Municipal Quarterly Update
2nd Quarter 2017

Municipal Securities Team

2nd Quarter 2017 Municipal Market Performance and Highlights

- **Municipals outperform in 2Q2017:** Municipal market returns were broadly positive in the second quarter of 2017. The Bloomberg Barclays Municipal Bond Index returned 1.96% during the second quarter of 2017 compared to 1.58% in the first quarter of 2017, and outperformed the Bloomberg Barclays Treasury Bond Index by 77 basis points (bps).
- **Pace of Issuance Slows:** In the first half of 2017, primary market issuance decreased by 13.3% year-over-year (yoy). The decline in primary market issuance was due to an approximately 26% decline in refunding activity, only partially offset by an increase in new capital issuance.
- **Retail Demand Regains Footing:** The last two months of 2016 saw dramatic outflows from municipal mutual funds. In comparison, during the first half of 2017, municipal fund flows were positive during each month, ranging from a positive $854 million to $2.44 billion. Year-to-date, fund flows thru June 21st totaled a robust $11.88 billion.
- **Credit Remains Stable, Despite High-Profile Defaults:** As a whole, municipal credit quality remained stable in the first half of 2017. Through June 30, 2017, using MMA data, first-time municipal defaulters totaled just 21 borrowers with a total par value of $18.6 billion, compared to the first half of 2016 when 28 borrowers defaulted on $5.98 billion. According to a Bank of America Merrill Lynch analysis, thru July 5, 2017, Puerto Rico related borrowers accounted for approximately 95.5% of total defaults.
- **Tighter Credit Spreads:** During the first half of 2017, credit spreads tightened for both "A" and "BBB" rated municipal securities (see Figure 3 below). We believe "BBB" credit spreads for new bond issues are tighter than the five year historical average.

Outlook and Strategy

- After raising the Fed Funds rate 25 bps on March 15, 2017, the Federal Reserve ("Fed") raised the Fed Funds rate again on June 14th by another 25 bps. We believe the Fed is likely to raise the Fed Funds rate one more time by 25 bps in December 2017. We see the 10-year U.S. Treasury yield ending the year between 2.70% and 3.00%. Furthermore, we believe the Fed will begin to reduce its $4.5 trillion balance sheet starting in September. As the Fed has stated, Fed rate actions will likely be data dependent, with a focus on supportive economic data including jobs and wage growth, inflation and inflation expectations.
- The U.S economy grew by a revised 1.2% during the first quarter of 2017 and 2.6% in the second quarter. The consumer price index, excluding food and energy, has declined from 2.2% during January 2017 to 1.70% by June 2017. Similarly, the GDP Personal Consumption Core Price Index has seen its growth slow in the first six months of the year. We believe a continuation of this trend of lower inflation would likely trigger more caution for implementing additional Fed rate increases.
- Uncertainty, both domestically and abroad, will likely continue:
  - Large changes to the U.S. healthcare system and tax code as well as significant infrastructure spending have been proposed. However, after six months of relative inaction on these policy initiatives, the positive growth impacts from these measures have been at best delayed and at worst derailed. Nonetheless, a decline in regulation, and less government interference in general, should support continued growth in the U.S. economy.
  - Instability abroad could continue and potentially intensify. A rising tide of isolationism and nationalistic politics has altered the global landscape and its effects could intensify. However, the recent French election results support the European Union and recent increased GDP growth in the Eurozone could temper political risk. Discussions about tapering Quantitative Easing (QE) in the Eurozone will likely continue and bears watching for the potential impact on the U.S. Rates (i.e. U.S. Treasury) markets.
- **Technical Factors Supportive:**
  - Despite our expectation in gradually higher rates, we believe that net fund flows will be positive but volatile during 2017. Fund flows should be inversely related to changing Treasury rates.
  - We believe issuance will decline to $350-$375 billion from $446 billion in 2016. We also believe that refunding activity will decline to around $195 to $225 billion (from $272 billion in 2016) and that new issuance will remain in line with historic trends at around $150 billion.
- **Credit Trends Remain Stable to Positive:** In general, we expect municipal credit quality to remain healthy. We expect the number of new defaulting municipal borrowers to continue to be low but the par value should spike as Puerto Rico-related entities default or a US Virgin Islands-related credit first enters default (See Figure 5). Exceptions to the otherwise healthy trends, however, exist. Large, high profile borrowers such as the State of Illinois, City of Chicago and the Chicago Public Schools may continue to be on precarious footing, with their pension-related issues unlikely to be solved near

term. We note that the recent enactment of a budget in the State of Illinois has brought a degree of stability to Illinois, the City of Chicago and its public schools, but significant issues remain to obtaining true budgetary balance. In addition, we expect a large amount of new issuance ($3.0 billion or more) coming from the State of Illinois as the state grapples with a $14.3 billion backlog of past due bills.

- Against this backdrop, we continue to structure our portfolios defensively, choosing strategies that benefit from yield curve positioning, bond structure, and positive credit fundamentals. More specifically we favor:

Yield Curve/Structure	Credit Overweight	Industry Weightings
• 8-12 year maturities • 13-20 year maturities priced to a 6-9 year call • 5% (and higher) coupon bonds versus 3% and 4% coupon bonds	• "A" and "AA" rated bonds over "AAA" rated bonds • Given current new issue spreads, we advise caution on new issue purchases of "BBB" rated bonds • Select below investment grade and non-rated bonds. Beware of more speculative issuance trends.	• Overweight revenue bonds of essential service providers—senior living, special tax, charter schools, and utilities • Underweight general obligation bonds

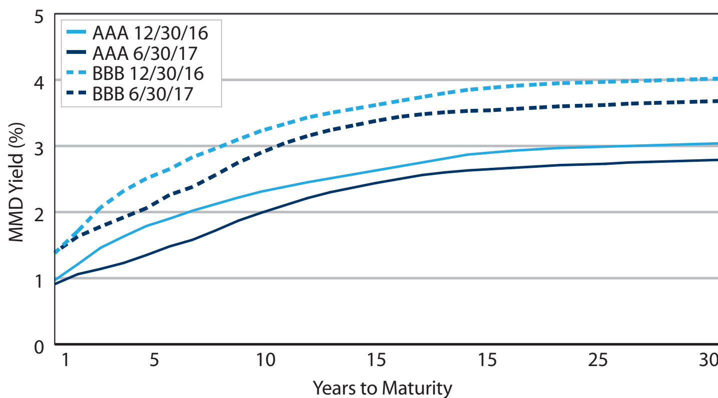
Relative Value

- **Risk-Adjusted Returns:**
  - In four of the last six calendar years, investment-grade munis or high-yield munis have been the top performer on a taxable equivalent, risk-adjusted basis. In fact, investment-grade munis and high-yield munis have been the best and second best performers, in some order, in three of the last six years. In the quarter ended 6/30/2017, the story is similar: both high-yield and investment-grade munis trail only high-yield corporate debt.
  - Over the last 10 years, municipal bonds (both investment-grade and high-yield) offer superior returns per unit of risk (standard deviation) (see Figure 6).

6/30/2017	**10yr**	**30yr**
MMD	1.99%	2.79%
Treasury	2.27%	2.81%
Ratio	**87.83%**	**99.13%**
3/31/2017	**10yr**	**30yr**
MMD	2.24%	3.03%
Treasury	2.42%	3.03%
Ratio	**92.69%**	**100.14%**

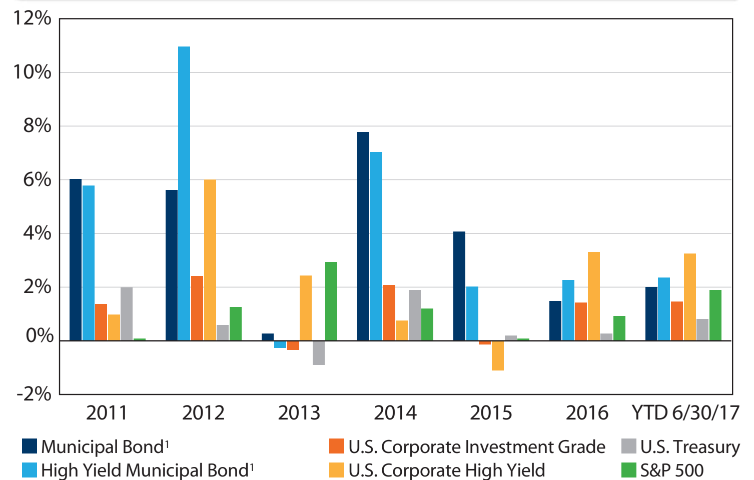
  - **MMD/Treasury Ratios:** As the table demonstrates, MMD/Treasury ratios got richer (more expensive) during the second quarter of 2017. On the 10-year part of the curve, the MMD/Treasury ratio changed from 92.6% to 87.8%, and is now considered rich compared to the one year historical average. Regarding the 30-year part of the curve, the MMD/Treasury ratio moved from 100.1% to 99.1%, but is still considered neutral compared to the 1-year historical average ratio. This data suggests that crossover (i.e. taxable) fixed income buyers find buying municipal bonds less attractive as ratios became richer.
  - **Yield Curve:** As the yield curve graphs illustrate, both AAA and BBB yields declined all along the yield curve during the first half of 2017. We note that the slope of the yield curve is relatively flat, increasing just 14 bps from 20 to 30 years to maturity for both AAA and BBB rated bonds. In contrast, the slope of the yield curve is much steeper in the 5-15 year maturity range. In fact, the slope of the AAA and BBB yield curves from 5-15 years to maturity steepened during the first half of 2017, increasing by 25 bps and 21 bps, respectively (see Figure 1).

Figure 1 – MMD Yield Curves



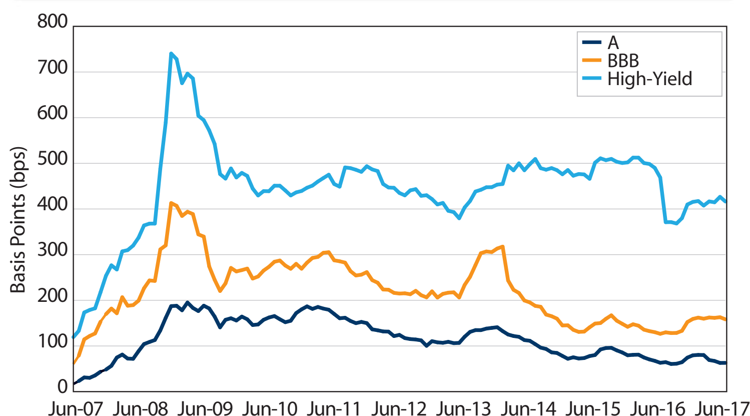
Source: Municipal Market Data (MMD) (Thompson).

Figure 2 – Risk-Adjusted Returns



Source: Bloomberg, Barclays. Risk-adjusted returns are calculated by dividing total return by volatility, or the degree of daily price swing variation, giving a measure of income per unit of risk. Past performance is no guarantee of future results.

Figure 3 – Municipal Credit Spreads Relative To AAA Municipals



Source: Bloomberg, Barclays 6/29/07 through 6/30/17. For illustrative purposes only. Past performance is no guarantee of future results. See last page for index definitions.

Figure 4 – Correlation of Municipal Bonds to Other Asset Classes

U.S. Equities	0.08
U.S. Treasury Bonds	0.31
U.S. Corporate High-Yield Bonds	0.33
Mortgage-Backed Securities (MBS)	0.40
Emerging Market Sovereign Bonds	0.40
U.S. Corporate Investment Grade Bonds	0.56

Source: Barclays 6/29/07 through 6/30/17. The historical correlation of the asset classes is for illustrative purposes only and not indicative of any actual investment. Diversification does not guarantee a profit or protect against loss. An index cannot be purchased directly by investors. See last page for index definitions.

Figure 5 – Moody's Average Cumulative Default Rates from 1970-2015, Corporate vs. Municipals

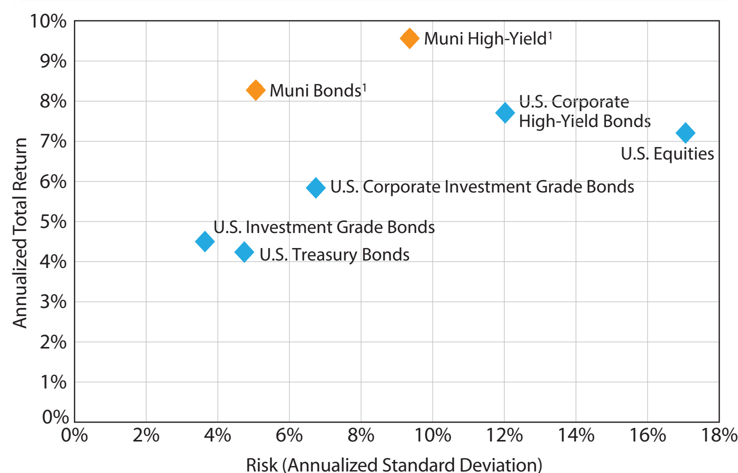
	5-Year			10-Year		
Rating	**Corporate**	**Municipal**	**Difference**	**Corporate**	**Municipal**	**Difference**
Aaa	**0.09%**	0.00%	0.09%	**0.40%**	0.00%	0.40%
Aa	0.30%	0.01%	0.30%	0.81%	0.02%	0.79%
A	0.79%	**0.03%**	0.76%	2.31%	**0.07%**	2.25%
Baa	1.67%	**0.15%**	1.52%	4.03%	**0.38%**	3.65%
Ba	8.44%	2.33%	6.11%	16.45%	4.24%	12.21%
B	22.06%	12.50%	9.56%	36.28%	17.88%	18.40%
Caa-C	35.76%	19.77%	15.98%	48.03%	26.03%	22.00%

First Time MMA Municipal Default Trends

	2017		2016		2015	
	Number	**$ Billion**	**Number**	**$ Billion**	**Number**	**$ Billion**
YTD	21	18.60	28	5.98	34	1.77
Total	21	18.60	67	23.62	60	3.87

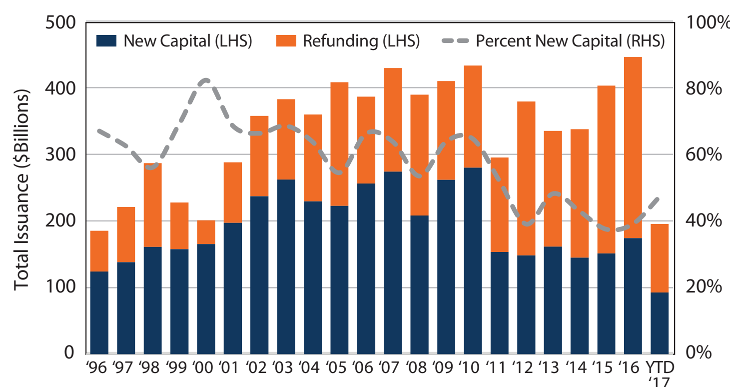
Source: Moody's Investors Service, Special Comment: U.S. Municipal Bond Defaults and Recoveries, 1970-2015; Municipal Market Advisors as of 6/30/17.

Figure 6 – Tax-Equivalent[1] Returns and Volatility of Municipal Bonds vs. Other Asset Classes



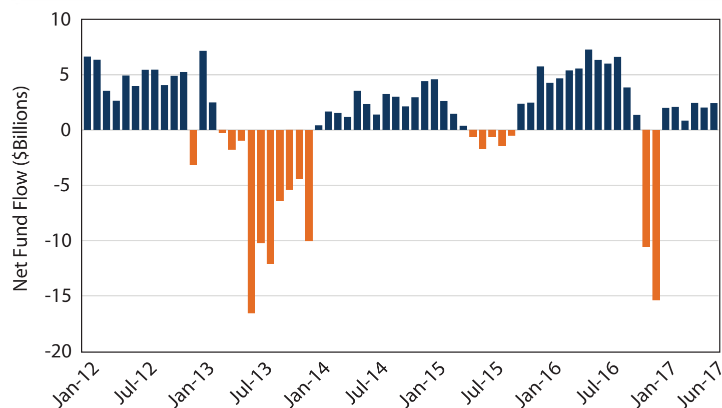
Source: Barclays 6/29/07 through 6/30/17. This chart is for illustrative purposes only and is not indicative of any actual investment. The illustration excludes the effects of expenses incurred when investing. Past performance is no guarantee of future results. See last page for index definitions.

Figure 7 – Municipal Bond Issuance



Source: Barclays, SIFMA, through 6/30/17.

Figure 8 – Net Municipal Fund Flows



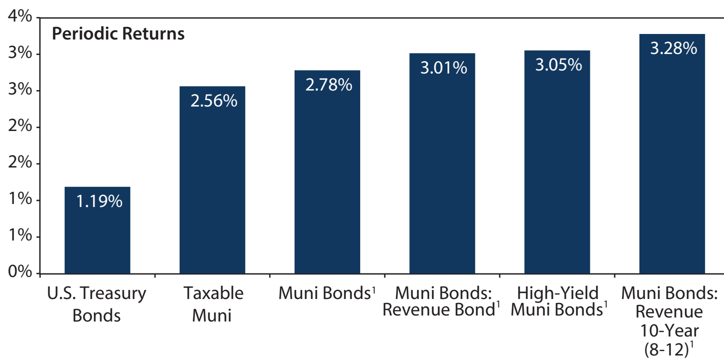
Source: ICI, through June 21, 2017.

Second Quarter Review

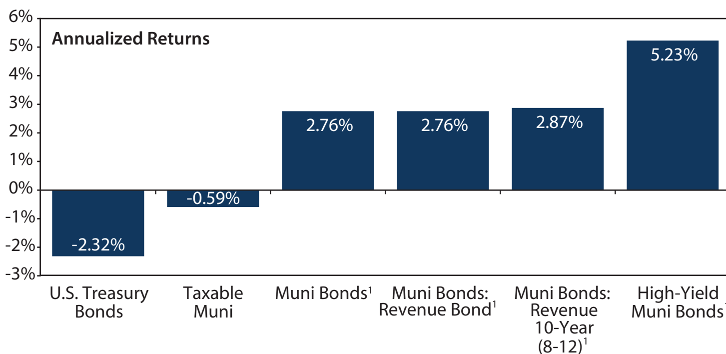
Building on the first quarter's positive total return of 1.63% for revenue bonds, the second quarter posted another strong quarter of performance, with the Bloomberg Barclays Municipal Bond Revenue Bond Index return of 2.19% (2.76% on a tax-adjusted basis). The combination of year-over-year declines in new issue supply coupled with consistent, if not spectacular, mutual fund and ETF fund inflows have helped support municipal bond prices, in our view. As the table below demonstrates, municipal bond returns exceeded returns for U.S. Treasury Bonds and taxable municipal securities.

Thus far, legislative attempts at health care reform and tax reform, which could have significant impacts on municipal bonds, have failed to materialize. The picture is much the same for the trailing twelve months ended June 30, 2017.

Total Return Q2 2017



Total Return Trailing Twelve Months Ended June 30, 2017



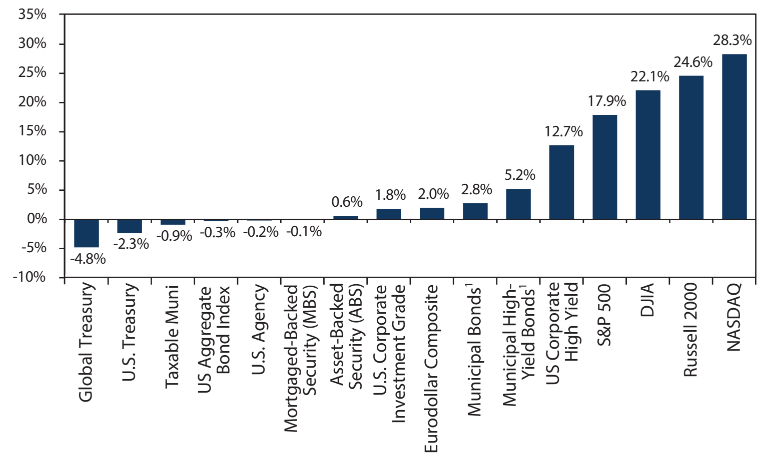
Source for all charts on this page: Barclays. For illustrative purposes only and not indicative of any actual investment. The illustrations exclude the effects of expenses incurred when investing. Past performance is no guarantee of future results. See last page for index definitions.

Amongst a diverse array of asset classes, the highest returns over the last twelve months were centered on equities. High-yield fixed income, both muni and corporate varieties (which both tend to be more correlated with equities than their respective investment-grade indexes), led the pack outside of equity. Of note, investment grade municipal bonds stand out for their superior returns when compared to other investment grade, fixed income asset classes.

New issuance of municipal bonds was down 13.3% compared to the first half of 2016. The decline in primary market issuance was due to an approximately 26% decline in refunding activity, only partially offset by an increase in new capital issuance (see Figure 7).

During the first half of 2017, municipal fund flows were positive during each month, ranging from a positive $858 million to $2.44 billion. Year-to-date, fund flows thru June 21st totaled a robust $11.88 billion. (see Figure 8).

Trailing Twelve Months Total Return as of June 30, 2017



Outlook for 2017

As we look ahead to the second half of 2017, we see a six month period of volatility and opportunity. Issues to watch include:

Legislative Changes. Potential legislation could have significant effects on the municipal market:

- Healthcare Reform: Attempts to repeal and replace the Affordable Healthcare Act (ACA) have thus far been unsuccessful. While a bill passed the House of Representatives, efforts to pass a wholly different health care reform bill in the U.S. Senate stalled. With its narrow 52-person majority in the U.S. Senate, successfully crafting a bill that appeases both moderate and conservative Republican senators is proving very difficult, with no support from Democratic senators expected. From what we have seen thus far, the various iterations of healthcare bills would have a clear negative effect on the hospital sector as patients without the ability to pay would likely increase significantly (i.e by millions of people). States that adopted Obamacare and hospitals in those states that experienced a dramatic reduction in self pay patients (because people now have insurance) could be most negatively impacted by a repeal and replace of Obamacare under current proposals in the House and Senate. Meanwhile, healthcare insurers such as Aetna continue to pull back from participation in ACA state markets.

- Tax Reform: Over the past thirty years, changes to tax rates have not had any measurable effect on municipal demand. However, tax reform could still end up being a negative for municipal bonds depending on the magnitude of corporate and individual tax rate cuts. For instance, a reduction in the corporate tax rate to 15%, as proposed by President Trump in his April 2017 White House memo, would likely diminish the demand for municipal bonds by banks and insurance companies. While we do not expect corporate tax reform to result in a 15% corporate rate, we do believe markets may have become too complacent about the possibility of material corporate or individual tax reform and the behavioral changes that could result.

- Infrastructure: The infrastructure proposal offered during the campaign by the Trump administration is based on offering tax breaks to public-private partnerships, and municipal bonds could be used to partially fund projects. We expect that Republican controlled legislature will be hesitant to authorize additional spending if the net result is a large increase in the U.S. budget deficit. The details of any such plan that emerges from Congress will be essential to determine the impact on munis. For instance, a plan that provides more federal funding to states and local units of government to repair and expand roads, bridges, and airports could support municipal bond credit quality. Likewise, if taxable Build America Bonds become an additional tool for municipal units of government to finance projects, the supply of tax-exempt bonds could be reduced as more deals come to market as taxable municipal securities, thus supporting tax-exempt municipal bond prices.

Gradually Rising Rates. After raising the Fed Funds rate 25 bps on March 15, 2017, the Federal Reserve ("Fed") raised the Fed Funds rate again on June 14th by another 25 bps. We believe the Fed is likely to raise the Fed Funds rate one more time by 25 bps in December 2017. We see the 10-year U.S. Treasury yield ending the year between 2.70% and 3.00% from its June 30th level of 2.31%. Furthermore, we believe the Fed will begin to reduce its $4.5 trillion balance sheet starting in September. As the Fed has stated, Fed rate actions will be data dependent, with a focus on supportive economic data including jobs and wage growth, inflation and inflation expectations.

Decrease in new issue supply. We expect new issue supply in 2017 to be down dramatically from the $446 billion issued in 2016. We see new issue supply ending the year somewhere between $350 billion and $375 billion. A number of refundings were accelerated before the November 2016 election so the potential refunding pool is diminished. However, we note that issuance in 2007 and 2008 was relatively robust and issued at yields much higher than today's rates, so the economics for refundings still exist. We expect refundings to total between $195 and $220 billion with new issuance in line with the $155 billion per year average of the prior 6 years for a total range of $350-$375 billion.

Volatile, but positive fund flows. With our expectation for higher rates, we believe flows into municipal bond funds are likely to be volatile in 2017. Year-to-date, fund flows have been positive each month. Given that nominal yields are low relative to historical levels and provide less income cushion to shield investors against rising interest rates, we believe any persistent increase in yields (decline in bond prices) could cause a substantial reduction in retail demand for municipals. Since we expect rates to rise gradually during the second half of 2017, we would not be surprised to see outflows by the fourth quarter of 2017, as a number of factors could weigh on the municipal market, including the beginning of a reduction in the size of the Fed's balance sheet, higher seasonal new issue municipal bond supply, higher inflation statistics and the potential for additional Fed rate increases. However, given the relative attractiveness of risk-adjusted municipal yields versus other asset classes, we believe any sustained outflows which lead to higher yields will be ultimately viewed by investors as a buying opportunity and thus, limits the magnitude of municipal bond price declines.

Stable municipal credit quality. We expect municipal credit quality to remain broadly stable to positive. We have positive sector outlooks for senior living, toll roads, airports and special tax districts backed by residential real estate assets. Until we see how the potential repeal of the Affordable Care Act impacts hospital profitability, we remain cautious on hospitals, especially those located in states that adopted Obamacare and possess high exposure to Medicaid coupled with weak operating cash flow and debt service coverage. We have favored revenue bonds over general obligation bonds in states with growing economies and stable credit profiles such as California, Florida and Texas while underweighting revenue bonds in states with weaker economies, balance sheets and pension issues such as Illinois and New Jersey.

We believe weaker states and territories such as Illinois and New Jersey could continue to see credit spreads widen and will need to be monitored closely. We note that the recent enactment of a budget in the State of Illinois has brought a degree of stability to Illinois, Illinois state funded Universities, the City of Chicago and its public schools, but significant issues remain to obtaining true budgetary balance. In addition, we expect a large amount of new issuance ($3.0 billion or more) coming from the State of Illinois as the state grapples with a $14.3 billion backlog of past due bills. Thus, while these large borrowers appear to have some time to get their fiscal houses in order, the will to implement service cuts and tax increases to reach true budgetary stability remains in doubt. These types of borrowers remain particularly vulnerable should the U.S. economy slow unexpectedly.

Puerto Rico and its related corporate affiliate defaults are not a symptom of broader credit deterioration in the municipal bond market. Rather, Puerto Rico and similar credit stories are a cautionary tale that declining population, employment, and income indicators, coupled with persistent budget deficits and higher debt and pension liabilities, do have limits to sustainability and access to capital. Bondholders may well find out that when investor interests are weighed against meeting the fundamental service needs of a local population, the scales of justice tip in favor of the local population.

Strategy and Recommendations

In spite of our expectation for gradually higher interest rates for the remainder of 2017, we believe there are attractive opportunities in municipal bonds relative to other fixed income asset classes and that municipal performance will be positive. Applying our total return analysis to our ETF and SMA strategies and assuming interest rates increase 30 bps symmetrically along the yield curve during the course of the year, we would expect our SMA and ETF strategies to produce positive total returns of approximately 1.4% to 2.1% over the next twelve months. In the event we're wrong and municipal rates stay unchanged, the total return analysis for our ETF and SMA strategies would produce positive total returns of between 2.5% and 3.5%. This analysis assumes no change in credit spreads or trading activity that could potentially add or detract from performance. Because of active portfolio management and the flexibility we have to tactically adjust duration, credit quality, industry/sector allocation, and yield curve positioning as market conditions change, we believe our portfolios could outperform these estimates.

All opinions constitute judgements as of the date of release and are subject to change without notice. There can be no assurance that any forecasts will be achieved. Data is taken from sources we believe to be accurate and reliable but we do not guarantee its accuracy or completeness.

The information presented is not intended to constitute an investment recommendation for, or advice to, any specific person. By providing this information, First Trust is not undertaking to give advice in any fiduciary capacity within the meaning of ERISA and the Internal Revenue Code. First Trust has no knowledge of and has not been provided any information regarding any investor. Financial advisors must determine whether particular investments are appropriate for their clients. First Trust believes the financial advisor is a fiduciary, is capable of evaluating investment risks independently and is responsible for exercising independent judgment with respect to its retirement plan clients.

Given the low correlation of municipal bonds to other major asset classes such as U.S. equities (10-year correlation of 0.08) (see Figure 4), as well as their attractive taxable-equivalent yields and favorable risk-adjusted returns (see Figure 2), we view municipal bonds as a foundational component of a diversified portfolio. Given our expectation of higher rates, we believe total return oriented investors should consider positioning their municipal portfolios more defensively by underweighting longer duration and leveraged strategies, and moving to the intermediate portion of the municipal yield curve. Bonds in this area of the curve are typically less interest-rate sensitive, benefit from the steeper yield curve slope, and are less sensitive to Fed rate hikes than shorter dated bonds. We also believe longer duration (i.e. more interest rate sensitive) open-end strategies such as mutual funds and ETFs could experience more selling pressure (i.e. outflows or share redemptions) in a persistent period of higher rates.

On the credit side, we continue to overweight "A" rated bonds, and select below investment grade and non-rated securities given current stable municipal credit fundamentals. We are now watchful buying most newly issued "BBB" rated bonds given what we believe are relatively tight credit spreads. We also favor essential service revenue bond sectors such as special tax, senior living, toll roads, airports, higher education and utilities which, in our view, have additional default-risk insulation because of the borrowers' essentiality in their local communities.

Index Definitions

Municipal Bonds are represented by the Bloomberg Barclays Municipal Bond Index which is a rules-based, investment-grade, market-value-weighted index engineered for the long-term tax-exempt bond market.

Municipal Bonds: Revenue Bond – The revenue bond portion of the Bloomberg Barclays Municipal Bond Index.

Municipal Bonds: Revenue 10-Year (8-12) – Revenue bonds that have a final maturity between 8 and 12 years that are part of the Bloomberg Barclays Municipal Bond Index.

High-Yield Municipal Bonds are represented by the Bloomberg Barclays Municipal High Yield Index which is composed of publicly traded municipal bonds that cover the U.S. dollar-denominated high-yield short-term tax-exempt bond market. To be included in the Index, a bond must have a nominal maturity of 1 to 10 years.

U.S. Treasury Bonds are represented by the Bloomberg Barclays U.S. Treasury Bond Index which includes public obligations of the U.S. Treasury with a remaining maturity of one year or more. This index is the U.S. Treasury component of the Bloomberg Barclays U.S. Government Index.

U.S. Corporate Investment Grade Bonds are represented by the Bloomberg Barclays U.S. Credit Index which measures the performance of investment-grade corporate debt and agency bonds that are dollar denominated and have a remaining maturity of greater than one year.

U.S. Corporate High-Yield Bonds are represented by the Bloomberg Barclays U.S. Corporate High Yield Index which is composed of fixed-rate, publicly issued, non-investment grade debt.

U.S. Investment Grade Bonds are represented by the Bloomberg Barclays Capital U.S. Aggregate Bond Index which covers the investment-grade, U.S. dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass throughs), ABS, and CMBS.

Mortgage-Backed Securities are represented by the Bloomberg Barclays U.S. MBS Index which measures the performance of investment grade fixed-rate mortgage-backed pass-through securities of GNMA, FNMA, and FHLMC.

International Bonds are represented by the Bloomberg Barclays Global Aggregate ex US Index which is an unmanaged index that provides a broad-based measure of the global investment grade fixed-income markets excluding the US dollar denominated debt market.

Emerging Market Sovereign Bonds are represented by the Bloomberg Barclays Capital EM USD Aggregate Index which includes U.S. dollar-denominated bonds that have maturities longer than one year and that were issued by emerging market governments and government related issuers.

U.S. Equities are represented by the S&P 500 Index which is an unmanaged index of 500 stocks used to measure large-cap U.S. stock market performance.

The **Bloomberg Barclays Global Treasury Index** tracks fixed-rate, local currency government debt investment grade countries, including both developed and emerging markets.

The **Bloomberg Barclays Municipal Bond AAA Index** is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market. The Index tracks general obligation bonds, revenue bonds, insured bonds and prefunded bonds rated Aaa by at least two of the ratings agencies: Moody's, S&P, Fitch.

The **Bloomberg Barclays Municipal Bond A Index** is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market. The Index tracks general obligation bonds, revenue bonds, insured bonds and prefunded bonds rated A by at least two of the ratings agencies: Moody's, S&P, Fitch.

The **Bloomberg Barclays Municipal Bond BAA Index** is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market. The Index tracks general obligation bonds, revenue bonds, insured bonds and prefunded bonds rated Baa by at least two of the ratings agencies: Moody's, S&P, Fitch.

The **Bloomberg Barclays Municipal Bond High-Yield Index** is the municipal high-yield component of the Bloomberg Barclays Municipal Bond Index which is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market.

The **Bloomberg Barclays Municipal Bond High-Yield 2% Issuer Cap Index** is the Bloomberg Barclays Municipal High-Yield Index, the municipal high-yield component of the Bloomberg Barclays Municipal Bond Index, in which no market value weighted exposure to any single issuer exceeds 2% of the index.

The **Russell 2000 Index** is a small-cap stock market index of the bottom 2,000 stocks in the Russell 3000 Index.

The **NASDAQ Composite** is a stock market index of the common stocks and similar securities listed on the NASDAQ stock market.

U.S. High Yield is represented by the Bloomberg Barclays U.S. Corporate High Yield Index which covers the universe of fixed-rate, non-investment-grade debt

ABS is represented by the Bloomberg Barclays Asset-Backed Securities Index which includes assets back by credit and charge cards, autos and utilities.

U.S. Agency is represented by the Bloomberg Barclays U.S. Agency Index which is comprised of debt issued by U.S. Government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. Government.

The **Dow Jones Industrial Average (DJIA)** is an index that shows how 30 large publicly owned companies based in the United States have traded during a standard trading session in the stock market

Aggregate is represented by the Bloomberg Barclays Aggregate Bond Index which is a broad-based index that includes Treasury securities, Government agency bonds, Mortgage-backed bonds, Corporate bonds, and a small amount of foreign bonds traded in U.S.

U.S. Treasury is represented by the Bloomberg Barclays U.S. Treasuries Index which tracks Treasury performance

Eurodollar is represented by the Bloomberg Barclays Eurodollar Index which consists of fixed-rate investment grade U.S. dollar-denominated securities that are registered outside of the U.S.

Taxable Muni is represented by the Bloomberg Barclays Taxable Municipal Bond Index which is a rules-based, market-value-weighted index engineered for the long-term taxable bond market.

[1] Taxable-equivalent measures illustrate approximately what an investor would have to earn on taxable investments to equal the tax-exempt annualized return using the highest federal tax bracket (39.6%) and another 3.8% for the Medicare Tax for 2017. State and local taxes have not been considered. This information is based on present law as of the date of publication and does not account for any proposed changes in tax rates. This information does not account for limitations on deductions, the alternative minimum tax or taxes other than Federal personal income tax. It is important to note that there are differences between the investment objectives and risks of municipal bonds versus the asset classes shown.