

ADVANCED CAPITAL FINANCING PART 1

**EILEEN BYRNE &
MARY PELOQUIN-DODD**

AGENDA

1. Refresh Bond Basics
2. Taxable vs. Tax-Exempt Financing
3. Municipal Market Regulations
4. Evaluating Market Conditions
5. Terminology in Depth
6. Credit Ratings
7. Credit Enhancement
8. Subprime Mortgage Crisis
9. Arbitrage
10. Derivative Instruments
11. Off Balance Sheet Financing

Not in this course...

- Accounting for debt or facilities
- Complex bond math

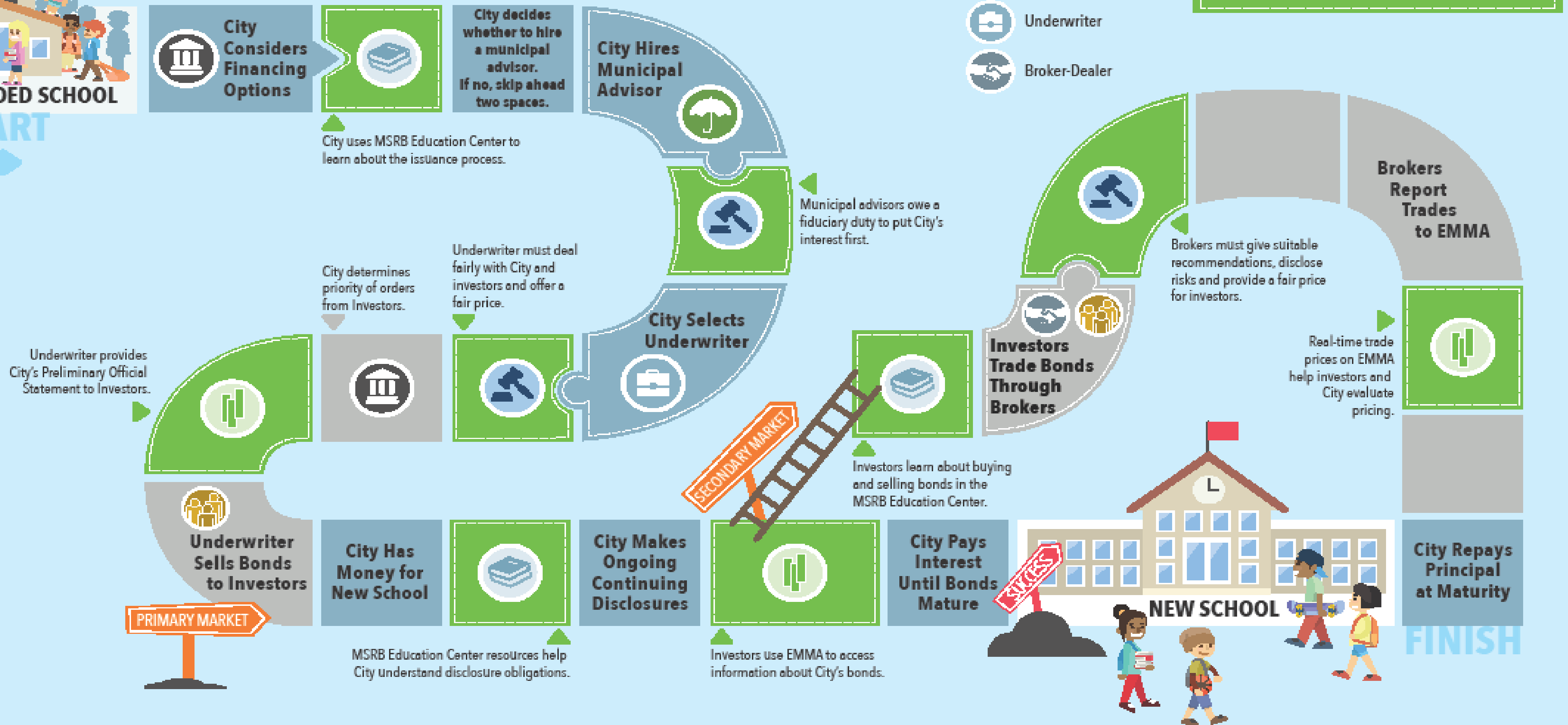
REFRESH BOND BASICS

Municipal Market 101



START
▶▶

Want to know how state and local governments often pay for public projects such as bridges, roads and schools? Follow a city as it borrows money from investors to pay for a new school. Then, learn more about the \$4 trillion municipal bond market and how its primary regulator, the Municipal Securities Rulemaking Board, protects the city and its investors along the way.



PLAYERS

- City Officials
- Investors
- Municipal Advisor
- Underwriter
- Broker-Dealer

MSRB ROLE

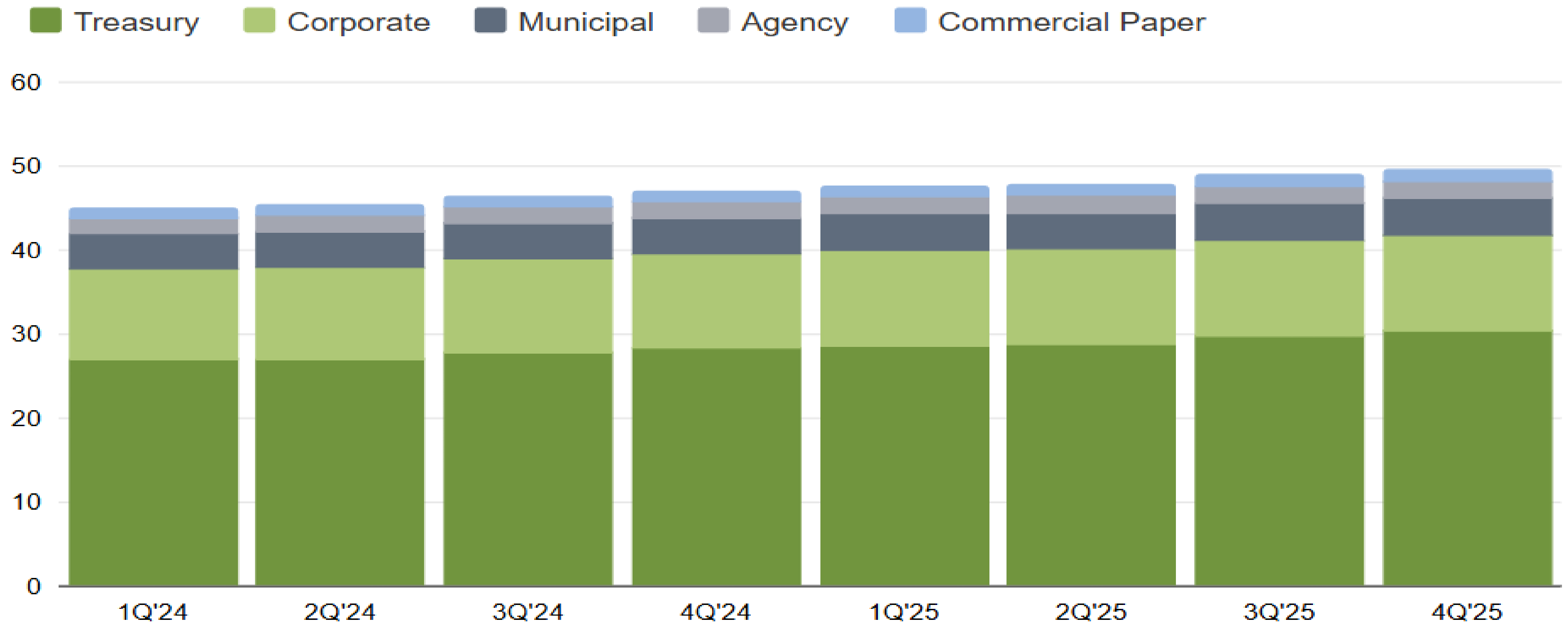
- Regulation of Municipal Advisors, Underwriters and Broker-Dealers
- Transparency through Electronic Municipal Market Access (EMMA®) Website
- Resources in MSRB Education Center

MUNICIPAL DEBT:

A SMALL COMPONENT OF TOTAL U.S. FIXED INCOME

U.S. Fixed Income Outstanding

\$ Trillions



Source: SIFMA Research

REFRESH BOND BASICS

GENERAL OBLIGATION VS. REVENUE DEBT

GENERAL OBLIGATION

- Often unsecured
- Backed by revenues & assets of entire enterprise
- Sometimes with a mortgage

REVENUE

- Often secured by smaller segment of enterprise
- Additionally secured by covenants and liens

VARIABLE VS. FIXED RATE DEBT

VARIABLE RATE

- Changeable interest rates
- When rates change, investors may have “put” rights

FIXED RATE

- Guaranteed interest rate
- For specified term

REFRESH BOND BASICS

VARIABLE RATE

FIXED RATE

Cost of Capital:

Positive

Neutral

Predictability:

Negative

Positive

Liquidity:

Negative

Neutral

Prepayment Flexibility:

Positive

Negative

REFRESH BOND BASICS

BONDS MAY BE...

- **TAXABLE OR TAX-EXEMPT**
- **LONG-TERM OR SHORT-TERM**
 - Common Short-Term debt instruments:
 - Lines, notes, letters of credit (LOC), commercial paper
 - Carry short-term ratings
 - Long-term bonds may have 20-30 year maturities (or longer!)
- **AMORTIZING OR BALLOON MATURITIES**
 - Balloon aka Term Bonds
 - Investors receive a massive, final lump-sum payment of principal at the end of the term
 - Amortizing aka Serial Bonds
 - Investors receive periodic installments of principal payments that gradually pay down the debt over the term

REFRESH BOND BASICS

MAJOR PLAYERS

- Issuer
- Borrower
- Lenders/Bondholders/Investors
- Trustee
- Investment Banker/Underwriter
- Financial Advisor
- Credit Enhancer (AKA Credit Provider)
- Bond Counsel

BOND REVENUE SOURCES



REVENUE

- Revenue pledge
- Specifically defined revenue source
- No taxing power
- Not subject to appropriation

GENERAL OBLIGATIONS

- Full faith and credit pledge
- Taxing power
- Not subject to appropriation

LEASE REVENUE

- Special obligation pledge
- All legally available revenues
- No taxing power
- Subject to appropriation

OTHER TYPES OF DEBT



MORAL OBLIGATION

- No legal obligation to pay (for most circumstances)
- Likely to pay anyway; best interest of institution

SYNTHETIC LEASES

- Tenant-based lease financing structure – a hybrid lease/debt

OTHER DEBT (NON-CAPITAL)

- Vendor Leases
- Outsourcing (other people's money)
- Off-balance sheet financings (“adjusted debt”)

DEBT TERMINOLOGY

NOMINAL OR COUPON RATE

- Interest rate paid periodically on a loan
- Usually expressed as % of par amount

$$\text{Coupon Rate (\%)} = \text{Coupon Payment} \div \text{Par Value}$$

BOND PRICE

- Amount a lender will lend in consideration of future receipt of principal and interest payments

Generally, bond prices & yields are inversely related

If, prevailing market interest rates



Then, current market price of bond



Resulting in current bond yield



BOND YIELD

- Single rate that sets the present value (PV) of future principal & interest payments equal to initial price

$$\text{Current Yield (\%)} = \text{Annual Coupon Pmt} \div \text{Bond Price}$$

Periodic payments on a bond



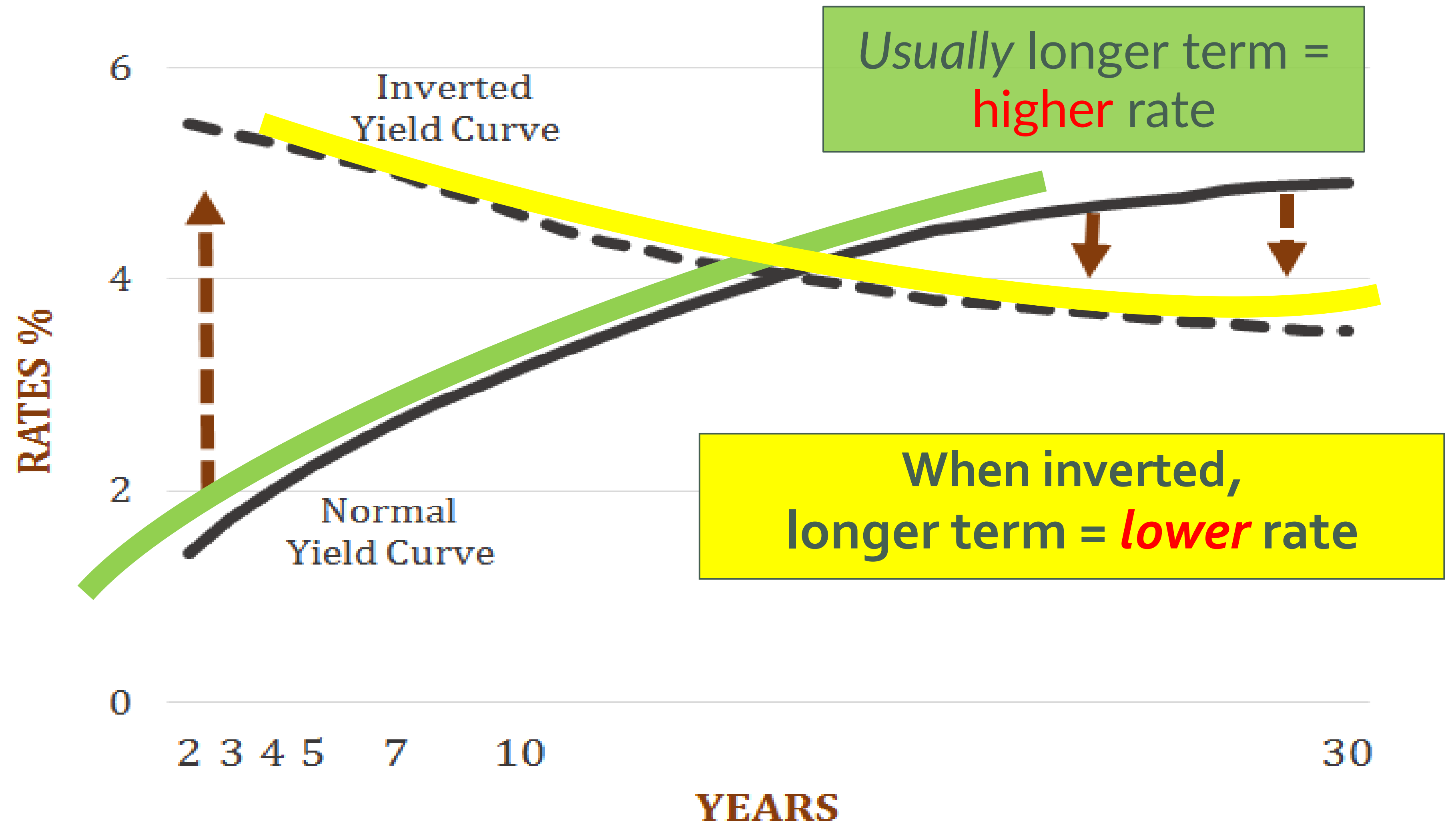
LOAN MATURITIES

MAY INVOLVE A LOAN FOR EACH PROJECT STAGE

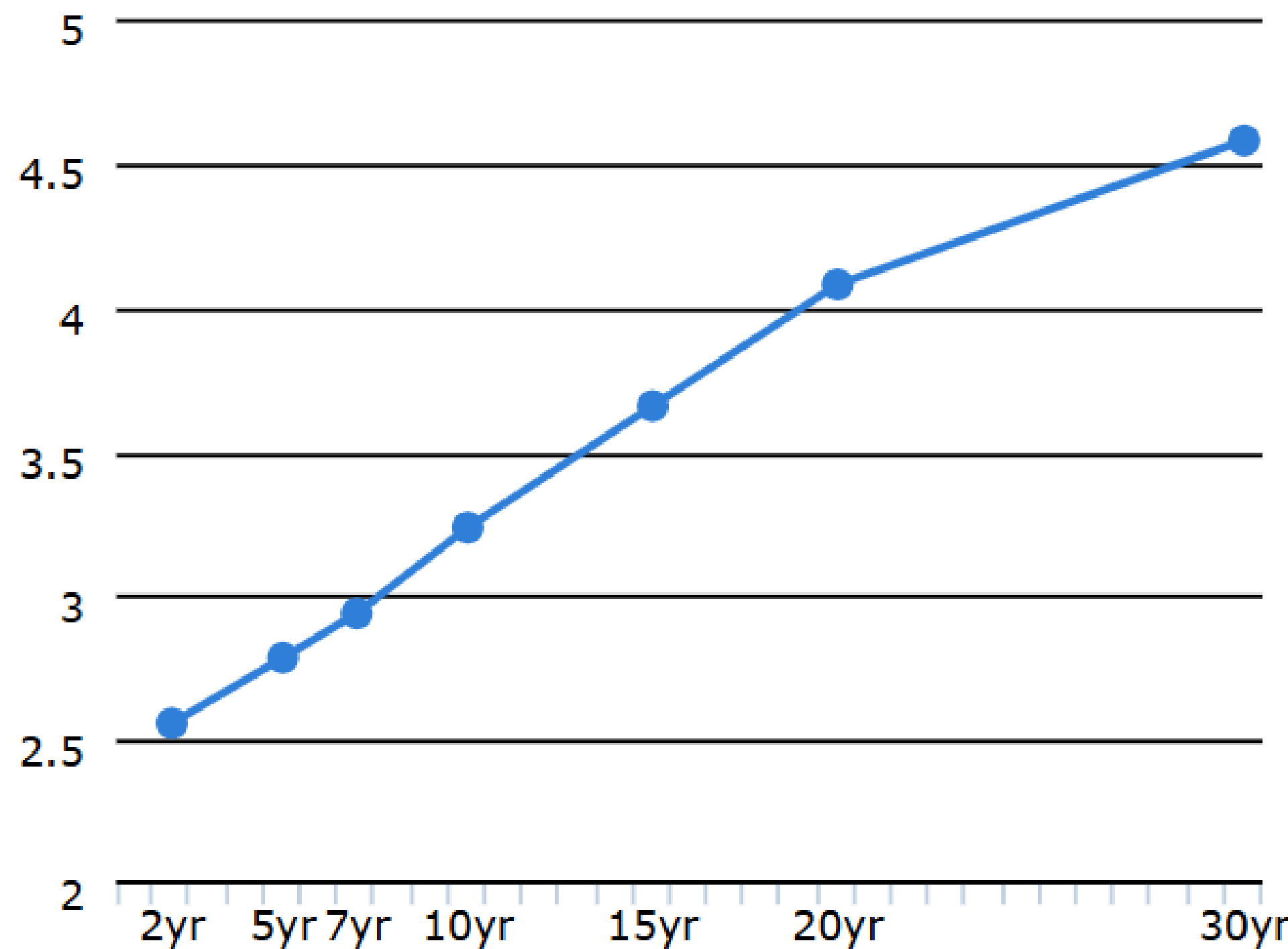
- Construction Loan
- Mini-Permanent Financing (more common with P3s)
- Construction Completion and Permanent Financing
 - Longer term financing
 - “Take out” the construction loan
 - Pay off the short-term lender
 - Permanently” finance the project

LOAN DURATION & INTEREST RATES

Normal and Inverted Yield Curve



MBIS Tax-Exempt Municipal Benchmark Yields



Rates as of 05/22/26

Tenor	Yield	Change
2	2.558	-0.023
5	2.785	-0.032
7	2.939	-0.028
10	3.236	-0.029
15	3.658	-0.027
20	4.079	-0.032
30	4.579	-0.020

**YIELDS ON
30 YR MUNI
5%
NON-CALL
10 YR
AS OF 05/22/26**

5% Non-Call 10yr Curve

B. Rich
HEDGEYE

HE'S LIKE
THE 10-YEAR
TREASURY...

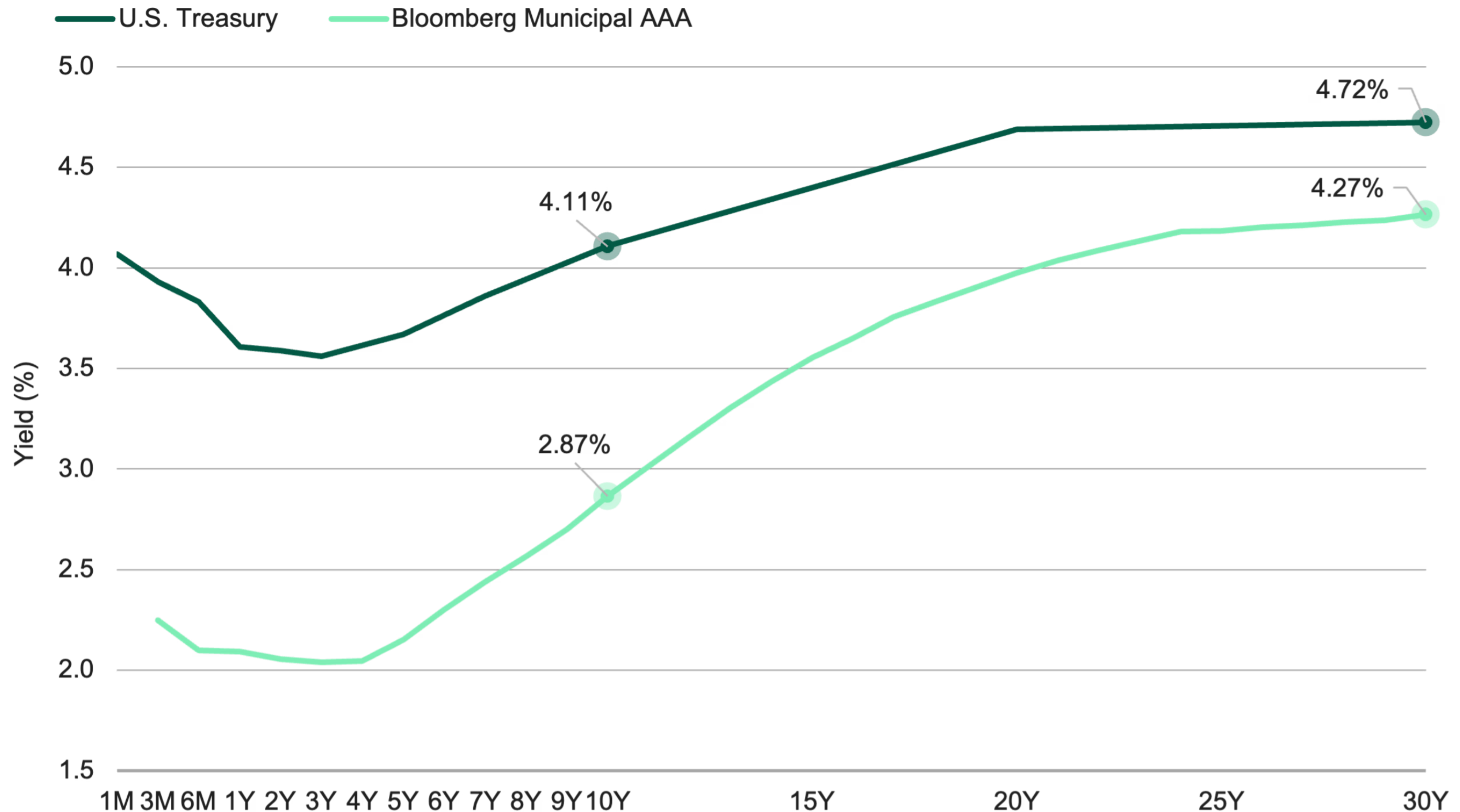
...HE'S VERY
SENSITIVE.



Bloomberg Municipal AAA Bond Index and U.S. Treasury Yields at Different Maturities



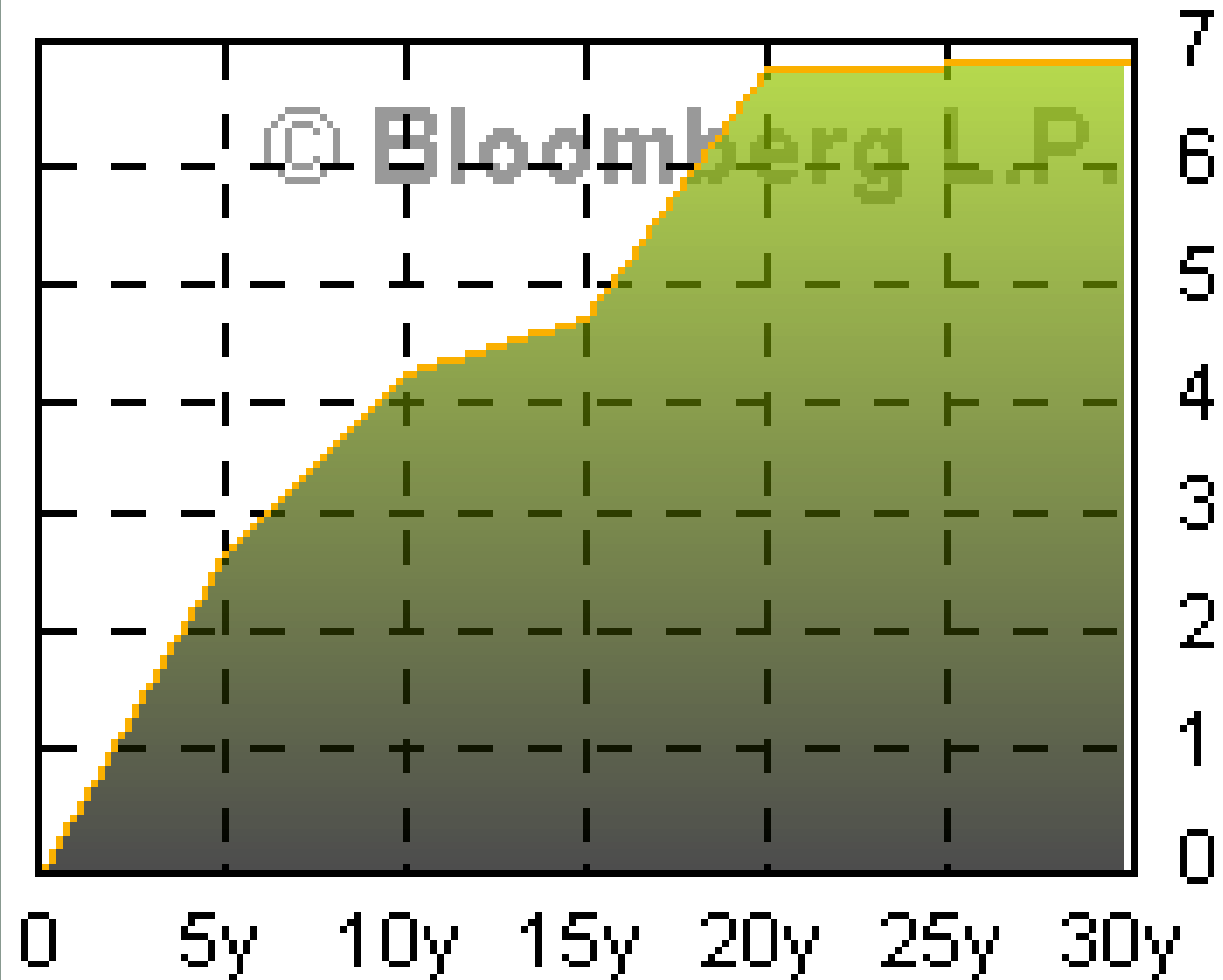
2025



TAX-EXEMPT BOND YIELD CURVES

BLOOMBERG.COM
JULY 23, 2009

INSURED REVENUE YIELD



NATIONAL MUNICIPAL BOND YIELDS

JUNE 22, 2012

Triple-A Rated, Tax-Exempt Insured Revenue Bonds

	<u>1 Day Prior Yield</u>	<u>2 Day Prior Yield</u>	<u>Change in Yield</u>	<u>28% Equiv Yield</u>	<u>1 Wk Prior Yield</u>	<u>1 Mo. Prior Yield</u>	<u>6 Mos. Prior Yield</u>
2 Yr	0.366%	0.369%	-0.003%	0.509%	0.371%	0.359%	0.284%
5 Yr	0.829%	0.864%	-0.035%	1.151%	0.878%	0.814%	0.882%
7 Yr	1.323%	1.336%	-0.013%	1.837%	1.373%	1.218%	1.160%
10 Yr	1.900%	1.910%	-0.009%	2.639%	1.923%	1.855%	1.887%
15 Yr	2.465%	2.506%	-0.041%	3.424%	2.498%	2.508%	1.827%
20 Yr	2.812%	2.876%	-0.064%	3.906%	2.872%	2.840%	3.371%
30 Yr	3.109%	3.121%	-0.012%	4.318%	3.134%	3.147%	3.676%

DEBT SERVICE

ONE YEAR EXAMPLE

- Let's assume a university needs to borrow \$10 million for a capital project on March 11, 2011
- Assume that there were 10 investors and each investor bought \$1 million in bonds over various terms

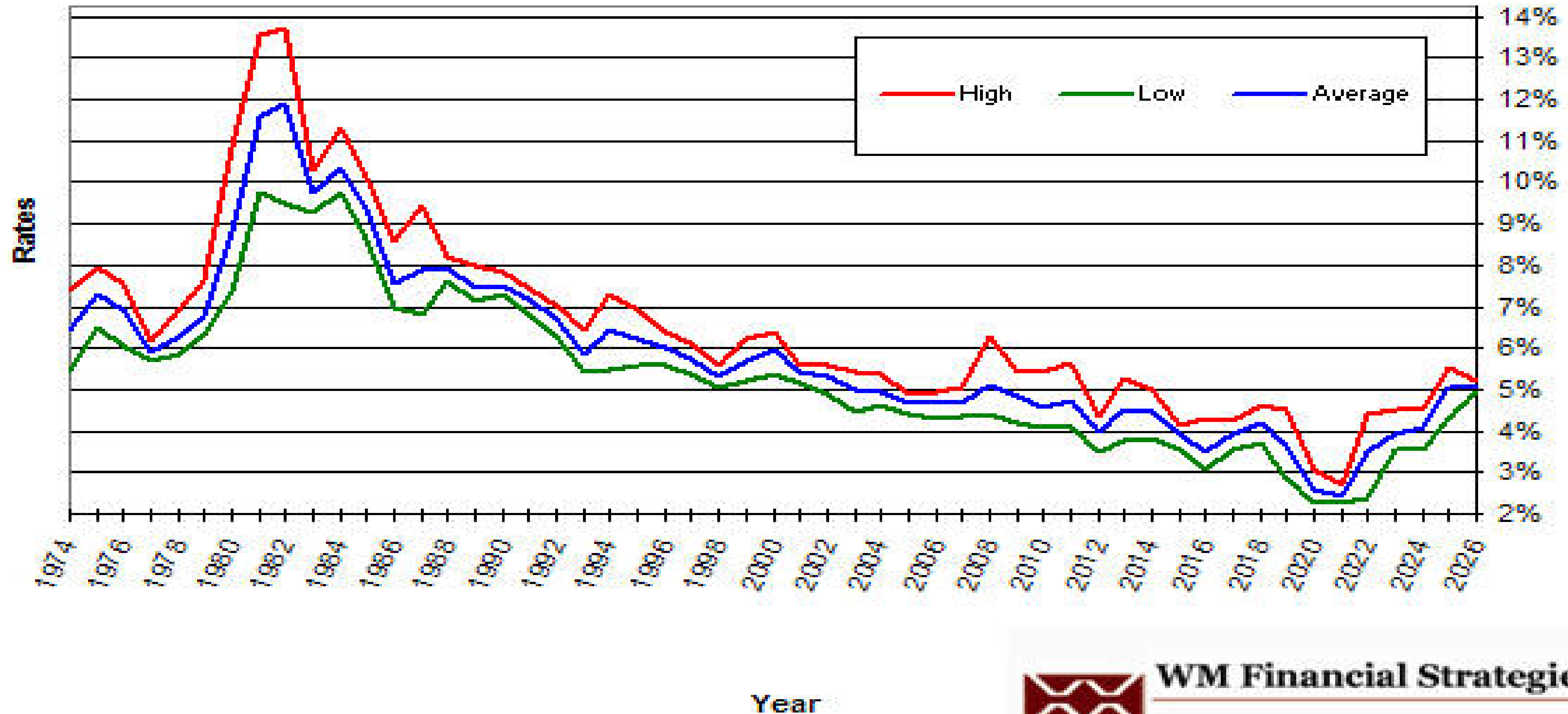
Investors	Bond Term	Repayment Date	Bond Amount	Coupon	University's Semi-Annual Interest Payment
Investor 1	1 year	10/1/11	\$1,000,000	3.000%	\$15,000
Investor 2	2 years	10/1/12	\$1,000,000	3.125%	\$15,625
Investor 3	3 years	10/1/13	\$1,000,000	3.250%	\$16,250
Investor 4	4 years	10/1/14	\$1,000,000	3.375%	\$16,875
Investor 5	5 years	10/1/15	\$1,000,000	3.500%	\$17,500
Investor 6	6 years	10/1/16	\$1,000,000	3.625%	\$18,125
Investor 7	7 years	10/1/17	\$1,000,000	3.750%	\$18,750
Investor 8	8 years	10/1/18	\$1,000,000	3.875%	\$19,375
Investor 9	9 years	10/1/19	\$1,000,000	4.000%	\$20,000
Investor 10	10 years	10/1/20	\$1,000,000	4.125%	\$20,625

As of 5/14/26 = 4.75%

As of 4/24/25 = 5.24%

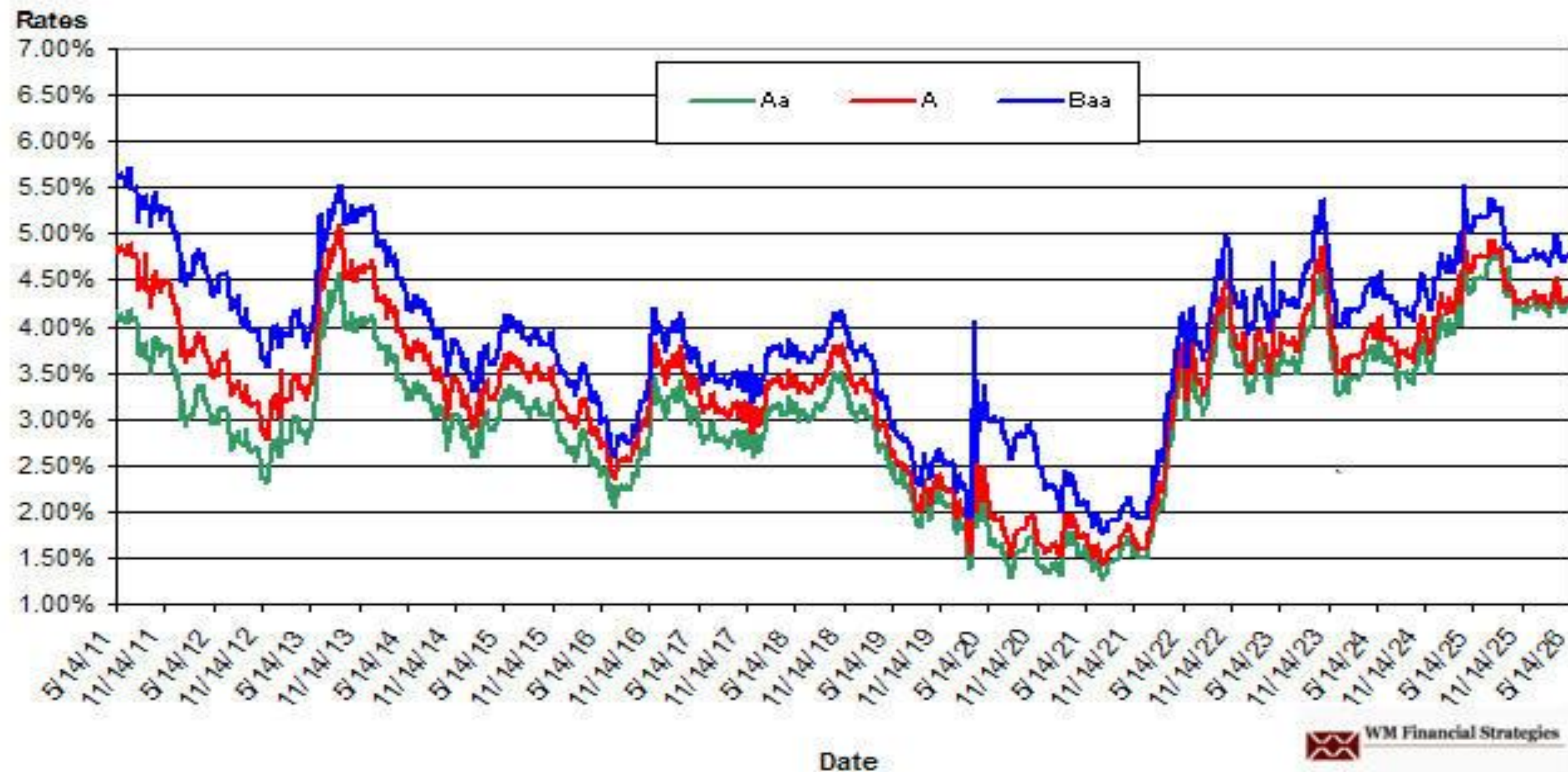
A representation of
municipal bond trends based on
a portfolio of 20 G. O. bonds
that mature in 20 years.

20-BOND BUYER INDEX 1974-PRESENT



WM Financial Strategies

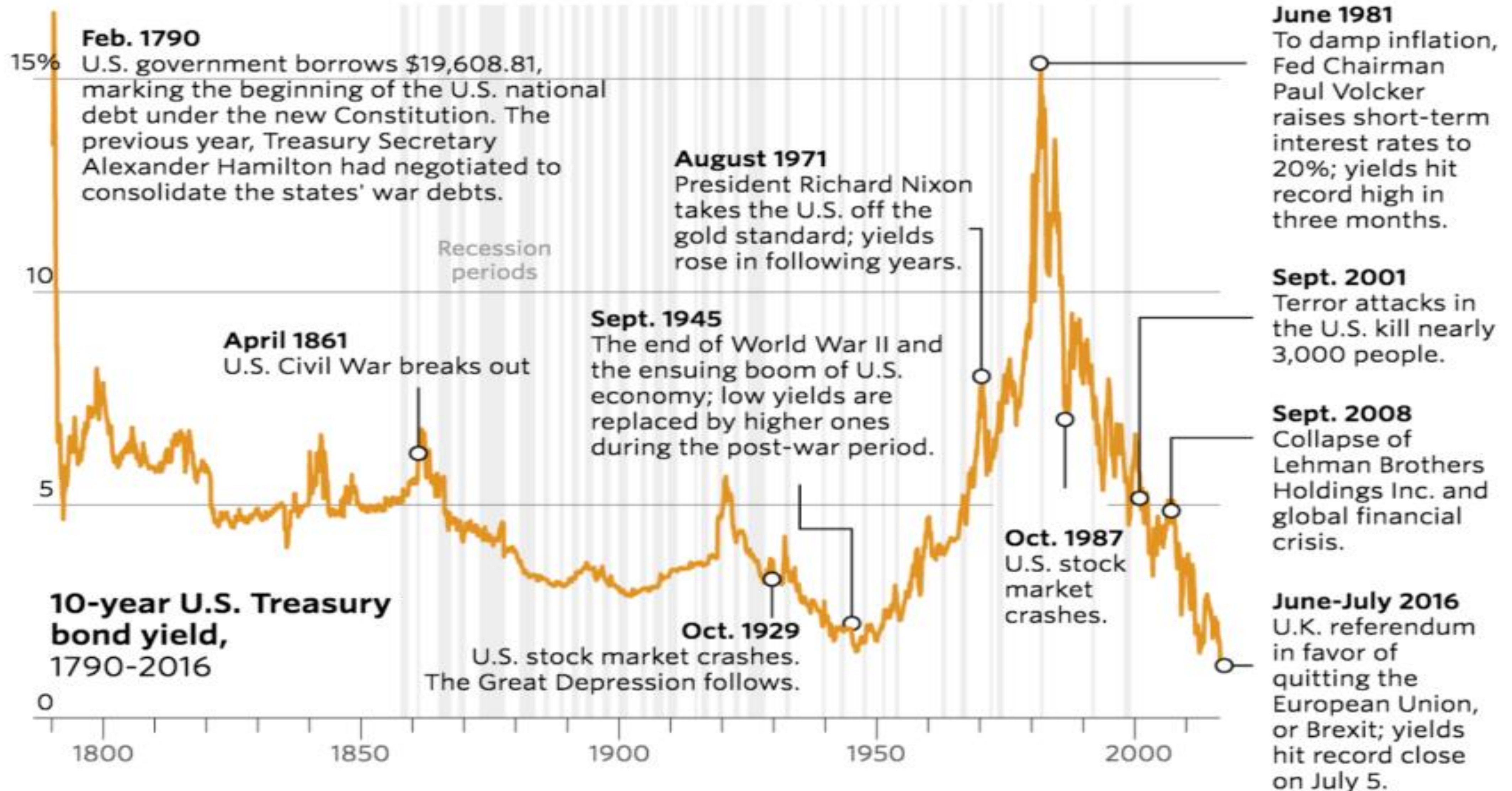
MUNICIPAL MARKET DATA INDEX
20th YEAR MATURITY BY RATING GRADE
PAST 15 YEARS



HISTORY OF U.S. TREASURY BOND YIELD

1790 TO 2016

04/29/26 = 4.39%
04/29/25 = 4.29%
04/18/24 = 4.63%



Recessions prior to 1854 lack official dates.

Source: Global Financial Data

TAXABLE VS. TAX-EXEMPT

TAXABLE vs. TAX-EXEMPT FINANCING

TAXABLE EQUIVALENT YIELD =

**TAX-EXEMPT YIELD/
[100%- TAX BRACKET (%)]**

EXAMPLE

7% INTEREST AND 24% INCOME TAX BRACKET

TAXABLE EQUIVALENT YIELD =

.07/ (1.00-.24) = 9.21%

EXAMPLE



TAXABLE

Interest Rate = 7%

\$100,000

\$7,000

35%

(\$2,450)

\$4,550

Par Amount

Income before tax

Tax bracket

Income taxes

After tax income

TAX-EXEMPT

Interest Rate = 5%

\$100,000

\$5,000

35%

\$0

\$ 5,000

"It's not what you get; it's what you keep"

Mark Huntley
Huntley Financial Services

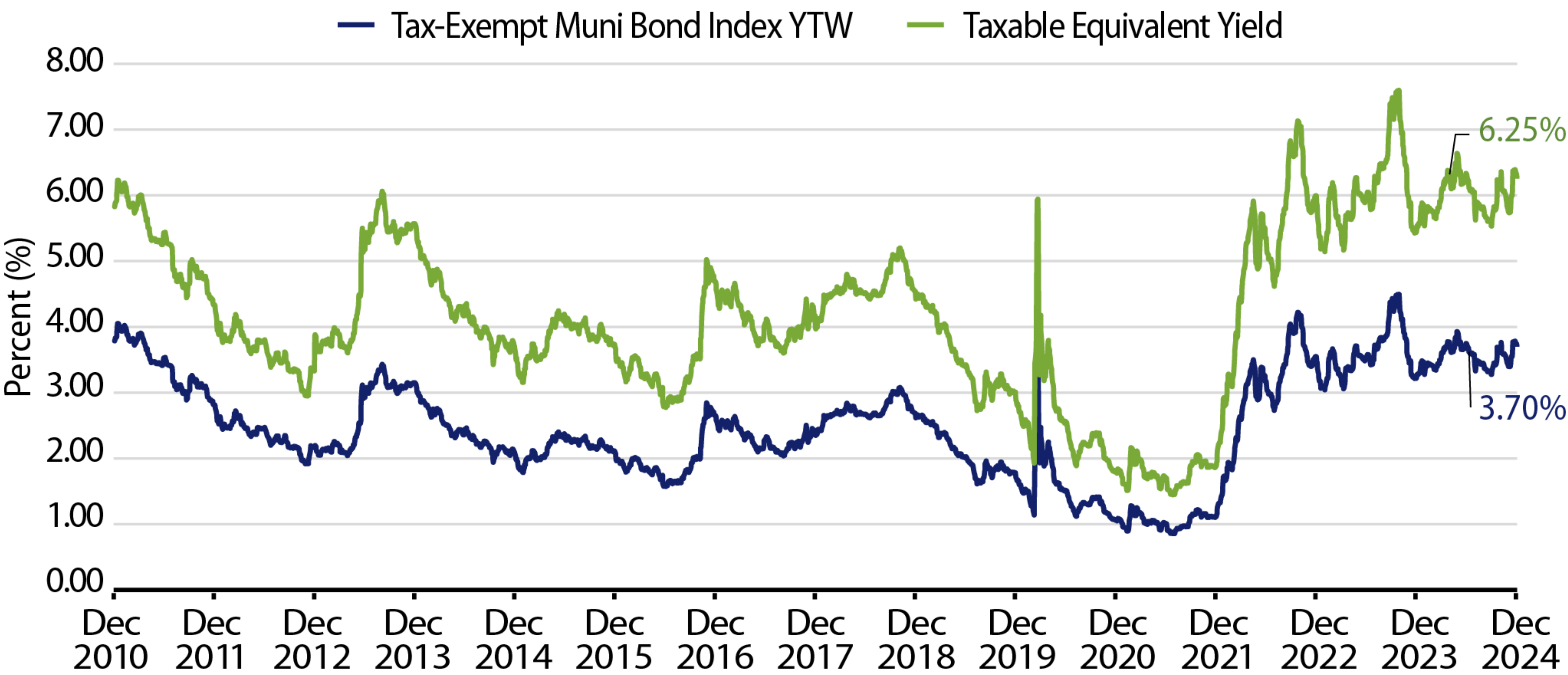
The greater the investor's tax liability...
the more attractive tax-exempt securities become

TAX-EXEMPT Bond Yield	TAXABLE EQUIVALENT	
	<u>24% bracket</u>	<u>35% bracket</u>
2.0 %	2.63%	3.08%
3.0 %	3.95%	4.62%
4.0 %	5.26%	6.15%
5.0%	6.58%	7.69%
6.0%	7.89%	9.23%

TAXABLE VS.
TAX-EXEMPT



MUNI AND TAXABLE-EQUIVALENT MUNI YIELD-TO-WORST



: Western Asset. Weekly Municipal Monitor—Year in Review January 07 2025
As of 03 Jan 25. Bloomberg Municipal Bond Index Yield

Calculate municipal bond yields

This tax equivalent yield calculator will estimate the tax-equivalent yield, or TEY, for a municipal bond. Income generated from municipal bond coupon payments are not subject to federal income tax. In addition, if the bond was issued in the state of residence, you can also avoid state income taxes. Use this tax equivalent yield calculator to determine the yield required by a fully taxable bond to earn the same after tax income as a municipal bond.

Calculate

View Report

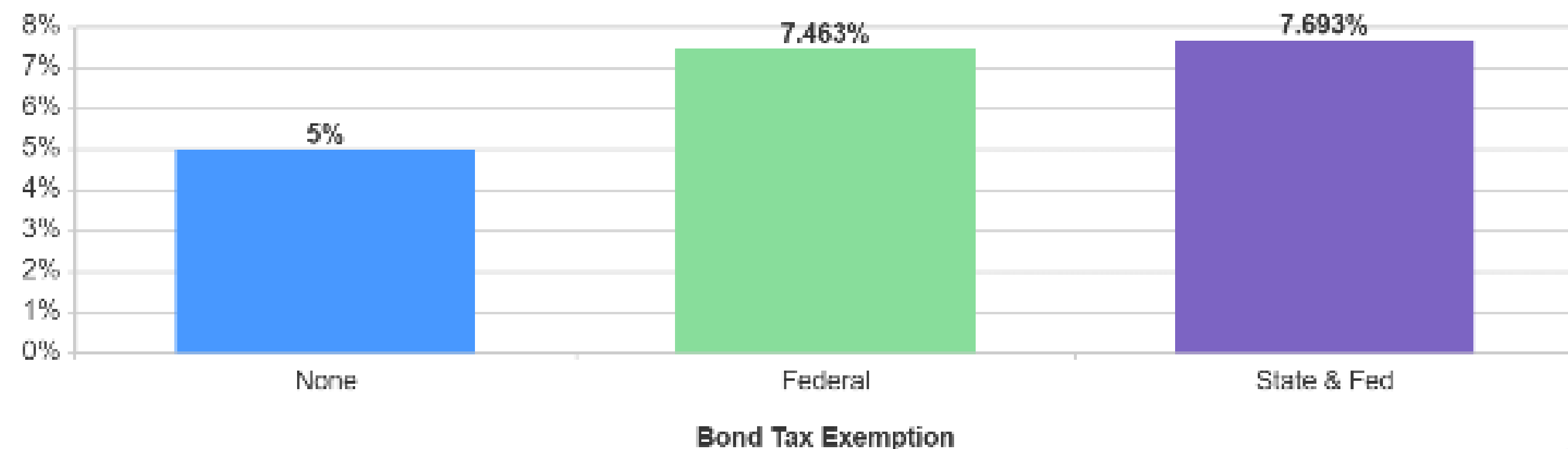
Municipal Bond Tax Equivalent Yield

Income at tax information:

Bond yield: 5%
 Estimated taxable income: \$250,000
 State income tax: 3%
 Federal tax filing status: Married filing jointly

Federal income tax rate: 33%

Tax Equivalent Yield



TAX EQUIVALENT YIELD CALCULATOR

TAX EXEMPTION

SERVES A PUBLIC PURPOSE

REQUIREMENTS FOR TAX EXEMPTION

- Income Tax-Exempt organization
- Governmental purpose
 - Project will benefit the public, student body, etc.
 - No equity returns can accrue to any project participant
 - Private Use Restrictions

THERE MAY BE CONSEQUENCES IF THIS ISN'T ALWAYS TRUE

TAXABLE VS. TAX-EXEMPT

“PRIVATE ACTIVITY BONDS” = TAXABLE

- Project/proceeds benefit a private corporation or an individual
- “Bad use” rules
 - Private Use –
 - more than 10% of facility used by profit making companies, not for tax-exempt purposes
 - Private Payment –
 - more than 10% of debt repayment stream



THESE ARE NOT COMMON,
BUT THEY DO HAPPEN!!

BOND BUYER

INDUSTRY TOPICS

WASHINGTON

REGIONS

MARKETS

TECH

NOTICES AND CALENDARS

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Find your interests

TAX

Corpus Christi, Texas, bond issuance may be retroactively taxable

By [Connor Hussey](#)

November 30, 2021, 2:17 p.m. EST 1 Min Read



The Internal Revenue Service has issued a preliminary determination that bonds issued by the City of Corpus Christi, Texas, in 2013 may be retroactively taxable.

The city disclosed on the Municipal Securities Rulemaking Board's EMMA website an adverse tax opinion or event affecting tax exempt status in relation to the issuance of its \$97.9 million Texas Utility System Junior Lien Revenue Improvement Bonds, Series 2013, of which about \$13.4 million remains outstanding.

THE BOND BUYER

INDUSTRY TOPICS

WASHINGTON

REGIONS

MARKETS

TECH

NOTICES AND CALENDARS

Find your interests

TAXABLE BONDS

IRS closes New Mexico jail audit after bonds converted to taxable

By [Brian Tumulty](#)

August 17, 2017, 1:57 p.m. EDT 3 Min Read

WASHINGTON – For the second time in two months, the Internal Revenue Service has closed an audit of bonds used to finance the development of a jail facility after the bonds were converted to taxable.

The latest case involves \$62.3 million in revenue bonds sold in 2007 by Otero County, N. M. to finance the development of a processing and detention facility in Chaparral, N.M.

BREAK

MUNICIPAL MARKET REGULATION

IRS Rules That \$19.8M of URI's Tax-Exempt Bonds Are In Violation and Now Taxable

Saturday, March 08, 2025

GoLocalProv News Team

288
Shares



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Share



The IRS has sent notice to the University of Rhode Island notifying them that two series of higher education bonds issued in 2018 are now considered taxable as a result of being in non-compliance with Section 149(g) of the IRS Code.

An IRS 149(g) violation, also known as a "hedge bond" violation, occurs when an issuer of tax-exempt bonds is deemed to have issued bonds too early, essentially "hedging" against future interest rate increases rather than for a genuine, immediate need.

The total of the two bonds is \$19.8 million.

**GET THE LATEST BREAKING NEWS HERE --
SIGN UP FOR GOLOCAL FREE DAILY EBLAST**

URI refused to respond to requests for comment.

GoLocal asked URI officials about the potential exposure to bondholders and if the University would appeal the ruling.

The violation was first reported by the Bond Buyer.



University of Rhode Island could face millions in exposure PHOTO:

MUNICIPALS

A REGULATED MARKET

MSRB

(MUNICIPAL SECURITIES RULEMAKING BOARD)

Writes rules for bond brokers, dealers, and municipal advisors – But not universities!

SEC

(SECURITIES EXCHANGE COMMISSION)

Oversees the MSRB and regulates municipal advisors

FINRA

(FINANCIAL INDUSTRY REGULATORY AUTHORITY)

Enforces MSRB rules for broker-dealers and examines them for compliance

FEDERAL BANKING REGULATORS

Enforce MSRB rules for bank dealers
(Federal Reserve, OCC, FDIC)

IRS

(INTERNAL REVENUE SERVICE)

Tax regulations for tax-exempt municipal bonds; bonds could become taxable

LEGAL COMPLIANCE & DISCLOSURE



PRE-ISSUANCE/DURING ISSUANCE

IRS

- Reimbursement Resolution

Legal and Tax

- Validity opinion
- Tax opinion

Disclosure

- Sufficient and appropriate disclosure

POST ISSUANCE

Federal Government

- Private business use tracking
- Arbitrage rebate tracking
- Federal reporting

Investors

- Material events
- Annual reporting

Credit Rating Agencies

- Surveillance

EVALUATING MARKET CONDITIONS

EVALUATING MARKET CONDITIONS

- Refunding of tax-exempt debt is only possible within 90 days of a call date
- Advance refundings of tax-exempt debt essentially eliminated in Tax and Jobs Act of 2017
- Set an institutional target of NPV savings that are sufficient to refund.

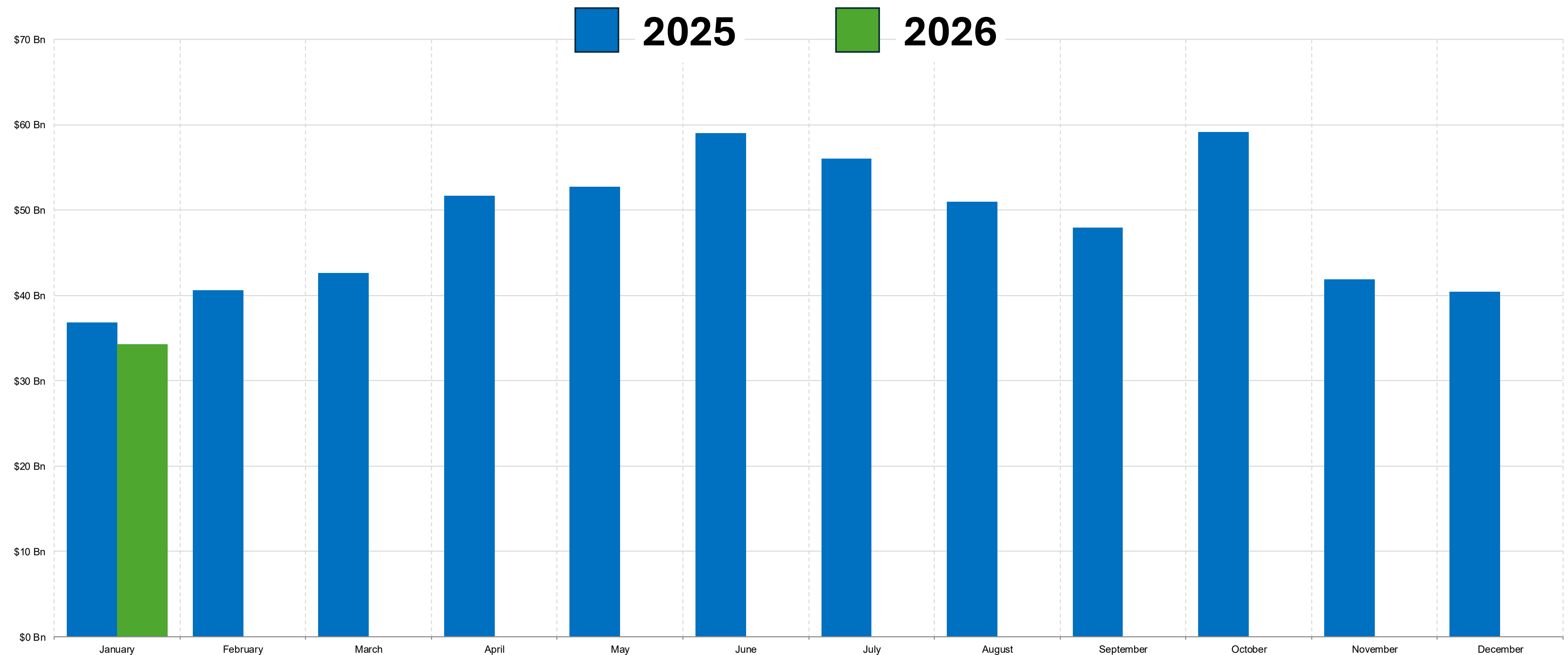
New Money issuance is a function of the project construction timeframe.

And interest rates...

Or the availability of short-term bridge financing in anticipation of long-term debt.

MUNI MARKET SUPPLY & DEMAND

IT CHANGES THROUGHOUT THE YEAR!

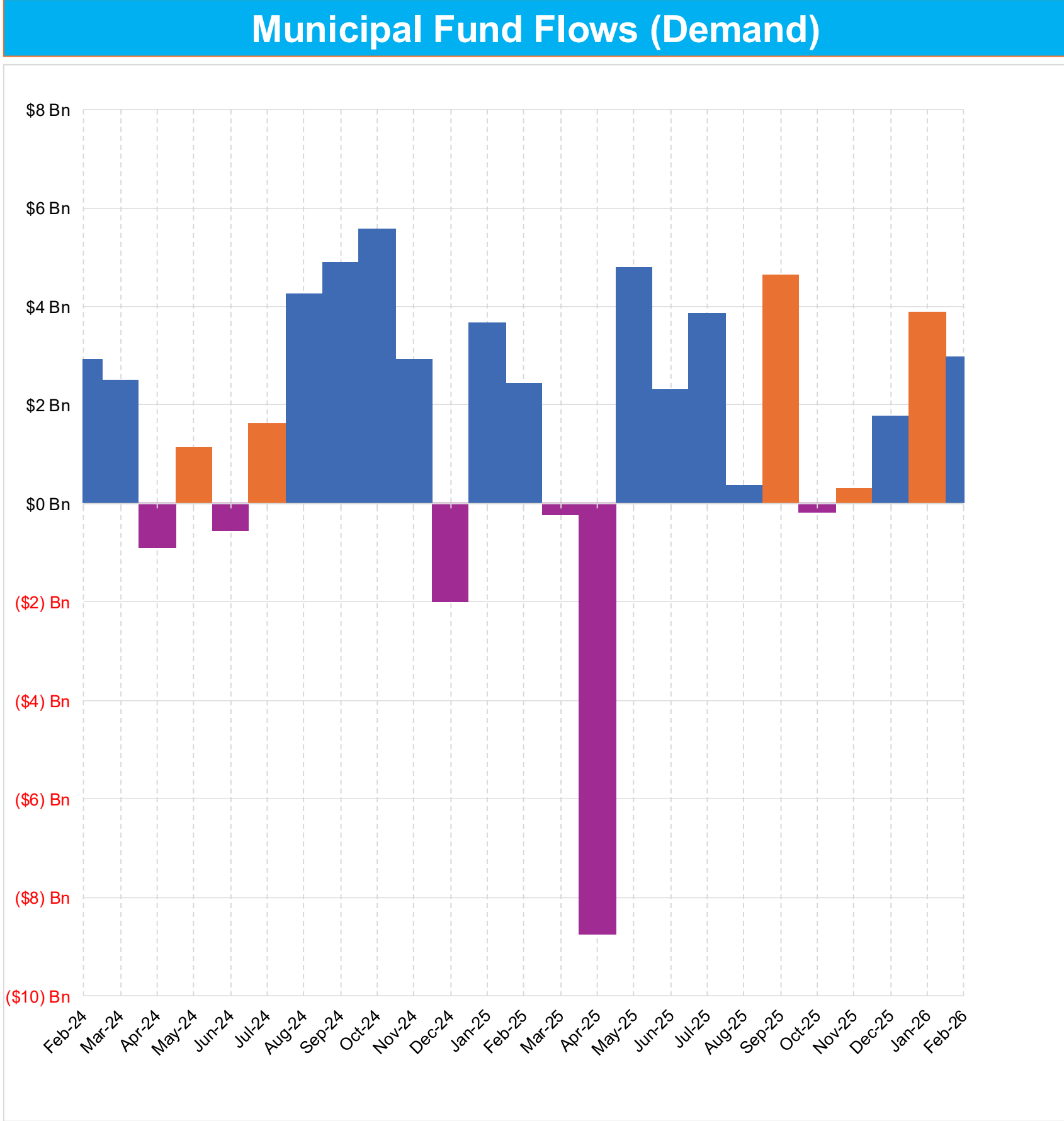
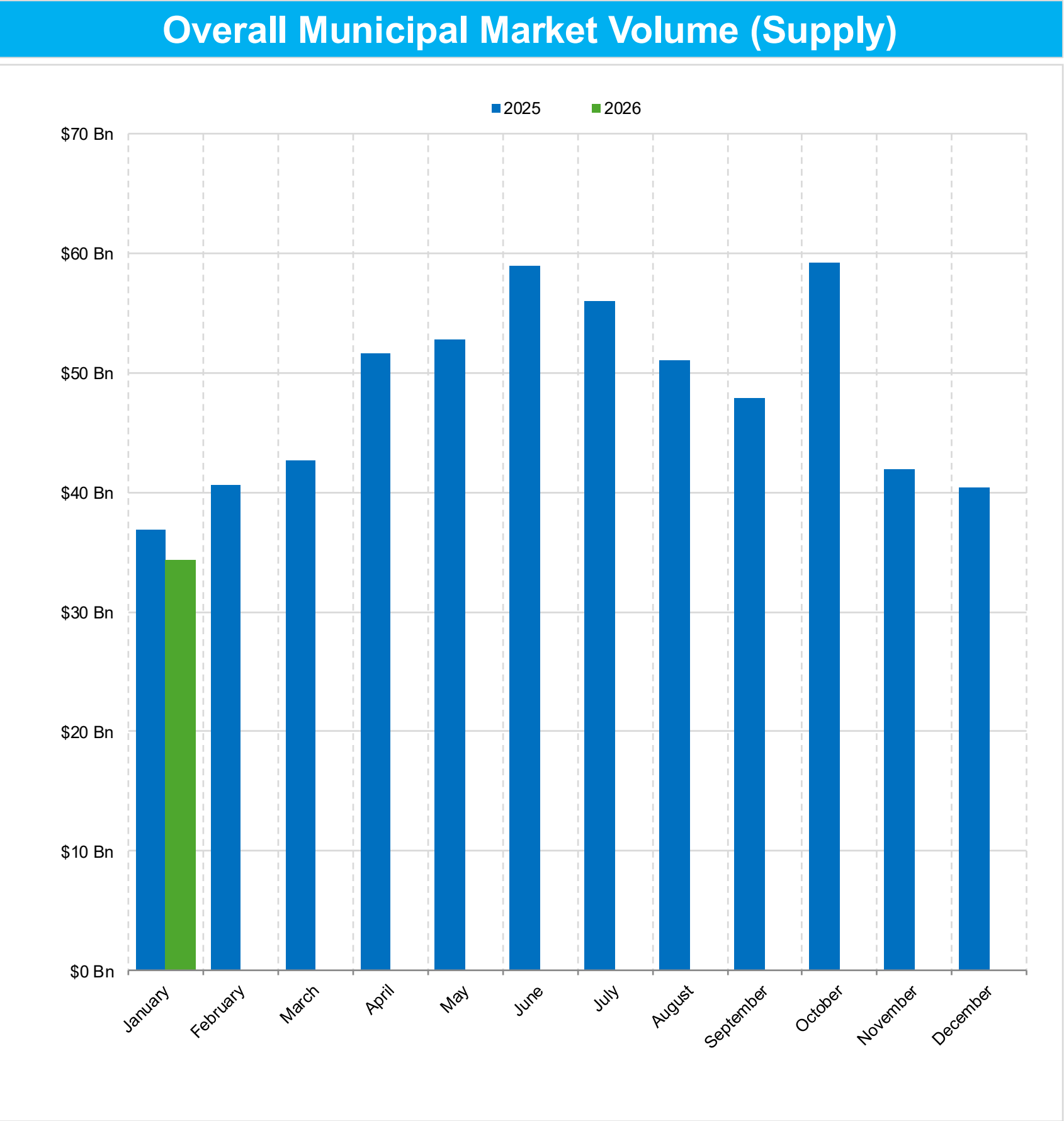


New issuance volume was up by 14.25% year-over-year in 2025 from 2024

The 2026 monthly new issuance volume is 6.90% lower than 2025 issuance through January.

MUNI MARKET SUPPLY AND DEMAND

New issuance volume was up by 14.25% year-over-year in 2025 from 2024, the 2026 monthly new issuance volume is 6.90% lower than the 2025 issuance through January.



Source: Bond Buyer, Investment Company Institute

US TREASURY RATE POSITION

As of 02/13/2026

Statistic	3 Month	6 Month	1 Year	2 Year	3 Year	5 Year	10 Year	30 Year
	3.68%	3.59%	3.42%	3.40%	3.43%	3.61%	4.04%	4.69%
Average	2.32%	2.43%	2.59%	2.68%	2.86%	3.15%	3.65%	4.19%
Spread to Avg.	1.36%	1.16%	0.83%	0.72%	0.57%	0.46%	0.39%	0.50%
Minimum	-0.09%	0.00%	0.04%	0.10%	0.11%	0.19%	0.51%	1.00%
Spread to Min.	3.77%	3.59%	3.38%	3.30%	3.32%	3.42%	3.53%	3.69%
Maximum	6.44%	6.53%	6.38%	6.91%	6.90%	6.86%	7.06%	7.19%
Spread to Max.	-2.76%	-2.94%	-2.96%	-3.51%	-3.47%	-3.25%	-3.02%	-2.50%
Percent of Market Days Lower	67.34%	65.83%	73.42%	63.05%	61.36%	59.91%	58.24%	62.35%

Source: Bloomberg

INTEREST RATES CHANGE ALL THE TIME

**THE 20-BOND INDEX
LAST 24 MONTHS - BY WEEK**



U.S. TREASURIES

HIGHLY RELEVANT

Investing

- How much should my institution expect to receive from various investments, if US Treasury notes, bills, and bonds are one alternative (and risk free).

Investment Risks

- Credit – US Government
- Duration – Yield Curve
- Interest Rate
- Opportunity Cost

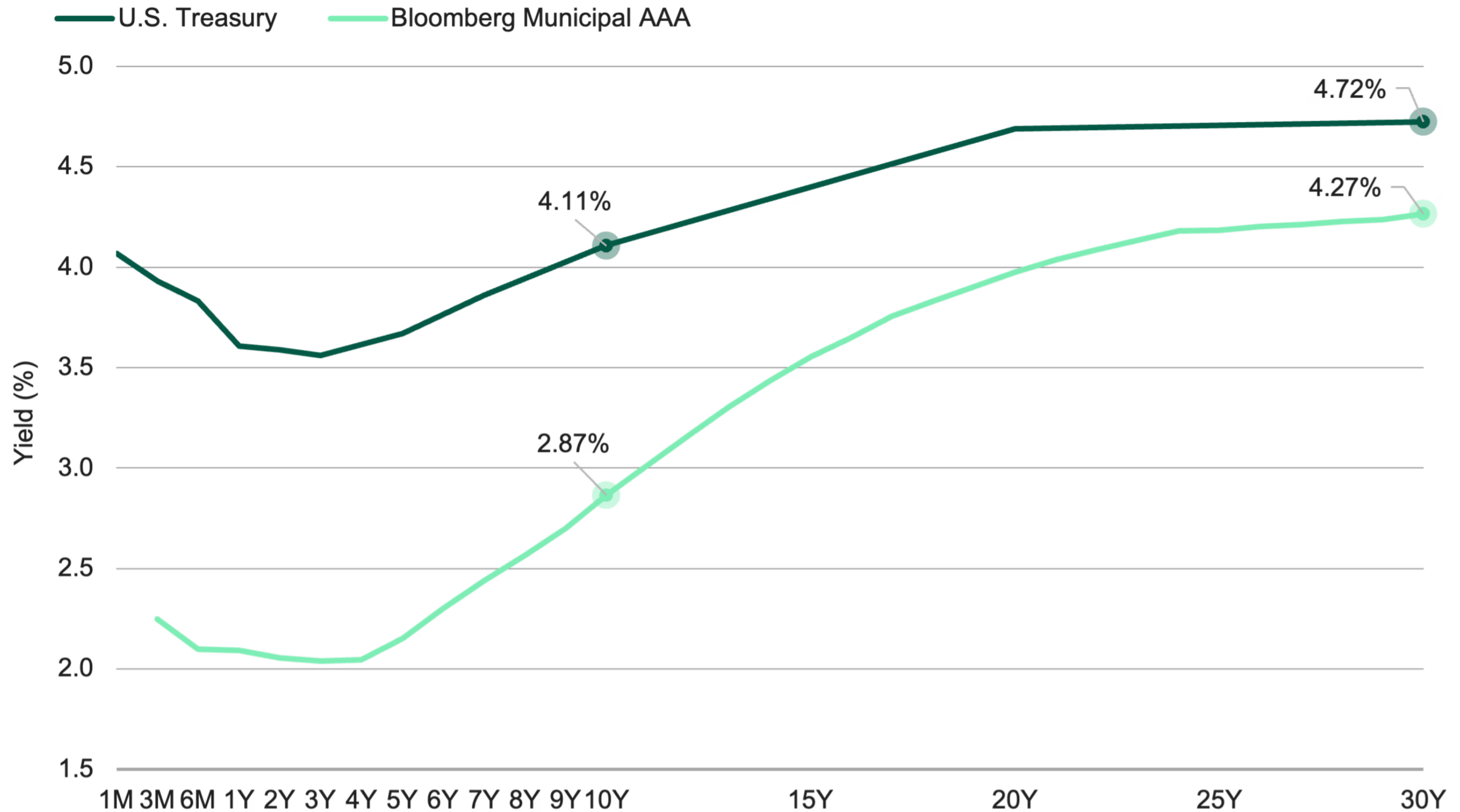
Debt

- How much should investors expect to receive from our institution when they buy our bonds or when they lend us money.

Investment Risks

- Credit – My institution
- Duration – Length of bonds
- Opportunity Cost

Bloomberg Municipal AAA Bond Index and U.S. Treasury Yields at Different Maturities



TERMINOLOGY IN DEPTH

TERMINOLOGY

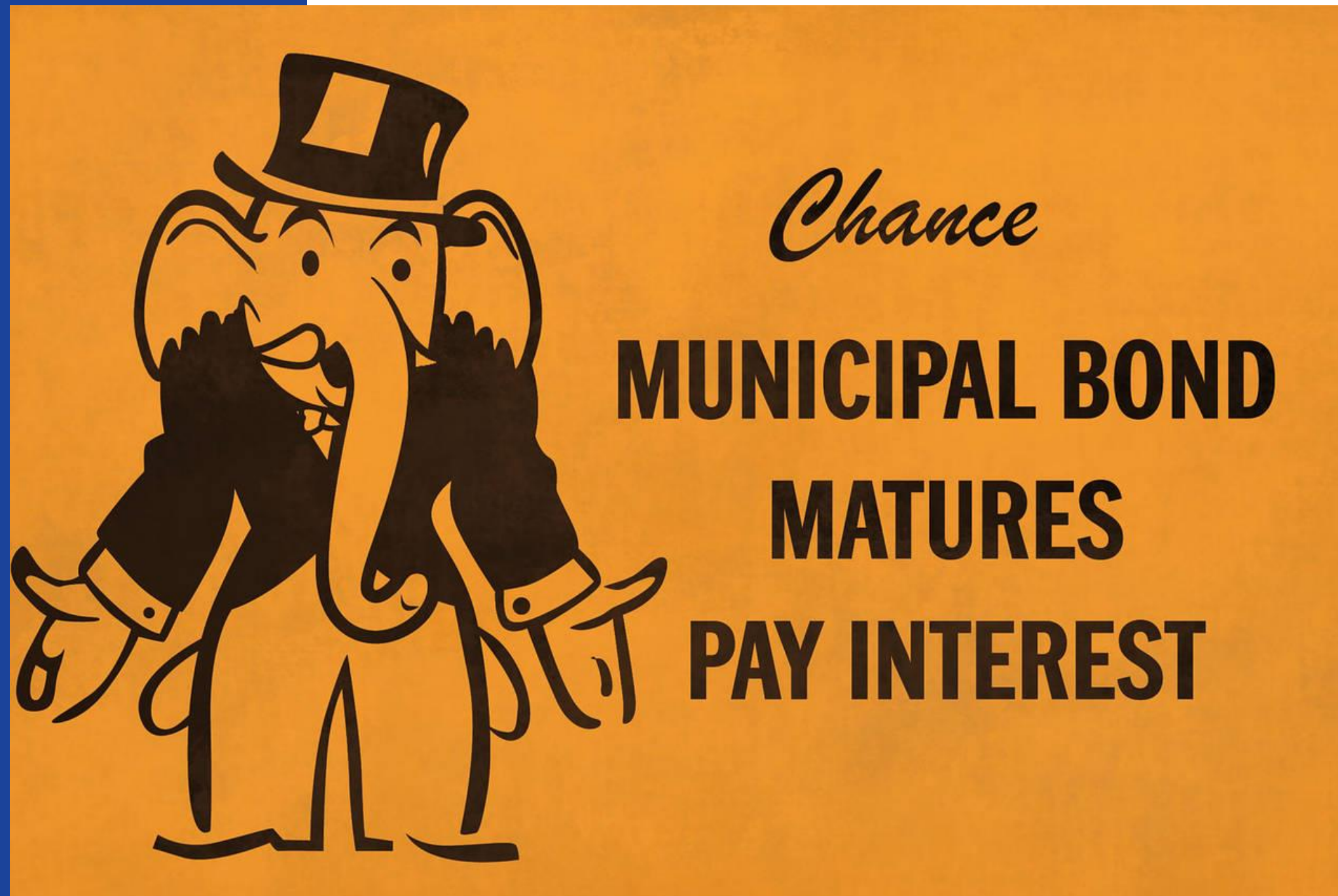
- Serial Bonds & Term Bonds
- Primary Market & Secondary Market
- Competitive Sale & Negotiated Sale
- Private Placement & Limited Offering
- Official Statement
- Credit Ratings and Rating Agencies
- Credit Enhancement
- Indenture
- Arbitrage
- Call/Redemption
- Covenants

SERIAL BONDS AND TERM BONDS

SERIAL BONDS

A portion of issue's par value paid off each year

Take advantage of shorter term interest rates



TERM BONDS

Total principal payable at maturity

Also referred to as bullet maturity/bullet bonds

Larger maturity may be more attractive to investors

BOND MARKETS

PRIMARY MARKET

- Market for new issues (original pricing)
- Bidding syndicates of underwriters
- Institutional investors

*A newly issued bond
is much more likely
to trade than
an aged bond.*

MSRB

2025 MUNI MARKET

Total Par Value Traded = \$3.8 Trillion

2025 saw some fundamental shifts

- Record trade count (up 14%)
- New issue volume up 13%
- Dramatic growth of SMAs and electronification of the market

Municipal Securities Rulemaking Board
2025 Municipal Market Year in Review

SECONDARY MARKET

Sale or trading at prevailing mkt prices

- Banks/trust departments
- Individual investors
- Insurance companies
- Mutual funds

TYPES OF BOND SALES

COMPETITIVE SALE

- Competitively bid
- Notice of Sale in the “Bond Buyer”
- Underwriters bid to buy bonds by quoting interest rates & discounts or premiums
- May not always result in lowest price

Depends on underwriters’ assessment of market and its ability to resell the bonds



TYPES OF BOND SALES

NEGOTIATED SALE

- Issuer/Borrower selects underwriter
- Investment banker seeks out likely clients and negotiates terms
- Underwriting team has more time to prepare because know will sell the bonds



Useful in certain conditions

- Poor credit or security features
- Unusually large issue (> \$300M) or small
- New entity
- Complicated issues – unusual financing terms, innovative structure or security
- Volatile market

TYPES OF BOND SALES

PRIVATE PLACEMENT

- Securities marketed directly to a “Sophisticated Investor”
- No underwriter, but may have a placement agent
- Usually place with banks or institutional investor
- Often higher interest rate because bond not as liquid
- But lower costs of issuance



TYPES OF BOND SALES

LIMITED OFFERING

- Similar to private placement
- Very few bondholders
- More than 2, but < 35 lenders



PRIMARY MUNI OFFERINGS

Percentage of New Issues by Bid Type and Tax Status, 2019–2023

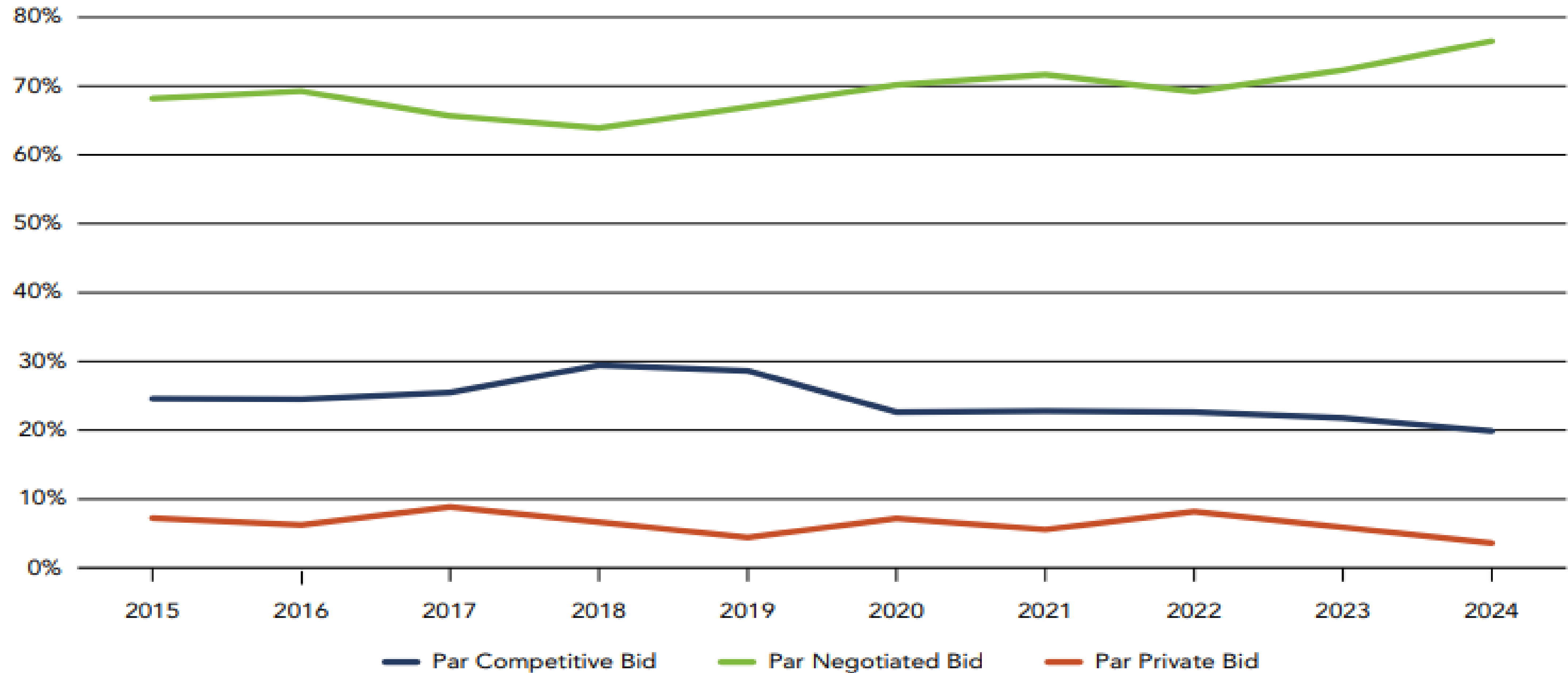
	TAX-EXEMPT	TAXABLE
Competitive	29%	14%
Negotiated	66%	79%
Private Placement	5%	8%

Some sectors, such as general purpose and education, do not use the negotiated market as often, while other sectors, including healthcare and housing, almost always use only the negotiated market.

The tax status of a deal also plays a significant role in the use of the competitive vs. the negotiated market. Since taxable offerings and deals subject to the Alternative Minimum Tax (AMT) are infrequent and may be considered more complicated than tax-exempt offerings, they are not typically brought to market using the competitive market.

ISSUANCE BY OFFERING TYPE AS % OF PAR ISSUED

2015- 2024



Source: LSEG

DISCLOSURE DOCUMENTS

Detailed information about the bond offering differs according to who buys the bonds

Official Statement (OS)

Public Offering

Limited Offering Memorandum (LOM)

Replaces OS

Private Placement Memorandum

Significantly less data

OFFICIAL STATEMENT – PRELIMINARY & FINAL



- Disclosure to prospective buyers
- Terms of financing
- Financial info & operating data
- Relevant parties
- Project description
- Must state if non-compliant within last 5 years

OFFICIAL STATEMENT – GENERAL INFORMATION

- History of institution
 - Project description & cost data
 - 5 -10 years of institutional data
 - Demographics (10 yrs of data)
- Enrollment Data (HC & FTE)
 - Applications, admissions, matriculation
 - Retention and graduation rates
 - Housing occupancy rates
 - Faculty & Staff statistics
 - Number of degrees awarded

PART 5 – PLAN OF FINANCE AND REFUNDING

Refunding Plan

A portion of the proceeds from the sale of the Series 2021 Bonds are expected to be used to refund one of the University's lines of credit, the proceeds of which were used by the University to refund the Refunded Series 2016A Bonds.

Plan of Finance – The Series 2021 Project

Additionally, a portion of the proceeds from the sale of the Series 2021 Bonds are expected to be used to finance or refinance costs incurred in connection with the acquisition, construction, reconstruction, renovation, equipping, repair, purchase or provision of the project described below (collectively, the "Series 2021 Project"). The Series 2021 Project consists of the direct payment of, or the repayment of one or more lines of credit the proceeds of which were applied to the payment of, a portion of the costs of: (A) projects located at the University's Washington Square location, including: (i) construction and equipping of a new mixed used (e.g., academic, athletic, residential and administrative) building at 181 Mercer Street; (ii) improvements to a cogeneration plant and infrastructure elements related to delivery and service sites, including without limitation, 251 Mercer Street; (iii) upgrades to infrastructure and renovations for academic use at 404 Lafayette Street and 708 Broadway; (iv) renovations and equipping of space for use by the Chemical Biology Department at the Silver Complex located at 23-29 Washington Square East, including Waverly Place, 25 West 4th Street, and the Silver Building, located at 100 Washington Square East, including upgrading building systems, refurbishing office space, and relocating laboratories and classrooms to the Waverly Building (24 Waverly Place); (B) projects located at the University's Brooklyn geographic location, including: (i) renovation without limitation, 5 MetroTech Center and 307 Bridge Street and renovation and equipping of a building located at 370 Jay Street; (C) projects at the Skirball Institute located at 512 First Avenue; equipping of a Virology Center for research and administrative uses at the Smilow Research Center located at 540-562 First Avenue; (ii) installation of fire compliance equipment at the Skirball Institute located at 512 First Avenue; (iii) installation of fire compliance equipment at 334 E 26th Street for ADA compliant upgrades; (D) various renovations, reconstruction, reconstruction and deferred maintenance of other facilities of the University located in

PART 6 – THE UNIVERSITY GENERAL INFORMATION

Introduction

The University is a private, not-for-profit institution of higher education and is an organization described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended. The University was founded in 1831 by a group of private citizens and is recognized nationally and internationally as a leader in scholarship and education.

NYU is one of the largest private institutions of higher education in the United States. It has almost 6,000 full-time faculty – including recipients of Nobel Prizes, Abel Prizes, National Medals of Science, Technology, the Arts and the Humanities, Pulitzer Prizes and other top honors – and approximately 30,000 undergraduate and 25,000 graduate students. It includes 20 schools, colleges, institutes and programs in eight major locations in the New York City area: the Washington Square campus in Greenwich Village; the Institute of Fine Arts at the Metropolitan Museum of Art; the School of Professional Studies at the Midtown Center; the Woolworth Building located at 15 Barclay Street (as well as at Washington Square); the College of Dentistry on First Avenue between East 24th and 26th Streets; the College of Arts and Sciences at 100 Washington Square East; the College of Medicine ("Grossman School of Medicine") on First Avenue between East 24th and 26th Streets; the Center for Urban Science and Progress (CUSP) at 100 Washington Square East; and the Center for Science and Progress (CUSP) at 100 Washington Square East.

Student Admissions

The following table sets forth for the most recent five academic years the number of applicants who have applied for first-time freshman admission to undergraduate schools at the University, the number and percentage of those applicants accepted, the number of such first-time freshmen enrolled, and the percentage matriculation yield.

OPERATING INFORMATION

UNDERGRADUATE ADMISSION STATISTICS

Academic Year	Applicants	Acceptances	% Accepted	New Enrollment	Matriculation Yield
2020 – 2021	85,594	19,490	22.8%	7,669	39.4%
2019 – 2020	84,178	14,688	17.4%	6,615	45.0%
2018 – 2019	75,251	16,214	21.5%	6,956	42.9%
2017 – 2018	67,628	19,493	28.8%	6,711	34.4%
2016 – 2017	63,802	20,048	31.4%	6,674	33.3%

Note: Academic years shown above reflect data applicable to the Fall semester's entering freshmen bachelor's degree candidates and two-year programs' candidates. Undergraduate admission statistics reflect data for NYU, NYU Abu Dhabi, and NYU Shanghai, including those applicants who are Chinese nationals. NYU Abu Dhabi and NYU Shanghai are not reported in the U.S. Department of Education Integrated Postsecondary Education Data System ("IPEDS") because IPEDS data excludes any branch campus located in a foreign country.

As of June 2021, NYU has received over 100,000 first-year undergraduate admission applications across all three of our campuses (Abu Dhabi, Shanghai, New York) for the fall 2021 semester, a 20% increase over Fall 2020 applications. This marks an almost threefold increase since 2008, and marks the first time applications have surpassed 100,000.

Student Enrollment

The following table, based on Fall registration data, shows the University's total enrollment (including NYU Abu Dhabi and NYU Shanghai) for the most recent five academic years.

ENROLLMENT SUMMARY

Academic Year ^{1,2,3,4}	Full-Time (FT)				Part-Time (PT)				Grand Total	FT Equivalent
	Undergrad	Grad & Prof	Non-Degree Candidate	Total FT	Undergrad	Grad & Prof	Non-Degree Candidate	Total PT		
2020 – 2021 ¹	28,981	18,201	49	47,231	1,675	7,138	4,158	12,971	60,202	51,555
2019 – 2020 ¹	28,766	19,494	85	48,345	1,146	6,410	5,491	13,047	61,392	52,694
2018 – 2019	28,365	17,415	99	45,879	1,041	7,699	5,894	14,634	60,513	50,757
2017 – 2018	27,719	16,977	110	44,806	1,080	7,729	5,446	14,255	59,061	49,558
2016 – 2017	27,022	16,486	359	43,867	1,255	7,929	5,099	14,283	58,150	48,628

¹ Enrollment figures include NYU Abu Dhabi and NYU Shanghai.
² Includes Chinese national students.
³ Excludes Consortium and Global Exchange students.
⁴ Non-degree students measured as of Fall census. Enrollment is ongoing throughout the year.
⁵ Includes the Long Island School of Medicine.

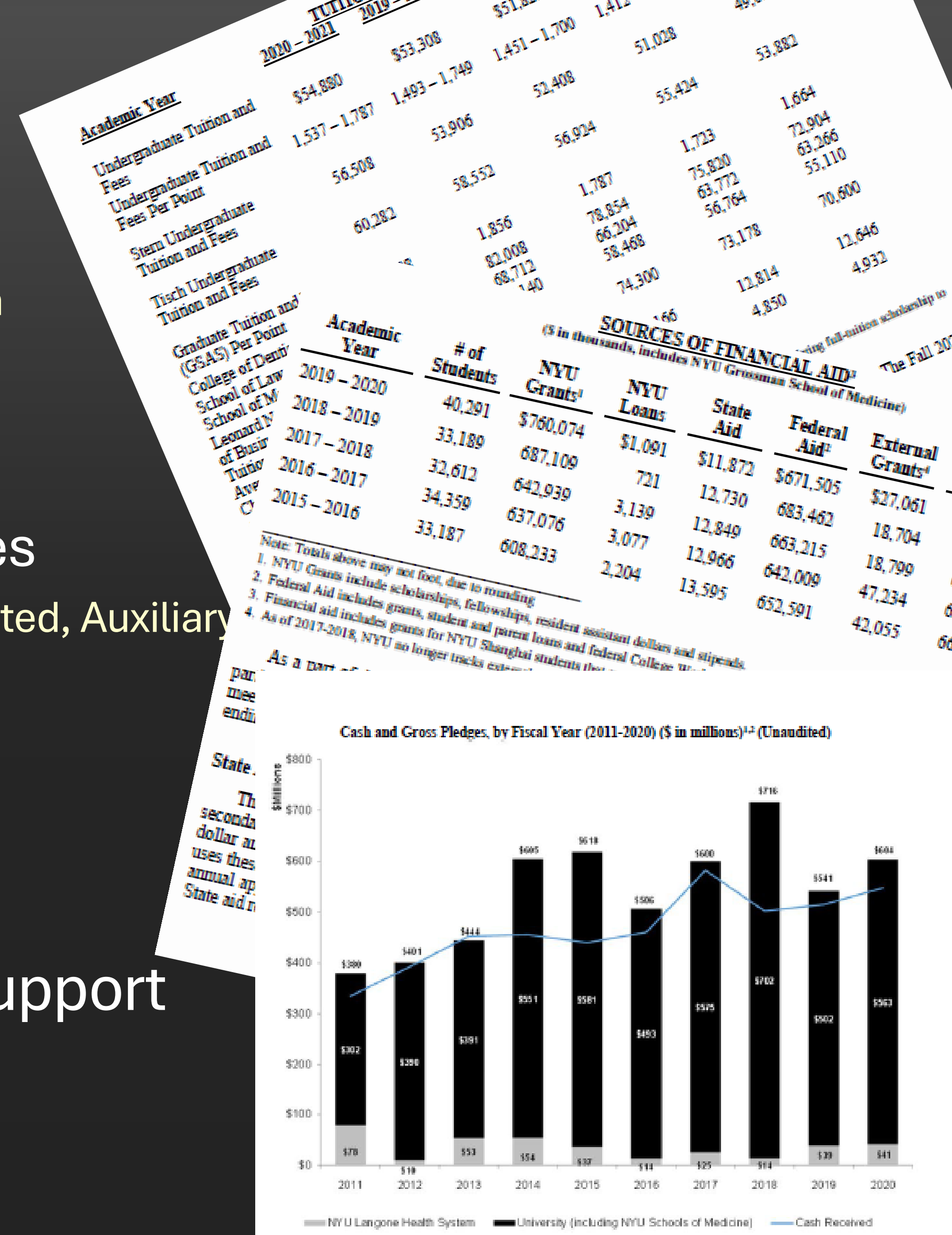
OFFICIAL STATEMENT – GENERAL & PROJECT INFORMATION

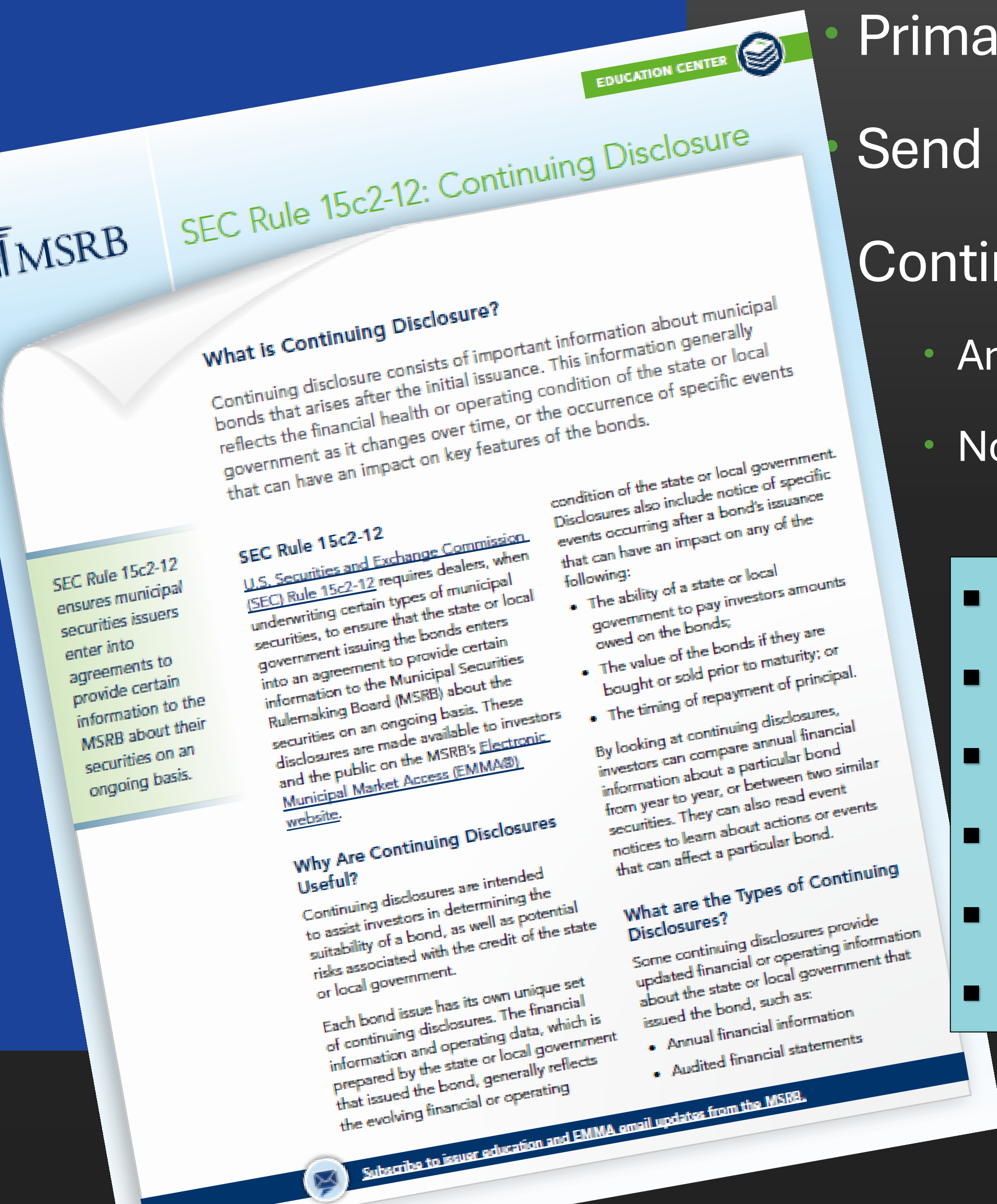
Why read the official statement?

“The official statement describes the essential terms of the bonds, including call features, sources of repayment, issuer’s covenants, and much more.”



- Funding Sources
 - Description
 - Historical and comparative data
- Financials
 - Tuition & Fees Schedules
 - Resident & Non-Res, Restricted, Auxiliary
 - Financial Statements
 - Revenues & Expenses
- Financial aid & private support (gifts/endowments)
- Pro-forma budget





- Primary offerings of \$1 million or more
- Send POS/OS to potential buyers
- Continuing Disclosure to NRMSIR
 - Annual financials
 - Notice of material events:

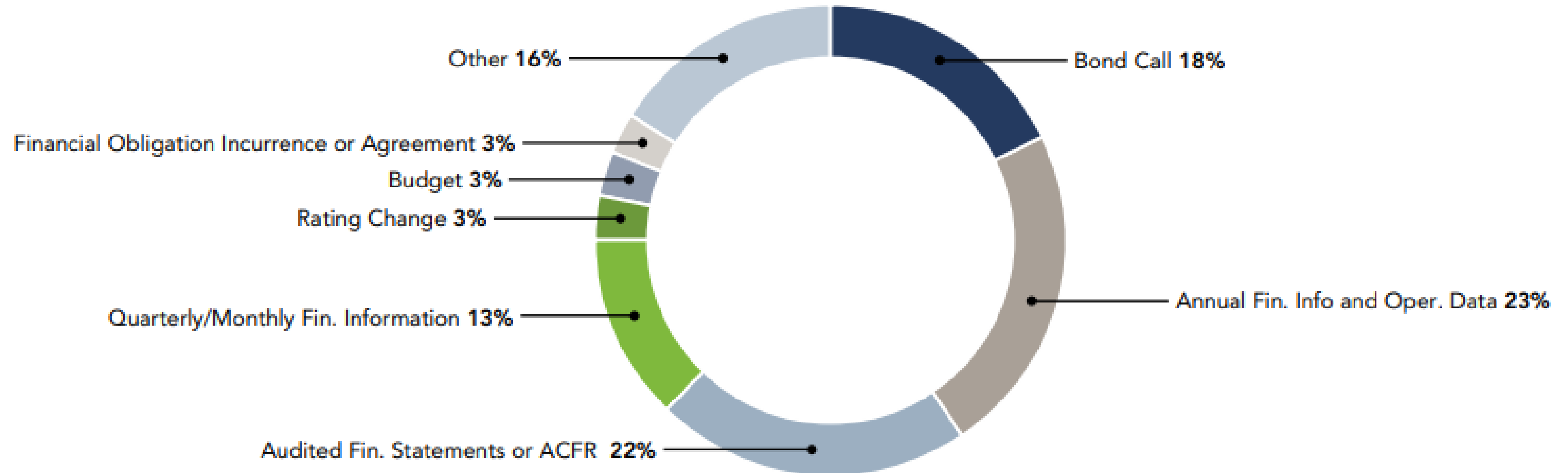
SEC RULE 15c2-12

- Delinquent P & I payments
- Other non-payment defaults
- Unscheduled DSRF draws
- Credit enhancement draws
- New or substitute enhancer
- Loss of tax-exempt status

- Modifying bondholder rights
- Bond calls
- Defeasance
- Release, substitution sale of securing property
- Rating changes

Continuing Disclosures Submissions, 2025

By number of documents



CREDIT RATINGS

CREDIT RATING PROCESS

CREDIT RATING AGENCIES

“Large NRSROs”:

MOODY'S
INVESTORS SERVICE

S&P Global
Ratings

Fitch Ratings

- Analyze transaction or institution & issue rating indicating creditworthiness
- “Investment grade” rating provides access to lowest cost of borrowing (interest rate)

Revenue bonds secured by a limited pledge usually rated lower than the institution's overall credit



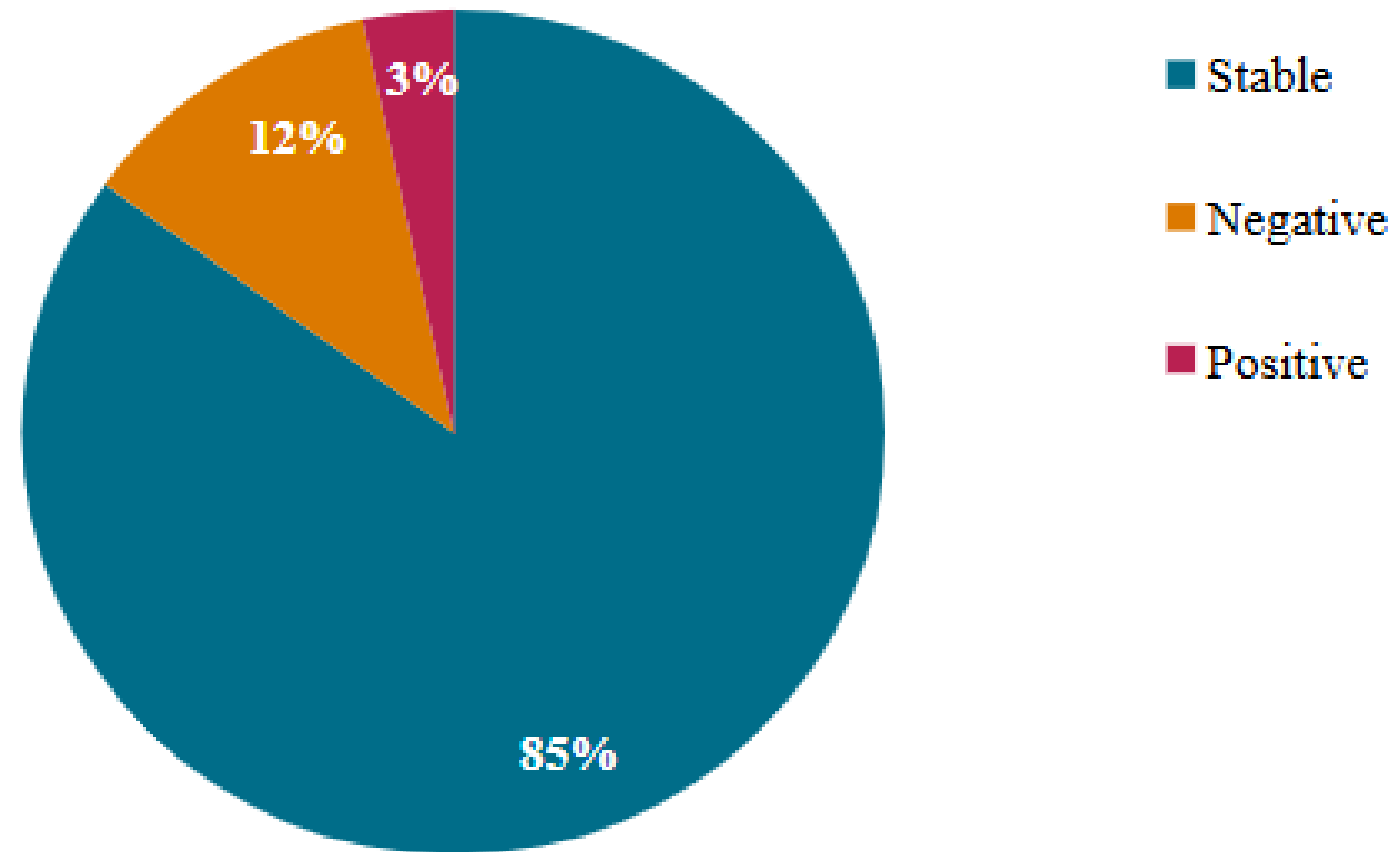
MUNICIPAL BOND RATINGS

CREDITWORTHINESS	S&P	MOODY'S	FITCH
<i>Investment Grade:</i>			
Strongest	AAA	Aaa	AAA
Very Strong	AA	Aa	AA
Strong	A	A	A
Average	BBB	Baa	BBB
<i>Speculative :</i>			
Speculative	BB	Ba	BB
Highly Speculative	B	B	B
Substantial Risk	CCC	Caa	CCC
Default Probable	CC	Ca	CC
Default Imminent	C		C
Interest Pmt Default	CI	C	RD
Defaulted/Bankrupt	D		D



S & P GLOBAL RATINGS OUTLOOKS ON U.S. HIGHER ED RATINGS

U.S. higher education outlook distribution

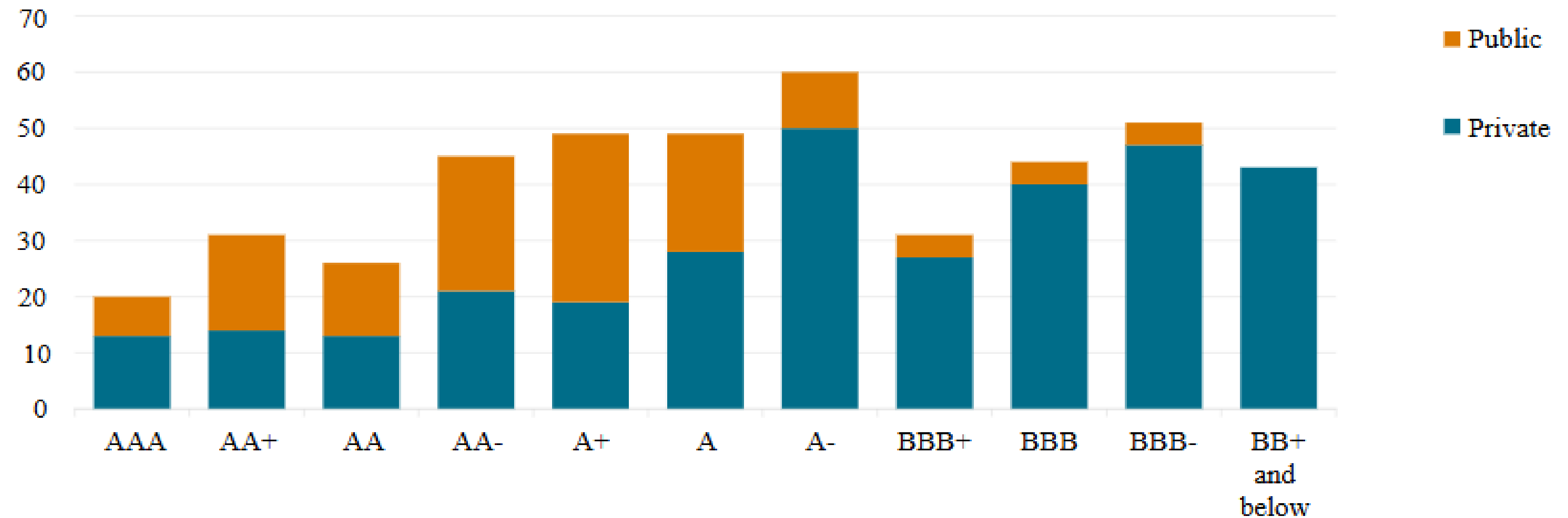


Source: S&P Global Ratings.

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S & P GLOBAL RATINGS DISTRIBUTION ON U.S. HIGHER ED RATINGS

U.S higher education rating distribution



Source: S&P Global Ratings.

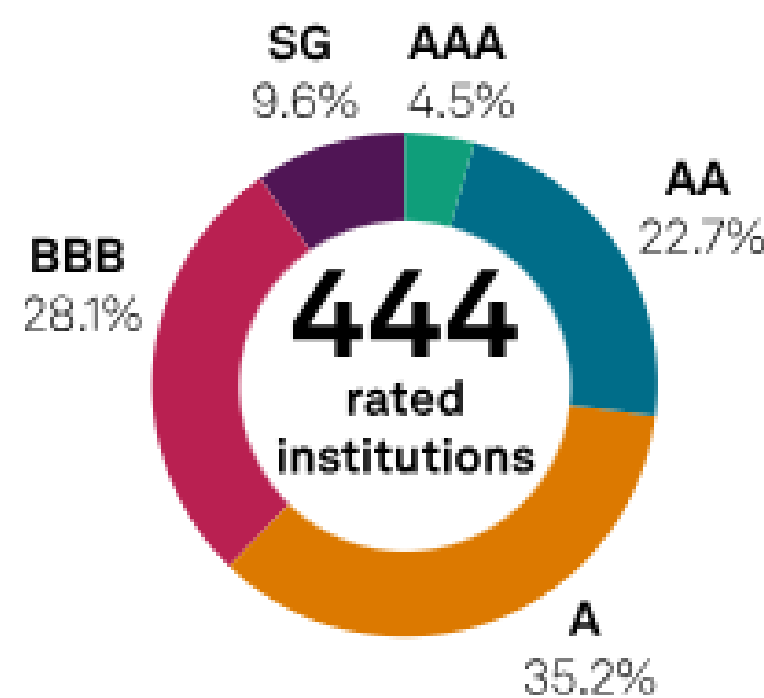
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“S&P Global Ratings expects continued credit quality divergence, with weaker-positioned institutions - often smaller, more regional private colleges and universities - being disproportionately hampered by operating pressures, including increased financial covenant violations.”

CREDIT MONITORING

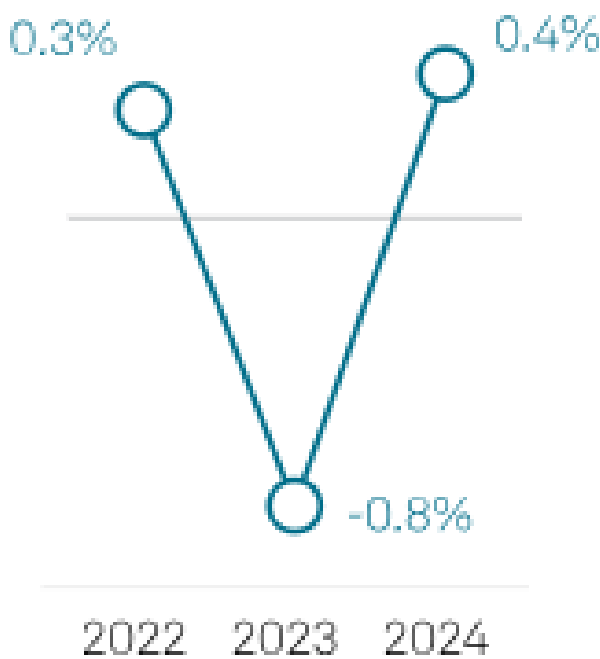
By the numbers | U.S. not-for-profit higher education

Rating category distribution



Private universities median metrics over time

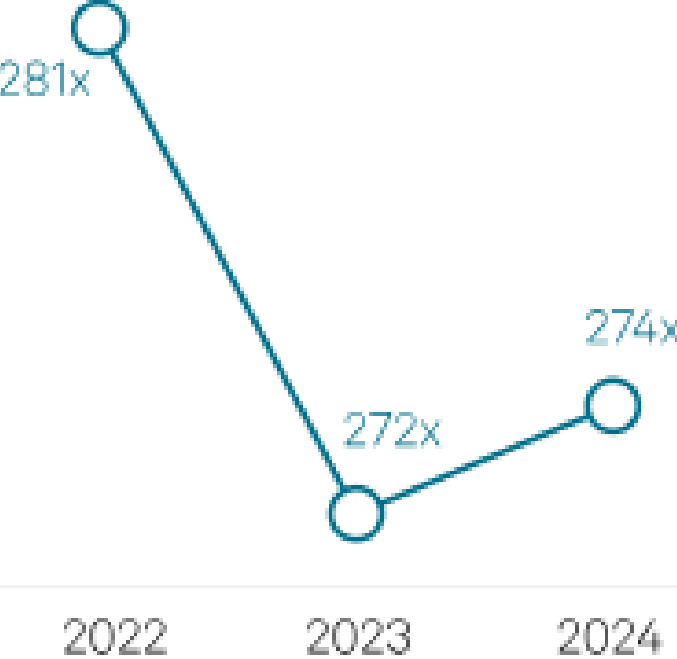
FTE enrollment growth



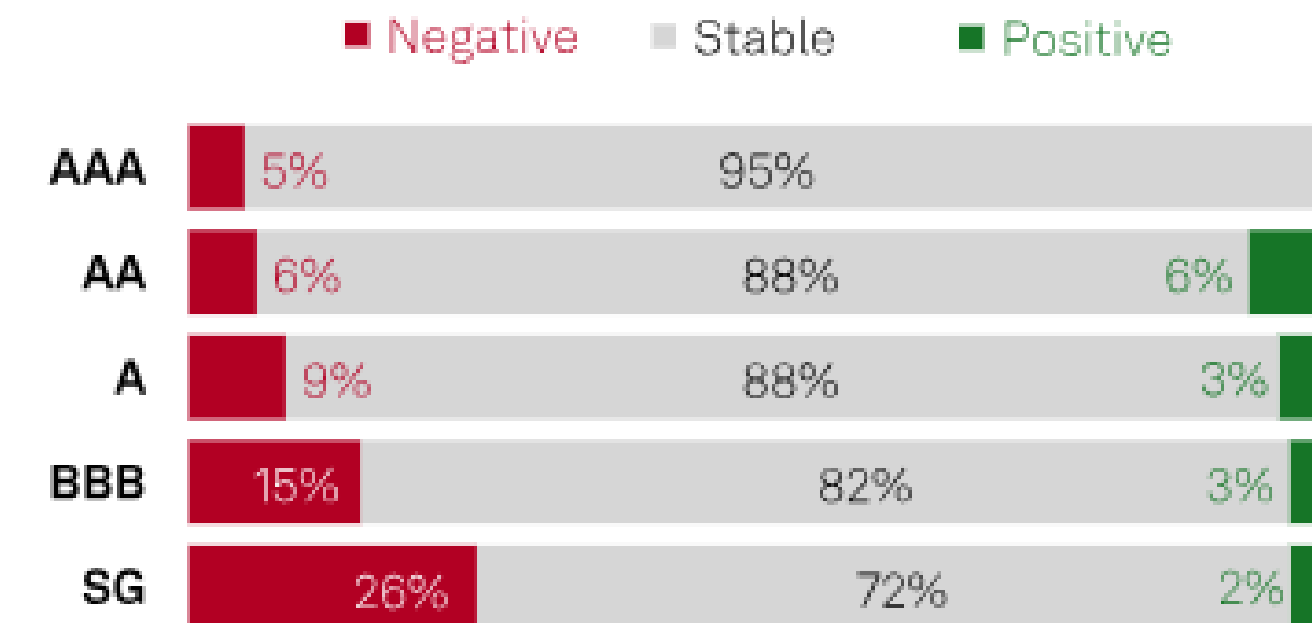
Net operating margins



Cash and investments/debt



Outlook distribution



Rating and outlook actions

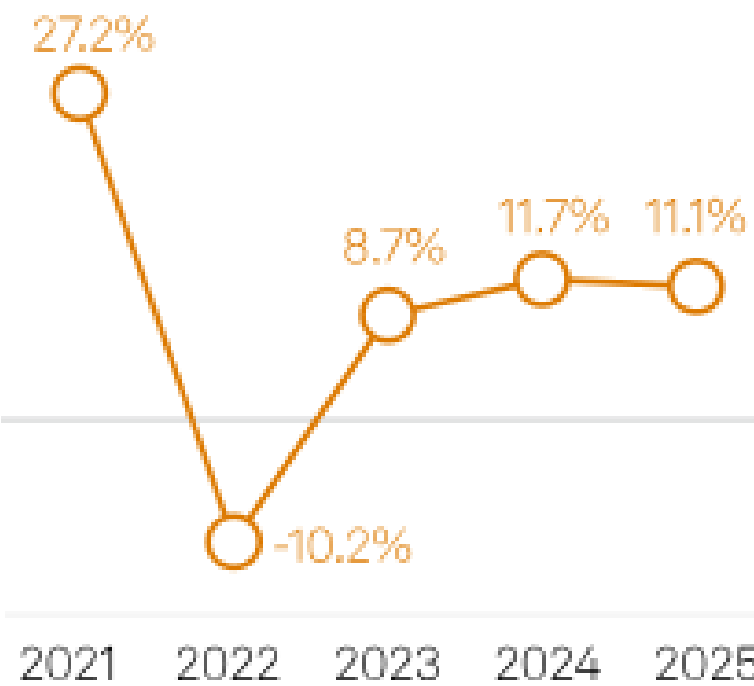
Downgrades to upgrades

2.8 : 1

Unfavorable to favorable outlook revisions

4 : 1

Average investment returns



Data as of Oct. 31, 2025. Fiscal years cited above. SG--Speculative-grade. FTE--Full-time equivalent. Source: S&P Global Ratings, Wilshire Trust. Copyright © 2025 by Standard & Poor's Financial Services LLC. All rights reserved.

MOODY'S HIGHER ED RATING FACTORS

1

Scale

2

**Market
Profile**

3

**Operating
Performance**

4

**Financial
Resources
& Liquidity**

5

**Leverage
&
Coverage**

6

**Financial
Policy**

MOODY'S INVESTORS SERVICES HIGHER EDUCATION SCORECARD

August, 2021

Changes reflect increased emphasis on
& more direct assessment of market
position, governance and management
and operating environment

72

PREVIOUS

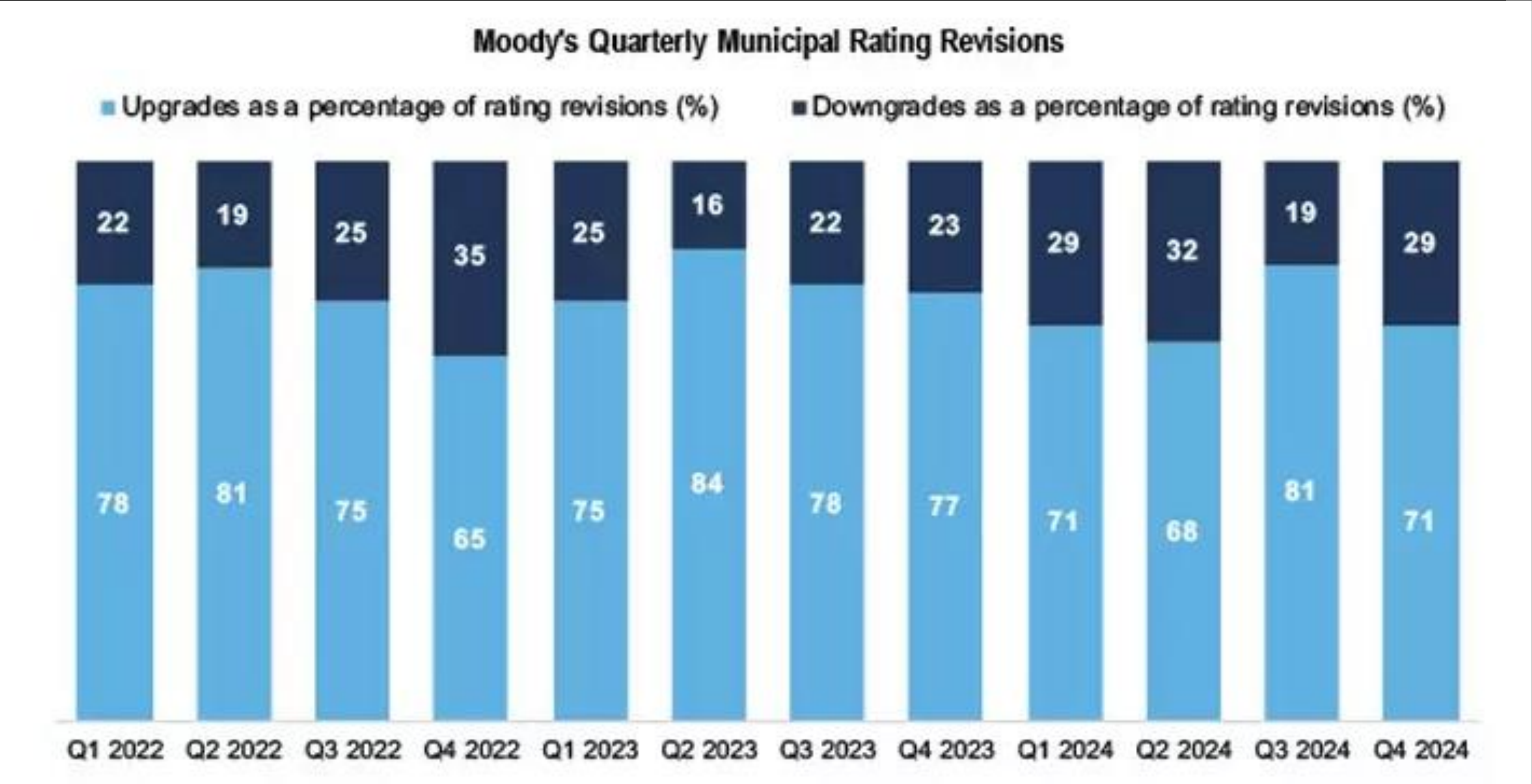
Broad Factors	Factor Weighting	Sub-Factors	Sub-Factor Weighting
Market Profile	30%	Scope of Operations	15%
		Operating Revenue (\$000)	
		Reputation & Pricing Power	5%
		Annual Change in Operating Revenue (%)	
		Strategic Positioning	10%
Operating Performance	25%	Operating Results	10%
		Operating Cash Flow Margin (%)	
		Revenue Diversity	15%
		Maximum Single Contribution (%)	
Wealth & Liquidity	25%	Total Wealth	10%
		Total Cash & Investments (\$000)	
		Operating Reserve	10%
		Spendable Cash & Investments to Oper Exp (x)	
		Liquidity	5%
		Monthly Days Cash on Hand	
Leverage	20%	Financial Leverage	10%
		Spendable Cash & Investments to Total Debt (x)	
		Debt Affordability	10%
		Total Debt to Cash Flow (x)	
	100%	Total Scorecard-Indicated Outcome	100%

REVISED

Broad Factors	Factor Weighting	Sub-Factors	Sub-Factor Weighting
Scale	15%	Adjusted Operating Revenue	15%
Market Profile	20%	Brand & Strategic Positioning	10%
		Operating Environment	10%
Operating Performance	10%	EBIDA Margin	10%
		(Earnings Before Interest, Depreciation and Amortization)	
Financial Resources & Liquidity	25%	Total Cash & Investments	10%
		Total Cash & Investments to Operating Expenses	15%
Leverage & Coverage	20%	Total Cash & Investments to Total Adjusted Debt	10%
		Annual Debt Service Coverage	10%
Financial Policy & Strategy	10%		10%
	100%	Total Scorecard-Indicated Outcome	100%

CREDIT MONITORING

RATING REVIEWS



As of December 31, 2024. Source:
Moody's Ratings

In 2024, municipal issuers experienced more credit rating upgrades than downgrades, a trend observed since 2021.

S&P PUBLIC UNIVERSITY RATINGS BY CATEGORY

S
A
M
P
L
E
S

Indiana University	AAA	Stable
Purdue University	AAA	Stable
Texas A&M University System	AAA	Stable
University of Michigan	AAA	Stable
Univ. of No. Carolina-Chapel Hill	AAA	Stable
University of Texas System	AAA	Stable
University of Virginia	AAA	Stable
University of Kentucky	AA+	Stable
University of Houston	AA	Positive
University of Arizona	AA-	Negative
University of North Carolina-Charlotte	A+	Positive
Western Michigan University	A	Positive
University of Louisiana-Lafayette	A-	Stable
Lake Superior State University	BBB+	Negative
Missouri Western State University	BBB	Stable
Alabama State University	BBB-	Positive
Northeastern Illinois University	BB+	Stable
University of Puerto Rico	CC	Negative

Many AAA
universities had
enrollments > 50,000

Many AA
universities had
enrollments > 30,000

Speculative Grade
(SG) ratings now only
on Northeastern
Illinois University &
Univ. of Puerto Rico

Outlooks are negative...

HIGHER ED OUTLOOK

2026

MOODY's

Negative

Fitch Ratings

Deteriorating

S&P Global

Negative

What S&P is Watching...



New federal
policies



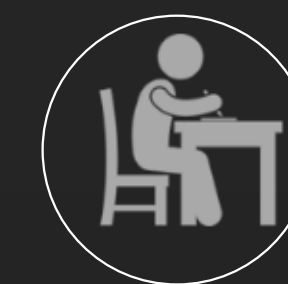
Enrollment
amid changing
demographics



Rising costs and
operating
pressure persist



Liquidity &
financial flexibility



Management
actions



Increasing
event-related
risks

"Facing ongoing pressures on operating budgets, colleges and universities are prioritizing strategies that enhance financial flexibility." - S&P Global Dec 2025

CREDIT MONITORING

S&P Global
Ratings

RatingsDirect®

University of Missouri Debt Rating Outlook Revised To Stable From Negative On Strong Operations; All Ratings Affirmed

Primary Credit Analyst:

Ashley Ramchandani, Chicago (1) 312-233-7071; ashley.ramchandani@spglobal.com

Secondary Contact:

Jessica A Matsumori, San Francisco (1) 415-371-5083; jessica.matsumori@spglobal.com

CHICAGO (S&P Global Ratings) March 1, 2017--S&P Global Ratings revised its outlook on the debt issued by the University of Missouri (UM) to stable from negative. At the same time, we affirmed our 'AA+' long-term rating on the system facilities revenue bonds and our 'A-1+' short-term rating on the series A and B commercial paper (CP) notes. Finally, we affirmed our 'AA+/A-' rating on the university's existing variable-rate demand bonds (VRDBs).

"The revised outlook reflects the system's recent and expected ongoing strong operating performance, fundraising, and financial profile compared with peers," said S&P Global Ratings credit analyst Ashley Ramchandani. "despite some softening of enrollment at its Columbia campus, presidential turnover, and prolonged negative media coverage." We believe the system will experience a return to modest enrollment growth in the future and a steady financial profile, and will develop a focused strategic plan under the guidance of its incoming president that will strengthen its position over time. While the university has communicated it has some capital needs, some of which may include the issuance of additional debt, the size and timing of such debt is uncertain and has not been included in this analysis. We will continue to evaluate the effect of new debt on the rating when plans are more fully finalized.

The short-term rating on the CP notes and VRDBs reflects UM's provision of self-liquidity in the event of an investor redemption or put or CP rollovers.

MARCH 1, 2017 1
1808476 | 302480046

University of Missouri Debt Rating Outlook Revised To Stable From Negative On Strong Operations

Cash and investments with same-day liquidity as of Dec. 31, 2016, total approximately \$734.3 million (cash and equivalents plus U.S. agencies), providing 2.5x coverage of CP (\$187.2 million) and variable-rate bonds outstanding (\$96.3 million) and 1.3x coverage of authorized CP and variable-rate bonds.

Established in 1839, the University of Missouri System has 45 colleges, schools, and divisions and approximately 76,000 students in fall 2016 on 1 campuses in Columbia (MU, its largest and oldest campus), St. Louis, Kansas City, and Rolla. MU is the state's flagship campus and UM is the state's research and land-grant university system.

"The stable outlook reflects our expectation that during the next two years, the university system (including the university medical alliance) will continue to produce positive operating results on a full-accrual basis and maintain unrestricted net assets relative to debt at or near current levels even with expected debt issuance," added Ms. Ramchandani. In addition, we expect applications and enrollment to return to previous levels and the system to develop detailed strategic plans under the leadership of incoming president, Dr. Mun Choi.

CREDIT MONITORING

RATING OUTLOOK

The stable outlook reflects our expectations of ongoing favorable student demand, which increases prospects for restoring 5-6x pledged revenue coverage of student fee revenue bonds for fiscal 2022. It also incorporates expectations of continued strong state financial support over the outlook period, maintenance of operating cash flow margins above 10%, and generally stable unrestricted liquidity.

FACTORS THAT COULD LEAD TO AN UPGRADE OF THE RATINGS

- Further improvement in the university's strategic position, including enhanced student demand and research profile, as well as fundraising performance

- Strengthening of state's credit profile, along with a demonstrated commitment to continue providing funding to support both operations and debt service

- Outsized growth in financial reserves, materially strengthening coverage of debt and expenses

FACTORS THAT COULD LEAD TO A DOWNGRADE OF THE RATINGS

- Deterioration in state credit quality or sustained reductions in state financial support
- Softening in student demand or failure to make progress towards restoring coverage of pledged revenue to historical levels at above 5x by fiscal 2022

OUTLOOK

The stable

MOODY'S INVESTORS SERVICE

Rating Action: Moody's downgrades University of Connecticut's (CT) student fee revenue bonds to A1; outlook stable

12 Nov 2020

New York, November 12, 2020 -- Moody's Investors Service has downgraded University of Connecticut's (UCONN) student fee revenue bond rating to A1 from Aa3. The rating action affects about \$200 million of bonds. The outlook has been revised to stable from negative. We maintain an A1 rating with a stable outlook on \$1.5 billion of debt service based on the State of Connecticut's rating (A1 stable) and payment of

of Connecticut's student fee revenue bonds to A1 is driven by a combination of economic pressures both for the university and for the state combined with the coronavirus pandemic, which we consider a social risk under our substantial thinning of pledged revenues supporting debt service and revenue expected for fiscal 2021. With the weaker financial performance, in the university's already comparatively modest liquidity.

importance as a large, flagship land-grant public university that serves students across multiple campuses, has a revenue base of nearly \$1.5 billion. A strong regional brand and very good enrollment rates, and degree types supports continued favorable student revenue, which is used to support operations and debt service. The university's governance structure as well as its long-term operating uncertainty caused by the pandemic, other significant competition for students which could limit ability to address fiscal challenges, longer term prospects for growth in state revenue, which has materially high adjusted leverage including the UCONN's debt obligations even though the state pays debt service, and this outlook is tempered by leadership's demonstrated financial strength, which should result in resumed strengthening of

CREDIT ANALYSIS

How do investors learn about your credit?

- Information disclosed in preliminary official statement
- Audited financial statements
- Credit Rating issued by rating agency
 - Institutional General Obligation Rating
 - Project Rating

COMING
SOON!

TUES
1:45 PM

