

Building Blocks of a Successful Investment Program

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Introductions

Kreg Wesley, Moderator

- *Executive Director of Finance & Operations, Yorkville CUSD 115*

Jeff Schroeder, Speaker

- *Managing Director, PFM Asset Management LLC*

Matt Hanigan, Speaker

- *Senior Managing Consultant, PFM Asset Management LLC*

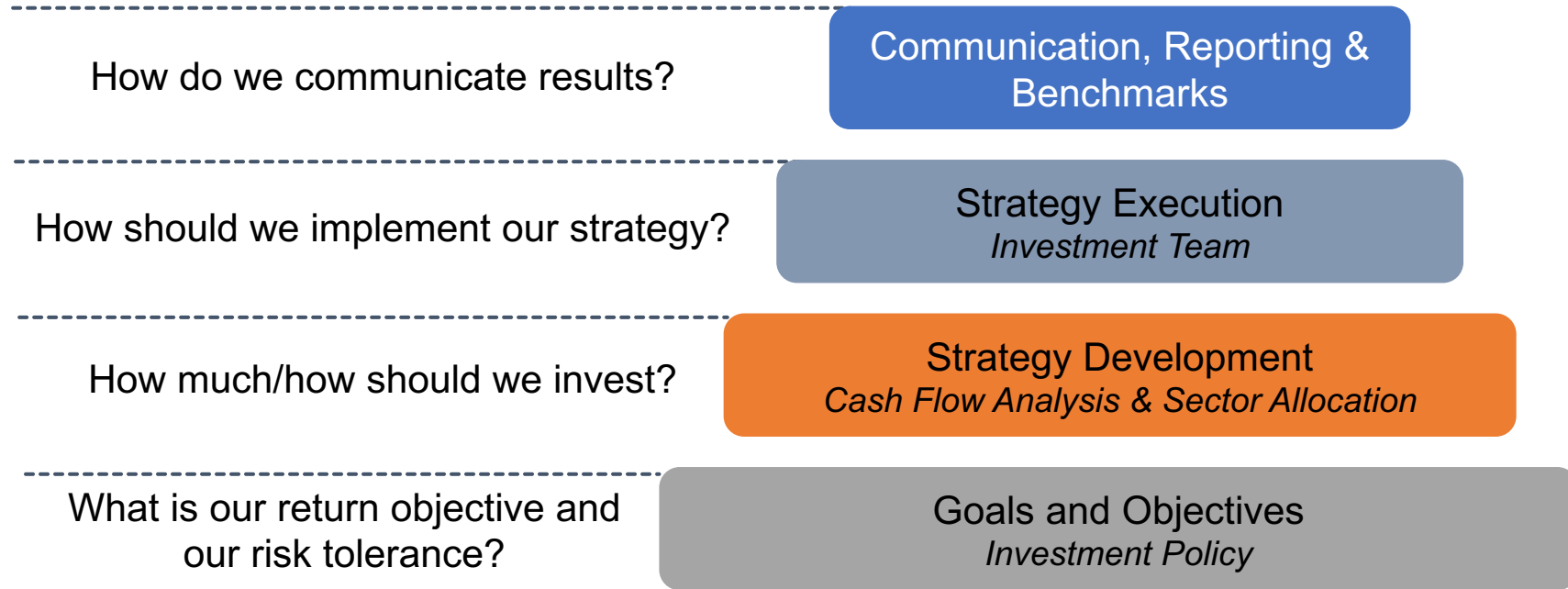


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Investment Policy



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Review Applicable Laws

- Operating and Reserve Funds
 - 1st priority = protect investment principal
 - Short to intermediate time horizon
 - Limited by the Illinois Public Funds Investment Act (30 ILCS 235)
- For Bond Proceeds
 - Check applicable bond documents for any additional restrictions
 - Match funding known cash flows
 - Arbitrage rebate & tax compliance



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Recent Changes to the Public Funds Investment Act

2018

Public Act 100-0752

- Allowed for investment in corporate obligations which mature not later than 3 year from the date of purchase

2021

Public Act 102-0285

- Allowed for additional capacity to invest in corporate securities

2019

Public Act 101-473

- Sustainable Investing – most relevant when investing in corporate obligations



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Source: Illinois Public Funds Investment Act. More detailed information can be found at: <https://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=496>

Permitted Investments

- Define in Investment Policy
- Complies with the Illinois Public Funds Investment Act (30 ILCS 235)
- Set diversification limits
 - Term
 - Sector
 - Credit Quality
- Corporate obligations are limited to 1/3rd of the total portfolio, per 30 ILCS 235

Sector	Allowed
LGIPs / Bank Accts / MMAs	Yes
FDIC CDs	Yes
U.S. Treasuries	Yes
U.S. Agencies	Yes
Instrumentalities (Supras)	Yes
Municipal Bonds (taxable)	Yes
Commercial Paper	Yes
Corporate Notes	Yes
Negotiable CDs	Yes
Mutual Funds (Stocks)	NO



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Investment Policy

**Develop, Review, Amend, Improve ...
Then Review, Amend, and Improve again 😊**

- Objectives
- Standard of Prudence
- Ethics & Conflicts
- Delegation of Authority
- Selection of Broker / Dealers
- Competitive Selection
- Safekeeping and Custody
- Internal Controls
- Performance and Reporting Standards
- Authorized Investments
 - Specifically define
- Belts and Suspenders
 - Diversification
 - Sector
 - Issuer
 - Maximum Maturity
 - Security Downgrades
 - What to do?

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Investment Policy Review Process and Scope

Initially

- ▶ Industry standards and best practices
- ▶ Code requirements
- ▶ Incorporate diversification and maturity standards
- ▶ Risk tolerance and preferences
- ▶ Reporting standards and requirements

Annually

- ▶ Review and address changes to Code
- ▶ Re-evaluate authorized list of investments
- ▶ Re-evaluate maturity limits and benchmark
- ▶ Discuss strategy implementation

Ongoing

- ▶ Monitor and enforce compliance
- ▶ Monitor changes to Code and best practices
- ▶ Provide accurate and timely information



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Cash Flow & Sector Allocation

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Cash Flow is Key

- Identifies “core” vs liquid funds
- Identifies trends in cash balances
- Forecasts potential deficits
 - Build in scenarios – based on confidence in revenue streams
- Helps to ensure adequate liquidity and strives to enhance cash management techniques
 - There are advantages to keeping money liquid
 - Money is available for unexpected expenses
 - Funds usually earn interest in fully-liquid accounts
 - There are also costs to keeping cash on hand
 - Opportunity cost (investment income left on table)
 - Assists with investment strategies & portfolio structure
 - Can increase investment income



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Cash Flow Analysis Leads to Prudent Investment Decisions

Liquidity

- ▶ Cash and equivalents, providing immediate availability
- ▶ Manage liquidity needs

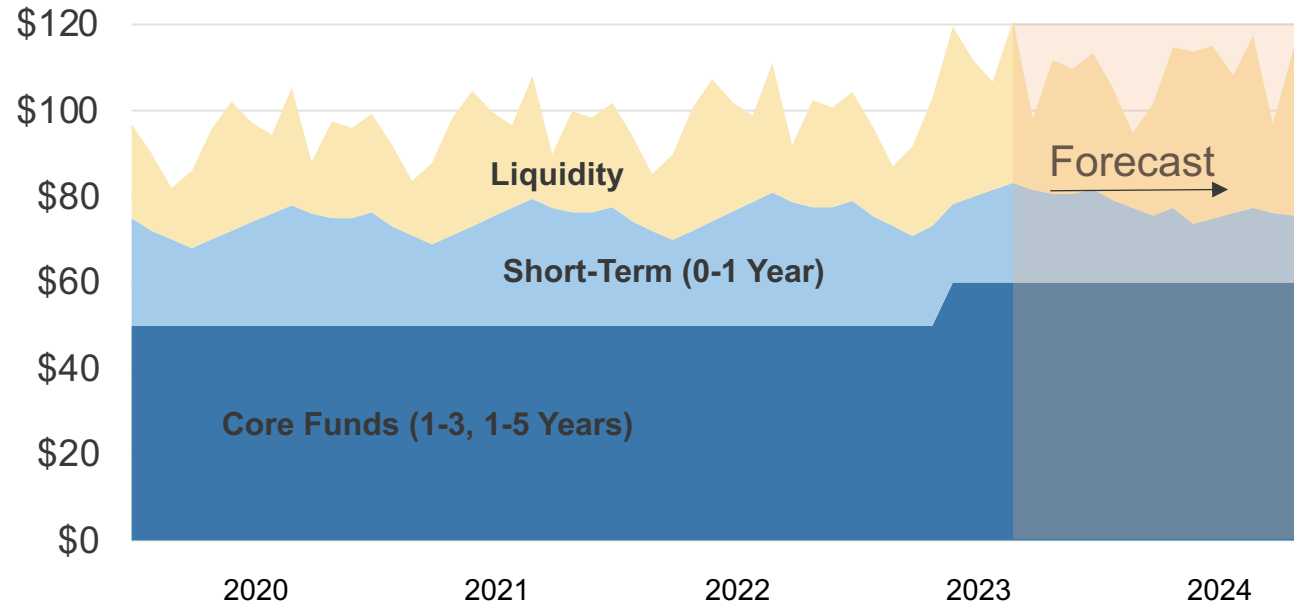
Short-Term

- ▶ Laddered investments to known and expected cash flows
- ▶ High-quality fixed income

Core

- ▶ Reserve funds not expected to be spent for the foreseeable future
- ▶ Intermediate- & longer-term investments

Sample Cash Flow Analysis



For illustrative purposes only.

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Optimizing Short Term Balances

Cash Management To Do	Samples
SAFETY	Understand bank financials
Deposit ASAP	Streamline collection process
Disbursement Trickle	Spread payables run (bi-monthly, etc.)
Control Costs	Regular review of account analysis statement
Automate	Utilize bank services for efficiency
Earn ECR / Interest	Use LGIP / TERM
	Develop trust with advisor



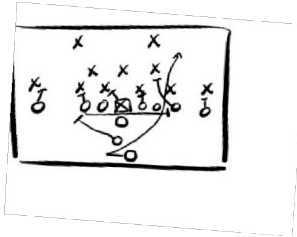
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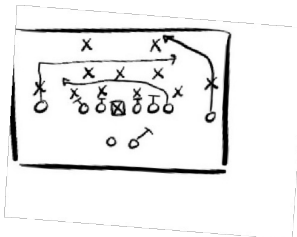
What Can You Do?

1 | *Analyze your banking relationships regularly; monthly is best*



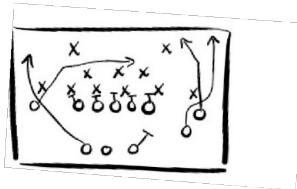
- Make sure to look at the rates offered and monthly charges
- Determine the “Net” Earnings Credit Rate your bank is paying
- Ensure that you are not earning more credits than you can use

2 | *Maintain frequent communication with your banker(s)*



- Monitor changes in rates and discuss your objectives regularly

3 | *Understand your options for short-term balances*



- Be nimble and prepared to capture increased earnings through alternative options like Money Market Funds, LGIPs, and Managed Portfolios

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Longer Duration Portfolios Have Historically Higher Returns

30 Years Ended December 31, 2022			
Bank of America Merrill Lynch Treasury Index	Duration (years)	Annualized Total Return	Cumulative Value of \$50 Million
3 Month Treasury	0.23	2.38%	\$101,374,995
1-3 Year Treasury	1.81	3.12%	\$125,632,094
1-5 Year Treasury	2.55	3.46%	\$138,843,596
1-10 Year Treasury	3.71	3.85%	\$155,396,795

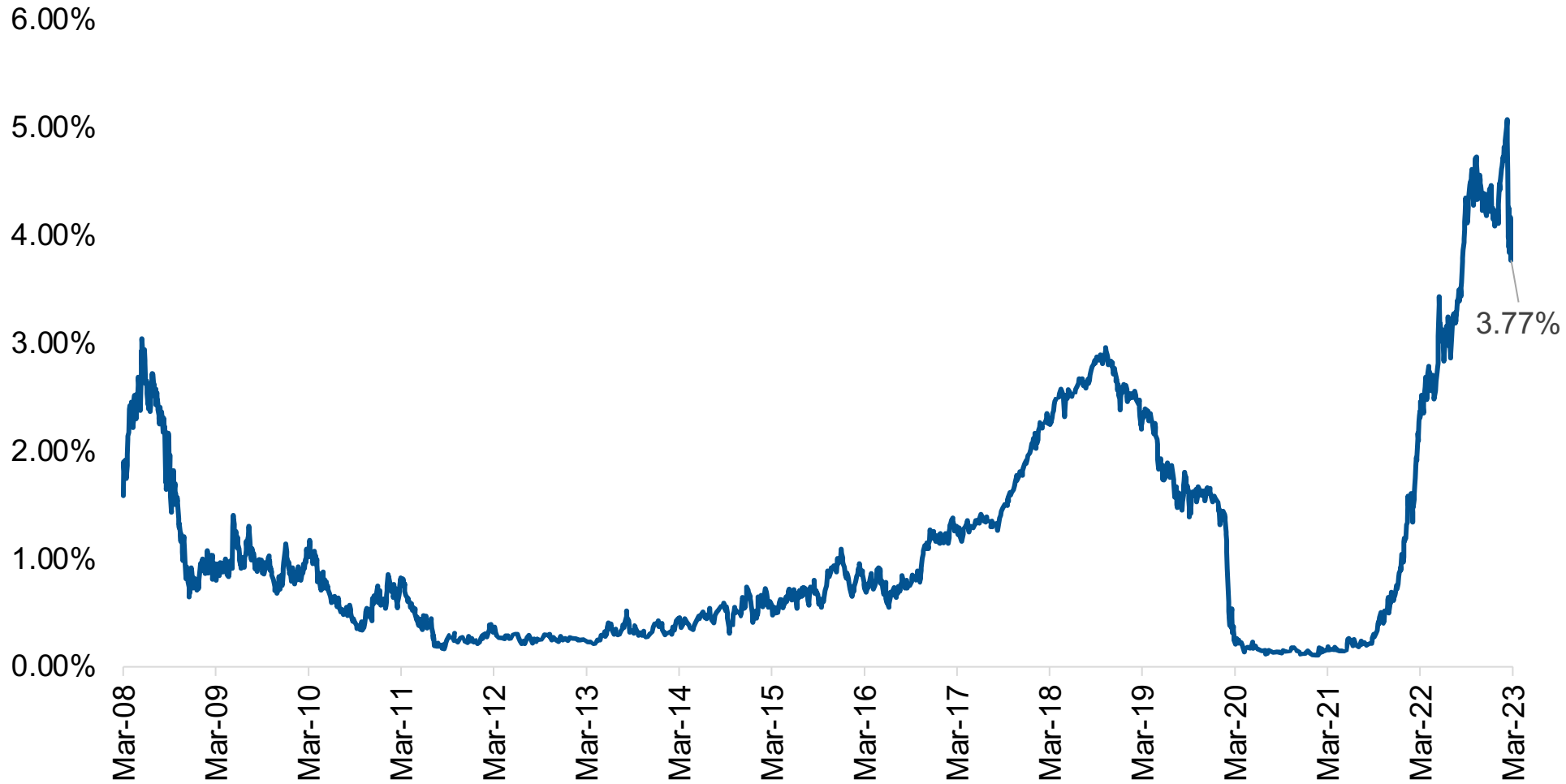


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Source: Bloomberg, ICE BofAML Indices.

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2-Year Treasury Yield Over Last 15 Years



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Source: Bloomberg, as of 3/31/2023.

Credit Spreads Have Widened Dramatically, Amid Recent Banking Sector Turmoil

Corporate Yield Spreads
1 - 3 Year A-AAA (OAS)



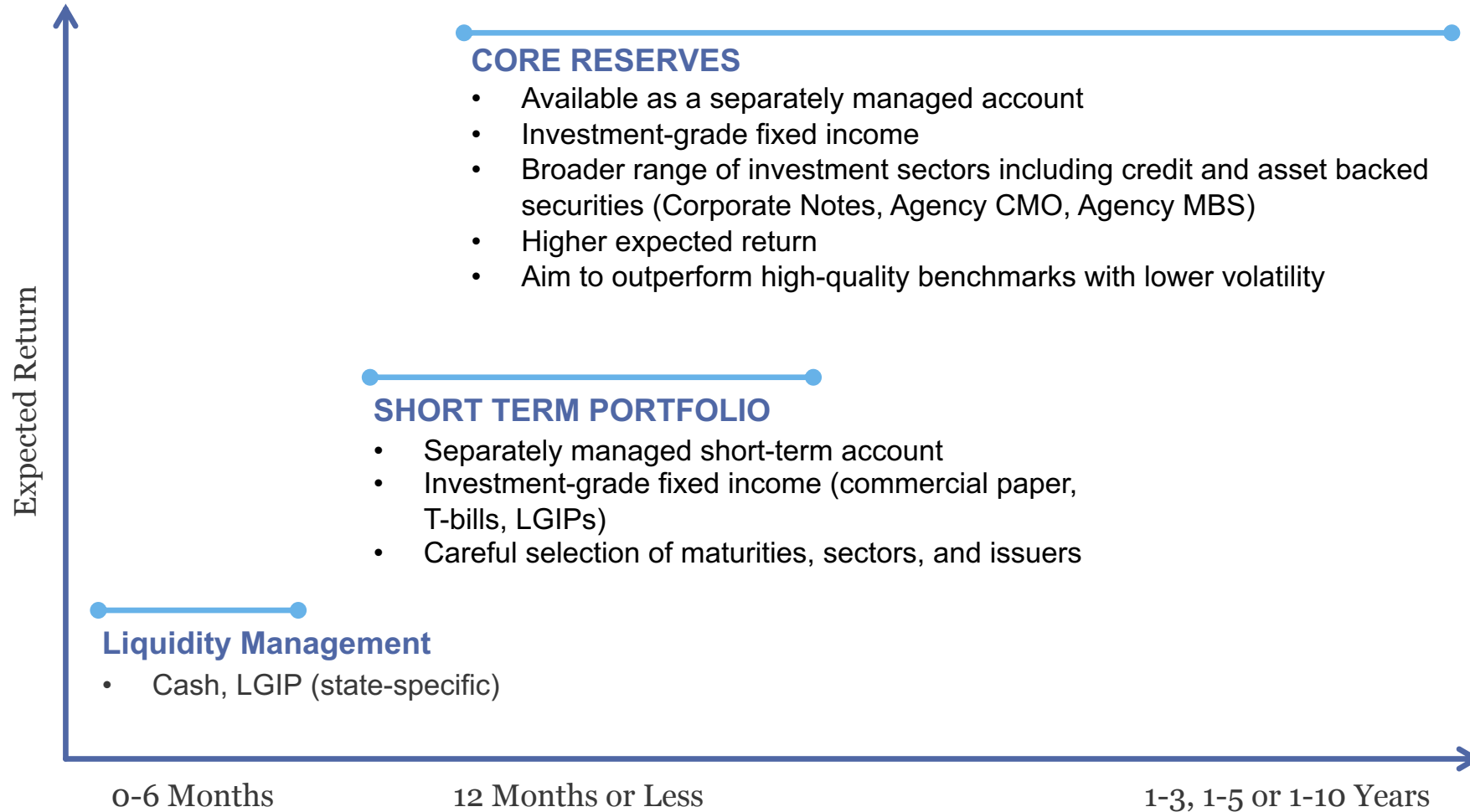
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Source: Bloomberg, ICE BofAML Indices. OAS is option adjusted spreads. As of 3/31/2023.

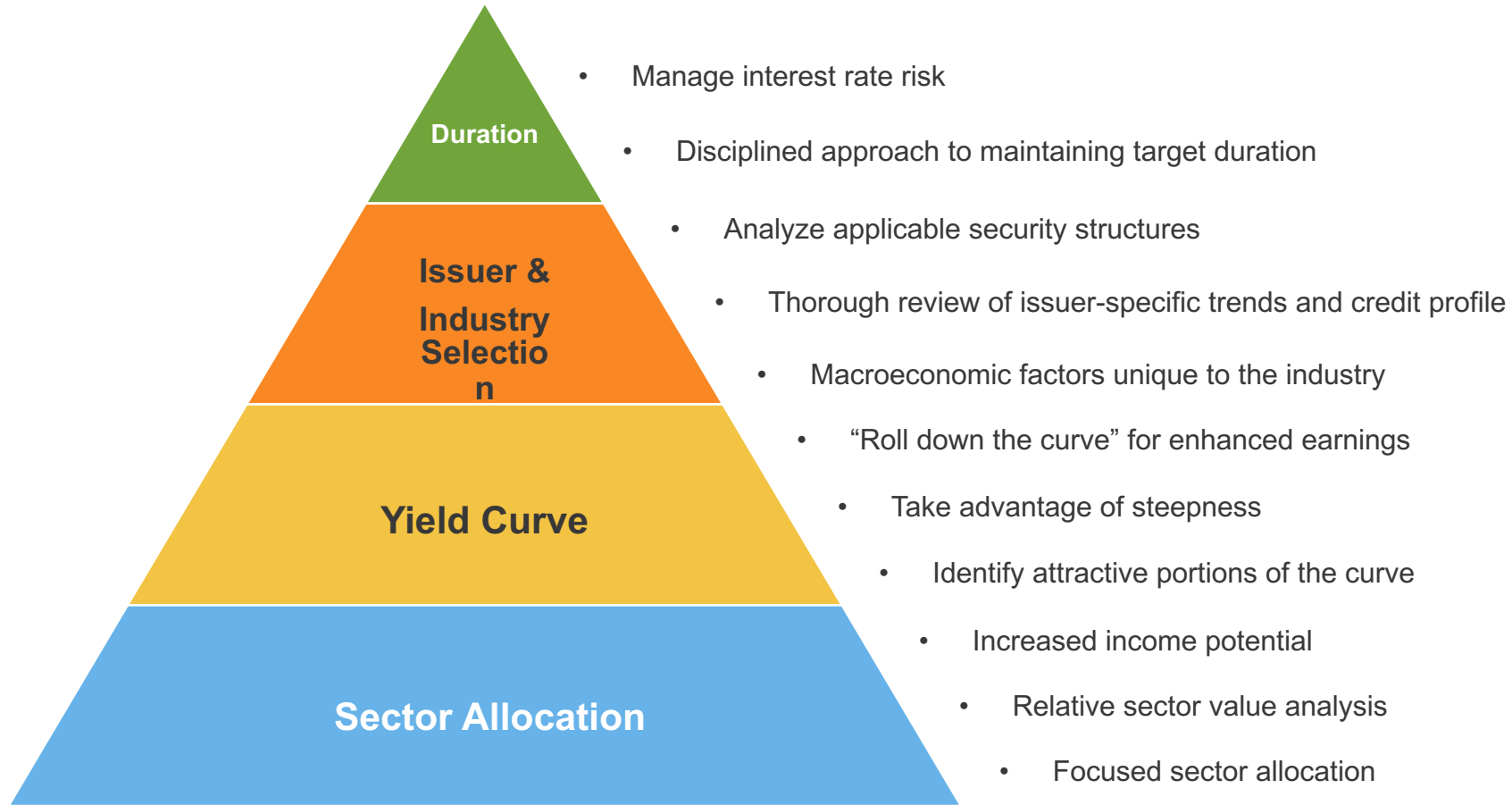
Fixed Income Strategies



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Building Blocks of Portfolio Management



INTEREST RATES ARE THE HEADLINE, BUT THEY ARE NOT THE FOUNDATION



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Diversifying Sectors – Why is this Worth My Time?

Index / Ending Duration	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Annualized Average
1-3 Year Treasury Duration: 1.81	5.61%	4.02%	1.41%	3.22%	1.35%	2.47%	2.15%	2.33%	5.60%	4.08%	2.02%	-2.27%	1.86%
1-3 Year Agency Duration: 1.87	3.15%	3.72%	1.05%	1.10%	1.16%	1.81%	1.67%	1.82%	4.99%	3.98%	-0.24%	-3.40%	1.38%
1-3 Year AAA Supranational Duration: 1.94	1.60%	2.83%	0.91%	1.08%	1.12%	1.54%	1.47%	1.78%	4.66%	3.59%	-0.28%	-3.50%	1.19%
1-3 Year Corporate AAA-AA Duration: 1.89	1.55%	1.80%	0.46%	0.93%	1.05%	0.96%	0.92%	1.70%	4.65%	3.17%	-0.37%	-3.53%	0.80%
1-3 Year Corporate AAA-A Duration: 1.82	1.55%	1.61%	0.42%	0.86%	0.69%	0.89%	0.83%	1.69%	3.73%	3.15%	-0.43%	-3.65%	0.72%
1-3 Year Government Duration: 1.81	1.53%	0.85%	0.36%	0.70%	0.56%	0.89%	0.65%	1.64%	3.55%	3.10%	-0.46%	-3.65%	0.70%
0-3 Year Treasury Duration: 1.35	1.47%	0.51%	0.36%	0.63%	0.55%	0.89%	0.55%	1.60%	3.55%	3.09%	-0.55%	-3.74%	0.69%
0-3 Year MBS Duration: 1.98	1.38%	0.43%	0.30%	0.62%	0.54%	0.78%	0.44%	1.58%	3.48%	2.67%	-0.55%	-3.75%	0.67%
1-3 Year US Taxable Municipal Securities Index Duration: 1.92	1.17%	0.35%	-0.07%	0.46%	0.43%	0.19%	0.42%	1.36%	3.25%	2.49%	-1.88%	-5.08%	0.67%

Source: Bloomberg. Annual returns of 1-3 Year ICE BofAML Indices unless specified otherwise.



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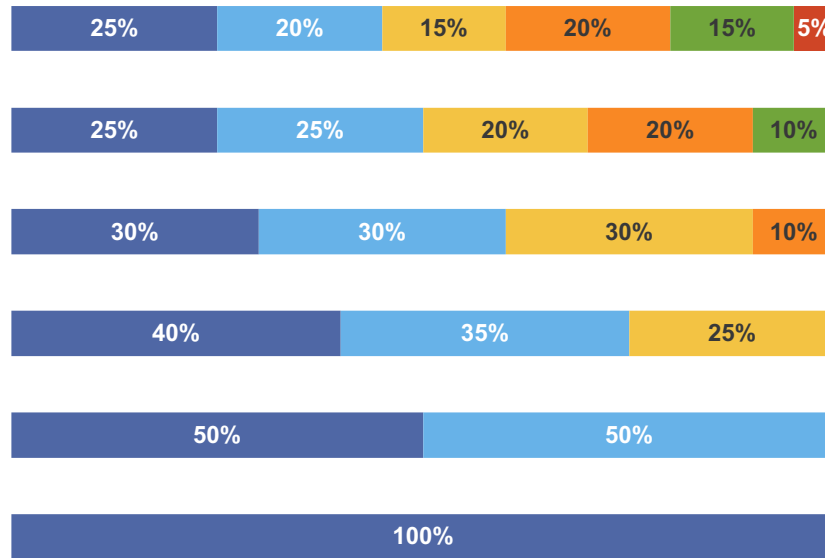
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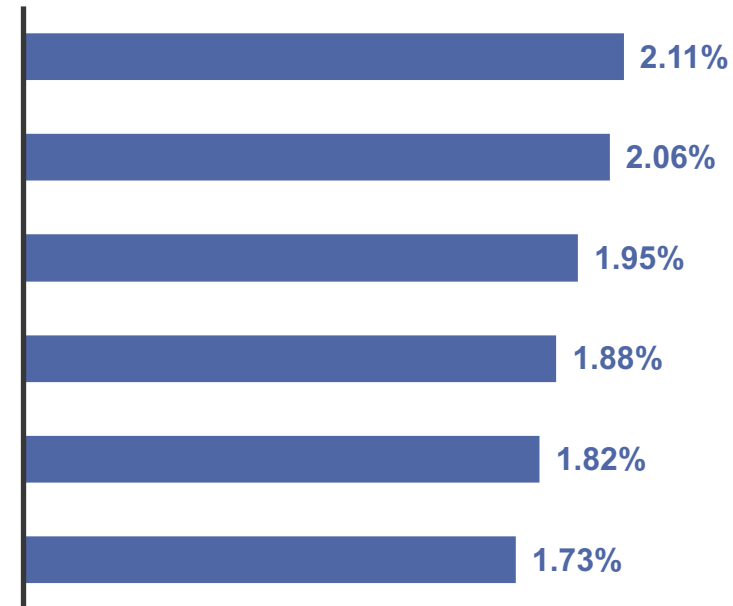
Potential Benefits of Diversification

Example 1-3 Year Portfolio Sector Allocation



- 1-3 Year Treasury
- 1-3 Year Agency
- 1-3 Year AAA Supranational
- 1-3 Year Corporate AA
- 1-3 Year Corporate A
- 0-3 Year MBS

20-Year Total Return Period Ending December 31, 2022



Example portfolio returns are based on the ICE BofAML 1-3 Year indices for all sectors except for Mortgage-Backed Securities which uses a 0-3 Year index and is annualized for trailing periods longer than one year. Source: Bloomberg



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Strategy Execution



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Management Options for Local Governments

Internal Management

- ▶ Staff purchasing individual securities through broker/dealer
- ▶ Certificates of deposit (CDs)
- ▶ Local Government Investment Pool

External Management

- ▶ Hire an independent investment advisor

Combination of Internal/External

- ▶ Hire an independent investment advisor to manage a portion of funds. (i.e. operating reserves)
- ▶ Staff purchasing individual securities through broker/dealer

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Potential Benefits of Utilizing an Investment Advisor

- ▶ Complement to Internal Resources.
- ▶ Independent Audit of Investment Program.
- ▶ Enhanced Internal Controls and Potential Audit Savings.
- ▶ Transaction Cost Savings.
- ▶ Can Enhance Portfolio Returns.
- ▶ Diversification.
- ▶ Continuity.
- ▶ Personnel Time.
- ▶ Access to Technology and Outside Data Sources.

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Source: GFOA's "An Introduction to Investment Advisers For State and Local Governments"
<https://www.gfoa.org/materials/an-introduction-to-broker-dealers-for-state-and-local>

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External Options: Questions For Service Providers

- Does the provider have a fiduciary responsibility or a suitability responsibility to my District?
- How are fees charged?
 - Transaction based?
 - Asset based?
 - Fixed?
- How are fees disclosed?
- Do you competitively bid securities, or do you sell from your own inventory of securities?
- Can you provide historical performance information?
- How would the District maintain control of the investment program while working with your company?



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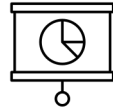
Communicating Results



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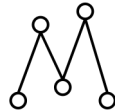
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Monitoring Your Investment Program



Quarterly Performance Report & Review

State code requires quarterly reports of investment activities



Performance Relative to the Market

Selecting a benchmark allows portfolio performance to be compared to a proxy of the market



Investment Policy Compliance

State code requires funds to only be invested in allowable investments within specific limits such as maturity length, credit ratings, and percent allocation



Credit Ratings

Credit ratings are published by National Recognized Statistical Rating Organizations (NRSROs) and are used to assess the creditworthiness of financial securities

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Important Features of Portfolio Benchmarks

Specified in advance

The benchmark is specified prior to the evaluation period

Appropriate

It is consistent with the manager's investment style or area of expertise

Measurable

The return is readily calculable on a reasonably frequent basis

Unambiguous

Identities and weights of securities are clearly defined

Reflective of current investment options

The manager has current knowledge of the securities in the benchmark

Accountable

The manager should be aware and accept accountability for the constituents and performance of the benchmark

Investable

It is possible to simply hold the benchmark



TYPICAL BENCHMARKS INCLUDE :

- ICE BofA ML 1 Year Treasury Note Index
- ICE BofA ML 1-3 Year Treasury and Agency Index
- ICE BofA ML 1-3 Year Corporate and Government Index
- ICE BofA ML 1-10 Year Treasury Index

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Total Return & Yield

Total Return

- ▶ Returns are **retrospective**
- ▶ Shows **actual** performance for a specific **prior** period
 - ▶ Total Return indicates performance if the portfolio were sold
 - Standard measure of return for individual portfolios
 - Components of Total Return:
 - ▶ Interest Earned
 - ▶ Realized Gains/Losses
 - ▶ Unrealized Gains/Losses

Yields

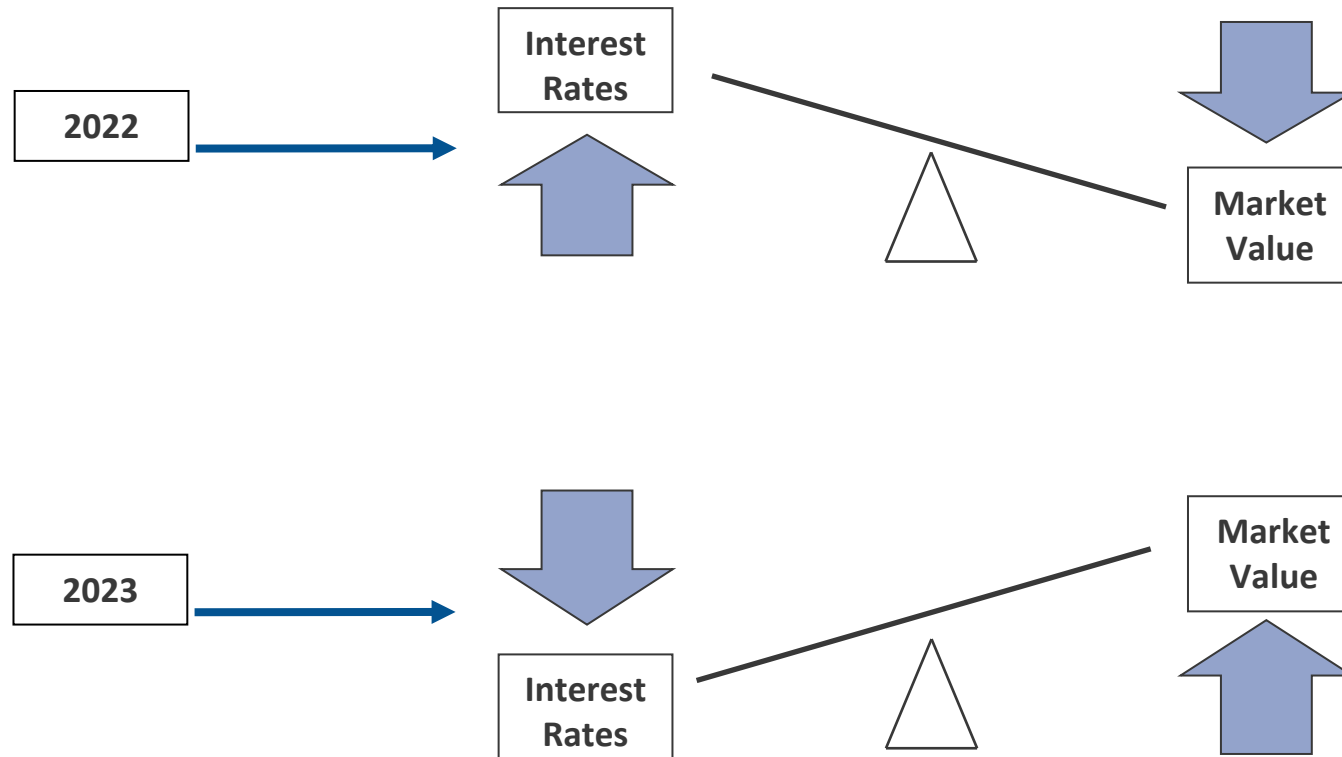
- ▶ Yields are **prospective**
- ▶ Shows **anticipated** performance for **future** periods
 - ▶ Uses information available when the yield was calculated
 - ▶ Typically measured as:
 - Yield to Maturity at Cost
 - Yield to Maturity at Market



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Interest Rates and Market Values are Inversely Related

- As interest rates rise or fall market values fluctuate; longer maturity = greater price volatility
- Market value fluctuations will impact total return, which includes unrealized price depreciation



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Rising Rates: A Double-Edged Sword

- Market value of portfolio falls:
 - Reporting unrealized losses
 - Potentially taking realized losses
 - Negative periods of total return
- Higher investment and reinvestment yields:
 - Increased investment income
 - Potential steepening of the yield curve



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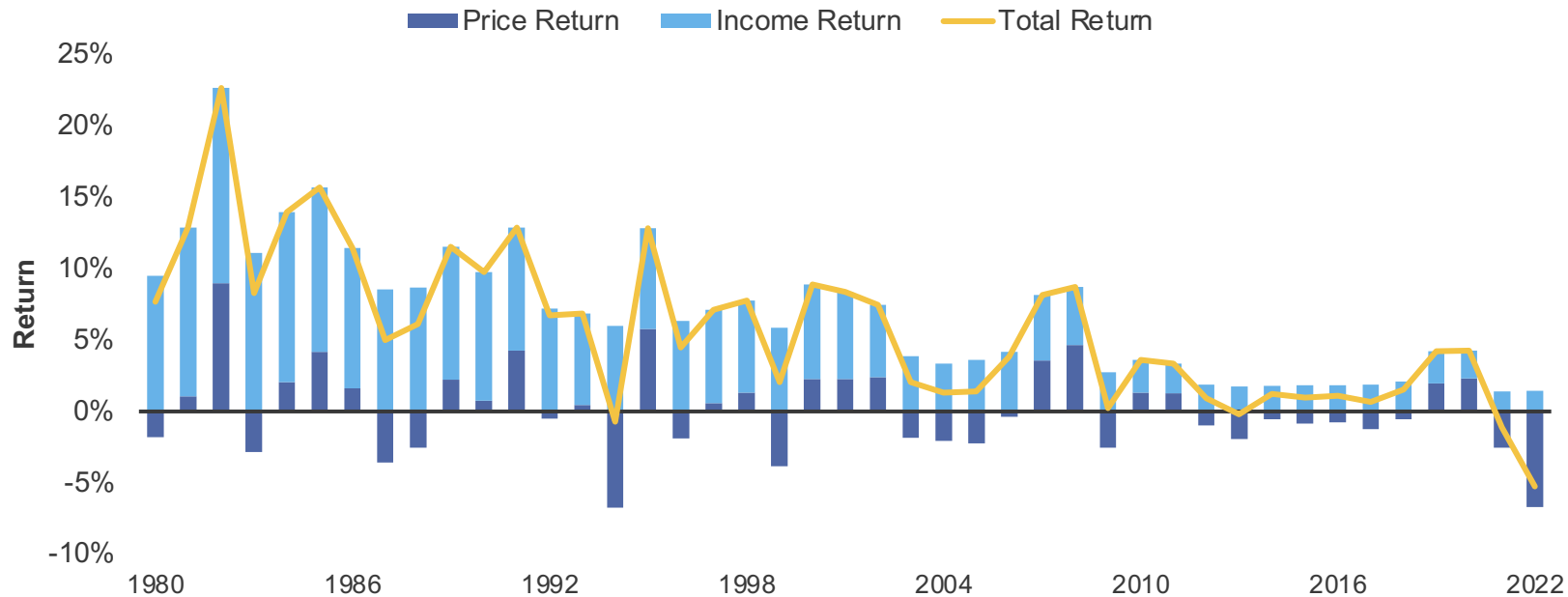
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Income is the Primary Driver of Total Return

- **Price return:** rate of return of an investment, where the return measure considers only the capital appreciation
(*ending market value minus(-) beginning market value, plus(+)/minus(-) net principal proceeds received/paid*)
- **Income return:** rate of return of an investment, where only income generated in the form of interest and dividends is considered
(*ending accrued income minus(-) beginning accrued income, plus(+)/minus(-) net interest received/paid*)

Annual Price & Income Returns (As of December 31, 2022)



Source: Bloomberg, ICE BofAML 1-5 Year U.S. Treasury Index.

Price and income return definitions derived from the definitions provided: https://en.wikipedia.org/wiki/Price_return.

Formulas provided in parentheses for price and income return represent the numerator for each respective return calculation.

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Calculate Performance in Accordance with GIPS®

- The Global Investment Performance Standards (GIPS®) have been established by the CFA Institute, the investment management industry's professional organization.
- Developed to help ensure consistent and fair reporting of performance metrics.
- www.gipsstandards.org



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Summary Takeaway

- Investment Policy sets the foundation
 - States investment objectives and establishes the framework for the investment program
 - Defines allowable investment types and any additional parameters
- Cash Flow is Key
 - Balances available for longer term investing vs. short term funds
 - Can help optimize investment portfolio and forecast potential cash surpluses and deficits
- There are opportunities for your investment program:
 - Active maturity management
 - Diversification - evaluation of sectors
 - Portfolio Segmentation - understanding opportunity costs of excess liquidity
- Communicating Results
 - Have a long-term perspective but communicate results to the Board quarterly.
 - Total Return is retrospective, yields are prospective



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Questions and Answers

We thank you for your time!



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