# Better Together

## Optimizing the Use of Taxable and Tax-Exempt Investments

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**Targeting the Moderately-Taxed**
Some things in life are better together, such as: chips & salsa, apple pie & ice cream, popcorn & movies, and taxable & tax-free bonds!

It is true that utilizing both taxable and tax-free bonds in a fixed income portfolio can enhance returns for many investors, but too few fully appreciate how beneficial this can be and how best to implement the strategy.

Investors often use either taxable or tax-exempt investments for their fixed income allocation, rather than a combination of the two. If their income is either very high or very low, this may be appropriate. But the vast majority of Americans who do pay taxes are subject to moderate federal income tax rates; likely between 20% and 30% of their AGI. This range also captures corporations which are now subject to a 21% federal income tax rate. **It is the moderate tax rate investors that are most likely to benefit by utilizing both the taxable and tax-exempt markets and there are many of us out there!**

**Cross-Market Differences**
The tax-exempt municipal market is tethered to the Treasury market, from a yield perspective, in a similar manner as the taxable sectors (e.g. federal agencies, corporates, mortgage-related and asset-backed). As market interest rates change, Treasury yields and yields across the taxable sectors move, generally in the same direction but not necessarily the same amount. This inefficiency is what creates opportunities for active management in the fixed income markets.

Yet, size is one of the important differences between the taxable and the tax-exempt markets. According to SIFMA, there is over $40 trillion of outstanding taxable debt with cumulative average trading volume each day of over $800 billion. The municipal market, on the other hand, is one-tenth the size of taxable debt outstanding with barely over 1% of the daily trading volume. Tax-paying individuals, rather than institutional investors, are responsible, either directly or indirectly, for most municipal trades.

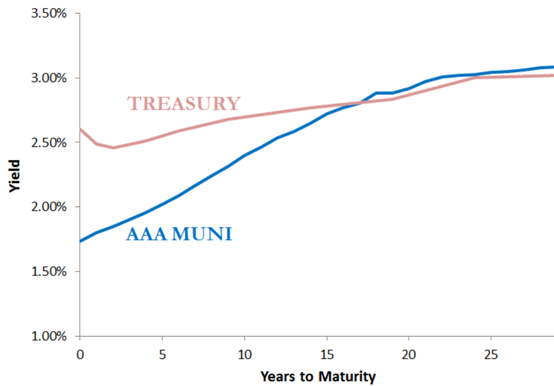
**Cross-Market Curve Opportunity**
One example of how the unique market influences can offer opportunities to investors is in the relative slope of the Treasury and AAA-rated municipal yield curves. **In all but the most unusual market environments, the AAA municipal curve is steeper than the Treasury curve.** Municipalities want to issue long-term debt to match the long average life of the assets being financed (a school building or an airport, etc.) while the dominant buyer, individual investors, typically want to lend (invest) shorter.

This supply/demand segmentation is the primary cause for an upwardly sloping tax-exempt curve. In contrast, the U.S. Treasury issues most of its debt shorter on the curve. Currently, 28% of all outstanding Treasury debt matures within one year and 69% within five years. This issuance pattern, combined with strong demand for longer-maturity Treasuries by both domestic and foreign investors keeps the Treasury curve flatter than it otherwise would be without these influences.

These unique technical factors are structural, rather than transitory, offering investors an ongoing opportunity to maximize the tax efficiency of their fixed income portfolio. **Specifically, an investor can invest in the taxable market on the short end of the curve and in tax-exempt issues on the long end in order to capitalize on the cross-market curve inefficiencies.**

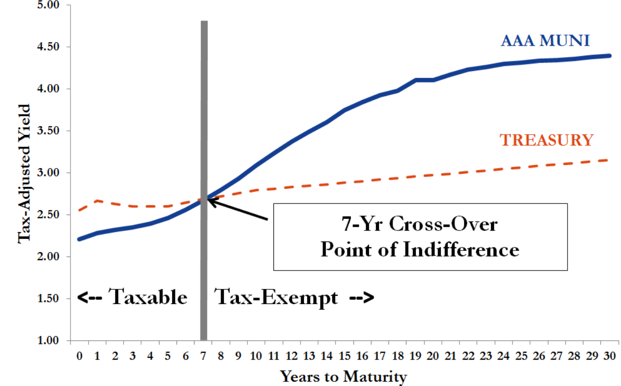
A graph of the slope of each respective curve at year end 2018 is shown in Chart 1. The Treasury curve is very flat, even inverted in the short-term segment as short Treasury yields have risen much more than short municipal yields. The opposite has occurred on the longer end. Strong demand for long-term Treasuries has muted the upward shift in long Treasuries, while long municipal yields have risen more because of a lack of long end demand. When the corporate income tax rate fell to 21%, corporate investors in the long-end of the tax-exempt market, such as banks and insurance companies, reduced their purchases and even sold down allocations, pushing yields higher and narrowing the cross-market yield gap.

**Chart 1: Treasury and Municipal Yields as of 12/31/18**




Source: Bloomberg

**Chart 3: Cross-Market Analysis @ 30% Tax Rate**



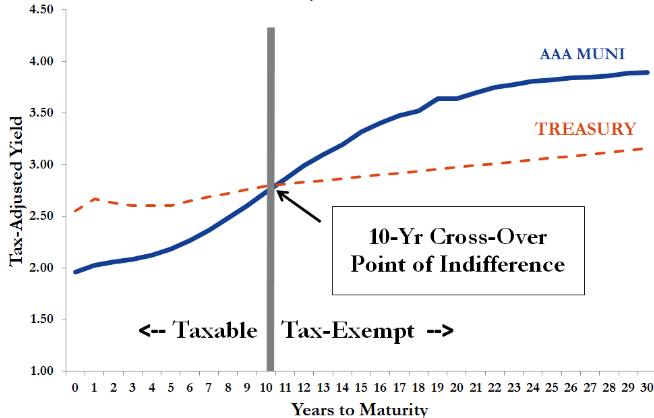

Source: InvestorTools Perform

## Identifying the Pre-Tax Cross-over Point

To more precisely analyze the relative value opportunities along the two yield curves, we placed both curves on a taxable-equivalent basis, often referred to as "grossing up" the municipal yields. U.S. Treasury debt is exempt from state income taxes so we adjusted Treasury yields to reflect a hypothetical 5% state income tax rate (Note: not all states have an income tax).

For consistency, we assumed no state income tax exemption for municipals (although some municipal debt is both federal and state exempt), but adjusted the tax-exempt yields for two potential investors. The first was a corporate investor paying the 21% corporate income tax rate and the second was an individual investor subject to a 30% federal income tax rate. The 21% - 30% tax range was intentional to capture where the vast majority of investor tax burdens reside. Doing so allows for the tax-adjusted yield curves to be represented on the same chart, as shown in Charts 2 & 3.

**Chart 2: Cross-Market Analysis @ 21% Tax Rate**




Readily apparent is the cross-over point for each investor; the maturity at which the investor would be indifferent from investing in either Treasuries or tax-exempt municipals. At the 21% tax rate the point of indifference is near the 10-year maturity date but it shortens to 7 years at the 30% rate.

Investors in each tax bracket should prefer taxable investments shorter than the indifference point and tax-exempt issues beyond that.

## Conclusion

Tax rates obviously matter a great deal when making investment decisions. Simple rules-of-thumb of how to allocate a fixed income portfolio for a given federal income tax rate may no longer be the most efficient investment strategy.

The differences between the taxable and tax-exempt markets, particularly the unique supply/demand influences, can provide opportunities for investors willing to consider both markets. Capitalizing on the relative slope of each curve, for example, is something that nearly all investors, regardless of their federal income tax rate, can use to their investing advantage. The goal for all investors is to find the optimal cross-market allocation that produces the highest after-tax return for a given level of interest rate risk.

*This is not a complete analysis of every material fact regarding any company, industry or security. The information has been obtained from sources we consider to be reliable, but we cannot guarantee the accuracy. Fixed income is generally considered to be a more conservative investment than stocks, but bonds and other fixed income investments still carry a variety of risks such as interest rate risk, credit risk, inflation risk, and liquidity risk. In a rising interest rate environment, the value of fixed-income securities generally decline and conversely, in a falling interest rate environment, the value of fixed-income securities generally increase. High yield securities may be subject to heightened market, interest rate or credit risk and should not be purchased solely because of the stated yield.*