MAY 14, 2024

MARKET MYTHS AND TREASURY TRUTHS

PRESENTED BY:
JASON CLICK, CFP®
JIM MCCOURT, CFA®

MEEDER

Today's Presenters

Jason Click, CFP®
President, Public Funds
614.760.2120
jclick@meederinvestment.com

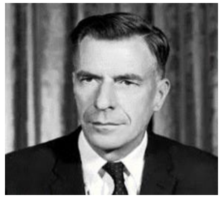
Jim McCourt, CFA
Director, Advisory Services
614.923.1151
jmccourt@meederinvestment.com

MEEDER
PUBLIC FUNDS

MARKET UPDATE

Can Anyone Time the Market Accurately Over the Long Run?

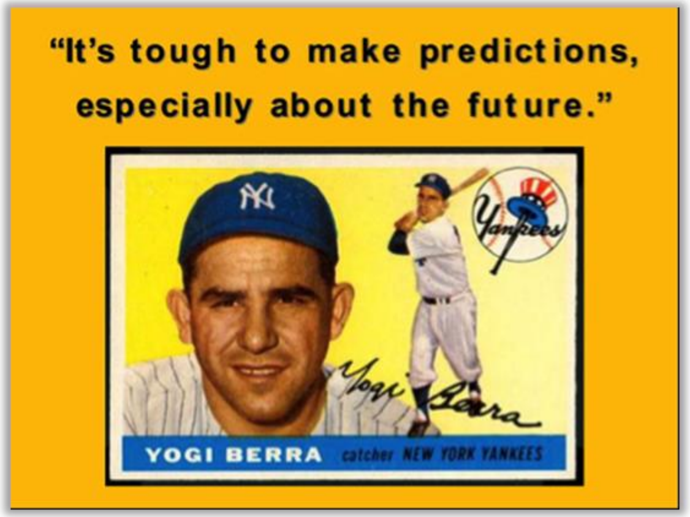
MEEDER



“The only function of economic (and interest rate) forecasting is to make astrology look respectable."
John Kenneth Galbraith, Economist

"The Federal Reserve is currently not forecasting a recession.”
Ben Bernanke (former Fed Chair), January 10, 2008

“Our ability to forecast is limited”.
Alan Greenspan (former Fed Chair) November 2019



SOURCE: FEDERAL RESERVE

“FIGEY” Model of Interest Rates

Fed, Inflation, Growth, Employment, Yields

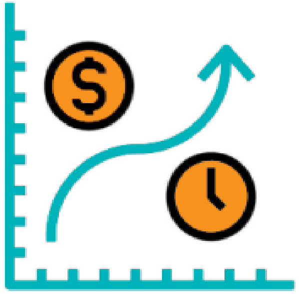
Fed Policy

Inflation

Growth (GDP)

Employment

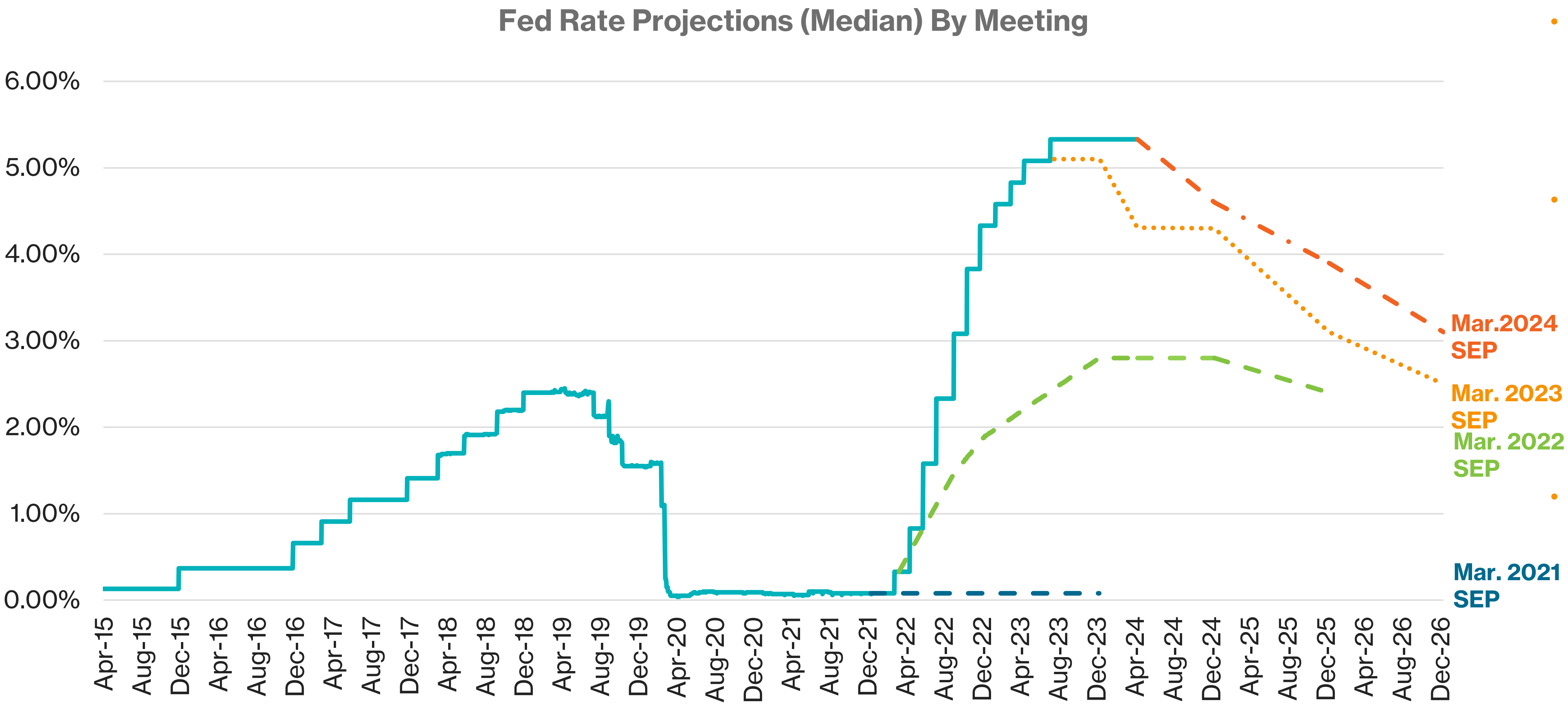
Yields



- U.S. Treasury yields/rates are primarily a function of Federal Reserve policy, inflation, economic growth, and employment.
- Shorter-term yields are highly correlated with the Fed Funds rate set by the Fed’s Federal Open Market Committee (FOMC).
- Intermediate-term and longer-term yields are more correlated to the expected future rates of inflation, economic growth, and the unemployment rate.

SOURCE: MEEDER PUBLIC FUNDS

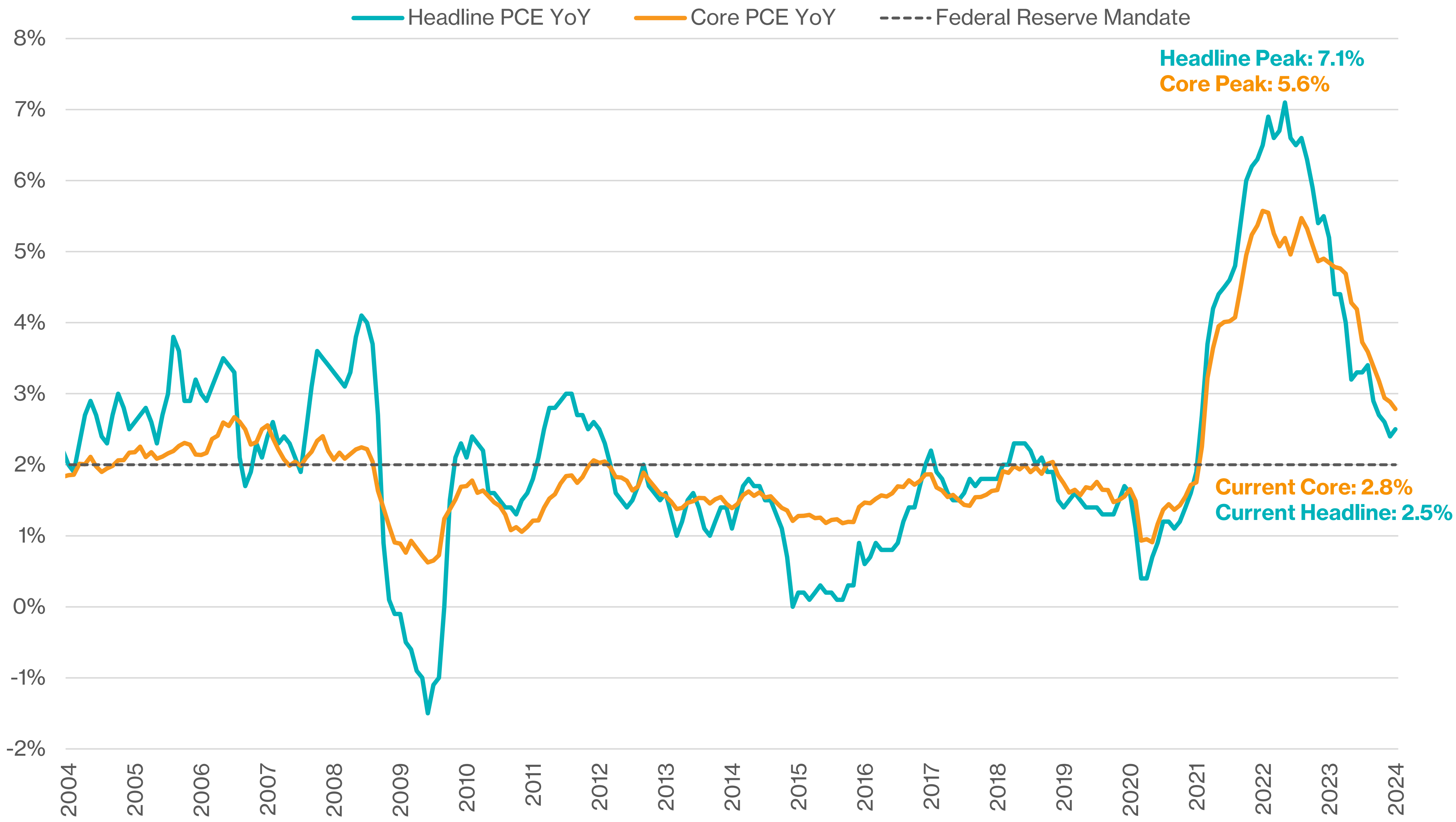
Fed Funds Rate



- After four quarter point hikes in 2023, the Federal Reserve has held this rate steady since last July.
- At the last Federal Open Market Committee Meeting (FOMC) press conference, Chair Powell stated, “so far this year, the data have not given us that greater confidence” to lower the Fed Funds rate.
- At the beginning of May, the futures market is implying between one and two .25% Fed cuts between now and the end of the year.

SOURCE: FEDERAL RESERVE

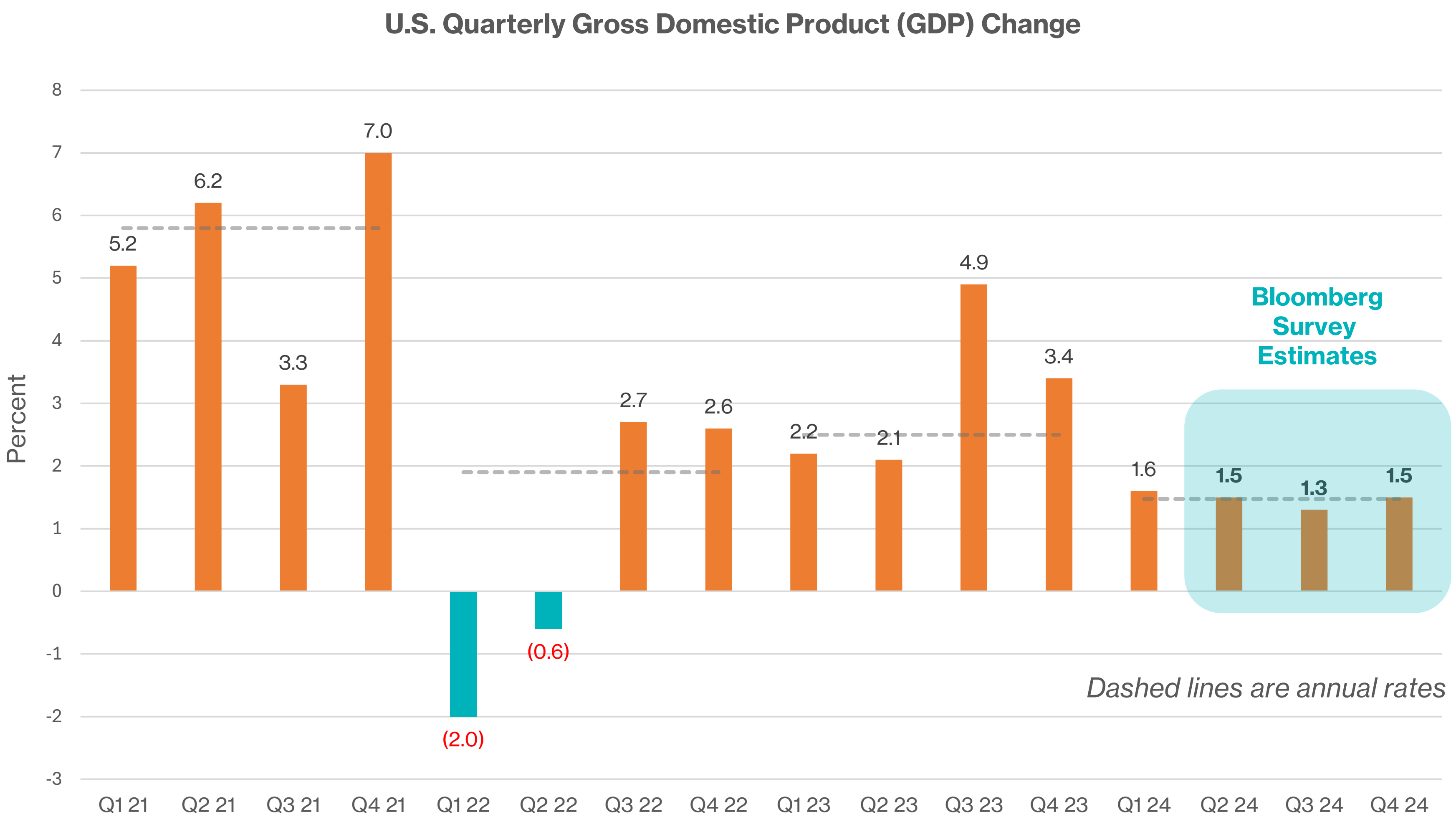
Inflation



- The Consumer Price Index (CPI), has shown signs of stickiness the past six months, averaging about 3.3% since last September.
- The Fed's preferred inflation metric, Core Personal Consumption Expenditure (excluding food and energy prices), continues decelerating, but is still above the Fed's 2% target level.

SOURCE: BLOOMBERG

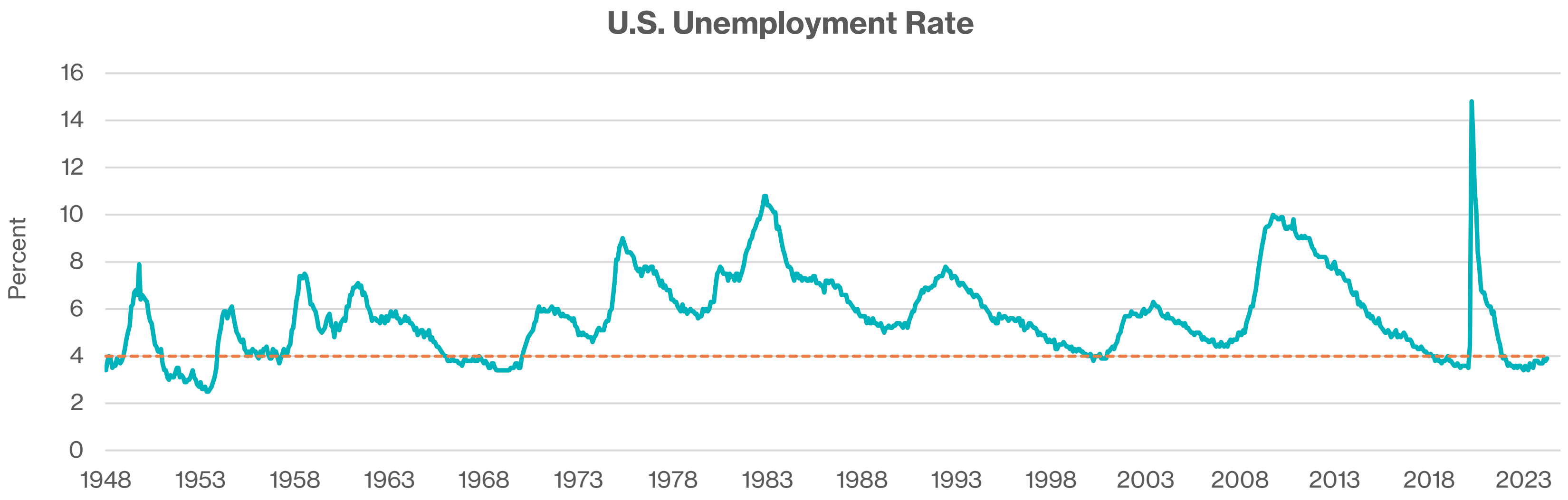
Growth



- U.S. GDP growth for the first quarter of 2024 was much slower than most economists expected.
- Economists and strategists surveyed by Bloomberg expect GDP to slow below trend during 2024.
- This slowing growth is due to a few factors; one primary one is less stimulus from the federal government as compared to the previous few years, another is weakening household spending.

SOURCE: BLOOMBERG, BUREAU OF ECONOMIC ANALYSIS

Employment

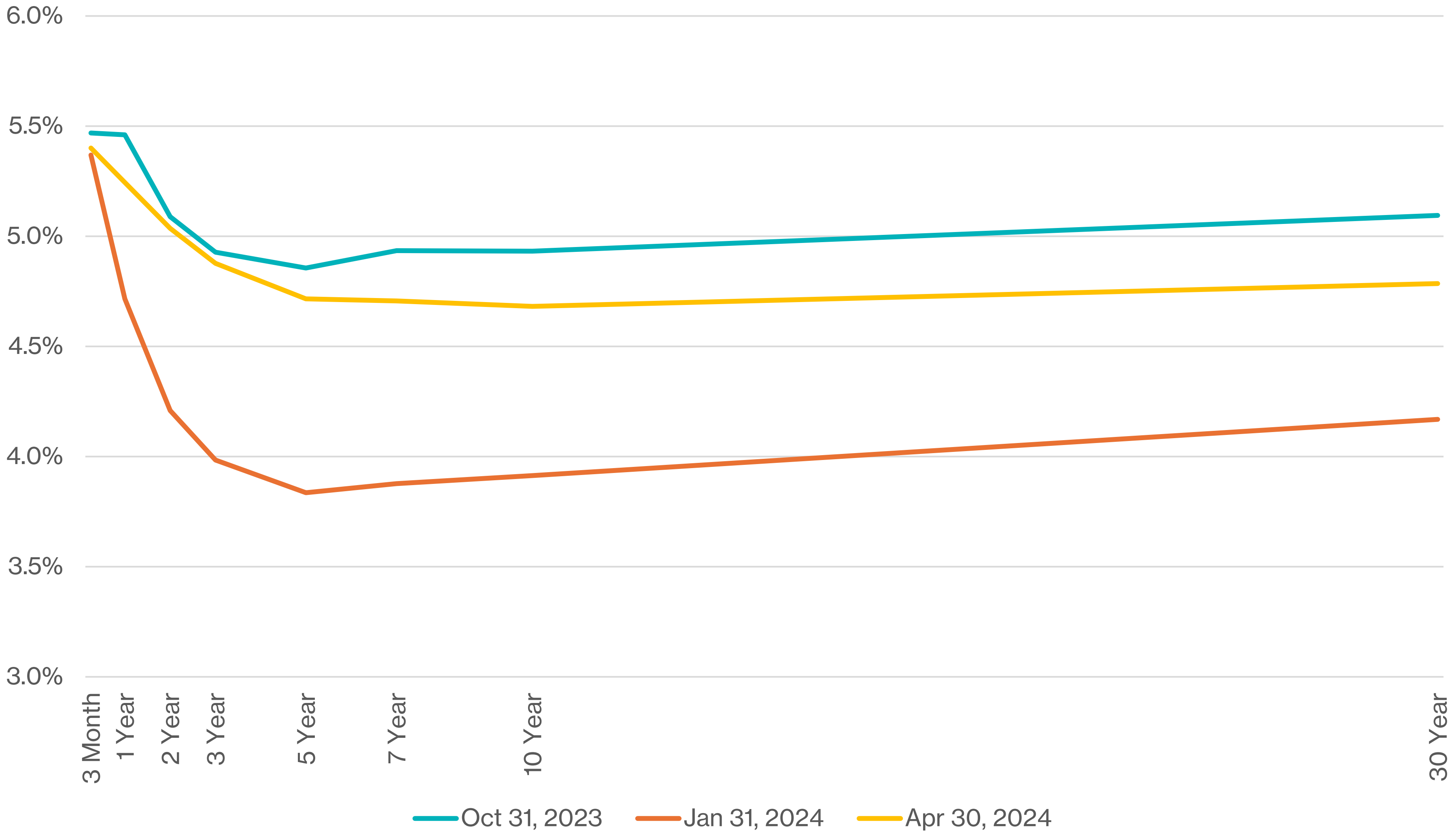


- Even though the number of US jobs created in April showed the lowest total since last October. The unemployment rate remains below 4%.
- The US unemployment rate has been below 4% for the past 27 months. This is the longest consecutive streak below 4% since 1953.
- Fed Chair Powell stated recently, “strong job creation over the past year has been accompanied by an increase in the supply of workers”.
- This strong job market has been a reason the Fed has expressed patience regarding rate cuts.

SOURCE: BLOOMBERG, BUREAU OF LABOR STATISTICS

Yields: US Treasury Yield Curves

MEEDER



- U.S. intermediate-term and long-term treasury rates peaked last October.
- Rates dropped from last fall into the first part of 2024 partly due to the Fed pivoting to three expected .25% rate cuts in 2024 from rate hikes in 2023.
- Over the past few months intermediate-term and long-term treasury rates have bounced higher on sticky inflation and higher commodity prices.
- We expect at least one rate cut later in the year and that would most likely put downward pressure on treasury yields.

SOURCE: BLOOMBERG

Cash Flow Planning

How Good Are You At Predicting Future Events

MEEDER

Market Timing

1. In January of 2019, I accurately predicted the Fed would cut rates 4 times for the year

2. At the beginning of February 2020, I accurately predicted the fiscal and monetary response to COVID, and the effects on rates and the economy

3. In January 2022 I accurately predicted the Fed would hike rates 7 times for the year

4. I know by how much and when the Fed will raise/cut rates in 2024

Cash Flow Timing

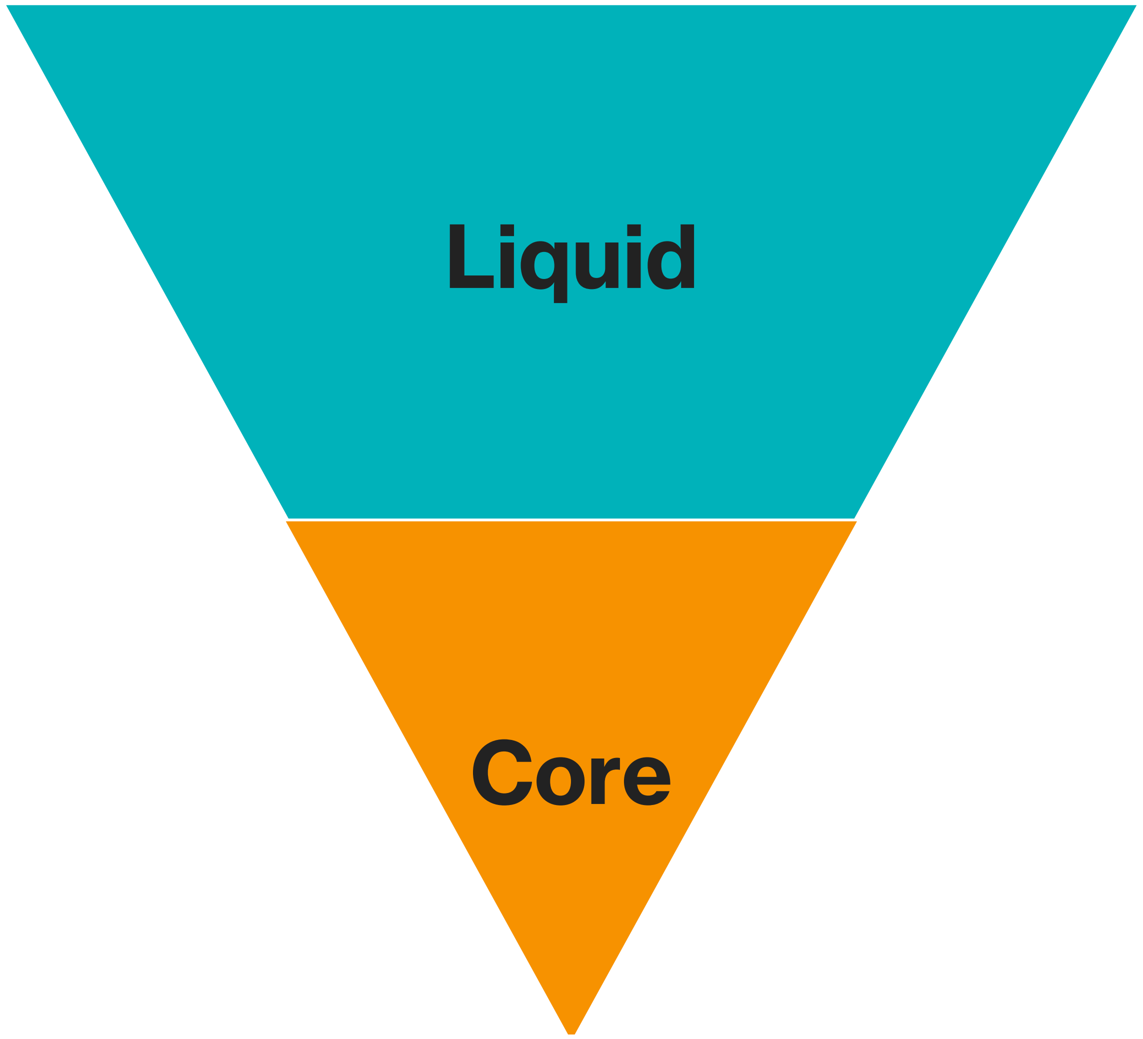
1. While I don't know the exact amount, I generally know my big ticketed cash outflow items and approximately when they will go out

2. I generally know when I receive big cash inflows

3. My Investment Policy's primary objective in order of importance is safety of principal, sufficient liquidity, and yield

4. My Investment Policy does not state anywhere that my duties are to time the market

Cash and Investment Allocation

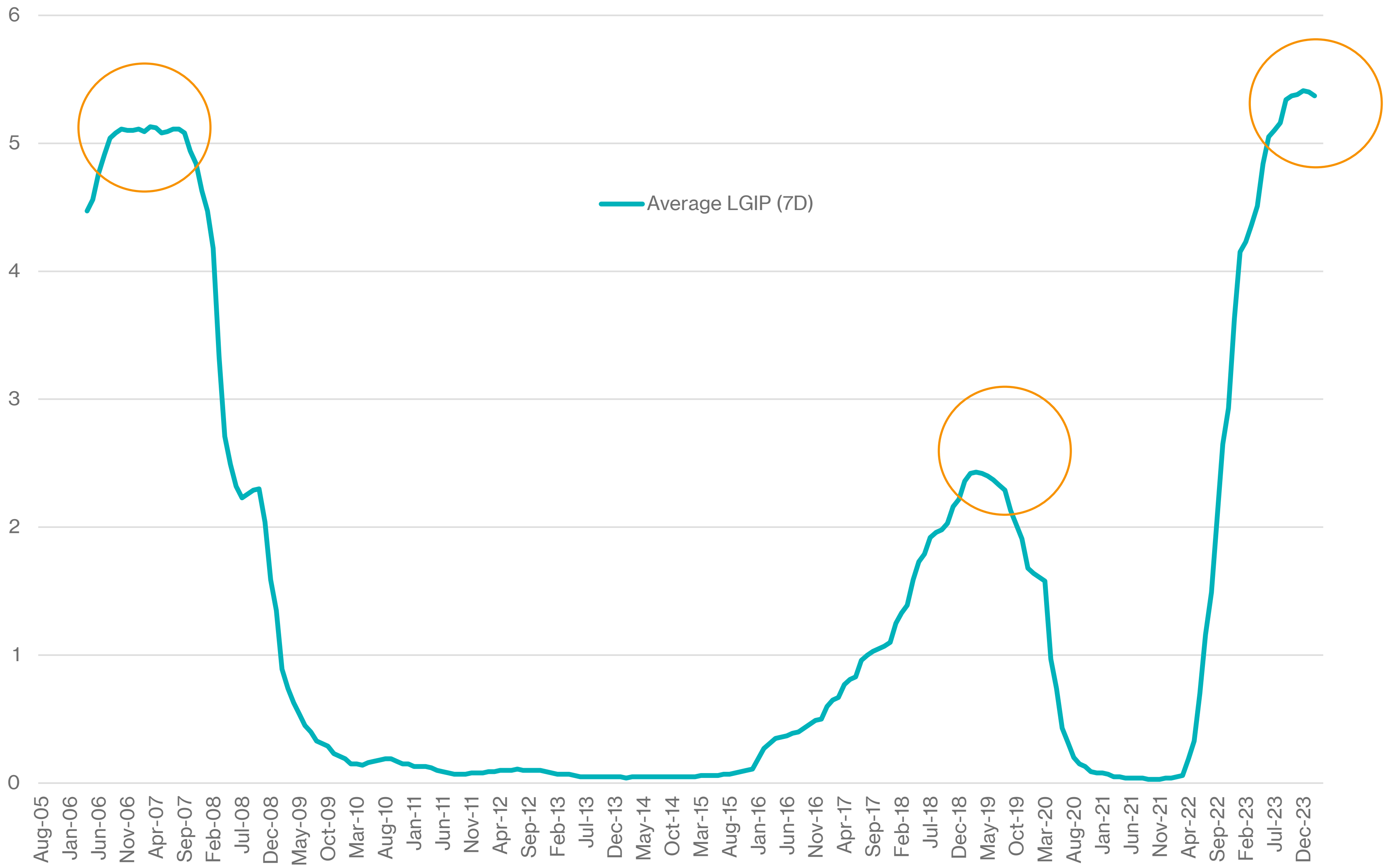


High cash flow needs?

or

Timing the Market?

Opportunity to Create Longer-Term Certainty

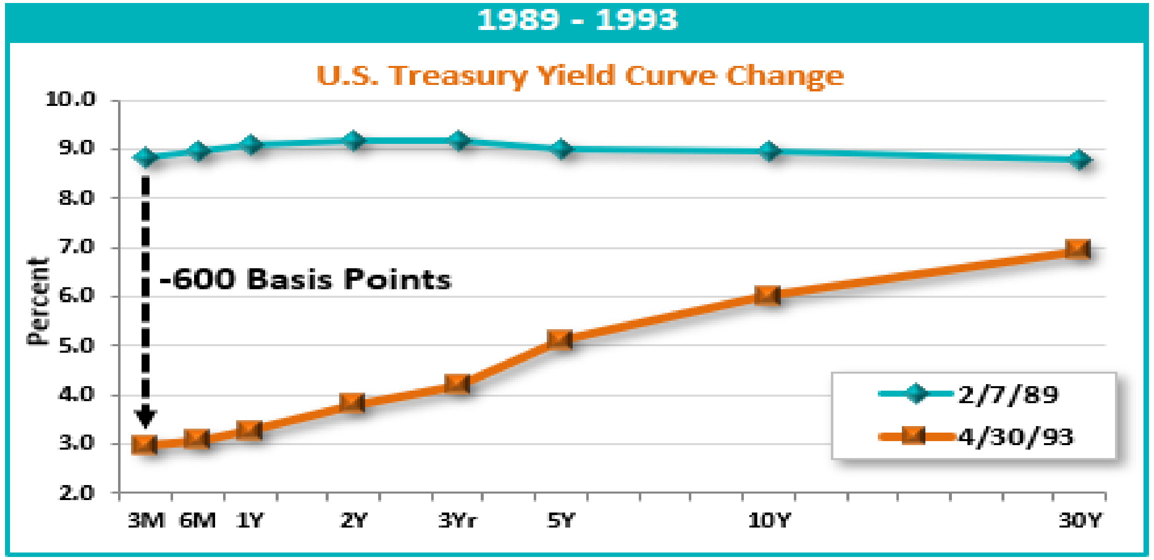


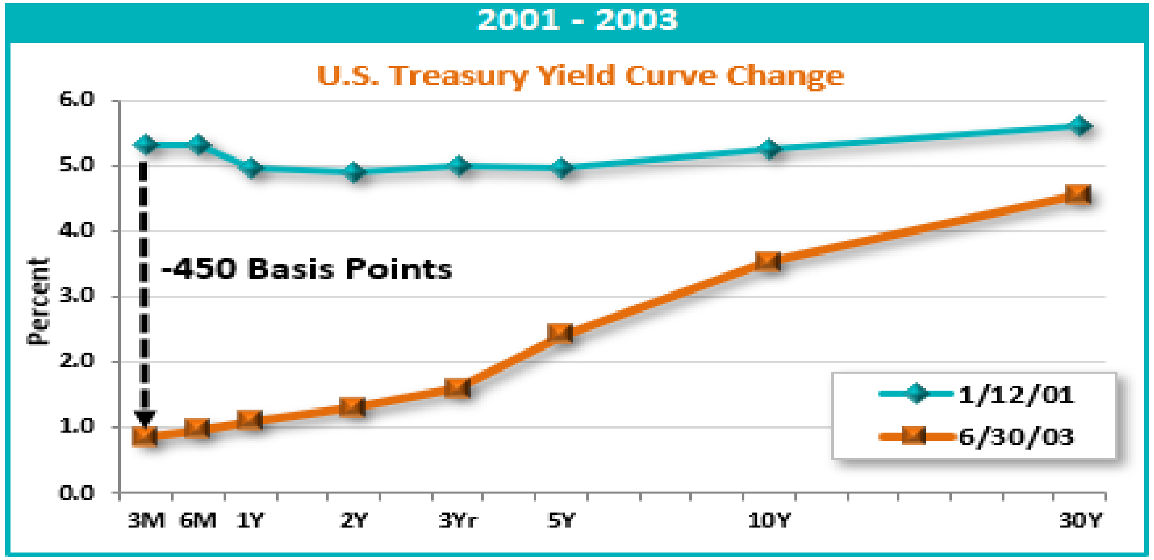
- Short-term interest rates topping out?
- Opportunity to lock in high interest rates for the long-term
- Creates budgetary certainty for the long-term

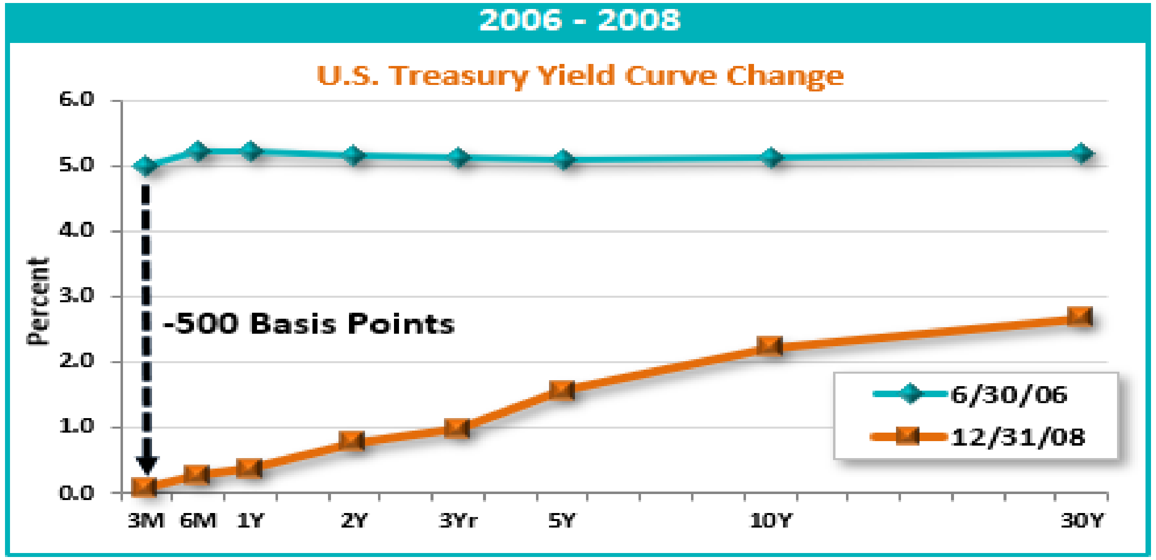
AS OF 12/31/2023 SOURCE BLOOMBERG. Average LGIP represented by LGIP7D Net Index.

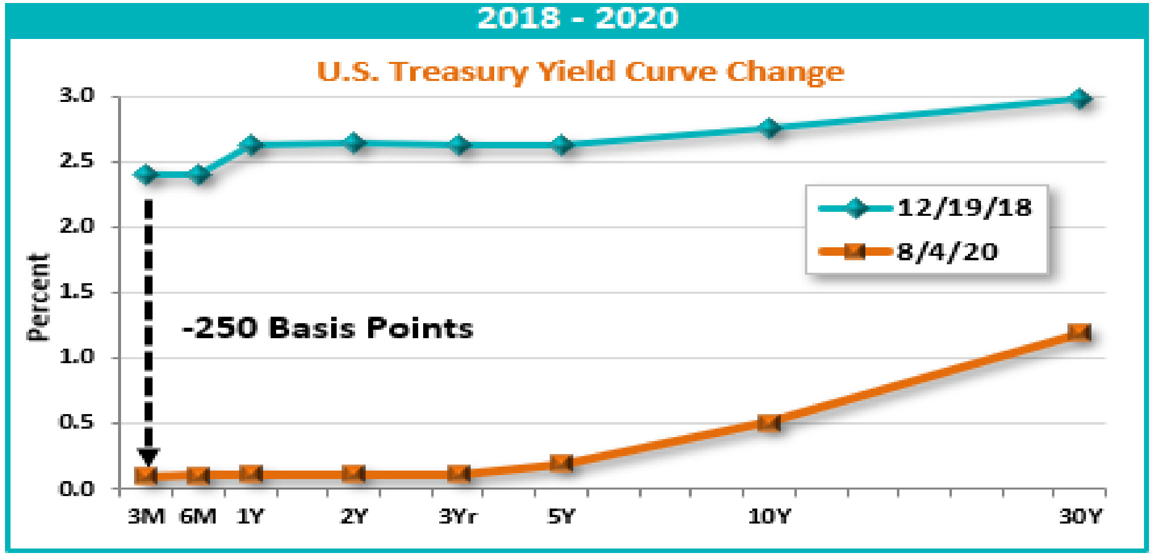
The “Yield Curve Trap”

MEEDER









Treasury Yields as of 2pm PT on respective dates

SOURCE: BLOOMBERG

Highest Year-Ending Average Yields Since 2006

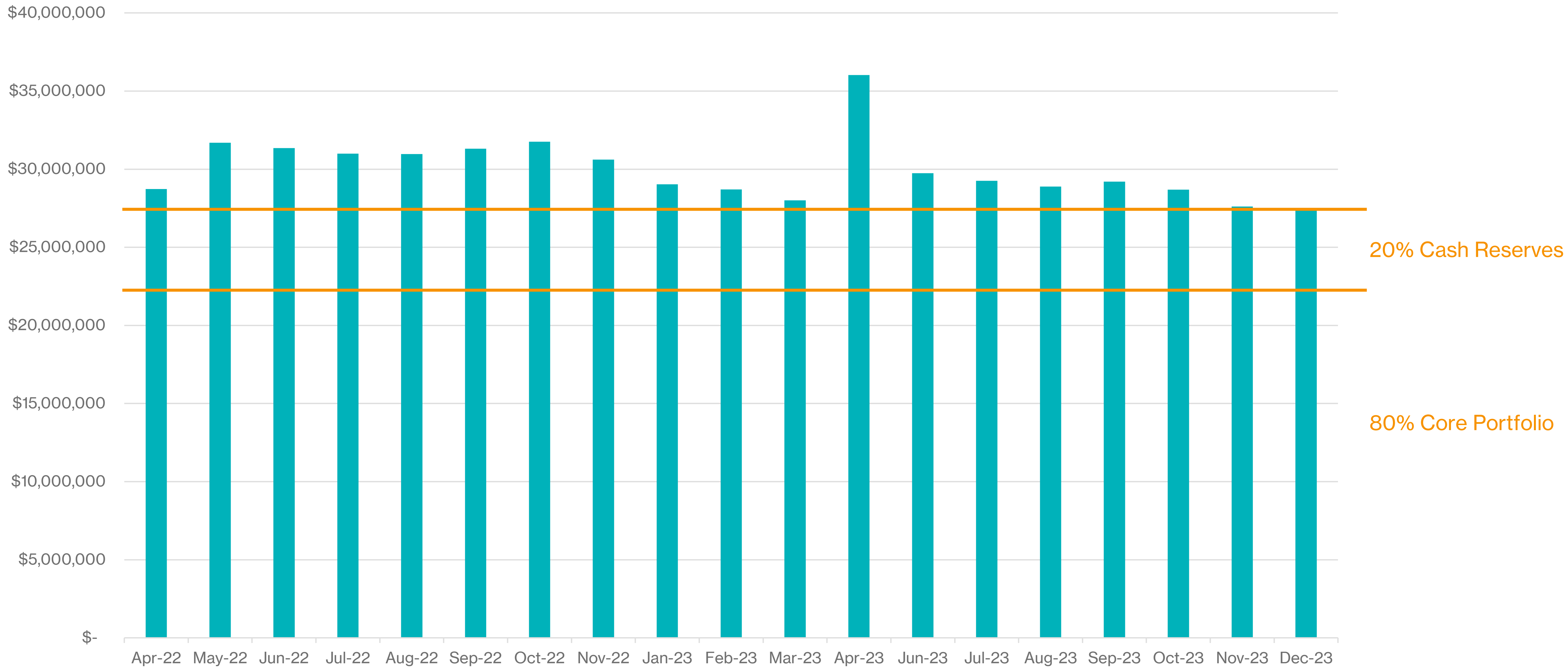
MEEDER

US TREASURY YIELDS AS OF 12/31																					
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1 yr	3.30	3.30	3.30	3.30	3.30	0.34	0.44	0.26	0.10	0.14	0.11	0.21	0.60	0.81	1.73	2.60	1.57	0.10	0.38	4.69	4.76
2 yr	1.82	3.07	4.40	4.81	3.05	0.76	1.14	0.59	0.24	0.25	0.38	0.66	1.05	1.19	1.88	2.49	1.57	0.12	0.73	4.43	4.25
3 yr	2.30	3.22	4.36	4.73	3.01	0.97	1.68	0.99	0.35	0.35	0.76	1.07	1.31	1.45	1.97	2.46	1.61	0.16	0.96	4.22	4.01
5 yr	3.25	3.61	4.35	4.69	3.44	1.55	2.68	2.01	0.83	0.72	1.74	1.65	1.76	1.93	2.21	2.51	1.69	0.36	1.26	4.00	3.85
Avg	2.67	3.30	4.10	4.38	3.20	0.91	1.49	0.96	0.38	0.37	0.75	0.90	1.18	1.35	1.95	2.52	1.61	0.19	0.83	4.34	4.22

Treasury Yields as of 2pm PT on respective dates

SOURCE: BLOOMBERG

CASH FLOW ANALYSIS
Historical Data

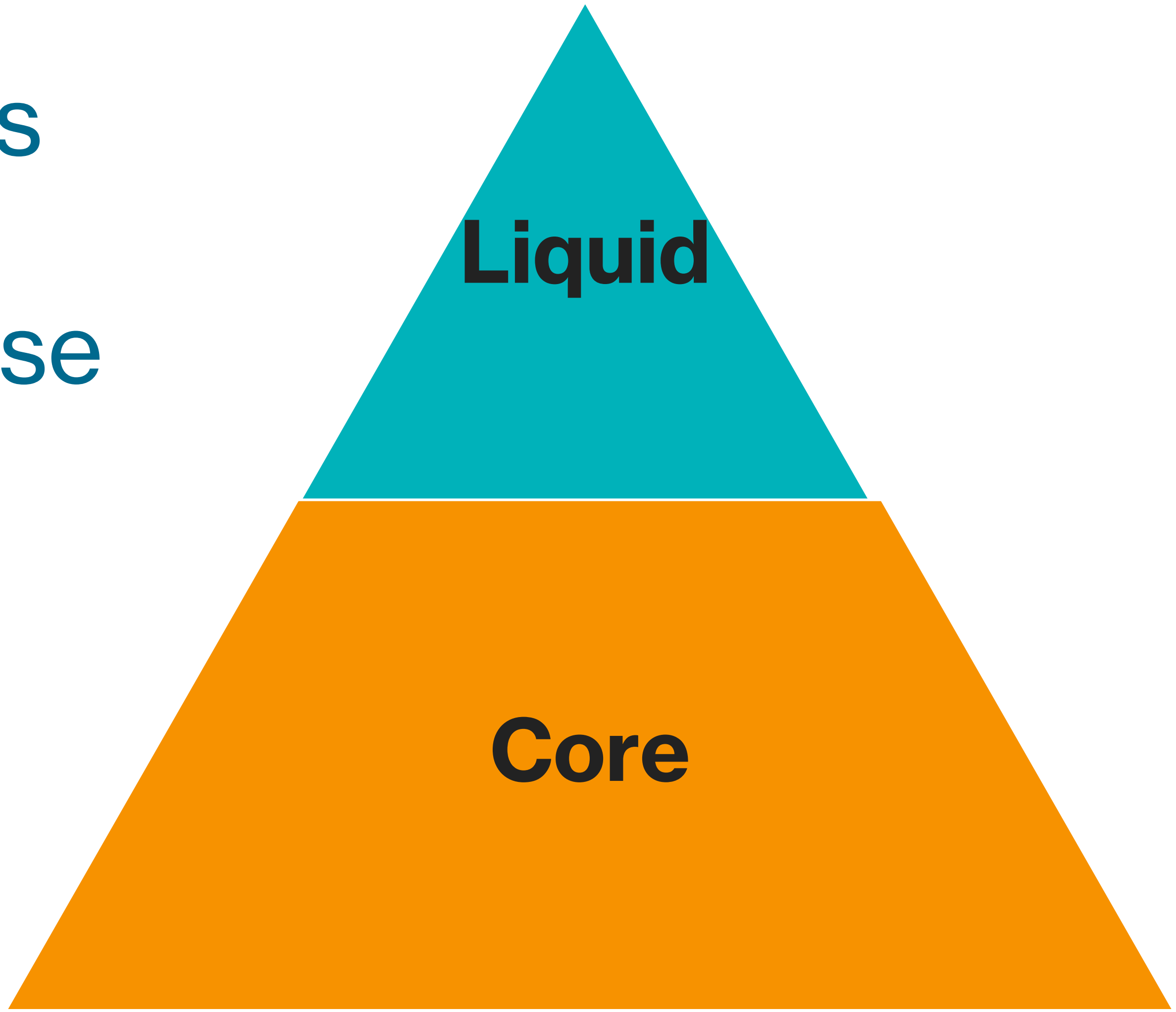


Cash and Investment Allocation

Manage cashflow needs

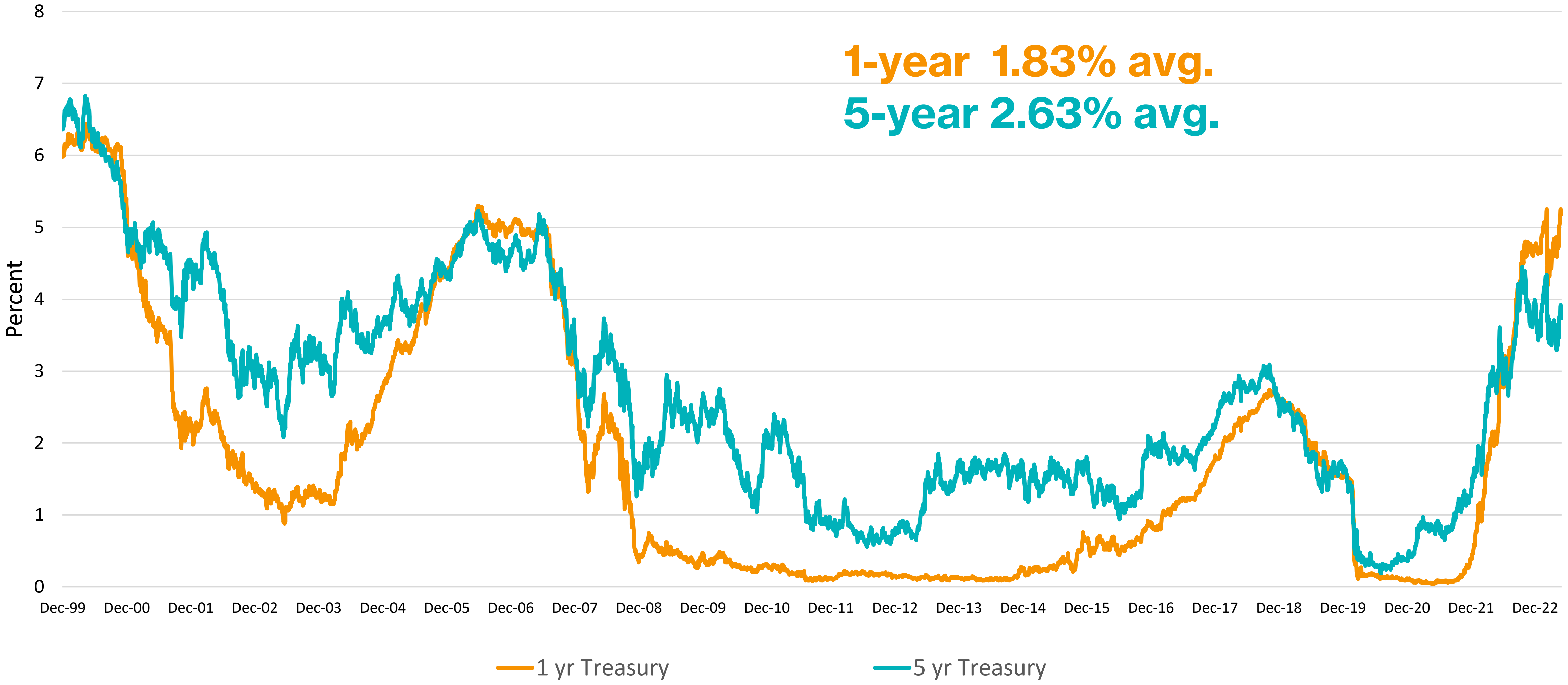
and

Build core investment base



1-year Treasury versus 5-year Treasury

MEEDER



SOURCE: BLOOMBERG

Breakeven Analysis - 5 Year Investment vs 1 Year Investment

MEEDER

5 year US Treasury at 4.50%		
Maturity	Amount	Interest Earned
Year 1	$0	$45,000
Year 2	$0	$45,000
Year 3	$0	$45,000
Year 4	$0	$45,000
Year 5	$1,000,000	$45,000
TOTAL	$1,000,000	$225,000

1 year US Treasury at 5.15%		
Maturity	Amount	Interest Earned
Year 1	$1,000,000	$51,500
Year 2	$0	?
Year 3	$0	?
Year 4	$0	?
Year 5	$0	?
	$1,000,000	$51,500

Budget Stability of Investment Income

Sleep Adjusted Returns

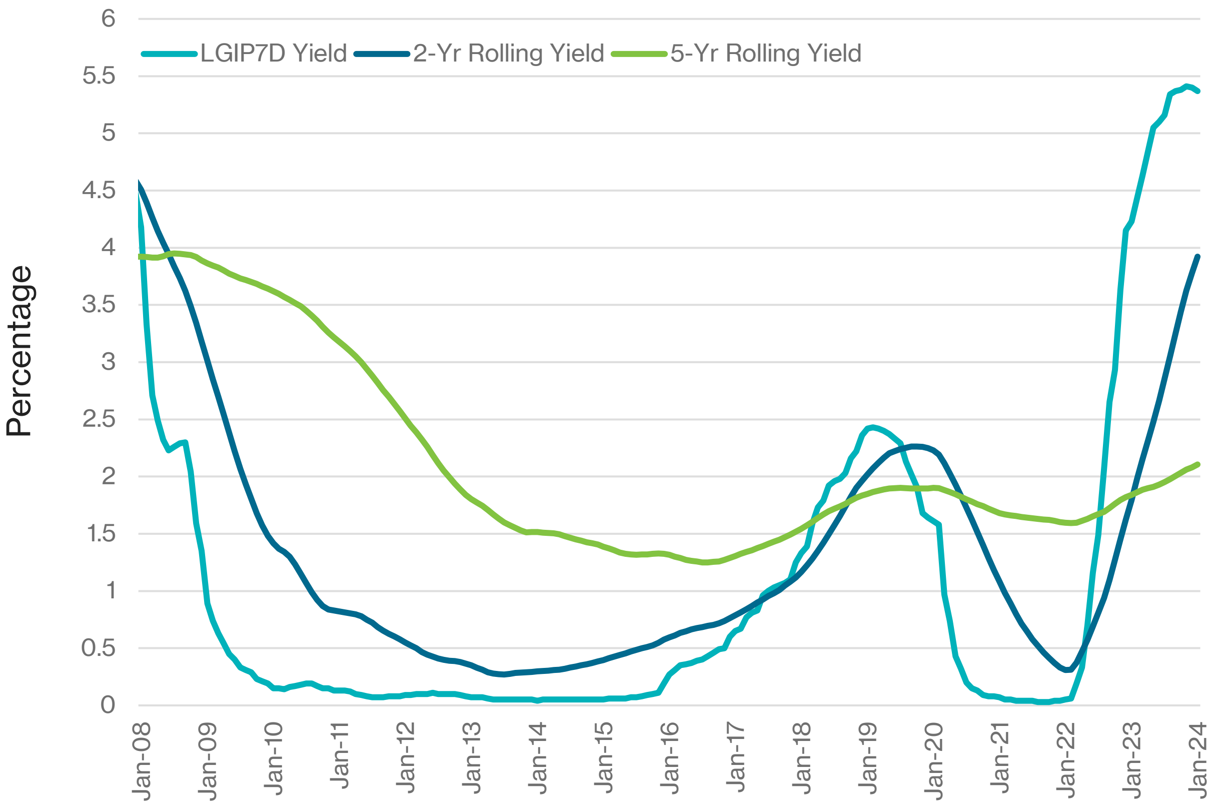
The Investment Portfolio is the Only Place in Local Government Where Revenue Can Be Generated Without Assessing Taxes or Fees

Hypothetical Illustration

Value of a long-term plan

MEEDER

Monthly Yield Comparison



Growth of $10 million

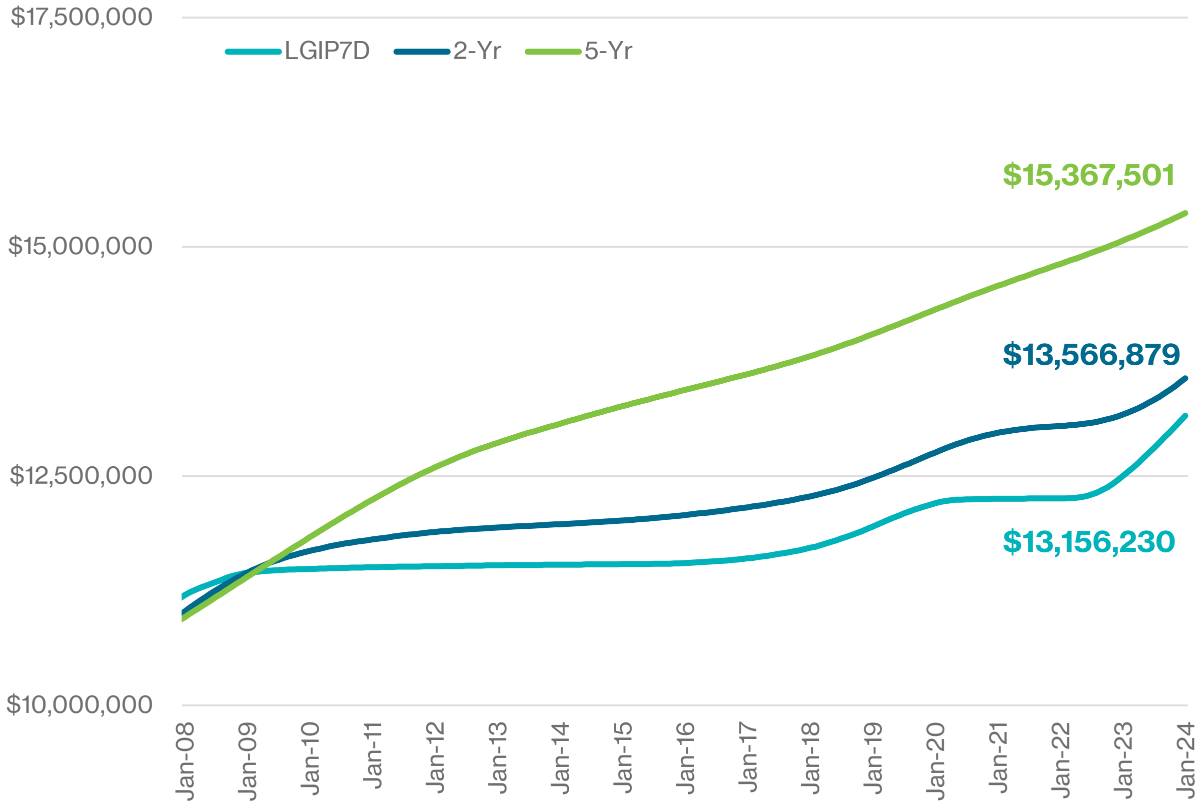


ILLUSTRATION IS HYPOTHETICAL IN NATURE, DOES NOT REFLECT ACTUAL INVESTMENT RESULTS, AND DOES NOT GUARANTEE FUTURE RETURNS. Charts illustrate the yield and related performance of three sample yield curves over time. Growth of $50 million chart assumes reinvestment of monthly income. LGIP 7D Yield represents the S&P LGIP Index of rated LGIP programs that maintain a stable net asset value of $1 per share. The 2 Yr and 5 Yr Rolling Yield figures represent the constant maturity yield on Treasury securities at the indicated maturity derived from the daily yield curve for non-inflation indexed Treasury securities

The hypothetical chart does not project investment income from any investment or portfolio and is intended solely to illustrate that portfolios comprised of longer duration securities will produce more income over time than portfolios utilizing shorter durations over the selected period. Yield assumptions were developed with the benefit of hindsight and the securities purchased for such an account may generate more or less than the illustrated yield. Clients cannot invest directly in these indexes and the actual yield for any portfolio invested consistently with the illustration will vary from the hypothetical data shown here. Unmanaged Index returns do not reflect any advisory fees or expenses

1010-MPF-6/22/23

MEEDER

PUBLIC FUNDS

Tax-Exempt Bonds: Arbitrage and Yield Restriction

Tax-Exempt Bonds
What are they? Why are they used?

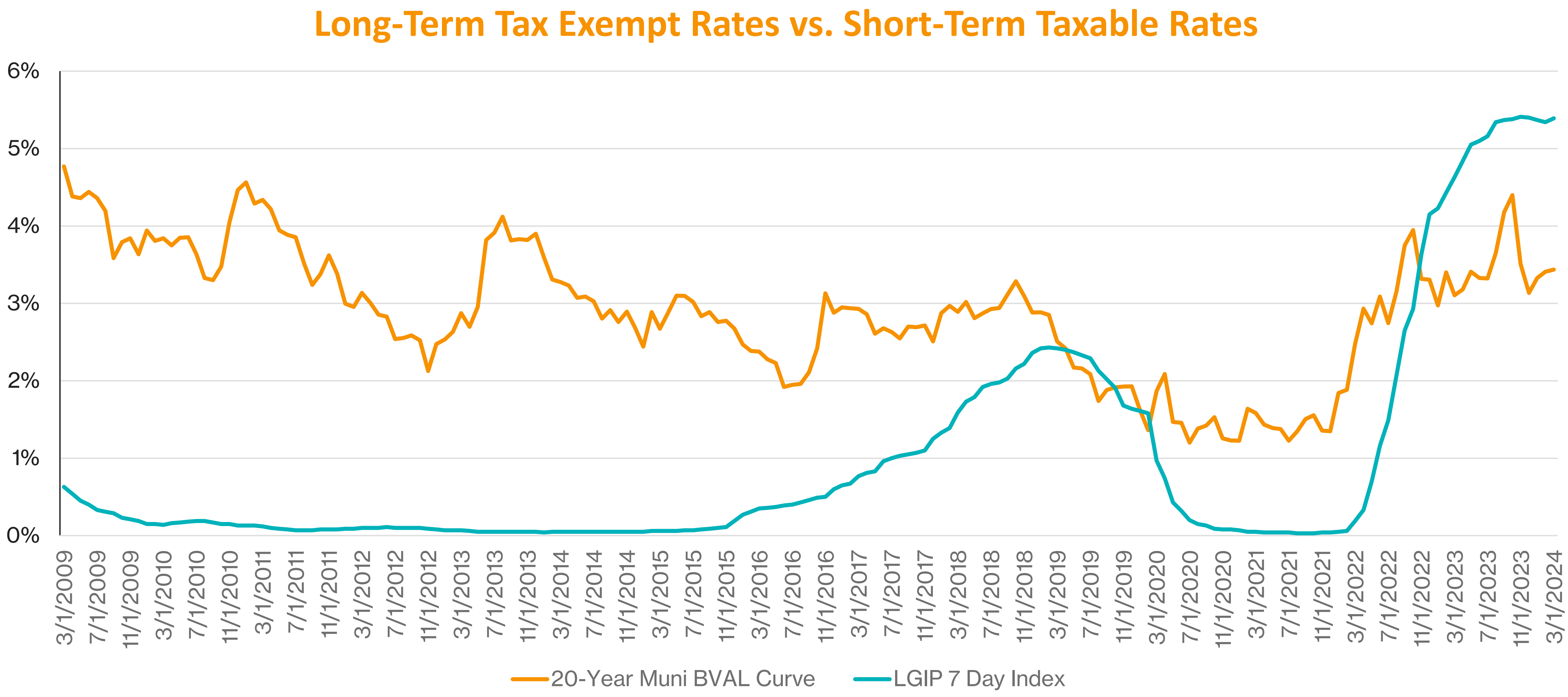
MEEDER

- **Tax-exempt bonds:**
  - Tax-exempt bonds are the primary mechanism through which state and local governments raise capital to finance essential public projects.
    - Example projects: schools, roads, bridges, highways, airports, water and wastewater facilities

- **Tax Treatment:**
  - Under the Tax Code, bonds issued by state and local government entities generally bear interest that is excluded from gross income for federal income tax purposes
  - This preferential tax treatment generally results in municipal securities bearing a lower interest rate than taxable fixed income securities (such as corporate bonds).
  - The Federal tax exemption functions as an indirect subsidy to state and local governments: by not taxing the interest on municipal bonds, municipalities receive a lower borrowing rate from capital market investors

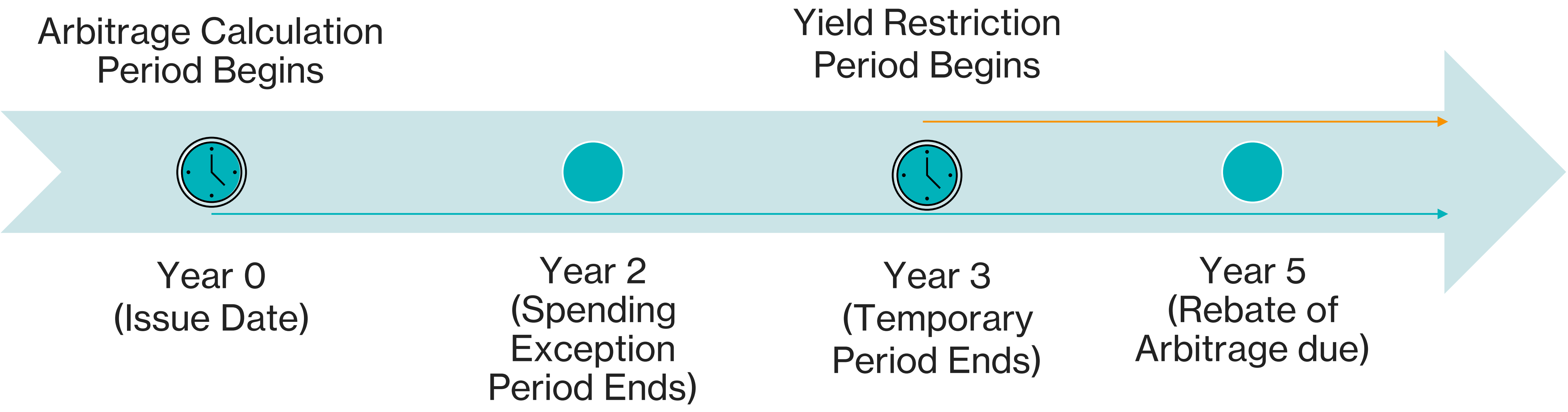
Today's Interest Rate Environment

MEEDER



SOURCE: BLOOMBERG

Arbitrage and Yield Restriction



Exceptions to Arbitrage Rebate & Yield Restriction

Investments that are excluded from limitations on interest earnings:

- Tax-exempt bonds
- Tax-exempt money funds
- Demand Deposit State and Local Government Securities (SLGS)

SLGS are special obligations of the US Treasury, with a pledge of the full-faith and credit of the United States, designed to assist public issuers with complying with the Arbitrage and Yield Restriction rules.

Two type of SLGS

1) Demand Deposit: One-day certificate of indebtednesss that are rolled daily until redemption. Depending on the size of the redemption, they can be redeemed on 1-3 days' notice.

2) Time Deposit: Time deposit securities with maturities ranging from 15 days to 40 years. Public issuer can select interest rate ranging from 1 basis point below the current matching treasury to 0%.

Case Study

MEEDER

- Assumptions:
  - Bonds Issued on April 15, 2020
  - New money construction project
  - Arbitrage yield of 2%
  - Project fund qualified for 3-year temporary period
  - Did not meet rebate exceptions
  - Expect to spend remaining proceeds over next 12 months

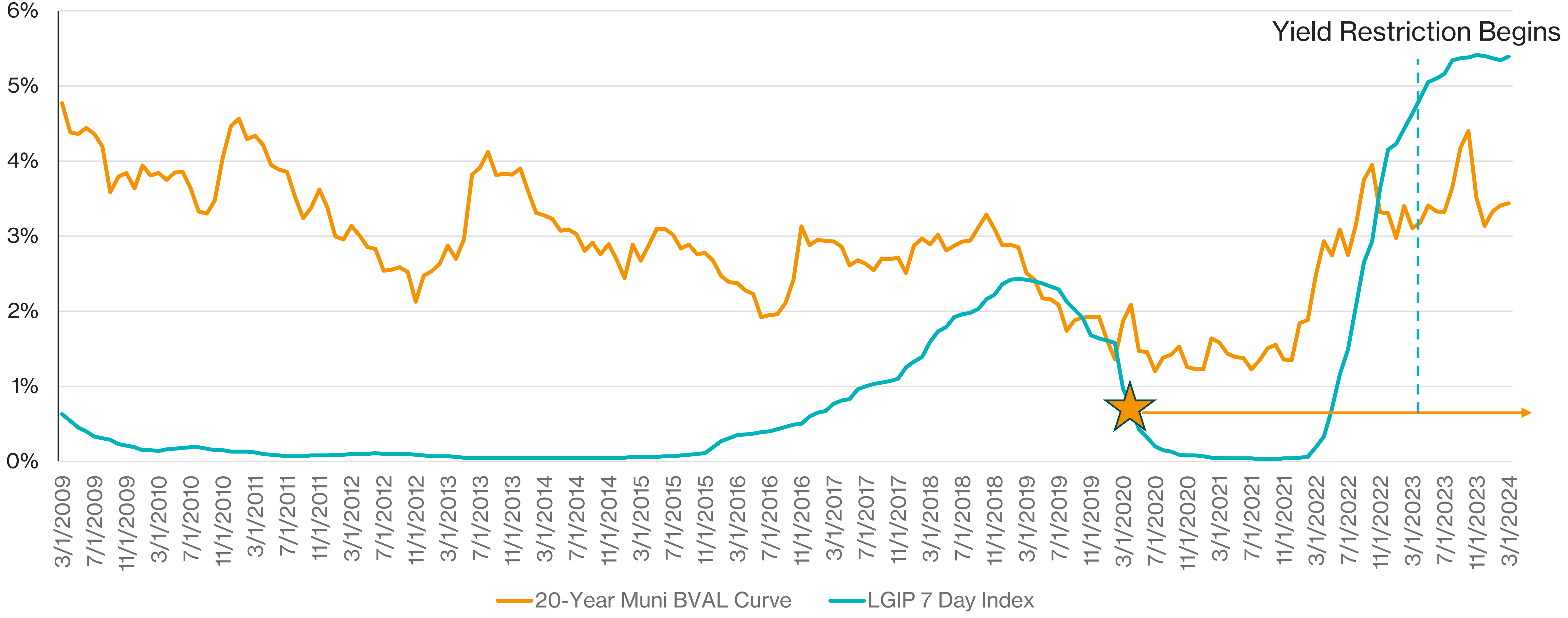
- Rebate analysis will be based on earnings since issuance. Negative arbitrage from early years of investments can be used to offset positive arbitrage since rate hikes.

- Yield Restriction began to apply on April 15, 2023. Earlier negative arbitrage cannot be used in yield restriction analysis.

- Demand Deposit SLGS

Case Study - Bonds Issued on April 15, 2020, at 2%

MEEDER



Key Takeaways

MEEDER

- Understand the structuring decisions and tax elections made at the time of issuance
- Monitor spenddown of proceeds and rebate exception compliance
- An arbitrage rebate or yield restriction liability is not a bad thing
- Avoid surprises
  - Work with your arbitrage calculation firm to monitor your investment earnings
  - Ensure sufficient funds are set aside if a material liability as accrued
- Be aware of the full investment toolkit
  - Demand deposit SLGS
  - Tax-exempt municipals
- Optimizing your project fund investments is highly fact specific
- Goal: Maximize the investment earnings that you can retain

Today's Presenters

Jason Click, CFP®
President, Public Funds
614.760.2120
jclick@meederinvestment.com

Jim McCourt, CFA
Director, Advisory Services
614.923.1151
jmccourt@meederinvestment.com

DISCLOSURE

Meeder Public Funds, Inc. a wholly owned subsidiary of Meeder Investment Management, a registered investment adviser with the Securities and Exchange Commission (SEC) under the Investment Advisers Act of 1940. The opinions expressed in this presentation are those of Meeder Investment Management as of 10/03/2022. The material presented has been derived from sources considered to be reliable, but the accuracy and completeness cannot be guaranteed.

Any rates and yields shown are for illustrative purposes only. Any securities shown are for illustrative purposes only and should not be assumed to be eligible investments for your entity. You should review any investment's eligibility based on state statute and your entity's investment policy.

Past performance does not guarantee future results. Opinions and forecasts are all subject to change at any time, based on market and other conditions, and should not be construed as a recommendation of any specific security. Investing in securities involves inherent risks, including the risk that you can lose the value of your investment. There is no assurance that the investment process will consistently lead to successful results. The investment return and principal value of an investment will fluctuate so an investor's shares or units, when redeemed, may be worth more or less than their original cost.

Meeder Investment Management

6125 Memorial Drive
Dublin, OH 43017

866.633.3371

MeederInvestment.com

MEEDER

MeederInvestment.com