BAIRD Private Wealth Management

Muni Fortnightly

Treasury yields rose strongly on fiscal expectations. Muni Ratio at lowest level ever. Covid relief legislation directly and indirectly helpful. 2020 Muni Index return was 5.26%.

PWM Fixed Income Research

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Bottom Line:

- **Treasury yields rose sharply last week on expectations of fiscal stimulus.**
- **10yr AAA-GO Muni richest relative valuation ever.**
- **Covid relief bill indirectly aids state and local governments and directly aids certain sectors.**
- **MTA received $4 billion in the relief package. Still lacks structural stability.**
- **2020 Muni issuance exceeded 2016 record.**
- **Muni bond insurance penetration increases to about 7.5%.**
- **Muni Index 2020 return was 5.26%**
- **MTA takes down another tranche ($2.9 billion) from the Federal Reserve Municipal Liquidity Facility.**

What Happened in the Bond Markets Last Week?

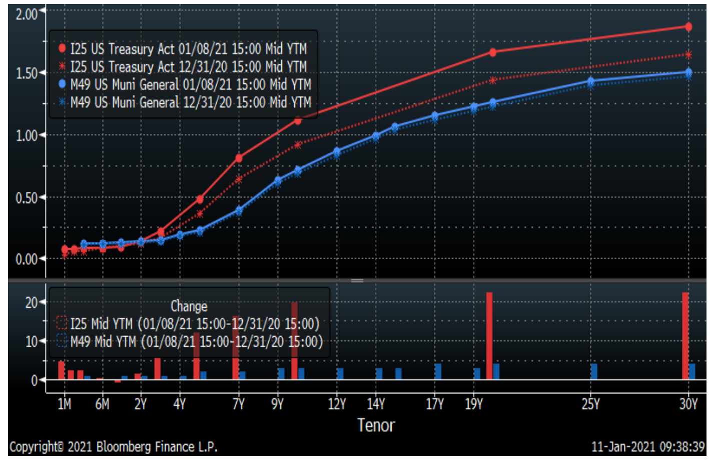
- Last week, Treasury yields had one direction – up. Despite the turmoil in Washington D.C, and spiking COVID and not the greatest economic data, markets looked through it. With the Democratic wins in Georgia and the Presidential race confirmed, an increased probability for further fiscal stimulus ran its way through Treasury yields. While both inflation breakevens and real yields aided the rise in nominal yields, breakevens did the heavy lifting on the short-end while real-yields were the disproportionate contributor on the long end of the curve.
- Municipal bonds' yields were slightly higher. The 10yr AAA GO Ratio is 67.2 – richest level ever on this relative value metric.

Yield Changes (week over week)

(Since 11/30/20)	Treasuries		Munis (Bloomberg AAA GO Index)	
Tenor	**Change (bps) - MTD**	**Yield (%)**	**Change (bps) - MTD**	**Yield (%)**
3 mos.	+2.3	0.08%		
1year	+0.8	0.10%	+1	0.13%
2 year	+1.4	0.18%	+1	0.14%
5 year	+11.9	0.48%	+2	0.23%
10 year	+19.7	1.11%	+3	0.71%
30 year	+22.1	1.87%	+4	1.50%

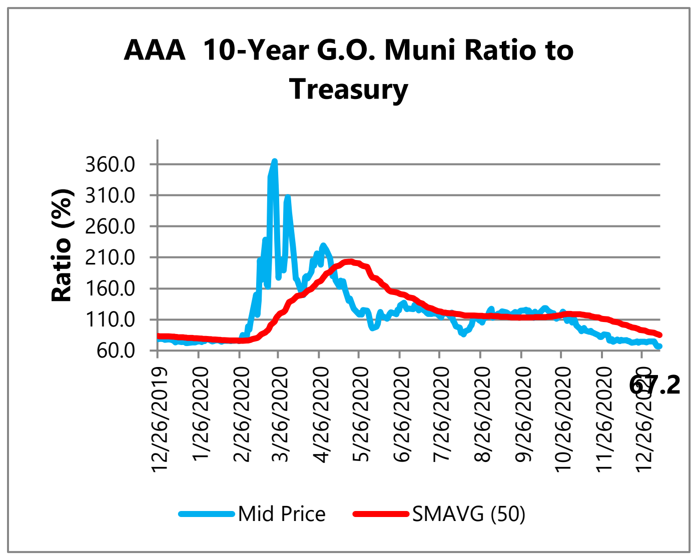
One can observe these changes by looking at how rates have changed along the curve for both the Treasury curve and for the AAA-rated G.O. Index since last week. The top panel shows four yield curves; two for the Treasury curve - one for the most current date and one from last week and two for the AAA-rated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

Month-to-date Yield Curve and Muni Curve Changes



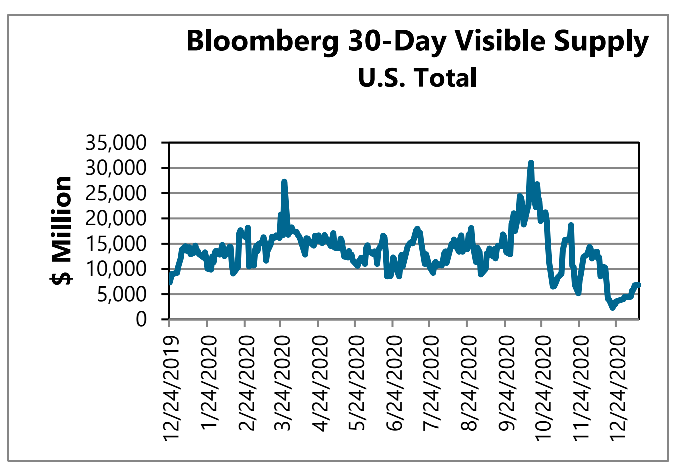
Data Source: Bloomberg

The **10yr AAA GO Ratio** is 67.2.
The line graph to the right shows the ratio of 10-year AAA-rated muni yields to the 10-year Treasury yield over the last year.



Data Source: Bloomberg

Bloomberg 30-Day Visible Supply currently stands at $6.8 billion up from $4.4 billion at the end of the year. the 12-mo average is $13.7 billion.

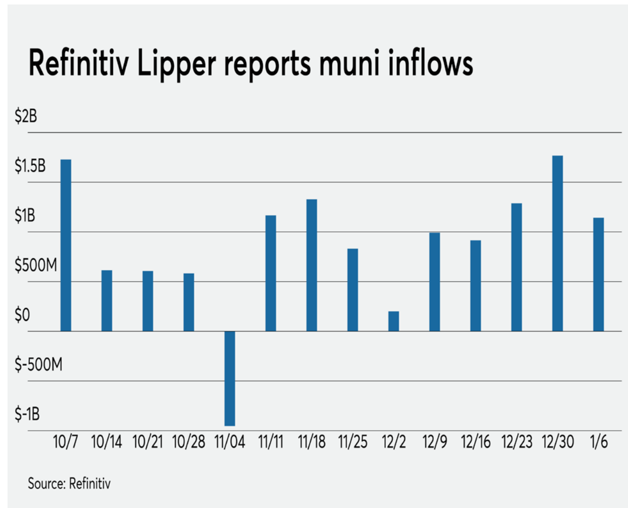


Data Source: Bloomberg

Articles of Interest

Muni Fund Flows: According to Refinitiv Lipper, muni funds had net inflows of $1.14 billion last week through 1/6 following $1.8 during the previous week. The four-week moving average was $1.28 billion. ETFs and high-yield funds also experienced inflows.

Covid Relief Package Will Indirectly Help State and Local Issuers (Moody's): The Coronavirus Response and Relief Supplemental Appropriations Act was signed. It will provide $910 billion in fiscal support with several provisions that will indirectly help municipalities via sales taxes stability, homeowners remaining current on payments, small business loans to avert closure, and grants to K-12, higher education, mass transit and airports. However, direct funding to state and local government general finance relief was not included. Moody's expects that fiscal difficulty will remain until vaccinations are widely distributed and economy recovers more broadly. States' budgets avoided cuts with draws on reserves, use of CARES Act funding and some deficit borrowing.



Metropolitan Transportation Authority (MTA) Aided by Relief Package (Moody's): MTA received $4 billion of aid (of $14 billion allocated to transit systems) from the Coronavirus Response and Relief Act aid. This amount will provide bridge funding in 2021 and stabilize liquidity and reduce the need for deficit financing. Moody's believes that, given the magnitude of the projected budget gaps, MTA will need additional incremental deficit financing or cut services in the absence of more aid.

Local Government Pension Liabilities Grow (Moody's): Government credit quality has increasingly been tied to pension adjusted net pension liabilities (ANPLs) and subsequent required contribution levels will see deterioration. Lower interest rates (Moody's applied discount rates declining from a median of 4.14% in fiscal 2018 to 2.70% in fiscal 2021) will cause ANPLs to increase by double digit percentages for many governments. In addition, most local governments have benefit payouts that exceed contributions which incrementally reduces asset accumulation capabilities.

Muni Sales Record in 2020: State and local governments issued $457 billion of long-term bonds in 2020. This was 12.5% more than 2019 and exceeds the previous record set in 2016. Sales consisted of about $140 billion of taxable munis (double the amount sold in 2019) and $317 billion of tax-exempt munis.

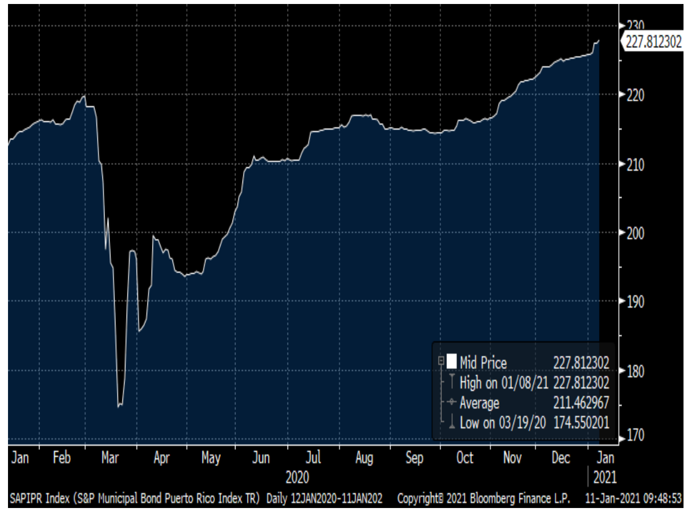
Muni Bond Insurance Increases in 2020 (Bloomberg Brief): The use of municipal bond insurance increased to its highest level in amore than a decade. Insured bonds accounted for 7.5% of new issues in 2020 (about $34 billion). Assured Guaranty insured approximately $19 billion and Build America backed about $15 billion of bonds. Up until the 2008-09 financial crisis, insured bonds accounted for roughly 50% of new issuance.

2020 Muni Returns (Credit Sights): For the year 2020, the ICE BofAML Muni Index returned 5.26% with GOs Revenue sectors' returns nearly equivalent.

Puerto Rico:

- ***Puerto Rico Aqueduct and Sewer Authority (PRASA) (Moody's):*** Moody's said that the $1.4 billion of revenue bonds issued in December will generate $213 million in net present value savings for PRASA which it will use to fund capital and operational needs but does not improve the credit quality of outstanding bonds (rated Ca with a Negative Outlook). There currently are no plans to restructure PRASA's debt but new and outstanding bonds still could undergo future restructuring. PRASA has not defaulted on its senior revenue bonds and is not part of the Puerto Rico restructuring proceedings.
- ***The S&P Municipal Bond Puerto Rico Index***: finished at 227.8 vs. 225.8 at the end of December; +0.89%.

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



Relative Value by Maturity

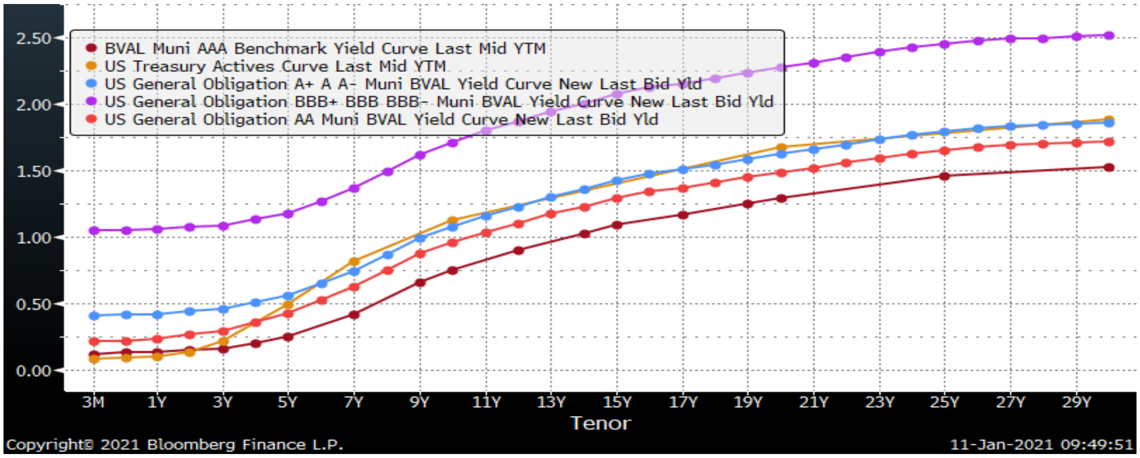
Table 1 - AAA Muni Ratios and Spreads by Maturity

1/11/2021	Yield-to-worst (%)		0% Tax Rate		35% Tax Equivalent	
Maturity (yrs.)	AAA Gen. Oblig.	Treasury	Spread (bps)	Ratio (%)	Spread (bps)	Ratio (%)
1	0.14	0.10	3.8	138.5	11.2	213.1
2	0.15	0.13	1.9	114.1	10.2	175.6
3	0.16	0.22	-5.2	75.9	3.6	116.7
4	0.21	0.34	-13.6	60.4	-2.4	92.9
5	0.25	0.49	-23.9	51.0	-10.5	78.5
7	0.42	0.82	-39.6	51.6	-16.8	79.4
10	0.75	1.13	-37.5	66.7	3.0	102.6
15	1.10	1.35	-25.0	81.5	34.2	125.3
20	1.29	1.68	-38.2	77.2	31.4	118.8
25	1.47	1.78	-31.3	82.4	47.6	126.8
30	1.53	1.88	-34.9	81.4	47.5	125.3

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.

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