Treasury yields sustained a sharp bear-steepener with 10yr yields up ~18 bps. Muni yields moved lag higher. Muni Index returns for September -0.65% and -0.40% YTD.

October 8, 2018

Bottom Line:
- Treasuries sold off sharply last week in bear-steepening fashion. Real-yields are the predominate culprit.
- Muni yields followed Treasuries higher with some lag.
- Muni fund flows were negative for the second consecutive week.
- Moody’s called the significant fall in business school demand (particularly graduate and international) a credit negative.
- Barclay’s Municipal Bond Index total returned -0.65% in September and -0.40% YTD.
- S&P Puerto Rico Total Return Index was unchanged last week and +26.3% YTD.

What Happened in the Bond Markets Last Week?
- Treasury yields surged higher last week. The primary component of the move higher was not due to the market’s impression of inflation expectation but rather due to real yields. Real-yields have moved to the highest level since 2011. The reason is some combination of the market’s expectation of higher growth and/or higher risk premium from in at least part a concern for higher deficits and U.S. credit quality. The rise in real-yields is giving some competition to other asset classes. Frankly, angst was felt in all asset classes including a rise in volatility. Economic data during the week were broadly supportive of higher yields during the week.
- Municipal bond yields followed Treasury yields higher. As typical in an environment they tend to lag in both magnitude and timing by a day or two. Notably, ratios on the very short end of the curve (<2 yrs.) have risen as they correct from previous outperformance but longer maturities” ratios fell.

Yields (Figure 1):
- For the week ending 10/5/18, Treasury yields were sharply higher; 2-year Treasury Note yields were +7.0 bps at 2.88%, 5-year Notes yields were +12.5 bps at 3.07%, 10-year Notes yields were +17.7 bps to 3.23% and 30-year bonds yields were +20.3 bps at 3.40%.
- Bloomberg Municipal Index curve yields moved sharply higher; AAA-rated GO yields; 2-year bonds were +6 bps at 2.04%, 5-year bond yields were +9 bps at 2.31%, 10-year bond yields were +11 bps at 2.72% and 30-year bonds were +15 bps to 3.40%.
- The Ratio of 10-year AAA GO debt to 10-year Treasury yields moved lower to 84.3 last week. The year-to-date average is 85.4 and the 12-month average is 85.5.
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 2b - Muni Ratios Across the Curve: 2-week Change – Data Source: Bloomberg

Supply (Figure 3) – Bloomberg 30-Day Visible Supply currently stands at $4.5 billion down from $7.2 billion this time last week. The YTD average visible supply is $8.8 billion and the 12-mo average is $10.6 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 $134.4 million of inflows after the previous week’s outflows of $121.9 million. ETFs and High-yield funds had net inflows.

Some Ohio Tobacco Bonds Downgraded Further into Junk: Moody’s downgraded four tranches of Buckeye (OH) Tobacco Settlement revenue bonds to Caa3 from Caa1. The downgrades reflect Moody’s expectations of lower future cigarette shipments (3-4%) and falling reserve balances (now ~60% of the required amount). They expect that a
default will occur when full payments of principle won’t be paid by legal final maturities (the next being June 2024) at which time cash payments will switch to a pro-rata basis.

**Falling Demand for Business Schools Credit Negative for Higher Education Sector**: Moody’s issued a Sector Comment noting the decreased demand for admission into U.S. business schools. There has been a material decline in demand, in particular by international students. Moody’s calls the soft demand a credit negative for this generally high profit revenue stream even for large graduate programs. Graduate business schools (which accounts for 1/5 of all graduate student sin the U.S.) application volume has fallen 60% and 6.6% overall. Applications for international schools have, at the same time strengthened materially.

**September Municipal Tax-Exempt Performance**:
- Bloomberg Barclay’s Municipal Bond Index had a -0.65% total return in September but outperformed the Treasury Index (which returned -0.93%). The negative municipal index return comprised of a price return of -1.00% and a positive coupon return of +0.35%. Through September, the year-to-date total return is -0.40% and the last 12-months’ total return is +0.35%.
  - The ending Yield-to-Worst (YTW) for September was 2.86% with a 5.2 modified duration-to-worst.
- The General Obligation Index had a -0.67% total return in September. Through September GOs had a -0.48% total year-to-date and +0.08% during the last 12-months.
  - The YTW at the end of September was 2.75%.
  - The State General Obligation sub-index had a -0.63% total return in September, with a -0.28% total return year-to-date and a 12-month total return of +0.08%.
    - Notable geographic indexes’ September returns include; Laggards – SD (-1.08%), VT (-0.82%) and NV (-0.81%); Leaders – Virgin Islands (+0.19%), Puerto Rico (+0.13%), WY (-0.21%). Other notable jurisdictions; AZ (-0.63%) CA (-0.77%), CT (-0.50%) FL (-0.62%), IL (-0.67%), IA (-0.57%), KS (-0.62%), MI (-0.49%), MN (-0.62%), NJ (-0.65%), NY (-0.61%), OH (-0.67%), OR (-0.67%) PA (-0.62%), Puerto Rico (+0.13%), TX (-0.59%), WA (-0.68%), WI (-0.68%).
    - The ending YTW for the State G.O. sector was 2.68%.
  - The Local General Obligation sub-index had a -0.72% total return in September, with a -0.70% total return year-to-date and the 12-month total return of +0.09%.
    - The ending YTW for the Local G.O. sector was 2.84%.
- The Revenue Bond Index had a -0.66% total return in September, with a year-to-date total return of -0.46% and a 12-month total return of +0.49%.
  - The best performing revenue sectors in September were resource recovery (-0.39%), electric (-0.60%) and water & sewer (-0.63%).
  - The laggard revenue sectors were education (-0.71%), special tax (-0.70%), and hospitals (-0.67%).
  - The ending YTW for the Revenue sector was 2.97%.

The returns across maturities for the Barclay’s Muni indexes were; 3-yr -0.41%, 5-yr -0.55%, 10-yr -0.62% and 20-yr -0.74% reflecting market yields that rose in addition some amount of curve steepening.

**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 182.1 on Friday vs. 182.0 at the end of the previous week, +0.0%. Year-to-date the index is +26.3%.
Relative Value by Maturity

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

![AAA G.O. Muni Ratio and Spreads](image)

**Relative Value by Rating**

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

![Muni Index Yield Curve by Credit Rating](image)

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.

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