Municipal Market
UPDATE
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SternBrothers&Co.
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- **Municipal Volume Surges**
- **Variable Rate Market Update**
- **Why have interest rates on tax-exempt and taxable variable rate bonds risen so sharply in the last few months?**
- **What led to Money Market Fund reform and how will the reforms affect funds?**

Municipal Volume Surges in August

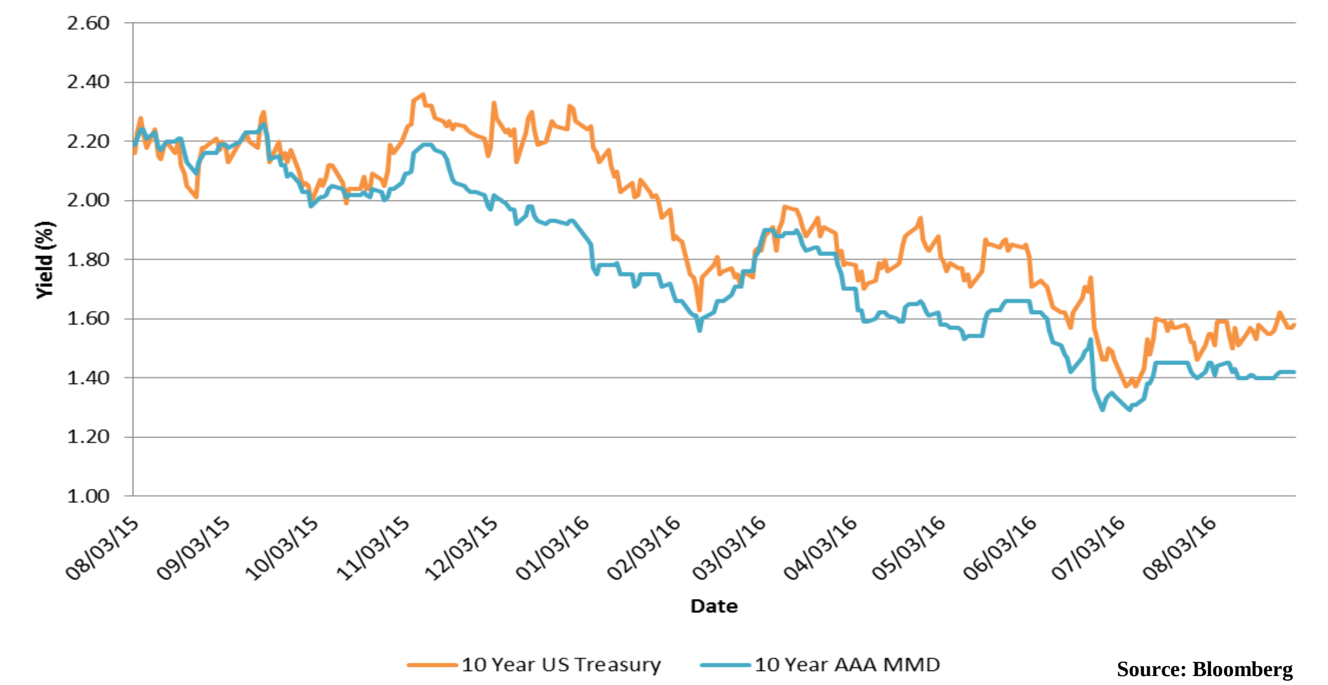
Both new-money and refunding issues saw heightened volume in August, as long-term municipal bond volume reached its highest total seen in 30 years. Compared to the same month last year, volume rose 20.5% to $39.11 billion in more than one thousand transactions. New money deals were up 27.9% from August 2015 and refundings were up 38.9% for the same period. New money and refunding transactions are expected to remain strong throughout the rest of the year.

The Municipal Market Data ("MMD") 'AAA' Muni Market 10-year yield ended August at 1.42%, 2 basis points ("bps") above its level at the end of July. The 30-year yield remained flat, ending August at 2.12%, the same level seen at the end of July. The 10-year US Treasury yield ended August at 1.58%, 12 bps above 1.46% at the end of July. The 30-year Treasury yield also rose, ending August at 2.23%, 5 bps above the level at which it ended July. As of August 31st, the ratios of 'AAA' General Obligation municipal yields to Treasury yields were:

Year	Yield	% Yield
1-Year	0.52/0.61	85.25%
5-Year	0.86/1.19	72.27%
10-Year	1.42/1.58	89.87%
30-Year	2.12/2.23	95.07%

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

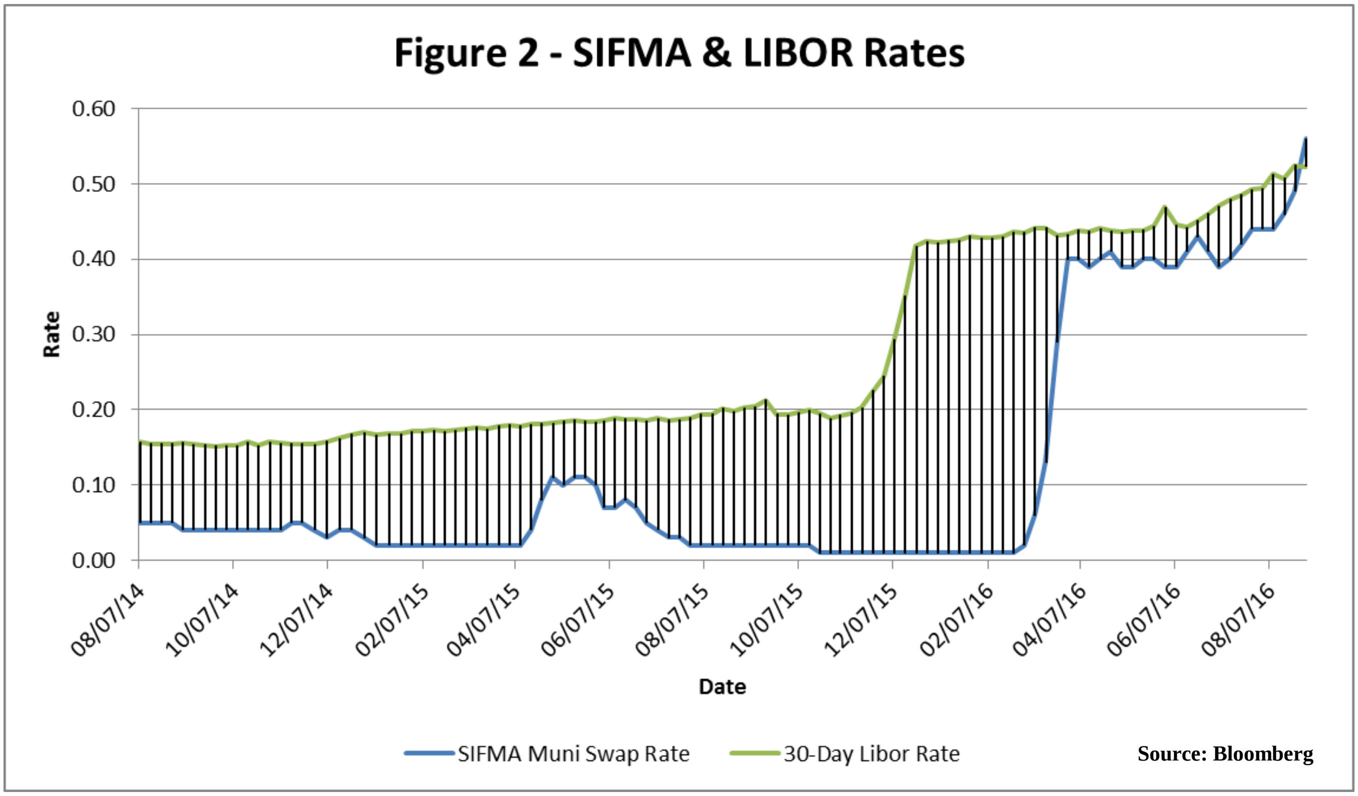
The SIFMA Municipal Swap Index, an average of high-grade, tax-exempt, variable rate bonds, ended August at .63%, up nineteen basis points from the level at which it ended July. The 30-day LIBOR increased in August, ending the month at .52489%, up from .49590% at the end of July. Please refer to Figure 2 for historical SIFMA and LIBOR rates.

Why have interest rates on tax-exempt and taxable variable rate bonds risen so sharply in the last few months?

Two reasons:

1) Taxable, and to some degree, tax-exempt short-term debt rates, in a "normal" economy, are roughly tied to fed fund rates. Fed fund rates moved from 25 basis points to 50 basis points in December of 2015. Taxable short-term rates had begun creeping upward in early December in anticipation of the increase. This movement continued until supply and demand evened out in relation to the increased cost of borrowing from the fed.

2) The deadline for money market fund reform compliance is in mid-October. Money market funds have been the primary purchasers of short-term variable rate debt for many years. Money market fund reform, discussed later in this update, has led to significant asset reallocation by funds and investors in the money market space. This asset reallocation has resulted in an unusually high supply of tax-exempt and taxable variable rate product for sale in the marketplace and interest rates have increased as the market



seeks additional buyers and eventual equilibrium.

Most market experts believe there will be a period of high-volatility in short-term markets for a few months. Market disruptions associated with changing economic conditions or regulatory issues are not uncommon. Short-term market financial structures, like variable rate demand notes and bonds, has been a stable and cost-effective borrowing tool for issuers and obligors as well as providing an excellent cash management tool for investors for many years. We believe the market will continue to provide those opportunities once supply is absorbed and buyers become comfortable with new money market fund structures and alternative investment vehicles that are similar to money market funds.

We are urging both borrowers and investors to be patient as the market seeks equilibrium over the coming months. We will be creating regular short-term market updates during this period of high market volatility. Please contact your Stern Brothers & Co. investment banker if you wish to be added to the distribution list for these short-term market updates.

What led to Money Market Fund reform and how will the reforms affect funds?

The financial crisis of 2008 led to a number of regulatory changes and reforms in the financial markets. Tax-exempt and Taxable money market funds (MMFs), the primary purchasers of short-term investments like variable rate bonds and notes, were significantly impacted by these reforms.

After several years of discussion and comment by regulators, industry experts, fund managers and other interested parties, the SEC enacted 600+ pages of changes related to how MMFs can be structured and managed, who can invest in various fund types, and what types of investments are allowed for various fund types. October 14, 2016 of this year is the compliance date for funds to complete implementation of the changes.

Prior to the regulatory changes, all pure MMFs shared certain common characteristics, the most important of these for this discussion is the fixed Net Asset Value (NAV) and the ability for almost any type of investor (retail, institutional, corporate cash) to invest in almost any fund.

- All MMFs had a fixed NAV (share price). The share price was $1.00 and didn't vary based on the value of investments held by the fund. Funds, by regulation and by fund investment profile, were managed to maintain this "fixed NAV." Only in dire circumstances, based on the types of investments allowed in funds, was it thought the NAV would fall below $1.00 or "break the buck" as it is referred to in the industry. This event occurred in one fund in 2008 that had invested heavily in Lehman Brothers products.
- Almost all MMFs allowed any investor, who met the minimum investment criteria, to invest.

Changes in the funds allowed to have a fixed NAV, the introduction of Fees and Gates, and the strict definition of what types of investors may invest in certain funds are the primary drivers that have redefined MMFs.

In short, the new regulations require, among other things:

- Most MMFs must have a floating NAV. While the fund may be managed to have a stable NAV of $1.00, the fund must determine the market value of the investments held each day and make that information readily available to investors. The NAV will be carried out to four decimal places ($1.0000) in order to accommodate the expected very minor changes in NAV from day to day. The NAV is rounded to two decimal places (dollars and cents) in non-money market funds.

- Most MMFs must be structured so that a minimum redemption fee of 1% (up to 2%) is implemented should the fund's weekly liquidity fall below 10%. The board of directors of the fund **may** vote to implement this fee should the weekly liquidity fall below 30%. This fee is ONLY imposed if the liquidity trigger is met. The redemption fee must cease as soon as the fund's weekly liquidity rises to 30%.
- A Gate **may** also be implemented when a fund's weekly liquidity falls below the 30% threshold. Gates limit the redemption in a fund for a short period of time, up to 10 business days during a 90 day period. Gating is entirely at the discretion of the board of directors of a fund and is never mandatory.
- Retail investors are narrowly defined as natural persons i.e. an individual having a social security number. All other investors are, essentially, defined as institutional investors.

Below is a brief summary of the outcome of the regulatory changes for MMFs:

- Government MMFs are the only funds allowed to retain a fixed NAV of $1.00, not be subject to Fees and Gates, and not be limited to certain investors. These funds will be limited to investing only in direct government obligations, this does not include agencies.
- Retail MMFs will retain a fixed NAV but will be subject to Fees and Gates regulations. The funds will be limited to investors that qualify as natural persons. No institutional investors will be allowed.
- All other tax-exempt and taxable MMFs will have a floating NAV and be subject to Fees and Gates. Any investor that meets the minimum investment criteria can invest in these funds.

August 2016 Selected Bond Issues

General Obligation and Essential Service Revenue

Sale Date	Par ($ mil)	Issuer	Project	Ratings	Final Maturity	Yield	Spread to MMD	Notes
8/29/2016	$34.28	Summit County, OH	General Obligation Refunding Bonds	Aa1/AA+/	12/1/2036	2.950%	95	
8/15/2016	$36.82	Village of Bellwood, IL	General Obligation Refunding Bonds	/AA/	12/1/2032	3.150%	133	Insured
8/8/2016	$8.75	Columbia County, PA	General Obligation Refunding Bonds	/AA/	12/1/2025	2.100%	75	Insured
8/22/2016	$43.55	Abilene, TX	General Obligation Refunding Bonds	/AA+/AA+	12/1/2036	2.560%	57	

Education Sector

Sale Date	Par ($ mil)	Issuer	Project	Ratings	Final Maturity	Yield	Spread to MMD	Notes
8/29/2016	$50.35	Houston Community College System	Revenue Refunding Bonds	/AA-/	4/15/2031	2.460%	70	
8/22/2016	$84.04	Texas State Public Finance Authority	College Revenue Bonds (Midwestern State University)	/ /AA-	12/1/2035	2.780%	83	
8/22/2016	$36.27	New Jersey State Educational Facilities Authority	Revenue Bonds (Seton Hall Project)	/A-/	7/1/2046	2.890%	78	
8/29/2016	$85.61	University of South Alabama	College Revenue Refunding Bonds	A1/AA/	11/1/2037	3.050%	103	Insured

Water/Utility Sector

Sale Date	Par ($ mil)	Issuer	Project	Ratings	Final Maturity	Yield	Spread to MMD	Notes
8/8/2016	$46.72	Durham, NC Utility System	Water & Sewer Revenue Refunding Bonds	/AAA/AAA	8/1/2040	2.870%	75	
8/22/2016	$9.91	Charleroi Borough Finance Authority	Water System Revenue Refunding Bonds	/AA/	12/1/2036	3.070%	108	Insured
8/22/2016	$11.42	Fresno Irrigation District	Water Revenue Refunding Bonds	/AA/	10/1/2036	2.630%	64	
8/24/2016	$9.83	Long Beach, CA	Water & Sewer Revenue Refunding Bonds	/AA+/	5/1/2036	2.430%	44	

Source: Bloomberg

August 2016 Selected Bond Issues								
Healthcare Sector								
Sale Date	**Par ($ mil)**	**Issuer**	**Project**	**Ratings**	**Final Maturity**	**Yield**	**Spread to MMD**	**Notes**
8/19/2016	$5.78	California State Health Facilities Financing Authority	Hospital Revenue Refunding Bonds (Petaluma Health Center)	/AA-/	6/1/2040	3.040%	98	
8/2/2016	$33.18	Philadelphia Authority for Industrial Development	Hospital Revenue Refunding Bonds	/AA-/	5/1/2037	3.100%	103	
8/19/2016	$53.99	North Carolina State Medical Care Commission	Hospital Revenue Refunding Bonds	/AA-/AA-	10/1/2034	3.000%	109	

Source: Bloomberg