

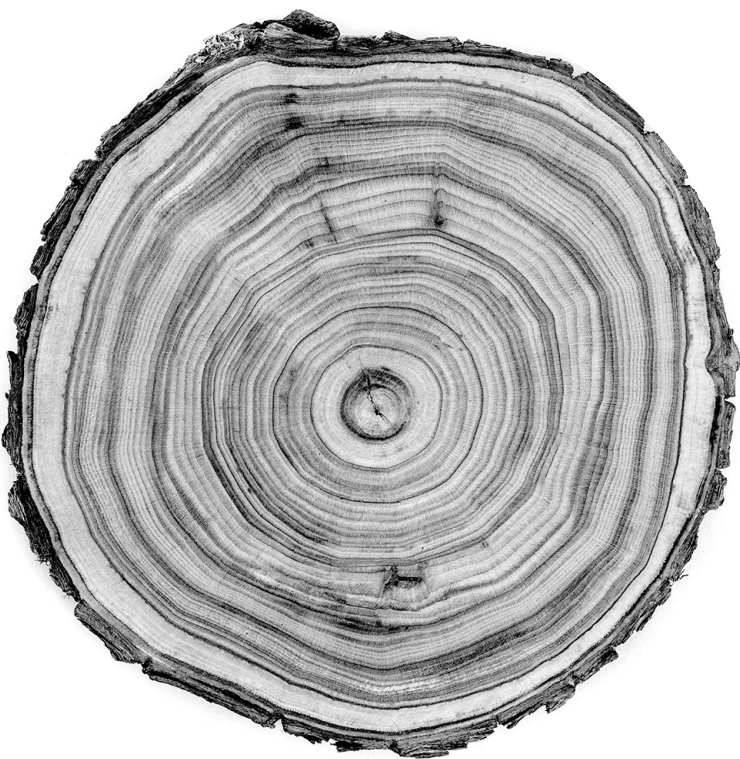
SESSION FIVE

From Policy to Construction:
Portfolio Structure and
Diversification

RICK PHILLIPS

Chief Investment Strategist
Meeder Public Funds





CALIFORNIA DEBT AND INVESTMENT ADVISORY COMMISSION

FUNDAMENTALS OF PUBLIC FUNDS INVESTING
JANUARY 28, 2026 | 1:30PM TO 2:30PM

From Policy to Construction: Portfolio Structure and Diversification

RICK PHILLIPS | CHIEF INVESTMENT STRATEGIST
MEEDER PUBLIC FUNDS



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OF THE PRESENTATION.

Speaker Information



RICK PHILLIPS

Chief Investment Strategist

2023—Present

Meeder Public Funds

Chief Investment Strategist

2005—2023

FHN Main Street Advisors

President

1998—2005

Clark County Nevada

Chief Investment Officer

1989—1998

City of Las Vegas

Investment Officer

**Government Investment Officers
Association (GIOA)**

Founder

Session Objectives

Identify the different elements of consideration in building a portfolio

Recognize key challenges in linking policy to portfolio development and operation

Recognize the differences between book yield, book return, and total return and the implications of using one versus the others

Structuring an Investment Program to Ensure the Three Objectives are Accomplished

SLI:

- A. Safety of Principal
- B. Sufficient Liquidity
- C. Market Rate of Investment Income



The “Other Objectives”



**Budget Stability of
Investment Income**



**Sleep Adjusted
Returns**

Creating an investment plan

Investment Plan = Practical and Day-To-Day

Are You Allowed to Use Treasury Futures Contracts and Treasury Futures Options?

53601.1. The authority of a local agency to invest funds pursuant to Section 53601 includes, in addition thereto, authority to invest in financial futures or financial option contracts in any of the investment categories enumerated in that section.

(Added by Stats. 1983, Ch. 534, Sec. 3.)

A. Yes

B. No



R. Should local agencies invest in financial **futures** and option contracts? If so, in what manner should they be utilized? 32

Structuring an Investment Plan to Ensure the Three Objectives are Accomplished

8. Primary Investment Objectives

- **Safety of Principal:** Safety of principal is the foremost objective of the [entity's] investment program. Investments by the [designated official] shall be undertaken in a manner that seeks to ensure the preservation of capital in the overall portfolio. To attain this objective, diversification of security types, sectors, issuers, and maturities is necessary in order that potential losses on individual securities do not exceed the income generated from the remainder of the portfolio.
- **Liquidity:** The investment portfolio shall be structured to timely meet expected cash outflow needs and associated obligations which might be reasonably anticipated. This objective shall be achieved by matching investment maturities with forecasted cash outflows and maintaining an additional liquidity buffer for unexpected liabilities.
- **Investment Income:** The investment portfolio shall be designed to earn a market rate of investment income in relation to prevailing budgetary and economic cycles, while taking into account investment risk constraints and liquidity needs of the portfolio.

SOURCE: GIOA

Wisdom of the Past: Context is Very Helpful

The more you know
about the **past**, the
better prepared
you are for
the **future**.

– THEODORE ROOSEVELT

SOURCE: SHUTTERSTOCK



“F.I.G.E.Y.” Model of Interest Rates

Fed Policy



Inflation



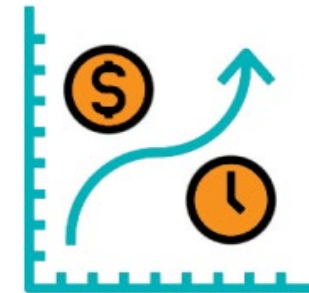
Growth (GDP)



Employment



Yields

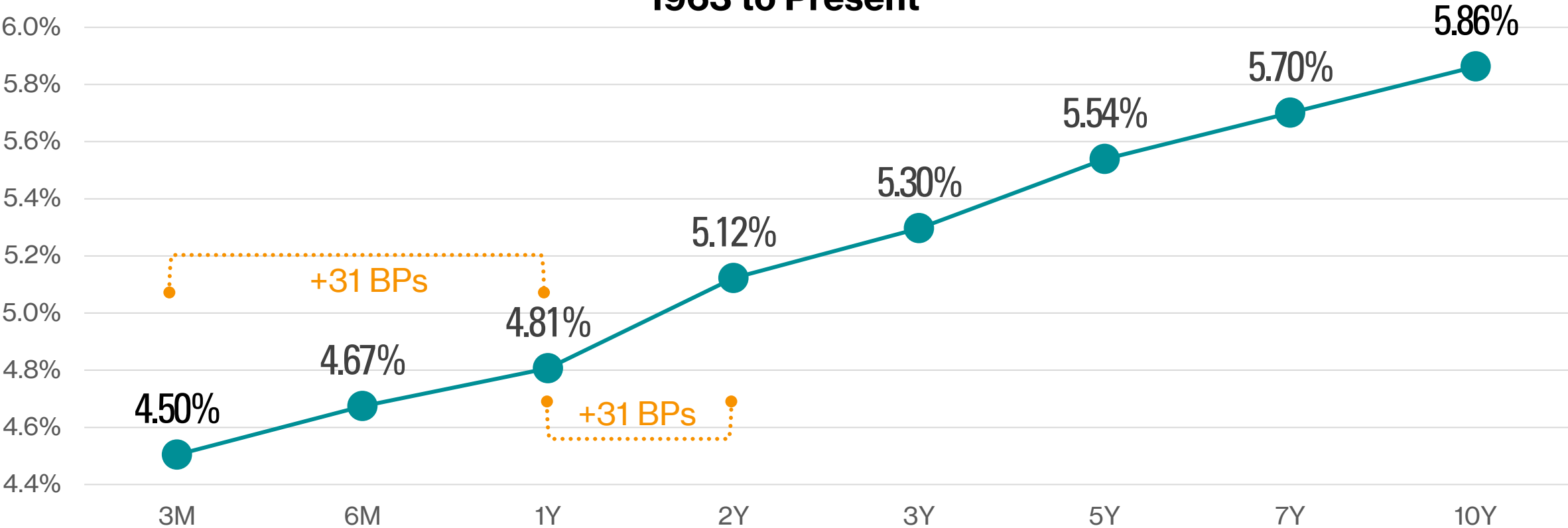


- **U.S. Treasury yields/rates are primarily a function of Federal Reserve policy, inflation, economic growth, and employment.**
- **Shorter-term yields are highly correlated with the Fed Funds rate set by the Fed’s Federal Open Market Committee (FOMC).**
- **Intermediate-term and longer-term yields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

SOURCE: BLOOMBERG

Longer Duration has Generated More Investment Income Over the Long Run

Average Monthly Treasury Yields
1963 to Present

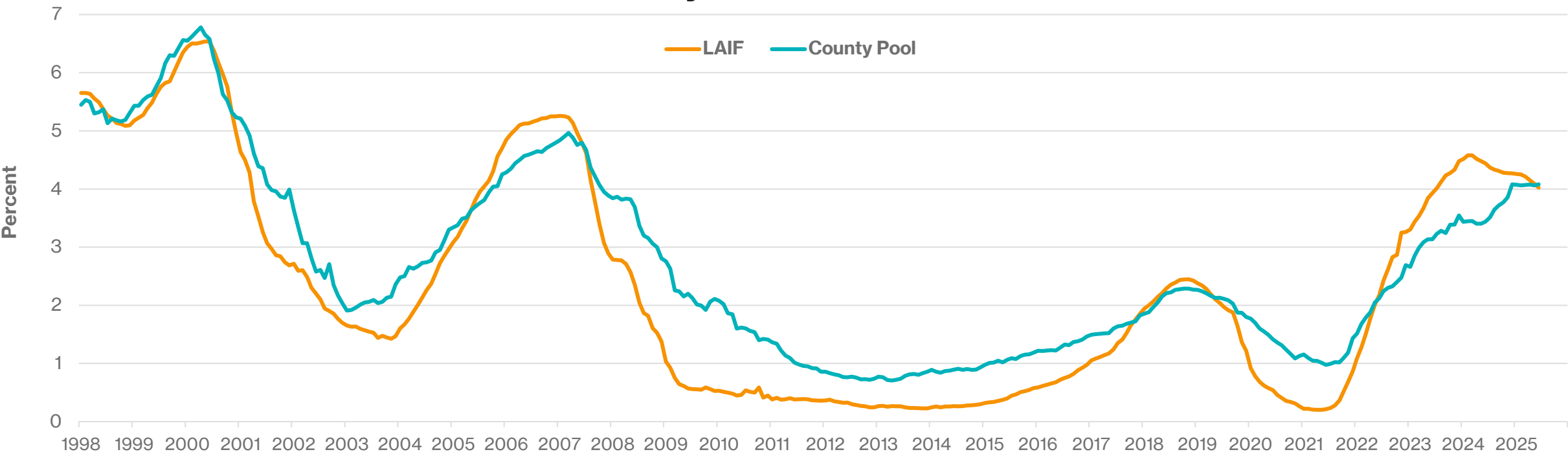


SOURCE: BLOOMBERG AS OF JAN-26. THE PERFORMANCE DATA SHOWN REPRESENTS PAST PERFORMANCE, WHICH DOES NOT GUARANTEE FUTURE RESULTS.

Longer Duration vs. Shorter Duration: Real Life



Yield: County Pool vs. California LAIF



Average Fiscal Year Yields

Fiscal Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	AVG
County	5.3	5.92	6.15	4.36	2.74	2.06	2.79	3.74	4.57	4.58	3.45	2.21	1.66	1.06	0.77	0.78	0.89	1.08	1.3	1.61	2.14	2.07	1.4	1.09	2.12	3.16	3.6	4.07	2.74
CA LAIF	5.36	5.68	6.13	3.43	2.18	1.53	2.23	3.85	5.12	4.38	2.19	0.66	0.49	0.83	0.31	0.25	0.27	0.43	0.75	1.36	2.26	1.94	0.52	0.35	2.26	3.93	4.41	4.17	2.39
Variance	-0.05	0.24	0.02	0.93	0.56	0.53	-0.56	-0.11	-0.55	-0.15	1.27	1.55	1.17	0.68	0.47	0.53	0.62	0.64	0.55	0.25	-0.12	0.13	0.88	0.74	-0.14	-0.77	-0.82	-0.09	0.35

SOURCE: MEEDER, STATE OF CALIFORNIA. THE PERFORMANCE DATA SHOWN REPRESENTS PAST PERFORMANCE, WHICH DOES NOT GUARANTEE FUTURE RESULTS.

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Interest Rate Risk (WAM/Duration) Should Match Cash Flow Metrics

- Bond Proceed Funds and LGIPs Should Have Shorter Average Maturities
- Operating Funds Should Have Longer Average Maturities



You, I...Nor Anyone Else Can Time the Market Accurately Over The Long Run



SOURCE: FEDERAL RESERVE, GOOGLE

“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



“It’s tough to make predictions, especially about the future.”

YOGI BERRA
New York Yankees



You, I...Nor Anyone Else Can Time the Market Accurately Over The Long Run

(cont. 2 of 2)



Both the Fed
and the markets
expected 3
interest rate
hikes (25 BPs)
in 2022...

the Fed hiked 17 times!
(The 25 Basis Point Kind)



SOURCE: HEDGEYE, BLOOMBERG

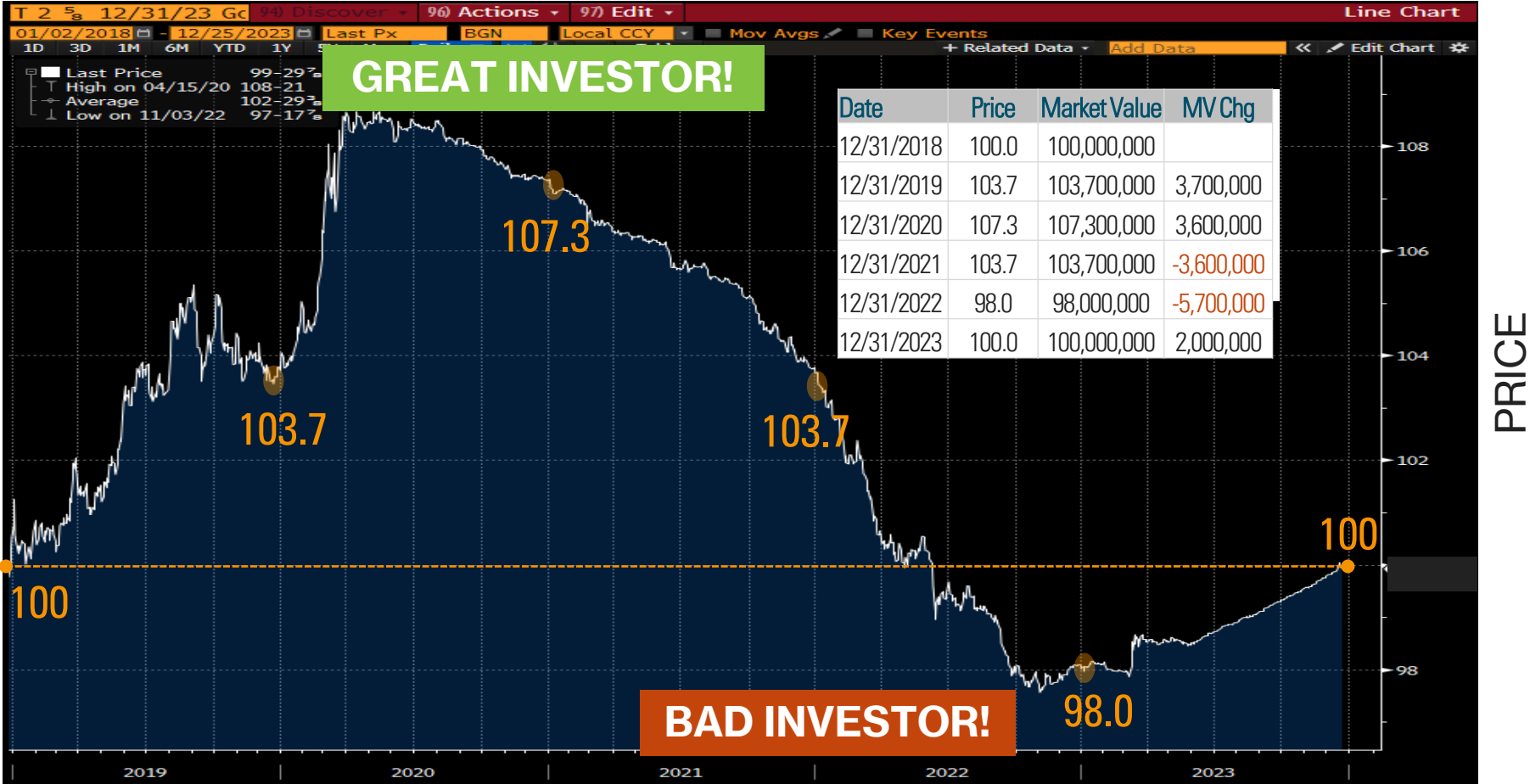
**The point of studying
economics is so
as not to be fooled
by economists.**

– JOAN ROBINSON



SOURCE: JOAN ROBINSON, AZ QUOTES

GASB 31: Balance Sheet vs. Income Statement



GASB 31 essentially says you “sell” your portfolio every fiscal year end, then “rebuy” it on the first day of the next fiscal year, and adjust investment income by that amount.

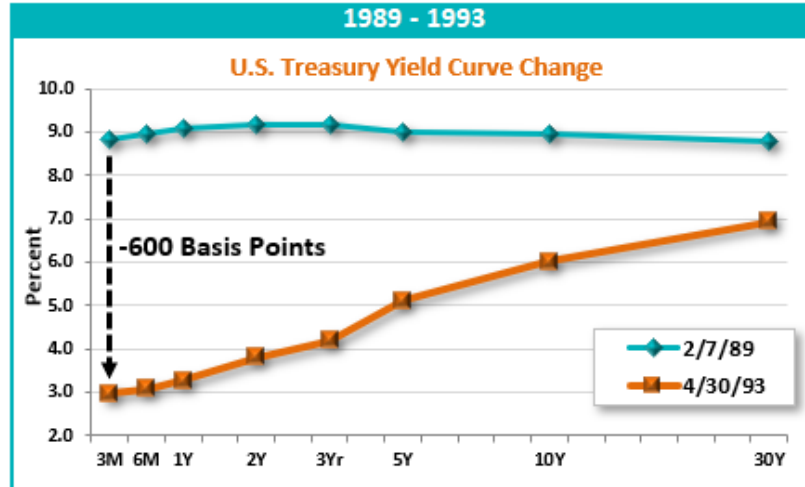
SOURCE: BLOOMBERG, END OF DAY PRICING. THE PERFORMANCE DATA SHOWN REPRESENTS PAST PERFORMANCE, WHICH DOES NOT GUARANTEE FUTURE RESULTS.



SOURCE: GOOGLE

The “Yield Curve Trap”

How Interest Rates React to Fed Rate Cuts



SOURCE: BLOOMBERG. THE PERFORMANCE DATA SHOWN REPRESENTS PAST PERFORMANCE, WHICH DOES NOT GUARANTEE FUTURE RESULTS.

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How Many Fed Cuts are You Expecting in 2026?

- A. 0
- B. 1-2
- C. 2-4
- D. They should hike!

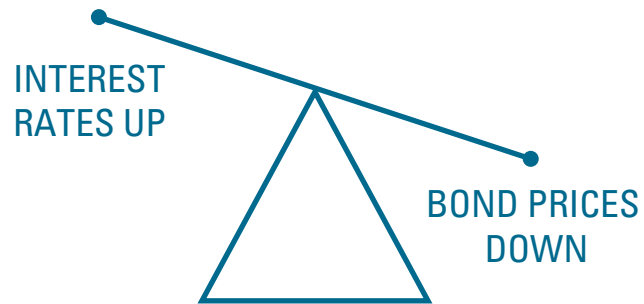


Risks

- Interest Rate Risk
- Credit Risk

Credit can Enhance Income, but Duration is the Bigger Determinant of Income

Interest Rate Risk



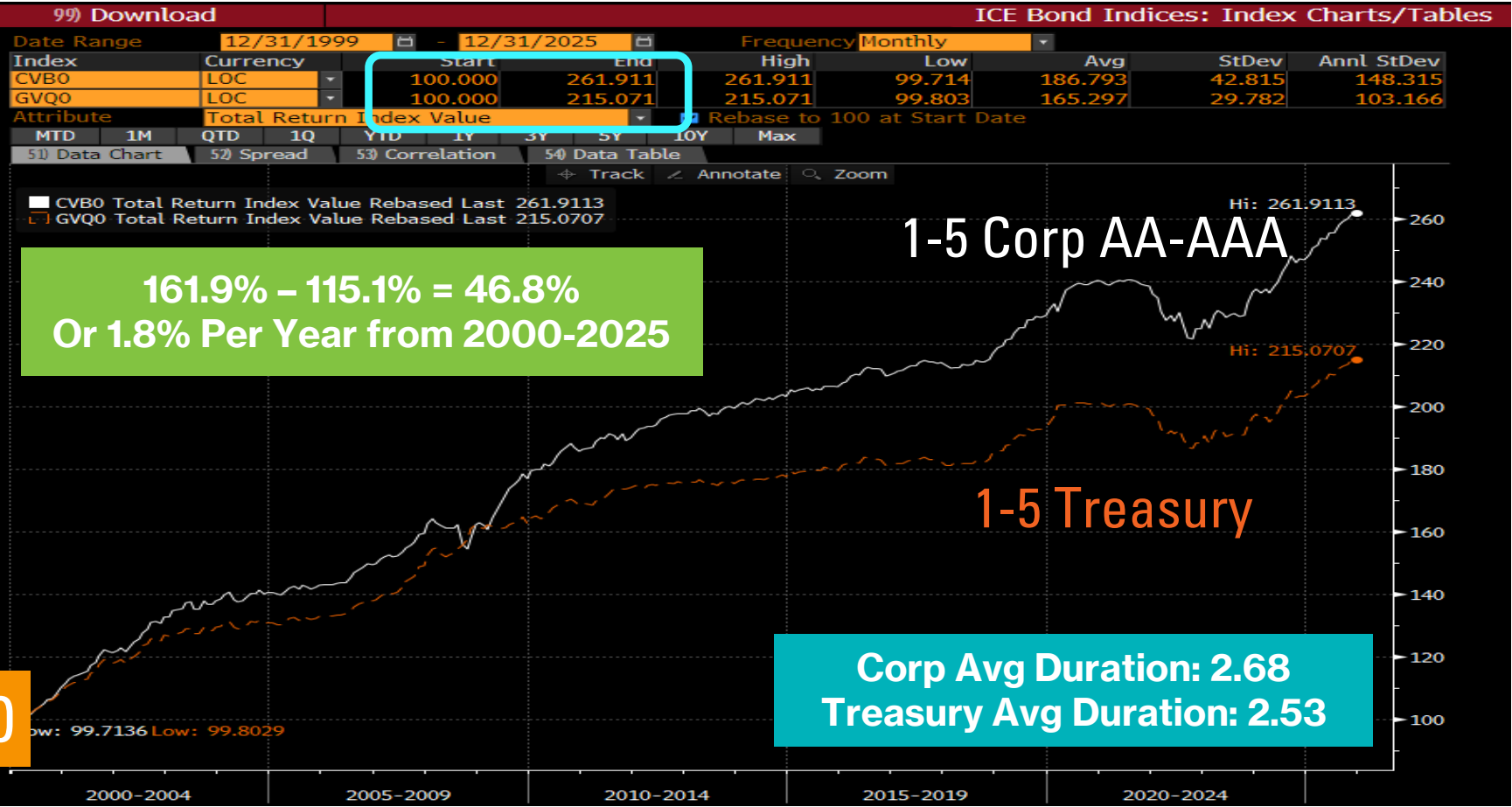
VS

Credit Risk



Corporate vs. Treasury: 1-5Yr AA-AAA

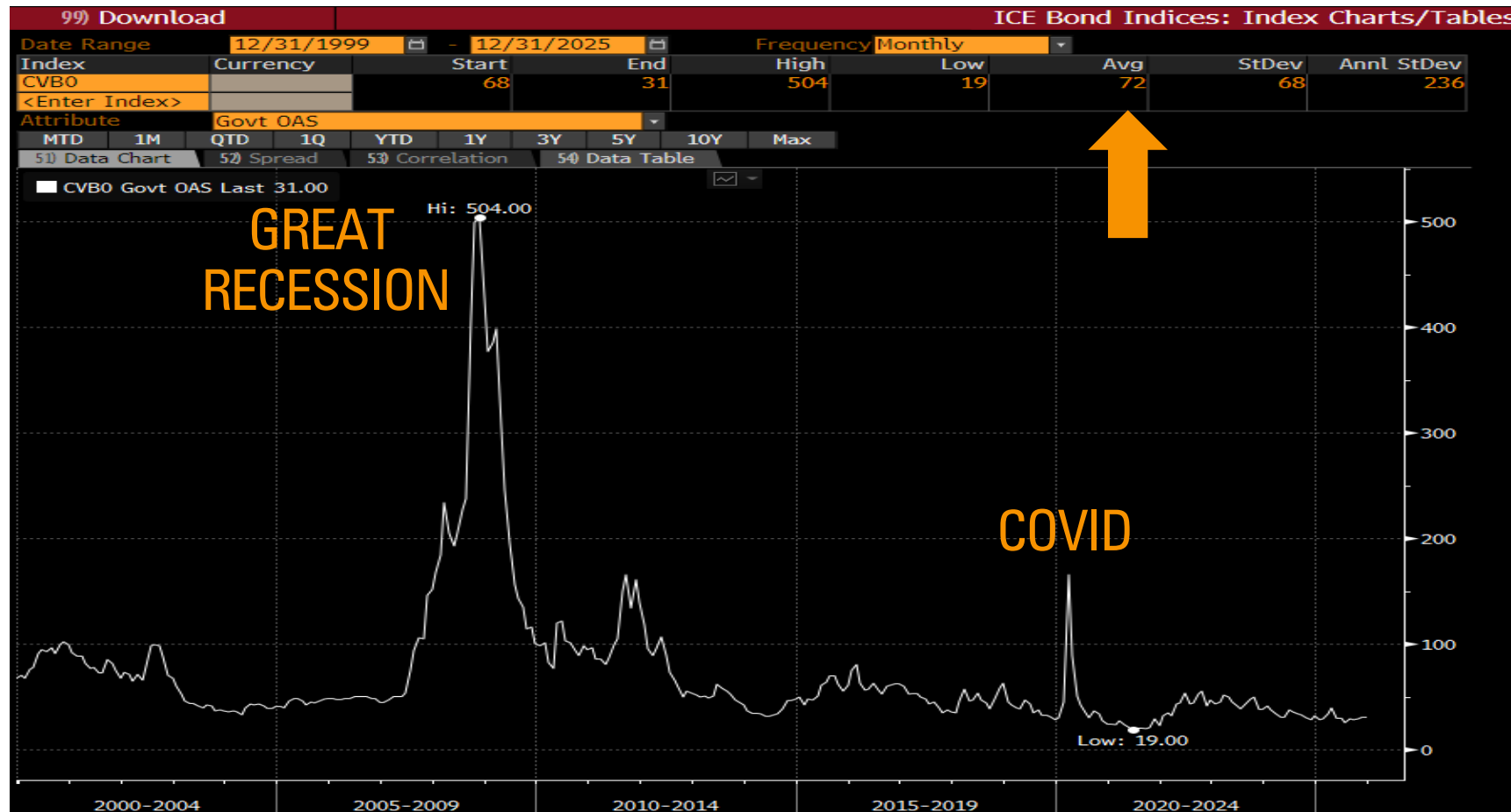
Corporates vs. 1-5Yr Treasuries (Total Return)



SOURCE: BLOOMBERG. THE PERFORMANCE DATA SHOWN REPRESENTS PAST PERFORMANCE, WHICH DOES NOT GUARANTEE FUTURE RESULTS.

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1-5Yr AA-AAA Rated Corporate Bond Spreads to Treasuries



SOURCE: BLOOMBERG. THE PERFORMANCE DATA SHOWN REPRESENTS PAST PERFORMANCE, WHICH DOES NOT GUARANTEE FUTURE RESULTS.

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Are You Allowed to Purchase Corporate Notes?

If Yes, are You Allowed to Purchase A3/A-?

What is the Approximate Percentage of Corporate Notes in Your Portfolio?

- A. 0-5%
- B. 6%-10%
- C. Greater Than 10%



Securities Issued by Foreign Entities and Affiliates



SOURCE: [HTTPS://WWW.TREASURER.CA.GOV/CDIAC/PUBLICATIONS/ISSUE-BRIEF/2025/25-01.PDF](https://www.treasurer.ca.gov/cdiac/publications/issue-brief/2025/25-01.pdf)

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CALIFORNIA DEBT AND INVESTMENT ADVISORY COMMISSION

CDIAC No. 25-01

Investments under Government Code 53601– Focus on Securities Issued by Foreign Entities and Foreign Affiliates – 2025 Update

INTRODUCTION

California Government Code contains specific provisions for the types of public investments and investment practices permitted after meeting the broad requirement of preserving principal and maintaining necessary liquidity before seeking yield. While these codes identify the types of permissible investments local agencies may choose when investing surplus funds, a local agency is responsible for ensuring that a security meets the statutory requirements of Government Code at the time of purchase.

With respect to securities issued by affiliates of foreign entities, the Government Code authorizes local agencies to invest in these securities so long as certain statutory conditions are met. In 2013, the California Debt and Investment Advisory Commission (CDIAC) published, “Investments under Government Code 53601(k) – Focus on Foreign Issuers,” which provided a

the permissibility of an investment security issued by a foreign entity.

The purpose of this brief is to assist local agencies in deciding whether an investment product meets the requirements of section 53601 regarding the issuer’s affiliation with a foreign entity. This brief describes different investment types that may be issued by a foreign or foreign affiliated entity and identifies ways local agencies can determine whether the issuer meets the requirements pursuant to Government Code 53601.

WHAT DEBT IS ISSUED BY FOREIGN AND FOREIGN AFFILIATED ENTITIES?

Dollar-denominated debt securities issued by foreign entities in the United States market are often referred to as “Yankee Bonds” or “Yankee CDs”. Although these securities are issued by foreign corporations, banks, and sovereign nations, the Securities and Exchange Commission (SEC) registration requirements are very similar to those for domestic securities. They are rated by a nationally recognized statistical rating organization (NRSRO) and commit to making market disclosures in compliance with securities laws and regulation. However, these characteristics alone are insufficient to determine if California public agencies may invest in these securities.

Currently under California Government

under sections 53601(g), 53601(h) and 53601(i) for bankers’ acceptances, commercial paper and negotiable certificates of deposit, respectively. Table 1 in Appendix A provides a complete summary of the statutory requirements for these sections.

DETERMINING THE ELIGIBILITY OF THE SECURITY’S ISSUER

While understanding an investment security’s rating and portfolio allocation restrictions under Government Code may seem straightforward, the legal and regulatory complexities inherent in the incorporation and licensing status of the issuing entities can present challenges in determining if a specific investment product issued by a foreign or foreign affiliated entity is permissible under section 53601. Investors considering the purchase of securities issued by foreign-affiliated entities may be uncertain about how to apply “organized”, “operating”, and “licensed”, the specific terms contained in section 53601 used to establish the entity’s qualifications as an issuer. The terms “organized”, “operating”, and “licensed” are not specifically defined by statutes nor are they legal terms that hold a specific meaning. However, in the context and use within specific subsections of section 53601, CDIAC interprets these terms as follows.

- **ORGANIZED** – An entity organized as a corporation, special purpose corporation, trust, or limited liability company in the United States.

Risks

- **Interest Rate Risk**
- **Having too much negative convexity (aka: callables)**

QUESTION

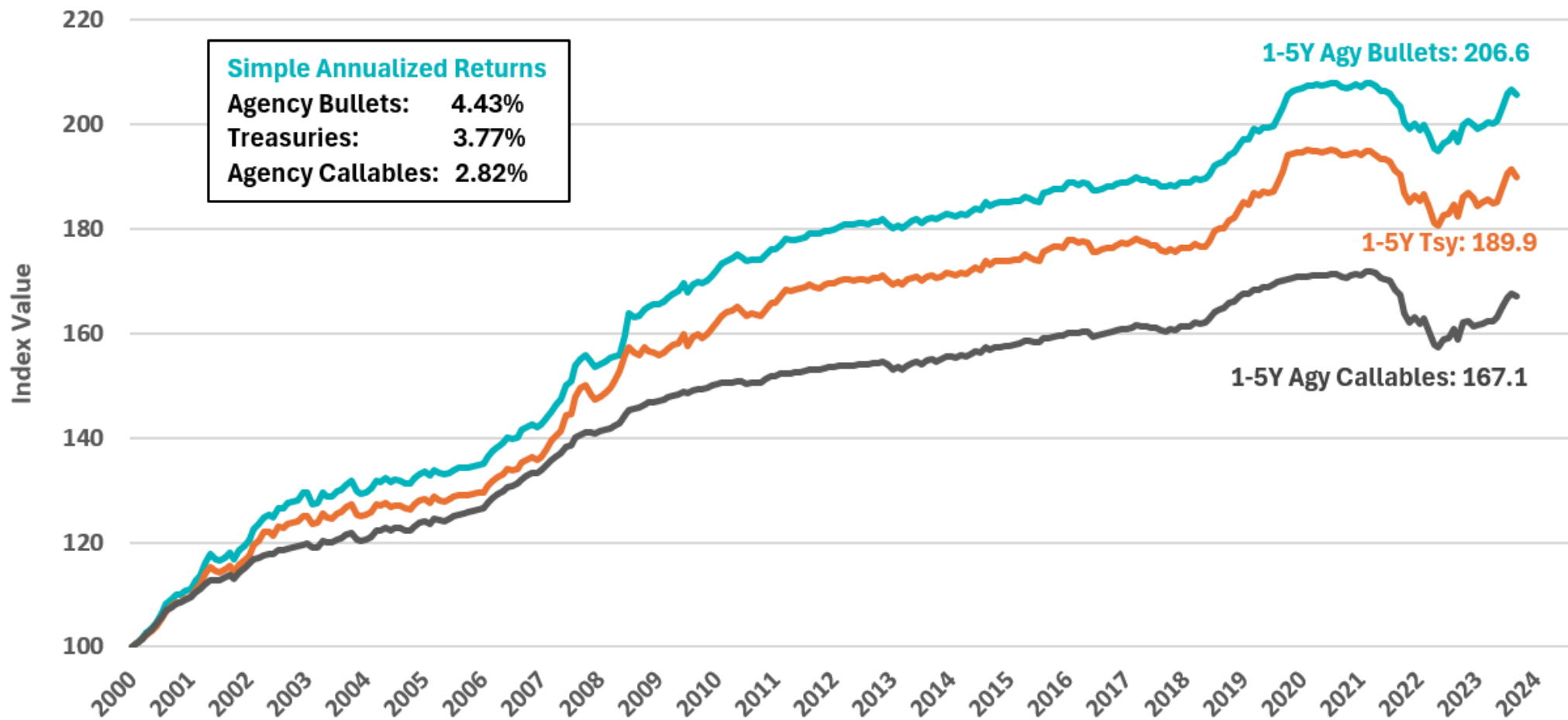
Which Basket of ICE Bofa Index Securities has Produced the Highest Total Return since 2000?

- A. 1-5 Year Federal Agency Bullets
- B. 1-5 Year Federal Agency Callables



Index Return Values

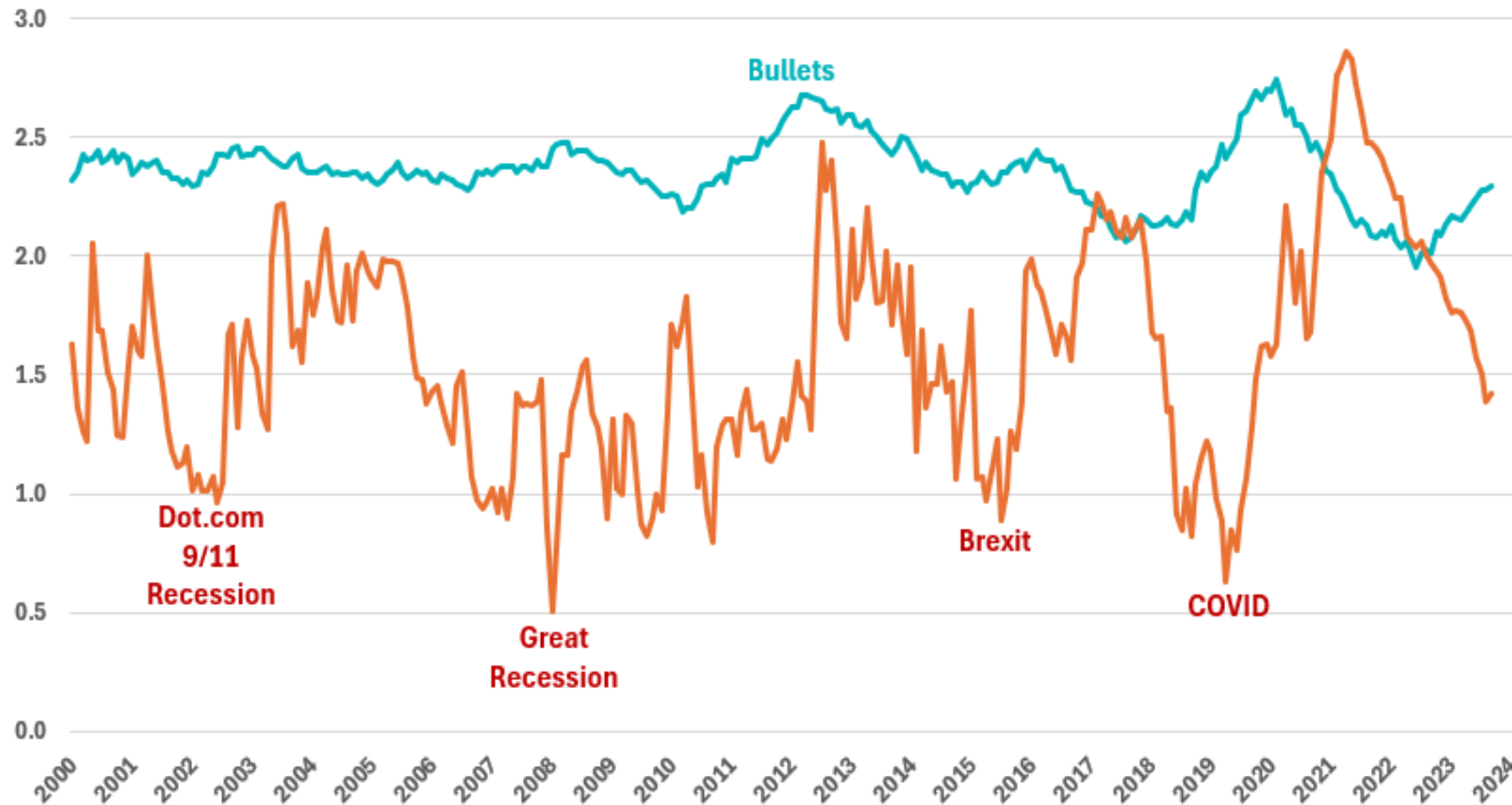
June 2000 to Present



SOURCE: BLOOMBERG AS OF 12/31/24. THE PERFORMANCE DATA SHOWN REPRESENTS PAST PERFORMANCE, WHICH DOES NOT GUARANTEE FUTURE RESULTS.

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Effective Duration: 1-5 YR AGY Bullets vs. Callables



AVERAGE EFFECTIVE DURATIONS

- Bullets 2.35
- Callables 1.57

SOURCE: BLOOMBERG AS OF 12/31/24. THE PERFORMANCE DATA SHOWN REPRESENTS PAST PERFORMANCE, WHICH DOES NOT GUARANTEE FUTURE RESULTS.

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QUESTION

Callable Federal Agency Bonds Typically Produce the Best Intermediate-term Investment Income/Returns in Which Rate Environment?

- A. Rates up
- B. Rates flat
- C. Rates down

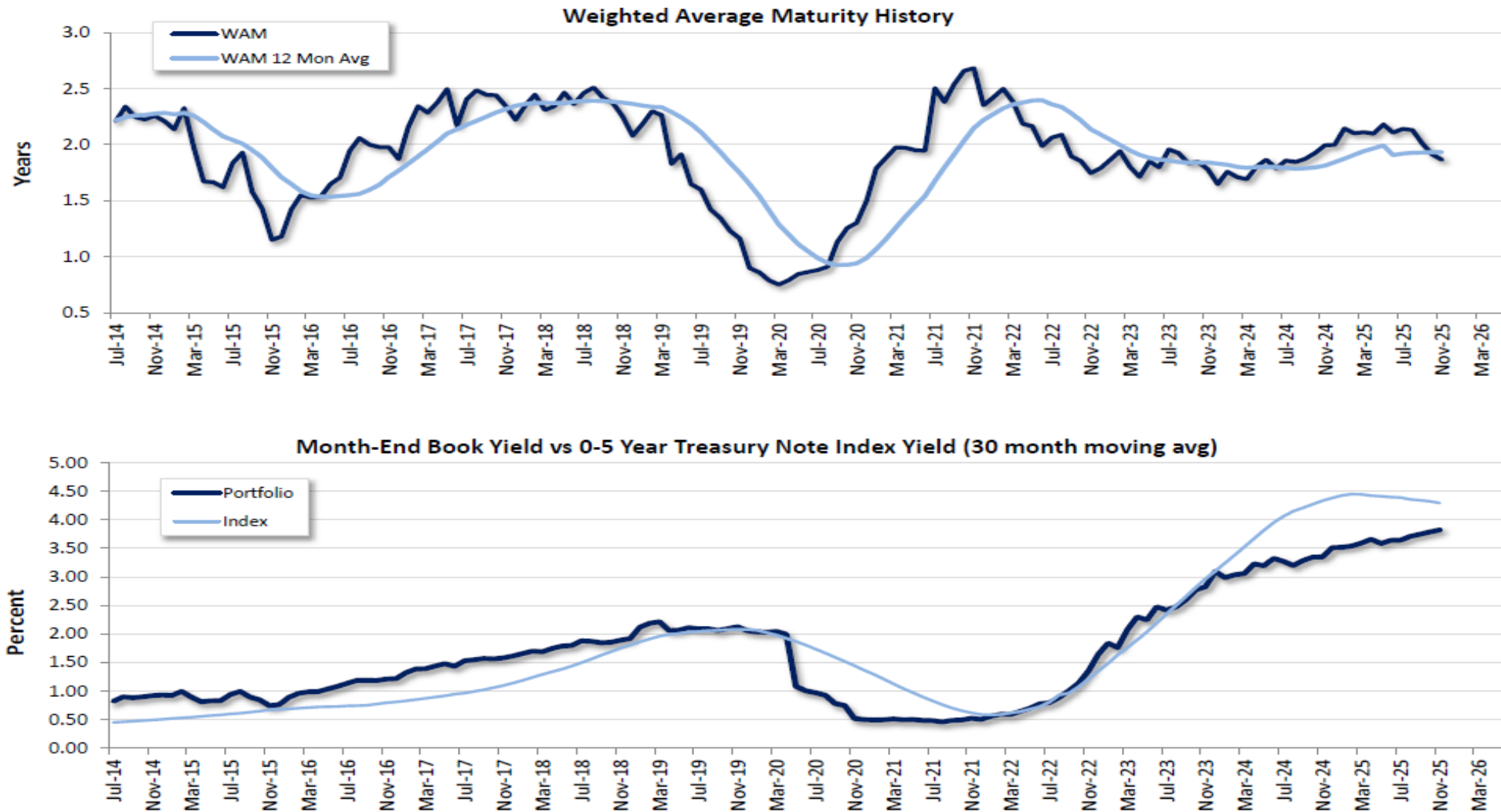


Callable Bonds are Like Baskin-Robbins, They Come in Many “Flavors”

95) Actions ▾	96) Alerts ▾	97) Summary	98) Set Homepage	99) Export ▾	 New Issue Monitor				
Selection	*U.S. Agencies (NIM 2) ▾			1) Show Filters	2) Clear Filters	Issues & News ▾			
<input checked="" type="radio"/> Real Time	<input type="radio"/> Issue History	Date Range	09/01/24 	-	10/01/24 	6) Prelim Issues PREL			
	Date ↓	Issuer/Headline	Coupon	Maturity	Spread	Curr	Outst	Book Mgr	Note
			All ▾	All ▾	All ▾	All ▾	All ▾		5-nc
103) 9:42	FED HOME LN BANK	5.000	10/01/29		USD	80	JOINT LEADS	5-NC1MO BERM	
106) 8:35	FED HOME LN BANK	3.850	10/01/29		USD	15	INSPRX,RWB	5-NC2 1X	

SOURCE: BLOOMBERG. THE PERFORMANCE DATA SHOWN REPRESENTS PAST PERFORMANCE, WHICH DOES NOT GUARANTEE FUTURE RESULTS.

How Callables May Impact Portfolio Yields



SOURCE: MEEDER. THE PERFORMANCE DATA SHOWN REPRESENTS PAST PERFORMANCE, WHICH DOES NOT GUARANTEE FUTURE RESULTS.

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Interest Rate Risk...A.K.A. Duration

Effective Duration (sometimes called option-adjusted duration or OAS) further refines the modified duration calculation and is particularly useful when a portfolio contains callable securities. Effective duration requires the use of a complex model for pricing bonds that adjusts the price of the bond to reflect changes in the value of the bond's "embedded options" (e.g., call options or a sinking fund schedule) based on the probability that the option will be exercised.

Effective duration incorporates a bond's yield, coupon, final maturity and call features into one number that indicates how price-sensitive a bond or portfolio is to changes in interest rates.

SOURCE: CDIAC, [HTTPS://WWW.TREASURER.CA.GOV/CDIAC/PUBLICATIONS/ISSUE-BRIEF/2020/20-10.PDF](https://www.treasurer.ca.gov/cdiac/publications/issue-brief/2020/20-10.pdf)



Are You Allowed to Sell at a Loss?

A. Yes

B. No



Swap Analysis (Bloomberg Function “SWB”)



**FHLB 1.11% 6/2/26 issued
in Jun 2021 (5Yr)**



**Sell at a 3.62% yield and
realize an ~\$242K loss**



**Buy CP at 3.75% maturing
6/2/26 at a 3.75% yield**



Income Gain: ~9.4K

SOURCE: BLOOMBERG, MEEDER

SWAP ANALYSIS	FHLB 1.11 6/2/26	
Sale (Swap) Date	1/12/26	
Maturity Date of Sold Security	6/2/26	
Days Difference	141	
Original Purchase Par	25,000,000	
Original Purchase Price	100.0000	
Original Purchase Principal		-25,000,000
Sale Yield	3.62%	
Sale Price	99.0320	
Sale Principal		24,758,000
Loss on Sale		-242,000
Original YTM of Sold Security	1.11%	
Interest/Yield Given Up on Sold Security to Maturity Date from Sale Date		-107,199
Net Cash Flow on Sold Security		-349,199
New Purchase Principal	24,758,000	
New Purchase Yield	3.75%	
Interest from Purchase Date to Maturity of New Bond		358,652
Gain/Loss on Swap		9,453

Prudent Diversification Among Asset Classes and Investment Types and Maturities

Other Allowable Asset Classes to Consider

Asset-Backed Securities



Federal Agency Asset-Backed Securities



SOURCE: SHUTTERSTOCK. FOR ILLUSTRATIVE PURPOSES ONLY.

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Hypothetical Portfolio Illustration



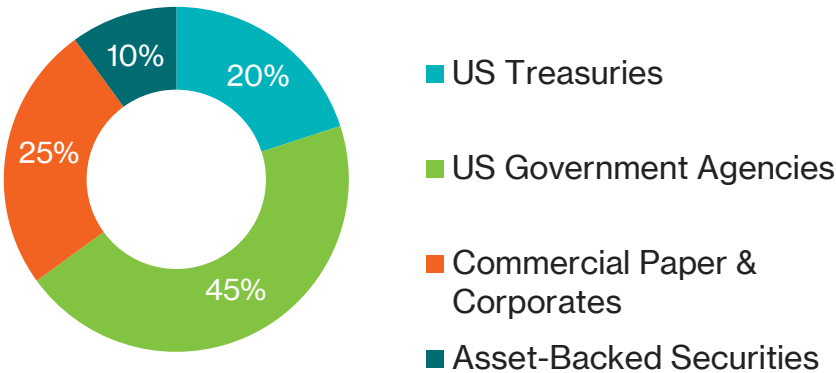
Sample Portfolio

Cash/Overnights	\$20,000,000
Securities	\$80,000,000
Total Portfolio	\$100,000,000

Sample Securities

Weighted Average Maturity	2.07 years
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Sample Asset Allocation



PORTFOLIO ILLUSTRATION IS HYPOTHETICAL IN NATURE, DOES NOT REFLECT ACTUAL INVESTMENT RESULTS, AND DOES NOT GUARANTEE FUTURE RETURNS. THE PORTFOLIO ILLUSTRATION PROJECTS THE WEIGHTED AVERAGE YIELD OF A HYPOTHETICAL PORTFOLIO INVESTED ON THE DATE SHOWN AND ALLOCATED ACROSS THE INDICATED ASSET CLASSES AND MATURITIES. THE ILLUSTRATION UTILIZES APPROPRIATE INDEXES AND BENCHMARKS TO PROJECT THE AVERAGE WEIGHTED YIELD OF THE ILLUSTRATED PORTFOLIO. CLIENTS INVESTED CONSISTENTLY WITH THE PORTFOLIO MAY HAVE EXPERIENCED INVESTMENT RESULTS MATERIALLY DIFFERENT FROM THOSE PORTRAYED IN THE ILLUSTRATION. ACTUAL YIELD FOR ANY PORTFOLIO INVESTED IN ACCORDANCE WITH THE ILLUSTRATION WILL VARY FROM THE HYPOTHETICAL DATA SHOWN HERE. NET INCOME REPRESENTS GROSS PROJECTED INCOME REDUCED BY THE PROPOSED INVESTMENT ADVISORY FEE OF 15 BASIS POINTS.

Risks

- **Benchmarking Performance**

Benchmark Your Investment Program and Portfolio in Multiple Ways



When performance is measured, performance improves. When performance is measured and reported, the **rate of improvement accelerates.**

– THOMAS S. MONSON

Your Investment Report Should Be on Your Website

SOURCE: [HTTPS://WWW.SHUTTERSTOCK.COM/IMAGE-GENERATED/SHERLOCK-HOLMES-VIDEO-GAME-2425775005](https://www.shutterstock.com/image-generated/sherlock-holmes-video-game-2425775005)

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Important Benchmark Characteristics

To be relevant, benchmarks should reflect the general characteristics of a portfolio's

- Duration/maturity
- Sector allocations
- Turnover

THREE TYPES OF BENCHMARKING

- Weighted yield
- Book rate of return
- Total rate of return



Book Return vs. Total Return:

Budget Stability...Good Luck Budgeting Total Return

CITY COUNCIL

Book Return =

- + Accrued/Received Interest
- +/- **Amortization of Premiums/Discounts**
- +/- **Realized** Gains/Losses

Average Daily Book Balance for the Period



Total Return =

- + Accrued/Received Interest
- +/- **Realized/Gains Losses**
- +/- **Unrealized** Gains/Losses

Average Daily Book Balance for the Period



Under Total Return

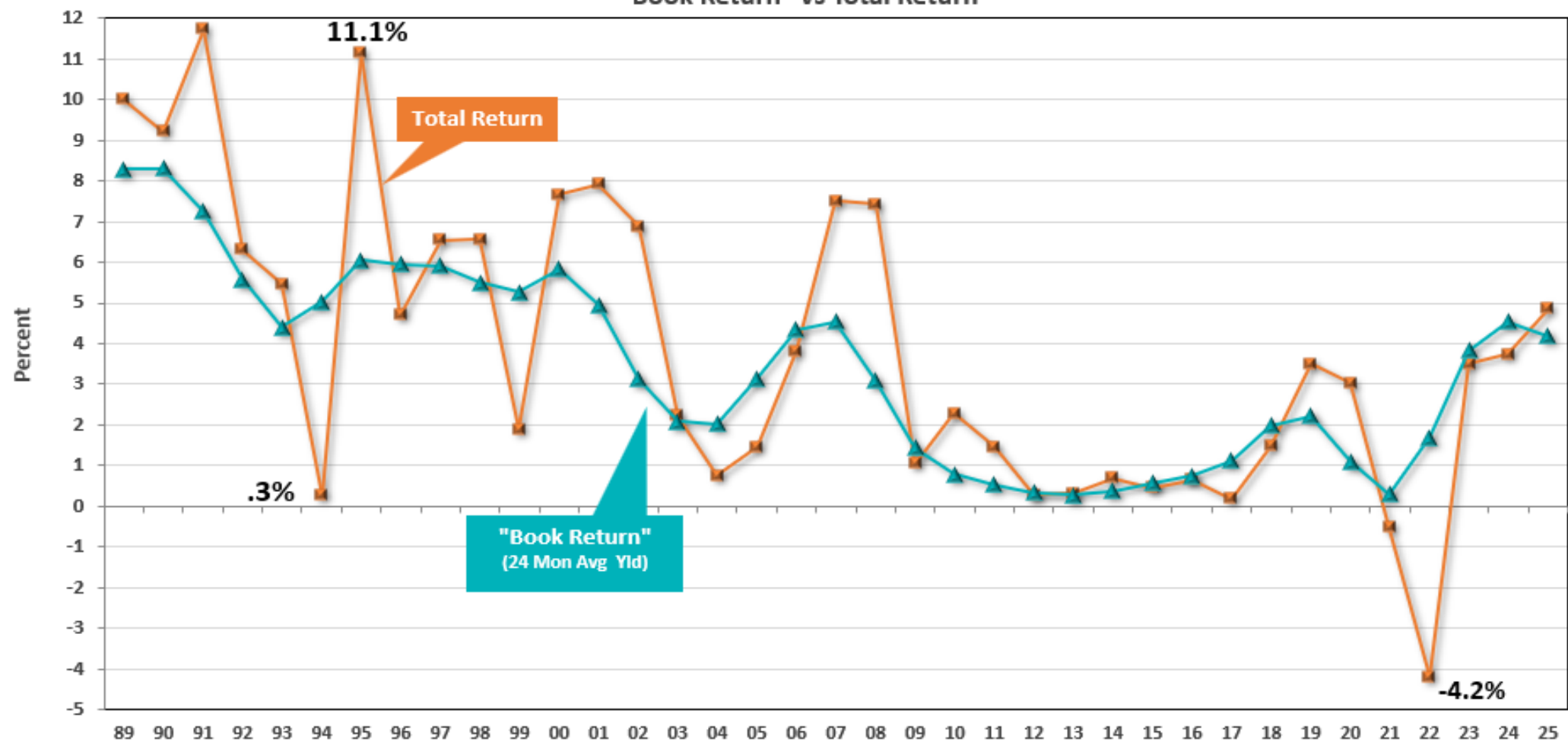
- Gains/losses are treated the same as income

GASB 31

- It's similar to running the market value changes of your home through your checking account

Book and Total Return Details

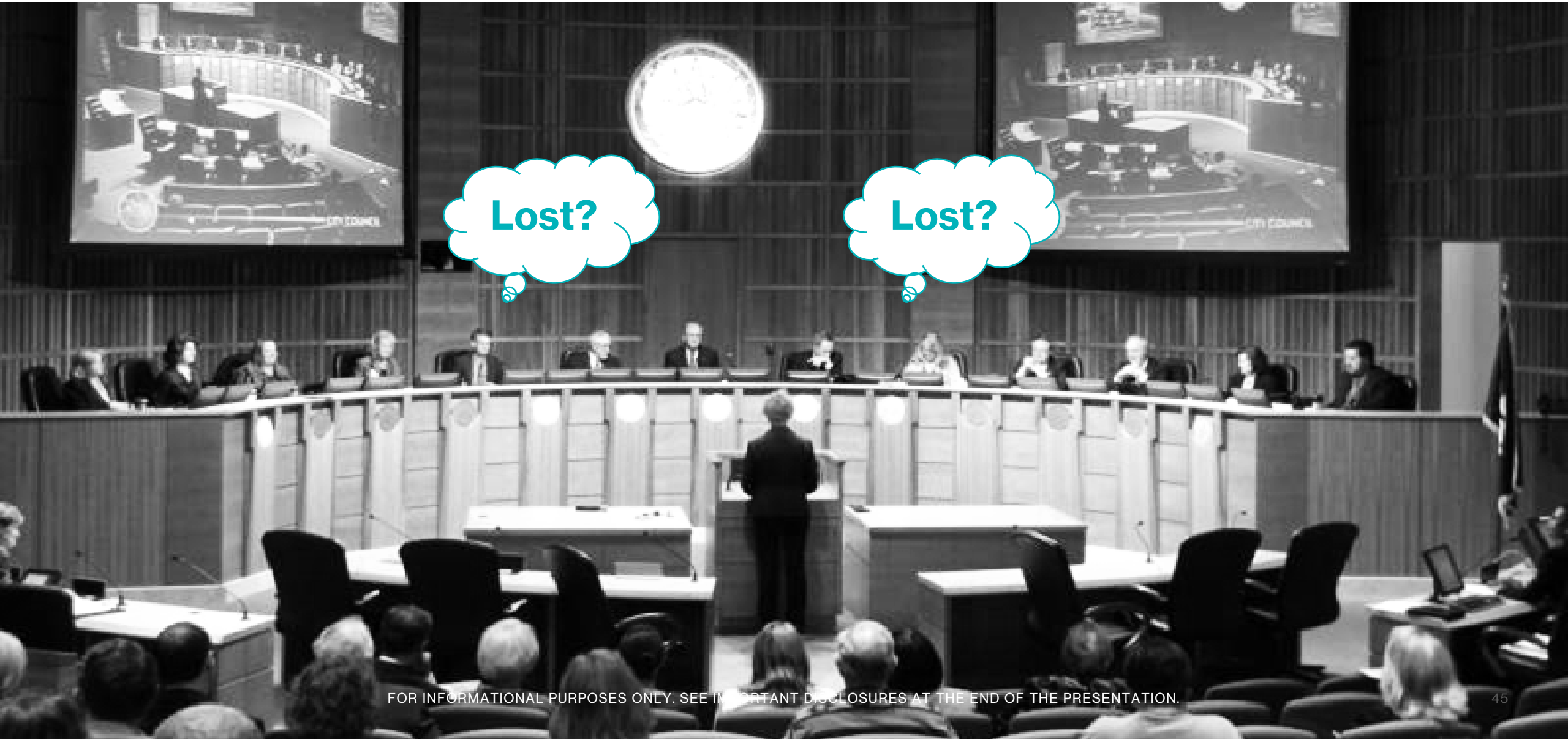
ICE BofA 2 Yr T-Note Index
"Book Return" vs Total Return



SOURCE: BLOOMBERG. THE PERFORMANCE DATA SHOWN REPRESENTS PAST PERFORMANCE, WHICH DOES NOT GUARANTEE FUTURE RESULTS.

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Communication is Key!



QUESTIONS?

RICK PHILLIPS

Chief Investment Strategist
Meeder Public Funds



Disclosures



The performance data shown represents past performance, which does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's investment, when redeemed, may be worth more or less than their original cost.

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