1/2043	3.300%	93	Insured
6/20/2016	$6.80	Ozark AL Utilities Board	Water & Sewer Revenue Refunding Bonds	/AA/	9/1/2031	2.500%	71	Insured

Source: Bloomberg

June 2016 Selected Bond Issues

Healthcare Sector

Sale Date	Par ($ mil)	Issuer	Project	Ratings	Final Maturity	Yield	Spread to MMD	Notes
6/13/2016	$49.71	Baxter County Hospital, Arkansas	Hospital Revenue Refunding Bonds	Baa2/ /	9/1/2028	3.150%	148	
6/13/2016	$11.11	CA State Municipal Finance Authority (San Rosa Community Health Centers)	Hospital Revenue Refunding Bonds	/AA-/	7/1/2046	3.060%	84	Insured
6/27/2016	$44.26	Houston County AL Health Care Authority (Southeast AL Medical Center)	Hospital Revenue Refunding Bonds	/BBB/BBB+	10/1/2030	2.720%	115	

Source: Bloomberg