

Muni Fortnightly

Bottom Line:

- Treasury yields fell strongly amidst various contributing factors; geopolitical, domestic political, debt ceiling wrangling and impacts of natural disasters. Risky-asset markets were much more tolerant of the risks. Another Fed rate hike is clearly not expected by the markets for the remainder of the year but an announcement of plans for QE tapering is expected at the conclusion of next week's FOMC meeting.
- Municipal yields tracked lower but the 10yr AAA GO Ratio rose to 87.3; well off the late-July lows near 81.
- The Bloomberg Barclay's August Municipal Index total return was +0.76% (+5.2% YTD).
- Moody's sees the State GO sector as 'Stable'.
- S&P warns Virgin Islands of additional downgrades if information is not transparent to them.
- Hartford, CT mayor warns of Chapter 9 bankruptcy within 60 days without state budget assistance.
- Chicago public school districts ratings boosted by Moody's on resumption of state aid plan.
- Puerto Rico Oversight judge sends GO-COFINA =dispute to mediation with an expectation of ruling in December.
- S&P Puerto Rico Total Return Index was -0.1% two weeks; -3.9% YTD.

What Happened in the Bond Markets Last Week?

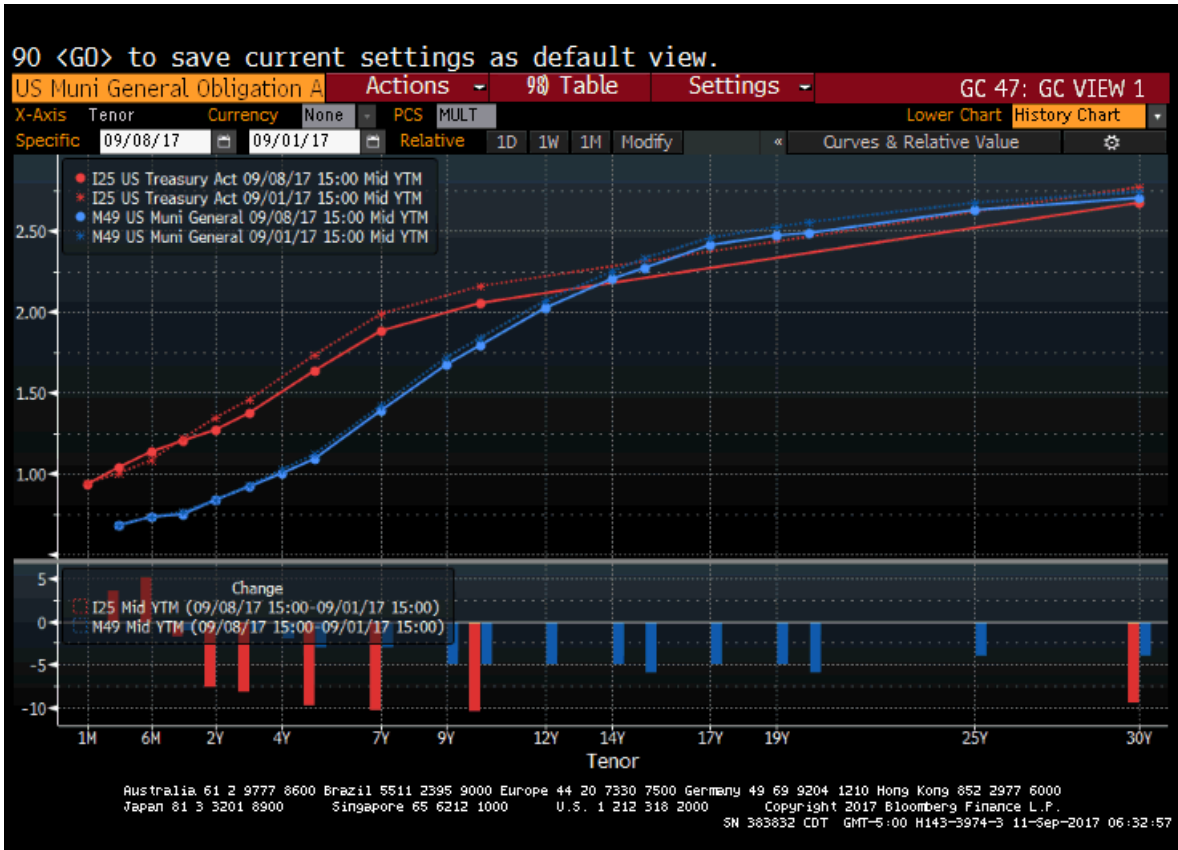
- Treasury yields have been on a fairly steady trajectory lower over the past week. In fact, yields (other than the short-end of the curve) hit the lowest level of the year. Despite economic data that has been broadly meeting expectations and an otherwise buoyant equity market in the face of geopolitical, domestic political, debt ceiling wrangling and domestic natural disaster overhangs, Treasuries have been trading strongly. Part of the rally can be attributed to a host of Fed speakers imparting dovish tones into the potential path of Fed rate hikes and QE tapering and partly on other safe-sovereigns reiterating patience with their own QE stance. Then there was the concern over natural disasters etc. For Fed watchers, another Fed rate hike is far from being priced in for the rest of the year and isn't expected with greater than 50% market implied probability until mid-2018. However, during next week's FOMC meeting it is widely expected that a timeline for QE tapering will be revealed.
- Municipal yields directionally followed Treasury yields but with a lower responsiveness. The resulting 10yr AAA GO Ratio can be seen to have moved slightly higher over the past two weeks. The ratio currently stands at 87.3, up from the approx. 81 level near the end of July.

Yields (Figure 1):

- For the two weeks ending 9/8/17 Treasury yields traded lower; 2-year Treasury Note yields were -7.6 bps to 1.27%, 5-year Notes yields were -9.7 bps to 1.64%, 10-year Notes yields were -10.4 bps to 2.06% and 30-year bonds yields were -9.5 bps to 2.68%.
- Bloomberg Municipal Index curve yields were mixed; AAA-rated GO yields; 2-year bonds were unchanged at 0.84%, 5-year bond yields were -3 bps to 1.12%, 10-year bond yields were -5 bps to 1.84% and 30-year bonds were -2.5 bps to 2.74%.
- The Ratio of 10-year AAA GO debt to 10-year Treasury yields rose to 87.3 from 85.3 last week. The year-to-date average is 90.4 and the 12-month average is 92.3.

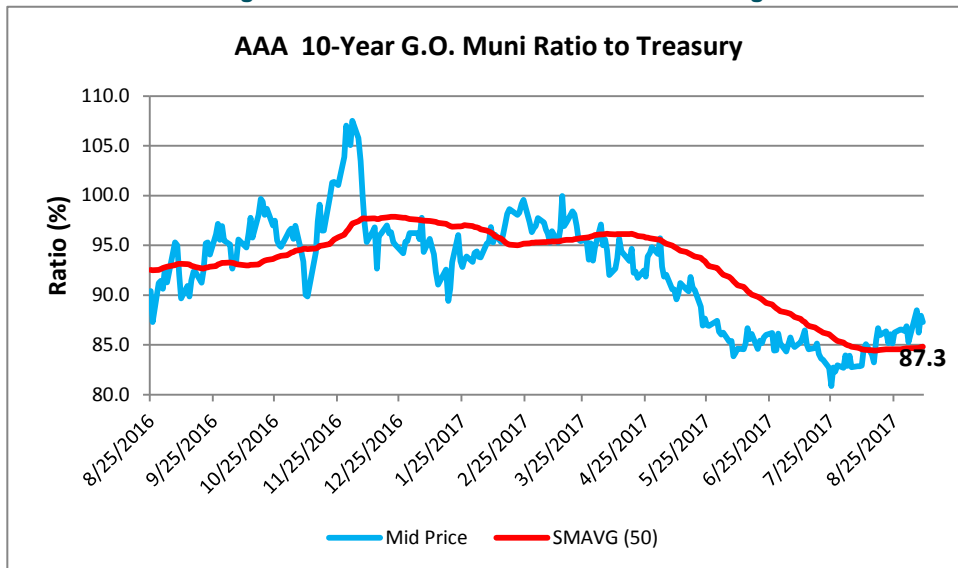
David N. Violette, CFA
 Sr. Fixed Income Analyst
 Vice President
 dviolette@rwbaird.com
 414-298-7688

Figure 1 - Yield Curve and Muni Curve Changes – Data Source: Bloomberg



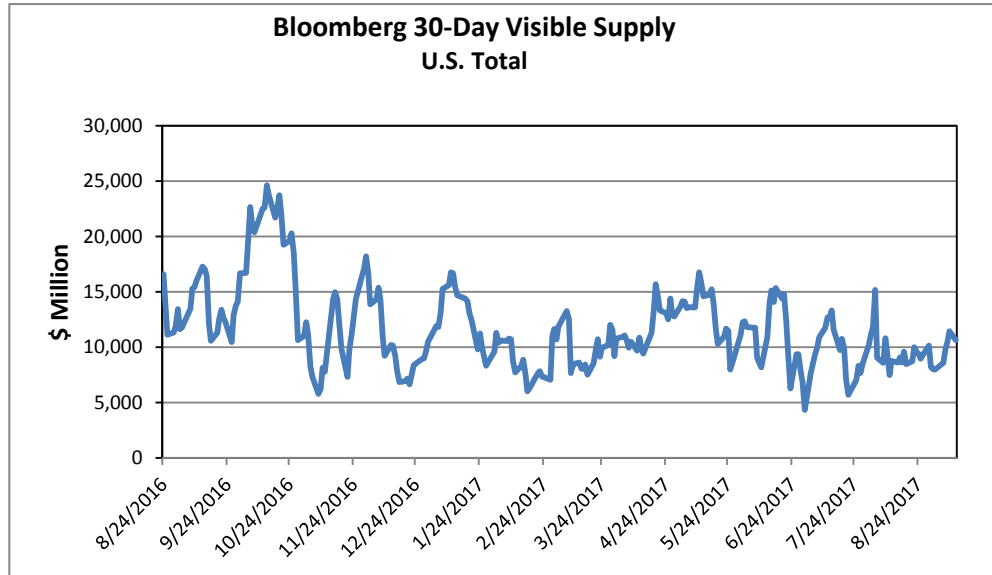
One can observe these changes by looking at how rates have changed along the curve for both the Treasury curve and for the AAA-rated G.O. Index since last week. The top panel shows four yield curves; two for the Treasury curve (in red) - one for the most current date and one from last week and two for the AAA-rated G.O. (in blue) - current and last week. The bottom panel of the graph shows changes in the rates along both curves for the week for both Treasuries and the AAA G.O. Index.

Figure 2 - Muni Ratio – Data Source: Bloomberg



Supply (Figure 3) – Bloomberg 30-Day Visible Supply currently stands at \$10.7 billion from \$8.6 billion this time last week. The YTD average visible supply is \$10.8 billion and the 12-mo average is \$11.7 billion.

Figure 3- Bloomberg 30-Day Visible Supply - 1 Year; Data Source: Bloomberg



Articles of Interest

Municipal Fund Flows: According to Lipper data muni funds had net inflows of \$250.4 million after \$344.5 million during the previous week. The four-week moving average was \$483 million. High-yield funds had net inflows.

August Municipal Tax-Exempt Performance:

- Bloomberg Barclay's Municipal Bond Index had a +0.76% total return in August but underperformed the Treasuries' Index return. The positive municipal index return comprised of a price return of +0.41% and a positive coupon return of +0.35%. Through August, the year-to-date total return is +5.20% and the last 12-months' total return is +0.88%.
 - The ending Yield-to-Worst (YTW) for August was 2.08% (-9 bps) with a 5.1 modified duration-to-worst.
- The *General Obligation Index* had a +0.69% total return in August. Through August GOs had a +5.15% total year-to-date and +0.79% during the last 12-months.
 - The YTW at the end of August was 1.95% (-8 bps).
 - The *State General Obligation* sub-index had a +0.55% total return in August, with a +4.82% total return year-to-date and a 12-month total return of +0.78%.
 - Notable geographic indexes' August returns include; *Laggards* – Virgin Islands (+0.43%), KY (+0.49%) and DE (+0.49%); *Leaders* – Puerto Rico (+1.62%), NJ (+1.54%), IL (+1.42%). Other notable jurisdictions; AZ (+0.68%) CA (+0.62%), CT (+0.84%) FL (+0.78%), IL (+1.42%), IA (+0.66%), KS (+0.75%), MI (+0.82%), MN (+0.52%), NJ (+1.54%), NY (+0.66%), OH (+0.67%), OR (+0.64%) PA (+0.82%), Puerto Rico (+0.1.62%), TX (+0.66%), WA (+0.62%), WI (+0.58%).
 - The ending YTW for the State G.O. sector was 1.83%.
 - The *Local General Obligation* sub-index had a +0.84% total return in August, with a 5.55% total return year-to-date and the 12-month total return of +0.79%.
 - The ending YTW for the Local G.O. sector was 2.09%.
- The *Revenue Bond Index* had a +0.83% total return in August, with a year-to-date total return of +5.56% and a 12-month total return of +0.90%.

- The best performing revenue sectors in August were leasing (+1.12%), special tax (+0.93%) and hospital (+0.85%).
- The laggard revenue sectors were resource recovery (+0.65%), education (+0.72%), and water and sewer (+0.73%).
- The ending YTW for the Revenue sector was 2.23%.
- The returns across maturities for the Barclay's Muni indexes were; 3-yr +0.36%, 5-yr +0.35%, 10-yr +0.33% and 20-yr +0.35%.

Moody's Gives States a Stable Outlook: Moody's calls states' credit outlook 'Stable' in a sector Outlook report. Some of the highlights in the report include: 1) 2-3% state revenue growth has some upside growth potential from personal income taxes. 2) Domestic economic growth is stable with steady employment and personal income growth. 3) Federal policy changes that would affect state finances appear stable. 4) Favorable assets markets, particularly the stock market will provide support to both tax revenues and pension funded status.

S&P Warns of Further Downgrades for the Virgin Islands: S&P warned that the Virgin Islands will be subject to further downgrades within the next 30 days if the Islands follow through with threats to stop providing information to rating agencies. Rating agencies need the information to analyze liquidity positions.

Hartford, CT Threatens Bankruptcy: Hartford, CT which has hired restructuring advisors is prepared to file Chapter 9 bankruptcy within 60 days if the state fails to enact a budget without providing funding to the troubled city, according to the city's mayor. Both Moody's and S&P rate the credit below investment grade. The state of CT has its own credit troubles as it has been hit with six downgrades over the past year and a half.

Chicago Board Of Education Upgraded: Moody's upgraded Chicago Board of Education bonds after the State of Illinois resumed and raised its funding to Illinois school districts. The resumption of payments is credit positive for all school districts that are particularly reliant on state funding and that had lower cash reserves.

Puerto Rico:

- **COFINA GO Battle:** The Puerto Rico bankruptcy judge decided to consider the dispute between Puerto Rico GO bondholders and COFINA bondholders before other matters pertaining to the Title III restructuring process. She has ordered aggrieved parties to address their dispute in mediation. According to the judge's order, the issue is "whether ... the sales and use taxes purportedly pledged by COFINA to secure debt (the 'Pledged Sales Taxes') are property of the commonwealth or COFINA under applicable law." She intends to rule by December 15th. Once a settlement is agreed to, the oversight Board will create a plan of adjustment for the relevant bonds.
- **The S&P Municipal Bond Puerto Rico Index** finished at 168.6 on Friday vs. 168.8 at the end of two weeks ago, -0.11%. Year-to-date the index is -4.6%.

S&P Municipal Bond Puerto Rico Index Level (1-year)

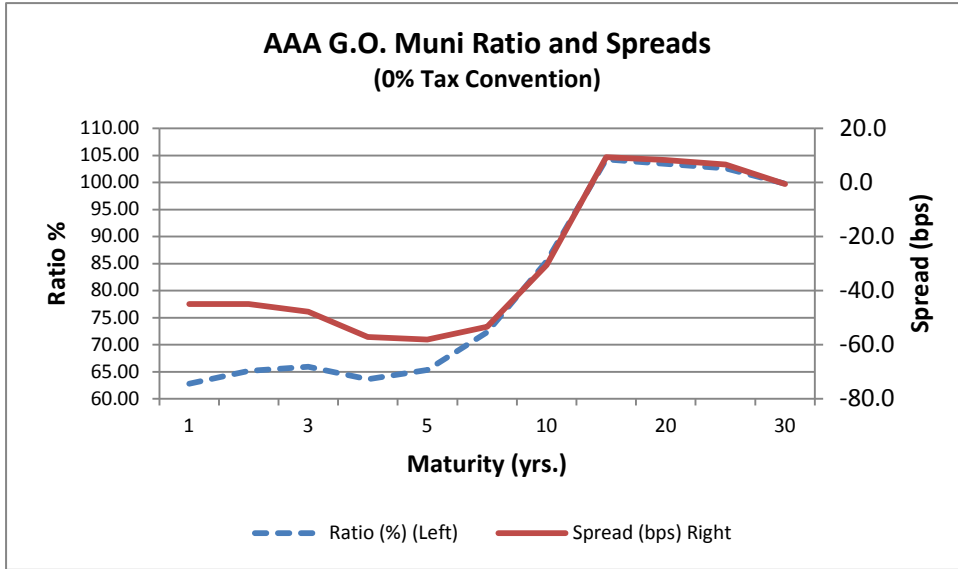


Relative Value by Maturity

Table 1 - AAA Muni Ratios and Spreads by Maturity - Data Source: Bloomberg

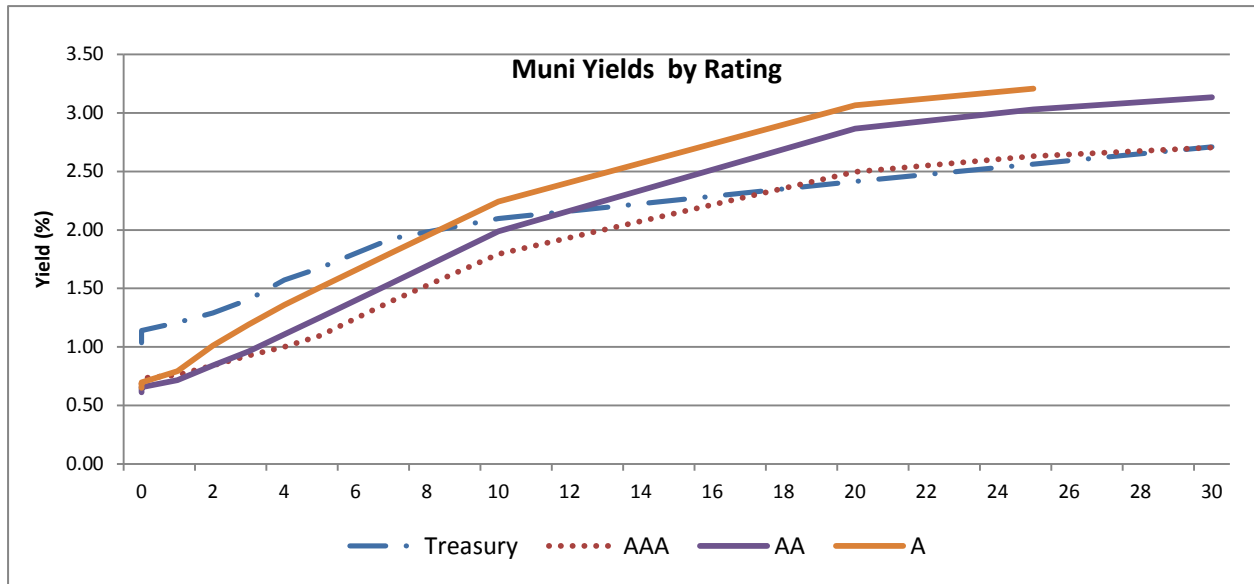
9/11/2017 Maturity (yrs.)	Yield-to-worst (%)		0% Tax Rate		35% Tax Equivalent	
	AAA Gen. Oblig.	Treasury	Spread (bps)	Ratio (%)	Spread (bps)	Ratio (%)
1	0.76	1.21	-45.0	62.8	-4.1	96.6
2	0.84	1.29	-44.9	65.2	0.4	100.3
3	0.93	1.40	-47.8	65.9	2.1	101.5
4	1.00	1.57	-57.2	63.6	-3.3	97.9
5	1.10	1.68	-58.1	65.3	0.9	100.5
7	1.39	1.93	-53.4	72.3	21.6	111.2
10	1.79	2.10	-30.4	85.5	66.1	131.5
15	2.28	2.19	9.4	104.3	132.2	160.4
20	2.50	2.42	8.3	103.4	142.8	159.1
25	2.63	2.56	6.7	102.6	148.3	157.9
30	2.71	2.71	-0.6	99.8	145.1	153.5

Figure 4 – AAA General Obligation Ratios and Spreads – Data Source: Bloomberg



Relative Value by Rating

Figure 5 – Muni Index Yield Curve by Credit Rating – Data Source: Bloomberg



For more information please contact your Financial Advisor.

Appendix – Important Disclosures

Some of the potential risks associated with fixed income investments include call risk, reinvestment risk, default risk and inflation risk. Additionally, it is important that an investor is familiar with the inverse relationship between a bond's price and its yield. Bond prices will fall as interest rates rise and vice versa.

When considering a potential investment, investors should compare the credit qualities of available bond issues before they invest. The two most recognized rating agencies that assign credit ratings to bond issuers are Moody's Investors Service ("Moody's") and Standard & Poor's Corporation ("S&P"). Moody's lowest investment-grade rating for a bond is Baa3 and S&P's lowest investment-grade rating for a bond is BBB-. Ratings are measured on a scale that ranges from AAA or Aaa (highest) to D or C (lowest).

The Bond Buyer 20-Bond Index consists of 20 general obligation bonds that mature in 20 years. The average rating of the 20 bonds is roughly equivalent to Moody's Investors Service's Aa2 rating and Standard & Poor's Corp.'s AA. The Bond Buyer 11-Bond Index uses a select group of 11 bonds in the 20-Bond Index. The average rating of the 11 bonds is roughly equivalent to Moody's Aa1 and S&P's AA-plus. The Bond Buyer Revenue Bond Index consists of 25 various revenue bonds that mature in 30 years. The average rating is roughly equivalent to Moody's A1 and S&P's A-plus. The indexes represent theoretical yields rather than actual price or yield quotations. Municipal bond traders are asked to estimate what a current-coupon bond for each issuer in the indexes would yield if the bond was sold at par value. The indexes are simple averages of the average estimated yields of the bonds, are unmanaged and a direct investment cannot be made in them.

This is not a complete analysis of every material fact regarding any sector, municipality or security. The opinions expressed here reflect our judgment at this date and are subject to change. The information has been obtained from sources we consider to be reliable, but we cannot guarantee the accuracy. Municipal securities investments are not appropriate for all investors, especially those taxed at lower rates. The alternative minimum tax (AMT) may be applicable, even for securities identified as tax-exempt. It is strongly recommended that an investor discuss with their financial professional all materially important information such as risks, ratings and tax implications prior to making an investment. Past performance is not a guarantee of future results.

This report does not provide recipients with information or advice that is sufficient on which to base an investment decision. This report does not take into account the specific investment objectives, financial situation, or need of any particular client and may not be suitable for all types of investors. Recipients should consider the contents of this report as a single factor in making an investment decision. Additional fundamental and other analyses would be required to make an investment decision about any individual security identified in this report.

ADDITIONAL INFORMATION ON SECURITIES MENTIONED HEREIN IS AVAILABLE UPON REQUEST BY CONTACTING YOUR BAIRD INVESTMENT PROFESSIONAL.

Copyright 2017 Robert W. Baird & Co. Incorporated.