



2022 ANNUAL BUSINESS MEETING





BRYANT GLADNEY
BOONE CO. FIRE
PROTECTION DISTRICT



MATTHEW DAVIS
IRON COUNTY
SHERIFF'S DEPT.



JAKE REED
CITY OF JOPLIN
POLICE



KEVIN CREMER
CITY OF FESTUS
FIRE



SCOTT WOOD
RANDOLPH COUNTY
AMBULANCE DISTRICT



BENJAMIN COOPER
CITY OF JOPLIN
POLICE



2022 ANNUAL BUSINESS MEETING



EMPLOYER TRUSTEE NOMINATIONS



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MEMBER TRUSTEE NOMINATIONS



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2022 ANNUAL BUSINESS MEETING





LAGERS' ASSET ALLOCATION PROCESS



MISSOURI LAGERS ASSET STUDY PROCESS

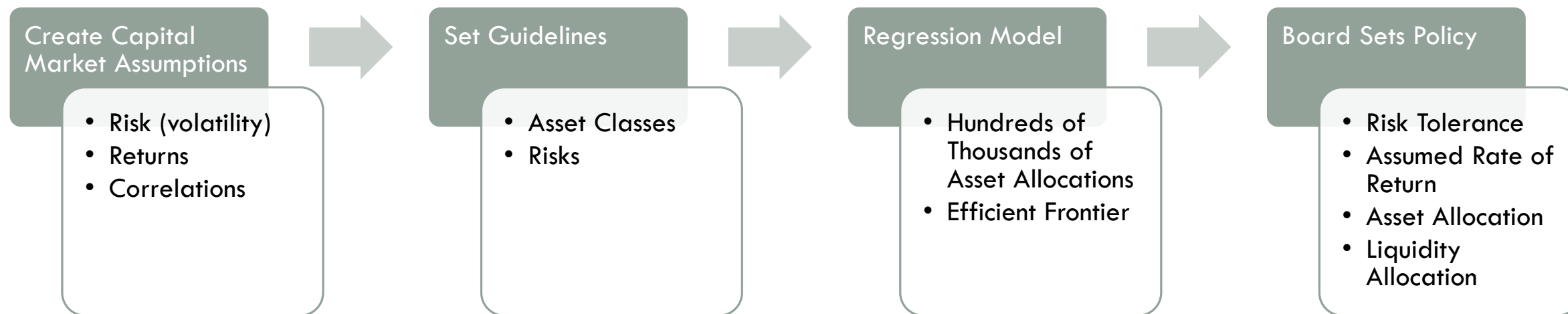
LAGERS' Investment Team conducts an asset study a minimum of every 5 years

Goals:

- Set Risk Tolerance
- Set Asset Allocation
- Set Assumed Rate of Return



MISSOURI LAGERS ASSET STUDY PROCESS



CREATE CAPITAL MARKET ASSUMPTIONS

- 1) Gather Capital Market Assumptions from Industry Participants
 - expected risk, return, and correlation over the next 10 years
- 2) **Develop Own Capital Market Assumptions**

Create Capital
Market Assumptions

- Risk (volatility)
- Returns
- Correlations



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CAPITAL MARKET ASSUMPTIONS EXAMPLE – JP MORGAN

[illegible]

CREATE CAPITAL MARKET ASSUMPTIONS

- 1) **Gather Capital Market Assumptions from Industry Participants**
 - expected risk, return, and correlation over the next 10 years
- 2) **Develop LAGERS Capital Market Assumptions**

Create Capital
Market Assumptions

- Risk (volatility)
- Returns
- Correlations



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DEVELOP LAGERS CAPITAL MARKET ASSUMPTIONS

LAGERS 2018 Capital Market Assumptions		Equity			
		US Equity	Global Equity - ACWI	International Equity - EAFE	Emerging Markets Equity
Weights		10.00%	5.00%	5.00%	5.00%
Real Return Gross of Passive Fees		3.79%	4.45%	4.65%	5.87%
Nominal Return Gross of Passive Fees		6.13%	6.80%	7.00%	8.25%
Fee Assumptions		0.02%	0.04%	0.05%	0.10%
Net of Passive Fees		6.11%	6.76%	6.95%	8.15%
Volatility		17.00%	18.60%	19.00%	25.00%
Equity	US Equity	1.000	0.760	0.680	0.640
	Global Equity - ACWI	0.760	1.000	0.860	0.810
	International Equity - EAFE	0.680	0.860	1.000	0.800
	Emerging Markets Equity	0.640	0.810	0.800	1.000
	Private Equity	0.680	0.710	0.700	0.630
Fixed Income	Global Bonds	0.110	0.140	0.300	0.200
	US Bonds	0.080	0.100	0.050	0.050
	US Treasury Long	-0.030	-0.180	-0.200	-0.200
	EMD	0.470	0.570	0.550	0.650
	Private Debt	0.490	0.430	0.450	0.400
Real Assets	Commodity	0.170	0.380	0.450	0.450
	Infrastructure	0.430	0.480	0.400	0.400
	Global Inflation Linked	0.090	0.190	0.200	0.150
	Private Real Estate	0.430	0.380	0.350	0.300
	Timber	0.340	0.290	0.250	0.250
Strategic	Natural Resources	0.520	0.380	0.340	0.430
	Public Strategic Assets	0.610	0.610	0.600	0.680
	Private Strategic Assets	0.380	0.380	0.380	0.380
Alpha	Hedge Fund	0.000	0.000	0.000	0.000
Leverage	Cash/Leverage	-0.050	-0.050	-0.050	-0.050
CPI		0.040	0.050	0.000	0.000

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Page	CPI
N/A	2.25%
2.25%	0.00%
2.25%	1.50%
0.040	0.050
0.000	0.000
0.000	0.050
0.000	0.000
-0.120	-0.200
0.050	0.050
0.050	0.000
0.270	0.110
0.110	0.000
0.090	0.150
0.000	0.000
0.040	0.000
0.000	0.090
1.000	



SET GUIDELINES

1) Asset Class Ranges:

- Amount of each asset class LAGERS is willing to hold

2) Risk Ranges:

- Amount of illiquidity LAGERS is willing to hold
- Amount of leverage LAGERS is willing to deploy
- Amount of cash LAGERS is willing to hold
- Guidelines for rising and falling growth risk as well as rising and falling inflation risk

Set Guidelines

- Asset Classes
- Risks



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SET GUIDELINES – EQUITY EXAMPLE

Assets	Min	Max	Liquidity
Equity	35.00%	60.00%	Short-Term
US Equity	10.00%	14.00%	Short-Term
Global Equity	5.00%	9.00%	Short-Term
International Equity	5.00%	9.00%	Short-Term
Emerging Market Equity	5.00%	15.00%	Short-Term
Private Equity	5.00%	10.00%	Long-Term

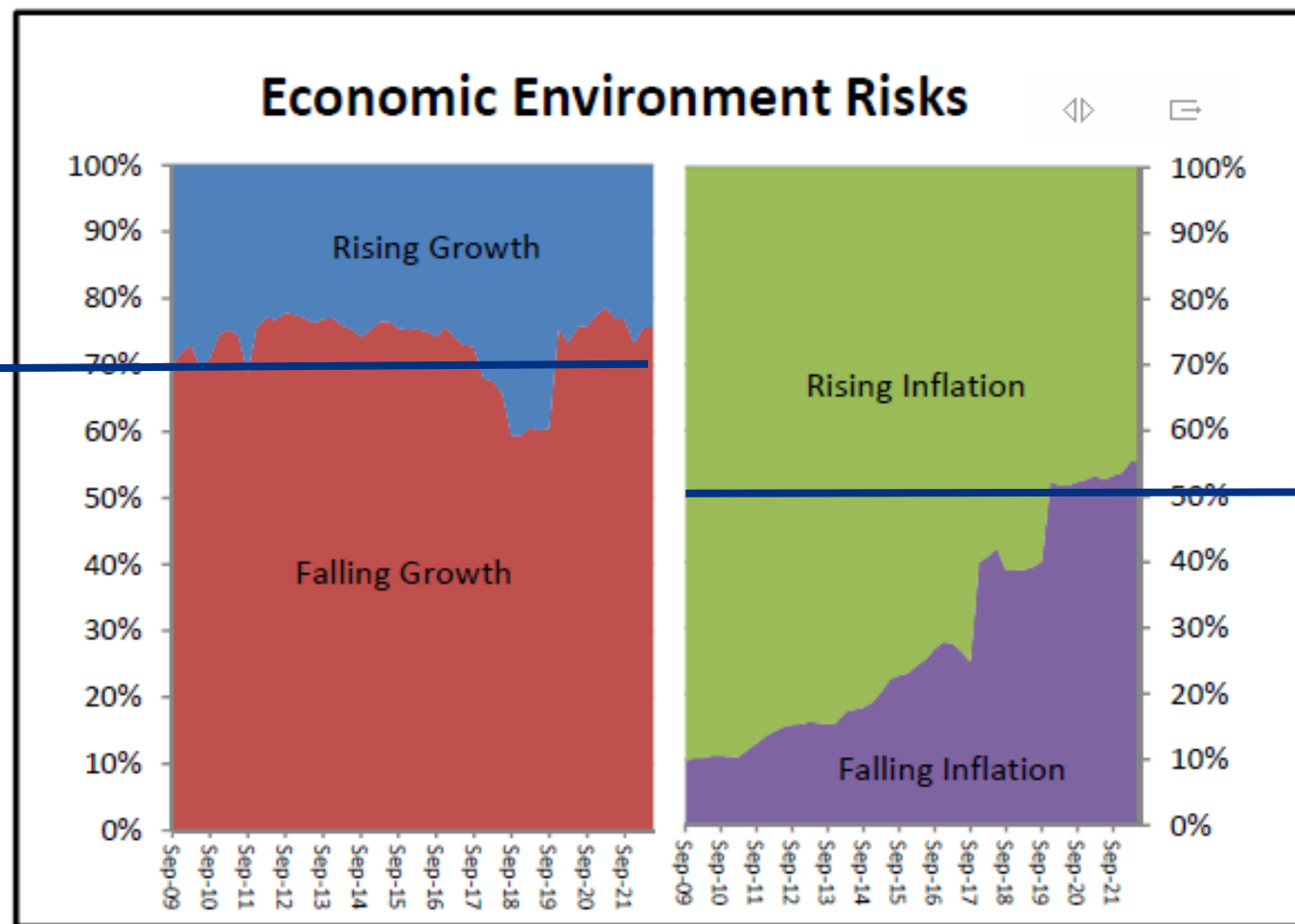
Other Guidelines	Min	Max
Leverage	110.00%	135.00%
Cash	3.00%	10.50%
Long-Term Liquidity (>1 year)	0.00%	60.00%



SET GUIDELINES – RISKS

30%

70%



50%

50%



ACTUARY RUNS REGRESSION ANALYSIS

1) Efficient Frontier:

- provides set of optimal portfolios that offer the highest expected return for a level of risk

2) Creates hundreds of thousands of portfolios using the Capital Market Assumptions and Guidelines provided by LAGERS

Regression Model

- Thousands of Asset Allocations
- Efficient Frontier



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BOARD SETS POLICY

- 1) **Set Target Risk:**
 - 10% standard deviation
- 2) **Set Portfolio Allocation:**
 - look at portfolio allocations with 10% standard deviation
- 3) **Set Assumed Rate of Return**
 - 7% assumed rate of return over a full market cycle
- 4) **Set Liquidity Allocation**

Board Sets Policy

- Risk Tolerance
- Assumed Rate of Return
- Asset Allocation
- Liquidity Allocation



ASSET ALLOCATION

Asset Class	Target	Min	Max
Equity	35.0%	30.0%	40.0%
Fixed Income	31.0%	26.0%	36.0%
Real Assets	36.0%	31.0%	41.0%
Strategic Assets	8.0%	5.0%	15.0%
Alpha Portfolio	15.0%	10.0%	20.0%
Cash Portfolio	10.0%	See Note	
Leverage Portfolio	-35.0%	-20.0%	-40.0%

* LAGERS targets 28.5% of leveraged portfolio to be held in cash

Liquidity	Target	Min	Max
Short-Term (<1 week)	40.0%	35.0%	65.0%
Medium-Term (1 wk – 1 yr)	20.0%	0.0%	30.0%
Long-Term (>1 year)	40.0%	20.0%	50.0%

LIQUIDITY ALLOCATION



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LAGERS ASSET ALLOCATION PROCESS

Questions?



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LAGERS FINANCIAL MANAGEMENT OVERVIEW



LAGERS SOURCES OF FUNDING LAST FIVE YEARS

Investment Returns

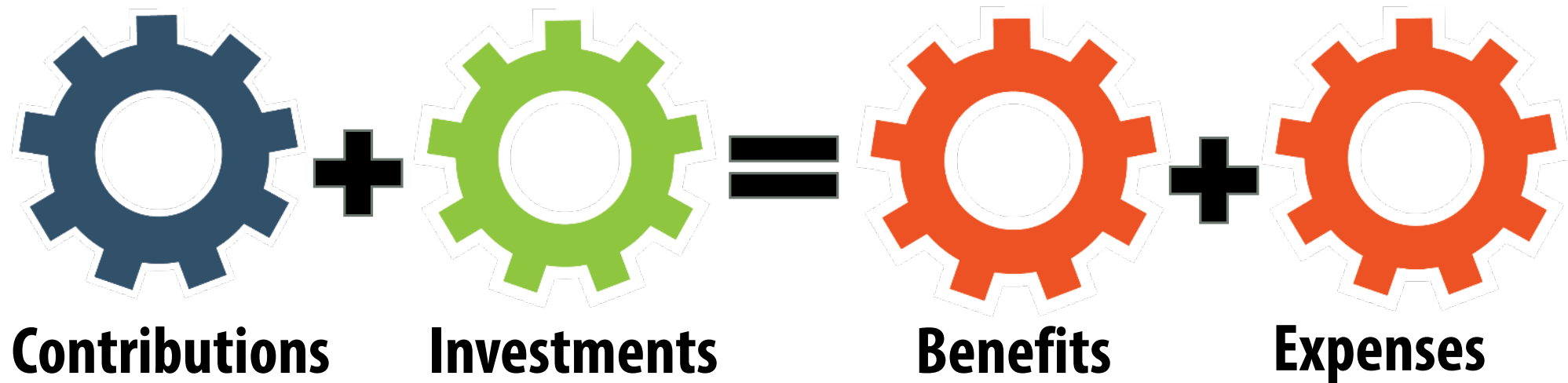
Employer Contributions

Employee Contributions



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PENSION FUNDING FORMULA



YOUR EMPLOYER PAYS ONLY FOR BENEFITS EARNED WITH YOUR EMPLOYER

Rates Determined By

- Benefits Chosen
- Economic & Demographic Experience at your Employer
- Economic Experience of LAGERS

Exceptions:

**Pooled Benefit Reserve Fund
&
Casualty Reserve Fund**



ACTUARIAL ASSUMPTIONS

Used to calculate how much money is needed to fund future benefits

LAGERS' Board Sets Assumptions

- Reviewed Every 5 Years: Next Review 2025
- Updated if Needed



ACTUARIAL ASSUMPTIONS

DEMOGRAPHIC

- Members that leave employment
- Disabilities for Members
- Retirements of Members
- Salary Increases for Members
- Mortality of Active Members & Retirees

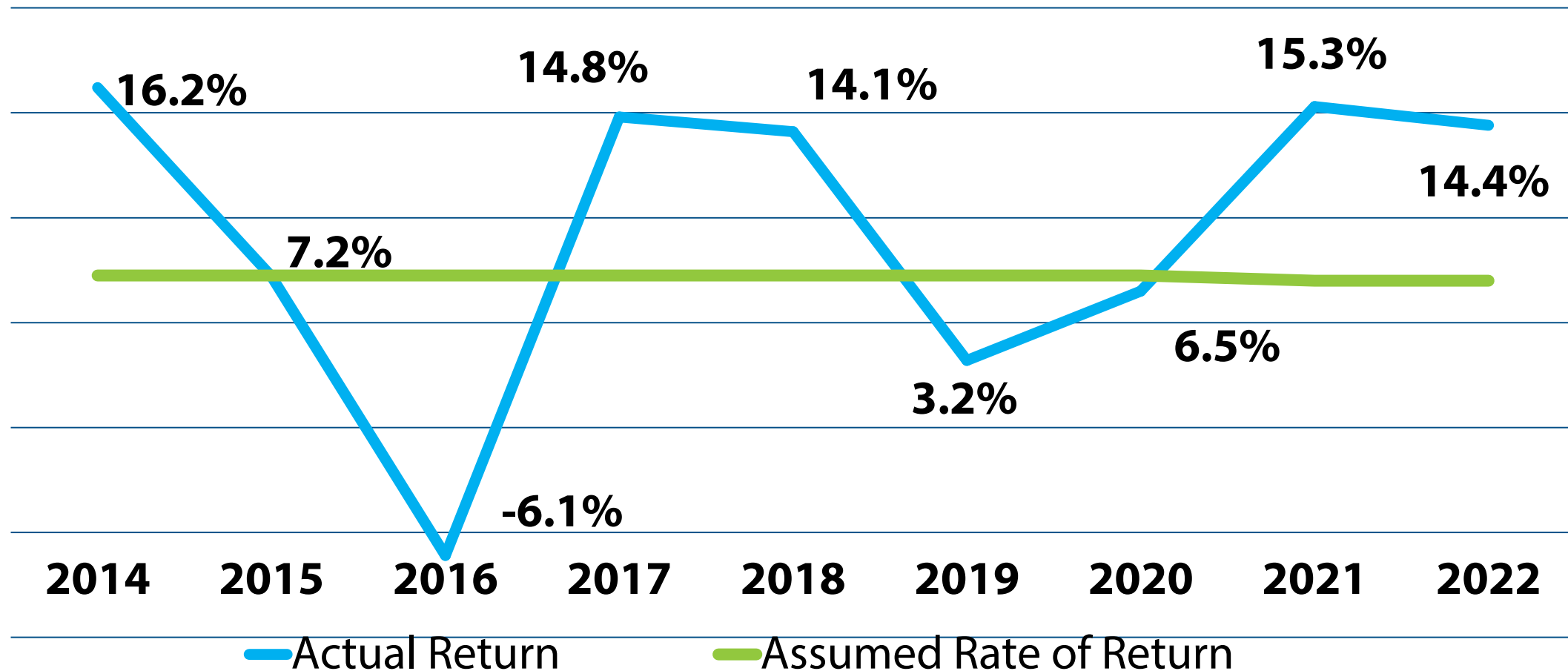
ECONOMIC

- Rate of Return: 7.00% Annually
- Price Inflation: 2.25% Annually
- Wage Inflation: 2.75% Annually
- Payroll Growth: 2.75% Annually

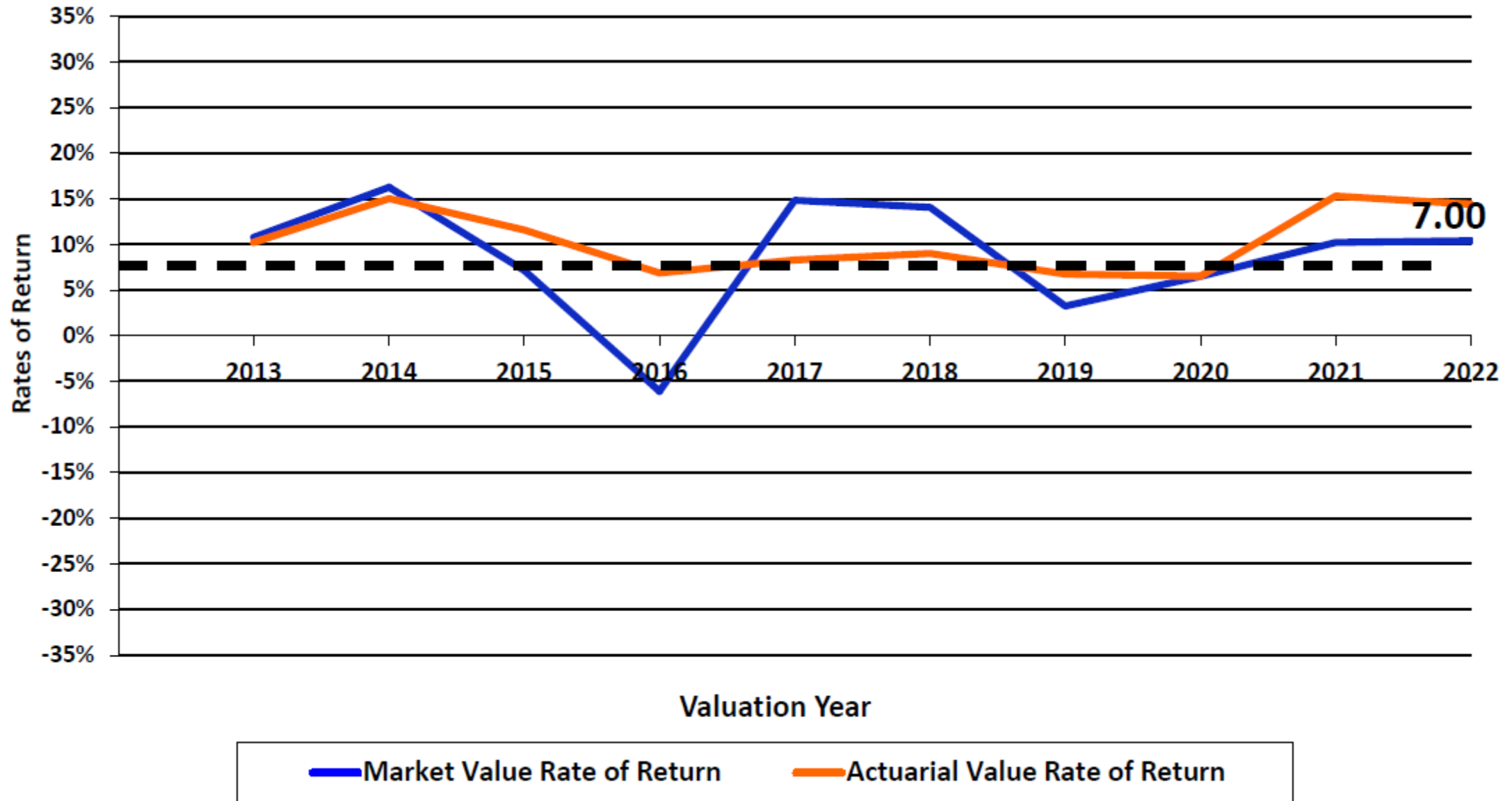


EXPERIENCE VS. ASSUMPTIONS

Variance in One-Year Investment Results
As of the end of February



LAGERS SMOOTHS GAINS & LOSSES



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WHERE DOES THE MONEY GO?

LAGERS Has 4 Main Accounts

Employer
\$4.5 Billion

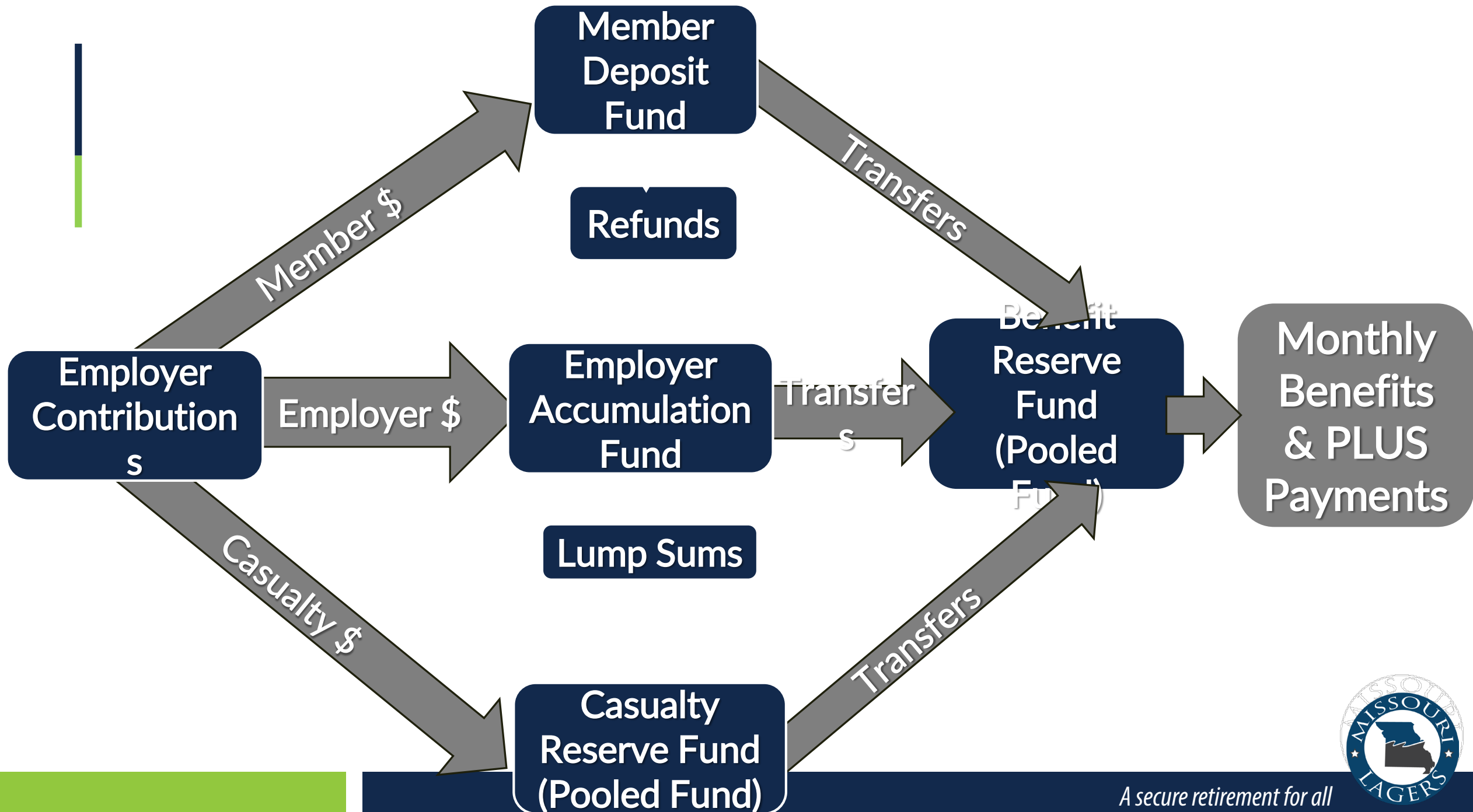
Employee
\$190 Million

Benefits
\$5.5 Billion

Casualty
\$26.8 Million



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WHERE DOES THE MONEY GO?

REVENUES

Additions	June 30, 2022
Employees' Contributions	27.7 Million
Employer Contributions	280.8 Million
Investment Income	7.8 Million
Total	316.3 Million

WHERE DOES THE MONEY GO?

EXPENDITURES

Deductions	June 30, 2022
Benefit Payments	414.2 Million
Refunds of member contributions	2.9 Million
Expenses	8.6 Million
Pension expense (gain)	(220,339)
OPEB expense (gain)	363,750
Total	425.7 Million



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2022 INTEREST CREDITS TO RESERVE ACCOUNTS

Employer

0%

Employee

0.5%

Benefits

0.1%

Casualty

7.00%



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FUNDED STATUS OF RESERVE ACCOUNTS

Employer
92%

Employee
100%

Benefits
119%

Casualty
100%



DOCUMENTATION YOU RECEIVE FROM LAGERS

EMPLOYER COSTS

- Annual Valuation in July
- Rate Notice Letters Two Months Prior To Rate Change

FINANCIAL REPORTING

- GASB Statements & Reporting
- SOC-1 Type 2 Report

