Municipal Market
UPDATE

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INVESTMENT BANKING SINCE 1917

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- **Municipal Volume Falls in December; Year-End Muni Volume Highest Since 2010**
- **Variable Rate Market Update**
- **2015 Year in Review**

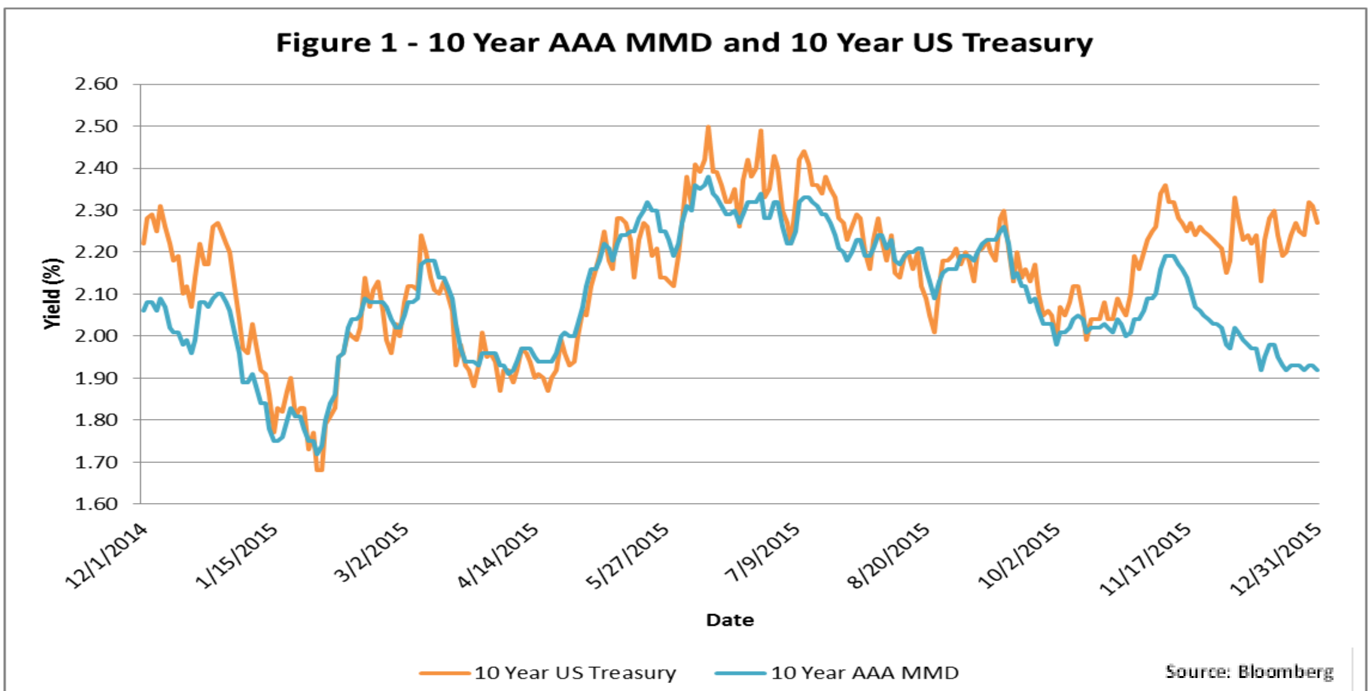
Municipal Volume Falls in December; Year-End Muni Volume Highest Since 2010

Municipal volume continued to decline for a fourth straight month, with long-term municipal bond issuance falling 43.4% to $22.19 billion in December, compared to $39.19 billion in December 2014. Still, for the year, total volume was significantly higher than it had previously been. 2015 ended with total volume at $397.7 billion, the highest issuance since 2010's record of $433.27. Heavy issuance at the beginning of 2015 can be attributed to expectations that the Fed would raise rates later in the year, which came to fruition in December.

The Municipal Market Data ("MMD") 'AAA' Muni Market 10 year yield ended December at 1.92% - a 10 basis point ("bps") decline from 2.02% at the end of November. The 30 year yield also decreased, ending December 14 bps lower than November at 2.82%. The 10-year US Treasury yield ended December at 2.27%, a 6 bps rise from 2.21% at the end of the prior month. The 30-year Treasury yield increased slightly, ending December at 3.01%, up 3 bps from 2.98% at the end of November. As of December 31st, the ratios of 'AAA' General Obligation municipal yields to Treasury yields were:

Year	Yield	% Yield
1-Year	0.5 / 0.65	76.92%
5-Year	1.26 / 1.76	71.59%
10-Year	1.92 / 2.27	84.58%
30-Year	2.82 / 3.01	93.69%

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 .01%, which is the same level it ended November. The 30-day LIBOR increased again in December, ending the month at .4295%, up from .24300% at the end of November. Please refer to Figure 2 below for historical SIFMA and LIBOR rates.

2015 Year in Review

A quick look back at the topics and trends that shaped public finance capital and credit markets in 2015.

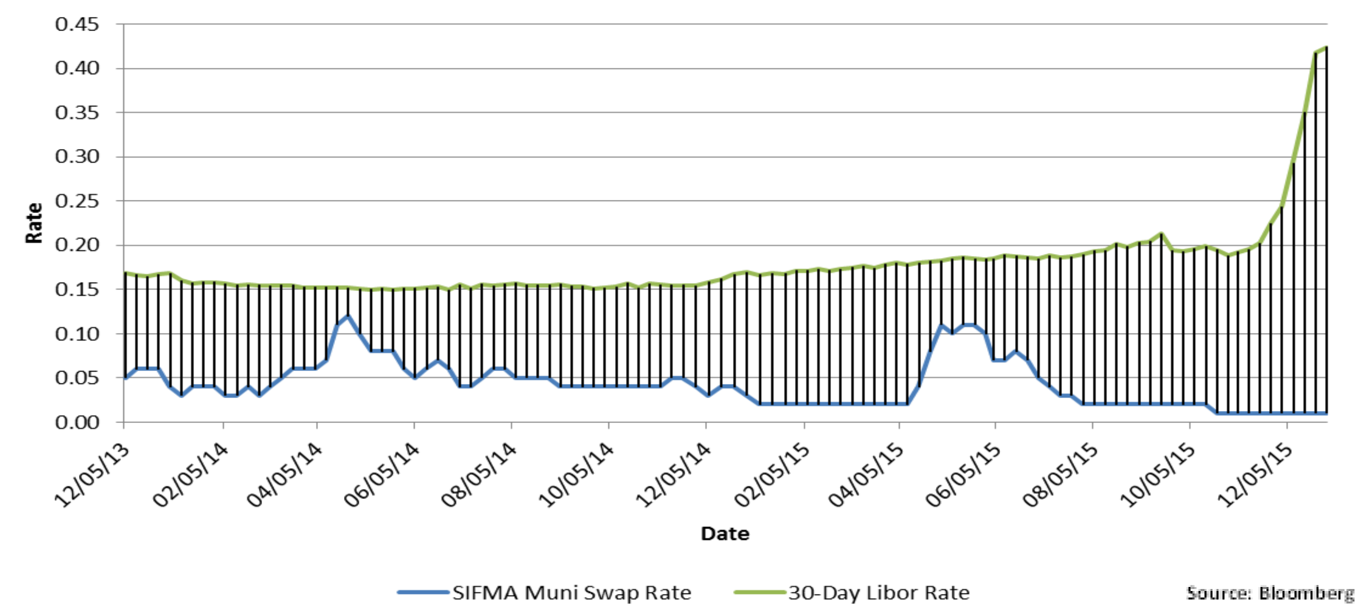
#1 Issuance Was Up

With the exception of a dip over the last third of the year, issuance was up in 2015 as issuers jumped in to refinance outstanding debt before rates finally moved. Year-end volume finished at $398 billion, up significantly from the $339 billion of the year before. It was, in fact, the highest volume year since the Build America Bond surge in 2010, although with the Fed finally making a move in December it will be interesting to see if any momentum will carry into 2016.

#2 Rates Mostly Flat

Despite the number of headlines about possible, then probable, then imminent rate increases, the market finished the year virtually where it started. The 30-year AAA MMD ended the first trading day of the year at 2.83 and the last at 2.82. For its part, the 20-year fell a comparatively exciting 4 basis points (bps) on its journey through 2015. Overall, the environment was more stable than the headlines would have

Figure 2 - SIFMA & LIBOR Rates



led onlookers to believe and it contributed greatly to the jump in issuance.

#3 Secondary Liquidity Troubled

The average daily trading volume for all bond sectors (except corporate paper) continued a many year trend of decline due to a variety of reasons, and in December, people finally began to notice that this is a problem. A high yield corporate bond fund announced on the 7th of that month that they would have to liquidate the entire fund due to an inability to find buyers to meet redemptions. In short, the concern going forward is that due to rising interest rates, mutual funds will have to liquidate some bonds to meet customer redemption requests. Since liquidity is down so drastically, higher quality/more liquid bonds may be the only ones to attract bids. This could push down the prices on even these bonds and a cascading effect could start. It is a complicated problem with no simple solution, but at least regulators were offered a relatively benign glimpse into what could be their next financial crisis if they do not take steps to allow more secondary market liquidity.

#4 Puerto Rico

Overall, credit quality among municipalities is generally considered to be improving as the economy, reluctantly at times, continues to emerge from the recession. But the market has, in recent years, been forced to endure what seems like an annual high profile bankruptcy, and in 2015 it was the biggest yet. Puerto Rico's government acknowledged that The Commonwealth would not be able to completely service its debt as it is currently structured and would need relief. As Puerto Rico is not eligible under current law to formally file for Chapter 9 (a trait it shares with U.S. states), it has embarked on a hodgepodge of half measures and incomplete solutions. With one eye on Puerto Rico and likely another on dangerously overleveraged states such as Illinois, Congress has not been in a hurry to put together a comprehensive solution despite requests from the Treasury Department to do so.

Detroit, Stockton, Jefferson County, et. al. experienced, in retrospect, relatively quick solutions to their debt problems considering the size and scope of them. However, with no Chapter 9 available or in sight at present, Puerto Rico will have to slug it out with its financiers one bond issue at a time; the annual problem credit for 2015 may be the problem credit for a few more years to come.

Sources: Moody's, Standard & Poor's, Thomson-Reuters, The Bond Buyer, SIFMA

December 2015 Selected Bond Issues								
General Obligation and Essential Service Revenue								
Sale Date	**Par ($ mil)**	**Issuer**	**Project**	**Ratings**	**Final Maturity**	**Yield**	**Spread to MMD**	**Notes**
12/1/2015	$8.53	City of Baxter, MN	General Obligation Improvement and Tax Increment Bonds	Aa3/ /	2/1/2028	2.400%	3	Fed BQ
12/7/2015	$9.35	Village of West Dundee, IL	General Obligation Refunding Bonds	Aa3/ /	1/1/2036	3.480%	60	Fed BQ
12/7/2015	$53.40	New Haven, CT	General Obligation Refunding Bonds	A3/AA/A-	8/15/2028	3.100%	64	Insured - BAM
Education Sector								
Sale Date	**Par ($ mil)**	**Issuer**	**Project**	**Ratings**	**Final Maturity**	**Yield**	**Spread to MMD**	**Notes**
12/14/2015	$35.78	Massachusetts State Development Finance Agency	Western New England University Refunding Revenue Bonds	/BBB/	9/1/2045	3.830%	73	
12/7/2015	$5.83	Board of Regents of Oklahoma City Community College	Student Facility Revenue Bonds	/AA/	7/1/2026	2.750%	47	Insured - BAM
12/7/2015	$34.27	California Educational Facilities Authority	Occidental College Revenue Bonds	Aa3/ /	10/1/2045	3.160%	6	
Water/Utility Sector								
Sale Date	**Par ($ mil)**	**Issuer**	**Project**	**Ratings**	**Final Maturity**	**Yield**	**Spread to MMD**	**Notes**
12/7/2015	$12.42	City of Conway, AR	Wastewater Revenue Refunding Bonds	/A+/	10/1/2040	3.338%	30	
12/7/2015	$7.89	City of Denham Springs, LA	Water/Sewer Revenue Refunding Bonds	/AA/	8/1/2045	3.190%	9	Fed BQ, Insured - BAM
12/7/2015	$20.13	City of Gastonia, NC	Combined Utilities System Revenue Bonds	Aa2/AA-/AA	5/1/2036	3.430%	76	Insured - BAM
10/19/2015	$12.34	Town of Erie, CO	Water & Sewer Revenue Bonds	A1/AA/	12/1/2032	3.390%	87	Insured - BAM
Healthcare Sector								
Sale Date	**Par ($ mil)**	**Issuer**	**Project**	**Ratings**	**Final Maturity**	**Yield**	**Spread to MMD**	**Notes**
12/7/2015	$254.98	New Jersey Health Care Facilities Financing Authority	Revenue and Refunding Bonds, University Hospital Issue	A2/AA/BBB	7/1/2046	4.140%	104	Insured - AGM
12/7/2015	$98.43	Kaweah Delta Health Care District (CA)	Revenue Bonds	A3/ /	6/1/2045	4.050%	95	

Source: Bloomberg