Municipal Market UPDATE

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- **Municipal Volume Dips in November, Remains High for the Year**
- **Variable Rate Market Update**
- **Post-Election Reflections**

Municipal Volume Dips in November, Remains High for the Year

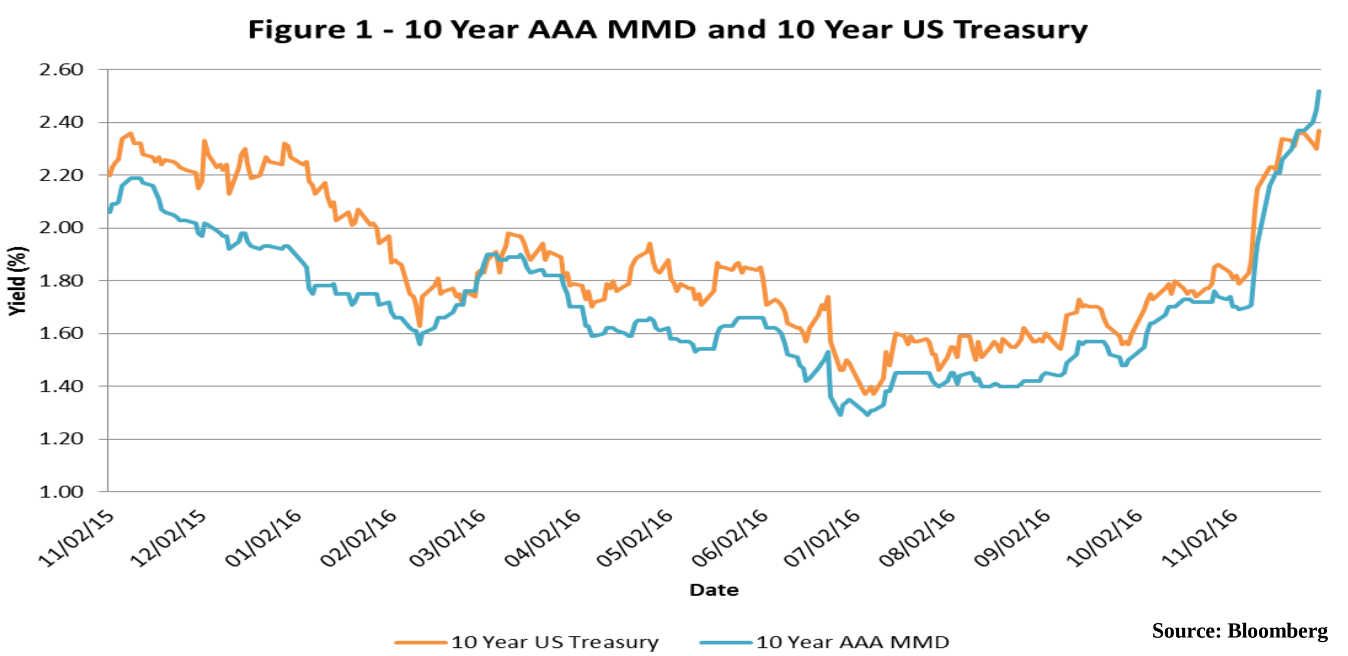
Municipal volume dipped in November, down 9% from the year before in a fall that many attribute to the post-election shock and uncertainty that raised municipal yields. The month ended with overall issuance totaling only $23.87 billion. Even so, year-to-date volume reached $416 billion in November, compared to $375.5 billion last year. If volume in December reaches at least $18 billion, 2016 annual muni volume will surpass the record $433 billion hit in 2010. Additionally, weekly outflows hit a record $3 billion during the week of the 16th, according to data from Lipper FMI.

In November, refundings were down 7.2% from last year and new money volume fell as well, down 20.7% from the year before. However, combined new money and refunding issuance was up 36.2% to $6.41 billion from $4.71 billion in 2015.

The Municipal Market Data ("MMD") 'AAA' Muni Market 10-year yield ended November at 2.52%, 79 basis points ("bps") above its level at the end of October. The 30-year yield also increased, ending November at 3.26%, 70 bps above its level at the end of November. The 10-year US Treasury yield ended November at 2.37%, 53 bps above 1.84% at the end of October. The 30-year Treasury yield also rose, ending November at 3.02%, 44 bps above the level at which it ended October. As of November 30th, the ratios of 'AAA' General Obligation municipal yields to Treasury yields were:

Year	Yield	% Yield
1-Year	0.70/0.66	106.06%
5-Year	1.13/1.31	86.26%
10-Year	1.73/1.84	94.02%
30-Year	2.56/2.58	99.22%

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



Source: Bloomberg

Variable Rate Market Update

The SIFMA Municipal Swap Index, an average of high-grade, tax-exempt, variable rate bonds, ended November at .56%, the same level at which it ended October. The 30-day LIBOR increased in November, ending the month at .62367%, up from .53378% at the end of October. Please refer to Figure 2 for historical SIFMA and LIBOR rates.

The short-term market has begun to settle down since the October 14 Money Market reform compliance deadline. The market is still experiencing wider rate swings than had been typical for several years. Market participants believe it will take six to nine months for the market to find a new normal**.**

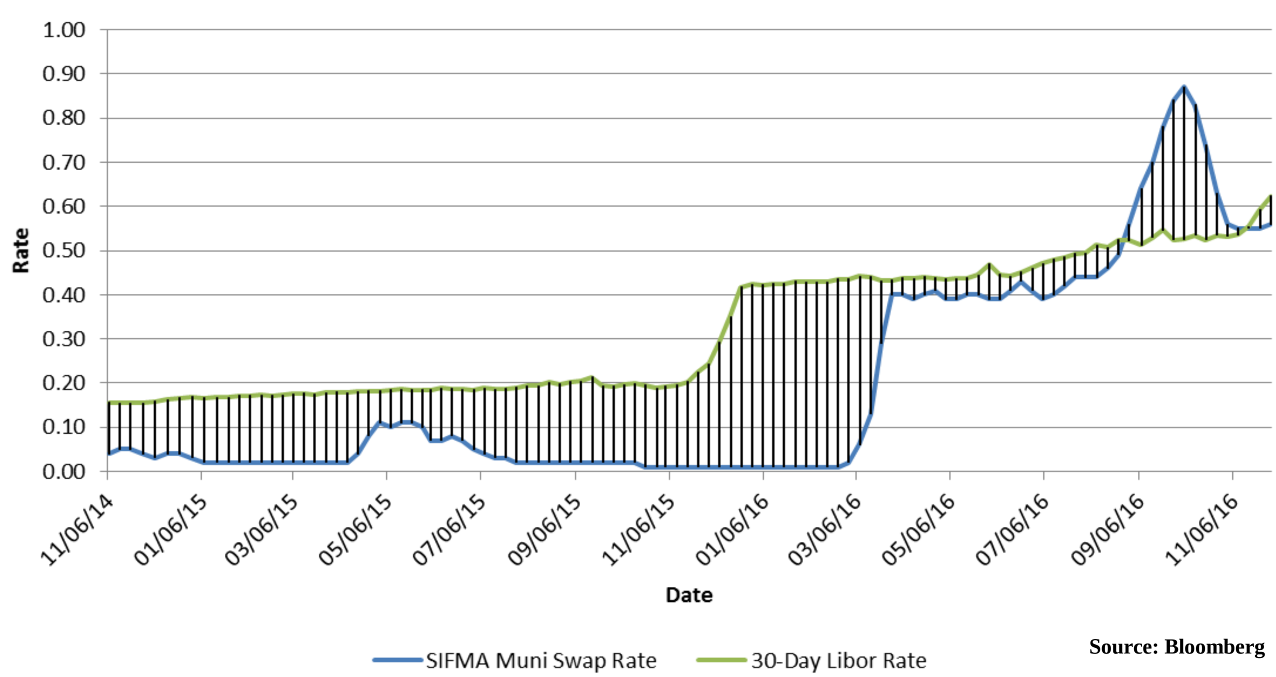
Post-Election Reflections

It wasn't long after election results became final that the implications of a surprise Donald Trump victory, coupled with Republicans retaining both houses of Congress, began to be evaluated by the markets and their observers. In the week that followed, participants guessed what the ultimate effects of the upcoming change in leadership in Washington D.C. would mean for the public finance market.

The first, and most dramatic opinion was given by the bond market itself the day after the election. Treasury and municipal bonds immediately sold off on the premise that increased infrastructure spending, a subject which reportedly has bi-partisan support in both chambers as well from the future president, would finally get approved. Trump's campaign pledge to spend $1 trillion on infrastructure, in combination with his plan to cut taxes, simultaneously sparked fears of inflation and hopes for a boost to economic growth.

Further complicating the issue are inferences of two other potential effects on municipal bonds drawn from other campaign statements. The first is related to the tax cut

Figure 2 - SIFMA & LIBOR Rates



Source: Bloomberg

promise, which if enacted, would reduce the attractiveness of municipal bonds overall. This has also contributed to the selloff in municipal bonds. Statements about the need to simplify the tax code via reducing deductions and loopholes left some wondering if municipal bonds' tax-exempt status could possibly be on the table.

After the immediate, market driven impact, the considered educated guesses of other observers began to be published. In short order, the rating agencies began to release some of their predictions about what the various campaign promises, if followed through on, would translate to for public finance. Nearly all observers were in agreement that Medicaid and hospitals with a high percentage of Medicaid patients would be at the greatest risk of early cuts. The program was destined for funding issues regardless due to a planned ramp up for state funding, but both the president-elect and Congressional leadership have stated desires to make drastic changes to the Affordable Care Act. Writ large, after a decade of tumult and uncertainty for the health care sector, more is on the way.

Aside from hospitals, state and local governments also have a lot to be concerned about with any reductions in Medicaid. S&P estimates that 61% of transfers from the federal government to states and their subdivisions were for Medicaid; an enormous $370 billion. States will also be susceptible to any economic fallout from changes in international trade agreements through sensitivity of their pension funds, many of which are already severely underfunded, to any swings in equity markets. Conversely, the increase in bond yields from the uncertainty should at least help pension funds stabilize returns with higher interest rates.
Even the issue of infrastructure spending, as popular as it seems to be on both sides of the aisle, is far from a straightforward proposition for public finance. Congressional Republicans, who eight years ago loudly derided President Obama's stimulus plan as a thinly disguised giveaway to state and local governments, will also be under tremendous pressure to not just start writing checks. Early indications seem to be that a reliance on tax credits and public private partnerships are part of the initial plans to avoid this, but many also feel that the temptation of a trillion dollar barrel of pork will prove too difficult for our valiant Congress to resist.

After the events of the last month, we refrain from making any predictions ourselves about how the future will turn out. Events have conspired to remind us yet again that no one really knows what's in store for the economy. What we do know, and we call this advice and not a prediction, is that rates remain low by historical standards and bonds issued by strong issuers for good projects will continue to be done.

Sources: S&P, Moody's, Fitch, Kroll, The Bond Buyer

November 2016 Selected Bond Issues								
General Obligation and Essential Service Revenue								
Sale Date	**Par ($ mil)**	**Issuer**	**Project**	**Ratings**	**Final Maturity**	**Yield**	**Spread to MMD**	**Notes**
11/28/2016	$589.55	District of Columbia	General Obligation Refunding Bonds	/AA/AA	6/1/2033	3.410%	52	
11/22/2016	$18.11	City of Dayton, OH	General Obligation Bonds	/AA/	12/1/2036	3.810%	88	
11/23/2016	$5.02	Secaucus, NJ	General Obligation Refunding Bonds	/AA/	1/15/2027	2.720%	35	BQ
11/30/2016	$1.96	City of Morrison, IL	General Obligation Refunding Bonds	/AA/	12/15/2035	3.460%	38	Insured
Education Sector								
Sale Date	**Par ($ mil)**	**Issuer**	**Project**	**Ratings**	**Final Maturity**	**Yield**	**Spread to MMD**	**Notes**
11/29/2016	$306.93	University of Texas System	Revenue Bonds	Aaa/AAA/AAA	8/15/2028	2.830%	23	
11/17/2016	$207.56	Massachusetts State Development Finance Agency	University & College Improvement Revenue Bonds	Baa2/BBB+/	1/1/2047	4.510%	150	
11/17/2016	$24.06	Eastern Michigan University	Revenue Bonds	/AA/	2/15/2047	4.300%	129	Insured
11/16/2016	$67.93	University of North Florida Financing Corporation	Revenue Refunding Bonds	A2/AA/	11/1/2037	4.130%	124	Insured
Water/Utility Sector								
Sale Date	**Par ($ mil)**	**Issuer**	**Project**	**Ratings**	**Final Maturity**	**Yield**	**Spread to MMD**	**Notes**
11/16/2016	$146.71	City of Columbia, SC	Waterworks & Sewer System Revenue Refunding Bonds	/AA+/	12/1/2041	3.710%	75	
11/17/2016	$119.58	City of Cincinnati, OH	Water System Revenue Bonds	Aaa/AAA/	12/1/2046	3.360%	35	
11/14/2016	$12.32	Onondaga County Water Authority	Water Revenue Refunding Bonds	Aa3/ /	9/15/2028	2.650%	28	
11/28/2016	$32.52	West Harris County Regional Water Authority	Water Revenue Bonds	11/28/2016	12/15/2046	4.130%	100	

Source: Bloomberg

November 2016 Selected Bond Issues								
Healthcare Sector								
Sale Date	**Par ($ mil)**	**Issuer**	**Project**	**Ratings**	**Final Maturity**	**Yield**	**Spread to MMD**	**Notes**
11/22/2014	$53.26	Pottsville, PA Hospital Authority	Leigh Valley Health Center Revenue Refunding Bonds	/A+/	7/1/2045	4.080%	100	
11/2/2016	$9.18	Bibb County Health Care Authority	Hospital Tax Revenue Refunding Bonds (Taxable)	/AA-/	2/1/2026	3.450%	185	Insured
11/2/2016	$51.69	Butler County, OH	Hospital Facilities Revenue Refunding Bonds	/AA/	5/15/2032	3.030%	84	

Source: Bloomberg