Municipal Market
UPDATE
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SternBrothers&Co.
INVESTMENT BANKING SINCE 1917

- **New Money Volume Increases; Refundings Decline**
- **Variable Rate Market Update**
- **January Credit Review**

New Money Volume Increases; Refundings Decline

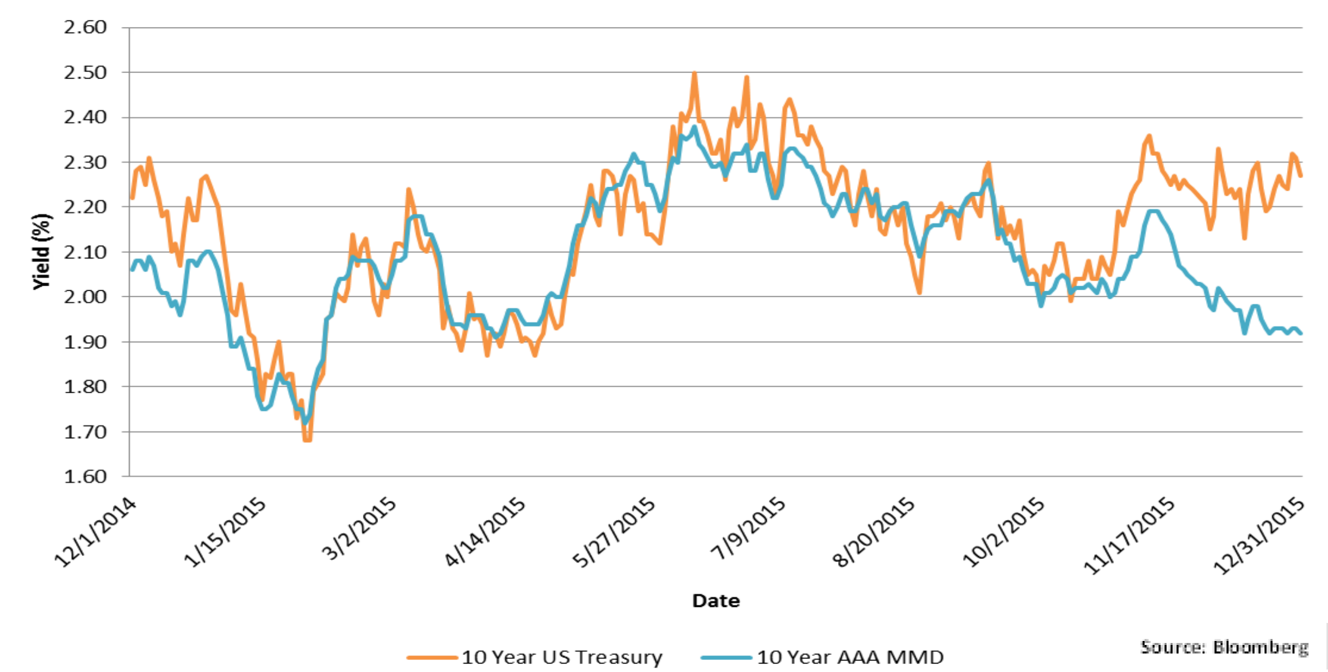
The municipal market picked up 2016 right where it left off 2015. A lack of refundings again played a major role in a declining trend of overall volume. Long-term municipal bond issuance fell 18% to $24.11 billion in January, compared to $29.45 billion in January 2015. Whereas refundings accounted for $16.79 billion in the same period 2015, refundings declined by nearly half, ending January at a $8.82 billion in 309 issues.

The Municipal Market Data ("MMD") 'AAA' Muni Market 10 year yield ended January at 1.71% - a 21 basis point ("bps") decline from 1.92% at the end of December. The 30 year yield also decreased, ending January 7 bps lower than December at 2.75%. The 10-year US Treasury yield ended January at 1.94%, a 33 bps fall from 2.27% at the end of the prior month. The 30-year Treasury yield also dipped, ending January at 2.75%, down 26 bps from 3.01% at the end of December. As of January 29th, the ratios of 'AAA' General Obligation municipal yields to Treasury yields were:

Year	Yield	% Yield
1-Year	0.40/ 0.47	85.11%
5-Year	1.00 / 1.33	75.19%
10-Year	1.71 / 1.94	88.14%
30-Year	2.75 / 2.75	100.00%

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

Figure 1 - 10 Year AAA MMD and 10 Year US Treasury



Variable Rate Market Update

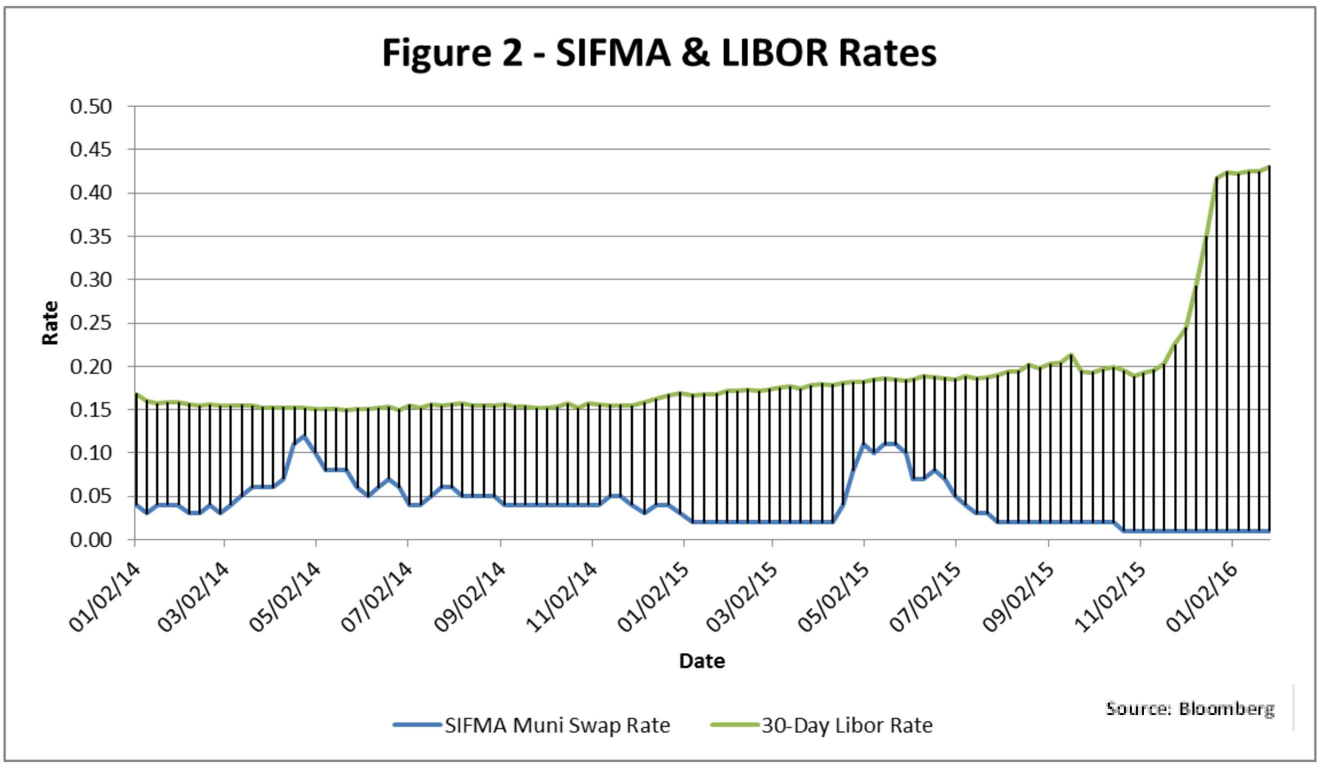
The SIFMA Municipal Swap Index, an average of high-grade, tax-exempt, variable rate bonds, ended the month at .01%, which is the same level it ended December. The 30-day LIBOR decreased in January, ending the month at .4250%, down from .4295% at the end of December. Please refer to Figure 2 for historical SIFMA and LIBOR rates.

January Credit Review

Some quick news and notes about occurrences in the municipal bond market during January of 2016.

1. Moody's issued its now annual report on the funded status of states' pensions, and for once, it was actually good news for some. Based on fiscal 2014 results, 27 states actually saw their adjusted net pension liability (ANPL) decline for the year due to strong capital market performances during the time period measured. The measurement is one designed by Moody's which contains an adjustment to reflect what they believe (and we tend to agree) is a more realistic picture of the funded status of a pension. Some other findings from the report include:

- The median ratio of the adjusted net pension liability to state revenue was down slightly to 59%. Illinois, Kentucky, and Connecticut all have ANPL's more than three times their revenues.
- More states are contributing amounts close to



the actuarially required levels, although California and New Jersey only made approximately 60% of their required contributions.

The expectation is that liabilities will grow again for next year's report due to lower returns in the stock market.

2. S&P released a brief article about the effects of falling oil prices on the budgets of the major oil producing states. According to the rating agency, 5 of the 11 states that they consider as being under negative fiscal pressure for 2016 are under that pressure as a result of declining oil prices. The degree of impact this will have on various states will depend upon the expected price of oil built into the budget. Prices are currently lower than the budget expectations for all the major producing states, although North Dakota isn't that far off at $45 a barrel. Along with the budget concerns, there is decelerating job growth in many of the oil producing states. This is contributing to secondary credit pressure as income taxes and consumer consumption and their attached sales taxes also decline.

3. Most of the year-end bond market statistics that SIFMA compiles have been updated and total bond issuance for 2015 was 19.4% above that in 2014. The municipal bond market overall broke through the $400 billion annual issuance mark for the first time since 2010, as issuers continued to refund bonds at lower rates and try to meet capital needs before anticipated interest rate increases began to kick in.
Although primary market issuance was up, secondary market volume kept trending down. Average daily volume by par was down 12.7% year-over-year in 2015. Only an average of $8.6 billion in par amount traded everyday compared to $9.9 billion in the year previous. To get a sense of how anemic that volume is; it's only about 34% of what it was in the highest year ever, 2007, when volume averaged $25.1 billion of secondary trading a day. The slowdown in trading is a result of a combination of many factors, although it is generally believed that new regulations and low overall interest rates are the primary culprits. The long-term effects of the secular decline in secondary volume are really anyone's guess, but many market participants are beginning to worry. Everyone knows that more liquid markets cope with increased volatility better than less liquid markets and that the muni market may be unable to respond adequately to the next, inevitable period of stress similar to 2008. Although everyone is hopeful that a repeat is not in the cards anytime soon, the lack of liquidity which was brought on at least partially by regulations in response to 2008 may actually make it more likely that something similar happens again.

Sources: Moody's, Standard & Poor's, Securities Industry and Financial Markets Association

January 2016 Selected Bond Issues

Sale Date	Par ($ mil)	Issuer	Project	Ratings	Final Maturity	Yield	Spread to MMD	Notes
General Obligation								
1/18/2016	$24.59	Gloucester County, NJ	General Obligation Refunding Bonds	/AA/	1/15/2022	4.000%	133	
1/25/2016	$27.05	City of Avon, OH	General Obligation Refunding Bonds	Aa1/ /	12/1/2038	3.300%	78	
1/11/2016	$19.58	Grand Rapids, MI	General Obligation Bonds	Aa2/AA/	10/1/2036	3.230%	56	
Education Sector								
Sale Date	**Par ($ mil)**	**Issuer**	**Project**	**Ratings**	**Final Maturity**	**Yield**	**Spread to MMD**	**Notes**
1/25/2016	$27.45	Metropolitan State University of Denver	Institutional Enterprise Revenue Bonds	Aa2/A1/	12/1/2045	3.180%	66	
1/18/2016	$22.32	Ohio State Higher Educational Facilities Commission	Revenue Refunding Bonds (John Carroll Project)	A3/ /	4/1/2041	3.750%	108	
Water/Utility Sector								
Sale Date	**Par ($ mil)**	**Issuer**	**Project**	**Ratings**	**Final Maturity**	**Yield**	**Spread to MMD**	**Notes**
1/25/2016	$45.70	Erie County Water Authority	Revenue Refunding Bonds	A2/ /	12/1/2043	3.470%	80	
1/18/2016	$10.00	Northeast Alabama Water, Sewer & Fire Protection District	Water Revenue Refunding Bonds	/AA/	5/1/2036	3.260%	59	
1/25/2016	$19.94	Cucamonga Valley Water District Financing Authority	Water Revenue Refunding Bonds	/AA/AA	9/1/2036	3.260%	74	
Healthcare Sector								
Sale Date	**Par ($ mil)**	**Issuer**	**Project**	**Ratings**	**Final Maturity**	**Yield**	**Spread to MMD**	**Notes**
1/4/2016	$62.30	Louisiana State Public Facilities Authority	Hospital Revenue Refunding Bonds	Baa1/ /A-	11/1/2045	3.470%	80	

Source: Bloomberg