Treasuries while changed significantly week-over-week have been volatile. Global and domestic economic data and trade tariff wars are primary drivers. Munis little changed; ratios higher. California and Washington state GO ratings raised.

Bottom Line:
- Treasury yields have been highly volatile on economics data, Fed speak and actions and reactions amidst the trade war with China.
- Muni lag Treasury yield and ratios rise.
- Muni fund see inflows – 33rd consecutive week.
- Moody’s highlights states and ports with credit exposure to declines in agricultural exports to China.
- California GO rating raised to AA by Fitch. Washington state GO rating raised to Aaa by Moody’s.
- S&P Puerto Rico Total Return Index was +0.1% last week (+13.4% YTD).

What Happened in the Bond Markets Last Week?
- Treasuries have been profoundly volatile – illustrated by the MOVE Index of Treasury market implied volatility. The moves have been driven by economic data both domestically and globally, eye-for-an-eye tariff tactics and attacks on Fed independence. Give-and-take production/manufacturing data, which have fallen to levels last seen in 2009, with still-resilient consumers bouncing yields around. There have been episodic periods of 2’s-10’s inversion. There is currently an 85% market implied probability for a 25 bps cut in September (and 15% for a 50 bps cut).
- Municipal bonds’ yields were slightly higher; not reflecting the Treasury rally on Friday.

Yields (Figure 1):
- During the past week, Treasury yields were mixed; 2-year Treasury Note yields +4.4 bps to 1.52%, 5-year Notes yields unchanged at 1.41%, 10-year Notes yields -1.3 bps to 1.53% and 30-year bonds yields +1.7 bps at 2.02%.
- Bloomberg Municipal Index curve yields were slightly higher; AAA-rated GO yields 2-year bonds +4 bps to 0.97%, 5-year bonds +4 bps at 0.99%, 10-year bond yields +3 bps to 1.27% and 30-year bonds were +1 bps to 2.01%.
- The 10yr AAA GO Ratio ended at 83.8.
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.
Supply (Figure 3) – Bloomberg 30-Day Visible Supply currently stands at $17.0 billion up from $13.1 billion this time last week. The YTD average visible supply is $9.5 billion and the 12-mo average is $9.3 billion.
**Articles of Interest**

**Muni Fund Flows:** According to Refinitiv Lipper muni funds had a 33rd consecutive week of net inflows. Net inflows amounted to $1.6 million of net inflows. The four-week moving average is $1.5 billion. Both ETFs and high-yield funds experienced net inflows.

![Lipper: Muni funds see inflows](source)

**Trade Impacts on Muni Ag-related Credit (Moody’s):** Moody’s issued a Sector In-Depth report discussing the impact of trade war related impacts on agriculture-related credit. The highlights of the report include: 1) U.S. soybean producers (exports to China being a large share of U.S. production) will be the most impacted followed by pork producers, 2) China’s share of U.S agricultural exports has fallen significantly form 14% in 2017 to just 6% in 2018, 3) the most affected states include those with large soybean production including Illinois, Iowa, and Minnesota, 4) shipping ports Port of Oakland, Port of Los Angeles and Port of Long Beach are the ones primarily impacted.

**Taxable Bonds Popular with Non-U.S. Residents (Bloomberg):** Taxable municipal bonds have been popular for Non-U.S. entities because of the rash of negative yields around the globe. These investors find as an attractive alternative to corporate bonds. As Build-America bonds mature during the coming years, the amount of taxable bonds available is set to decline.

**California GO Rating Raised to AA by Fitch:** Fitch raised the California GO credit rating to AA (one notch higher than Moody’s and S&P) citing improved fiscal management, use of temporary tax increases, reserves and limiting spending growth. Yields, according to Bloomberg, already trade with spreads of bonds that are rated even two notches higher.

- California has received $427 million in tax revenue from cannabis sales during th2018-19 fiscal year. The state expects approximately $541 million in 2019-2020.

**State of Washington GO Rating Raised to Aaa by Moody’s:** Moody’s raised the credit rating Washington state to Aaa from Aa1 for the first time ever.
Puerto Rico

- The S&P Municipal Bond Puerto Rico Index finished at 202.2 on Friday vs. 201.9 at the end of the previous week, +0.1% (+13.4% YTD).

**Relative Value by Maturity**

<table>
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<tr>
<th>Maturity (yrs.)</th>
<th>Yield-to-worst (%)</th>
<th>AAA Gen. Oblig.</th>
<th>Treasury</th>
<th>Spread (bps)</th>
<th>Ratio (%)</th>
<th>0% Tax Rate</th>
<th>Spread (bps)</th>
<th>Ratio (%)</th>
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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.

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