MUNICIPAL FIXED INCOME QUARTERLY UPDATE

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SUMMARY:

- **Municipals outperformed U.S. Treasuries in the quarter, driven by light issuance and strong demand.**
- **Higher municipal rates for very short durations continue to attract opportunistic investors.**
- **Municipal yield curve has continued to steepen, with shorter maturity rates falling faster than longer ones.**
- **Political uncertainty has become a major component of rate volatility.**
- **Potential tax cuts – along with possible creative financing for potential infrastructure investments – would bear directly on the municipal market.**

MARKET BACKDROP

Business and consumer optimism expanded across the globe in the first quarter. With the Republican sweep in the U.S. election, anticipated pro-growth policies took many economic sentiment indicators in the U.S. and beyond to their best levels in the last decade. Risk assets (high-yield bonds along with U.S. equities) posted strong returns.

The pillars of President Donald Trump's plan—tax reform, reduced regulation, and fiscal stimulus—have led investors to believe the U.S. economy can break out of its slow-growth economic expansion. The new administration's focus on reduced regulation and growth-focused fiscal policy is set against a backdrop of stable economic data and low unemployment.

Late in the quarter, market optimism was put to its first test. The Trump administration's proposed healthcare bill to replace the Affordable Care Act was pulled from the floor of the House of Representatives without a vote. The bill's failure raised investor concerns that, despite Republican control of Congress and the presidency, executing Trump's agenda may be more difficult than previously thought.

Further, tax policy changes, if any, will be pushed out further than investors initially expected. We will closely monitor developments and the potential impact on the tax-exempt market. *(See the last section of this commentary for additional thoughts.)*

INTEREST RATES

The Federal Reserve boosted the fed funds target rate by another 25 basis points (0.25%) in March, and restated its intent to raise the rate three times in 2017. Risk assets performed very well, and short maturity Treasury yields increased modestly. A perceived lack of inflationary pressure helped push longer-dated Treasury yields slightly lower.

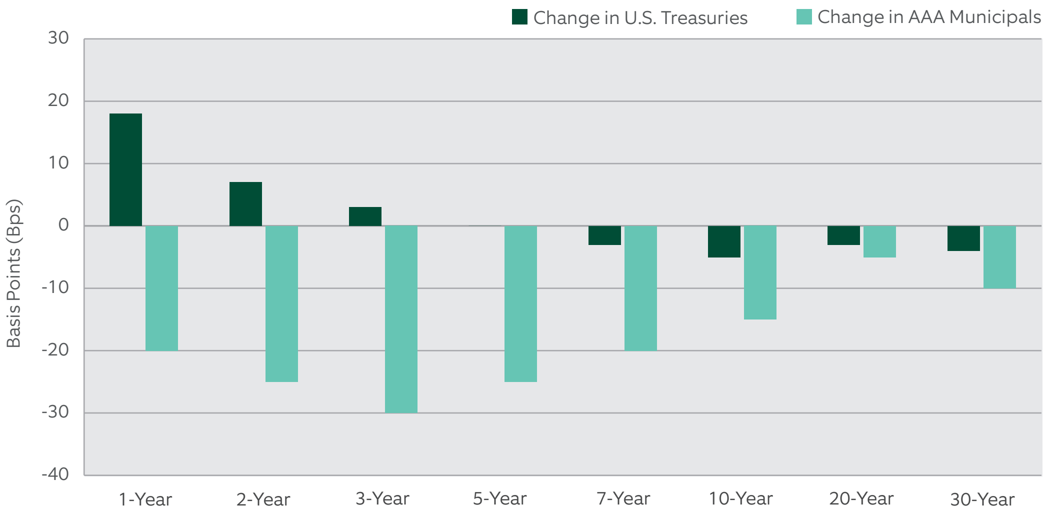
Contrary to this modest flattening of the Treasury curve, the tax-exempt yield curve steepened, as shorter-dated tax-exempt yields declined sharply while longer maturities were down only marginally. Treasuries are a global market and the investors are not necessarily U.S. taxpayers. The participants are less U.S.-centric and tax-oriented than municipal investors. The tax exempt market had a heavier focus on shortening duration during this quarter and revised expectations for how long the lower rates from tax reform may take to be implemented. If those become a 2018 event rather than 2017, investors would want more municipals now. Higher demand, so lower rates.

Rates had increased immediately after the election in November, reflecting modestly higher inflation expectations, mutual fund redemptions, potentially lower tax rates, and anticipation of possible fed funds rate increases.

Northern Trust's Municipal Fixed Income team seeks to construct high quality, well diversified, liquid investment portfolios within the guidelines of client-specified risk targets. We focus on relative value active management rather than taking outsized positions around interest rate expectations or overly aggressive credit risks. We believe our clients seek to use fixed income allocations in their portfolio for protection of principal, generation of current income, and providing liquidity in case of need.

The group works to exploit opportunities in this inefficient market, reacting to changing conditions and positioning portfolios in an effort to obtain attractive returns. Our decisions reflect our views on the economy, fiscal and monetary policy, political developments, credit fundamentals, and bond valuations, as well as our experience in managing the many technical factors impacting the market. We rely on independent, proprietary research to guide our credit decisions and do not utilize leverage or derivatives to achieve our results.

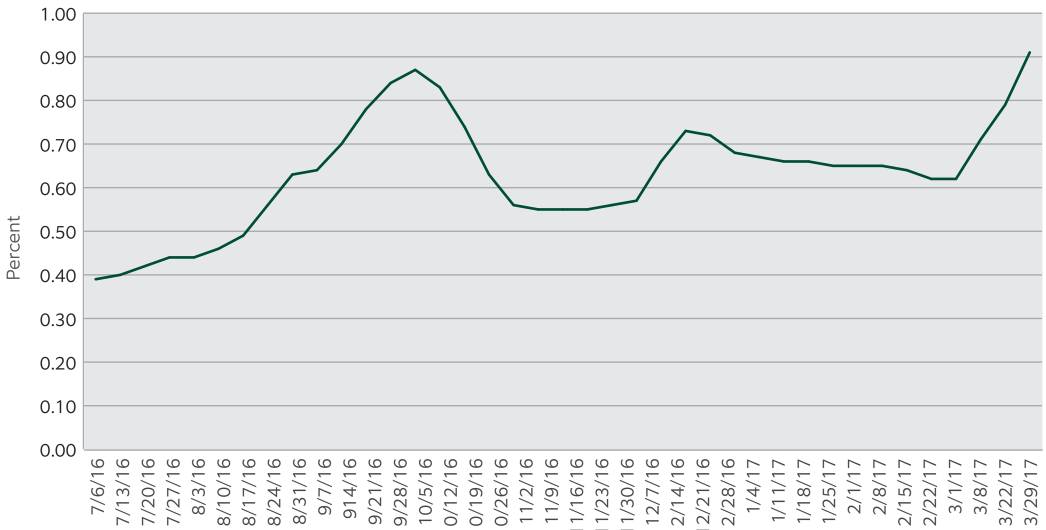
EXHIBIT 1: U.S. TREASURIES VS. AAA MUNICIPALS -CHANGE IN YIELDS DECEMBER 2016 - MARCH 2017



SOURCE: Northern Trust Fixed Income

In the very short maturity (overnight to less than one-year) section of the market, municipal money funds have had substantial outflows. Investors moved to U.S. government funds since money fund changes mandated by the Securities Exchange Commission took effect in October 2016. This has provided an ongoing investment opportunity. Managers and investors can use the higher rates now available for short and ultra-short duration tax exempt exposure in funds and portfolios that do not have the same liquidity limits as government-only money market funds.

EXHIBIT 2: SIFMA* INDEX RATES – JULY 2016 - MARCH 2017



*Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Index
SOURCE: Northern Trust Fixed Income

TECHNICAL FACTORS

First quarter 2017 new issue supply was down 12% versus the same period last year. Higher interest rates and fewer refunding candidates contributed to a sharp decline in refinancing volume. In addition, state and local governments pulled back on new money projects, due to uncertainty surrounding the Trump administration's plans for tax reform and infrastructure spending. Second quarter is often one of the heavier periods of supply. While we do not expect it to approach the 2016 pace, we do anticipate a pick-up for the rest of this year versus the first quarter.

California, Texas and New York continue to lead the state rankings of new supply, representing over 40% of Q1 issuance. However, Texas' level was 32% lower than last year.

Demand for municipal bonds in the quarter was firm, but not overwhelming. There is substantial routine monthly investment demand just from the maturities, interest payments and call proceeds of existing municipal bonds. But the makeup of demand has shifted recently from mutual funds to purchasers of individual issues. Banks and non-U.S. investors continue to add to their exposure in this generally reliable and high-quality asset class.

We continue to believe that demographic trends (an aging population desiring fixed income) and significantly progressive tax rates continue to give strong structural support to the overall demand for municipal bonds.

PERFORMANCE & OUTLOOK

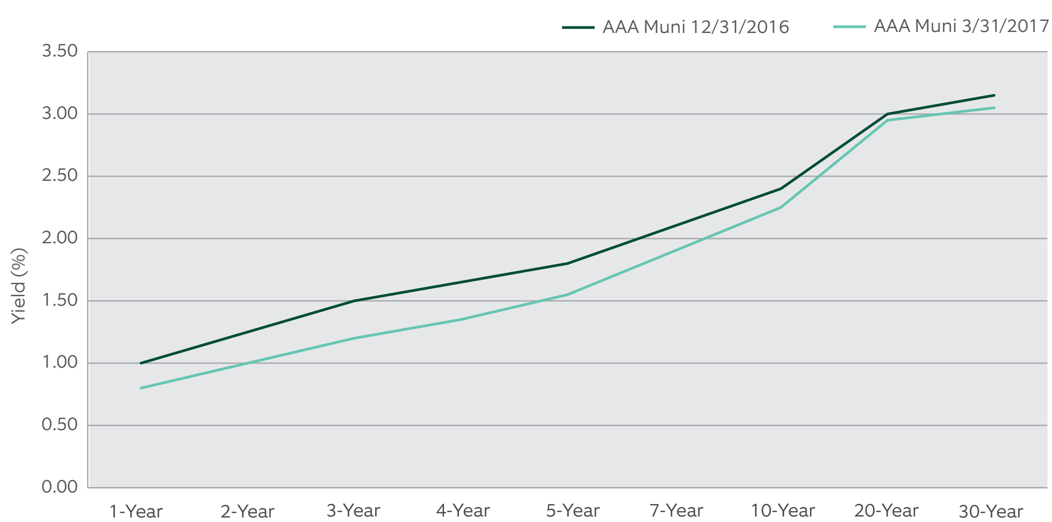
The Bloomberg Barclays Municipal Bond Index saw positive returns in all three months of the quarter (+0.66%, +0.69%, and +0.22% respectively). Those came after a +1.13% snapback in December 2016, following three consecutive negative-return months. That September-November rate increase period was preceded by a streak of 13 consecutive positive return months.

Strong demand for low duration, higher yielding credits helped drive down short maturity tax-exempt yields and tighten lower tier investment-grade credit spreads. This detracted from relative performance versus benchmarks in many Northern Trust accounts. We believe that investors are typically not adequately compensated for the lower credit quality and the higher volatility characteristics of many of these credits.

We have been taking a gradual but strategic approach to reducing duration in most portfolios. This stance is defensive, given expected rate volatility. It also reflects our expectation of additional seasonal new issue supply that may not be adequately met by normal demand from maturities and reinvestments.

The yield curve steepened significantly again this quarter, with the spread between 1 and 30 year maturities moving to 2.25%. Six months ago that figure was 1.55%.

EXHIBIT 3: QUARTERLY CHANGE IN YIELD CURVE



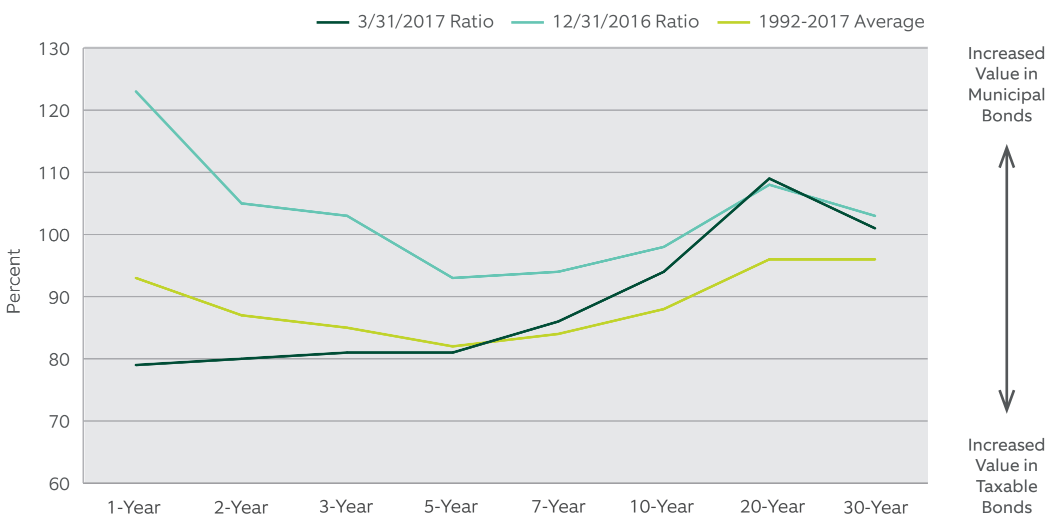
SOURCE: Northern Trust Fixed Income

State general obligation and essential service revenue bonds are top sector choices to start the second quarter. Lease revenue and appropriated debt should be held to a minimum. Higher volatility sectors, such as housing and industrial development, were top performers in the first quarter.

Premium coupon structures offer attractive relative value compared to par and discount bonds. We continue to favor premium coupon bonds in a volatile and potentially rising rate environment, as they have higher cash payments and lower interest rate sensitivity versus par and discount bonds.

With municipal rates falling substantially compared to Treasurys across the yield curve in the first quarter, municipal/Treasury ratios retreated dramatically. Only maturities beyond five years ended the first quarter with ratios above historical averages. A common measure of relative value, this ratio of pretax rates at various maturities shows that the quarter-end level is at or above the historical average at all points. Ratios over 100% indicate municipal rates that exceed Treasuries on a gross, before-tax basis. Investors needed to go to 15 year maturities and beyond to achieve that level at March 31.

EXHIBIT 4: RATIO: AAA MUNI YIELD TO U.S. TREASURY YIELD



SOURCE: Northern Trust Fixed Income

POLITICS MATTERS – AND IT'S MORE THAN JUST INCOME TAX RATES

Tax changes, especially reductions to both personal and corporate rates, have been one of the three primary pro-growth pillars of the new president. At first blush, lower tax rates are bad for municipal bonds, since the value of the investor's tax savings would be lower.

However, another priority on the Trump administration's agenda is infrastructure spending. The method of financing for the $1 trillion program mentioned in the campaign has not been specified. The federal government, along with issuers themselves, has some options that may significantly influence the municipal bond market.

For example, should a Build America Bond (BAB)-like taxable municipals program be introduced, it could lead to an actual overall reduction in tax-exempt supply. Issuers may opt for taking advantage of a federal subsidy, similar to what occurred in 2009 and 2010. Taxable municipal bonds are also attractive to issuers for other reasons. They can be applied to a less-stringent test of "public purpose," and are not limited to a single refunding event, as is the case with tax exempt issues.

The possibility of the new administration proposing expanded *taxable* infrastructure financing may end up being supportive of traditional muni valuations (given relative scarcity value), despite the fact that tax rate cuts for individuals and institutions appear likely. Interestingly, that taxable issuance would meet the needs of many pension and sovereign wealth investors. They need high quality fixed income assets to support their long-lived (and getting longer) obligations and liabilities. This approach would give the government some control over which projects are approved for such funding, and may meet a politically attractive goal of not appearing to overly favor higher income taxpayers.

These and a variety of other related topics, such as alternative minimum tax (AMT) repeal and Medicaid funding revisions, will hold the close attention of our proprietary, in-house municipal credit research and portfolio manager professionals.

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