



November 2018

Municipal Market & Credit Update

Current Topics in Tax-Exempt Financing



MASSDEVELOPMENT

Municipal Market Update

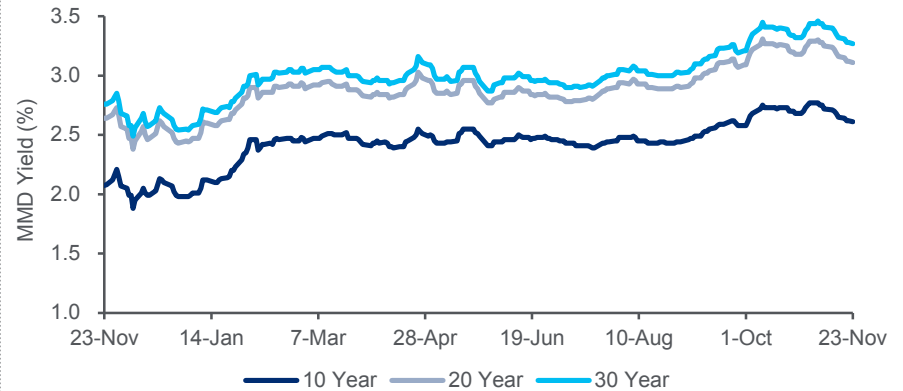
Municipals and treasuries rallied as U.S. equities and oil sharply sold off on the week amid concerns about global growth.

Global Market Events: The Week ending November 23rd

- U.S. Markets:**
 - Equities sold off sharply amid continued pressure on oil prices. The S&P 500 hit its monthly lows, falling 3.8% to 2,633
 - The S&P volatility index (VIX) increased 19% to 21.5 while the 10-year US Treasury yield rallied 3 bps to 3.05% amid falling equity and commodities prices as well as concern over global growth
- International Markets:**
 - Negative stock market sentiment extended to European markets as the Stoxx 50 fell 1.4% and the FTSE fell 0.9%
 - Asian equity markets were down as Japan's NIKKEI index fell 0.2% while the Shanghai Composite Index fell 3.7% amid mounting concern surrounding global growth and automakers in particular
- Commodities:** WTI crude for January delivery continued to tumble, falling 12.5% to \$50.42 per barrel, the active contract's lowest level since October 2017, amid continued fears of oversupply and global growth concerns

Municipal Market Data Yields¹

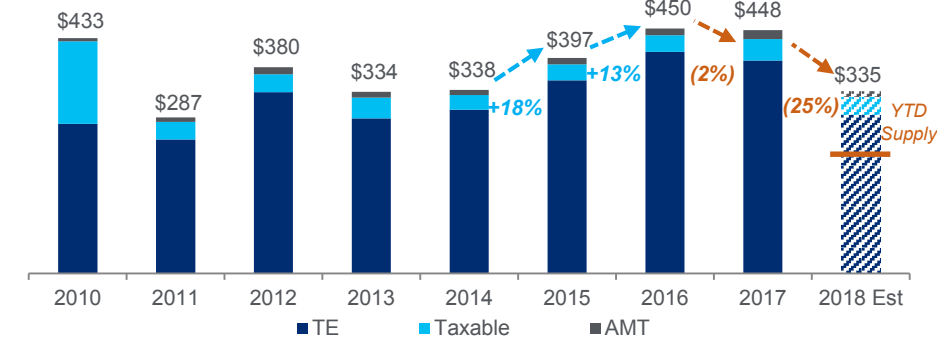
Trailing 12 Months



Gross Supply (\$B)²

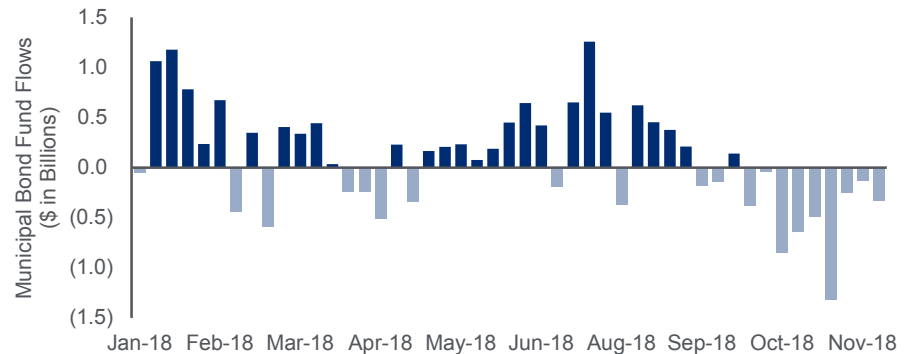
2010 to 2018 Estimate

- Citi estimates a 25% decrease in 2018 issuance year-over-year to \$335bn. Year-to-date issuance now stands at ~\$305bn, ~16% lower year-over-year



Weekly Mutual Fund Flows³

2018 year-to-date

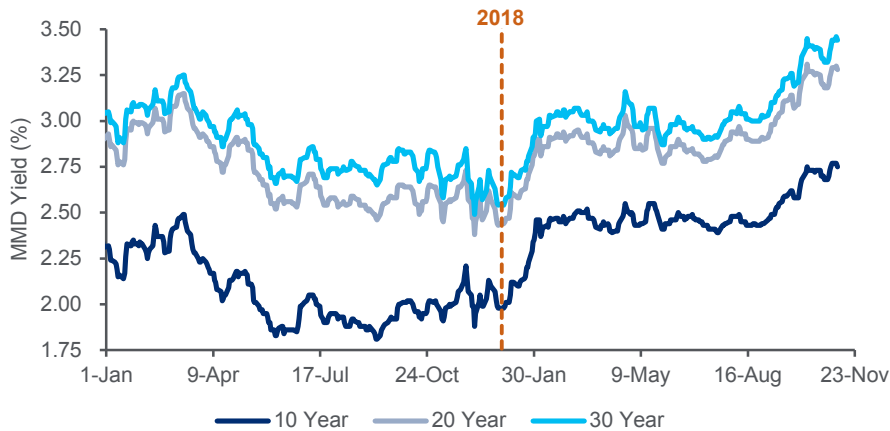


1. Thomson Reuters and Bloomberg, rates as of November 23, 2018. 2. SDC, includes private placements, excludes notes; 3. Lipper fund flows as of November 21, 2018.

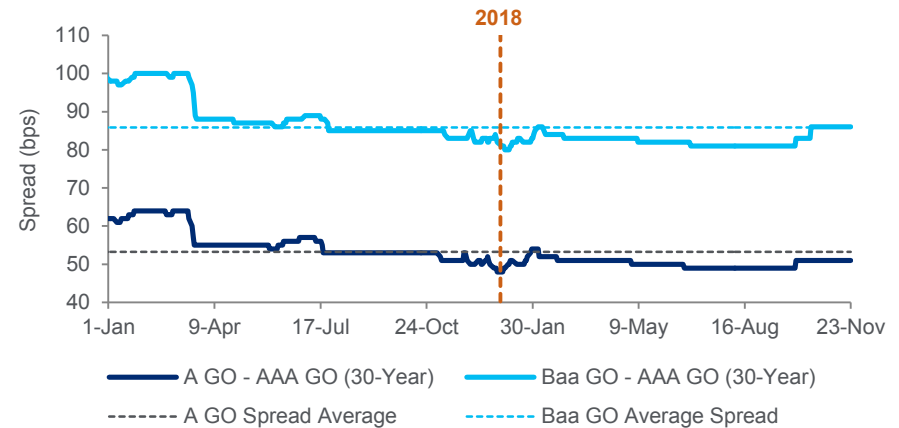
Municipal Market To Date

Recent municipal market developments have included the expectation of light 2H18 supply against a backdrop of tighter credit spreads, generally positive investor demand and negative fund flows as of late.

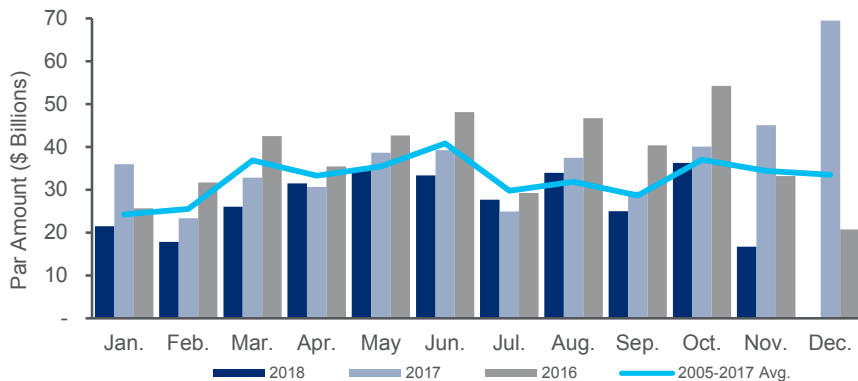
Municipal Rates¹
2017 – 2018YTD



30 Year Credit Spreads¹
2017 – 2018YTD



Supply YTD²
vs. Prior Year and Historical Averages



Demand – Mutual Fund Flows³
vs. Prior Year and Historical Averages

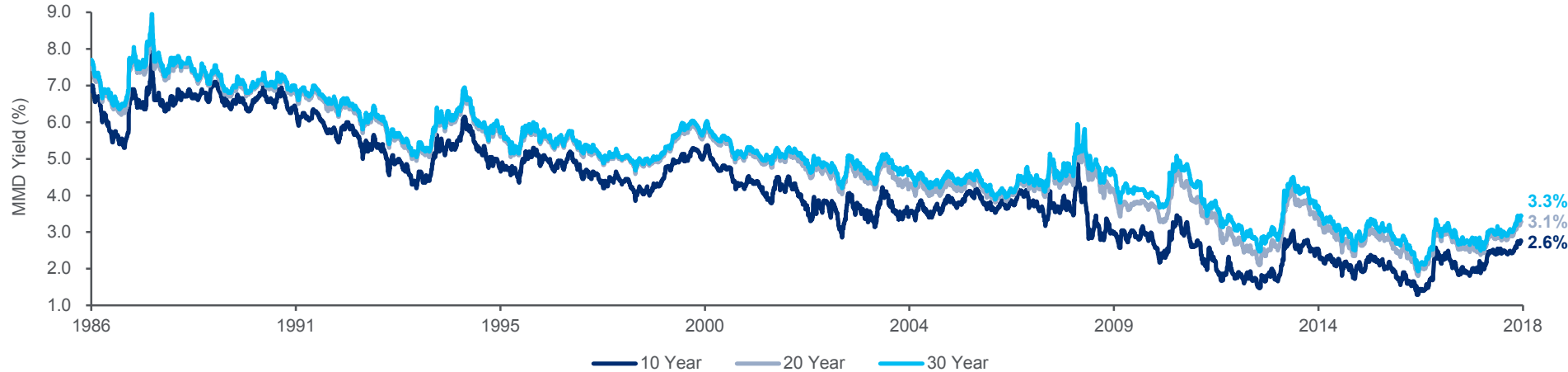


1. Thomson Reuters, rates as of November 23, 2018; monthly spread data as of the first of each month; 2. SDC, includes private placements, excludes notes; 3. Lipper fund flows as of November 21, 2018.

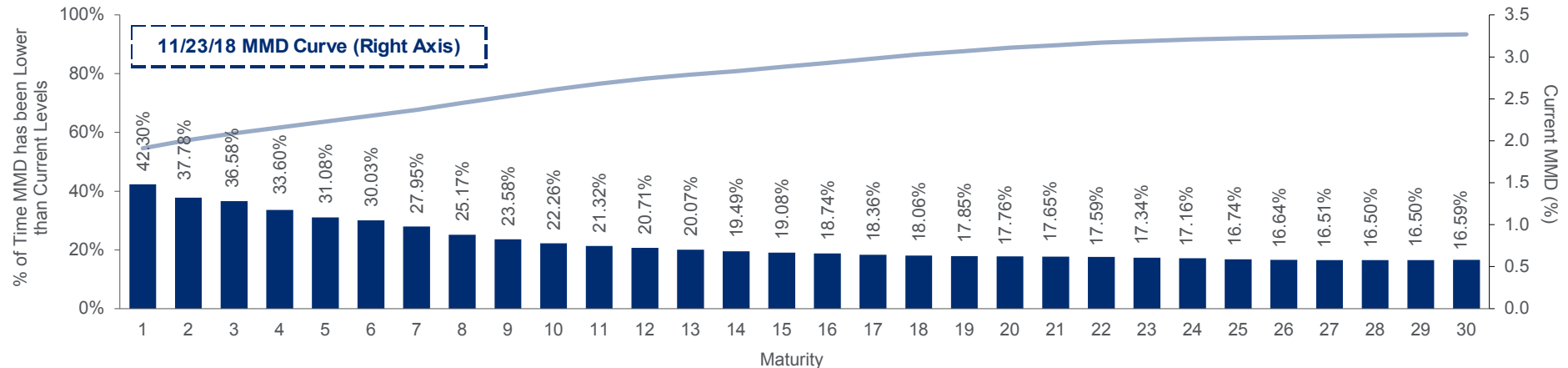
MMD in Historical Context

MMD continues to trend near historic lows with the current rate environment attractive to issuers, especially on the long end of the curve.

AAA G.O. MMD Yields (June 1, 1986 – November 23, 2018)



% of Time MMD has been Lower than Current Levels Since 1986



Source: Thomson Reuters, data as of November 23, 2018.

Health Care: Investors Focus on Bond Docs

Extraordinary Redemption Provisions

- Specific verbiage of Extraordinary Redemption Provisions in existing documents has come into high focus due to the pending acquisition of Mission Health (NC) by for-profit HCA
 - If the transaction is approved, bondholders who purchased premium bonds will get called at par ¹
- Due to the financial losses associated with the expected utilization of this redemption provision, the investor community has pushed back against similar language that exists in other deals
 - Ex: Atrium Health's 2018 financing eliminated language that was similar to the Mission Health ERP
- Investors are also pushing back against other types of ERPs that have any vagueness

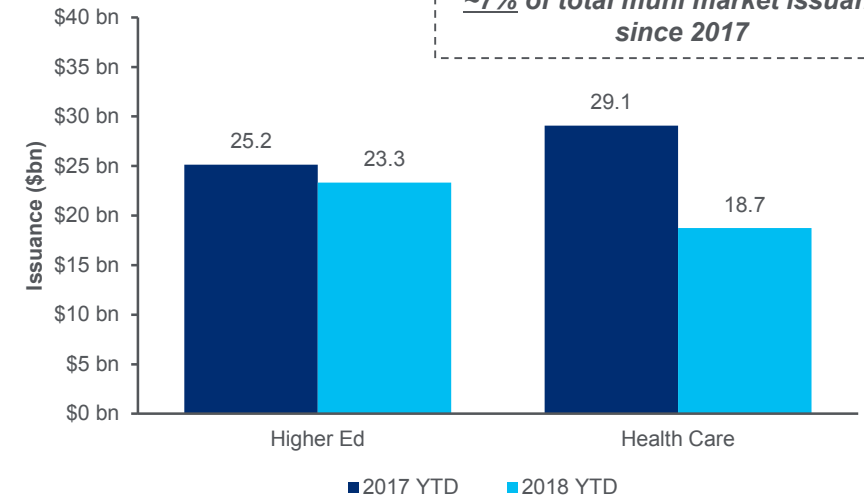
Indenture Substitution Provisions

- Many healthcare issuers are amending MTI's to allow for its substitution in order to gain flexibility in the heightened M&A environment
- Investors have generally coalesced around allowing this MTI amendment so long as the existing ratings would not be downgraded
- Some investors are also pushing for protection of revenue pledges and covenant packages if a substitution were to occur

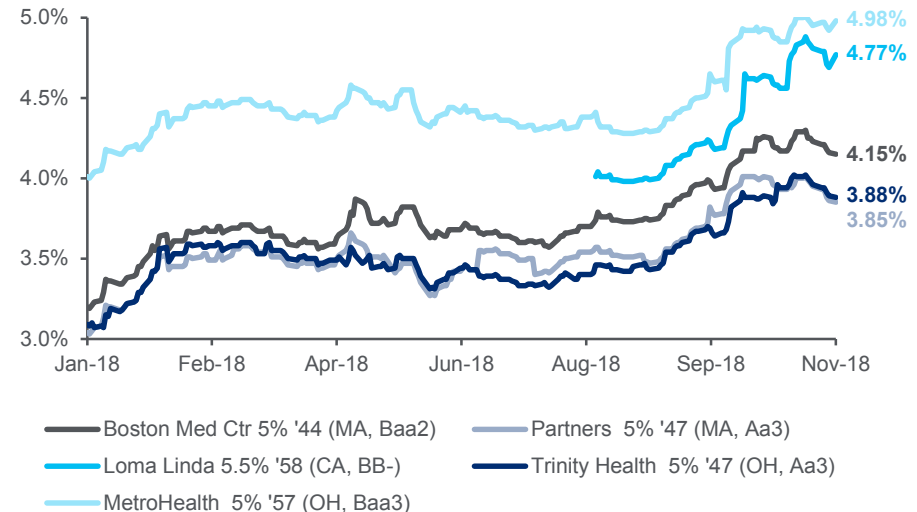
Mortgages

- Mortgages are becoming a thing of the past in the A-rated category, as many of the issuers have received consent to eliminate previously pledged mortgages over the last few years

Issuance²



Trading Levels (Yield to Worst): Select Bonds³



Source: 1. Mission Health Official Statement Series 2017 Bonds; 2. Bloomberg; 3. JJK Price Evaluations as of 11/16/18

Higher Ed: Investors Focus on 'Haves' vs. 'Have-Nots'

Universities are increasingly realizing the benefits of public-private partnerships

- Intended Benefits – (i) Financing capital improvements to housing stock and other campus infrastructure off the school's balance sheet, and (ii) Monetizing assets for an immediate cash injection
- Student Housing P3s – Annual revenue bond issuance has more than doubled since 2014. Deals include \$130mm UMass Dartmouth (2018) and \$130mm UMass Boston (2016). Both are rated Baa3 by Moody's and backed by standalone entities
- University Parking P3 – Earlier this year, Eastern Michigan U. sold its economic interests in and rights to operate all on-campus parking lots for a \$55 million upfront lump sum payment. A \$36 million bond issuance helped the buyer finance its purchase

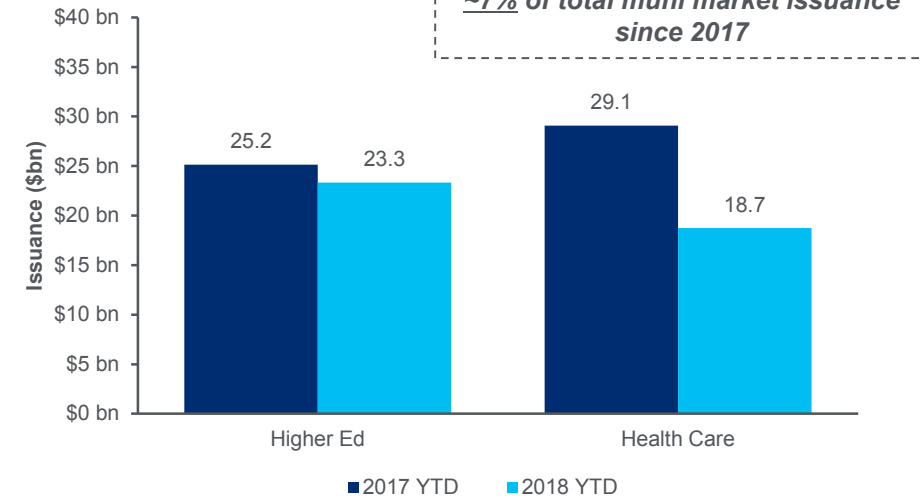
M&A activity is gaining momentum amid small institutions' financial struggles

- Recent in-state examples include Boston University's 2018 acquisition of Wheelock College and UMass's acquisition of Mount Ida College (public acquires private in both cases)
- A consultant report proposed mergers across Pennsylvania's struggling 14-school State System known as PASSHE. One suggestion was consolidation into five or eight schools

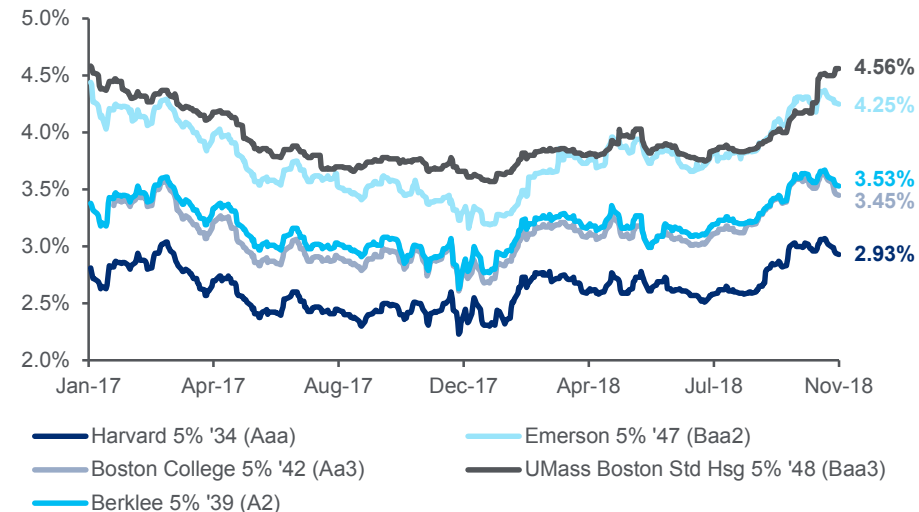
Many colleges, particularly small private schools, are struggling with demographic shifts¹

- Full-time enrollment (FTE) across all four-year colleges grew 1.8% on average from 1985 – 2016
- The National Center for Education Statistics (NCES) forecasts FTE will *decline* by 0.2% each year on average through 2027
- Among the 157 schools rated A- or lower by S&P (predominantly small private colleges), 2017 enrollment grew 0.6%

Issuance²



Trading Levels (Yield to Worst): Select MDFA Bonds³



Source: 1. NCES data; 2. Bloomberg; 3. JJK Price Evaluations as of 11/16/18. Reference cusips for yield chart: 57584XYB1 / K34 / UT6 / D57 / A27. UMass Dartmouth: 57584YNB1. EMU Parking: 04052AAR7

Hot Topics

Re-evaluating floating rate options

- Direct purchase
- VRDB
- FRNs
- and more

LIBOR sunset implications

- Bonds
- Loans
- Swaps

Public-private partnerships

- Structures
- Other Considerations

Debt capacity and affordability in challenging credit environments (Higher Ed)

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Citi works with its clients in greenhouse gas intensive industries to evaluate emerging risks from climate change and, where appropriate, to mitigate those risks.

efficiency, renewable energy and mitigation