



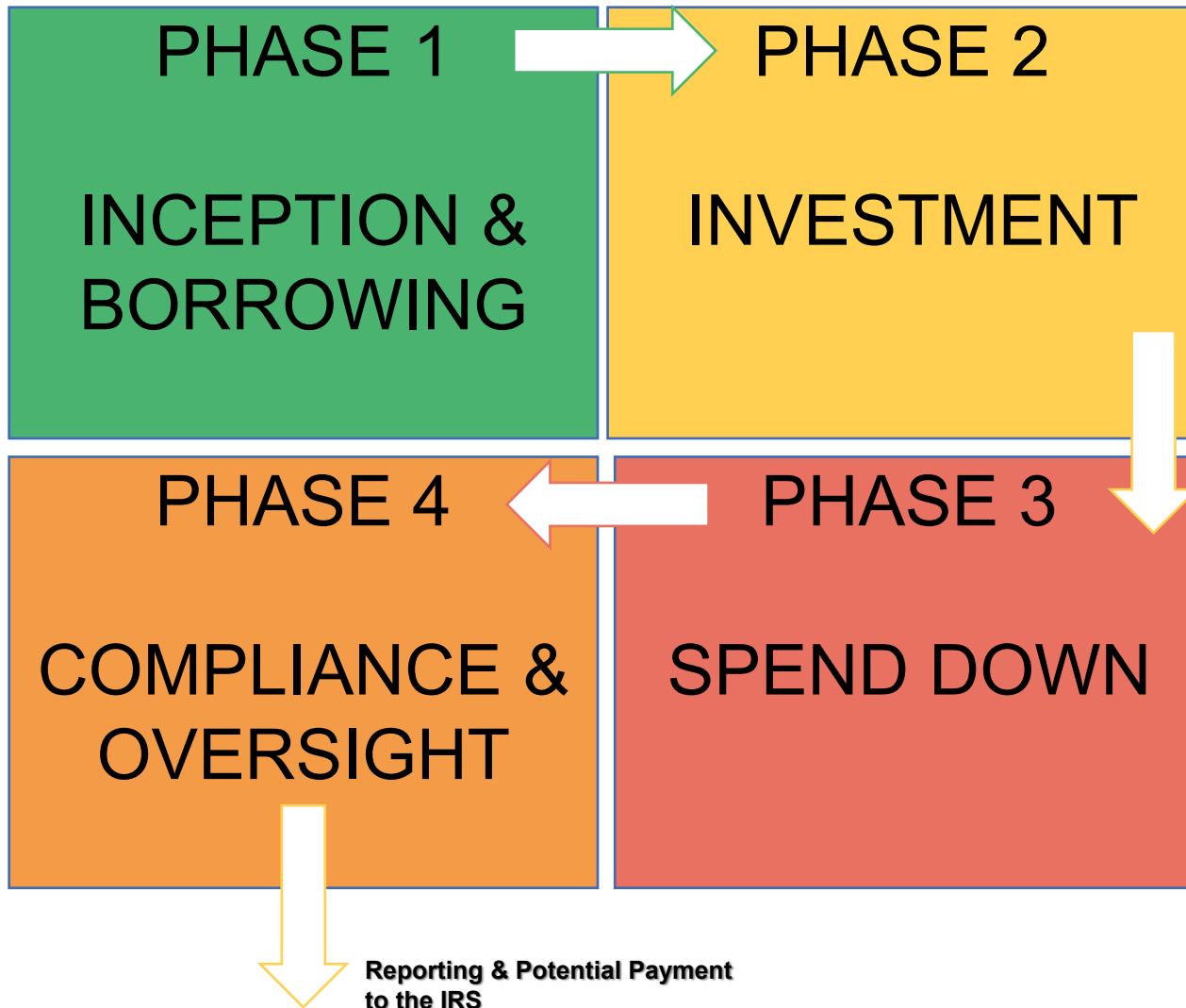
The Federal Reserve, Borrowing Rates, Investing Bond Proceeds & Understanding Arbitrage Rebate

Presented to: CMSBO Regional Group

January 9, 2026



The Life Cycle of a Bond Dollar





The Federal Reserve and Fed Funds Rate 101

1. The Federal Reserve System ("The Fed")

- **What it is:** The central bank of the United States.
- **The Role:** It is the "Mechanic" of the economy. Its dual mandate is to keep the engine running smoothly by balancing two things:
 - **Maximum Employment** (Everyone who wants a job can get one).
 - **Price Stability** (Keeping inflation low and predictable, ideally around 2%).

2. The FOMC (Federal Open Market Committee)

- **What it is:** The specific group of people *within* the Fed who make the decisions on interest rates. It consists of 12 members (7 Board of Governors + 5 Reserve Bank Presidents).
- **The Role:** They meet 8 times a year (about every 6 weeks) to vote on whether to raise, lower, or hold interest rates.
- **Impact:** When you see news headlines like "*The Fed hikes rates*," it specifically means the FOMC voted to increase the target range.

3. The Federal Funds Rate ("Fed Funds")

- **What it is:** The interest rate that commercial banks charge *each other* for overnight loans.
- **Why it matters:** This is the "Base Rate" for the entire global economy. It is the only rate the Fed controls *directly*.
- **The Domino Effect:**
 - Fed lowers Fed Funds Rate → Banks lower Prime Rate → Credit Card/Auto Loan Rates Go Down → **Short-term Investment Rates (like LGIPs) go Down.**



The Disconnect or Misnomer – (Borrowing vs. Investing)

1. The Fed Controls the "Short End" (Your Investment Rates)

- When the FOMC lowers the Fed Funds Rate, the interest rate on your **Local Government Investment Pool (LGIP)** or Money Market Fund reacts almost immediately.



2. The Market Controls the "Long End" (Your Borrowing Rates)

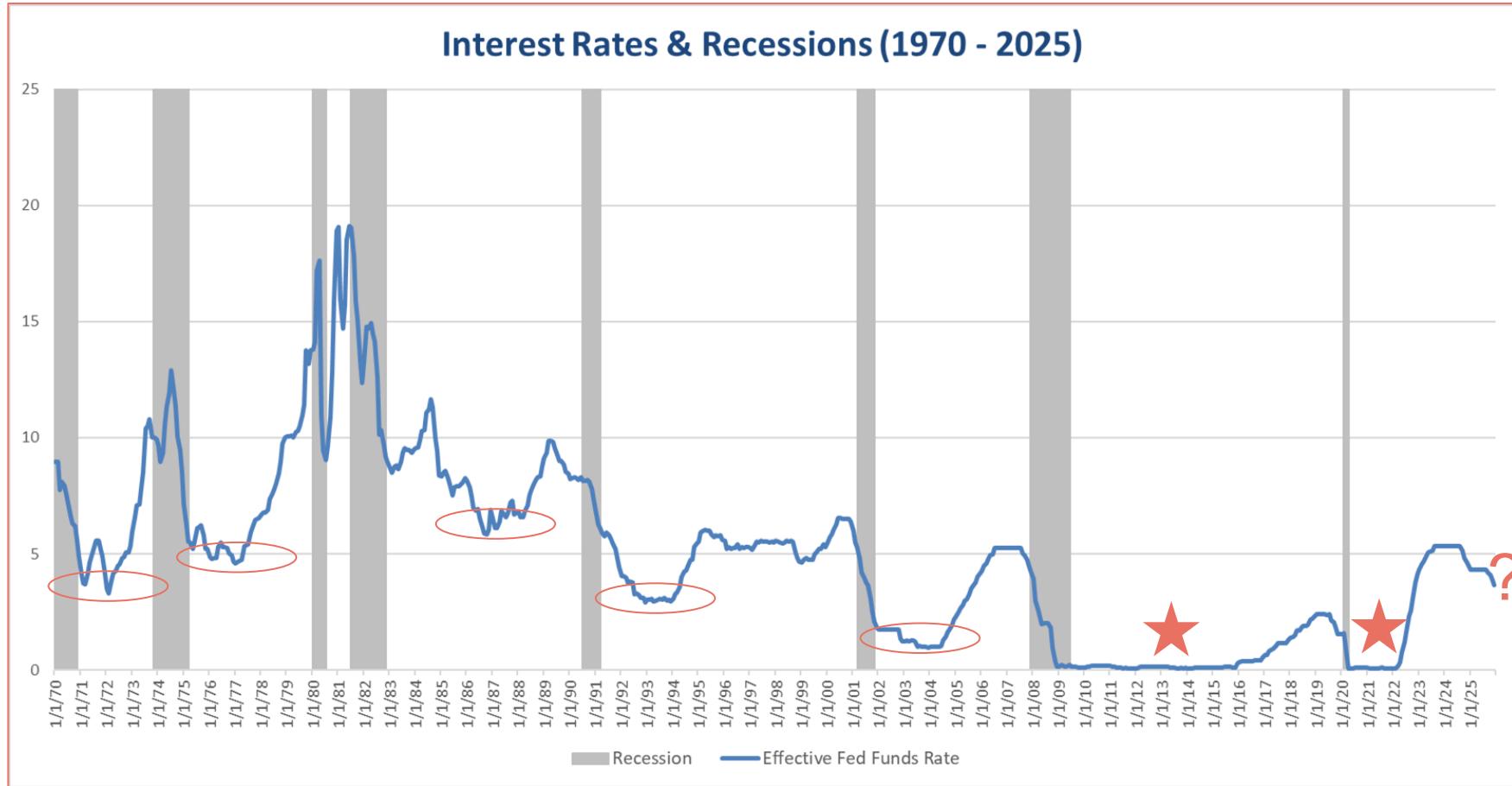
- The Fed *does not* set the rate for your 10-year, 20-year or 30-year school bond. That rate is set by an interplay between several different macro and micro forces. For Example, on the macro level (U.S. Treasury market, inflation, and federal tax law) and on a micro basis investor sentiments, supply and demand.





The Recent Normal – Deep Economic Shocks (Great Recession & COVID)

- The US Economy has recently experienced two major economic emergencies which has conditioned us to think that when the economy slows, **rates go to zero**.



Source: Board of Governors of the Federal Reserve System (US) via FRED®



Positive Arbitrage Environment

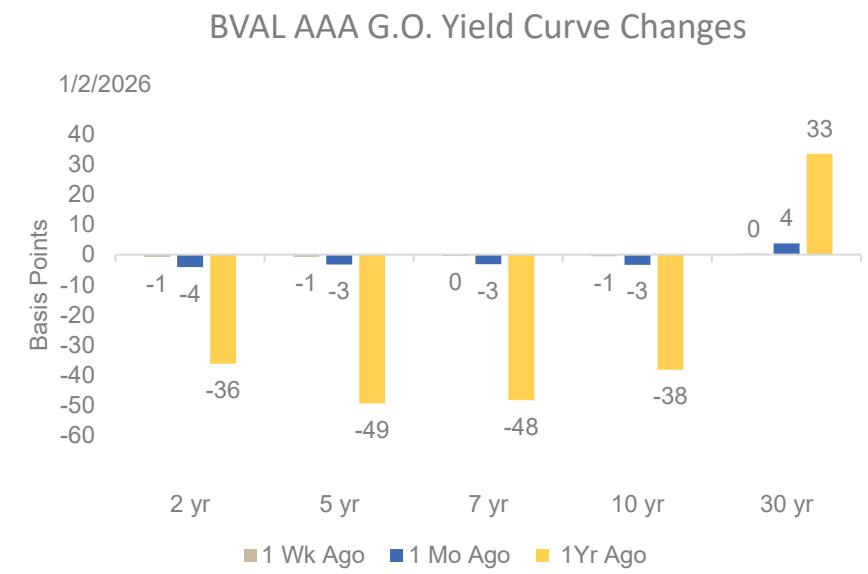
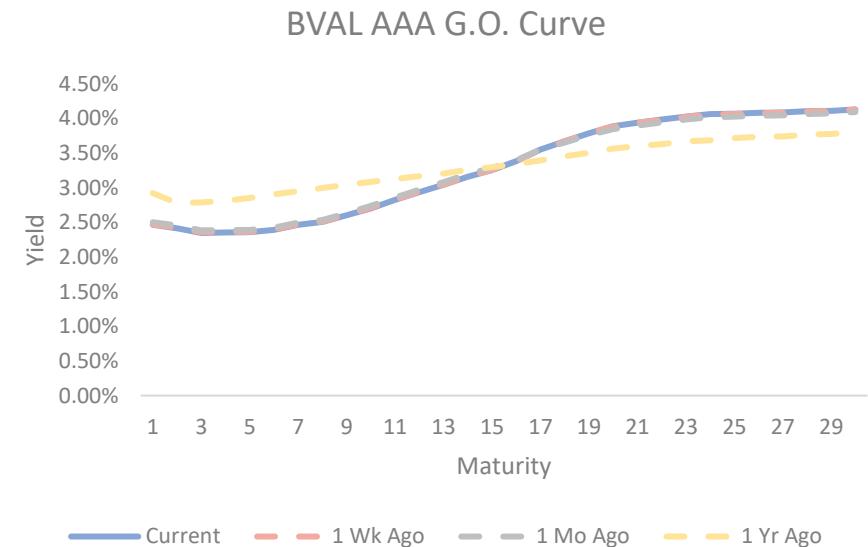
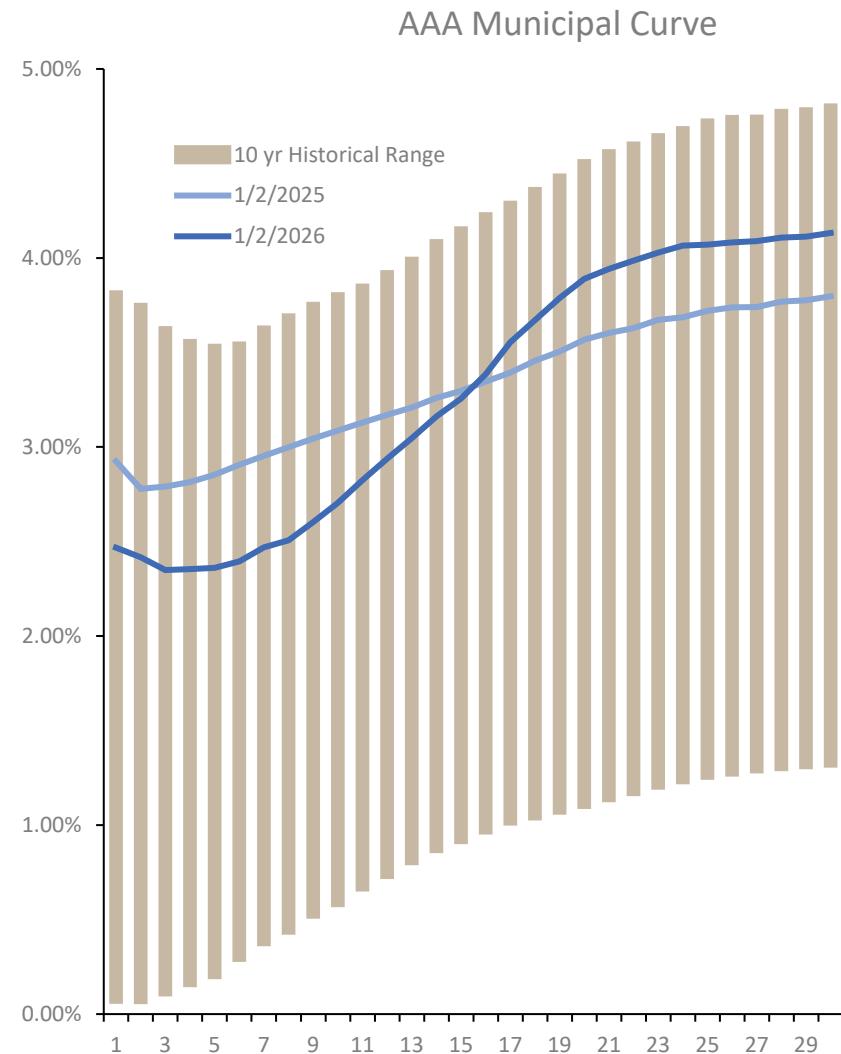
10 Yr AAA Muni Yield vs 1 yr Treasury Yield since October 2004



Source: Bloomberg



Michigan K-12 Municipal Bond Borrowing Rates - Current





4th Quarter Michigan K-12 Bond Sale Summary Table

MICHIGAN K12 COMPETITIVE BOND SALES - Q4 2025

Sale Date	Issuer	Amount	Title/Type	Federal Tax Status	Bank Qualified	Moody's	S&P	Final Maturity	Coupon Rate*	Yield*	Spread**	Arb. Yield*	T.I.C.****
10/09/25	Hudson Area Schools	\$1,910,000	2025 School Building and Site Bonds (LTGO)	Tax-Exempt	Yes	--	AA (AGM) / A+	2045	4.000%	4.080%	18 bps	3.78%	4.01%
10/30/25	Union City Community Schools	\$2,500,000	2025 School Building and Site Bonds, Series I (UTGO)	Tax-Exempt	Yes	--	AA (Insured) / A-	2042	4.000%	4.000%	53 bps	3.47%	3.82%
11/04/25	Marysville Public Schools	\$18,310,000	2025 School Building and Site Bonds (UTGO)	Tax-Exempt	N/A	Aa1/A1***	--	2045	4.250%	4.340%	57 bps	3.83%	3.95%

*Reflects coupon / yield for final maturity

**Reflects spread to applicable index (BVAL AAA for tax-exempt financings and applicable Treasury for taxable financings) as of the time of pricing. Spreads are calculated to the monthly BVAL index aligning closest to the month of the final maturity

***State Backed

****Reflects the estimated True Interest Cost ("TIC") of the Bonds.

MICHIGAN K12 NEGOTIATED BOND SALES - Q4 2025

Pricing Date	Issuer	Amount	Title/Type	Federal Tax Status	Bank Qualified	Moody's	S&P	Final Maturity	Coupon Rate*	Yield*	Spread***	Arb. Yield*	T.I.C.****
10/07/25	Eastpointe Community Schools	\$15,530,000	2025 School Building and Site Bonds	Tax-Exempt	N/A	--	AA/A***	2050	5.000%	4.66%	53 bps	4.19%	4.52%
10/15/25	Fennville Public Schools	\$21,000,000	2025 School Building and Site Bonds	Tax-Exempt	N/A	--	AA/A+***	2050	5.000%	4.55%	51 bps	4.07%	4.43%
10/21/25	Bath Community Schools	\$24,290,000	2025 School Building and Site Bonds	Tax-Exempt	N/A	Aa1/A2***	--	2042	5.000%	4.00%	52 bps	3.35%	3.67%
10/30/25	Wayland Union Schools	\$27,575,000	2025 School Building and Site Bonds, Series II	Tax-Exempt	N/A	--	AA/A+***	2050	5.000%	4.46%	48 bps	3.91%	4.33%
11/12/25	New Haven Community Schools	\$11,490,000	2025 Refunding Bonds (UTGO)	Tax-Exempt	N/A	Aa1/A2***	--	2030	5.000%	2.68%	31 bps	2.71%	2.80%
11/13/25	Grosse Pointe Public School System	\$23,325,000	2025 School Building and Site Bonds (UTGO)	Tax-Exempt	N/A	Aa3	--	2045	5.000%	4.19%	43 bps	3.87%	4.26%
11/20/25	Oxford Community Schools	\$21,455,000	2025 Refunding Bonds (UTGO)	Tax-Exempt	N/A	Aa1/Aa3***	--	2032	5.000%	2.76%	30 bps	2.70%	2.87%

*Reflects coupon / yield for final maturity

**Reflects spread to applicable index (BVAL AAA for tax-exempt financings and applicable Treasury for taxable financings) as of the time of pricing. Spreads are calculated to the monthly BVAL index aligning closest to the month of the final maturity

***State Backed

****Reflects the estimated True Interest Cost ("TIC") of the Bonds.

Source: IPREO, Bloomberg

PFM Pricing Group



Implication: The Small Issuer Exception

Consideration: Smaller Bond Series – no rebate liability vs. larger Bond Series locking in rates now and paying a potential arbitrage rebate.

Implication: Construction Fund Spending Exception

Consideration: Project Draw Schedule & Allocation of Projects Between Series



PFM Michigan Financial Advisory Team



Kari Blanchett ★
Managing Director



Nate Watson ★
Managing Director



RJ Naughton ★
Director



Brodie Killian ★
Director



Sean Wahl ★
Director



Dale Deis ★
Senior Managing Consultant



Kristine Griffiths ★
Senior Managing Consultant



Sarah Moore ★
Senior Managing Consultant



Aaron Wright ★
Senior Managing Consultant

Our Other Michigan Project Support Team

Nathan Thomas, Senior Analyst ★
Vincent Hayes, Senior Analyst ★

Izzy Xie, Analyst ★

Stacy Adkins, Managing Municipal Bond Assistant

Nicole Weddington, Municipal Bond Assistant II
Jacob Murphy, Municipal Bond Assistant
Jessica Osburn, Municipal Bond Assistant
Lauren Kaufman, Office Administrator





Disclosures

ABOUT PFM

PFM is the marketing name for a group of affiliated companies providing a range of services. All services are provided through separate agreements with each company. This material is for general information purposes only and is not intended to provide specific advice or a specific recommendation.

Financial advisory services are provided by PFM Financial Advisors LLC, a registered municipal advisor with the Securities and Exchange Commission (SEC) and the Municipal Securities Rulemaking Board (MSRB) under the Dodd-Frank Act of 2010. Swap advisory services are provided by PFM Swap Advisors LLC which is registered as a municipal advisor with both the MSRB and SEC under the Dodd-Frank Act of 2010, and as a commodity trading advisor with the Commodity Futures Trading Commission. Additional applicable regulatory information is available upon request.

Consulting services are provided through PFM Group Consulting LLC. PFM's financial modelling platform for strategic forecasting is provided through PFM Solutions LLC.

For more information regarding PFM's services or entities, please visit www.pfm.com

Special disclaimer regarding the research and forecasts included in today's presentation: This research and any forecasts are based on current public information, as of the date of this presentation (or as of such date as may be specified in the presentation), that we consider reliable, but we do not represent it as accurate or complete, and it should not be relied on as such. The information, opinions, estimates and forecasts contained herein are also as of the date hereof and are subject to change without prior notification.

Case studies are provided for information purposes only and do not constitute specific advice or a recommendation. Opinions, results, and data presented are not indicative of future performance. Actual results may vary. Inclusion on this list does not represent endorsement of PFM's services.