

US Municipals Are an Appealing and Unique Asset Class

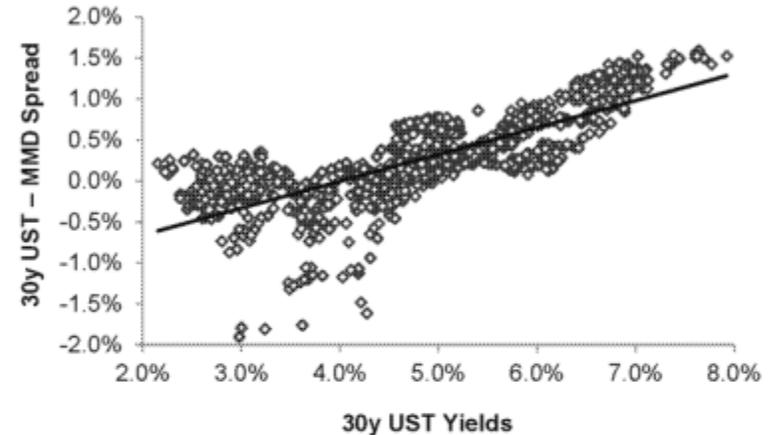
Historical Outperformance in Rising Rate Environment



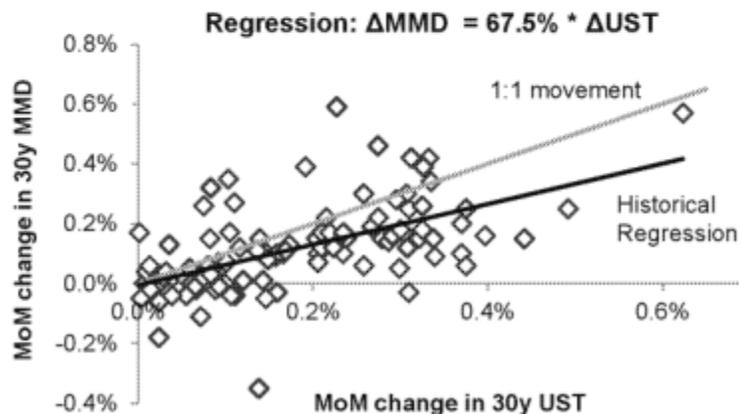
Taxable vs. Tax-exempt Yields

- Historically, as rates increase, the value of the tax-exemption to investors increases, bringing more buyers into the tax-exempt market
- This increased demand for tax-exempt bonds as rates rise tends to drive spreads between taxable and tax-exempt rates higher as rates increase
- This means that municipal bonds often outperform other taxable fixed income investments in a sell-off:
 - Regression on positive monthly change in 30y UST rates since 1995 shows that 30yr MMD historically tends to move at about 67.5% of 30yr UST yield movements

Higher Rates Cause Spread Widening⁽¹⁾



Positive MoM Change in 30y UST vs. MMD⁽²⁾



Historical Statistics using UST Sell-off Months⁽²⁾

Months of UST Sell-off Used	108
Total Months	260
30y UST	
Average	0.184%
Standard Deviation	0.124%
95% Highest	0.373%
5% Lowest	0.017%
30y MMD	
Average	0.109%
Standard Deviation	0.144%
95% Highest	0.390%
5% Lowest	-0.047%

Deutsche Bank (1) MMD data from TM3, UST data from Bloomberg; chart uses data from 1/3/1995 to 8/30/2016; past performance, simulated or actual, is not a reliable indicator of future results

(2) Date uses only positive month to month movements in 30y UST yields calculated on the first business day of each month from 1/3/1995 to 8/30/2016; does not include crisis data from 6/1/2008 to 6/1/2009

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