PIPER | SANDLER

Financing Trends in Healthcare and Higher Education

Prepared for the

National Association of Health and Educational Facilities Finance Authorities

September 15, 2022

John Henningsgard
MANAGING DIRECTOR
Tel: +1 (612) 303-1706
Email: john.henningsgard@psc.com

Melanie Johnson
MANAGING DIRECTOR
Tel: +1 (612) 303-6724
Email: melanie.johnson@psc.com

Discussion Agenda

I. **Financing Market Update**

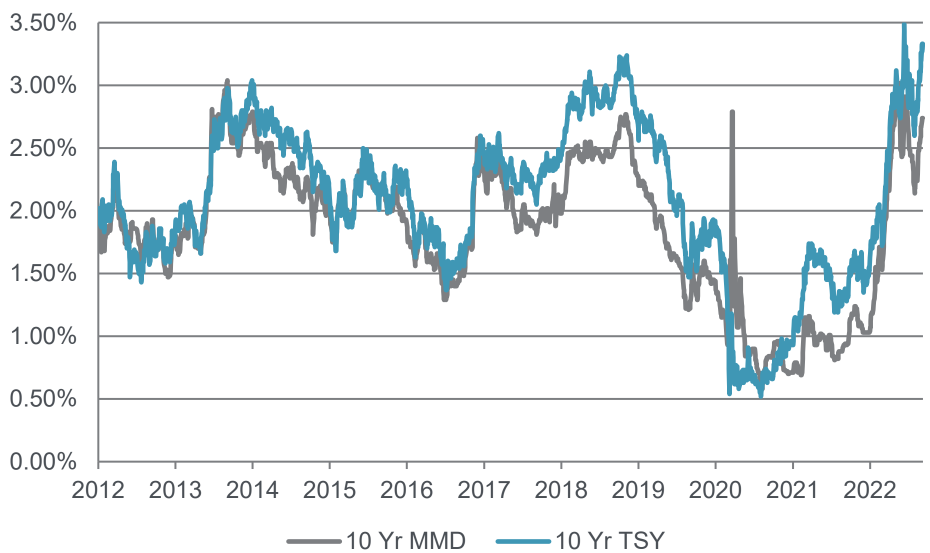
II. Investor and Rating Agency Views

III. Financing Trends

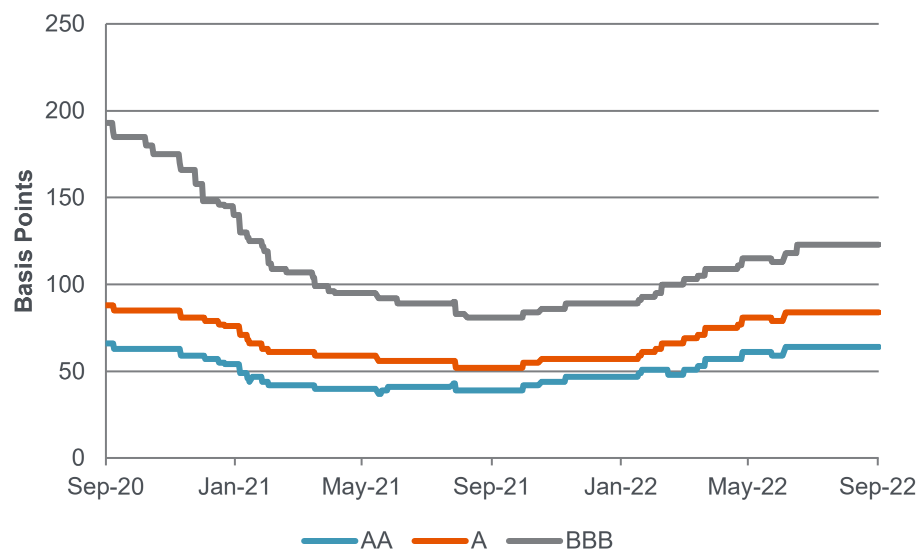
Overview

- **2022 Year-to-Date Highlights**
  - Yields have increased since late 2021. Since the beginning of 2022, tax-exempt and taxable interest rates have risen above their 5 and 10 year averages.
    - Since 2010, 10-year MMD has been lower than its current rate 96.48% of the time.
    - Since 2010, 10-year Treasury yield has been lower than its current rate 99.81% of the time.
  - Limited demand in 2022 drove municipal yields and spreads up along with continued concerns of rising inflation, has lead to higher Treasury and municipal yields.
  - The municipal/Treasury ratio recently eclipsed 100% due to continued Fed activity and general market volatility, a lower ratio is typically more beneficial for tax-exempt issuers.

Yield Movements Past 10 Years

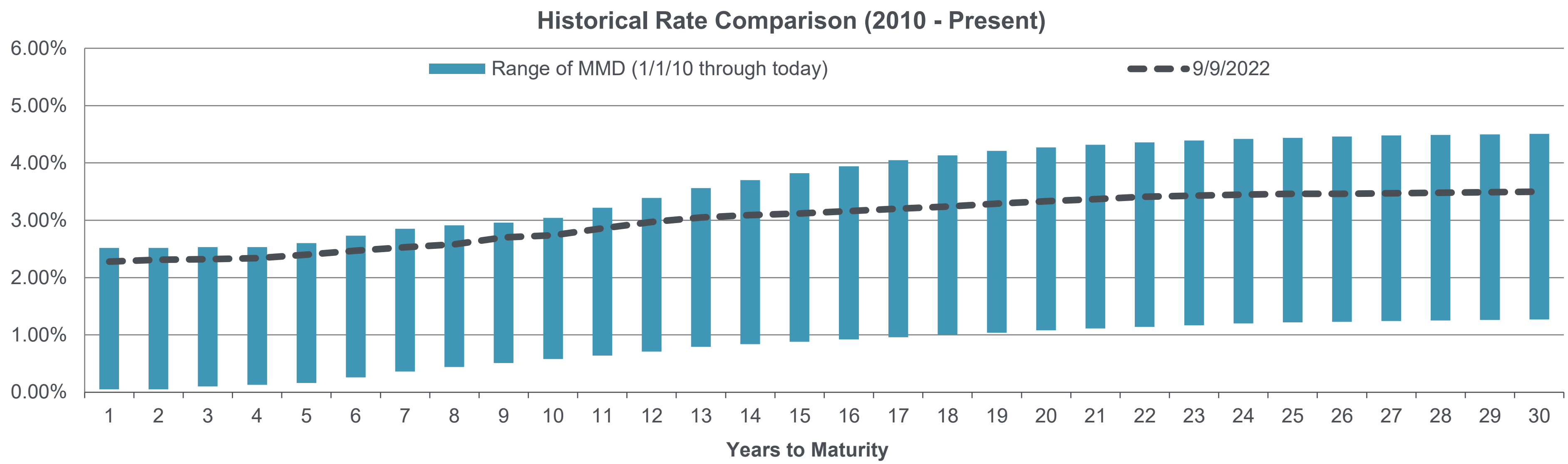


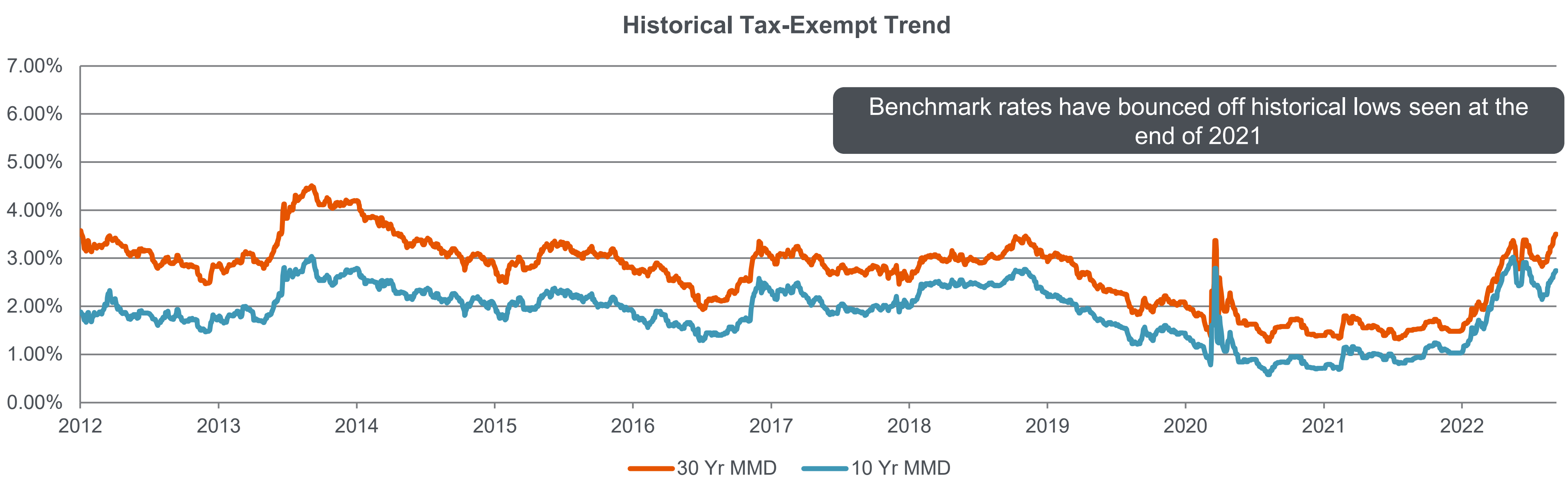
30-Year Healthcare/Higher Education Credit Spreads



Source: Piper Sandler Research, The Municipal Market Monitor (TM3)
As of 9/12/2022

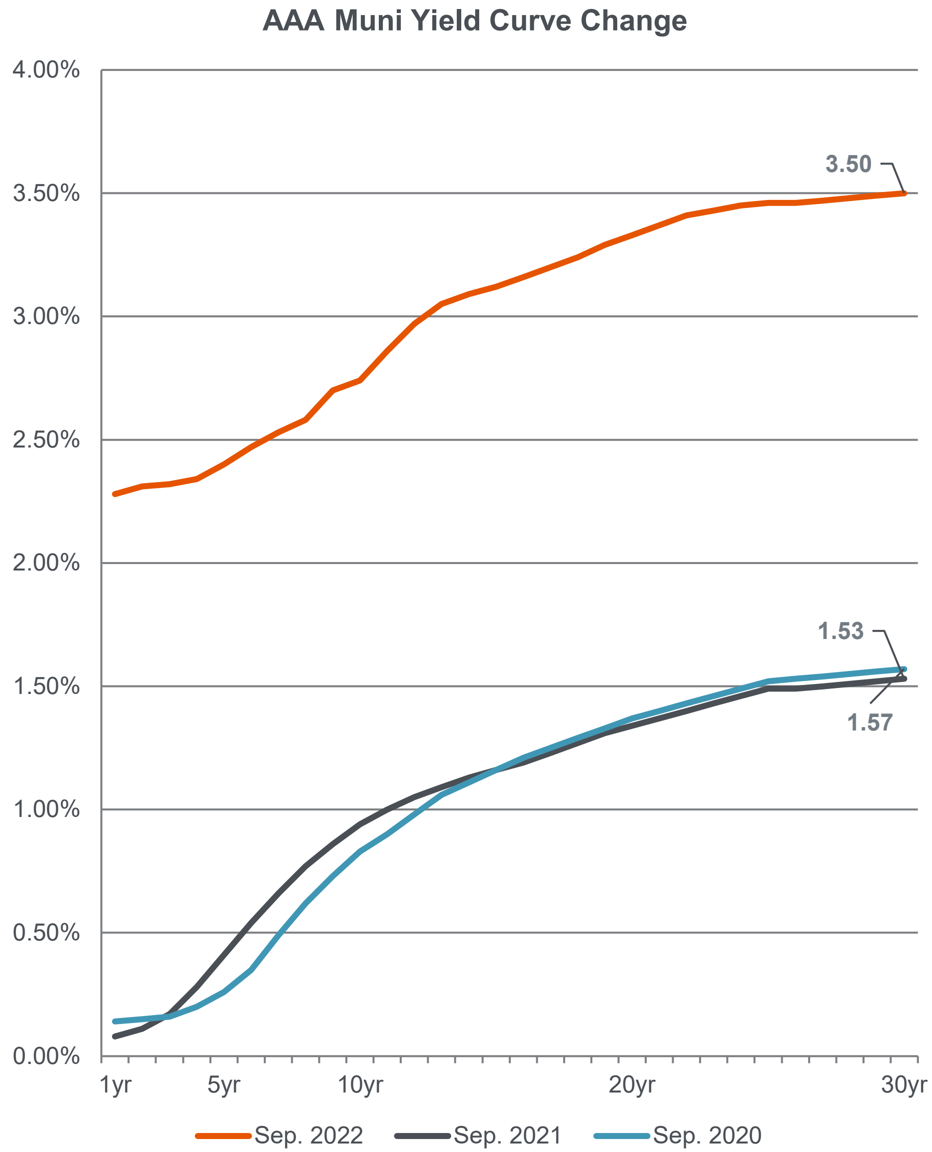
Historical Interest Rates

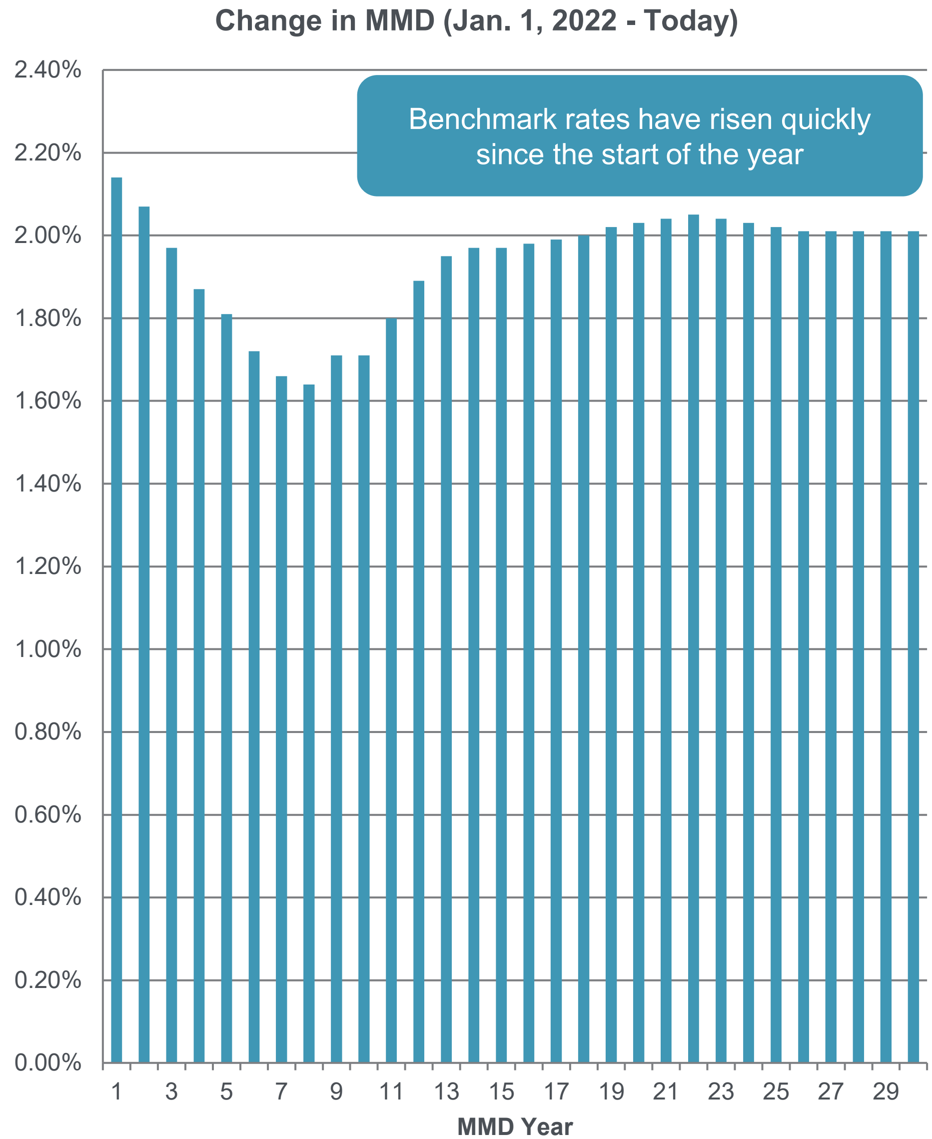




Source: Piper Sandler Research, The Municipal Market Monitor (TM3), Treasury.gov
As of 9/12/2022

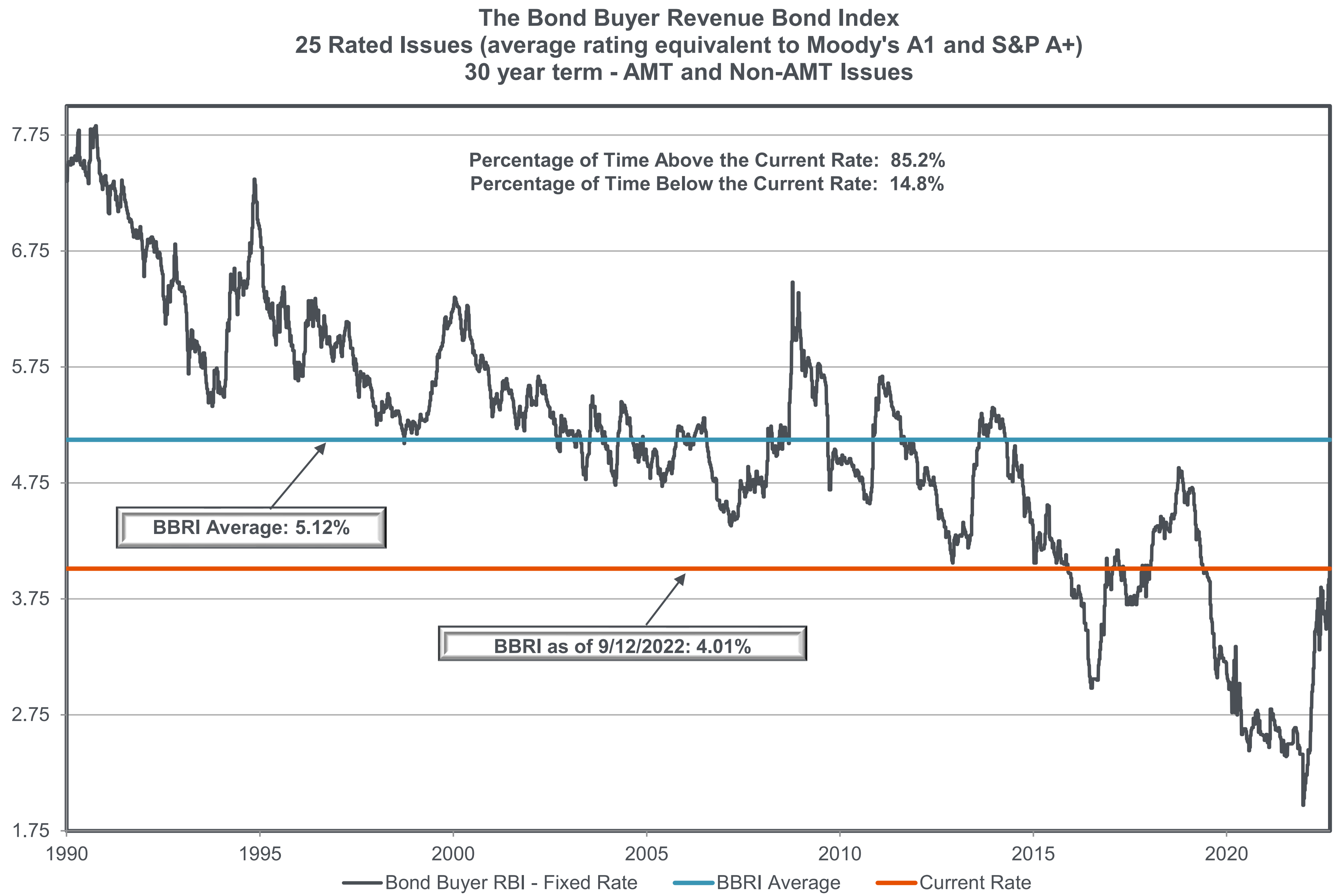
Municipal Market Yield Curve





Source: The Municipal Market Monitor (TM3)
As of 9/12/2022

Bond Buyer Revenue Index

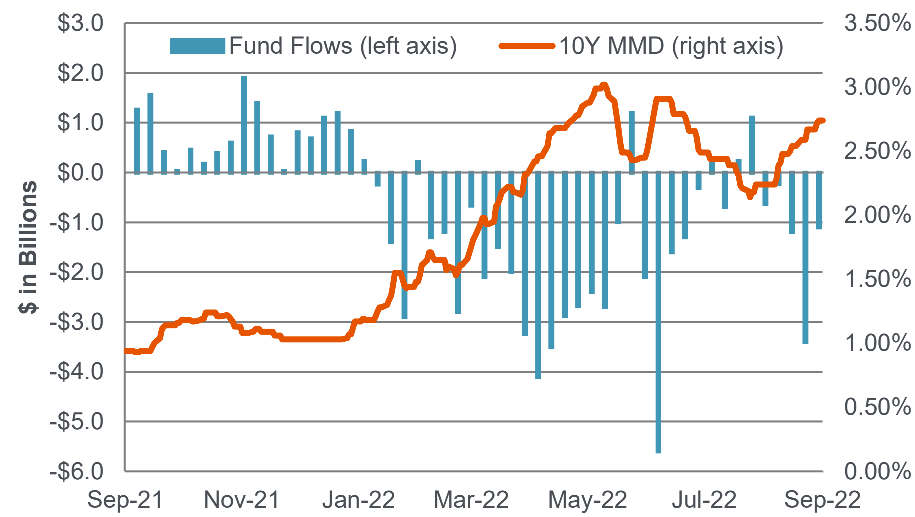


Source: Bond Buyer

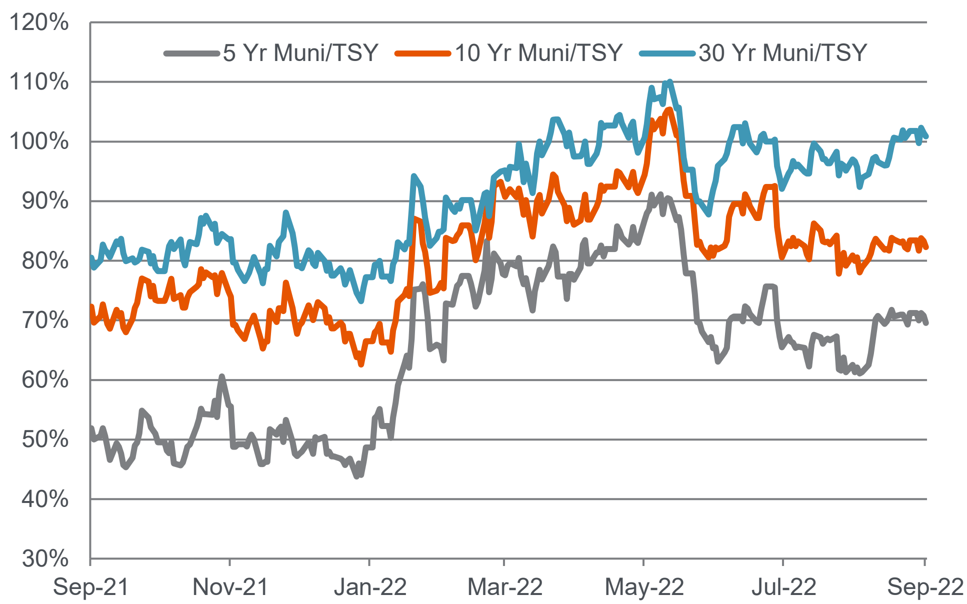
Municipal Supply and Demand

- After experiencing 45 straight weeks of fund inflows through 2021 and into 2022, municipal funds have since seen outflows in 28 of the last 33 weeks.
- Tax-exempt to treasury ratios have been volatile in 2022 as investors adjust to the Fed's policy changes.
- Borrowers are still able to push for more favorable covenants despite the current market environment.

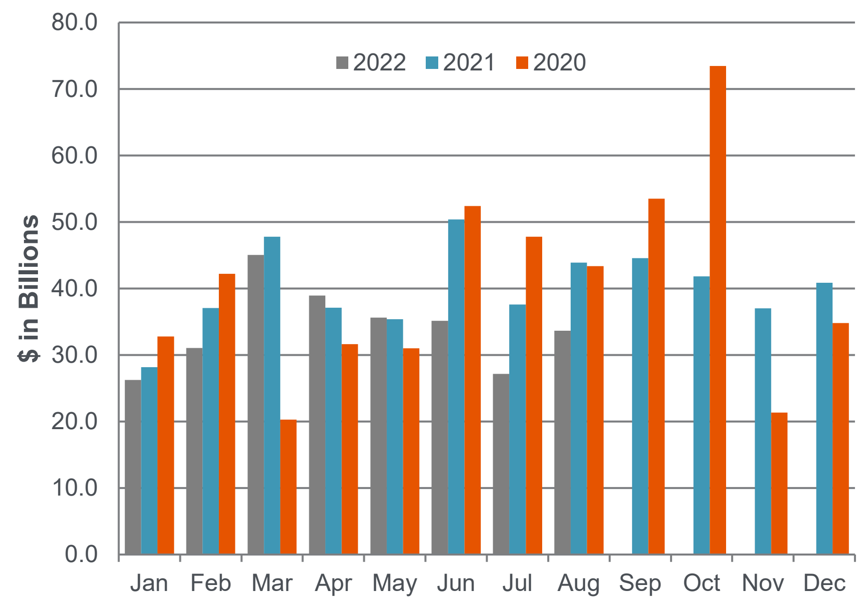
Weekly Municipal Fund Flows and Market Yields



Recent Tax-Exempt to Taxable Ratios



Monthly Municipal Issuance



Source: Lipper, TM3, and Bond Buyer
As of 9/12/2022

Economic Update and Market Expectations

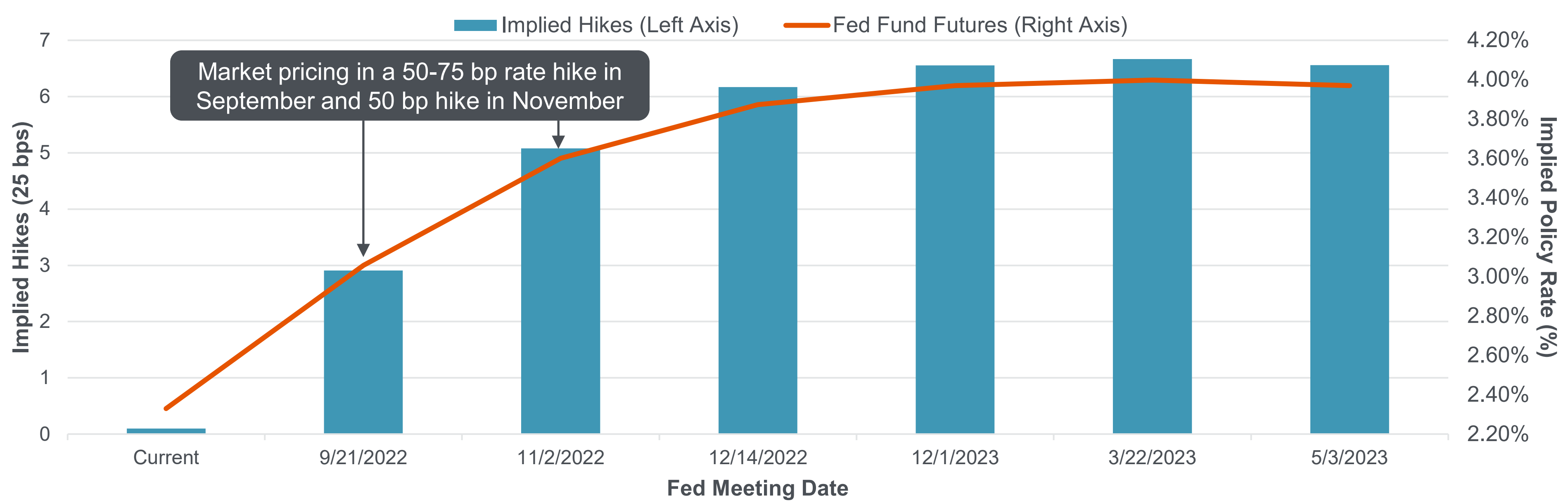
Economic Forecast

	2021	2022				2023		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Real GDP (QoQ% SAAR)	5.5	3.5	1.6	1.5	0.1	0.7	1.0	0.9
CPI (YoY%)	6.7	8.0	8.7	8.2	7.2	5.8	3.9	3.1
Core PCE (YoY%)	4.6	5.2	4.8	4.6	4.3	3.7	3.3	3.0
Unemployment %	4.2	3.8	3.6	3.6	3.7	3.9	4.1	4.2
Fed Funds Upper Bound	0.25	0.50	1.75	3.10	3.75	3.85	3.80	3.65
2yr TSY	0.73	2.34	2.96	3.43	3.55	3.52	3.42	3.19
10yr TSY	1.51	2.34	3.02	3.18	3.18	3.19	3.18	3.10
30yr TSY	1.90	2.44	3.41	3.32	3.35	3.35	3.33	3.29

Forecast

Inflation measures are expected to moderate over the next 12 months while treasuries begin to flatten

Market Expectations for Future Rate Targets



Source: Piper Sandler Research, Bloomberg

Discussion Agenda

Overview of Rating Agency and Investor Approach

- Healthcare and higher education sectors are managing through operating challenges in 2022.
- Credit analysts, whether rating agencies or investors/lenders, have become increasingly sophisticated in their credit analysis of borrowers in these sectors.
- The three primary rating agencies, Standard & Poor's (S&P), Moody's and Fitch, have each created a framework for how they evaluate non-profit and municipal healthcare and higher education institutions.
- As credit analysts, they are always concerned about "the numbers" such as financial ratios, growth metrics, and comparison to peers – rating agency medians are published annually.
- However, qualitative factors are also important.
- In this section we provide an overview of the current Moody's methodologies as examples of the type of credit analysis that investors and analysts undertake.
- Lenders and investors evaluate borrowers using similar criteria, but may come to a different credit conclusion than the rating agencies.

Rating Agency Outlooks for Healthcare Sector in 2022

	Commentary
Moody's	• Negative outlook for 2022 • Moody's has kept a negative outlook as the rating agency expects 2022 operating cash flow to decline 2%-9% compared to 2021 • Moody's expects nursing shortages and increased labor costs to push expenses higher while revenue growth to lag behind • Repayment of Medicare advances will cut into providers' liquidity • Legislative, regulatory and judicial activity will continue to add risk
S&P Global Ratings	• Stable outlook for 2022 • The rating agency believes that strong balance sheets and a pivot towards virtual health will help providers navigate challenges in 2022 • Low interest rates and access to capital has helped provide additional flexibility • Credit quality gap between stronger and weaker rated providers will likely widen
Fitch Ratings	• Deteriorating outlook for 2022 (revised from "Neutral" in August 2022) • Labor pressures will remain high even if broader inflation improves • Record levels of cash and investments through much of 2021 have contracted considerably as MAAP funds are paid back and financial markets weaken • Local economics will be even more important in determining hospital credit quality with strong population growth providing top-line revenue opportunity to balance expense challenges

Rating Agency Outlooks for Higher Education Sector in 2022

Commentary

Moody's

- Stable outlook for 2022
- Operating revenue is expected to rise 4-6% following students' return to campus this fall
- Inflation and labor shortages will push spending higher, diminishing margins
- Record investment returns in 2021 will bolster wealth and liquidity
- Social and cyber risks pose challenges amid strained budgets

S&P Global Ratings

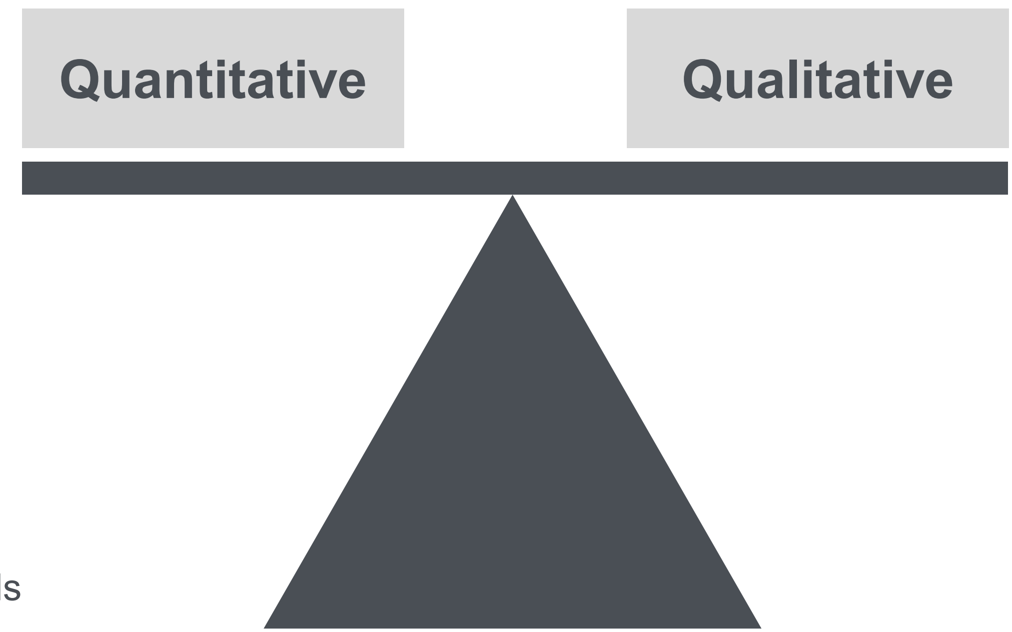
- Stable outlook for 2022 (after 4 years of negative outlook)
- Strong support for higher education on the federal level provides financial flexibility. Usage and reporting of federal stimulus funds will span several years
- Strong liquidity and expectation of stabilized enrollment will offset economic uncertainties
- Disparity between higher and lower rated schools grows
- With entrance tests optional, applications have increased significantly, skewing selectivity
- International enrollment is improving from lows in fall 2020

Fitch Ratings

- Stable outlook for 2022
- Most universities are planning for a predominantly in-person, on-campus academic year, which should help to stabilize student-driven enterprises, including auxiliaries
- Top choice and selective four-year institutions have retained solid enrollment, although others continue to see pressures, particularly in the incoming freshman and transfer student groups
- The sector continues to benefit from substantial federal stimulus authorization, with calendar year 2022 likely the last year of meaningful budgetary support from any remaining stimulus funds

Quantitative and Qualitative Factors

- ✓ Past Financial Performance
- ✓ Projected Financial Performance
- ✓ Cash Flow
- ✓ Liquidity
- ✓ Existing Debt Obligations
- ✓ Historical Capital Investment
- ✓ Future Capital Needs and Funding



- ✓ Market Position/Competition
- ✓ Third Party Reimbursement
- ✓ Demand, Enrollment, & Retention
- ✓ Faculty & Medical Staff
- ✓ Management Capabilities
- ✓ Long Term Market Strategies
- ✓ Demographics
- ✓ Governance

Overview of Moody's Rating Methodology

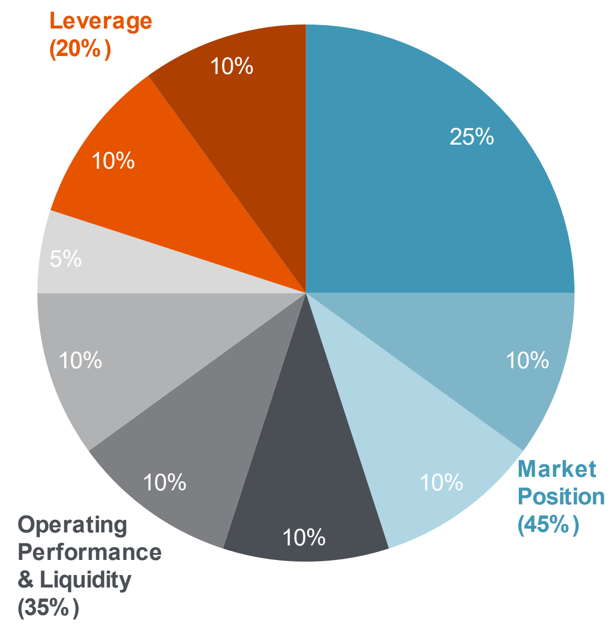
- Moody's revised its non-profit healthcare rating methodology in March 2021 and its higher education rating methodology in August 2021.
- Key factors have been identified and weighted based on the priority and importance of each factor.
- The factors are captured in broad categories: scale, market profile, operating performance, financial resources and liquidity, leverage and coverage, and financial policy.
- The Moody's scorecard is not all-encompassing: (1) ratings incorporate expectations of future performance while the scorecard is based on historical performance (2) the scorecard does not include all potential factors in a rating outcome, and (3) the weighted impacts of factors may differ from the model in some circumstances.
- Organizational size is a significant factor, with operating revenues making up 25% of the model outcome for healthcare and 15% of the model outcome for higher education.
- Additional analysis includes comparisons to rating medians and peers.
- The following pages provide detail on the Moody's methodology for healthcare and higher education institutions.

Moody's Rating Scorecard - Healthcare

- Moody's initial indicative rating analysis relies heavily on the "Scorecard" method in which factors are given a weighting to arrive at an initial indicative rating. The rating is then adjusted up or down based on other non-quantified aspects like local economy strength, peer analysis, etc.
- The rating analyst and committee have leeway to apply their own judgement.

Broad Factors	Factor Weighting	Sub-Factors	Sub-Factor Weighting
Market Position	45%	**Scope of Operations**	
		Operating Revenue ($000)	25%
		Market Demand	
		Three year Operating Revenue CAGR (%)	10%
		Market Landscape	
		Qualitative	10%
Operating Performance & Liquidity	35%	**Operating Performance**	
		Operating Cash Flow Margin (%)	10%
		Payor Concentration	
		Gross Revenue of Combined Medicare and Medicaid	10%
		Financial Reserves	
		Cash on Hand (days)	10%
		Financial Management and Reinvestment	
		Qualitative	5%
Leverage	20%	**Financial Leverage**	
		Unrestricted Cash & Investments to Total Debt (%)	10%
		Debt Affordability	
		Total Debt to Cash Flow (x)	10%
		Total Scorecard Indicated Outcome	100%

Sub-Factor Weighting

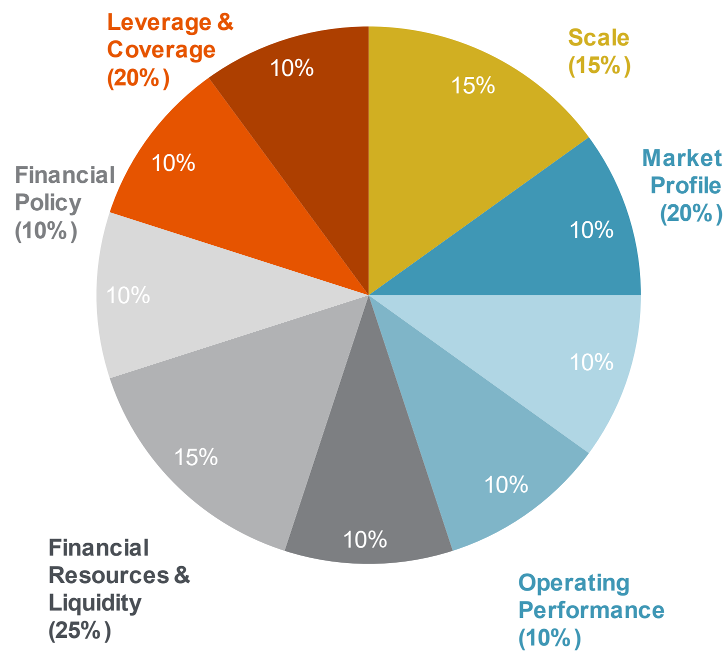


Moody's Rating Scorecard – Higher Education

- Whereas Moody's health care rating methodology consists of just market position, operating performance and liquidity, and leverage, Moody's Higher Education Methodology incorporates the following: scale, market profile, operating performance, financial resources and liquidity, leverage and coverage, and financial policy.

Broad Factors	Factor Weighting	Sub-Factors	Sub-Factor Weighting
Scale	15%	*Adjusted Operating Revenue*	15%
Market Profile	20%	*Brand and Strategic Positioning*	10%
		Operating Environment	10%
Operating Performance	10%	*EBIDA Margin*	10%
Financial Resources and Liquidity	25%	*Total Cash and Investments*	10%
		Total Cash and Investments/Operating Expenses	15%
Leverage & Coverage	20%	*Total Cash and Investments/Total Adj. Debt*	10%
		Annual Debt Service Coverage	10%
Financial Policy	10%	*Financial Policy*	10%
		Total Scorecard Indicated Outcome	100%

Sub-Factor Weighting



ESG Considerations in Credit Ratings

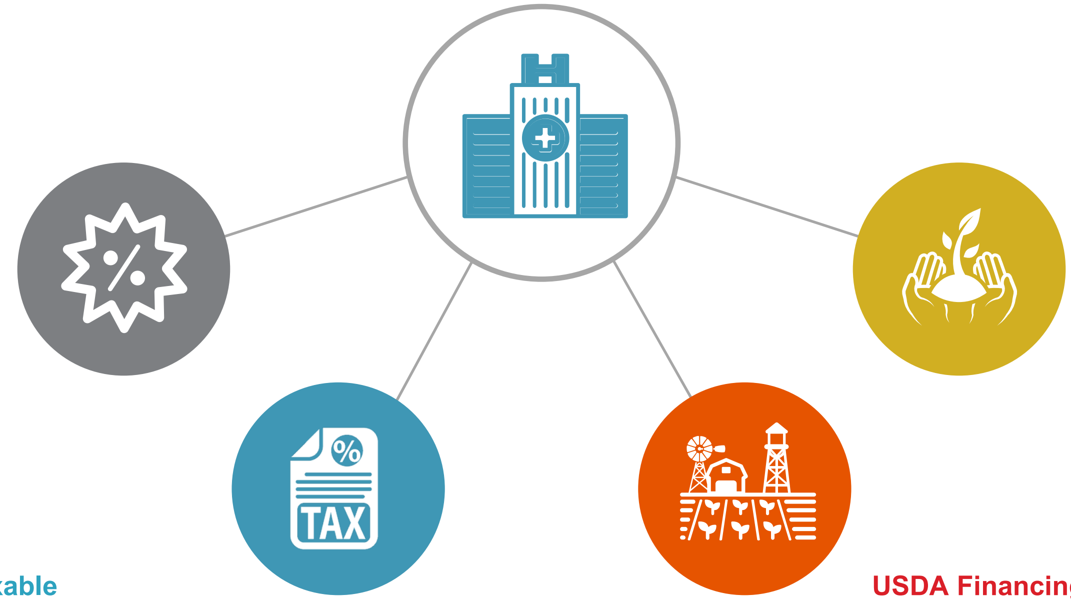
- Rating agencies have begun incorporating ESG factors into their credit ratings. Moody's, in particular, has begun providing Issuer Profile Scores that assess an entity's exposure to ESG risks.
- Below are the ESG considerations Moody's incorporates into their analysis:

Environmental	Social		Governance	
	Private Sector	Public Sector	Private Sector	Public Sector
Physical climate risks	Customer relations	Access to basic services	Financial strategy & risk management	Institutional structure
Carbon transition	Demographic and societal trends	Demographics	Management credibility & track record	Policy credibility & effectiveness
Water management	Human capital	Education	Organizational structure	Budget management
Waste and pollution	Health and safety	Health and safety	Board structure, policies & procedures	Transparency & disclosure
Natural capital	Responsible production	Housing	Compliance & reporting	
		Labor and income		

Source: Moody's Investor Service

Discussion Agenda

Current Financing Trends



Fixed Rate Tax-Exempt

- Widening spreads and higher Treasury yields have made tax-exempt debt more attractive for borrowers
- Can be accessed through public offering or private placement
- Needs qualifying tax-exempt use

Fixed Rate Taxable

- Significant number of borrowers accessed this market in 2020 and 2021, although less attractive now
- Also can be done through public offering or private placement
- Interest rate premium but flexibility of use of proceeds vs. tax-exempt
- Advance refunding technique

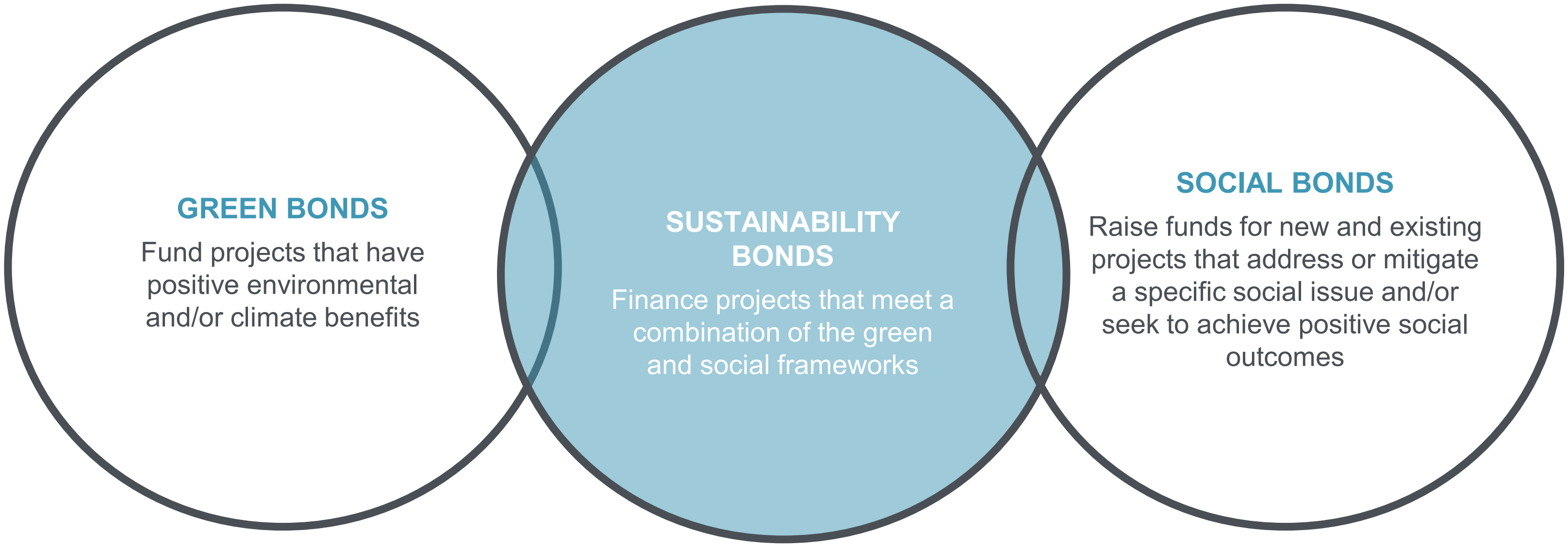
Social Impact or Green Bonds

- Environmental, social and governance (ESG) or sustainable finance
- Growing investor segment
- Still in early stages for healthcare borrowers and investors

USDA Financing

- “Rural” hospitals and colleges
- Long-term, low cost financing
- Upfront time commitment and longer timeline through multi-step process

ESG Bond Designations and Project Categories



GREEN BONDS

Examples of eligible green project categories include renewable energy, energy efficiency, pollution prevention and control, eco-efficient and/or circular economy adapted products, production technologies, green buildings, terrestrial and aquatic biodiversity conservation, clean transportation.

CERTIFIED CLIMATE BONDS

An additional designation that certifies a bond issue's conformance with the 1.5 degrees Celsius target declared in the 2015 Paris Agreement. In order to receive the Certification mark, a prospective issuer must appoint an Approved Verifier, who will provide assurance that the bond meets the Climate Bonds Standard's requirements.

SOCIAL BONDS

Social project categories include providing and/or promoting affordable basic infrastructure, access to essential services, affordable housing, employment generation, food security, or socioeconomic advancement and empowerment.

Source: International Capital Market Association (ICMA)

Disclosures

In providing the information contained herein to a municipal entity or obligated person, Piper Sandler is not recommending an action to any municipal entity or obligated person recipient, is not acting as an advisor to any municipal entity or obligated person and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to any municipal entity or obligated person with respect to the information and material contained in this communication. Piper Sandler is acting for its own interests, and any municipal entity or obligated person recipient of this information should discuss any information and material contained in this communication with any and all internal or external advisors and experts that the municipal entity or obligated person deems appropriate before acting on this information or material.