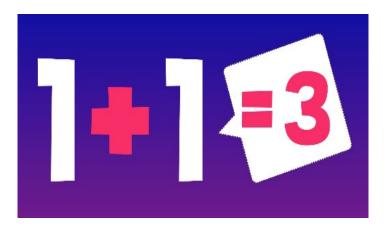


# January 2022 – Muni Value and Tax Rates – Past and Present:

January has been a prelude to MainLine's 2022 Outlook, as the uncertainties in the markets scared munis into one of the worst performing Januarys ever. Is this the beginning of a correction in munis -or- just a first look at what MainLine feels 2022 has in store? February will let us know.

The recent sell-off has returned some value to the muni market. Value can be measured in several ways and, in this month's credit review, MainLine looks at a long-term model that we feel is the best way to view "value." To really know the value of a muni, you need more than just yield levels, you also need to know the tax savings. The tax-exempt muni yield is just part of the story.



## Muni Market Review

January was an introduction to the concerns MainLine has with the muni market going into 2022. Munis sold off and have recorded one of the worst January performances ever (-2.7% versus -1.9% US Treasuries). Uncertainties with US Treasuries from inflation concerns, economic outlook, and Federal Reserve Bank policies, in combination with munis already being "rich", led to the underperformance of munis to the start the year. Highlights are as follows:

- Muni yields were higher by 63 to 46 bps, a big flattening move along the curve.
- Taxable yields were higher from 84 to 14 bps,
   a big flattening of the curve.
- As anticipated, the rise in rates has produced the first round of outflows from mutual funds during what is usually a time of sizeable inflows.
- Credit default spreads are almost unchanged year-to-date, showing the recent sell-off has nothing to do with credit quality concerns.

If US Treasuries can stabilize here and rally a bit, the outflows should stop, and the muni market will stabilize for now. This is a quick sell-off for munis, especially for January, but in the big picture it may only be a warning shot on how uncertainties can hurt the muni market as we move into 2022.



# Market News & Credit Update:

- A recent analysis by Barclays shows that outflows from muni funds are triggered when higher rate
  shocks occur. Moves of over 20 bps in a month can trigger muni investors to sell out of
  their mutual fund holdings and outflows occur the subsequent month. The quicker the
  increase in rates, the bigger the outflows. In cases of lower rate shocks, an increase in inflows
  does not occur.
- Bank of America was the top muni underwriter in 2021, with most of the usual suspects in the top ten. *The muni market continues to slowly consolidate on the underwriting side of the business.* Top ten underwriters represent the following percent of total underwritings: 2011 67%, 2015 70%, 2021 75%. MainLine is not a fan of this trend, but the economics of muni finance is the driver.
- A Bondwave analysis on over 400,000 municipal bond offerings concluded that buyers paid 15 basis points higher than what the dealer actually paid for the same bond. Data was acquired from January through August in 2021 on investment grade bonds with par value of less than \$100,000. This is another study demonstrating that, if you are not accessing the market at the institutional level (like a dealer), you pay more for a bond than you should. This further illustrates how the MainLine Advantage saves its investors income.

# Muni Value & Tax Rates - Past & Present

#### Introduction:

There are several ways to measure the relative value of municipal bonds. The most common is the "muni yield ratio." The muni yield ratio is calculated by dividing the muni yield by the same term taxable yield. For example, if the 30-year muni yield is 2%, and the 30 Year USD Libor rate is 2.20%, the ratio is 91%. This current yield ratio is then compared to historical levels and then a relative value decision is made. Below is a typical chart showing these ratios over time for 10- and 30-year maturities.

Muni Yield Ratio		
Time	10 Yr	30 Yr
12/31/2021	66%	86%
25 Year Avg	89%	98%
10 Yr Avg	93%	102%
5 Yr Avg	90%	98%
Max	228%	180%
Min	61%	66%
Standard Deviation	15%	16%

What is the shortcoming of this measure of value? The ratio does not take into account current tax rates which in an important "muni value" component. This may not be important when making value decisions in the current and same tax rate environment, but if you want to look at the value over time, you need to make one adjustment. What is the tax-equivalent yield?

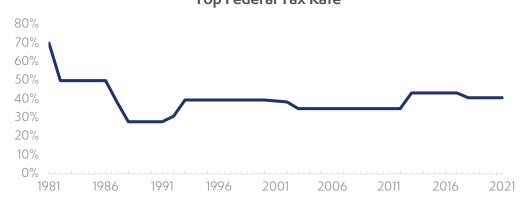


The value of tax-exempt income is related to how much in taxes you save. The muni ratio is nothing more than the tax-exempt rate divided by the taxable adjustment for the current tax rates and the tax savings from a muni. MainLine decided to adjust the ratio over time for the prevailing tax rates and see what the tax equivalent muni yield ratio looks like over time and today.

### **Background:**

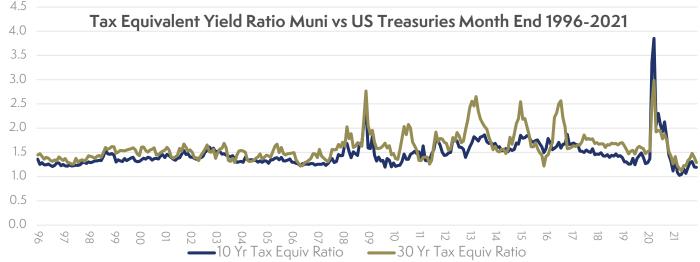
Daily muni AAA-rated yields from Refinitiv were collected over the last 25 years and compared to USD Libor rates for the same maturing term from Bloomberg. The muni yield was adjusted by the top Federal income tax rate during the appropriate time period. Income tax rates have ranged quite a bit over time. Below is a graph of the top tax rates by year for the last 40 years, including the Obama Medicare tax introduced in 2013 (3.8%). Muni tax-exempt income is also exempt from the Medicare tax.

Top Federal Tax Rate



## Analysis:

To find the tax-equivalent yield ratio we took the muni AA bond yield and divided by (1-tax rate). This gives us the tax equivalent yield (not adjusting for state income tax). This yield is then divided by the same-term USD Libor rate to give us the ratio graphed below. The graph is the tax-equivalent ratio for 10 and a 30-year term.





Below is a chart that summarizes the information in the previous graph:

Tax Equivalent Ratio Muni/USD Libor			
Time	10 Yr	30 Yr	
12/31/2021	111%	145%	
25 Year Avg	146%	160%	
10 Yr Avg	158%	173%	
5 Yr Avg	154%	168%	
Max	385%	299%	
Min	103%	112%	
Standard Deviation	26%	28%	

The graph looks consistent with what we know about muni value over time. Munis became cheap during COVID crisis of 2020, 2008 banking crisis, 2013 taper tantrum and 2010 credit concerns and 2017 tax reform. The 5-year, 10 year, and 25-year averages are comparative. The data shows investors are looking at the taxequivalent yield and not just the current relative yield ratio. How can we use this information today?

#### Conclusion:

As of 12/31/2021, ratios are close to all-time lows, and roughly one standard deviation from the average. This tells us that either munis are rich, or there is an anticipation of higher taxes in the future which would make the ratios higher and more in line with historical averages. We can compute a simple calculation to see what the implied future tax rate muni investors pricing munis now. This would be the rate that makes the tax equivalent ratio equal to the long-term average.

Let us assume 50% total top tax rate. This gives us the following:

If you believe the new high end Federal tax rate will exceed 46.3% (currently 37%), + 3.80% Medicare tax = 50%, then munis represent good value at year-end. If not, munis are overvalued. A new top tax bracket eclipsing 46% seems a little steep to us at MainLine.

Tax Equivalent Ratio Muni/USD Libor			
Time	10 Yr	30 Yr	
12/31/2021	131%	171%	
25 Year Avg	146%	160%	
10 Yr Avg	158%	173%	
5 Yr Avg	154%	168%	

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