OACTFO

GPA GOVERNMENT PORTFOLIO ADVISORS

Educational Seminar
September 16, 2024

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Senior Advisor

FINRA Licenses: 63 & 65
Chartered Financial Analyst

Serving Public Funds since 1982

Ms. Woodring is a co-founder and partner of Government Portfolio Advisors and serves as President and Senior Advisor. She is responsible for advising clients on all aspects of the portfolio management process, overseeing the company, client relations, and the strategic direction for investment holdings. Ms. Woodring works with clients to develop best practice procedures, increase accountability, and create transparent strategies. She has worked with Oregon clients her entire career. She is a Board Member on the Oregon Short-Term Fund Board - appointed by the Oregon state Treasurer.

Before co-founding GPA, she was a Managing Director for Davidson Fixed Income Management ("DFIM") from 2002 until 2014 and served as Institutional Sales at Piper Jaffray from 1986 to 2002. Ms. Woodring is a pioneer in implementing benchmark strategies into public entity investment programs, to incorporate into investment strategies, risk analysis, and performance tracking.

Credentials: Ms. Woodring graduated from the University of Oregon with a Bachelor of Science degree in Finance. She earned a Master of Business degree from the University of Washington. She holds the designation of Chartered Financial Analyst (CFA-1989) through the CFA Institute and is a member of the Portland Society of Security Analysts. She holds FINRA advisory licenses series 63 and 65 with GPA. She has additional FINRA broker/dealer licenses that are currently inactive: 3, 7 and 24.

Presentation Overview

ECONOMIC BACKDROP

Macro Economic Conditions
Top-Down Approach
Bottom-Up Approach

INVESTMENT PROCEDURES

Define Why
Define How

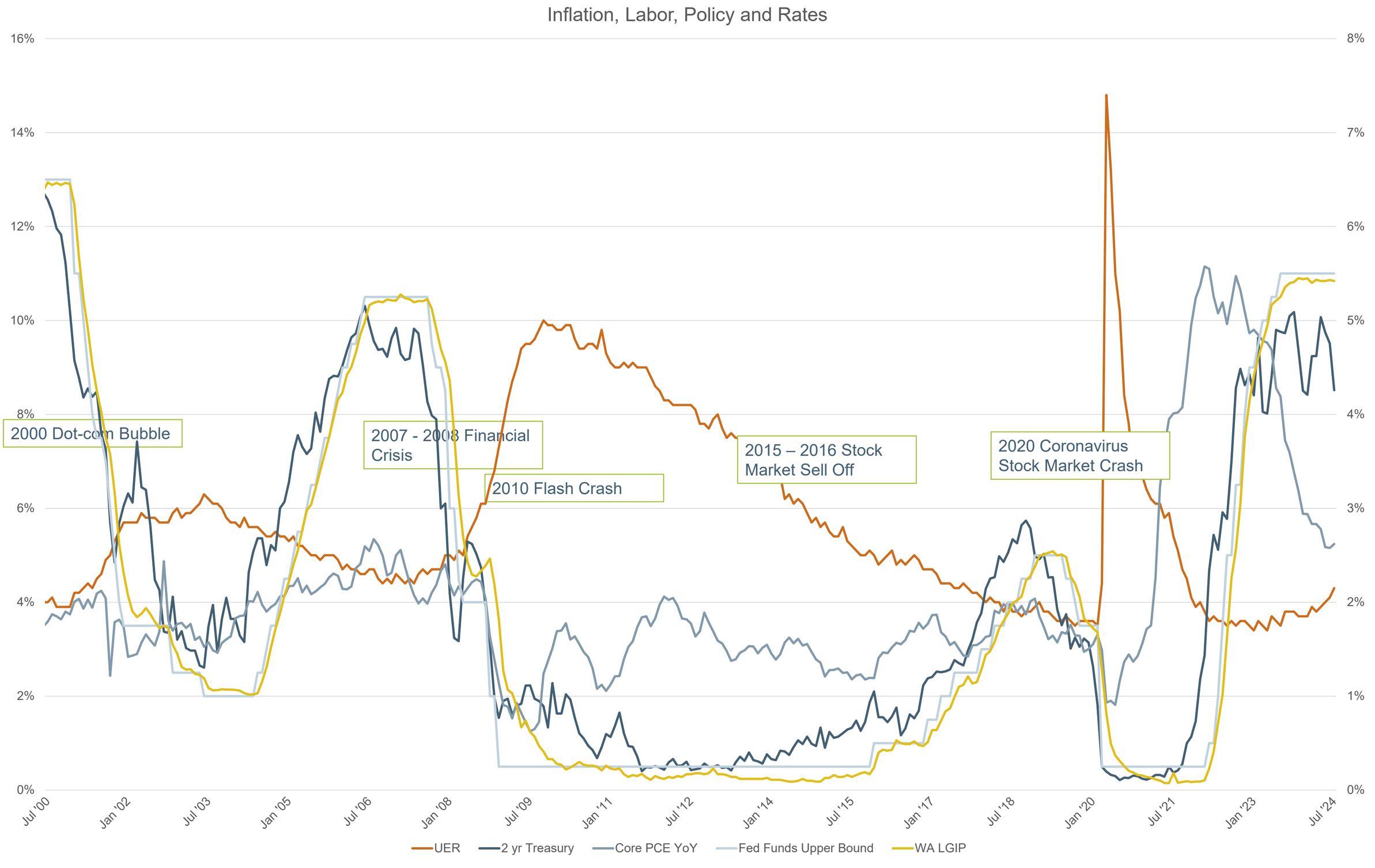
CASHFLOW

Liquidity
Safety
Return
Risk

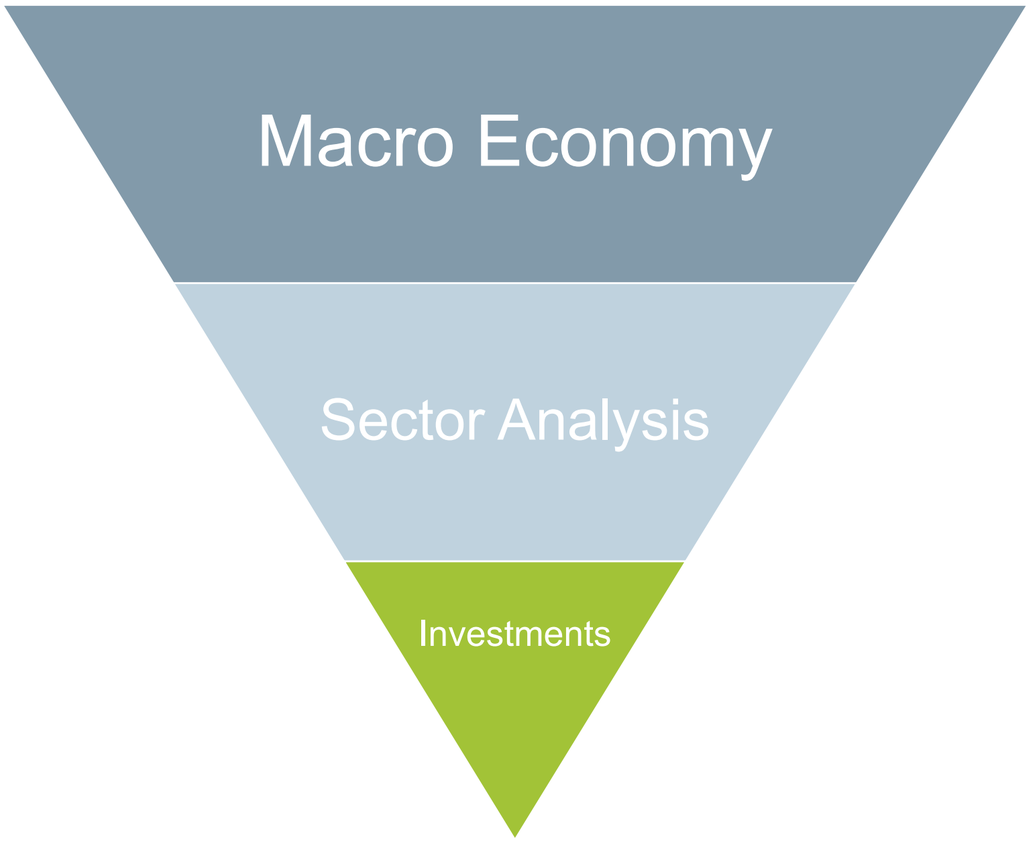
Communicating Results

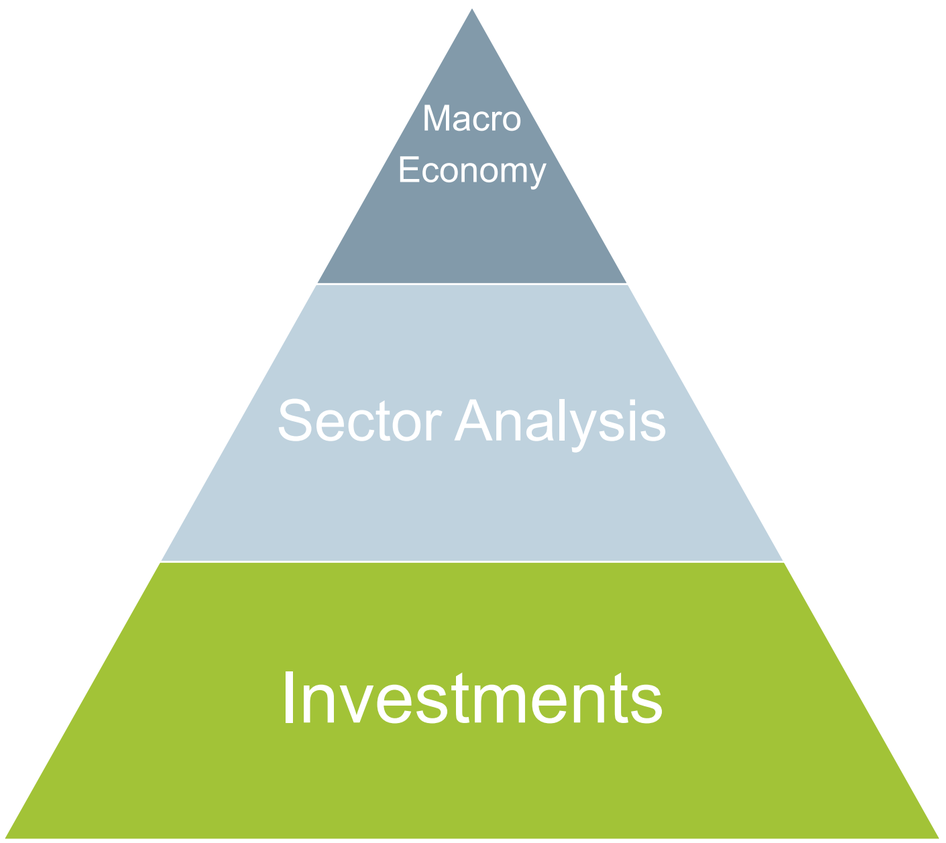
Benchmarks
Returns
Components

Economic Impact of Interest Rates on Investments



Investment Approach – Big Picture versus Little Picture





Top – Down Investment Approach

Macro Economic Conditions
Broad Aspects of the market
Economy Related Business Cycles
Bubble or Crash Macro Factors

Bottom – Up Investment Approach

Establish the purpose of the Investments
Longer-Time Horizon
Analyzing specific Investment Fundamentals
Disciplined Investment Style- Hold the Course

"GPA BIG PICTURE APPROACH"[5]

Public Fund Bottom – Up Approach to Investing

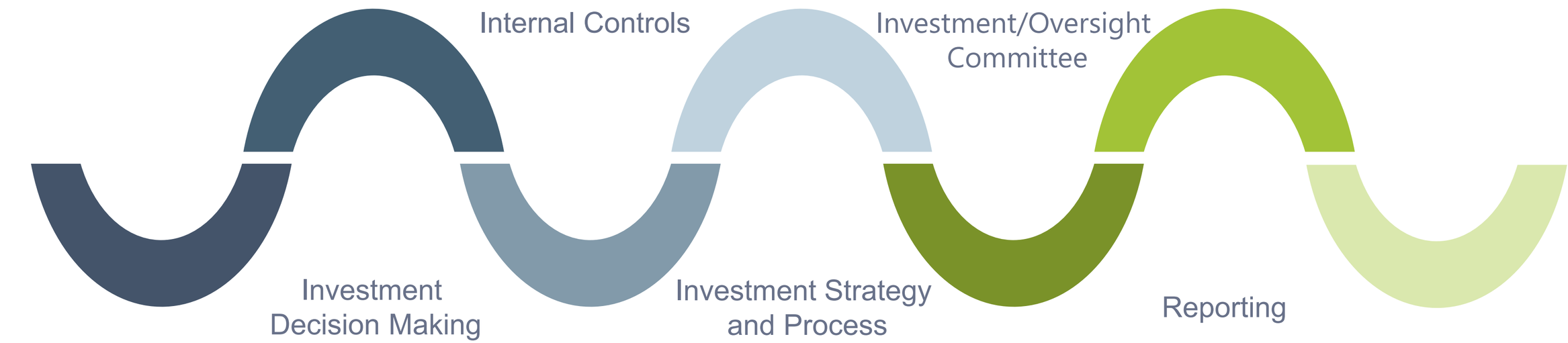
Investments Steps

Policy Review
Assessment of Risk/Return
Create an Investment Plan
Develop Process/Procedures
Compliance/Reporting
Ongoing Implementation/Oversight

Investment Procedures

Define Why

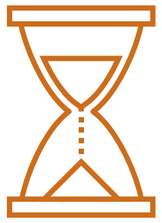
Define How


Internal Controls
Investment/Oversight Committee
Investment Decision Making
Investment Strategy and Process
Reporting

Investment Decision

Who

Who makes the decisions?



What

What do you need to know?

From who?

Why

To create a disciplined investment strategy

Monitor performance and Compliance

Review Holdings

Review Transactions

Review Strategy

Investment Oversight/Committee Review

How often do you meet?

- ✓ Monthly
- ✓ Quarterly
- ✓ Annually

Calendar specific tasks?

- ✓ Policy and Procedures Review
- ✓ Strategy Review/Cash Flow
- ✓ Deployment of New Cash from tax receipts

What is the role?

- ✓ Internal Staff
- ✓ Advisory
- ✓ Broker/Dealer
- ✓ Custodian

Investment Portfolio Strategy

Liquidity Portfolio:

Identify the amount of liquidity that should be maintained in banks or state pools

Establish a minimum and maximum balance

Cash Matched™:

Match maturities to known outflows

Create a maximum amount annually

Determine if maintained all year or spent down

Core Investment Portfolio:

Identify the amount of investable funds

Identify the weighted average maturity of those funds based on fund purposes

Monitor the investment portfolio monthly

Investment Portfolio Strategy

Benchmarks:

Establish a market (total return) benchmark

Determine appropriate yield benchmark

Risk:

Interest rate risk – How much will the market value change given interest rate changes

Credit Risk – What is the default risk in the portfolio

Reinvestment rate risk – Is there too much liquidity or too much callable exposure that leaves the portfolio exposed to rate changes
Political or social impact risk – hot topic!

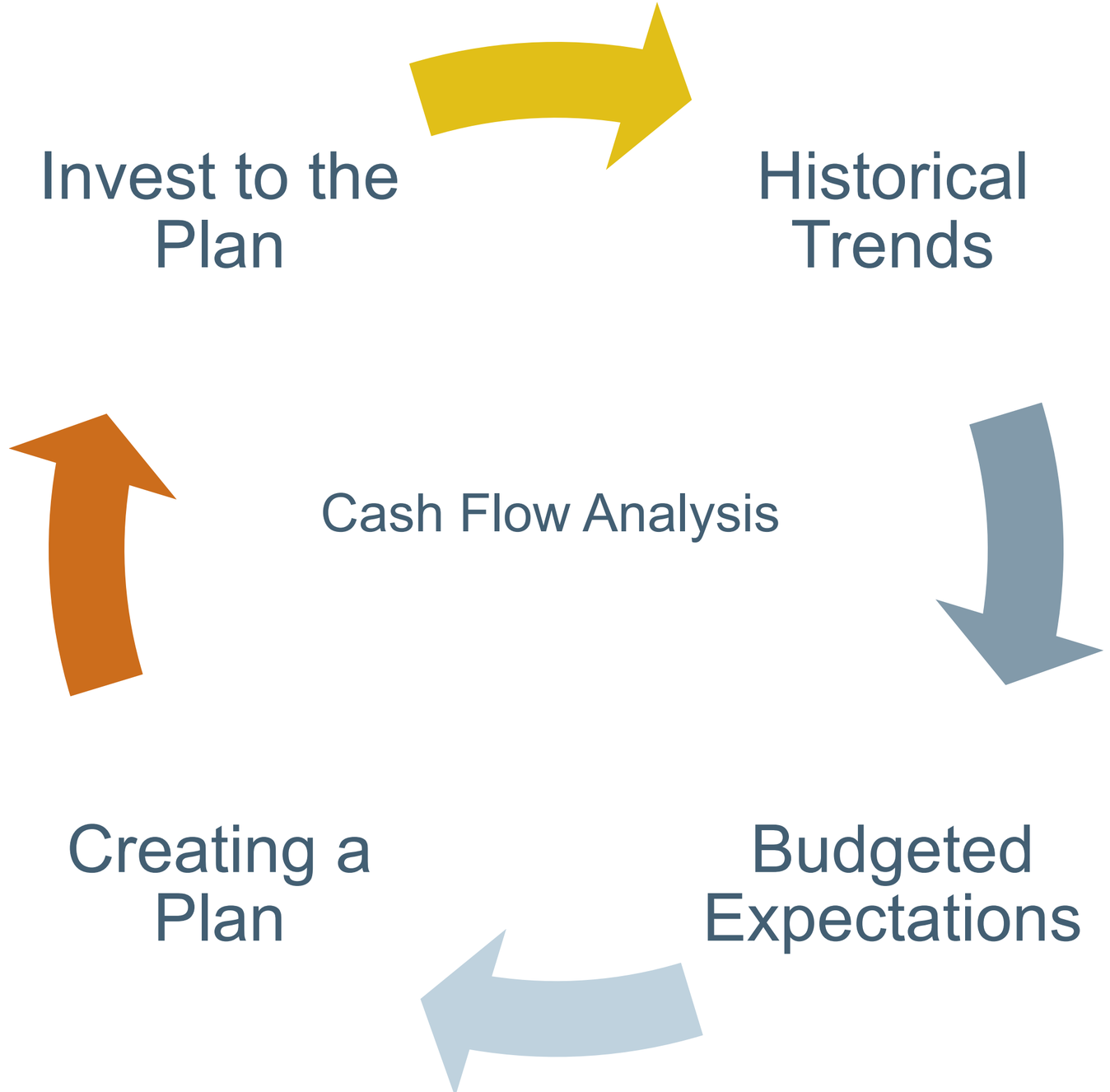
Cash Flow

Optimization vs Risk

Methodology

Resources

Understanding Cash Flows in One Step



Cash is the Cornerstone to Policy Objectives

Liquidity

- Maintain Minimum Balance
- Manage Liquidity Range Expectations
- Accept Market Rates
- **Cash Flow Analysis**

Safety

- Provide Liquidity
- Maturity Diversification and Constraints
- Asset Class Diversification
- Credit Analysis

Return

- Maturity Structure
- Asset Classes
- Yield Curve Positioning
- Investment Analysis

Risk

- Interest Rate
- Credit Risk
- Reinvestment Rate Risk
- Risk Tolerance Ratings

Outreach to Stakeholders

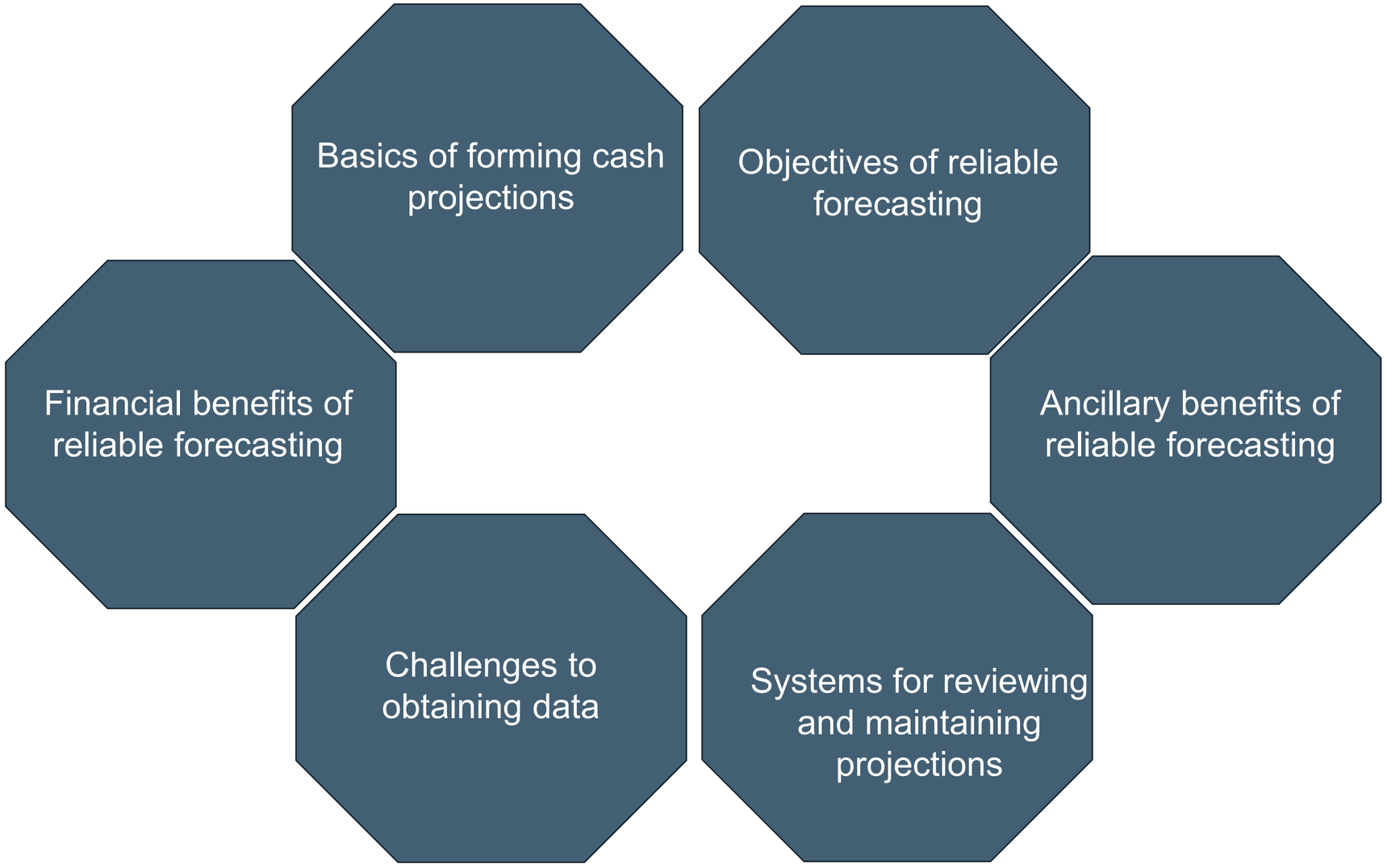
Request information

Formation of monthly cash requirement

Educate stakeholders

Create monthly combine cash analysis

What is Cash Flow Analysis and Why Care?



Potential Negative Impact of Not Doing

Consequences of Uncertainty

- Lost Opportunity Costs
- Increases Miscommunication
- Wastes Time
- Increases Risk
- Liquidity Crisis

Potential Positive Impact of Doing

Benefits of Certainty

- Supports confident decision making
- Builds trusts among stakeholders
- Increases net revenue
- Improves internal relationships

Stakeholders are interested parties belonging to a system or organization where all participants are seen as having an interest in achieving success.

Accountability, Confidence and Transparency (ACT Investing™)

Set Your Strategy

Engage Stakeholders

Analyze Historical Data

Identify Liquidity, Cash Matched or Core

Address Liquidity | Choose a Benchmark

What amount of cash do you need to have on hand or keep under six months in maturity?

Pull up historical cash balances for the last 3 years.

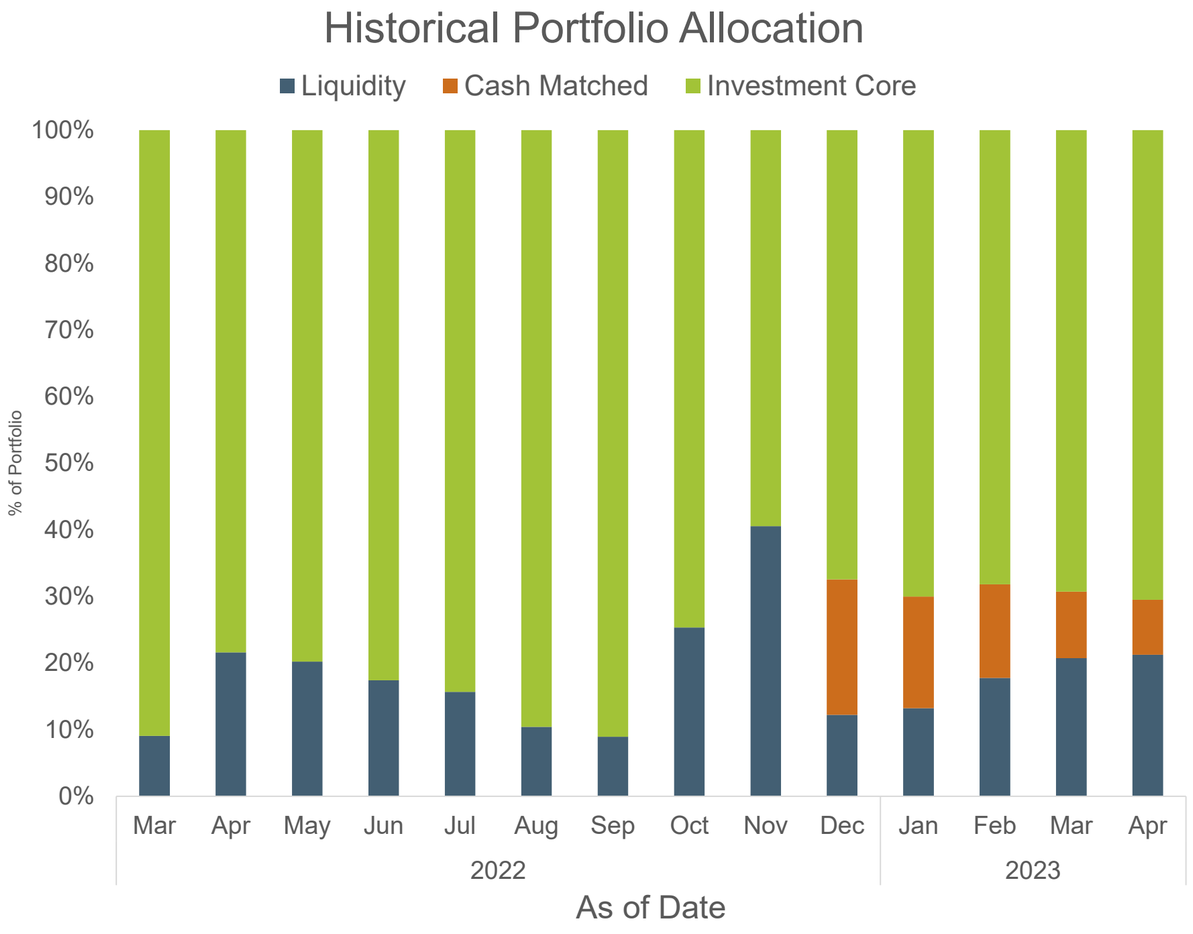
Liquidity fund must stay in short instruments such as the State pool, CDs and Money Market Instruments, typically under six months.

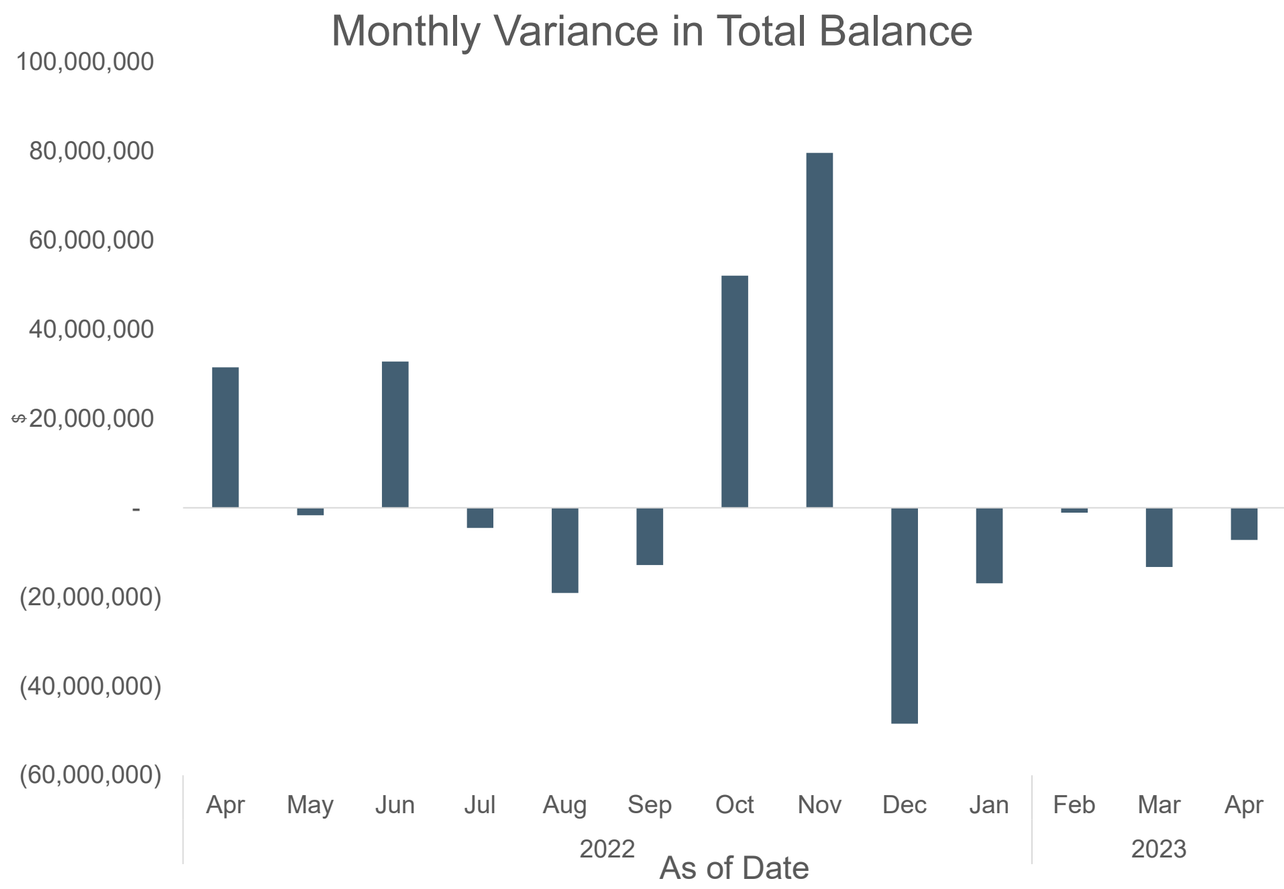
Sample – Historical Cash Flow – Cash Matched Strategy

2023 Forecasted Expenses

Dates	Payroll	Payroll Tax	PERS-Pymts	PERS Side Account	Debt Svcs	Payroll Liabilities	Comments
10/11/2022	4,100,000	313,650	1,150,000	0	0	2,175,000	
10/25/2022	4,100,000	313,650	1,150,000	0	0	73,000	
11/8/2022	4,100,000	313,650	1,150,000	0	0	2,175,000	
11/22/2022	4,191,000	320,612	1,173,480	0	0	73,000	Implement new MCLEA CBA COLA
12/6/2022	4,241,000	324,437	1,187,480	0	0	2,175,000	
12/20/2022	4,741,000	362,687	1,327,480	0	0	73,000	Retro MCLEA included
1/3/2023	4,241,000	324,437	1,187,480	0	0	2,408,500	ER H.S.A 2023 Deposit & ER PLO start
1/17/2023	4,241,000	324,437	1,187,480	0	0	93,088	Beginning of ER RMT
1/31/2023	4,241,000	324,437	1,187,480	0	0	90,000	
2/14/2023	4,241,000	324,437	1,187,480	0	0	2,225,913	
2/28/2023	4,241,000	324,437	1,187,480	0	0	93,088	
3/14/2023	4,241,000	324,437	1,187,480	0	0	2,225,913	
3/28/2023	4,241,000	324,437	1,187,480	0	0	93,088	
4/11/2023	4,241,000	324,437	1,187,480	0	0	2,225,913	
4/25/2023	4,241,000	324,437	1,187,480	0	0	93,088	
5/9/2023	4,241,000	324,437	1,187,480	0	0	2,225,913	
5/23/2023	4,241,000	324,437	1,187,480	0	0	93,088	
6/6/2023	4,241,000	324,437	1,187,480	0	0	2,225,913	
6/20/2023	4,241,000	324,437	1,187,480	0	0	93,088	
7/3/2023	4,241,000	324,437	1,187,480	0	0	2,225,913	
7/18/2023	4,702,675	360,500	1,378,000	0	0	71,088	1 Wk@ 5% COLA + First 1/2 of retention bonuses + Increase ER RMT
8/1/2023	4,453,050	341,150	1,304,745	0	0	2,255,000	Full cycle with 5% COLA and New PERS Rates
8/15/2023	4,453,050	341,150	1,304,745	0	0	71,088	
8/29/2023	4,453,050	341,150	1,304,745	0	0	68,000	
9/12/2023	4,453,050	341,150	1,304,745	0	0	2,255,000	
9/26/2023	4,453,050	341,150	1,304,745	0	0	71,088	
10/10/2023	4,453,050	341,150	1,304,745	0	0	2,255,000	
10/24/2023	4,453,050	341,150	1,304,745	0	0	71,088	
11/7/2023	4,453,050	341,150	1,304,745	0	0	2,255,000	
11/21/2023	4,453,050	341,150	1,304,745	0	0	71,088	
12/5/2023	4,453,050	341,150	1,304,745	0	0	2,255,000	
12/19/2023	4,453,050	341,150	1,304,745	0	0	71,088	
	138,533,225	10,603,954	39,493,355	0	0	34,926,034	
Total Liquidity Requirements			**223,556,568**				

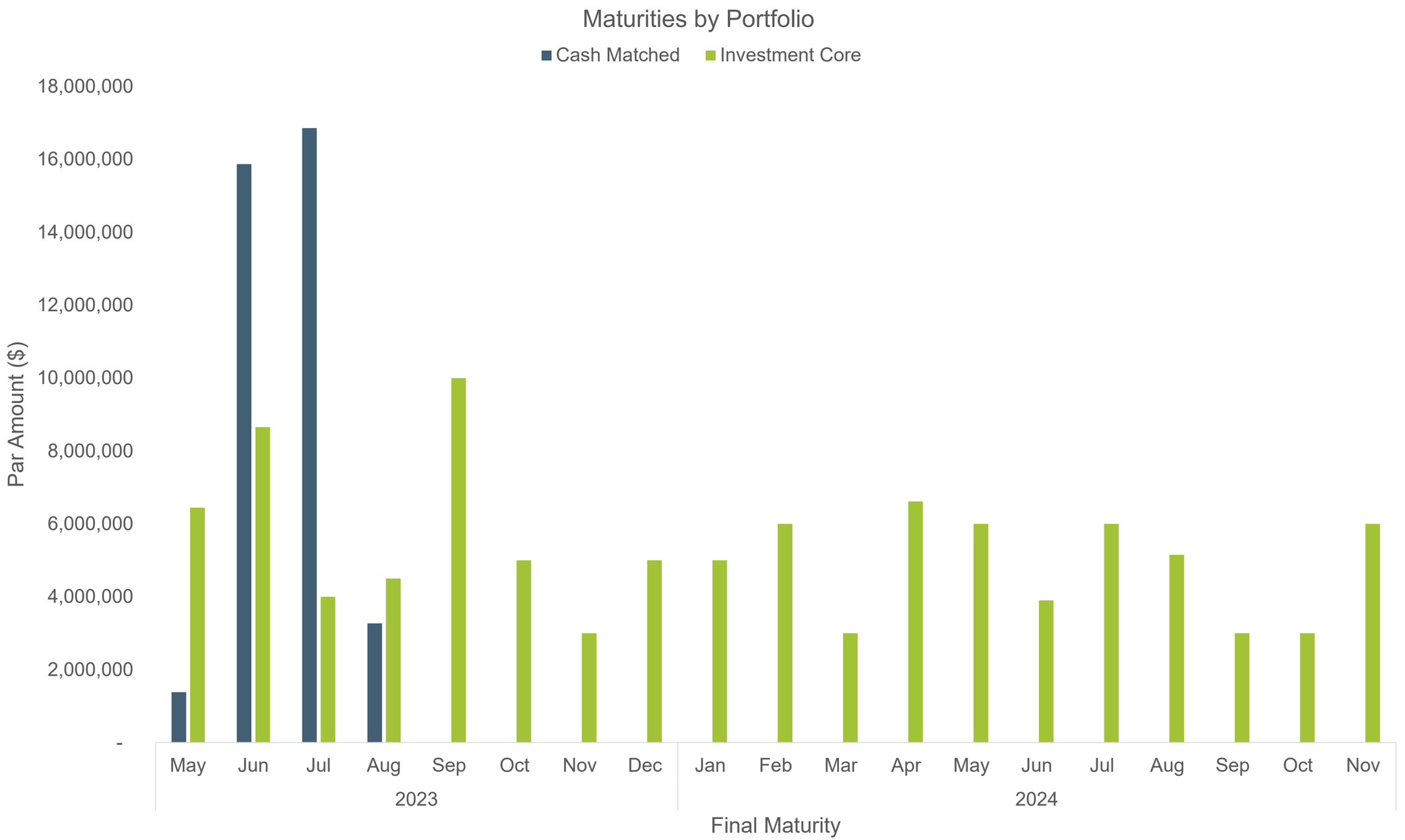
Sample – Historical Cash Flow – Historical Balances





		Liquidity	Cash Matched	Investment Core	Total
2022	Mar	20,038,453		201,133,853	221,172,306
	Apr	54,630,230		198,038,249	252,668,479
	May	50,753,762		200,265,786	251,019,548
	Jun	49,393,805		234,412,582	283,806,387
	Jul	43,744,545		235,573,178	279,317,723
	Aug	27,150,725		233,083,050	260,233,776
	Sep	22,153,589		225,247,882	247,401,472
	Oct	75,861,369		223,605,669	299,467,037
	Nov	153,732,870		225,371,275	379,104,145
	Dec	40,404,261	67,253,220	223,007,212	330,664,693
2023	Jan	41,459,102	52,569,896	219,678,723	313,707,721
	Feb	55,564,622	43,915,144	213,140,349	312,620,115
	Mar	62,117,511	29,827,253	207,407,105	299,351,868
	Apr	62,117,511	24,100,426	205,946,925	292,164,862

Sample – Historical Cash Flow – Portfolio Component



5/2/2023	Current Par Amount	Duration	% of Portfolio
Liquidity	62,117,511	0.01	19%
Cash Matched	37,383,000	0.14	12%
Investment Core	222,883,000	1.65	69%
Total	**322,383,511**	**1.42**	**100%**

Quantify Policy Objectives

Safety, Liquidity and Return may be understood differently

Does safety refer to each individual security or to the portfolio as a whole?

If a portfolio manager realizes a loss to improve the position of the overall portfolio, are they acting in contradiction to the safety mandate?

How will your entity manage potentially conflicting goals?

Time invested now will reap rewards later

Communicating Results

Benchmark Review

Performance

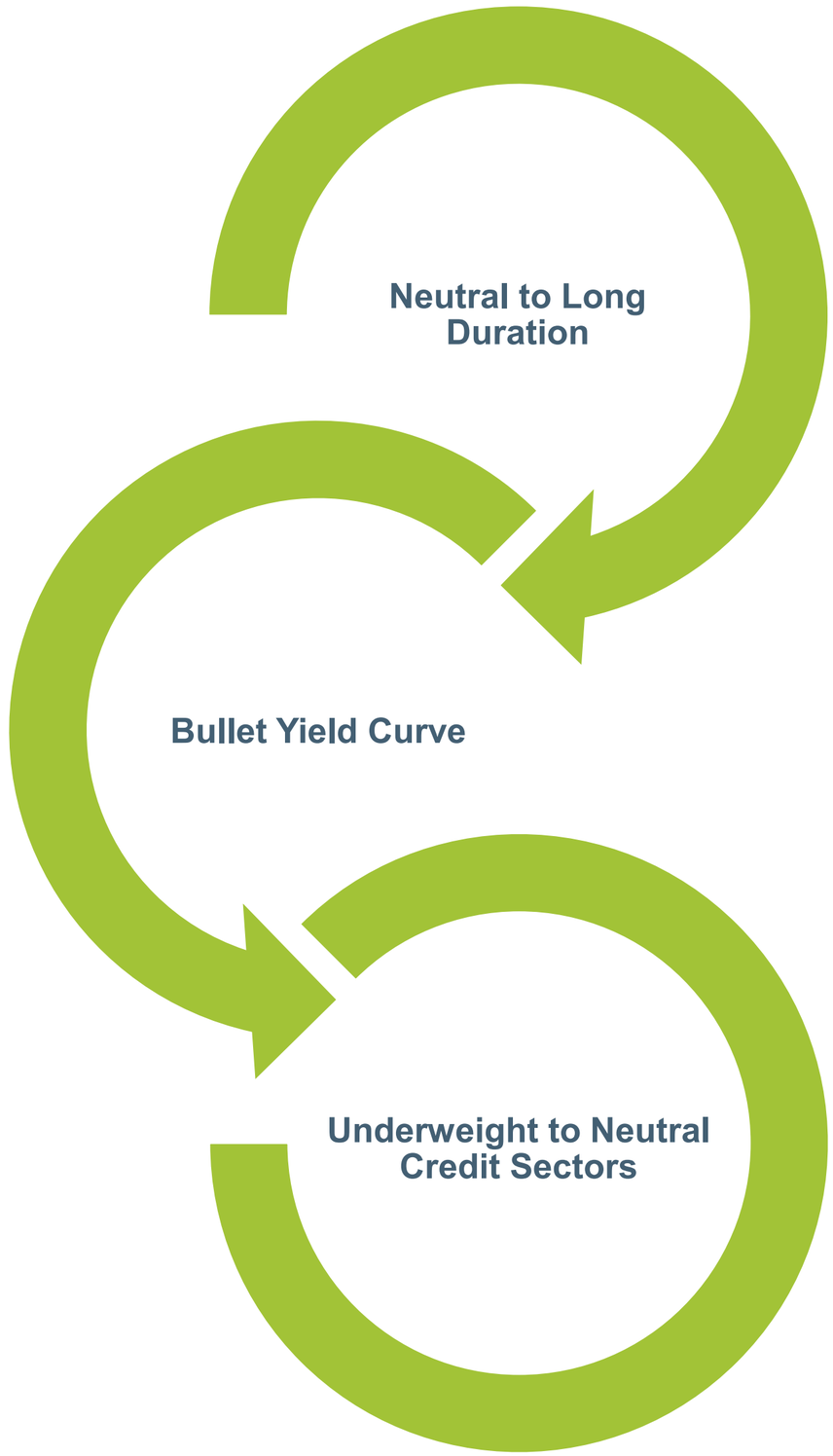
Account Components

Benchmark Review

Performance

Account Components

Strategic Overview



Why Targets are Important

Benchmarks are utilized to incorporate your policy objectives

- ✓ Creates guidelines for liquidity, safety and return
- ✓ Provides Accountability to the decisions
- ✓ Provides for the ability to communicate clearly within your organization
- ✓ Each benchmark is selected according to the profile of your organization in regard to safety, liquidity and return

Terminology

Duration – Utilized to manage maturity risk in the portfolio and support maturity structure

Diversification – Hold different maturity and different asset classes to reduce risk

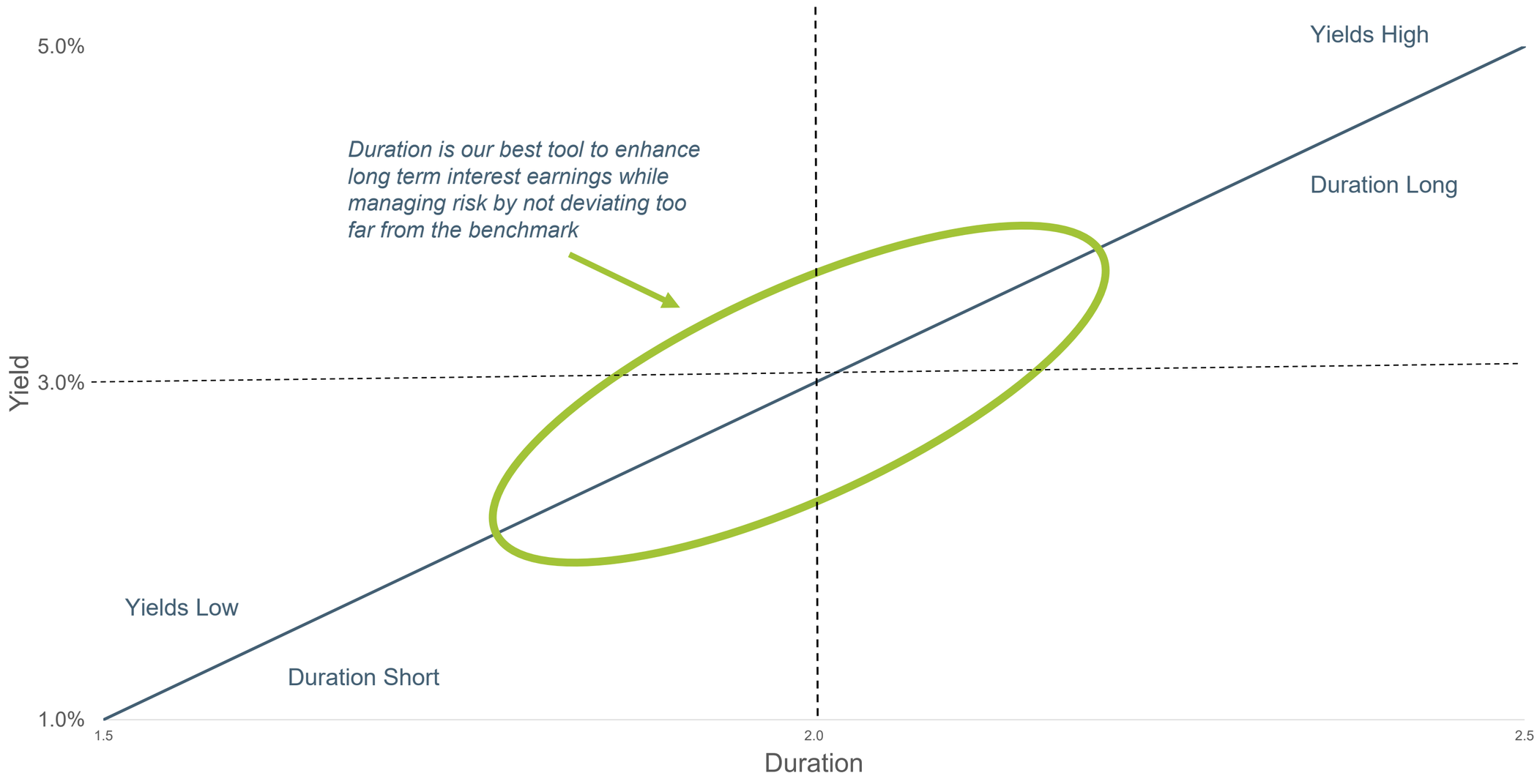
Yield Curve – Flat, Steep and Inverted

Benchmarks – Provide discipline and guidance for investment decisions

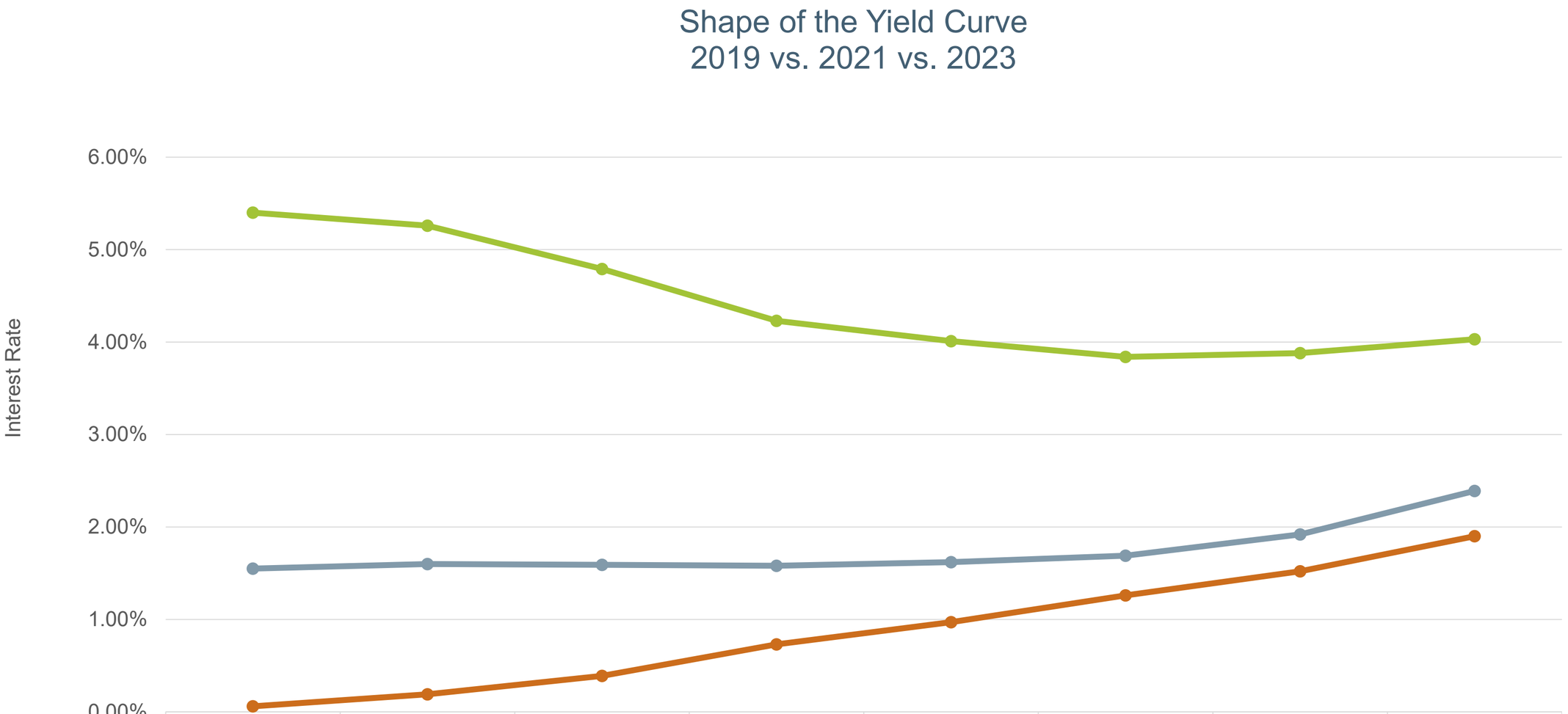
Book Yield vs Total Return – Measurement – accrual earnings and market earnings

Benchmark Review

Duration/Yield Relationship



Yield Curve Analysis



	3 Mo	6 Mo	1 Yr	2 Yr	3 Yr	5 Yr	10 Yr	30 Yr
12/31/2019	1.55%	1.60%	1.59%	1.58%	1.62%	1.69%	1.92%	2.39%
12/31/2021	0.06%	0.19%	0.39%	0.73%	0.97%	1.26%	1.52%	1.90%
12/29/2023	5.40%	5.26%	4.79%	4.23%	4.01%	3.84%	3.88%	4.03%

Data Source: US Department of the Treasury

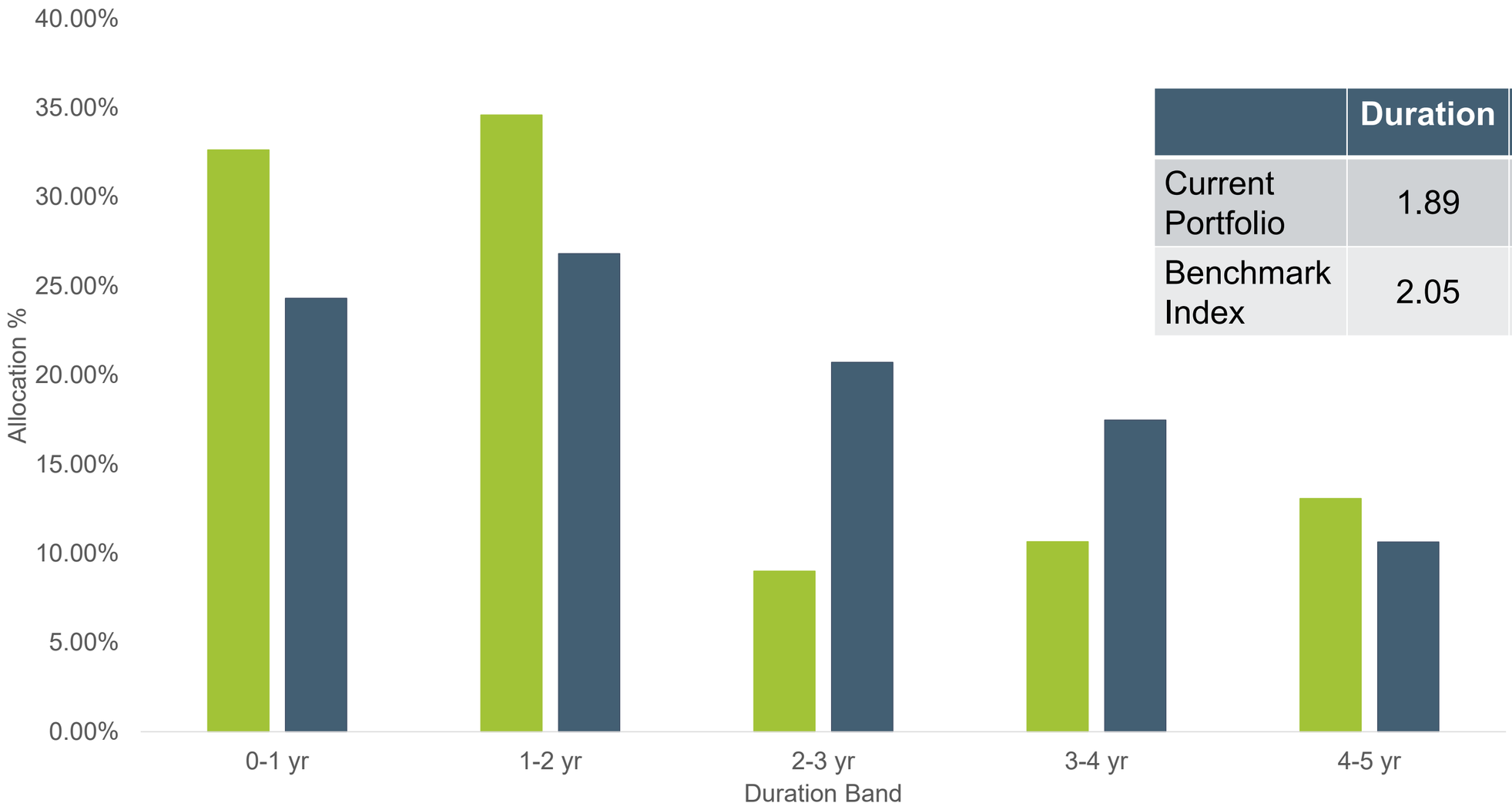
Determine Portfolio Component Size

	Current Par	Recommendation (Average Allocation over 12 months)	Recommended Ranges
Core	$342,642,000	$330,000,000	$300,000,000 to $365,000,000
Cash Matched™	$36,070,000	$36,000,000	$0 to $125,000,000
Bank	$20,469,118	25,000,000	$0 to 23,000,000
Liquidity	$40,311,652	$48,000,000	$30,000,000 to $50,000,000

	Current	Recommendation	Recommended Ranges
GPA Liquidity Ratio %	14%	17%	10% - 20%

GPA recommends the above listed core and liquidity amounts, based off of historical balance reviews and this GPS discussion. These are strategy-based recommendations, not related to investment policy requirements and can be adjusted as needed. Additional discussions may be required to make the appropriate changes in the future.

Benchmark Review – Maintain Current 0-5 Year



	Duration	Min	Max
Current Portfolio	1.89	1.50	2.50
Benchmark Index	2.05	-	-

Note: Moving from the existing benchmark to the new benchmark may take up to approximately 12 months to properly align the portfolio to the strategy. Given the change, performance may lag or outperform the new benchmark during this period.

Data as of 7/17/24

Benchmark Review Extended Duration Within Risk Guidelines

Benchmarks should match your entity's goals and objectives

Growth of $1 Investment by Benchmark (20-year Lookback)

Year End	90 Day Treasury Bill	0-1yr Treasury	0-3yr Treasury	0-5yr Treasury
12/31/2004	$ 1.02	$ 1.02	$ 1.02	$ 1.02
12/31/2005	$ 1.05	$ 1.05	$ 1.04	$ 1.03
12/31/2006	$ 1.10	$ 1.10	$ 1.08	$ 1.08
12/31/2007	$ 1.16	$ 1.16	$ 1.15	$ 1.16
12/31/2008	$ 1.18	$ 1.20	$ 1.22	$ 1.24
12/31/2009	$ 1.18	$ 1.20	$ 1.22	$ 1.24
12/31/2010	$ 1.18	$ 1.21	$ 1.25	$ 1.28
12/31/2011	$ 1.19	$ 1.21	$ 1.26	$ 1.32
12/31/2012	$ 1.19	$ 1.21	$ 1.27	$ 1.33
12/31/2013	$ 1.19	$ 1.21	$ 1.27	$ 1.32
12/31/2014	$ 1.19	$ 1.22	$ 1.28	$ 1.34
12/31/2015	$ 1.19	$ 1.22	$ 1.28	$ 1.35
12/31/2016	$ 1.19	$ 1.22	$ 1.29	$ 1.36
12/31/2017	$ 1.20	$ 1.23	$ 1.30	$ 1.37
12/31/2018	$ 1.23	$ 1.26	$ 1.32	$ 1.39
12/31/2019	$ 1.25	$ 1.29	$ 1.36	$ 1.45
12/31/2020	$ 1.26	$ 1.31	$ 1.40	$ 1.50
12/31/2021	$ 1.26	$ 1.31	$ 1.39	$ 1.49
12/31/2022	$ 1.28	$ 1.31	$ 1.36	$ 1.43
12/31/2023	$ 1.35	$ 1.38	$ 1.42	$ 1.49

Benchmark	Duration	Dollar Growth on $200mil Portfolio	Incremental Growth Over 90 Day Bill ($)
90 Day Treasury Bill	0.23	$ 269,156,979	$ -
0-1yr Treasury	0.49	$ 276,278,478	$ 7,121,499
0-3yr Treasury	1.35	$ 284,401,168	$ 15,244,189
0-5yr Treasury	2.05	$ 298,265,486	$ 29,108,507

Returns are never guaranteed, and past performance is not an indication of future results

Source: Bloomberg

Decision Making Tools

Decision Making Tools	Improved Process	Improved Communication	Monitor and Report
Duration historically has contributed to approximately 87% of returns	Efficient	Same Vocabulary	Understand outcome of decisions
Asset Allocation	Pre-determined strategy	Board, Committee and Staff	Tracking of decisions
Yield Curve Positioning	Accountable	Consistent over interest rate cycles	Value added can be measured

Thank you!

Questions?

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