

Muni Fortnightly

Treasuries sold off and the curve steepened approaching the highs from early October. Muni yields moved higher but lagged Friday's large Treasury yield move higher. Barclay's Muni Index had a -0.62% total return in October.

David N. Violette, CFA, Vice President
Senior Fixed Income Analyst

November 5, 2018

Bottom Line:

- Treasury yields moved modestly higher during a week of still heightened equity volatility.
- Muni yields rise but lagging Friday's steep increase in Treasury yields
- Muni fund flows were significantly; mounting consecutive weeks of losses.
- Barclay's October Muni Index Total Return was -0.62% (-1.10% YTD).
- S&P Puerto Rico Total Return Index was -0.1% last week; 25.1% YTD.

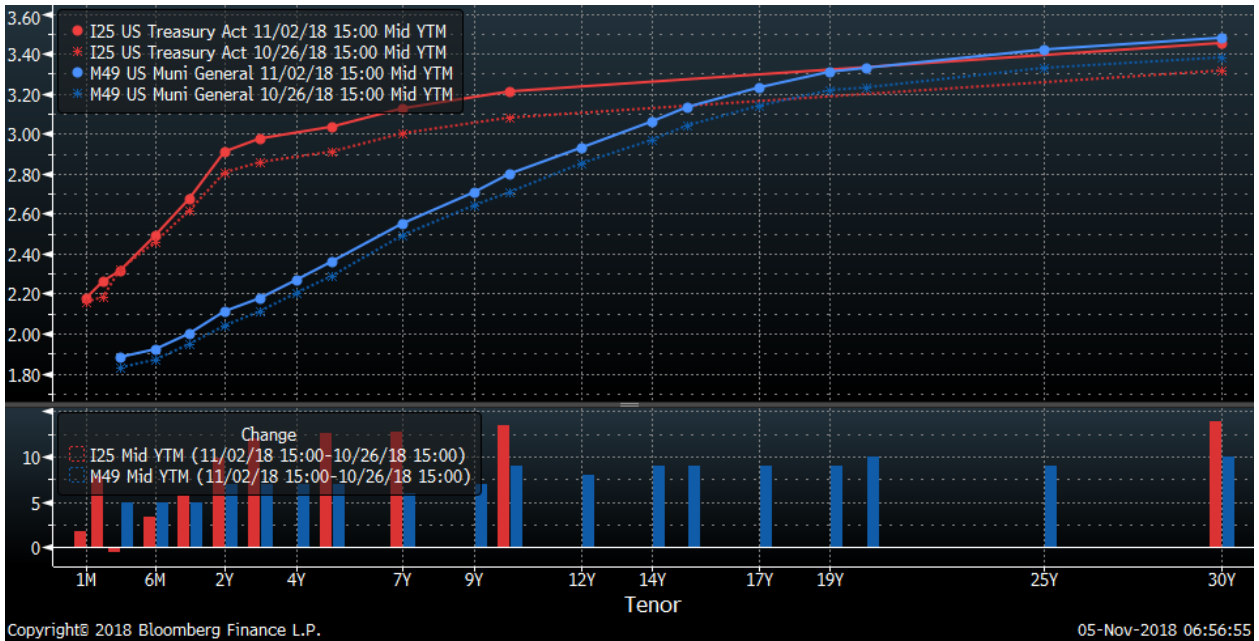
What Happened in the Bond Markets Last Week?

- Treasury yields worked their way higher all week then surged on Friday. Equities continued with some bouts of high volatility before settling in by the end of the week. Mostly, yields and equities had their traditional correlative relationship until Friday when strong economic data (Labor report) aided the move higher. The curve steepened last week but notably 2's have lifted 100 bps YTD. Currently, there is a significant gap in the expectations for Fed rate hikes in 2019 as compared to the more aggressive Dot Plot as published by the Fed...there will be reconciliation.
- Municipal bond yields were also higher but lagged Friday's big Treasury sell-off.

Yields (Figure 1):

- For the week ending 11/2/18, Treasury yields were significantly higher; 2-year Treasury Note yields were +9.9 bps at 2.91%, 5-year Notes yields were +12.6 bps at 3.04%, 10-year Notes yields were +13.5 bps to 3.21% and 30-year bonds yields were +13.9 bps at 3.46%.
- Bloomberg Municipal Index curve yields were higher; AAA-rated GO yields; 2-year bonds were +7 bps at 2.11%, 5-year bond yields were +7 bps at 2.36%, 10-year bond yields were +9 bps at 2.80% and 30-year bonds were +10 bps at 3.48%.
- The Ratio of 10-year AAA GO debt to 10-year Treasury yields moved lower to 87.1 last week off the cheapest level (88.3) since April. The year-to-date average is 85.6 and the 12-month average is 85.7.

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 - one for the most current date and one from last week and two for the AAA-rated G.O. - 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 2a - Muni Ratio – Data Source: Bloomberg

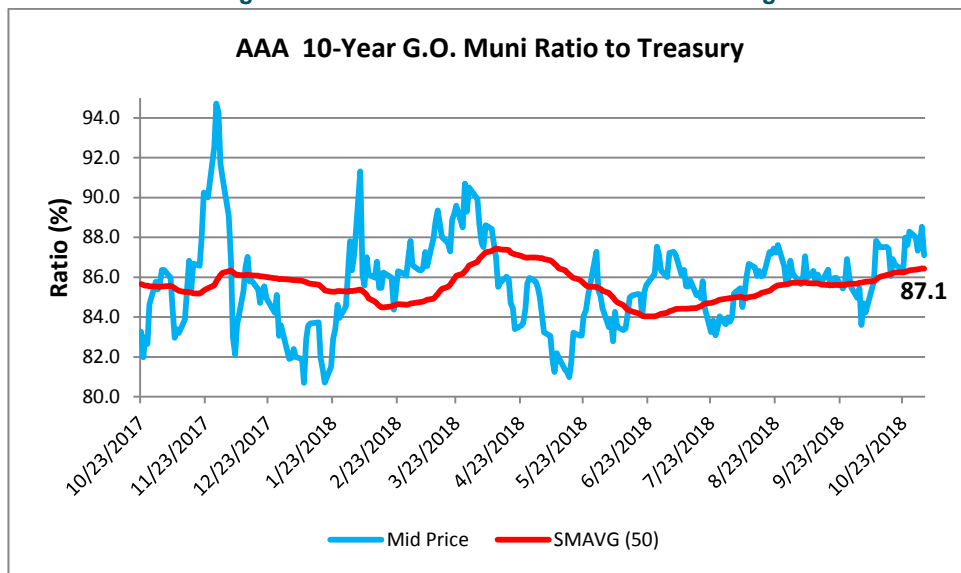
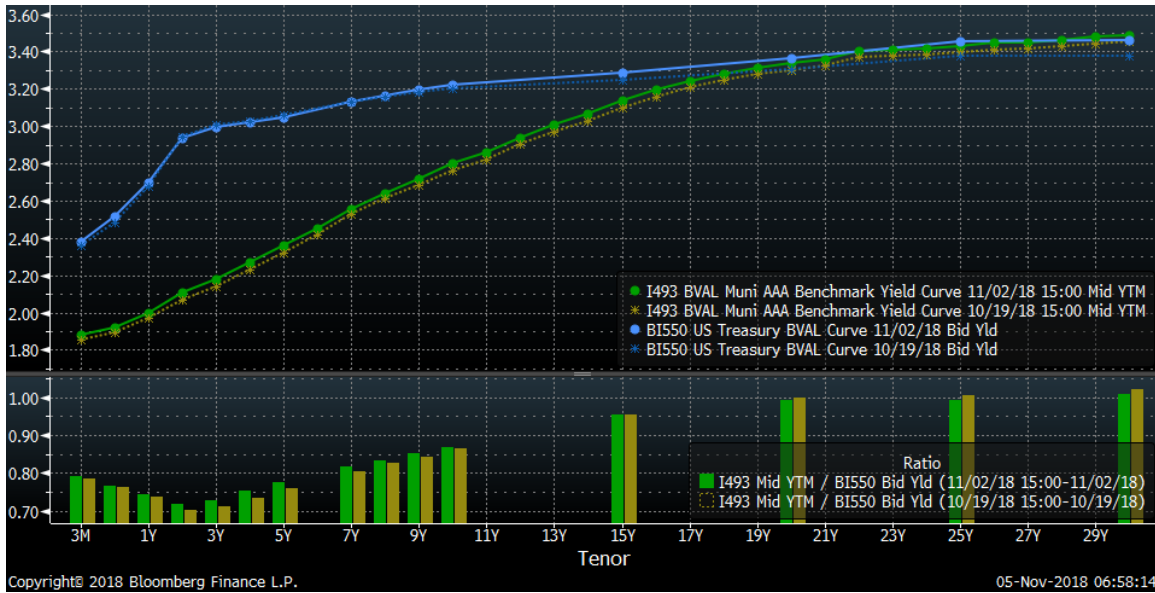
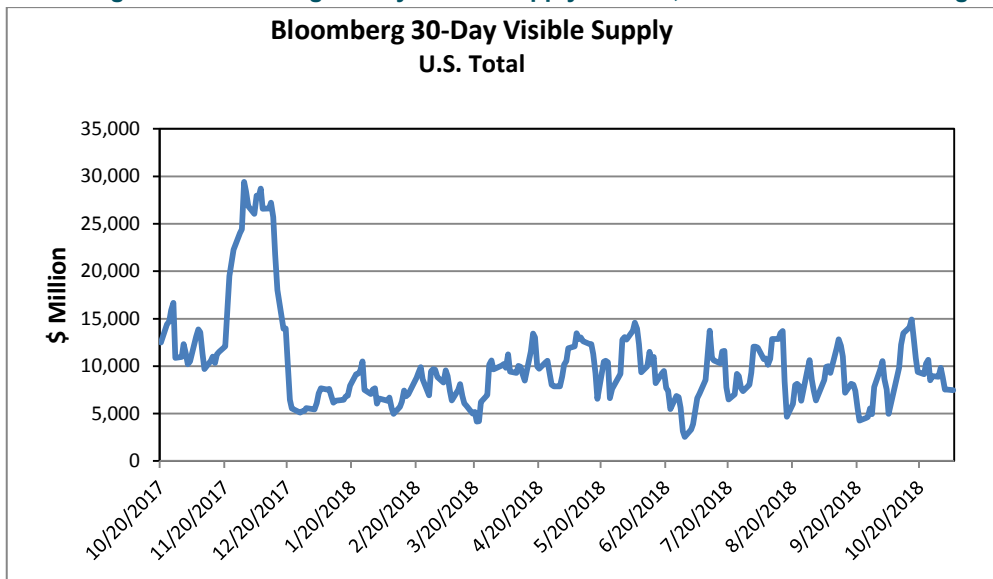


Figure 2b - Muni Ratios Across the Curve: 2-week Change – Data Source: Bloomberg



Supply (Figure 3) – Bloomberg 30-Day Visible Supply currently stands at \$7.5 billion down from \$8.9 billion this time last week. The YTD average visible supply is \$8.9 billion and the 12-mo average is \$10.1 billion.

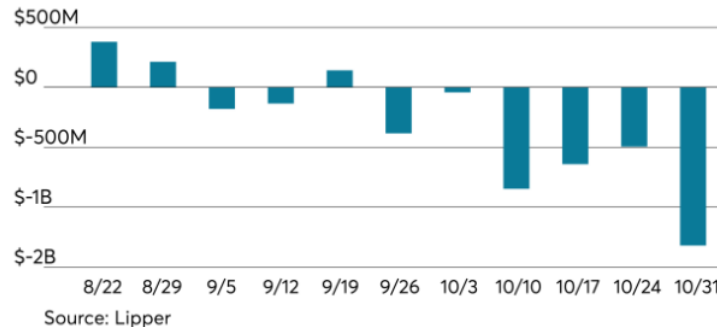
Figure 3- Bloomberg 30-Day Visible Supply - 1 Year; Data Source: Bloomberg



Articles of Interest

Municipal Fund Flows: According to Lipper data, muni funds had \$1.32 billion of outflows after the previous week’s outflows of \$494.9 million. The four-week moving average is -\$826.4 million. ETFs had net inflows and high-yield funds had net outflows.

Lipper: Municipal bond funds saw outflows in latest week



Midterms and Munis: Post midterm elections the focus will be on a) yields with respect to potential for fiscal imbalance and debt funding, b) potential for infrastructure spending and c) gubernatorial elections and budgetary consequences (IL being of prime attention).

State of Washington Charter School Ruling Credit negative for Public School Districts: The State of Washington Supreme Court upheld a ruling that allows the state to fund charter schools with lottery money. The competition created is a credit negative, as described by Moody's, for some school districts.

Hurricane Michael Impact on Florida Credit Mixed: Moody's reports that the Hurricane's impact on credit in the regions impacted is small. While damage is still being assessed, federal aid and insurance coverage along with generally healthy financial conditions of the region hit is positive. However, cities with smaller operations, such as Mexico beach could face pressure from reduced property tax revenues and future credit is dependent on rebuilding efforts.

October Municipal Tax-Exempt Performance:

- Bloomberg Barclay's Municipal Bond Index had a -0.62% total return in October but underperformed the Treasury Index (which returned -0.48%). The negative municipal index return comprised of a price return of -0.97% and a positive coupon return of +0.35%. Through October, the year-to-date total return is -1.01% and the last 12-months' total return is -0.51%.
 - The ending Yield-to-Worst (YTW) for October was 3.01% with a 5.4 modified duration-to-worst.
- The *General Obligation Index* had a -0.57% total return in October. Through October GOs had a -1.05% total year-to-date and -0.69% during the last 12-months.
 - The YTW at the end of October was 2.90%.
 - The *State General Obligation* sub-index had a -0.57% total return in October, with a -0.85% total return year-to-date and a 12-month total return of -0.67%.
 - Notable geographic indexes' October returns include; *Laggards* – ND (-1.27%), SD (-1.11%) and WV (-1.0%); *Leaders* – Virgin Islands (+0.10%), NH (-0.18%), WY (-0.21%). Other notable jurisdictions; AZ (-0.53%) CA (-0.69%), CT (-0.40%) FL (-0.67%), IL (-0.71%), IA (-0.52%), KS (-0.40%), MI (-0.44%), MN (-0.49%), NJ (-0.78%), NY (-0.63%), OH (-0.55%), OR (-0.62%) PA (-0.70%), Puerto Rico (-0.53%), TX (-0.62%), WA (-0.54%), WI (-0.50%).
 - The ending YTW for the State G.O. sector was 2.83%.
 - The *Local General Obligation* sub-index had a -0.57% total return in October, with a -1.27% total return year-to-date and the 12-month total return of -0.71%.
 - The ending YTW for the Local G.O. sector was 2.97%.
- The *Revenue Bond Index* had a -0.69% total return in October, with a year-to-date total return of -1.15% and a 12-month total return of -0.48%.

- The best performing revenue sectors in October were resource recovery (-0.22%), electric (-0.53%) and water & sewer (-0.62%).
- The laggard revenue sectors were hospitals (-0.88%), housing (-0.78%), and education (-0.72%).
- The ending YTW for the Revenue sector was 3.14%.

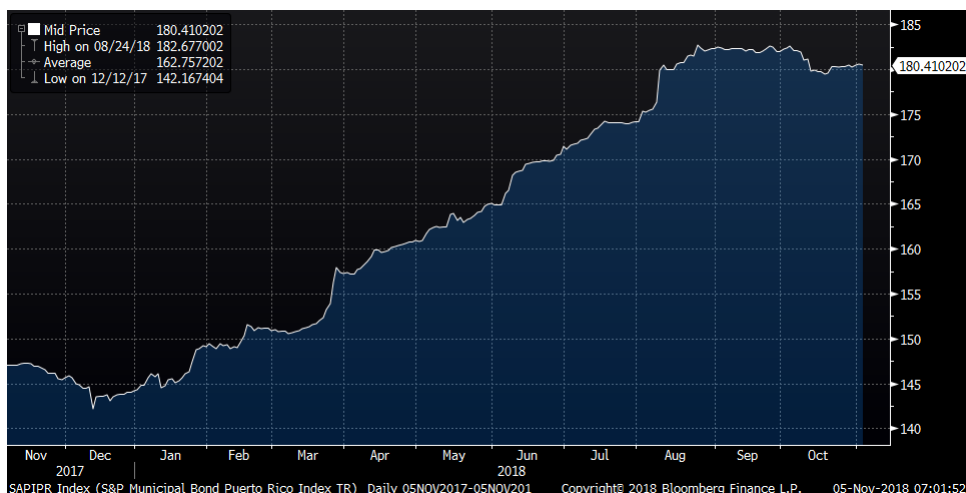
The returns across maturities for the Barclay's Muni indexes were; 3-yr -0.06%, 5-yr -0.19%, 10-yr -0.58% and 20-yr -0.96%.

Muni Funds Continue to Experience Net Outflows: According to Lipper data muni bond funds pulled \$43.6 million during the past week after \$385 million of net outflows last week. The four-week moving average is an outflow of \$106 million. Both ETFs and high-yield funds saw net outflows also.

Puerto Rico:

- **The S&P Municipal Bond Puerto Rico Index** finished at 180.4 on Friday vs. 180.3 at the end of the previous week, -0.0%. Year-to-date the index is +25.1%.

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

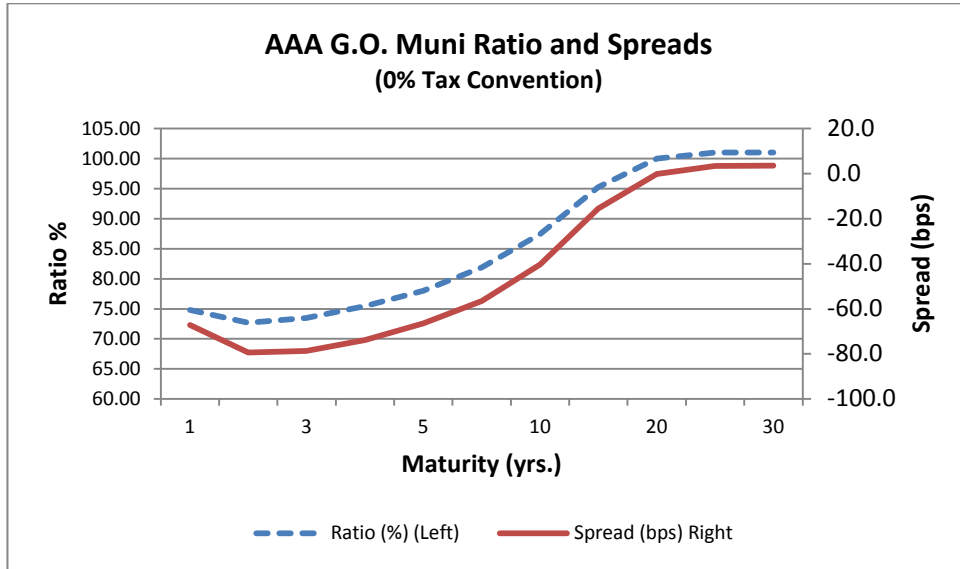


Relative Value by Maturity

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

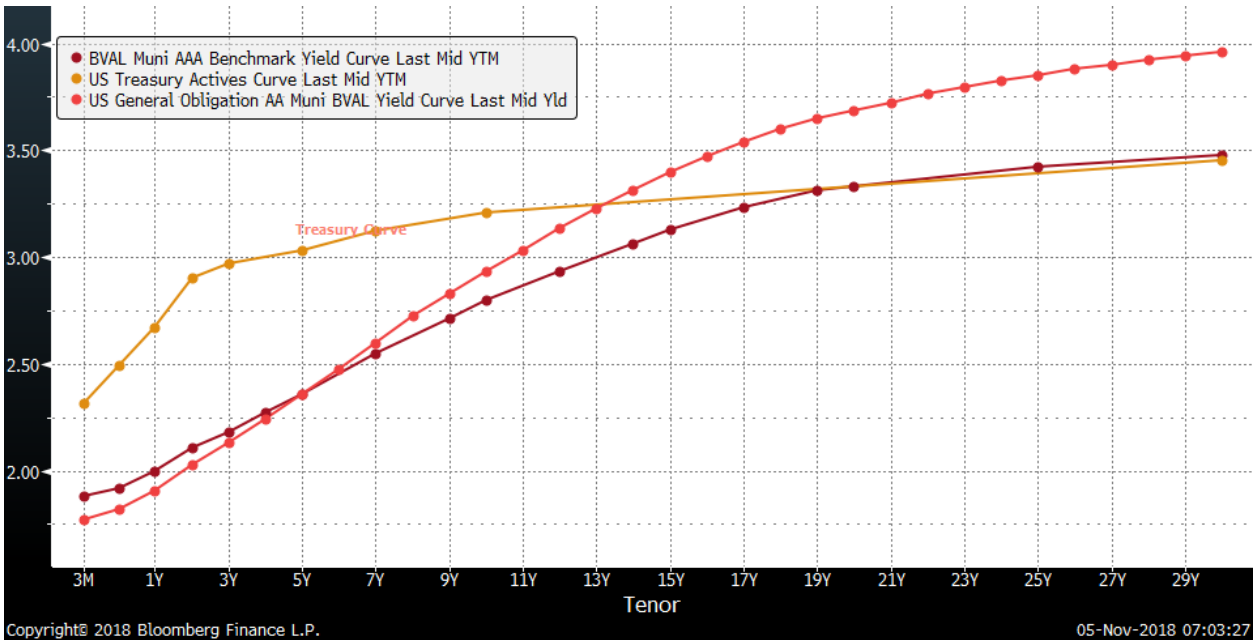
11/5/2018 Maturity (yrs.)	Yield-to-worst (%)		0% Tax Rate		35% Tax Equivalent	
	AAA Gen. Obliq.	Treasury	Spread (bps)	Ratio (%)	Spread (bps)	Ratio (%)
1	2.00	2.67	-67.2	74.8	40.5	115.1
2	2.11	2.90	-79.3	72.7	34.3	111.8
3	2.18	2.97	-78.7	73.5	38.7	113.0
4	2.27	3.01	-73.8	75.5	48.4	116.1
5	2.36	3.03	-66.5	78.0	60.6	120.0
7	2.56	3.12	-56.5	81.9	81.0	126.0
10	2.80	3.20	-40.3	87.4	110.6	134.5
15	3.14	3.29	-15.5	95.3	153.4	146.6
20	3.34	3.34	-0.1	100.0	179.5	153.8
25	3.43	3.39	3.5	101.0	188.0	155.4
30	3.49	3.45	3.6	101.0	191.3	155.4

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 2018 Robert W. Baird & Co. Incorporated.