

Municipal Fixed Income

WEEKLY MARKET REVIEW

December 18 | 2015

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High-grade tax-exempt interest rates climbed last week, as the S&P AAA Municipal Yield Curve rose by 4 basis points (bps) at the 1-year point, while the 2- and 3-year maturities were both higher by 2 and 4bps, respectively (Figs. 1 & 2). The 5- and 7-year spots also shifted up by 4bps each, and the 10-year point was higher by 2bps. The 30-year spot increased by 1bp. The slope of the yield curve flattened by 3bps, front to back (Fig. 3).

Because of the rise in interest rates, performance results were mostly negative last week. The S&P Municipal Bond Index produced -0.029% (Fig. 11). Likewise, the Intermediate, Short Intermediate, and Short indices finished with total returns of -0.026%, -0.058%, and -0.045%, respectively.

Despite recent turmoil in the corporate high yield market, the tax-exempt municipal high yield market endured only marginally negative returns last week. The S&P Municipal Bond High Yield Index closed the last five trading days manufacturing -0.420%, bringing that benchmark's year-to-date return to +2.232%. The S&P Municipal Bond Puerto Rico index closed the week with performance of -0.683%.

The upcoming week has almost no new issuance, with only \$35 million in municipal deals (Fig. 19), which is typical as we approach the close of the year. The following week should have a sparse new-issue calendar, as well. Looking at demand, the Investment Company Institute reported a positive \$825 million of net flows into tax-exempt municipal bond funds for the week ending Wednesday, December 9 (Figure 20).

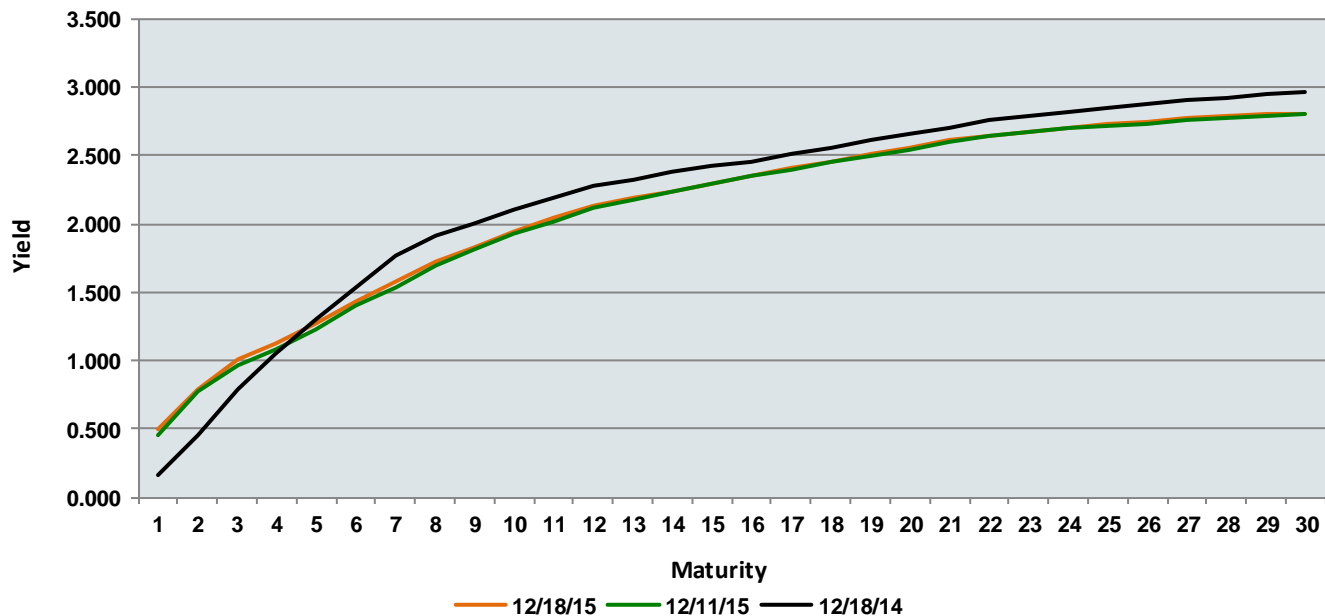
NOTICE: Due to the Christmas and New Year holidays, we will not publish the MFI Weekly for the next two weeks. We will resume publication on January 11, recapping the week ending January 8. We wish everyone a happy holiday season.

Investing involves risks and you may incur a profit or a loss. Past performance is no guarantee of future results.

Figure 1
S&P AAA Municipal Yield Curve - Recent Trends

Maturity	Most Recent	Last Week-End	Last Month-End	Last Year-End	Change for the Period		
	12/18/15	12/11/15	11/30/15	12/31/14	Δ Week	Δ MTD	Δ YTD
1	0.50	0.46	0.37	0.17	0.04	0.13	0.33
2	0.79	0.77	0.72	0.50	0.02	0.07	0.29
3	1.01	0.97	0.93	0.81	0.04	0.08	0.20
5	1.27	1.23	1.26	1.31	0.04	0.01	-0.04
7	1.58	1.54	1.62	1.71	0.04	-0.04	-0.13
10	1.95	1.93	2.02	2.05	0.02	-0.07	-0.10
15	2.30	2.30	2.45	2.36	0.00	-0.15	-0.06
30	2.81	2.80	2.95	2.88	0.01	-0.14	-0.07
1yr-30yr Slope	2.31	2.34	2.58	2.71	-0.03	-0.27	-0.40
2yr-10yr Slope	1.16	1.16	1.30	1.55	0.00	-0.14	-0.39

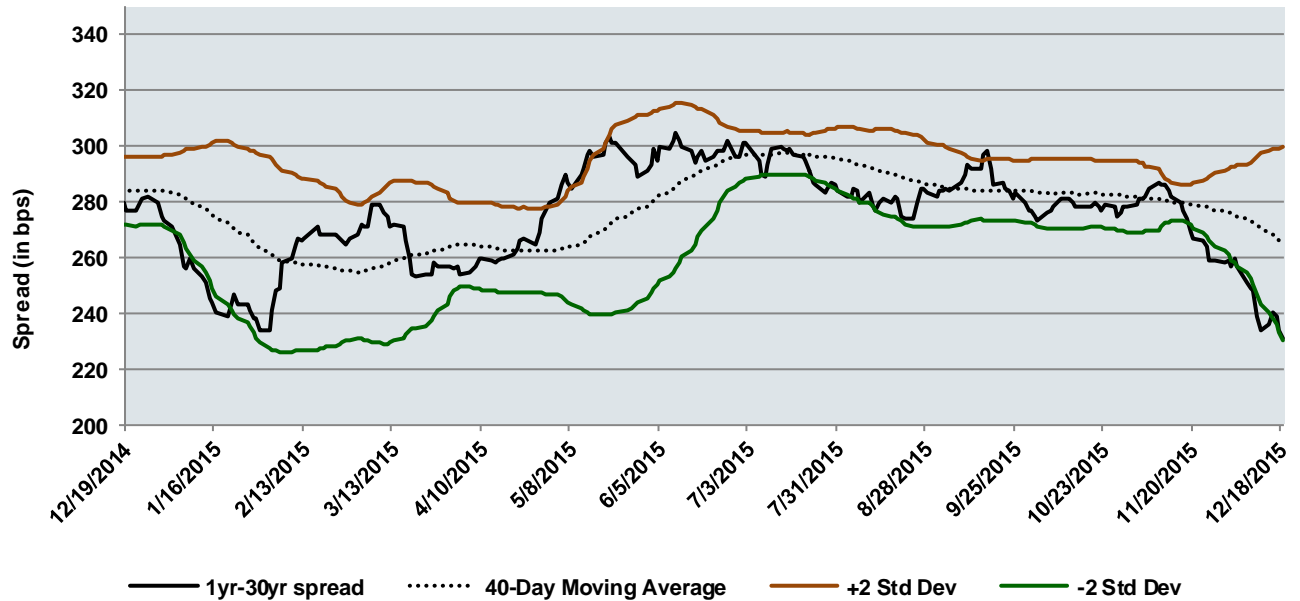
Figure 2
S&P AAA Municipal Yield Curve : Year-Over-Year Comparison



Source: WTIA Municipal Fixed Income, Standard & Poor's Securities Evaluations, Inc., Investortools, Inc..

Figure 3

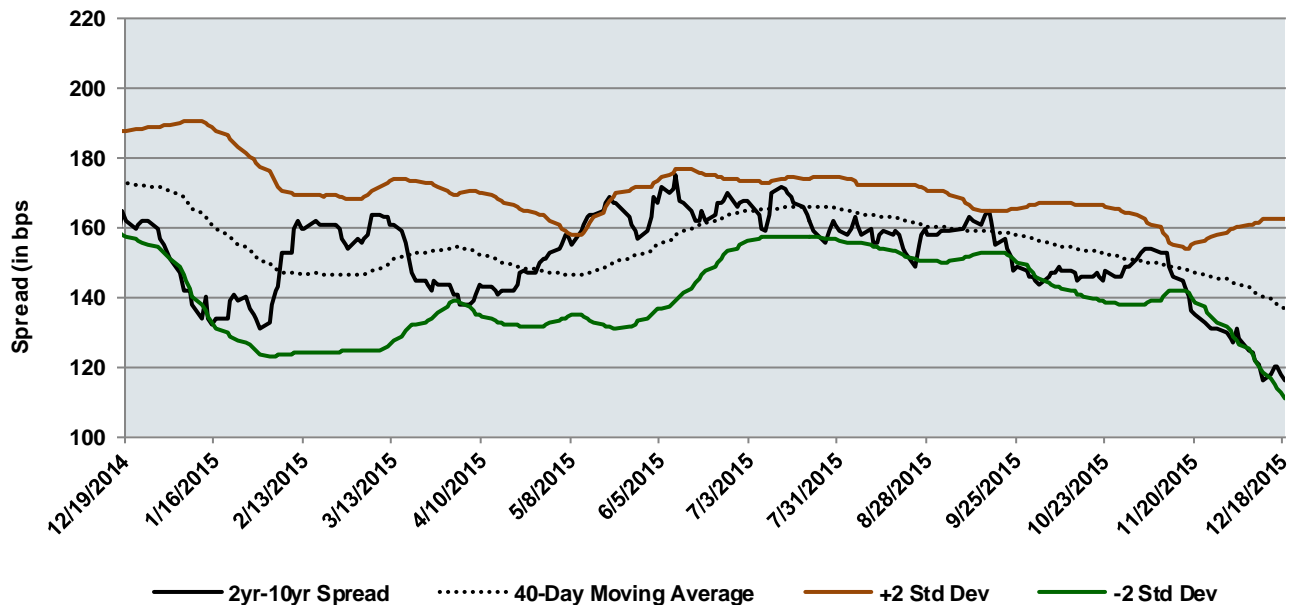
Slope Analysis: S&P AAA Municipal 1yr - 30yr Slope (40-Day Bollinger Bands)



Source: Wilmington Trust Investment Advisors, S&P Dow Jones Indices, LLC, Investortools, Inc. Please see the end notes for a description of Slope Analysis

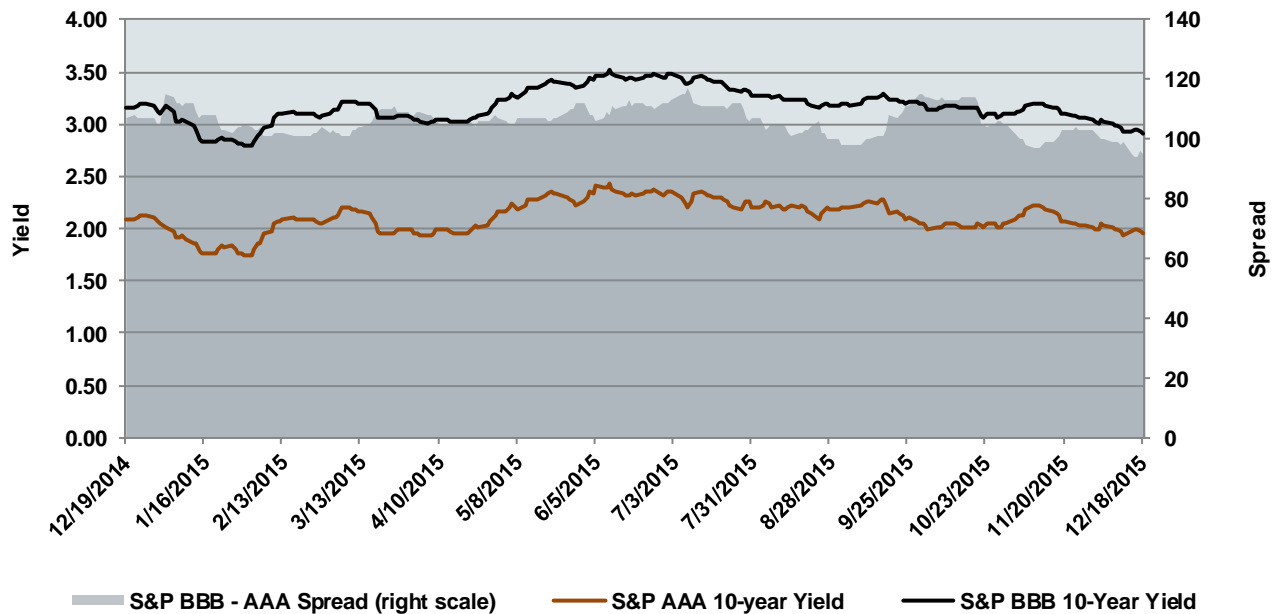
Figure 4

Slope Analysis: S&P AAA Municipal 2yr - 10yr Slope (40-Day Bollinger Bands)



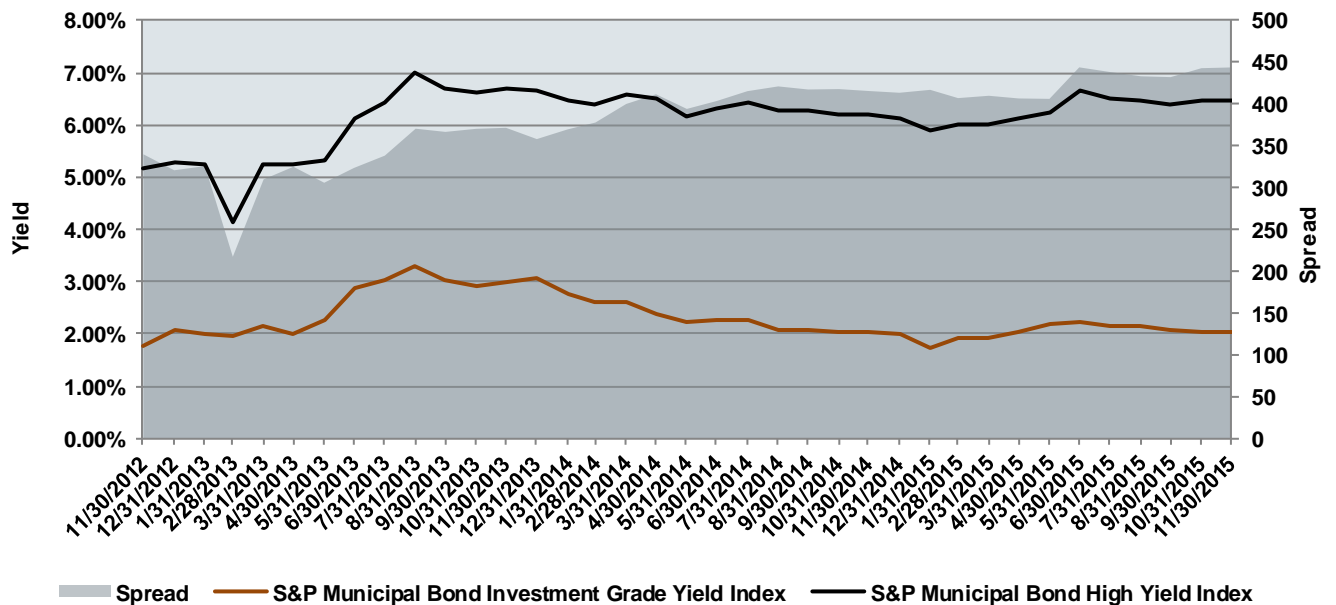
Source: Wilmington Trust Investment Advisors, S&P Dow Jones Indices, LLC, Investortools, Inc. Please see the end notes for a description of Slope Analysis

Figure 5

S&P 10-year BBB Municipal and 10-year AAA Municipal Historical Yields and Spread


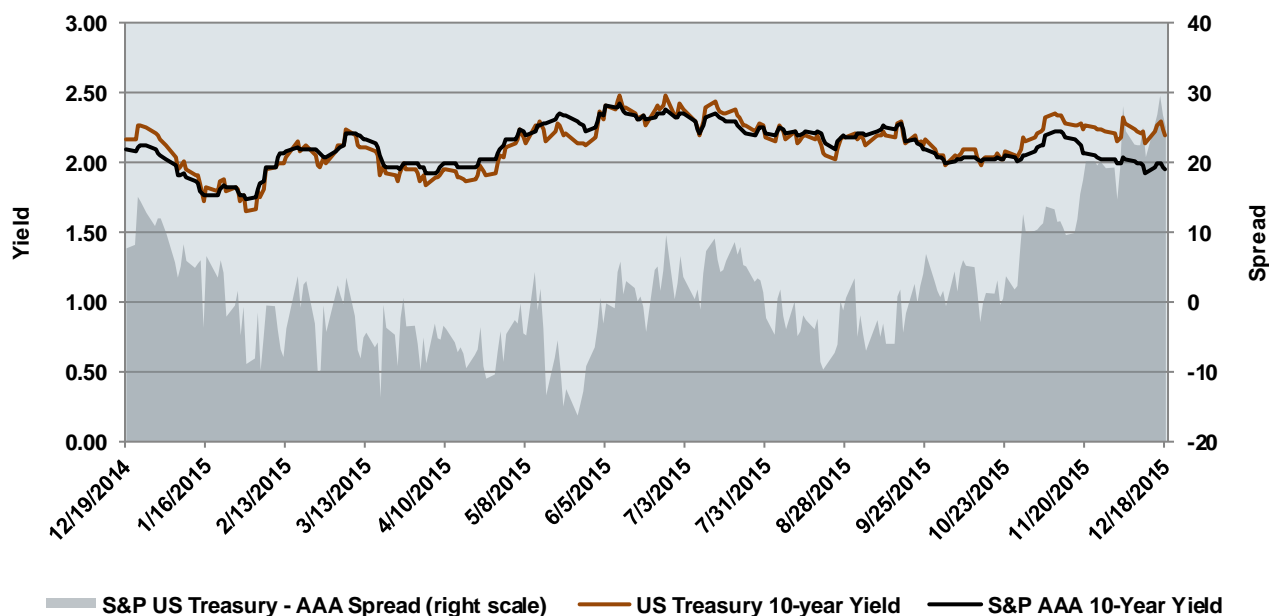
Source: Wilmington Trust Investment Advisors, S&P Dow Jones Indices, LLC, Investortools, Inc.

Figure 6

S&P Municipal Bond High Yield vs. Investment Grade Indices: Month-end Historical Yields and Spread


Source: Wilmington Trust Investment Advisors, S&P Dow Jones Indices, LLC, Investortools, Inc.

Figure 7

S&P 10-year US Treasury and 10-year AAA Municipal Historical Yields and Spread


Source: Wilmington Trust Investment Advisors, S&P Dow Jones Indices, LLC, Investortools, Inc.

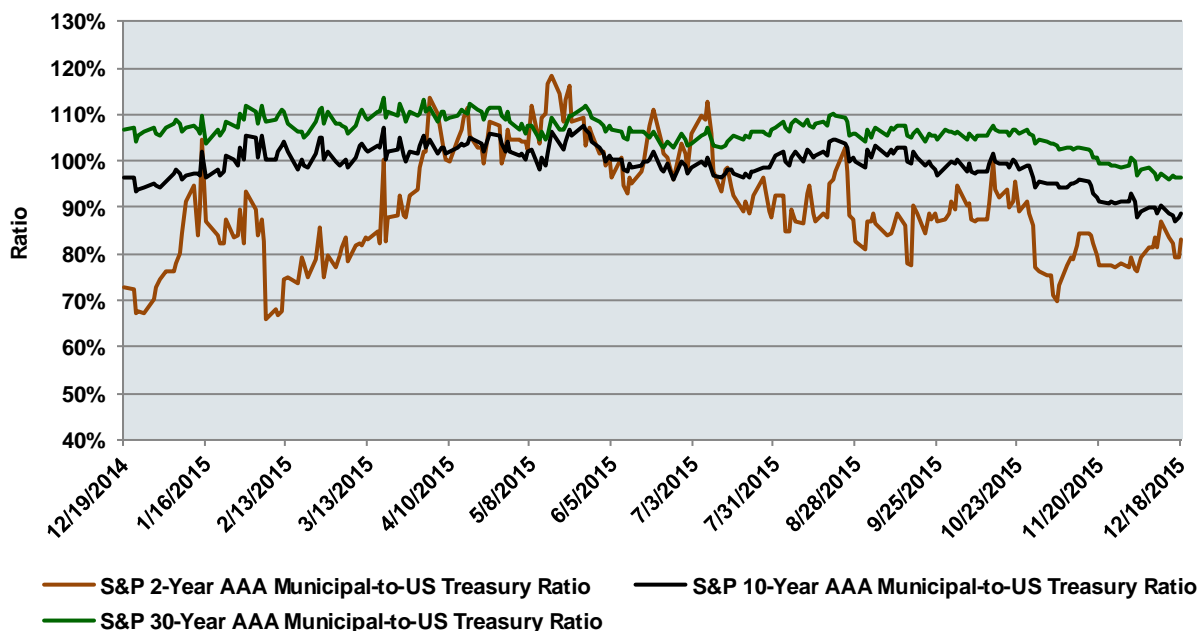
Figure 8

S&P AAA Municipal-to-US Treasury Ratios

	Most Recent	Last Week-End	Last Month-End	Last Year-End
Maturity	12/18/2015	12/11/2015	11/30/2015	12/31/2014
1	80.515%	71.651%	64.348%	55.375%
2	82.983%	86.809%	77.088%	74.405%
5	75.821%	78.394%	76.364%	79.250%
10	88.596%	90.271%	91.279%	94.470%
30	96.332%	97.121%	99.027%	104.727%

Source: WTIA Municipal Fixed Income, Standard & Poor's Securities Evaluations, Inc., Investortools, Inc.

Figure 9

S&P AAA Municipal-to-US Treasury Ratio


Source: Wilmington Trust Investment Advisors, S&P Dow Jones Indices, LLC, Investortools, Inc.

Figure 10

Selected S&P Municipal Bond Index Averages

Averages as of December 18, 2015							
	Coupon	Yield-to-Worst	Maturity	Maturity (in yrs.)	Priced-to Date	Priced-to Date (in yrs.)	Effective Duration
S&P Municipal Bond	4.522	2.290	1/16/2029	13.110	9/13/2021	5.740	6.322
S&P Municipal Bond Investment Grade	4.680	1.998	7/16/2028	12.610	4/3/2021	5.290	6.191
S&P Municipal Bond Intermediate	4.789	2.051	5/20/2024	8.430	8/16/2021	5.660	5.470
S&P Municipal Bond Short Intermediate	4.783	1.466	2/12/2020	4.160	8/30/2019	3.700	3.385
S&P Municipal Bond Short	4.746	1.074	2/1/2018	2.120	1/3/2018	2.040	1.938
S&P Municipal Bond High Yield	3.448	6.180	10/7/2035	19.810	9/18/2027	11.750	8.088
S&P Municipal Bond Puerto Rico	3.210	9.526	4/27/2033	17.290	6/6/2032	16.470	8.661

Source: Wilmington Trust Investment Advisors, Investortools, Inc., S&P Dow Jones Indices LLC

Index calculations by Investortools, Inc. Custom Index Manager

Figure 11

Selected S&P Municipal Bond Index Total Returns

	as of December 18, 2015				Calendar 2014
	Week	MTD	QTD	YTD	
S&P Municipal Bond	-0.029%	0.525%	1.384%	3.127%	9.260%
S&P Municipal Bond Investment Grade	0.001%	0.575%	1.397%	3.204%	8.868%
S&P Municipal Bond Intermediate	-0.026%	0.433%	1.170%	3.074%	6.985%
S&P Municipal Bond Short Intermediate	-0.058%	0.091%	0.405%	1.849%	3.034%
S&P Municipal Bond Short	-0.045%	-0.050%	-0.045%	0.839%	1.020%
S&P Municipal Bond High Yield	-0.420%	-0.129%	1.215%	2.232%	14.600%
S&P Municipal Bond Puerto Rico	-0.683%	-1.761%	-1.080%	-8.012%	10.319%

Source: Wilmington Trust Investment Advisors, Investortools, Inc., S&P Dow Jones Indices LLC

Index calculations by Investortools, Inc. Custom Index Manager

S&P Municipal Bond Index Total Return Performance Attribution for the Week Ending December 18, 2015

Figure 12

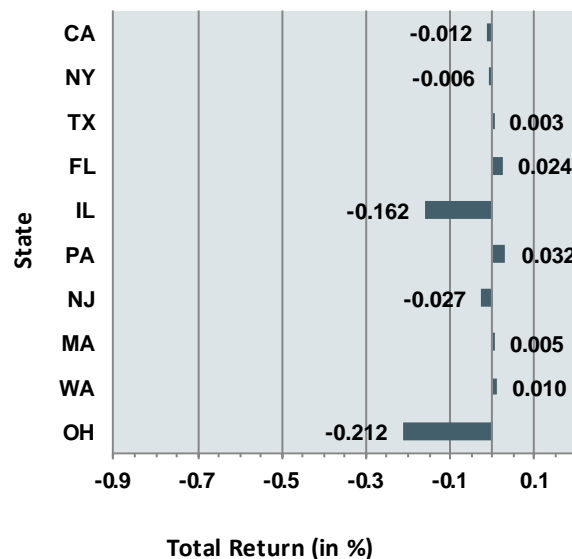
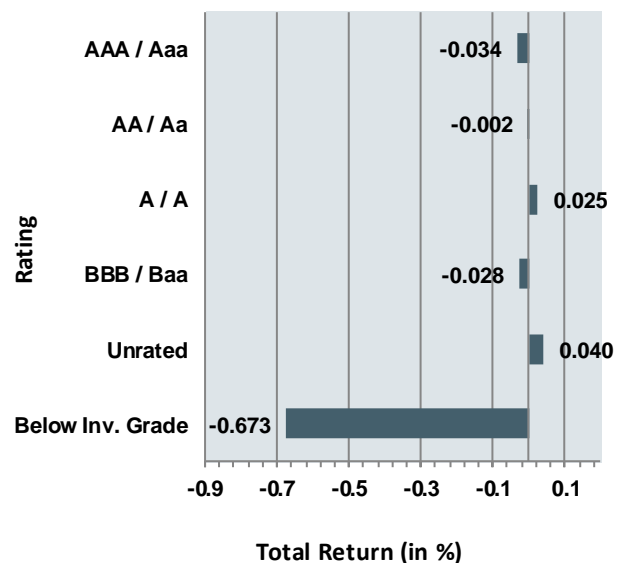
Return of Top 10 States by Market Value


Figure 13

Attribution by Lowest Rating


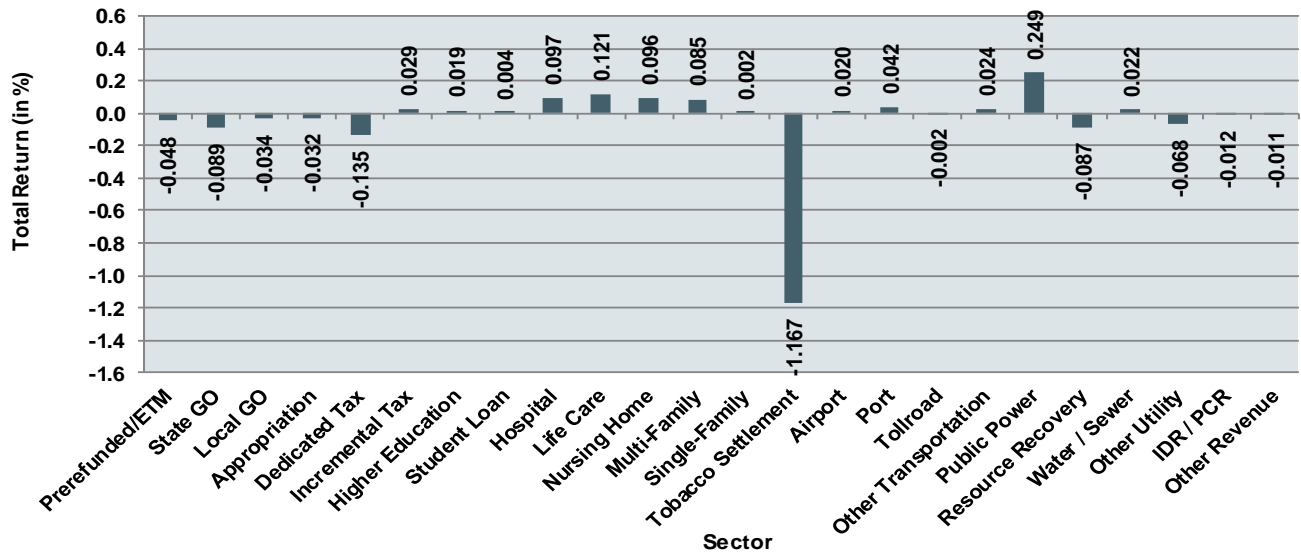
Source: WTIA Municipal Fixed Income, Standard & Poor's Securities Evaluations, Inc., Investortools, Inc..

Lowest Rating – Bond issues split across ratings by different agencies are categorized by the lowest letter grade.

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Figure 14

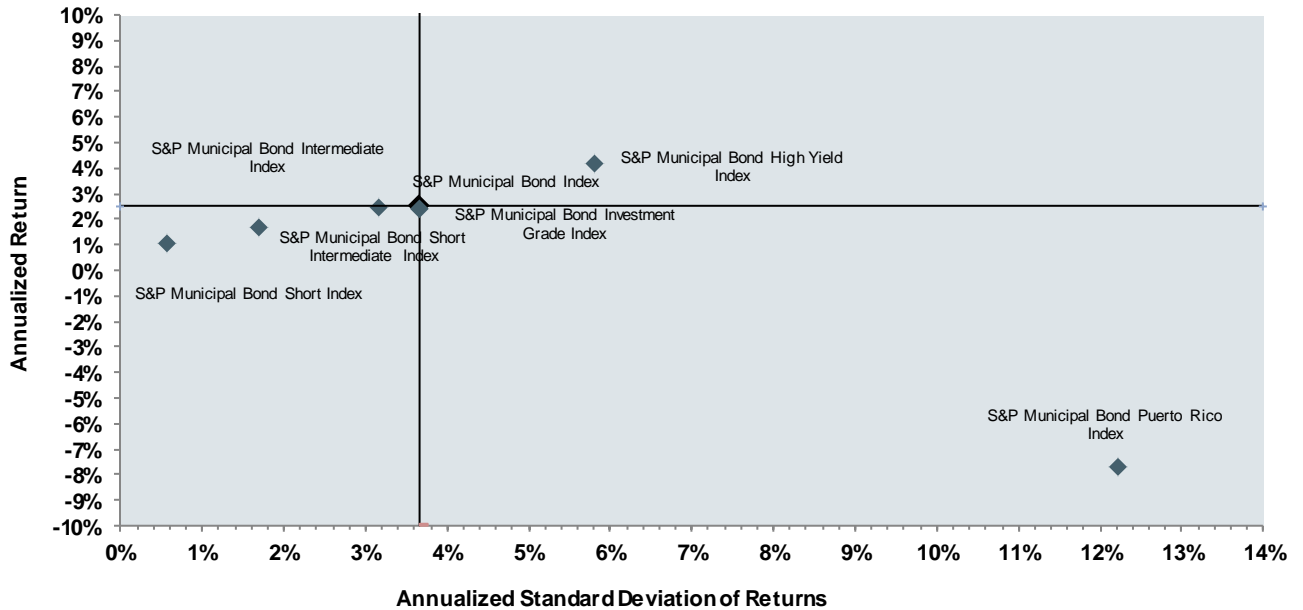
S&P Municipal Bond Index Total Return Performance Attribution by Sector for the Week Ending December 18, 2015



Source: WTIA Municipal Fixed Income, Standard & Poor's Securities Evaluations, Inc., Investortools, Inc..

Figure 15

S&P Municipal Index Trailing 3-Year Annualized Returns (for the period ending November 30, 2015)

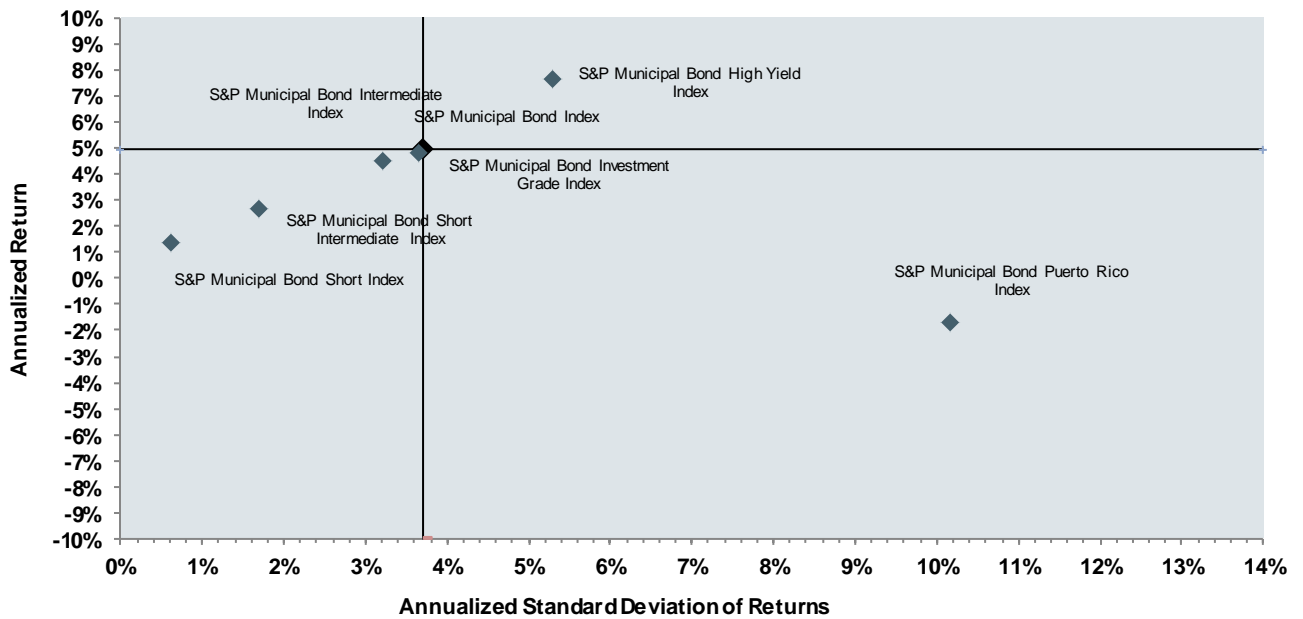


Source: Wilmington Trust Investment Advisors, S&P Dow Jones Indices, LLC, Investortools, Inc.

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Figure 16

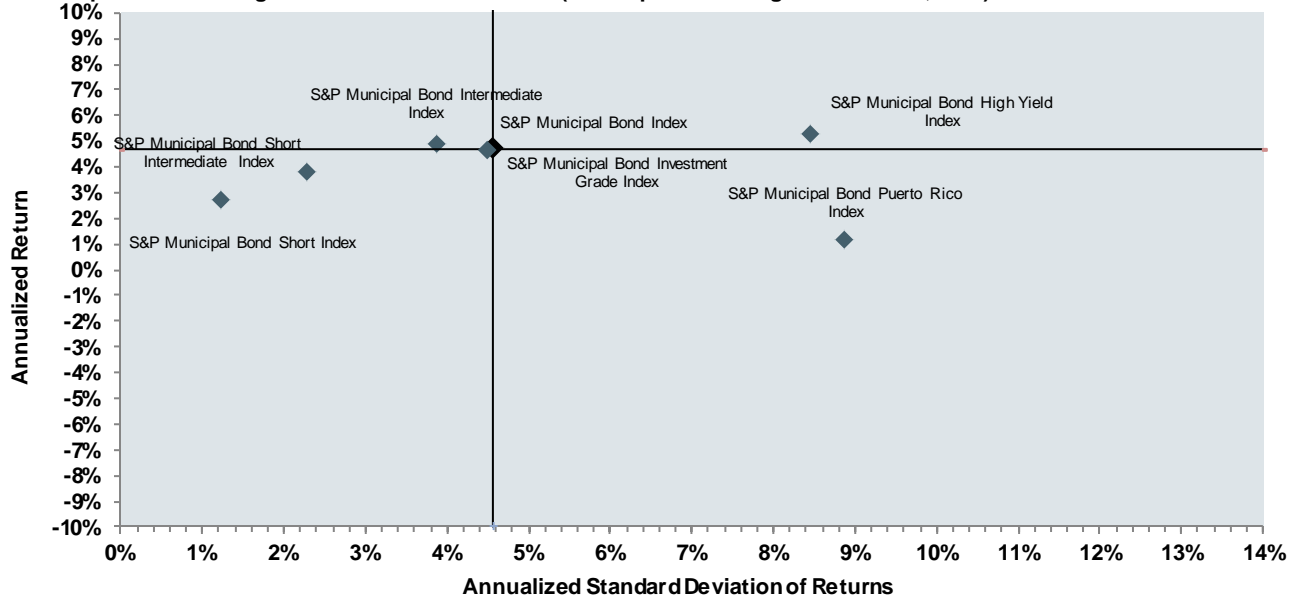
S&P Municipal Index Trailing 5-Year Annualized Returns (for the period ending November 30, 2015)



Source: Wilmington Trust Investment Advisors, S&P Dow Jones Indices, LLC, Investortools, Inc.

Figure 17

S&P Municipal Index Trailing 10-Year Annualized Returns (for the period ending November 30, 2015)

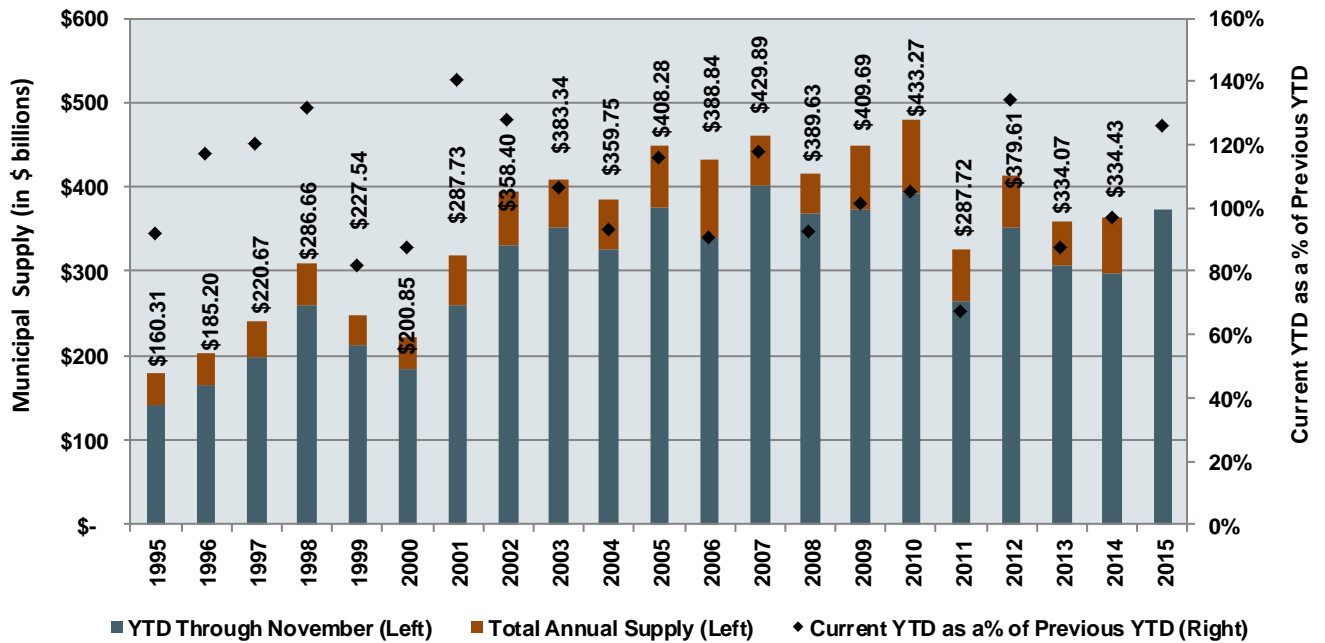


Source: Wilmington Trust Investment Advisors, S&P Dow Jones Indices, LLC, Investortools, Inc.

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Figure 18

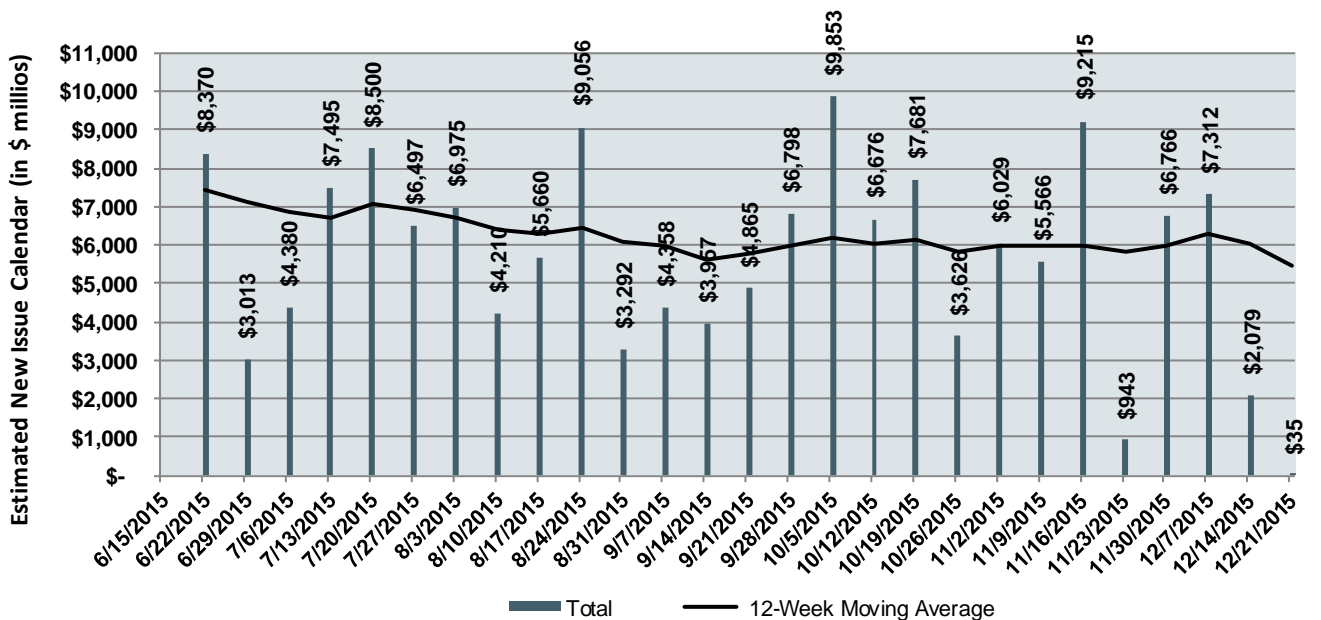
Total Annual and Year-to-Date Municipal Supply through November 30, 2015



Source: WTIA Municipal Fixed Income, The Bond Buyer

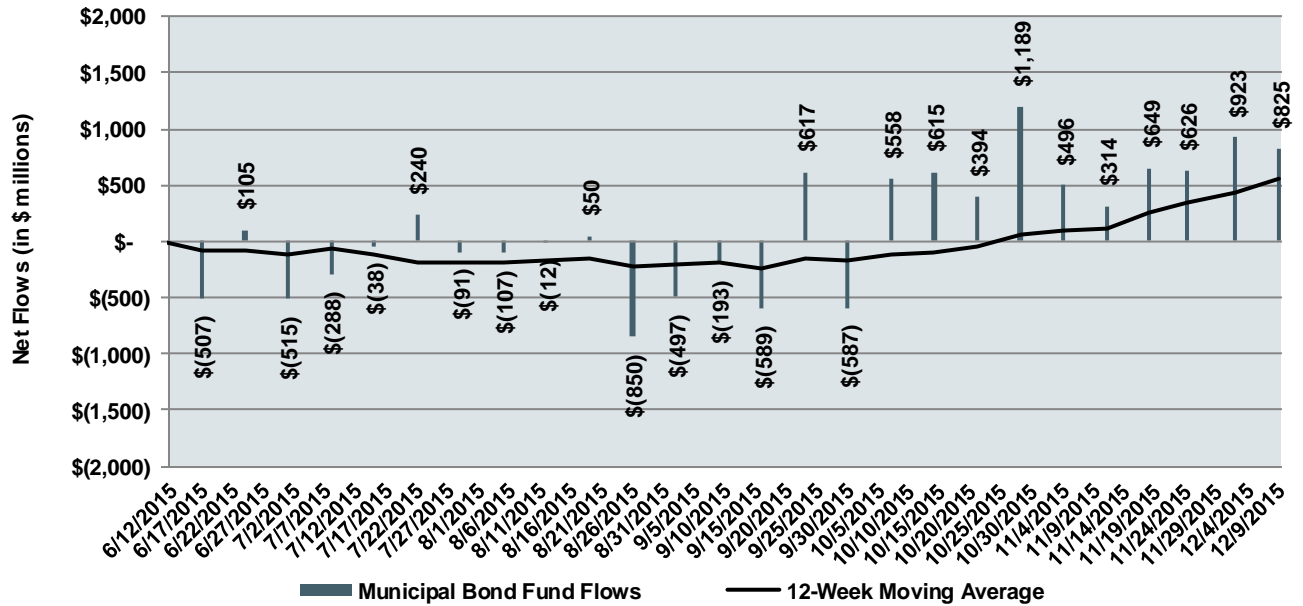
Figure 19

Estimated Weekly Municipal New Issue Calendar



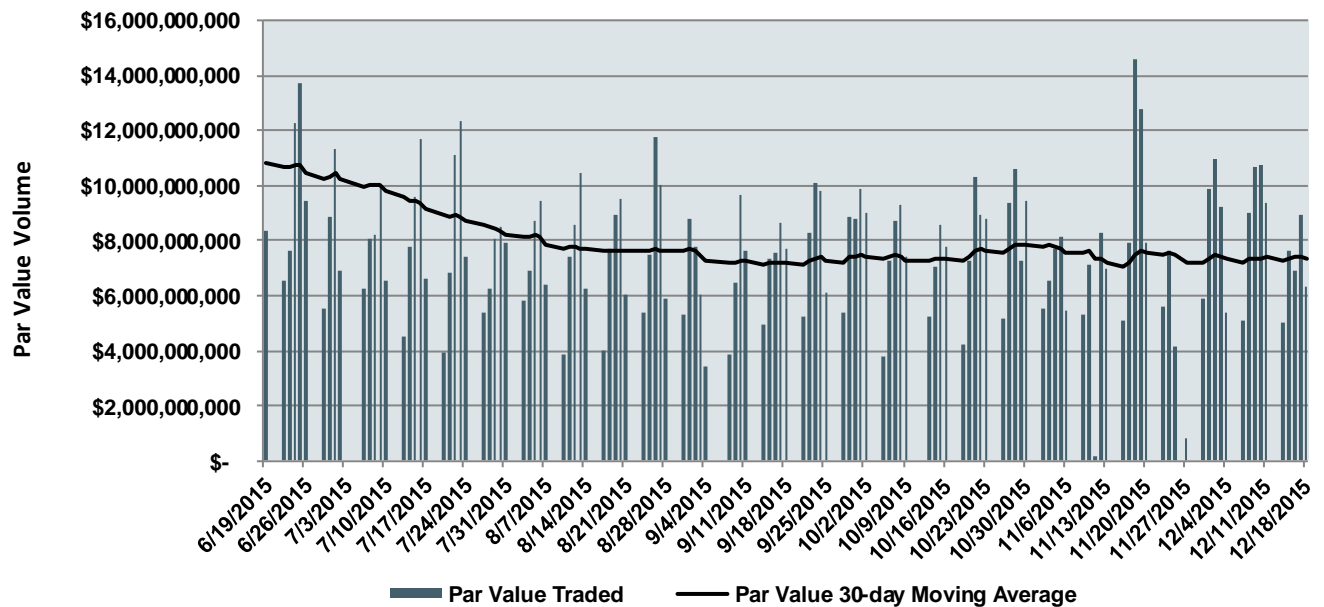
Source: Wilmington Trust Investment Advisors, Inc., Morgan Stanley & Co LLC, JP Morgan, Goldman Sachs

Figure 20

Estimated Weekly Municipal Bond Mutual Fund Flows (trailing 6 months)


Source: Wilmington Trust Investment Advisors, Inc., Investment Company Institute

Figure 21

Daily Municipal Trade Volume (trailing 6 months in par value \$)


Source: Wilmington Trust Investment Advisors, Inc., Municipal Securities Rulemaking Board, Bloomberg LP

Annualized Returns and Volatility

Index Name	1 Year	3 Year	5 Year	10 Year	3-Year	5-Year	10-Year
					Annualized Standard Deviation	Annualized Standard Deviation	Annualized Standard Deviation
S&P Municipal Bond Index	3.1%	2.5%	5.0%	4.7%	3.7%	3.7%	4.6%
S&P Municipal Bond Investment Grade Index	3.2%	2.4%	4.8%	4.7%	3.6%	3.7%	4.5%
S&P Municipal Bond Intermediate Index	3.0%	2.4%	4.5%	4.9%	3.2%	3.2%	3.9%
S&P Municipal Bond Short Intermediate Index	1.7%	1.6%	2.7%	3.7%	1.7%	1.7%	2.3%
S&P Municipal Bond Short Index	0.8%	1.0%	1.3%	2.7%	0.6%	0.6%	1.2%
S&P Municipal Bond High Yield Index	3.1%	4.1%	7.6%	5.3%	5.8%	5.3%	8.5%
S&P Municipal Bond Puerto Rico Index	-6.1%	-7.7%	-1.8%	1.1%	12.2%	10.2%	8.9%

Source: S&P Dow Jones Indices, LLC

Returns & Statistics are as of November 30, 2015

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The S&P Municipal Bond Index is a broad, market value-weighted index that seeks to measure the performance of the U.S. municipal bond market. It tracks fixed-rate bonds exempt from federal income tax, though they may be subject to the alternative minimum tax (AMT), with par outstanding of at least \$2 million. The index includes bonds of all quality ratings – from AAA to non-rated, including defaulted bonds – and from all sectors of the bond market. The S&P Municipal Bond Index constituents undergo a monthly review and rebalancing.

The S&P Municipal Bond Investment Grade Index consists of bonds in the S&P Municipal Bond Index that are rated at least BBB- by Standard & Poor's, Baa3 by Moody's or BBB- by Fitch Ratings. For the avoidance of doubt, the lowest rating is used in determining if a bond is eligible for the Index. S&P Dow Jones Indices looks at the long term rating, either insured or uninsured, and the underlying rating for index inclusion. All bonds must also have a minimum maturity of three years and a maximum maturity of up to, but not including, fifteen years as measured from the rebalancing date.

The S&P Municipal Bond Intermediate Index consists of bonds in the S&P Municipal Bond Index with a minimum maturity of three years and a maximum maturity of up to, but not including, 15 years as measured from the rebalancing date.

The S&P Municipal Bond Short Intermediate Index consists of bonds in the S&P Municipal Bond Index with a minimum maturity of one year and a maximum maturity of up to, but not including, eight years as measured from the rebalancing date.

The S&P Municipal Bond Short Index consists of bonds in the S&P Municipal Bond Index with a minimum maturity of six months and a maximum maturity of up to, but not including, four years as measured from the rebalancing date.

The S&P Municipal Bond High-Yield Index consists of bonds in the S&P Municipal Bond Index that are not rated or whose ratings are less than or equal to BB+ by Standard & Poor's, Ba1 by Moody's or BB+ by Fitch Ratings. Bonds that are prerefunded or escrowed to maturity are not included in this index. The lowest long-term underlying rating, either insured or uninsured, is used in determining if a bond is eligible for the Index.

The State level municipal bond sub-indices consists of bonds in the S&P Municipal Bond Index that have been issued by municipalities or municipal authorities within the respective states, the District of Columbia, Puerto Rico, Guam and the U.S. Virgin Islands. States and municipalities may have issues across the duration and quality spectrums or may be more concentrated to certain sub-indices, such as in the S&P Investment Grade or High Yield bond indices.

Indices are not available for direct investment. Investment in a security or strategy designed to replicate the performance of an index will incur expenses, such as management fees and transaction costs, which would reduce returns.

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Slope Analysis: The slope of the yield curve measures the rate gap between two points in the yield curve representing shorter- and longer-term yields. A low slope indicates a flat yield curve, where shorter- and longer-term rates are close to each other. The slope increases as the yield curve steepens, due to rising long rates and/or falling short rates, reflecting the higher gap between the yields of shorter and longer maturity bonds. In our slope analysis, we plot the trailing 40-day moving average of the slopes of the short v. long bond (1-30 year) and the intermediate range (2-10 year). We also plot +/- 2 standard deviation of the 40 trailing daily slopes – the trio are commonly referred to as Bollinger bands – to offer context to the moving average in light of the overall volatility of changes in the slope. Together, this is intended to indicate current steepness of the yield curve relative to recent trends.

Municipal bonds typically provide a lower yield than comparable taxable bonds in consideration of the tax-advantaged status of the interest payments from these bonds, which are exempt from federal taxes and may be exempt from applicable state and/or local taxes in the states and/or municipalities where they were issued. Capital gains do not share this tax advantaged status. Investments in municipal securities may not be appropriate for all investors, particularly those who do not stand to benefit from the tax status of the investment. The Alternative Minimum Tax may negate some or all of the tax benefits available through municipal securities.

Quality ratings are used to evaluate the likelihood of default by a bond issuer. Independent rating agencies, such as Standard & Poor's and Moody's Investors Service, analyze the financial strength of each bond's issuer. Moody's ratings range from Aaa (highest quality) to C (lowest quality). Bonds rated Baa3 and better are considered "Investment Grade". Bonds rated Ba1 and below are "Below Investment Grade" (also "High Yield" or "Speculative"). Similarly, Standard & Poor's ratings range from AAA to D. Bonds rated BBB- and better are considered "Investment Grade" and bonds rated BB+ and below are "Below Investment Grade".

All investments carry some degree of risk. This report uses return volatility, as measured by standard deviation, as a proxy for risk. Volatility serves as a collective, quantitative estimate of risks present to varying degrees in the respective asset classes (e.g., liquidity, credit and default risks). Certain types of risk may be underrepresented by this measure. Investors should develop a thorough understanding of the risks of any investment prior to committing funds.

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