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Municipal Volume Lags in September

Variable Rate Market Update

September - A Look Back From the Three-Quarters Mark

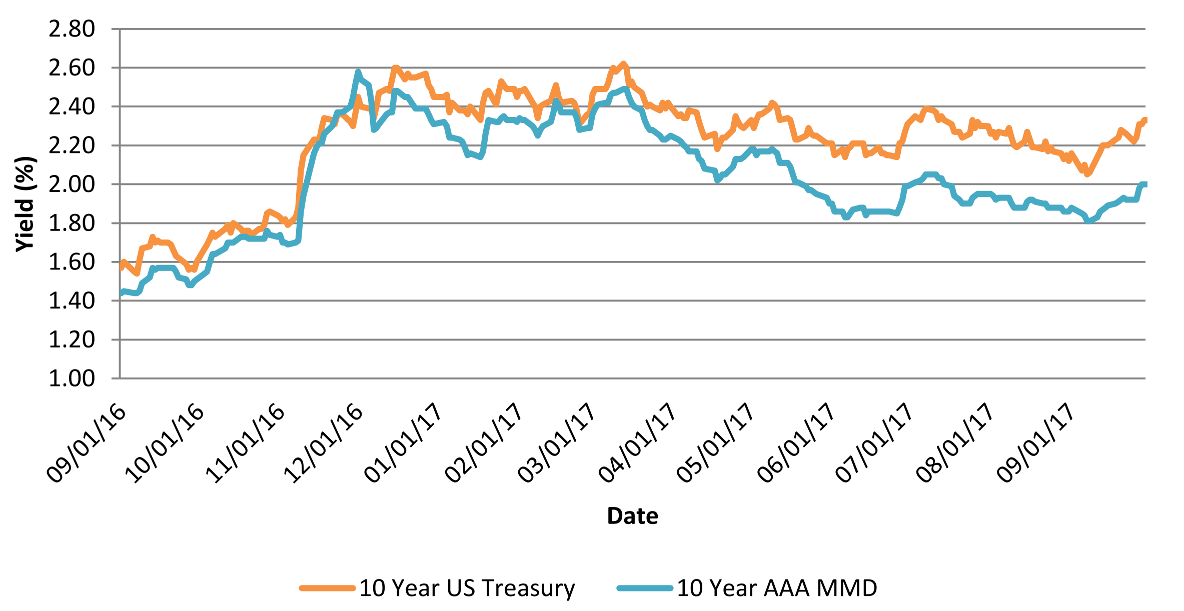
**Municipal Volume Lags in September**

In September 2017, municipal bond volume fell 33.9% below where it had been in the same month the year before. The prior year, September volume totaled $40.40 billion in 1,133 deals, compared to only $26.70 billion in 723 deals this September. Overall volume for 2017 remains much lower than 2016, with the first three quarters of this year totaling only $285.72 billion. Through the first three quarters of 2016, volume had already reached $343.26 billion.

Both refundings and new money transactions decreased in September. Refundings dropped 46.9% from $15.65 billion a year earlier to $8.32 billion in September 2017. Less dramatically, new money issuance fell 8.7% from $15.84 billion in September 2016 to $14.46 billion in September 2017.

The Municipal Market Data ("MMD") 'AAA' Muni Market 10 year yield ended September at 2.00%, 14 basis points above the level where it ended August; the 30 year yield also rose 14 basis points, ending September at 2.84%.

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




Source: Bloomberg

This month, the 10-year US Treasury yield increased by 21 basis points from 2.12% at the end of August to 2.33% at the end of September. The 30-year Treasury yield also increased, finishing September at 2.863%, 13 basis points above where it ended August.

As of September 29th, the ratios of 'AAA' General Obligation municipal yields to Treasury yields were:

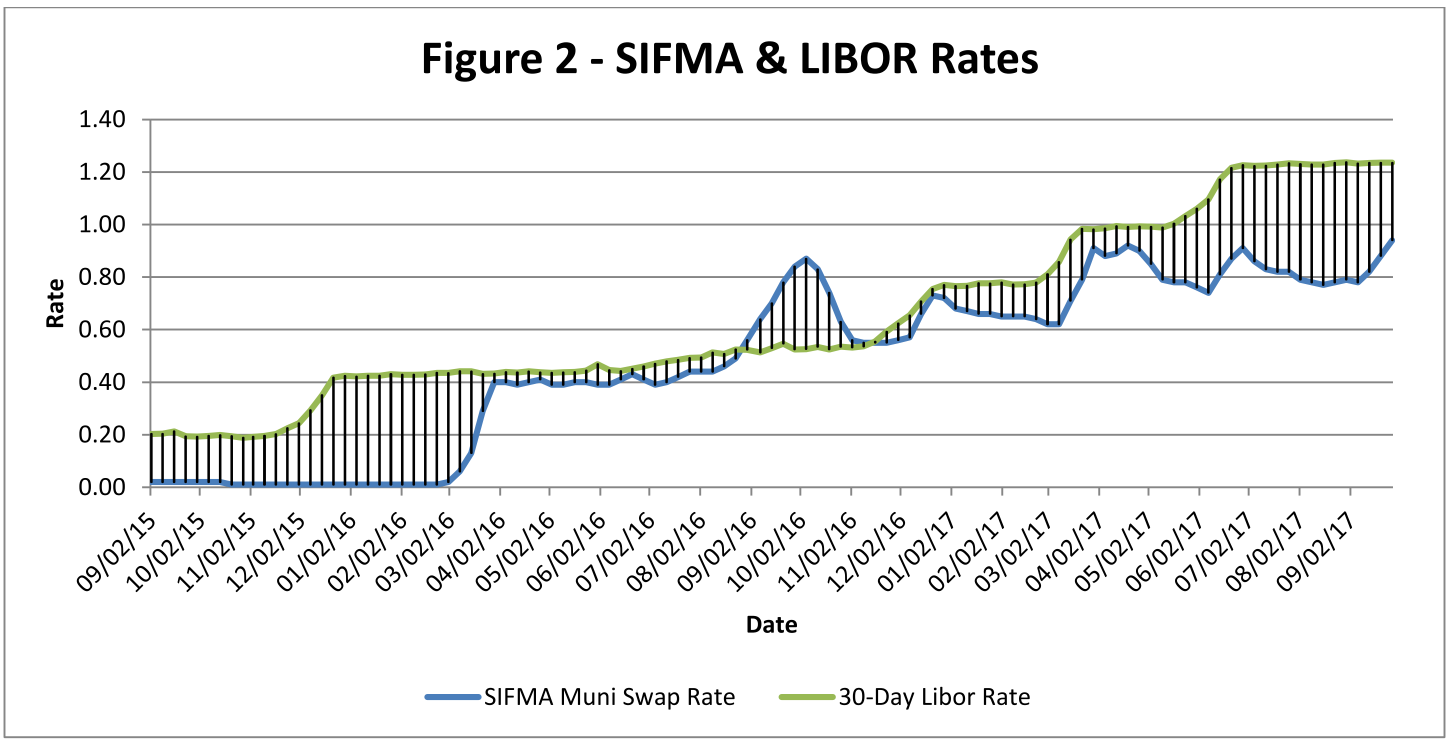
| Year | Yield | % Yield |
|---|---|---|
| 1 Year | 0.94/1.31 | 71.76% |
| 5 Year | 1.35/1.92 | 70.31% |
| 10 Year | 2.00/2.33 | 85.84% |
| 30 Year | 2.84/2.86 | 99.30% |

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, rose from .79% on August 30th to .94% on September 27th. The 30-day LIBOR ended September at 1.23333%, slightly below where it ended August.

Sources: The Bond Buyer, Bloomberg, SIFMA




Source: Bloomberg

**September – A Look Back From the Three-Quarters Mark**

A quick recap of the stories and trends that have shaped the municipal bond market during the first nine months of 2017.

**Refunding Opportunities Appear to be Dwindling**

For the last several years, and for 2015 and 2016 in particular, public finance markets have been driven by intensive refunding activity that has sustained overall volume of primary market issuance. In fact, of the last 20 calendar years tracked by the Bond Buyer, only three witnessed more refunding par volume than new money par volume, and 2015 and 2016 were two of them. The availability of refundable bonds, however, appears to be dwindling if the first nine months of 2017 are any indication. Straight refunding deals were down 40% from the same period a year prior and even combined (part refunding and part new money) were down a more modest 6.4%. New money issuances were up 2.7%; a positive to be sure, but hardly enough to staunch the decline in overall volume which was down nearly 17% through three quarters. All of this should surprise no one. Looking at an interest rate chart of the late 2010s shows a cyclical decline from the recession era peak of October 2008 to the trough in October of 2010, and these issues have become progressively more difficult to economically refund. Like all things, patience will eventually win out, and barring a dramatic rise in rates in the near future refundings should experience a comeback as bonds issued on the upslope of another cycle become economically viable deals.

**Tax Reform Effects**

Late in the 3rd quarter, Washington D.C. turned its attention to a possible reform of the tax code, a popular topic in last year's electoral campaign. The prospect of a significant overhaul to the tax code is an ever present threat to the stability of the municipal bond market on several different levels with the first and foremost among them being the question of whether the outright tax exemption of municipal bonds should continue. This topic comes ups on a periodic basis due to the fact that the benefits of the tax exemption accrue disproportionately to those in higher tax brackets. Despite its focus on the wealthy, a politically fashionable punching bag in contemporary times, the bi-partisan objections of state and local politicians who would also be negatively affected means that this particular adjustment to the tax code never gets very far. Another proposed change in the tax code is the possibility of eliminating the itemized deduction for state and local taxes (SALT). This is proposed and rejected about as often as revoking the municipal bond tax exemption. For purely political reasons concerning who it affects and who tends to vote for whom, there is probably a better chance that this gets enacted now than in the past, although we still do not think it is a high probability. Finally, the reform most likely to pass in some form or another is a reduction in personal income taxes, particularly for those in high income tax brackets. The effects of either of these last two changes to the tax code should be viewed through the prism of their ultimate effect on taxes. If it raises taxes, as in the case of the loss of the SALT deduction for high tax states, it is good for municipal bond demand. If it lowers taxes as the proposed cut in marginal rates would, it would decrease demand at the margins for municipal bonds.

With the exception of changing marginal income tax brackets from time to time, there has not been a substantial redrafting of America's byzantine tax code since 1986. That was the result of a time consuming bi-partisan effort at the behest of a popular president who had been promising it for eight years. Whatever the future holds, none of the factors that contributed to the Tax Reform Act of 1986 are present, so we do not believe that a wholesale reworking of the code will be achieved.

**Puerto Rico Devastation Complicates Bankruptcy**

As if things could not get worse for Puerto Rico, the Commonwealth was devastated by Hurricane Maria in late September, the third largest storm to hit the U.S. in the 2017 hurricane season. Puerto Rico was already vulnerable due to an outmigration of residents spurred by a stagnant economy of which its crushing debt burden played a large role. That debt is now in bankruptcy proceedings and the storm will further complicate what was going to be a tricky workout. For the short to medium term at least, the island's infrastructure will need extensive and expensive repair and one has to wonder just how many of its people will stick around through the process, as well as how taxes will be generated in the interim.

Sources: *The Bond Buyer, The Federal Reserve, Thomson-Reuters*

| September 2017 Selected Bond Issues | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **General Obligation** | | | | | | | | | |
| **Date** | **Par ($ mil)** | **Issuer** | **Project** | **Ratings** | **Final Maturity** | **Coupon** | **Yield** | **Spread to MMD** | **Notes** |
| 9/13/2017 | $33.84 | County of Onondaga, NY | General Obligation Refunding Bonds | Aa2/AA+/AAA | 5/1/2033 | 5.000% | 2.350% | 1 | |
| 9/15/2017 | $550.00 | City of New York, NY | General Obligation Bonds | Aa2/AA/AA | 10/1/2042 | 3.250% | 3.380% | 69 | |
| 9/20/2017 | $340.69 | State of Ohio | General Obligation Bonds | Aa1/AAA/AA+ | 5/1/2033 | 5.000% | 2.500% | 12 | |
| 9/21/2017 | $68.33 | City of Atlantic City, NJ | General Obligation Refunding Bonds | A2/Baa1/AA | 3/1/2042 | 4.000% | 3.800% | 109 | State Aid Withholding |
| **Education Sector** | | | | | | | | | |
| **Date** | **Par ($ mil)** | **Issuer** | **Project** | **Ratings** | **Final Maturity** | **Coupon** | **Yield** | **Spread to MMD** | **Notes** |
| 9/8/2017 | $46.99 | University of South Carolina | Athletic Facilities Revenue Refunding Bonds | Aa3/ / | 5/1/2040 | 5.000% | 2.880% | 33 | |
| 9/11/2017 | $117.61 | Colorado State University System | Enterprise System Revenue Refunding Bonds | Aa2/AA-/ | 3/1/2044 | 4.000% | 3.350% | 71 | Insured |
| 9/19/2017 | $860.39 | University of California | University Revenue Bonds | Aa3/AA-/AA- | 5/15/2052 | 5.000% | 3.120% | 33 | |
| 9/26/2017 | $14.44 | Massachusetts Development Finance Agency | Revenue Refunding Bonds (Worcester Polytech Inst.) | A1/A/ | 9/1/2047 | 5.000% | 3.180% | 40 | |
| **Water/Utility Sector** | | | | | | | | | |
| **Date** | **Par ($ mil)** | **Issuer** | **Project** | **Ratings** | **Final Maturity** | **Coupon** | **Yield** | **Spread to MMD** | **Notes** |
| 9/12/2017 | $50.75 | Upper Santa Clara Valley Joint Powers Authority | Water Revenue Refunding Bonds | /AA+/ | 8/1/2040 | 3.250% | 3.350% | 74 | |
| 9/20/2017 | $241.60 | Northeast Ohio Regional Sewer District | Sewer Revenue Refunding Bonds | Aa1/AA+/ | 11/15/2043 | 4.000% | 3.220% | 47 | |
| 9/27/2017 | $383.98 | New York City Municipal Water Finance Authority | Water & Sewer Revenue Refunding Bonds | Aa1/AA+/AA+ | 6/15/2032 | 5.000% | 2.480% | 11 | |
| 9/27/2017 | $43.10 | City of Cleveland, OH | Water Revenue Refunding Bonds | Aa2/AA/ | 1/1/2027 | 5.000% | 2.130% | 25 | |
| **Healthcare Sector** | | | | | | | | | |
| **Date** | **Par ($ mil)** | **Issuer** | **Project** | **Ratings** | **Final Maturity** | **Coupon** | **Yield** | **Spread to MMD** | **Notes** |
| 9/28/2017 | $48.15 | Greenwood County, SC | Hospital Revenue Refunding Bonds | A1/A+/ | 10/1/2039 | 4.000% | 3.740% | 103 | |
| 9/28/2017 | $360.88 | Maricopa County Industrial Development Authority | Healthcare Revenue Bonds | AA-/AA-/AA- | 1/1/2041 | 5.000% | 3.250% | 51 | |
| 9/12/2017 | $61.12 | New Hampshire State Health & Educational Facilities Authority | Healthcare Revenue Bonds | Baa1/A-/ | 7/1/2044 | 5.000% | 3.480% | 78 | |

Source: Bloomberg