



Los Angeles County Employees Retirement Association

Investments Division

TOTAL FUND

PERFORMANCE REPORT

For the quarter ended
September 30, 2022

review

A nighttime photograph of the California State Capitol building, illuminated by warm lights. The building's dome is prominent, and the surrounding city lights create a vibrant background. The sky is a mix of purple and orange hues, suggesting dusk or dawn. The word 'review' is overlaid in a large, light blue, sans-serif font across the bottom of the image.

Table of Contents

01	TOTAL FUND
02	GROWTH
03	CREDIT
04	REAL ASSETS & INFLATION HEDGES
05	RISK REDUCTION & MITIGATION
06	PRIVATE MARKETS
07	EMERGING MANAGER PROGRAM
08	RISK REPORTS
09	MANAGER SCORECARDS
10	APPENDIX

total fund

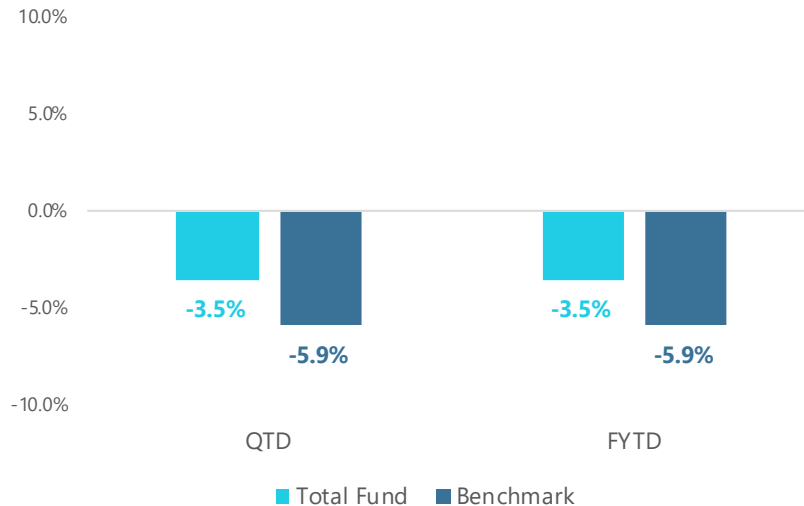
Quarterly Snapshot

for the quarter ended September 30, 2022

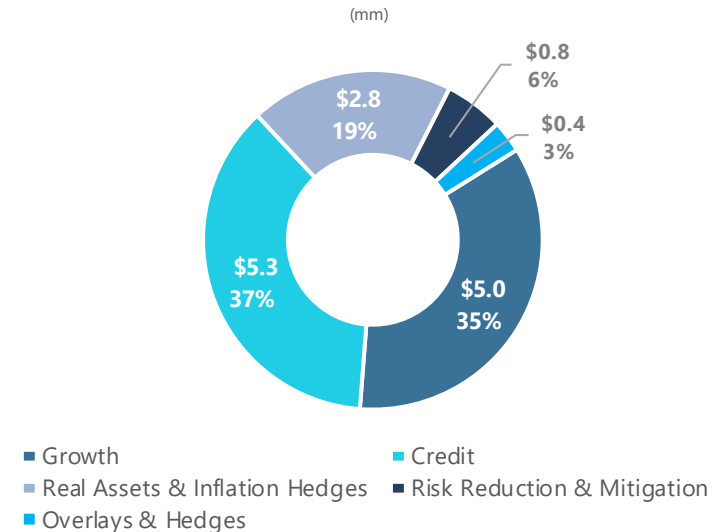


Los Angeles County Employees Retirement Association

Performance (net)



Public Markets Fees¹



Ending Market Value

67,616

↓ -4%
from prior quarter

Sharpe Ratio²

0.7

↓ -24%
from prior quarter

Batting Average³

52%

↑ 29%
from prior quarter

Standard Deviation²

9.4

↑ 9%
from prior quarter

Tracking Error²

2.4

↑ 7%
from prior quarter

1. Reflects estimated investment management fees only. Additional details found in the appendix.

2. 3 Year Annualized.

3. Percentage of managers that outperformed the benchmark for the quarter.

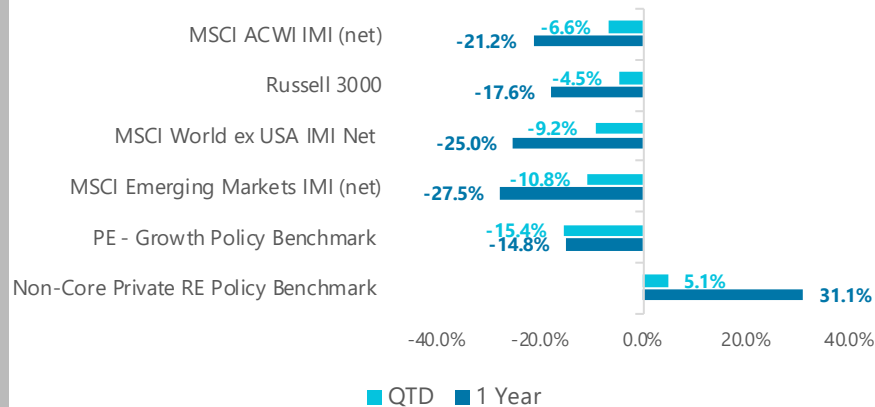
Market Environment

for the quarter ended September 30, 2022

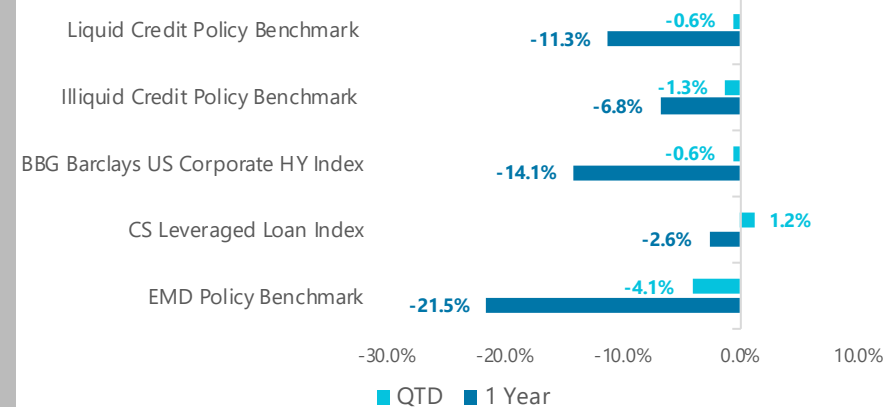


Los Angeles County Employees Retirement Association

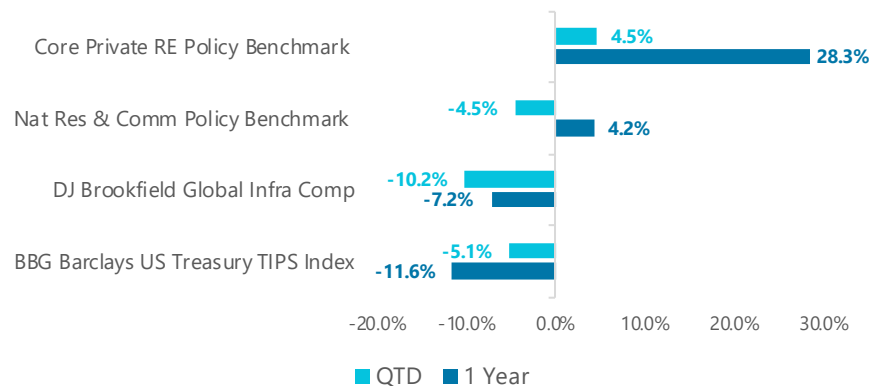
Growth



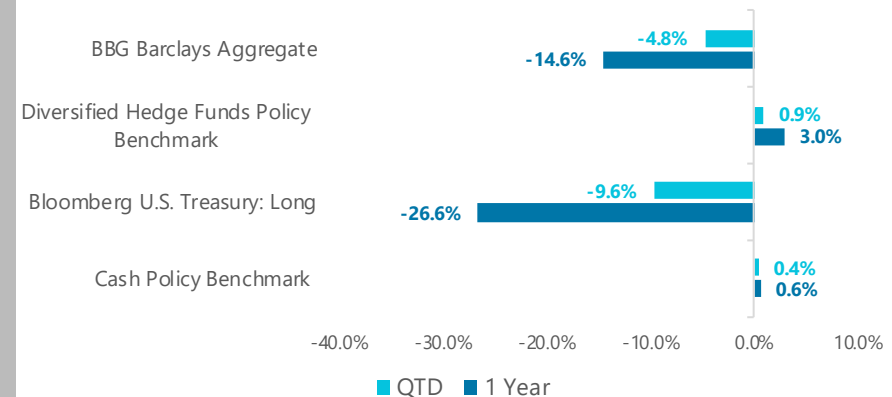
Credit



Real Assets & Inflation Hedges



Risk Reduction & Mitigation



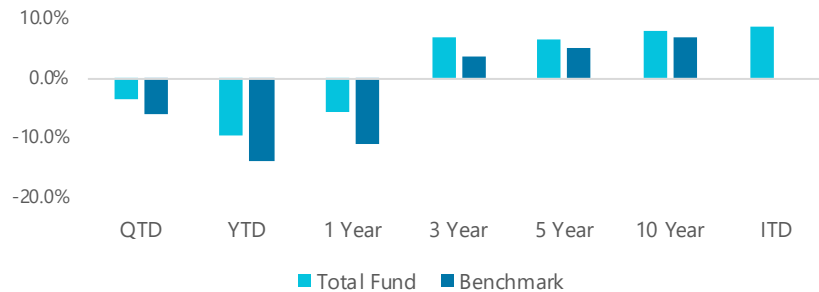
Summary

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

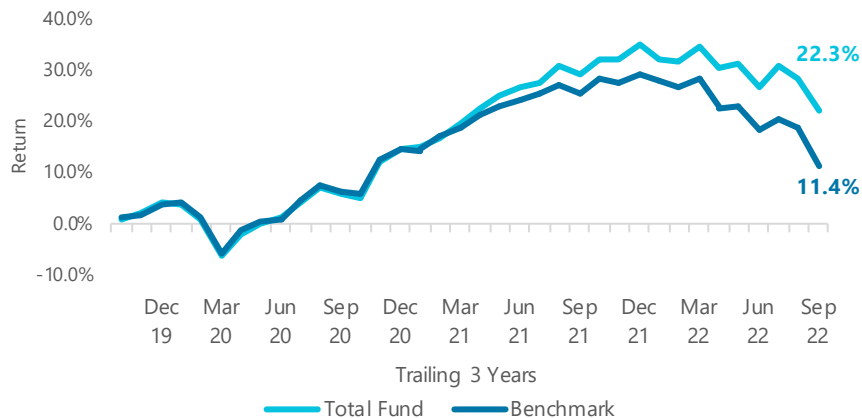
Performance (net)



	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Total Fund	-3.5%	-9.4%	-5.5%	6.9%	6.6%	7.7%	8.4%
Benchmark	-5.9%	-13.9%	-11.1%	3.7%	5.0%	6.8%	--
Excess	2.4%	4.5%	5.7%	3.3%	1.6%	1.0%	--

	FY22	FY21	FY20	FY19	FY18
Total Fund	0.1%	25.2%	1.8%	6.4%	9.0%
Benchmark	-4.6%	23.1%	2.0%	8.6%	7.8%

Cumulative Return



Functional Category

	QTD	FYTD	1 Year	3 Year
Growth	-4.9%	-4.9%	-9.5%	10.4%
Growth Policy Benchmark	-8.5%	-8.5%	-16.7%	6.1%
Excess	3.5%	3.5%	7.1%	4.3%
Credit	-0.6%	-0.6%	-5.9%	2.7%
Credit Policy Benchmark	-0.9%	-0.9%	-9.2%	0.3%
Excess	0.4%	0.4%	3.3%	2.4%
Real Assets & Inflation Hedges	-2.1%	-2.1%	9.2%	7.6%
RA & IH Policy Benchmark	-3.1%	-3.1%	6.4%	7.4%
Excess	1.0%	1.0%	2.8%	0.1%
Risk Reduction & Mitigation	-3.7%	-3.7%	-10.7%	-1.2%
RR & M Policy Benchmark	-4.0%	-4.0%	-11.5%	-2.2%
Excess	0.2%	0.2%	0.8%	1.0%
Overlays & Hedges	13.5%	13.5%	235.7%	--

Peer Ranking (gross)

	QTD		1 Year		3 Year		5 Year		10 Year	
Total Fund	-3.4%	34	-5.1%	13	7.3%	20	6.9%	24	8.0%	27
60/40 Portfolio	-5.8%	95	-18.4%	96	1.2%	87	2.7%	88	4.9%	90
S&P 500 Index	-4.9%	78	-15.5%	87	8.2%	11	9.2%	5	11.7%	4
5th Percentile	-2.6%		-2.9%		9.8%		9.1%		9.6%	
25th Percentile	-3.2%		-6.3%		7.0%		6.9%		8.1%	
50th Percentile	-4.0%		-9.1%		6.1%		6.1%		7.4%	
75th Percentile	-4.8%		-13.4%		4.0%		4.7%		6.7%	
95th Percentile	-6.0%		-18.1%		-2.7%		0.4%		3.0%	

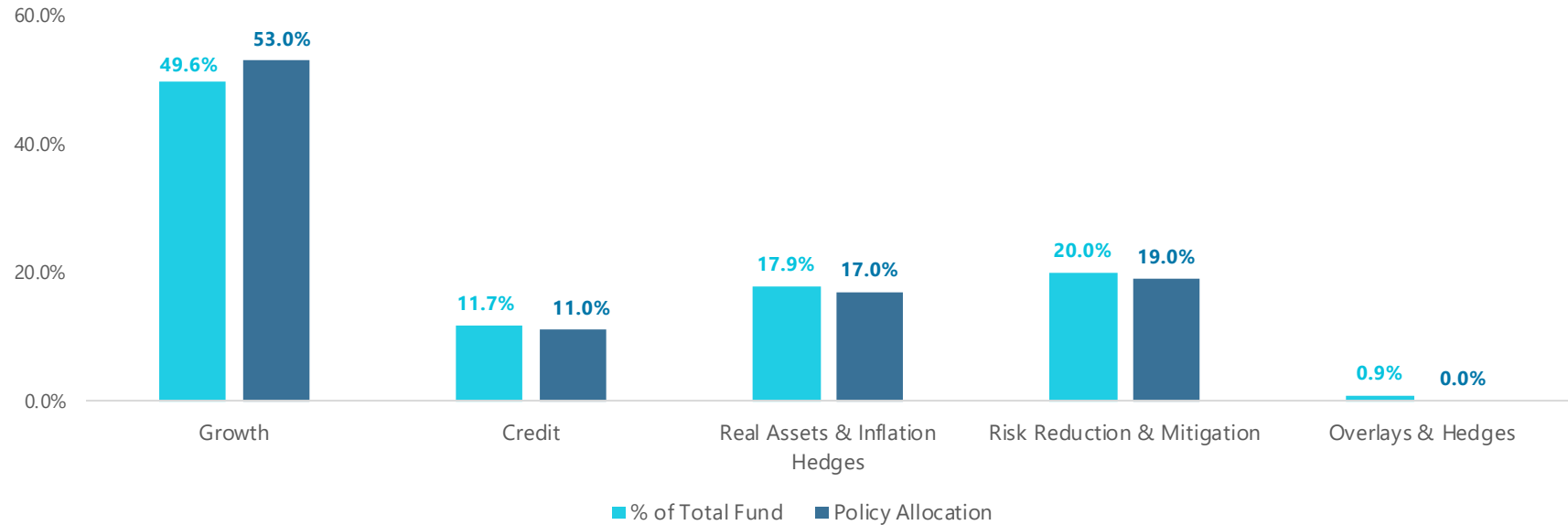
Asset Allocation

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Actual vs. Policy



	Ending Market Value (mm)	% of Total Fund	Policy Allocation	Over/Under (%)	Over/Under (mm)
Total Fund	67,616	100.0%	100.0%		
Growth	33,535	49.6%	53.0%	-3.4%	-2,301
Credit	7,883	11.7%	11.0%	0.7%	445
Real Assets & Inflation Hedges	12,075	17.9%	17.0%	0.9%	580
Risk Reduction & Mitigation	13,536	20.0%	19.0%	1.0%	689
Overlays & Hedges	587	0.9%	0.0%	0.9%	587

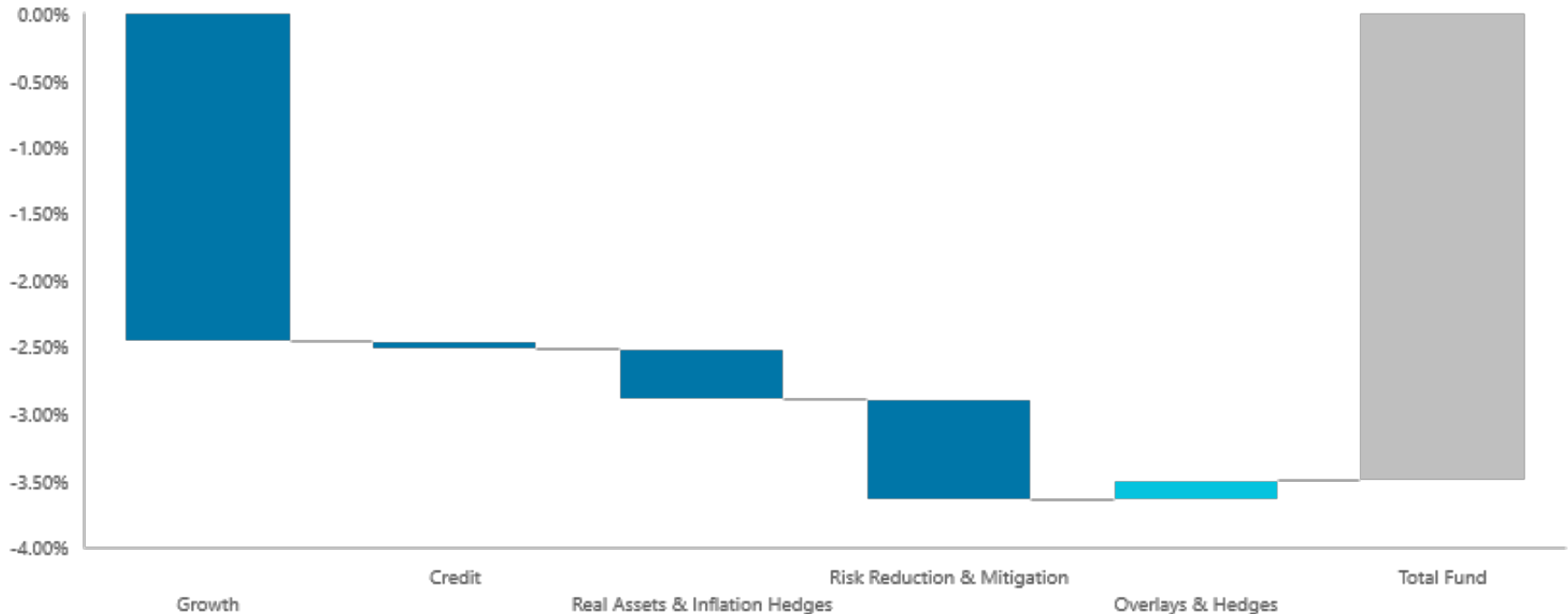
Contribution to Return

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

QTD Contribution to Return



Functional Category		Contributors		Detractors	
Growth	-2.46%	BTC Passive Currency Hedge	0.78%	SSGA MSCI ACWI IMI	-1.34%
Credit	-0.07%	Real Estate - Real Assets	0.31%	Private Equity - Growth	-0.58%
Real Assets & Inflation Hedges	-0.38%	Real Estate - Growth	0.07%	BlackRock Long Treasury Bonds	-0.46%
Risk Reduction & Mitigation	-0.75%	Parametric RA & IH Overlay	0.05%	DWS Infrastructure	-0.39%
Overlays & Hedges	0.15%	Parametric GE Region	0.05%	JPMAM Strategic Beta US	-0.26%
Total Fund	-3.50%				

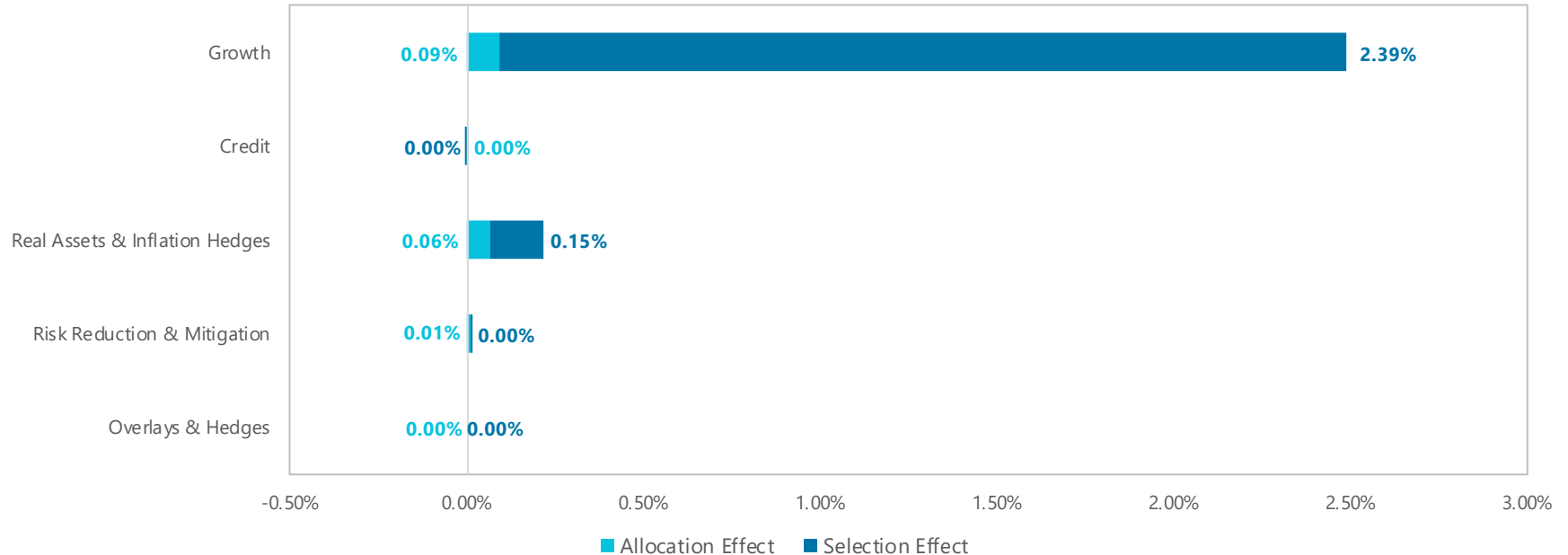
Return Attribution

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

QTD Performance Attribution¹



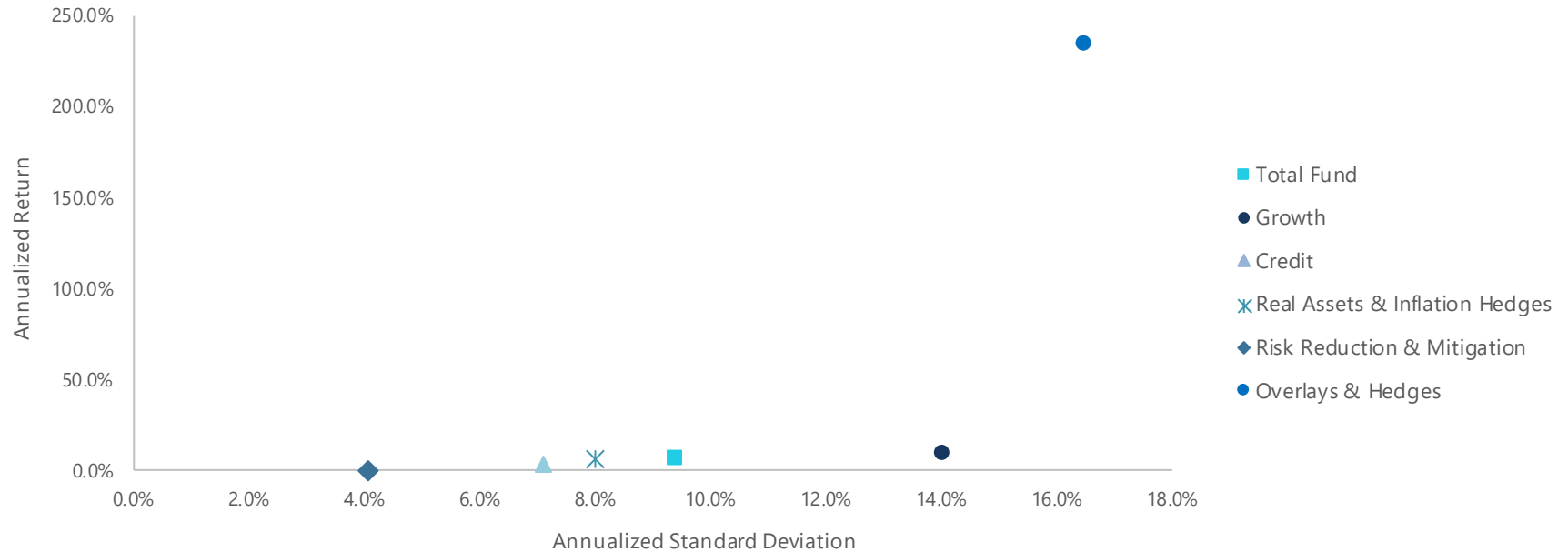
	Ending Market Value (mm)	% of Total Fund	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Total Fund	67,616	100.0%	100.0%	-3.5%	-5.9%	0.23%	2.55%	2.35%
Growth	33,535	49.6%	53.0%	-4.9%	-8.5%	0.09%	2.39%	1.88%
Credit	7,883	11.7%	11.0%	-0.6%	-0.9%	0.00%	0.00%	0.03%
Real Assets & Inflation Hedges	12,075	17.9%	17.0%	-2.1%	-3.1%	0.06%	0.15%	0.19%
Risk Reduction & Mitigation	13,536	20.0%	19.0%	-3.7%	-4.0%	0.01%	0.00%	0.06%
Overlays & Hedges	587	0.9%	0.0%	13.5%	--	--	--	--

1. Total Value Add includes Interaction Effect.

Risk vs. Return

for the quarter ended September 30, 2022

3 Year (Annualized)¹



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Total Fund	6.9%	9.4%	0.70	1.34	0.96	2.4%
Growth	10.2%	14.0%	0.71	0.78	0.93	4.3%
Credit	3.2%	7.1%	0.38	0.56	0.96	3.2%
Real Assets & Inflation Hedges	6.5%	8.0%	0.74	(0.12)	0.93	2.3%
Risk Reduction & Mitigation	0.3%	4.1%	(0.10)	1.11	0.94	0.8%
Overlays & Hedges	235.7%	16.5%				

1. Functional composites risk statistics are since inception.

Performance Detail

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Annualized Net Returns¹

	% of Total Fund	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Total Fund	100.0%	67,616	70,407	-3.5%	-9.4%	-5.5%	6.9%	6.6%	7.7%	8.4%	Dec-1988
Total Fund Policy Benchmark				-5.9%	-13.9%	-11.1%	3.7%	5.0%	6.8%	--	
Growth	49.6%	33,535	35,331	-4.9%	-14.9%	-9.5%	10.4%	--	--	10.2%	Apr-2019
Growth Policy Benchmark				-8.5%	-20.2%	-16.7%	6.1%	--	--	7.0%	
Global Equity	29.5%	19,936	21,343	-6.5%	-25.0%	-20.0%	4.1%	--	--	4.7%	Apr-2019
Global Equity Policy Benchmark				-6.6%	-25.7%	-21.2%	3.6%	--	--	4.0%	
Private Equity - Growth	18.5%	12,522	12,901	-3.2%	5.6%	11.4%	24.0%	--	--	21.3%	Jan-2019
PE - Growth Policy Benchmark				-15.4%	-14.3%	-14.8%	8.1%	--	--	7.0%	
Non-Core Private Real Estate	1.6%	1,077	1,087	4.7%	18.2%	20.4%	15.0%	12.6%	12.2%	4.8%	Jan-1996
Non-Core Private RE Policy Benchmark				5.1%	22.6%	31.1%	14.7%	12.7%	13.4%	11.7%	
Credit	11.7%	7,883	7,824	-0.6%	-7.6%	-5.9%	2.7%	--	--	3.2%	Apr-2019
Credit Policy Benchmark				-0.9%	-9.1%	-9.2%	0.3%	--	--	1.6%	
Liquid Credit	6.7%	4,533	4,581	-1.1%	-11.9%	-11.6%	--	--	--	-11.6%	Oct-2021
Liquid Credit Policy Benchmark				-0.6%	-11.6%	-11.3%	--	--	--	-11.3%	
Illiquid Credit	5.0%	3,350	3,243	0.0%	-0.7%	3.7%	10.8%	--	--	10.0%	Apr-2019
Illiquid Credit Policy Benchmark				-1.3%	-6.2%	-6.8%	1.4%	--	--	3.8%	
Real Assets & Inflation Hedges	17.9%	12,075	12,539	-2.1%	3.7%	9.2%	7.6%	--	--	6.5%	Apr-2019
RA & IH Policy Benchmark				-3.1%	1.0%	6.4%	7.4%	--	--	7.0%	
Core Private Real Estate	6.6%	4,471	4,323	5.0%	21.7%	29.1%	10.8%	9.2%	9.1%	7.4%	Oct-1985
Core Private RE Policy Benchmark				4.5%	20.6%	28.3%	12.0%	10.0%	10.6%	7.2%	
Natural Resources & Commodities	3.7%	2,476	2,958	-3.4%	7.5%	11.3%	12.3%	6.5%	-1.6%	-1.2%	Jul-2007
Nat Res & Comm Policy Benchmark				-4.5%	0.0%	4.2%	11.0%	5.4%	-2.8%	-2.5%	
Infrastructure	4.9%	3,305	3,327	-7.6%	-11.0%	-3.6%	4.0%	--	--	5.6%	Jun-2019
DJ Brookfield Global Infra Comp				-10.2%	-13.1%	-7.2%	-0.7%	--	--	1.0%	
TIPS	2.7%	1,823	1,931	-5.6%	-13.7%	-11.6%	0.7%	--	--	1.7%	May-2019
Bloomberg U.S. Treasury: U.S. TIPS				-5.1%	-13.6%	-11.6%	0.8%	--	--	1.8%	
Risk Reduction & Mitigation	20.0%	13,536	14,020	-3.7%	-10.8%	-10.7%	-1.2%	--	--	0.3%	Apr-2019
RR & M Policy Benchmark				-4.0%	-11.9%	-11.5%	-2.2%	--	--	-0.5%	
Investment Grade Bonds	7.8%	5,292	5,556	-4.7%	-14.7%	-14.9%	-3.1%	-0.1%	1.4%	5.1%	Nov-1994
BBG BC Aggregate Bond Index				-4.8%	-14.6%	-14.6%	-3.3%	-0.3%	0.9%	4.6%	
Diversified Hedge Funds	6.3%	4,281	4,196	1.3%	4.3%	5.3%	7.1%	--	--	6.8%	Apr-2019
Diversified Hedge Funds Policy Benchmark				0.9%	2.3%	3.0%	3.1%	--	--	3.3%	
Long-Term Government Bonds	4.3%	2,874	1,210	-10.2%	-28.5%	--	--	--	--	-28.3%	Nov-2021
Bloomberg U.S. Treasury: Long				-9.6%	-28.8%	--	--	--	--	-29.6%	
Cash	1.6%	1,088	1,067	0.9%	1.8%	2.2%	1.4%	1.7%	1.1%	1.8%	Jun-2001
Cash Policy Benchmark				0.4%	0.6%	0.6%	0.6%	1.1%	0.7%	1.4%	
Overlays & Hedges	0.9%	587	692	13.5%	211.2%	235.7%	--	--	--	235.7%	Oct-2021
Cash Overlay	0.6%	424	525	-19.3%	28.8%	25.9%	-12.8%	--	--	-11.0%	Aug-2019
Total Overlay Policy BM				-5.7%	-20.4%	-17.0%	1.9%	--	--	1.9%	
Currency Hedge	0.2%	163	167	3.3%	8.1%	8.7%	--	--	--	8.7%	Oct-2021
50% FX Hedge Custom Benchmark				3.3%	8.2%	8.8%	--	--	--	8.8%	

1. Diversified Hedge Funds returns are net of all fees and expenses.

growth

Summary

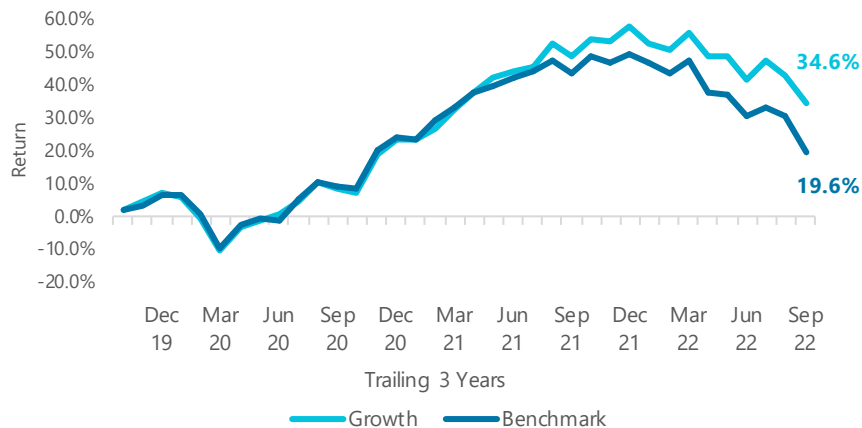
for the quarter ended September 30, 2022

Performance (net)



	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Growth	-4.9%	-14.9%	-9.5%	10.4%	--	--	10.2%
Benchmark	-8.5%	-20.2%	-16.7%	6.1%	--	--	7.0%
Excess	3.5%	5.3%	7.1%	4.3%	--	--	3.3%

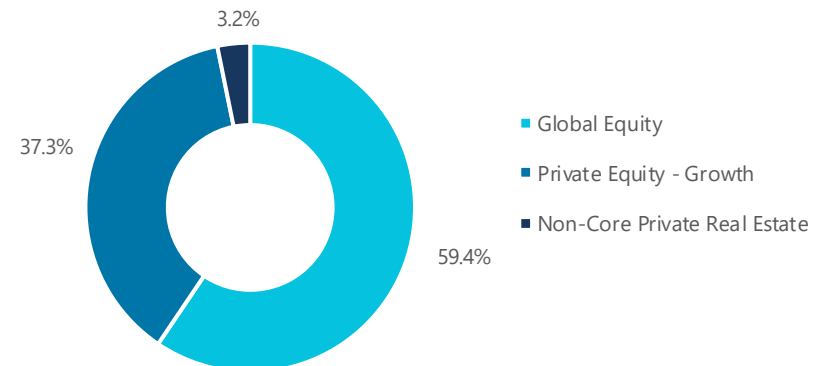
Cumulative Return



Functional Category

	QTD	FYTD	1 Year	3 Year
Global Equity	-6.5%	-6.5%	-20.0%	4.1%
Global Equity Policy Benchmark	-6.6%	-6.6%	-21.2%	3.6%
Excess	0.2%	0.2%	1.2%	0.5%
Private Equity - Growth	-3.2%	-3.2%	11.4%	24.0%
PE - Growth Policy Benchmark	-15.4%	-15.4%	-14.8%	8.1%
Excess	12.2%	12.2%	26.2%	15.9%
Non-Core Private Real Estate	4.7%	4.7%	20.4%	15.0%
Non-Core Private RE Policy Benchmark	5.1%	5.1%	31.1%	14.7%
Excess	-0.4%	-0.4%	-10.7%	0.3%

Exposure



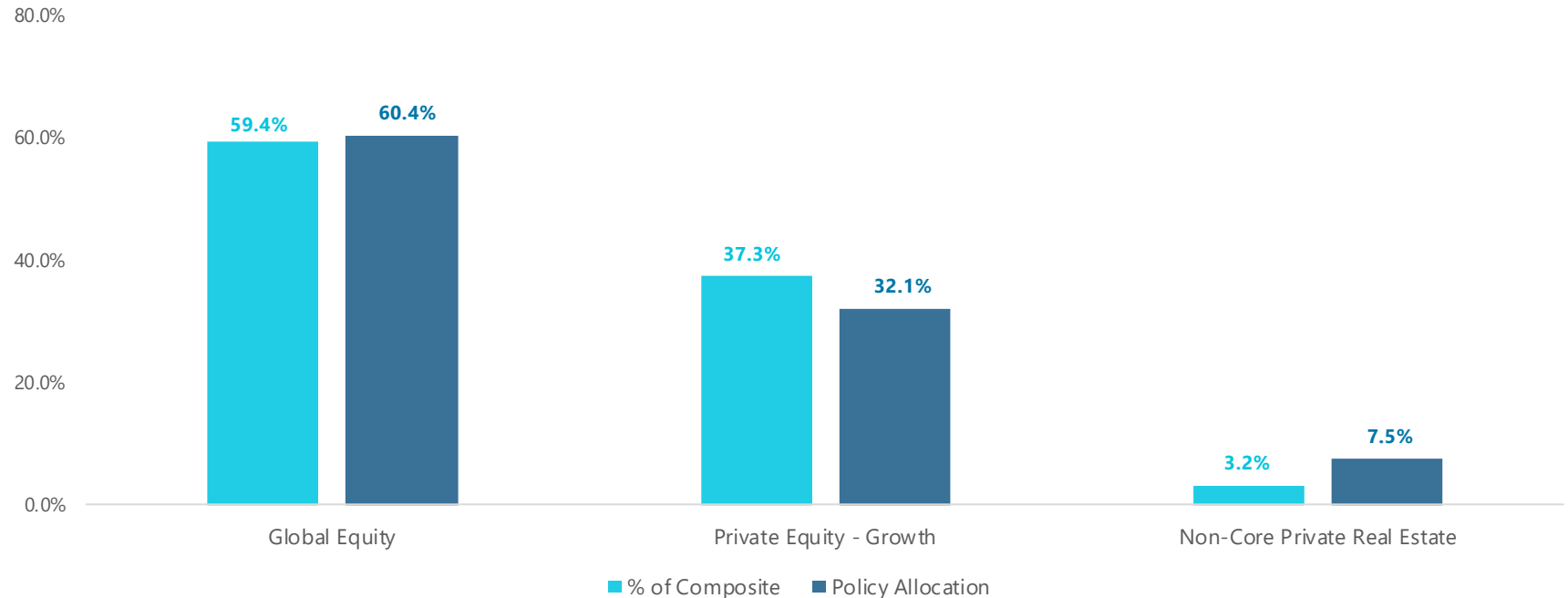
Asset Allocation

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Actual vs. Policy



	Ending Market Value (mm)	% of Composite	Policy Allocation	Over / Under (%)	Over / Under (mm)
Growth	33,535	100.0%	100.0%		
Global Equity	19,936	59.4%	60.4%	-0.9%	-313
Private Equity - Growth	12,522	37.3%	32.1%	5.3%	1,764
Non-Core Private Real Estate	1,077	3.2%	7.5%	-4.3%	-1,452

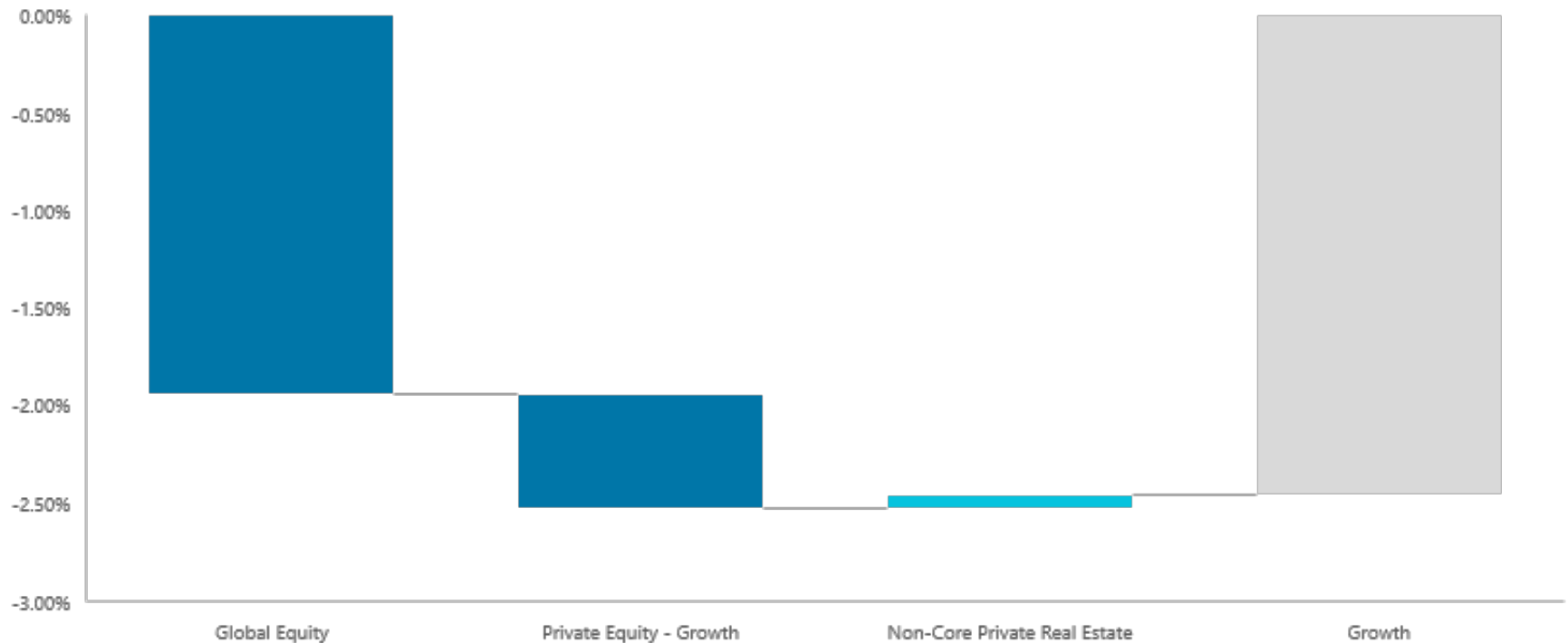
Contribution to Return

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

QTD Contribution to Return



Functional Category		Contributors		Detractors	
Global Equity	-1.94%	Real Estate - Growth	0.07%	SSGA MSCI ACWI IMI	-1.34%
Private Equity - Growth	-0.59%	Parametric GE Region	0.05%	Private Equity - Growth	-0.58%
Non-Core Private Real Estate	0.07%	Cevian Capital II - Activist	0.01%	JPMAM Strategic Beta US	-0.26%
Growth	-2.46%			Lazard Emerging Markets	-0.08%
				JPMAM Strategic Beta Non-US	-0.07%

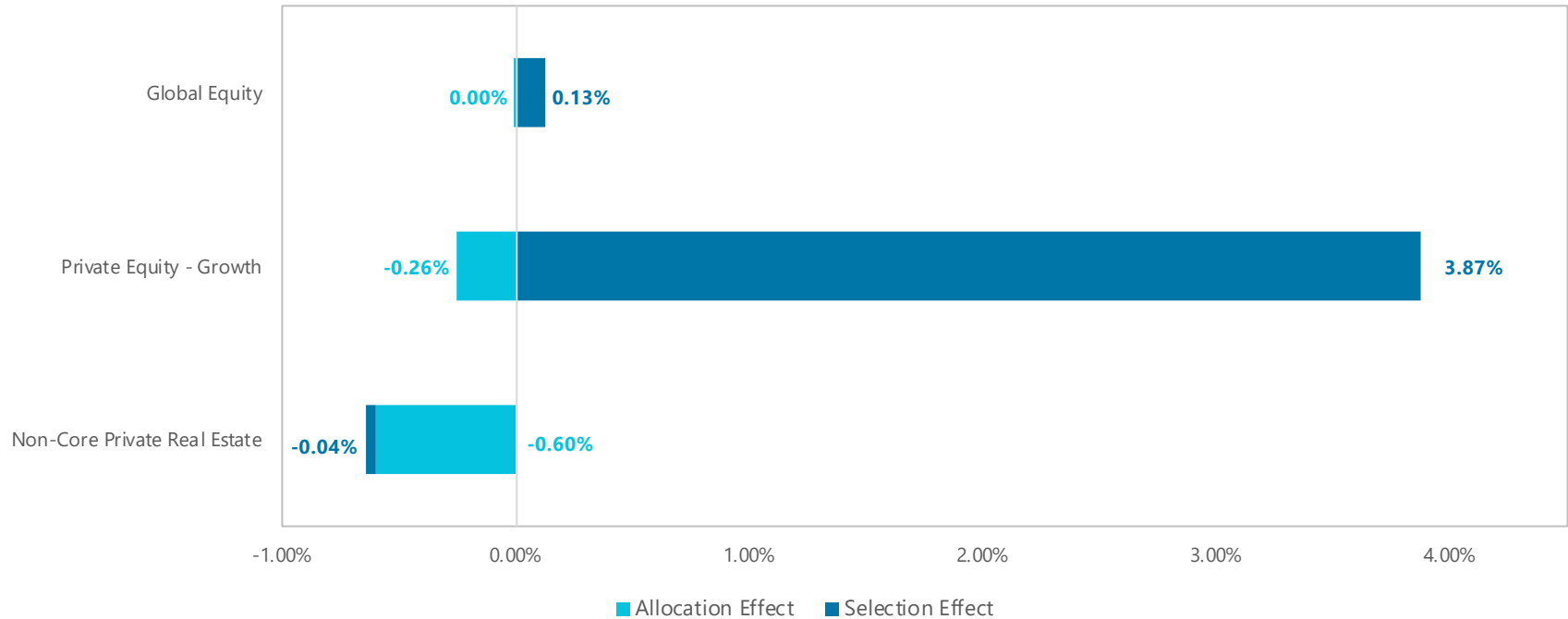
Return Attribution

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

QTD Performance Attribution¹



	Ending Market Value (mm)	% of Composite	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Growth	33,535	100.0%	100.0%	-4.9%	-8.5%	-0.86%	3.96%	3.52%
Global Equity	19,936	59.4%	60.4%	-6.5%	-6.6%	0.00%	0.13%	0.10%
Private Equity - Growth	12,522	37.3%	32.1%	-3.2%	-15.4%	-0.26%	3.87%	4.05%
Non-Core Private Real Estate	1,077	3.2%	7.5%	4.7%	5.1%	-0.60%	-0.04%	-0.62%

1. Total Value Add includes Interaction Effect.

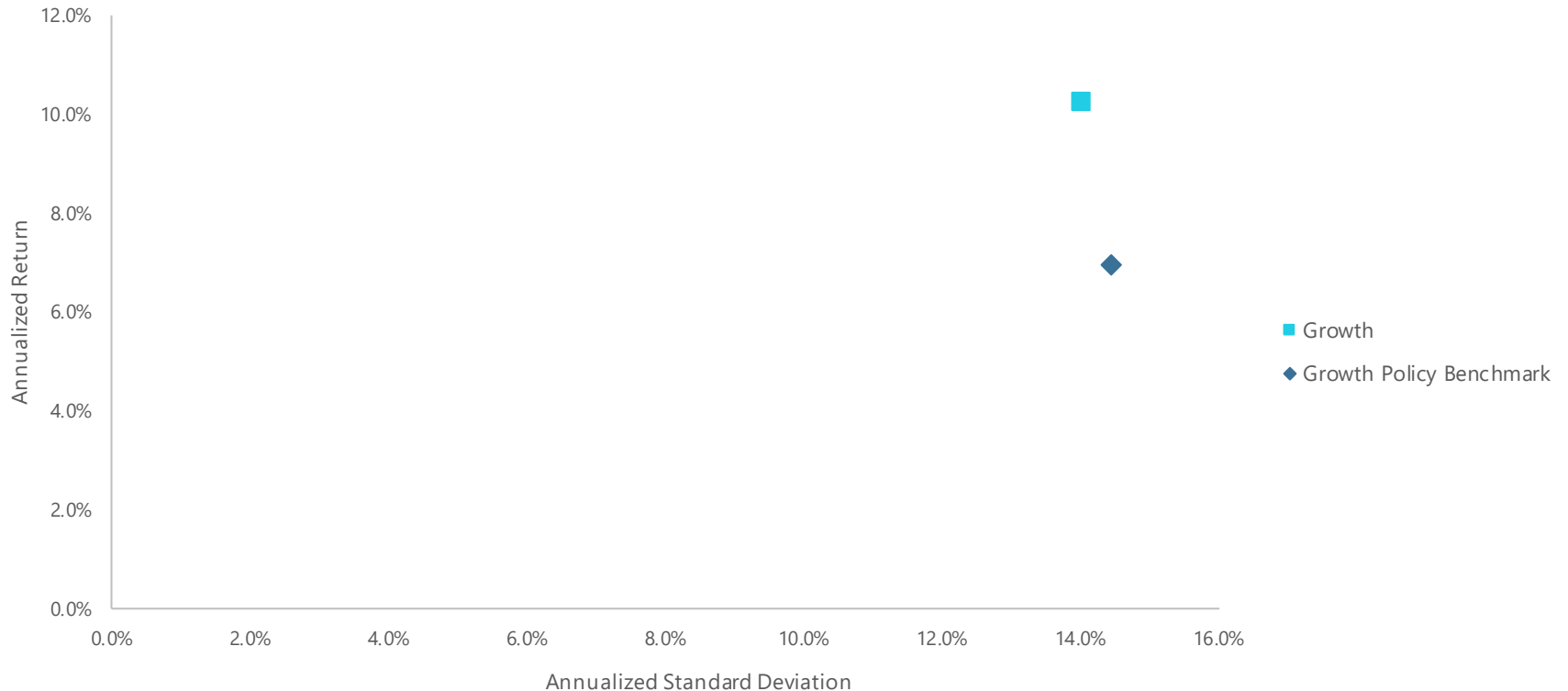
Risk vs. Return

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Since Inception (Annualized)¹



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Growth	10.2%	14.0%				
Growth Policy Benchmark	7.0%	14.4%	0.71	0.78	0.93	4.3%

1. Composite risk statistics are relative to the policy benchmark.

Performance Detail

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Annualized Net Returns

	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Growth	100.0%	33,535	35,331	-4.9%	-14.9%	-9.5%	10.4%	--	--	10.2%	Apr-2019
Growth Policy Benchmark				-8.5%	-20.2%	-16.7%	6.1%	--	--	7.0%	
Global Equity	59.4%	19,936	21,343	-6.5%	-25.0%	-20.0%	4.1%	--	--	4.7%	Apr-2019
Global Equity Policy Benchmark				-6.6%	-25.7%	-21.2%	3.6%	--	--	4.0%	
Passive											
SSGA MSCI ACWI IMI	37.8%	12,667	13,120	-6.8%	-25.4%	-20.5%	--	--	--	1.3%	Jan-2020
Factor Based											
JPMAM Strategic Beta Non-US	1.4%	482	533	-9.4%	-25.1%	-23.2%	--	--	--	-1.2%	Aug-2020
JPMAM Strategic Beta US	11.1%	3,717	3,901	-4.7%	-23.7%	-15.6%	--	--	--	8.9%	Jul-2020
Active											
Acadian Developed Markets	1.5%	488	531	-8.1%	-25.9%	-23.2%	2.0%	1.3%	6.5%	3.5%	Apr-2006
BTC Euro Tilts	1.3%	444	483	-8.1%	-26.5%	-21.3%	1.1%	-0.1%	5.2%	2.2%	Jan-2007
Cevian Capital II - Activist	1.1%	364	359	1.3%	-12.0%	-6.5%	8.0%	4.5%	--	6.4%	Oct-2016
CGT International Equity	0.9%	310	343	-9.6%	-34.8%	-34.0%	-1.8%	0.9%	5.0%	4.6%	Nov-1994
Comercap US Small Cap - EMP	0.2%	73	77	-5.1%	-16.1%	-11.0%	7.9%	--	--	5.0%	Oct-2018
Frontier US SMID Growth	0.7%	231	242	-4.6%	-26.1%	-21.8%	4.1%	3.5%	9.6%	9.3%	Jun-2002
Genesis Emerging Markets	0.0%	0	491	-0.6%	-23.5%	-27.0%	-2.7%	-0.6%	1.9%	3.0%	Sep-2007
Global Alpha	0.4%	144	162	-11.2%	-29.8%	-30.3%	-1.3%	--	--	0.8%	Nov-2018
Jana JSI Fund V - Activist	0.2%	66	118	-6.6%	-13.3%	-7.5%	10.6%	10.1%	--	15.3%	Oct-2016
Lazard Emerging Markets	1.0%	322	374	-14.1%	-32.3%	-31.7%	-1.7%	-1.0%	--	0.7%	Feb-2013
Parametric GE Market Cap	0.3%	112	134	-9.7%	-9.7%	--	--	--	--	8.2%	Oct-2021
Parametric GE Region	0.3%	117	80	32.8%	-8.0%	--	--	--	--	-6.9%	Dec-2021
Symphony Financial - Activist	0.6%	207	204	1.5%	-21.5%	-19.7%	3.8%	8.4%	--	10.6%	Nov-2016
Systematic US Small Cap Value	0.5%	167	174	-4.0%	-19.4%	-13.2%	5.9%	--	--	2.9%	Jul-2018
Private Equity - Growth	37.3%	12,522	12,901	-3.2%	5.6%	11.4%	24.0%	--	--	21.3%	Jan-2019
PE - Growth Policy Benchmark				-15.4%	-14.3%	-14.8%	8.1%	--	--	7.0%	
Non-Core Private Real Estate	3.2%	1,077	1,087	4.7%	18.2%	20.4%	15.0%	12.6%	12.2%	4.8%	Jan-1996
Non-Core Private RE Policy Benchmark				5.1%	22.6%	31.1%	14.7%	12.7%	13.4%	11.7%	

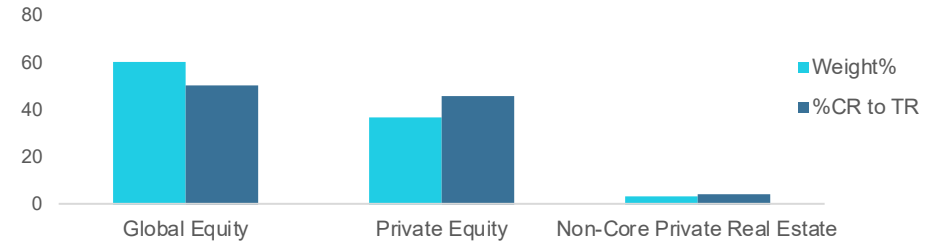
Growth Risk Summary

for the quarter ended September 30, 2022

Risk Summary

	Value
Total Risk	21.27
Benchmark Risk	20.11
Active Risk	1.86
Portfolio Beta	1.06

Contribution to Risk

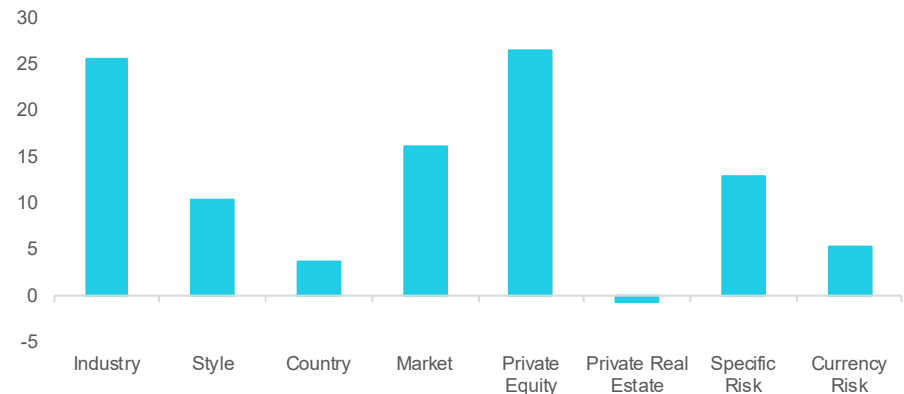


	Mkt Value (mm)	Weight%	Total Risk	Risk Contribution	%CR to TR
Growth	33,198	100.00	21.27	21.27	100.00
Global Equity	19,884	59.90	18.80	10.64	50.02
Private Equity	12,276	36.98	28.58	9.81	46.12
Non-Core Private Real Estate	1,038	3.13	42.80	0.82	3.86

Risk Decomposition

Risk Source	Portfolio Risk		Active Risk	
	Contribution	%Risk	Contribution	%Risk
Total Risk	21.27	100.00	1.86	100.00
Local Market Risk	20.37	95.78	1.76	94.82
Common Factor Risk	20.33	95.59	1.52	81.85
Specific Risk	0.04	0.19	0.24	12.97
Currency Risk	0.90	4.22	0.10	5.18

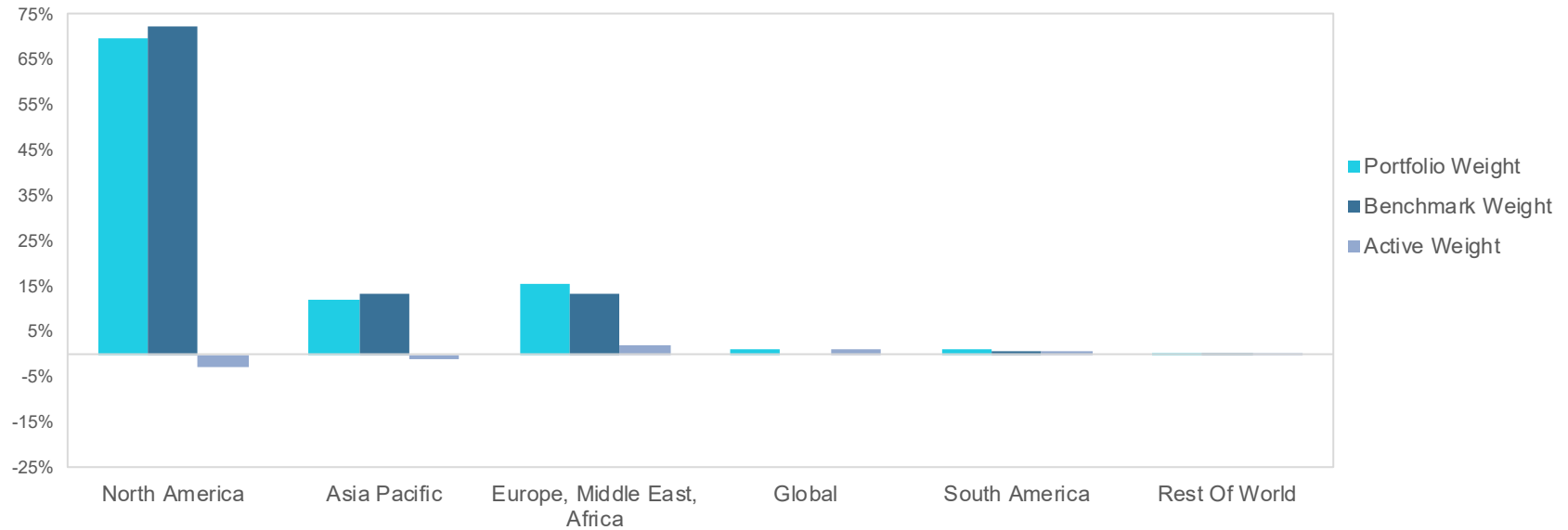
Active Risk from Common Factors



Growth Risk Summary

for the quarter ended September 30, 2022

Portfolio Allocation By Region

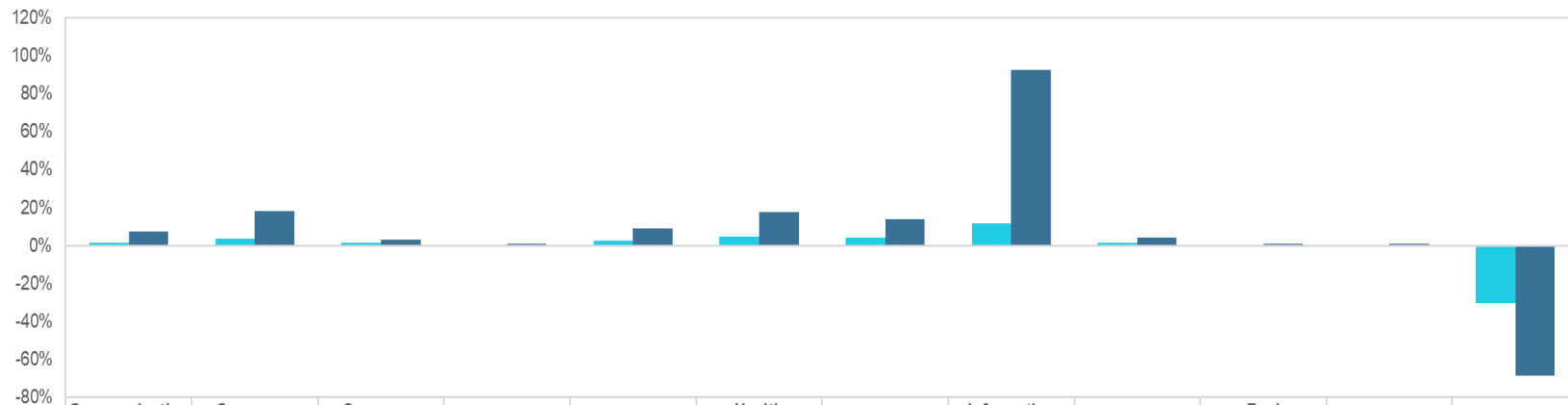


Region	Weight%			Total Risk	Active Risk CR	% of Active TR	MC to Total Tracking Error
	Portfolio	Benchmark	Active				
Total Fund	100.00%	100.00%	0.00%	21.27	1.86	100.00	0.02
North America	69.58%	72.55%	-2.96%	23.43	1.43	77.18	0.06
Asia Pacific	12.21%	13.20%	-1.00%	16.05	0.18	9.74	-0.04
Europe, Middle East, Africa	15.58%	13.41%	2.17%	22.29	0.23	12.46	0.02
Global	1.12%	0.00%	1.12%	21.49	-0.03	-1.75	-0.03
South America	1.16%	0.61%	0.55%	32.57	0.04	2.34	0.04
Rest Of World	0.35%	0.24%	0.12%	16.57	0.00	0.03	-0.03

Growth Risk Summary

for the quarter ended September 30, 2022

Portfolio Allocation By GICS Sector



	Communication Services	Consumer Discretionary	Consumer Staples	Energy	Financials	Health Care	Industrials	Information Technology	Materials	Real Estate	Utilities	Others
■ Active Weight	1.44%	3.77%	1.48%	0.19%	2.23%	4.53%	4.16%	11.57%	1.23%	-0.20%	-0.09%	-30.30%
■ Active Risk Contribution	7.54%	17.97%	2.96%	0.82%	9.17%	17.77%	13.81%	92.60%	4.05%	1.14%	0.70%	-68.52%

■ Active Weight ■ Active Risk Contribution

Growth – Global Equity Acadian Developed Markets

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to capture mispriced opportunities through systematic stock, sector, and country valuation models that are customized to each market. The strategy may be suited to investors looking to gain exposure in non-U.S. developed markets and diversify portfolio through active quantitative investment approach.

Inception Date: April 2006

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	37,662.3	64,057.5
No. Of Issues	615.0	0.0
Dividend Yield	5.1	3.7
Return on Equity	25.9	18.1
Price to Sales	2.6	2.7
Price to Book	5.0	3.5
PE Ratio	8.5	13.4

Top Holdings (% of assets)

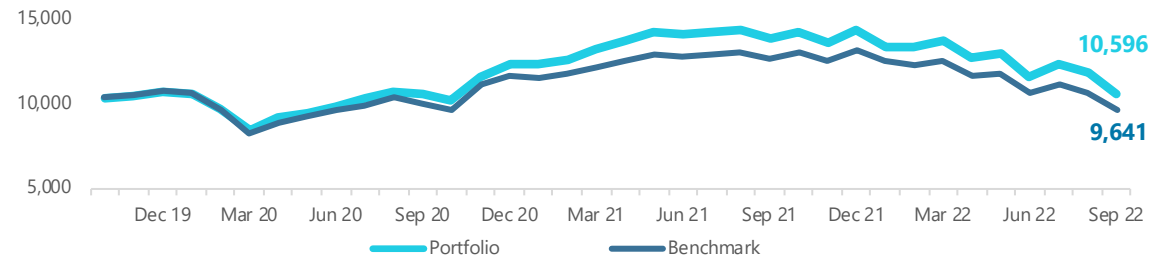
ROCHE HOLDING AG GENUSSCHEIN	3.6%
NOVO NORDISK A/S B	3.0%
WOLTERS KLUWER	2.0%
BHP GROUP LTD	1.9%
SOUTH32 LTD DI	1.7%
Top 5 Holdings	12.1%

Performance (net)¹

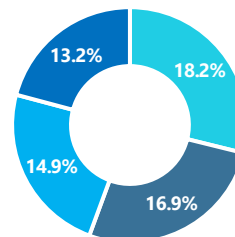
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Acadian Developed Markets	488.3	-8.1%	-23.2%	2.0%	1.3%
MSCI EAFE + Canada Net Index		-9.2%	-23.9%	-1.2%	-0.4%
Growth Policy Benchmark		-8.5%	-16.7%	6.1%	--

Universe data: Intl/Global Equity Funds - Core	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Acadian Developed Markets	-8.0%	51	-22.9%	52	2.3%	44	1.7%	52
Median	-8.0%		-22.2%		1.8%		2.3%	

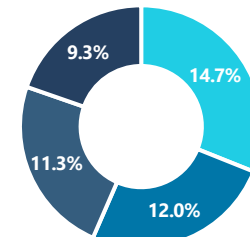
Growth of \$10,000



Top Exposures (% of assets)²



- HEALTH CARE
- INDUSTRIALS
- FINANCIALS
- MATERIALS



- JAPAN
- CANADA
- AUSTRALIA
- SWITZERLAND

1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

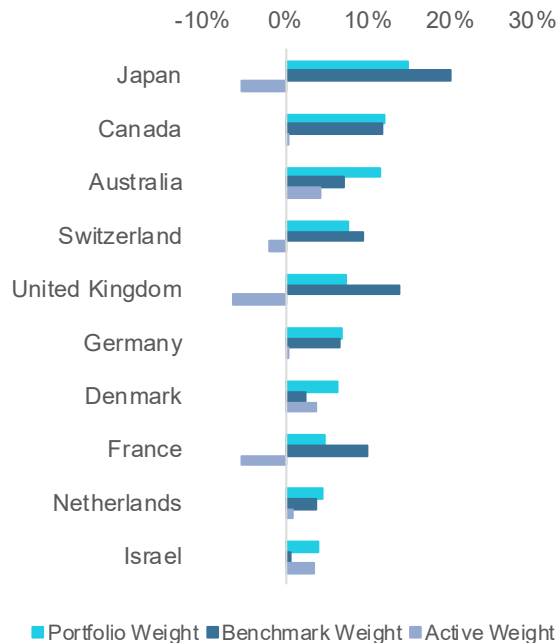
Acadian Developed Markets

for the quarter ended September 30, 2022

Portfolio Risk Summary

	Value
Total Risk	19.78
Benchmark Risk	18.26
Active Risk	5.08
Portfolio Beta	1.05

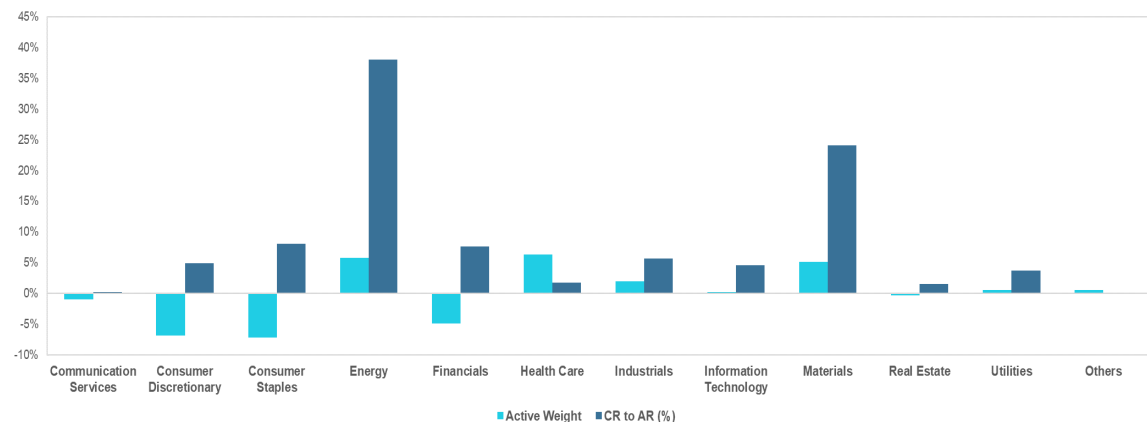
Top Countries by Weight%



Top 10 Assets by Contribution to Active Risk

Asset	Weight			Total Risk	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active			
TOURMALINE OIL CORP	1.37%	0.12%	1.25%	46.31	5.58	0.258
SOUTH32 LIMITED	1.58%	0.08%	1.50%	42.19	5.28	0.210
EQUINOR ASA	1.60%	0.23%	1.37%	40.74	4.83	0.211
MEG ENERGY CORP	0.64%	0.00%	0.64%	63.03	4.13	0.359
BIRCHCLIFF ENERGY LTD	0.72%	0.00%	0.72%	59.73	3.96	0.310
ADARO ENERGY INDONESIA TBK PT	0.86%	0.00%	0.86%	48.57	3.55	0.241
CRESCENT POINT ENERGY CORP	0.46%	0.00%	0.46%	67.06	3.18	0.381
BHP GROUP LTD	1.92%	0.91%	1.01%	36.91	3.08	0.186
PILBARA MINERALS LTD	0.70%	0.00%	0.70%	61.75	3.06	0.252
WHITEHAVEN COAL LTD	0.59%	0.00%	0.59%	55.41	3.05	0.294

Portfolio Risk by GICS Sector



Growth – Global Equity BTC Europe Alpha Tilts

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to generate risk-controlled and consistent active returns by using a unique blend of bottom-up stock selection insights and broader top-down thematic insights. The strategy may be suited to investors looking to capture active return opportunities in European region.

Inception Date: January 2007

Risk Statistics (since inception)

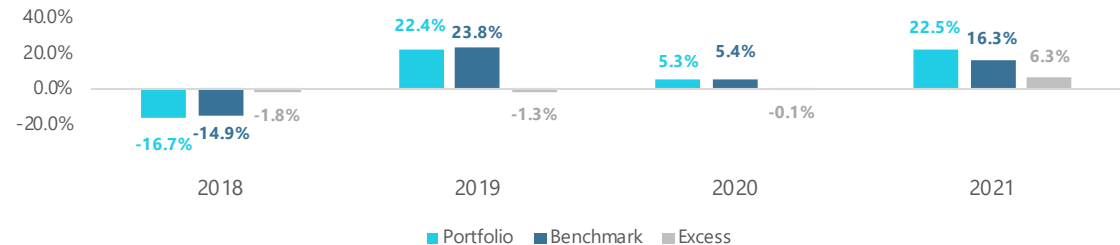
Standard Deviation	19.2%
Benchmark Standard Deviation	19.3%
Sharpe Ratio	0.16
Information Ratio	0.55
Beta	0.99
Tracking Error	1.9%

Performance (net)¹

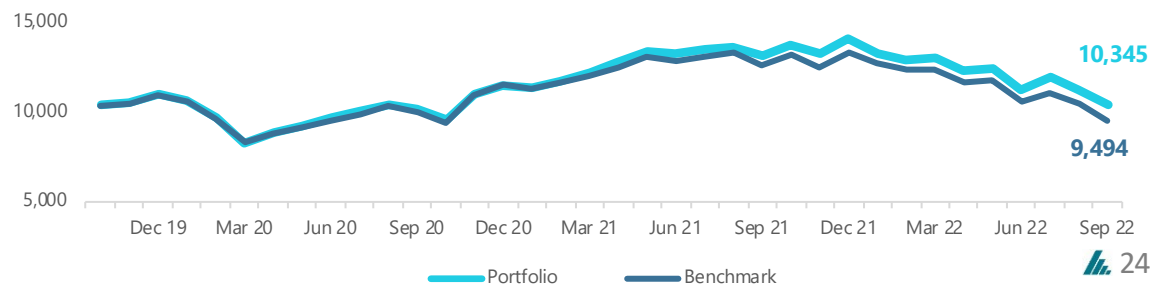
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
BTC Euro Tilts	443.7	-8.1%	-21.3%	1.1%	-0.1%
MSCI EUROPE		-10.1%	-24.8%	-1.7%	-1.2%
Growth Policy Benchmark		-8.5%	-16.7%	6.1%	--

Universe data: Intl Equity Developed Mkt Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
BTC Euro Tilts	-8.0%	34	-20.9%	27	1.6%	18	0.3%	37
Median	-9.2%		-24.2%		-1.0%		0.4%	

Calendar Year Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
1. Universe data is gross-of-fees.

Growth Risk Analysis – Global Equity BTC Europe Alpha Tilts

for the quarter ended September 30, 2022

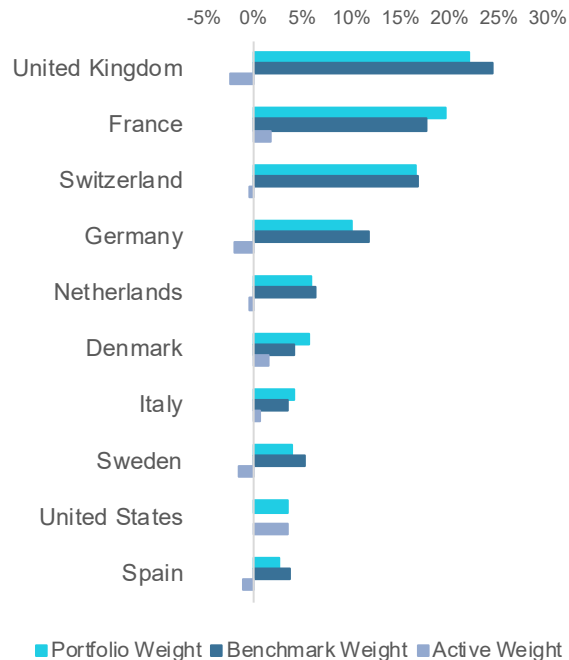


Los Angeles County Employees Retirement Association

Portfolio Risk Summary

	Value
Total Risk	19.60
Benchmark Risk	20.33
Active Risk	1.51
Portfolio Beta	0.96

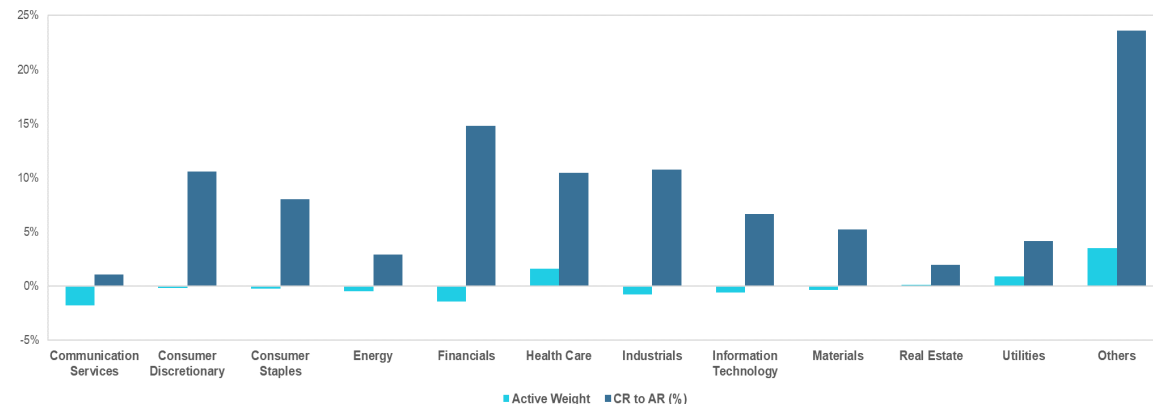
Top Countries by Weight%



Top 10 Assets by Contribution to Active Risk

Asset	Weight			Total Risk	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active			
G L OTHER	3.09%	0.00%	3.09%	0.00	21.02	0.000
NOVARTIS AG	3.56%	2.13%	1.43%	19.50	6.81	-0.031
BEIERSDORF AG	1.28%	0.13%	1.15%	22.88	5.13	-0.036
ASML HOLDING NV	1.41%	2.21%	-0.81%	39.05	3.99	-0.178
BRITISH AMERICAN TOBACCO PLC	2.01%	1.00%	1.01%	23.87	3.92	-0.044
TRYG A/S	1.23%	0.10%	1.14%	25.30	3.58	-0.055
COCA-COLA EUROPACIFIC	1.08%	0.11%	0.97%	27.06	3.41	-0.050
ENGIE	1.43%	0.27%	1.16%	34.36	3.25	-0.061
PROSUS NV	0.00%	0.56%	-0.56%	43.61	3.06	-0.186
HERMES INTERNATIONAL SCA	1.81%	0.48%	1.33%	32.43	2.74	-0.072

Portfolio Risk by GICS Sector



Growth – Global Equity Capital Group Developed Markets

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to generate long-term capital appreciation through fundamental research and proprietary models for earnings estimates and valuations. The strategy may be suited to investors looking to gain exposures in non-U.S. developed markets with emphasis on bottom-up, fundamental investment analysis.

Inception Date: October 1987

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	89,772.5	64,057.5
No. Of Issues	166.0	0.0
Dividend Yield	2.5	3.7
Return on Equity	20.5	18.1
Price to Sales	5.0	2.7
Price to Book	6.2	3.5
PE Ratio	21.2	13.4

Top Holdings (% of assets)

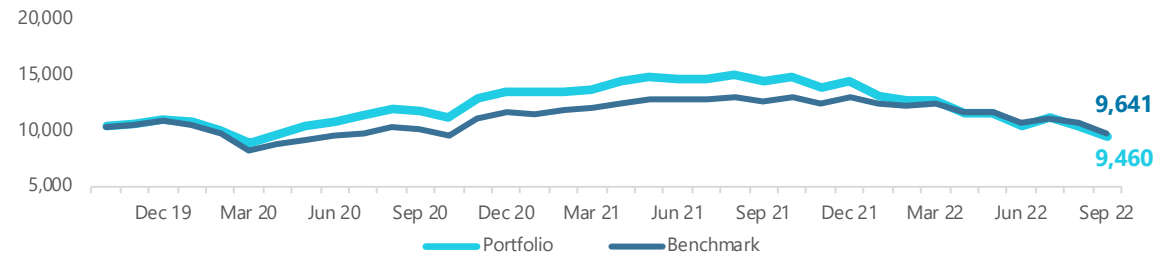
ASML HOLDING NV	4.4%
NOVO NORDISK A/S B	3.6%
LVMH MOET HENNESSY LOUIS VUI	3.2%
EVOLUTION AB	2.7%
ASTRAZENECA PLC	2.3%
Top 5 Holdings	16.2%

Performance (net)¹

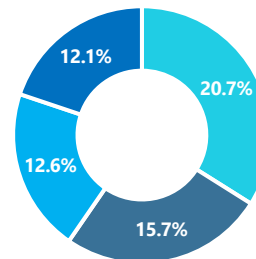
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Capital Group Developed Markets	310.0	-9.6%	-34.0%	-1.8%	0.9%
EAFE Custom Benchmark		-9.2%	-23.9%	-1.2%	-0.4%
Growth Policy Benchmark		-8.5%	-16.7%	6.1%	--

Universe data: Intl/Global Equity Funds - Core	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Capital Group Developed Markets	-9.5%	68	-33.8%	99	-1.5%	84	1.3%	56
Median	-8.0%		-22.2%		1.8%		2.3%	

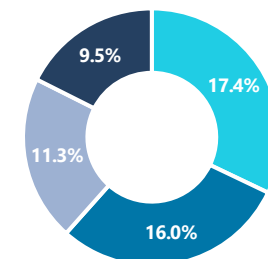
Growth of \$10,000



Top Exposures (% of assets)²



- INFORMATION TECHNOLOGY
- HEALTH CARE
- INDUSTRIALS
- CONSUMER DISCRETIONARY



- FRANCE
- JAPAN
- UNITED KINGDOM
- NETHERLANDS

1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity Capital Group Developed Markets

for the quarter ended September 30, 2022

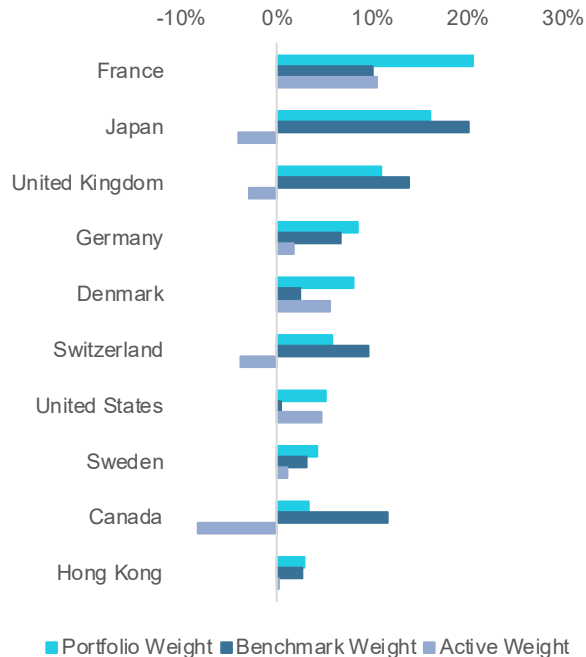


Los Angeles County Employees Retirement Association

Portfolio Risk Summary

	Value
Total Risk	19.26
Benchmark Risk	18.26
Active Risk	4.49
Portfolio Beta	1.03

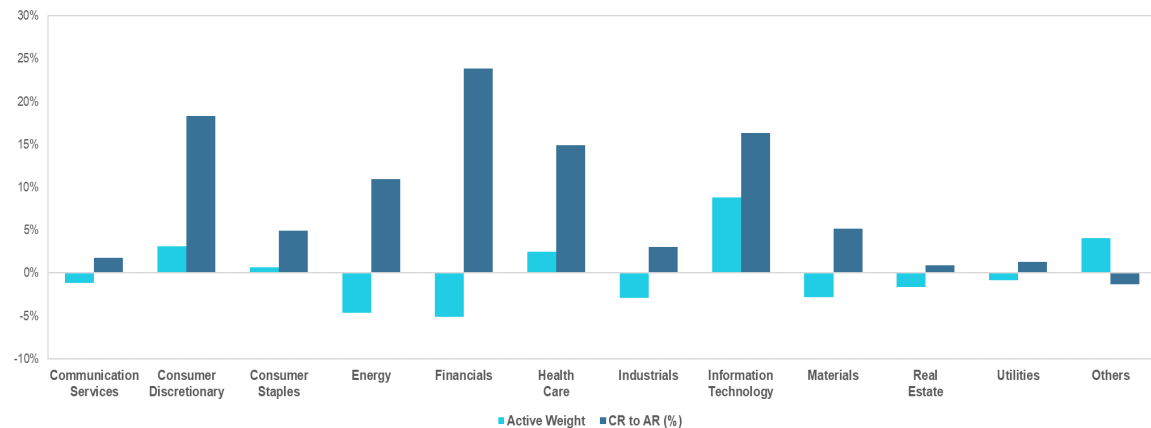
Top Countries by Weight%



Top 10 Assets by Contribution to Active Risk

Asset	Weight			Total Risk	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active			
EVOLUTIONAB (PUBL)	2.72%	0.11%	2.61%	51.66	10.93	0.207
COMMON STOC	4.43%	0.00%	4.43%	40.87	9.91	0.120
GENMAB A/S	2.03%	0.15%	1.87%	33.90	5.32	0.147
NOVO NORDISK A/S	3.60%	1.20%	2.40%	28.93	4.52	0.104
SHELL PLC	0.00%	1.35%	-1.35%	32.88	3.40	-0.094
OCADO GROUP PLC	1.10%	0.02%	1.08%	52.80	3.27	0.156
LVMH MOET HENNESSY LOUIS VUITTON	3.23%	1.20%	2.03%	28.23	2.67	0.079
HAMAMATSU PHOTONICS KK	1.92%	0.04%	1.88%	27.11	2.53	0.080
KEYENCE CORP	1.84%	0.47%	1.38%	29.06	2.51	0.101
BHP GROUP LTD	0.00%	0.91%	-0.91%	36.91	1.89	-0.074

Portfolio Risk by GICS Sector



Growth – Global Equity

Cevian Capital II

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to generate long-term returns by researching and investing in European companies that have profitable businesses and significant improvement potential. The strategy may be suited to investors looking to increase portfolio diversification through differentiated investment approach and take advantage of return opportunities in Europe.

Inception Date: October 2016

Risk Statistics (since inception)

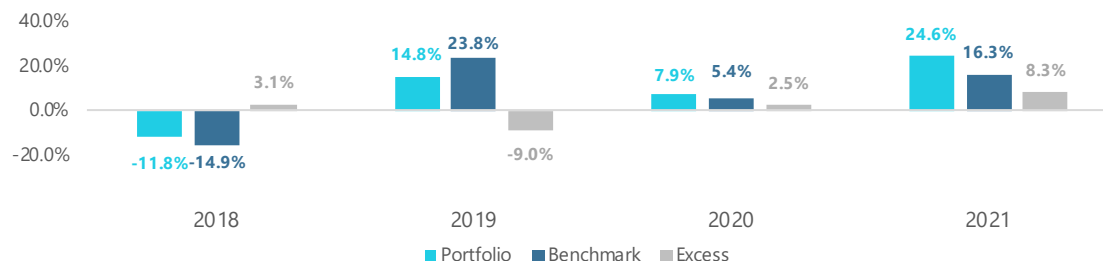
Standard Deviation	16.7%
Benchmark Standard Deviation	17.1%
Sharpe Ratio	0.39
Information Ratio	0.43
Beta	0.83
Tracking Error	9.5%

Performance (net)¹

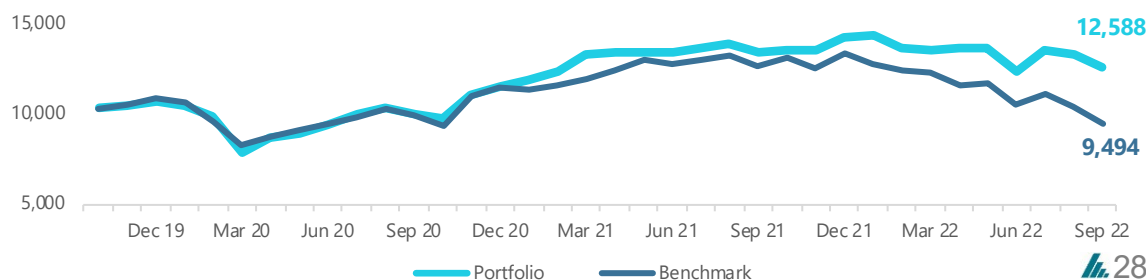
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Cevian Capital II - Activist	363.7	1.3%	-6.5%	8.0%	4.5%
MSCI EUROPE		-10.1%	-24.8%	-1.7%	-1.2%
Growth Policy Benchmark		-8.5%	-16.7%	6.1%	--

Universe data: Europe Equity	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Cevian Capital II - Activist	1.6%	2	-5.5%	5	9.1%	3	5.8%	5
Median	-9.2%		-24.2%		-1.0%		-0.4%	

Calendar Year Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
1. Universe data is gross-of-fees.

Growth Risk Analysis – Global Equity Cevian Capital II

for the quarter ended September 30, 2022

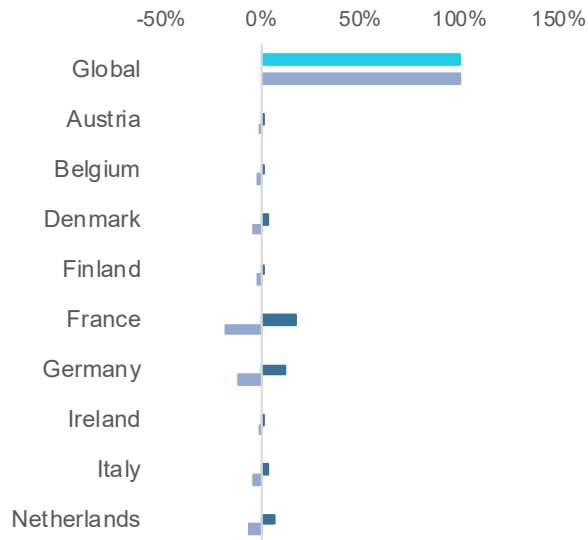


Los Angeles County Employees Retirement Association

Portfolio Risk Summary

	Value
Total Risk	23.60
Benchmark Risk	20.33
Active Risk	8.93
Portfolio Beta	1.08

Top Countries by Weight%



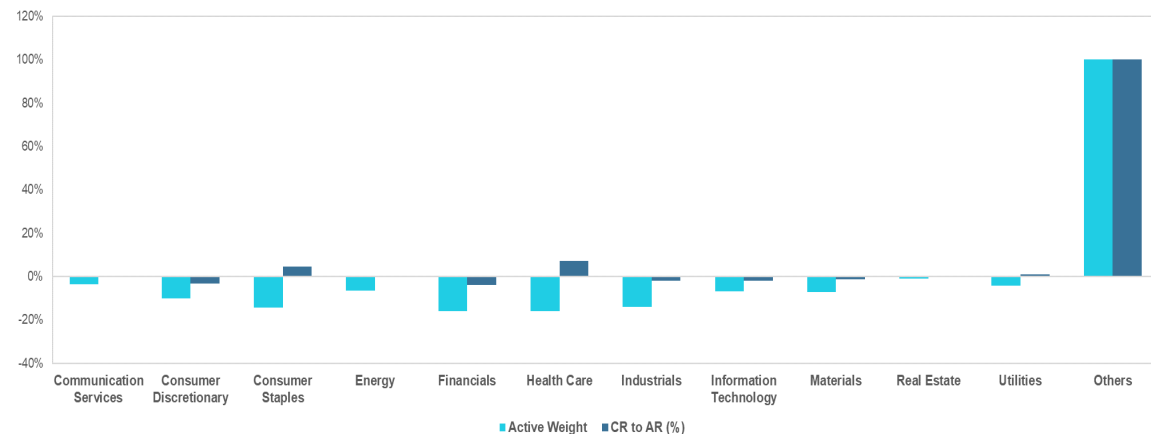
■ Portfolio Weight ■ Benchmark Weight ■ Active Weight

Note: Commingled fund account with no position-level transparency.

Top 10 Assets by Contribution to Active Risk

Asset	Weight			Total Risk	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active			
CEVIAN CAPITAL II - ACTIVIST	100.00%	0.00%	100.00%	23.60	100.00	0.125
ROCHE HOLDING AG	0.00%	2.96%	-2.96%	23.99	2.00	-0.024
NESTLE SA	0.00%	3.93%	-3.93%	18.32	1.92	-0.008
ASTRAZENECA PLC	0.00%	2.21%	-2.21%	27.45	1.49	-0.024
NOVO NORDISK A/S	0.00%	2.13%	-2.13%	28.93	1.33	-0.020
NOVARTIS AG	0.00%	2.13%	-2.13%	19.50	1.13	-0.011
UNILEVER PLC	0.00%	1.45%	-1.45%	21.98	0.79	-0.013
DIAGEO PLC	0.00%	1.24%	-1.24%	22.89	0.45	0.004
SANOFI SA	0.00%	1.12%	-1.12%	24.58	0.40	0.004
BRITISH AMERICAN TOBACCO PLC	0.00%	1.00%	-1.00%	23.87	0.36	0.003

Portfolio Risk by GICS Sector



■ Active Weight ■ CR to AR (%)

Growth – Global Equity CornerCap US Small Cap

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to exploit small cap market inefficiencies by using proprietary fundamental factors. The strategy may be suited to investors looking to increase U.S. small cap exposure and diversify portfolio through an active quantitative investment approach.

Inception Date: October 2018

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	2,340.4	266.1
No. Of Issues	347.0	0.0
Dividend Yield	1.8	1.4
Return on Equity	13.6	10.9
Price to Sales	2.6	12.0
Price to Book	2.6	5.3
PE Ratio	13.1	30.7

Top Holdings (% of assets)

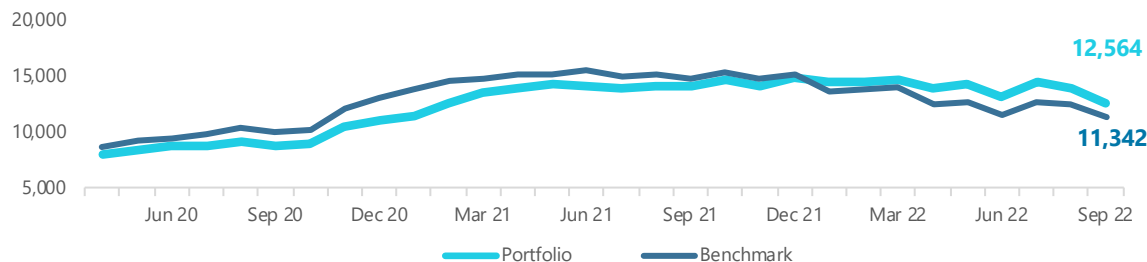
SANMINA CORP	0.5%
OPTION CARE HEALTH INC	0.5%
CHORD ENERGY CORP	0.5%
OVINTIV INC	0.5%
MIDLAND STATES BANCORP INC	0.5%
Top 5 Holdings	2.6%

Performance (net)¹

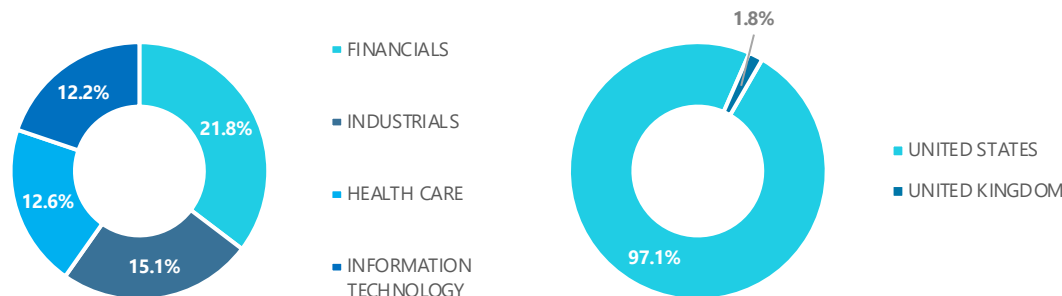
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Cornercap US Small Cap - EMP	72.7	-5.1%	-11.0%	7.9%	--
RUSSELL 2000		-2.2%	-23.5%	4.3%	--
Growth Policy Benchmark		-8.5%	-16.7%	6.1%	--

Universe data: US Equity Funds - Small Cap	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Cornercap US Small Cap - EMP	-5.0%	78	-10.5%	10	8.2%	19	--	--
Median	-2.8%		-16.2%		6.0%		--	

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

CornerCap US Small Cap

for the quarter ended September 30, 2022

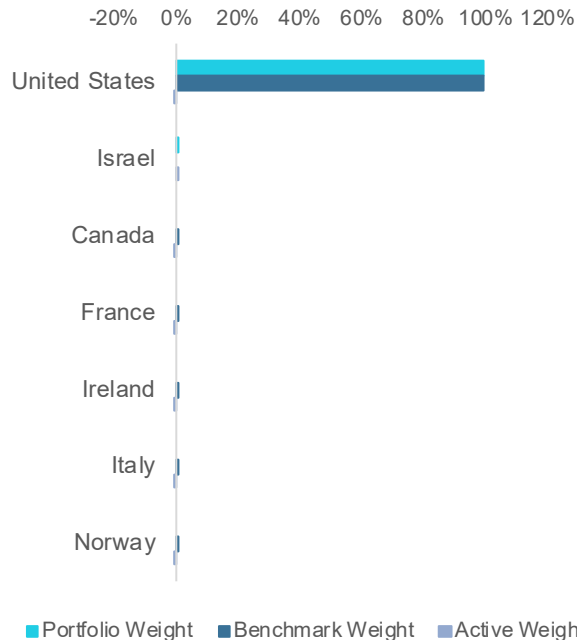


Los Angeles County Employees Retirement Association

Portfolio Risk Summary

	Value
Total Risk	24.33
Benchmark Risk	26.01
Active Risk	5.48
Portfolio Beta	0.92

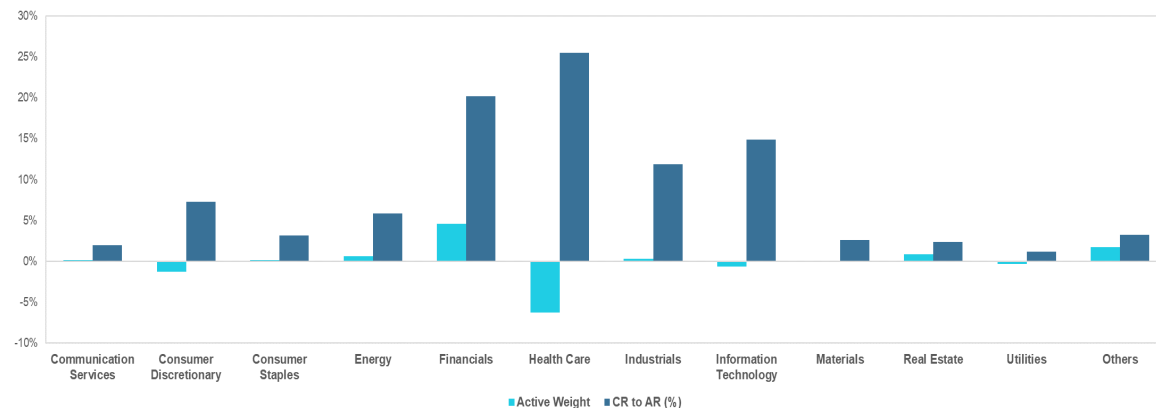
Top Countries by Weight%



Top 10 Assets by Contribution to Active Risk

Asset	Weight			Total Risk	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active			
SHOCKWAVE MEDICAL INC	0.00%	0.45%	-0.45%	58.20	1.71	-0.311
OVINTIV INC	0.53%	0.00%	0.53%	59.68	1.32	0.033
PROPETRO HOLDING CORP	0.42%	0.03%	0.39%	68.48	1.32	0.080
MIDLAND STS BANCORP INC	0.49%	0.02%	0.46%	30.96	1.25	0.044
BIOHAVEN PHARMACEUTICAL HLDG CO	0.00%	0.44%	-0.44%	51.20	1.18	-0.252
APA CORP	0.36%	0.00%	0.36%	61.45	1.17	0.076
MERCANTILE BANK CORP	0.42%	0.02%	0.40%	31.01	1.14	0.050
HORIZON BANCORP INC	0.47%	0.03%	0.44%	30.00	1.13	0.036
KARUNA THERAPEUTICS INC	0.00%	0.31%	-0.31%	53.61	1.12	-0.304
CHART INDUSTRIES INC	0.00%	0.31%	-0.31%	48.41	1.10	-0.185

Portfolio Risk by GICS Sector



Growth – Global Equity Frontier US SMID Growth

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to invest in high quality companies at attractive valuations and sustainable secular growth through fundamental analysis. The strategy may be suited to investors looking to increase U.S. mid and small cap exposures and generate returns through stock selection and low turnover.

Inception Date: June 2002

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	6,817.9	5,508.6
No. Of Issues	136.0	0.0
Dividend Yield	0.7	1.6
Return on Equity	12.5	14.4
Price to Sales	3.1	7.3
Price to Book	8.6	4.4
PE Ratio	25.0	22.2

Top Holdings (% of assets)

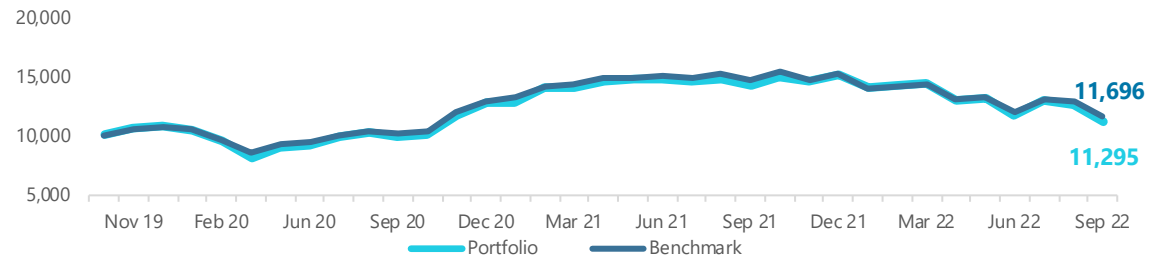
BUILDERS FIRSTSOURCE INC	2.3%
WOLFSPEED INC	2.3%
MACOM TECHNOLOGY SOLUTIONS H	2.0%
LPL FINANCIAL HOLDINGS INC	1.8%
KBR INC	1.7%
Top 5 Holdings	10.1%

Performance (net)¹

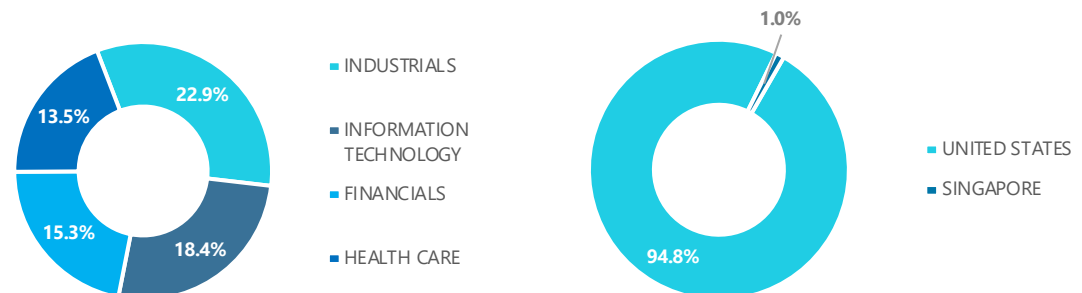
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Frontier US SMID Growth	230.6	-4.6%	-21.8%	4.1%	3.5%
RUSSELL 2500		-2.8%	-21.1%	5.4%	5.5%
Growth Policy Benchmark		-8.5%	-16.7%	6.1%	--

Universe data: US Equity Funds - Small Cap	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Frontier US SMID Growth	-4.4%	68	-21.2%	73	4.9%	71	4.3%	69
Median	-2.8%		-16.2%		6.0%		5.5%	

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

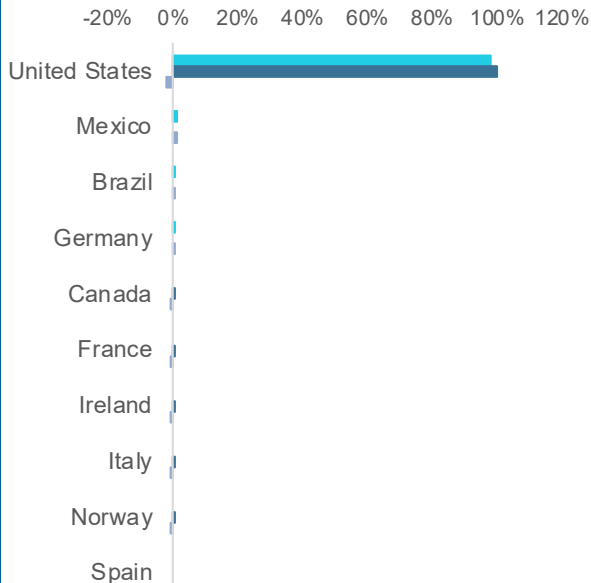
Growth Risk Analysis – Global Equity Frontier US SMID Growth

for the quarter ended September 30, 2022

Portfolio Risk Summary

	Value
Total Risk	27.84
Benchmark Risk	25.01
Active Risk	4.69
Portfolio Beta	1.10

Top Countries by Weight%

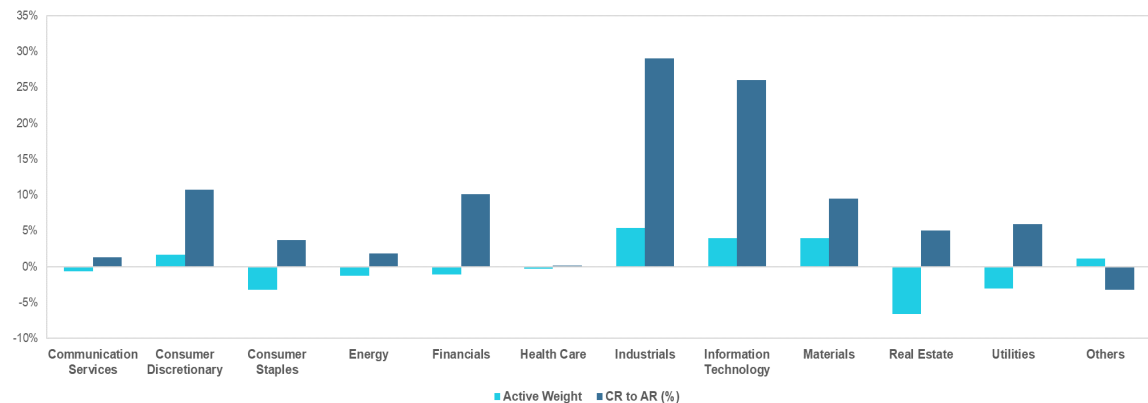


■ Portfolio Weight ■ Benchmark Weight ■ Active Weight

Top 10 Assets by Contribution to Active Risk

Asset	Weight			Total Risk	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active			
ARRAY TECHNOLOGIES INC	1.72%	0.05%	1.67%	75.22	9.59	0.405
WOLFSPEED INC	2.27%	0.24%	2.03%	56.43	8.37	0.329
MACOM TECHNOLOGY SOLUTIONS HLDS	2.00%	0.05%	1.95%	38.49	4.17	0.236
ALBEMARLE CORP	1.71%	0.00%	1.71%	46.35	3.69	0.237
BUILDERS FIRST SOURCE INC	2.28%	0.18%	2.09%	42.51	3.61	0.217
CAESARS ENTERTAINMENT INC	1.11%	0.00%	1.11%	57.43	3.49	0.283
MRC GLOBAL INC	1.31%	0.01%	1.30%	57.34	3.40	0.258
DANA INC	1.11%	0.03%	1.08%	49.43	3.18	0.273
CONTROLADORA VUELA	0.92%	0.00%	0.92%	61.51	3.14	0.295
SM ENERGY CO	1.07%	0.09%	0.98%	72.87	2.98	0.278

Portfolio Risk by GICS Sector



■ Active Weight ■ CR to AR (%)

Growth – Global Equity Global Alpha

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to identify mispriced companies with high rates of growth, strong balance sheets, and high insider ownership using a bottom-up, research-based approach coupled with investment themes. The strategy may be suited to investors looking to increase exposure to international small cap stocks.

Inception Date: November 2018

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	2,007.1	2,167.2
No. Of Issues	66.0	0.0
Dividend Yield	3.2	4.1
Return on Equity	10.5	13.2
Price to Sales	12.2	6.2
Price to Book	2.0	2.7
PE Ratio	15.8	13.4

Top Holdings (% of assets)

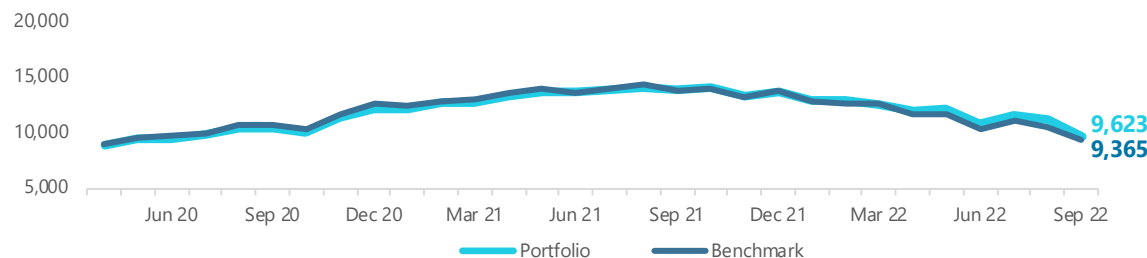
BIFFA PLC	4.6%
ORMAT TECHNOLOGIES INC	3.5%
L OCCITANE INTERNATIONAL SA	3.5%
RAFFLES MEDICAL GROUP LTD	3.4%
LOOMIS AB	3.2%
Top 5 Holdings	18.2%

Performance (net)¹

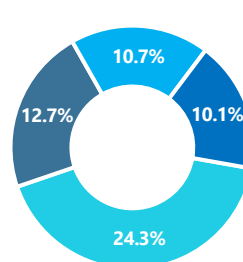
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Global Alpha	143.8	-11.2%	-30.3%	-1.3%	--
MSCI EAFE SMALL CAP NET		-9.8%	-32.1%	-2.2%	--
Growth Policy Benchmark		-8.5%	-16.7%	6.1%	--

Universe data: International Equity Funds Core	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Global Alpha	-11.1%	87	-29.8%	88	-0.5%	68	--	--
Median	-8.0%		-22.2%		1.8%		--	

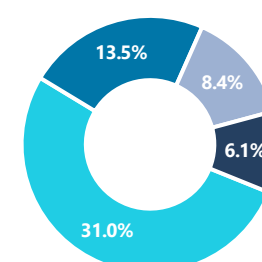
Growth of \$10,000



Top Exposures (% of assets)²



- INDUSTRIALS
- CONSUMER DISCRETIONARY
- CONSUMER STAPLES
- FINANCIALS



- JAPAN
- UNITED KINGDOM
- FRANCE
- UNITED STATES

1. Universe data is gross-of-fees.
2. Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

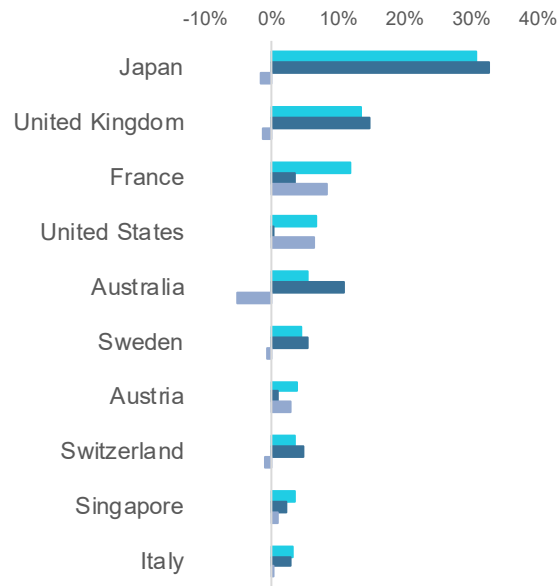
Global Alpha

for the quarter ended September 30, 2022

Portfolio Risk Summary

	Value
Total Risk	19.52
Benchmark Risk	20.32
Active Risk	4.27
Portfolio Beta	0.94

Top Countries by Weight%

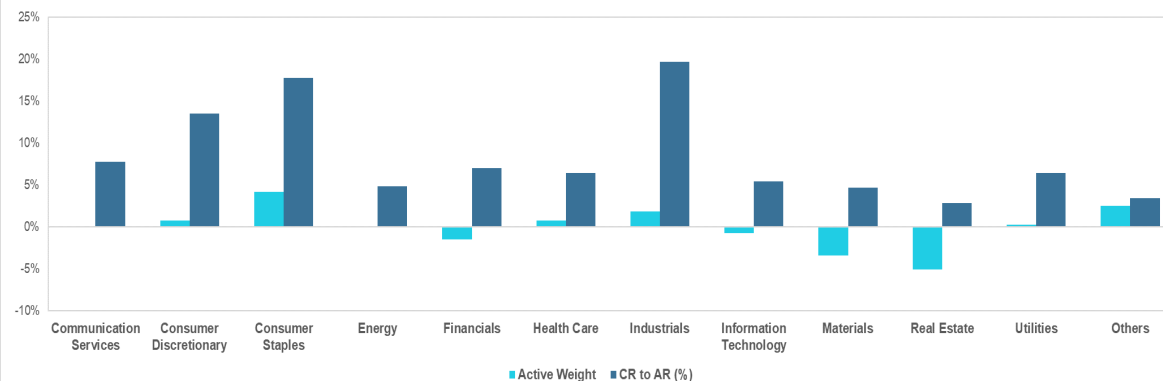


■ Portfolio Weight ■ Benchmark Weight ■ Active Weight

Top 10 Assets by Contribution to Active Risk

Asset	Weight			Total Risk	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active			
L'OCCITANE INTERNATIONAL SA	3.49%	0.00%	3.49%	37.11	10.33	0.068
BIFFA PLC	4.54%	0.07%	4.47%	42.61	9.07	0.028
ORMAT TECHNOLOGIES INC	3.56%	0.00%	3.56%	35.72	6.80	0.023
INTERNET INITIATIVE JAPAN INC	2.73%	0.07%	2.66%	36.99	6.54	0.047
RAFFLES MEDICAL GROUP LTD	3.41%	0.04%	3.37%	30.68	5.41	0.010
SEGA SAMMY HOLDINGS INC	2.99%	0.10%	2.89%	30.51	5.25	0.019
ASICS CORP	2.57%	0.12%	2.44%	42.52	5.22	0.033
AIN HOLDINGS	1.65%	0.05%	1.60%	34.81	3.32	0.030
NORWAY ROYAL SALMON ASA	1.81%	0.01%	1.81%	53.55	3.27	0.019
SOPRA STERIA GROUP SA	2.98%	0.09%	2.89%	30.61	2.61	-0.020

Portfolio Risk by GICS Sector



■ Active Weight ■ CR to AR (%)

Growth – Global Equity

JPMorgan Strategic Beta Non-US

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to capture incremental alpha through investing in equity factors that are rule-based, transparent, and academically proven. This strategy may be suited to investors looking to gain equity factor exposures in non-U.S. markets at lower volatility and cost than active strategies.

Inception Date: August 2020

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	63,458.3	59,248.5
No. Of Issues	1,661.0	0.0
Dividend Yield	4.4	3.7
Return on Equity	19.6	17.6
Price to Sales	2.9	3.7
Price to Book	3.0	3.6
PE Ratio	10.9	12.8

Top Holdings (% of assets)

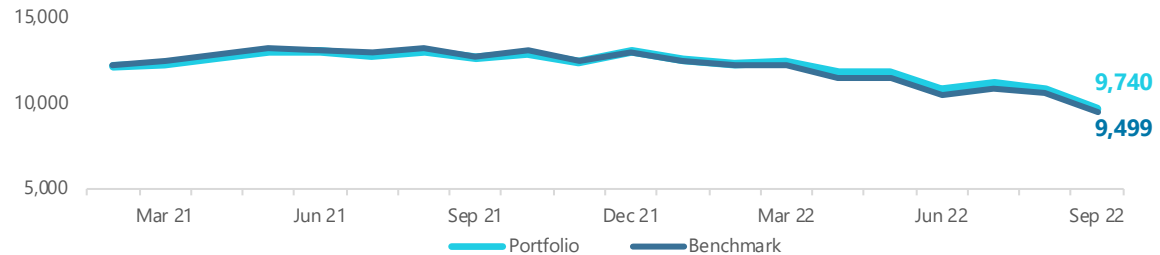
ISHARES MSCI INDIA ETF	4.4%
TAIWAN SEMICONDUCTOR MANUFAC	1.4%
NESTLE SA REG	1.4%
ROCHE HOLDING AG GENUSSSCHEIN	1.1%
TENCENT HOLDINGS LTD	1.0%
Top 5 Holdings	9.3%

Performance (net)¹

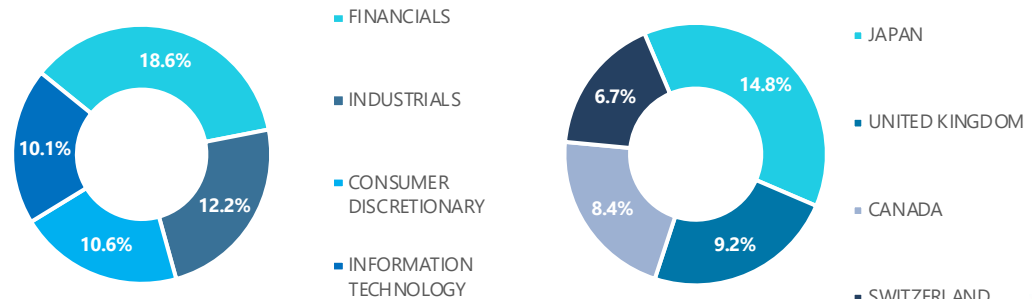
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
JPMAM Strategic Beta Non-US	482.5	-9.4%	-23.2%	--	--
MSCI ACWI ex USA IMI Net		-9.7%	-25.7%	--	--
Growth Policy Benchmark		-8.5%	-16.7%	6.1%	--

Universe data: International Equity	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
JPMAM Strategic Beta Non-US	-9.4%	47	-23.1%	26	--	--	--	--
Median	-9.4%		-25.8%		--	--	--	--

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.
2. Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

JPMorgan Strategic Beta Non-US

for the quarter ended September 30, 2022

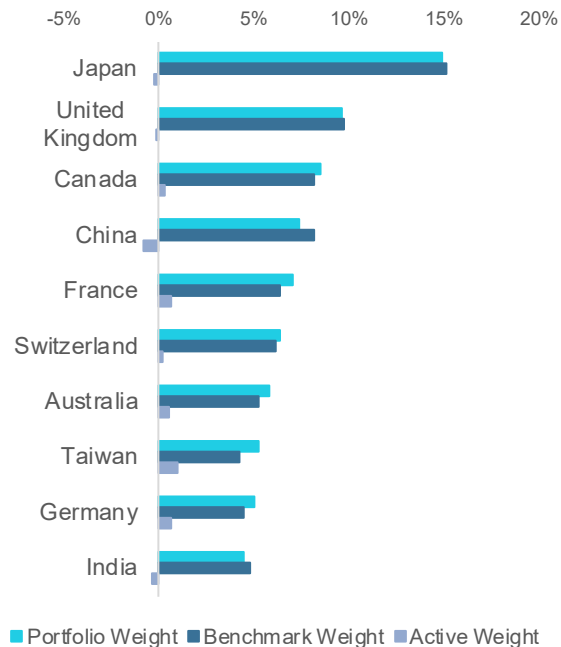


Los Angeles County Employees Retirement Association

Portfolio Risk Summary

	Value
Total Risk	17.72
Benchmark Risk	17.94
Active Risk	0.91
Portfolio Beta	0.99

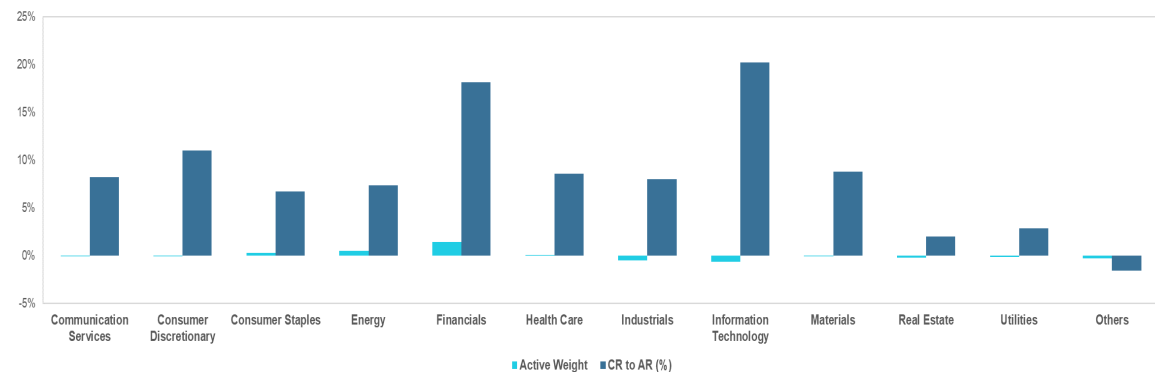
Top Countries by Weight%



Top 10 Assets by Contribution to Active Risk

Asset	Weight			Total Risk	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active			
ASML HOLDING NV	0.01%	0.76%	-0.75%	39.05	9.87	-0.168
ALIBABA GROUP HOLDING LTD	0.00%	0.66%	-0.66%	48.59	9.62	-0.181
AURELIUS EQUITY OPPORTUNITIES SE	0.80%	0.00%	0.80%	40.87	6.61	0.028
VALE SA COMMON STOC	0.26%	0.00%	0.26%	51.20	1.92	0.019
YUAN RENMINBI	0.42%	0.00%	0.42%	5.06	1.68	-0.011
UNILEVER PLC	0.45%	0.00%	0.45%	21.98	1.53	-0.017
PINDUODUO INC	0.08%	0.14%	-0.06%	60.40	1.20	-0.236
AKER BP ASA	0.15%	0.04%	0.11%	52.62	1.19	0.052
NETEASE INC	0.00%	0.14%	-0.14%	39.35	1.17	-0.126
MITSUBISHI UFJ FINANCIAL GRO	0.26%	0.00%	0.26%	22.52	1.05	-0.011

Portfolio Risk by GICS Sector



Growth – Global Equity

JPMorgan Strategic Beta US

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to capture incremental alpha through investing in equity factors that are rule-based, transparent, and academically proven. This strategy may be suited to investors looking to gain equity factor exposures in the U.S. at lower volatility and cost than active strategies.

Inception Date: July 2020

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	406,186.2	468,563.2
No. Of Issues	951.0	0.0
Dividend Yield	1.5	1.4
Return on Equity	30.0	30.6
Price to Sales	4.3	4.6
Price to Book	22.0	23.2
PE Ratio	17.2	18.9

Top Holdings (% of assets)

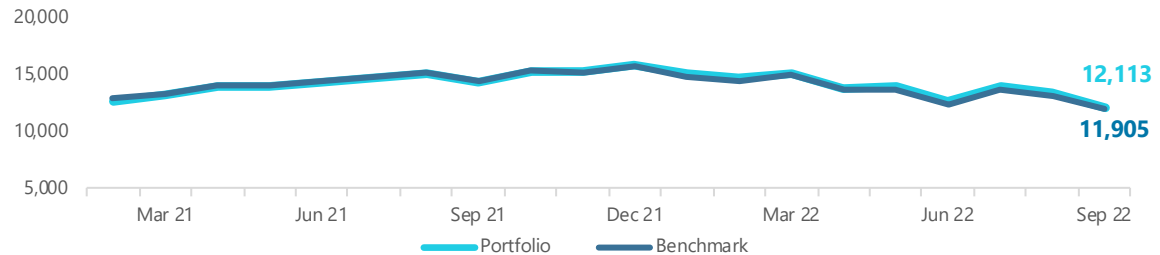
APPLE INC	6.2%
MICROSOFT CORP	4.6%
AMAZON.COM INC	2.9%
TESLA INC	2.0%
ALPHABET INC CL A	1.6%
Top 5 Holdings	17.4%

Performance (net)¹

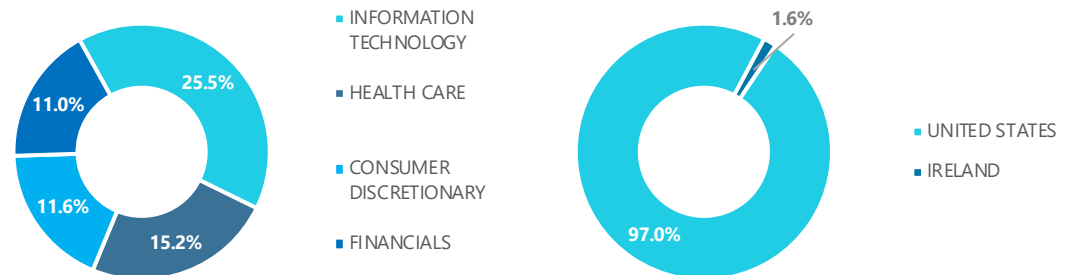
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
JPMAM Strategic Beta US	3,716.9	-4.7%	-15.6%	--	--
MSCI USA IMI Gross		-4.4%	-17.6%	--	--
Growth Policy Benchmark		-8.5%	-16.7%	6.1%	--

Universe data: U.S. Equities Total Large Cap	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
JPMAM Strategic Beta US	-4.7%	47	-15.6%	50	--	--	--	--
Median	-4.8%		-15.6%		--		--	

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

JPMorgan Strategic Beta US

for the quarter ended September 30, 2022

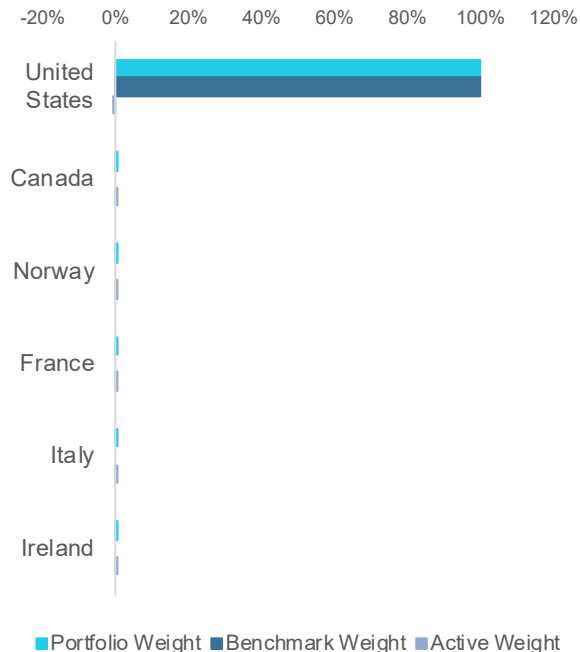


Los Angeles County Employees Retirement Association

Portfolio Risk Summary

	Value
Total Risk	20.23
Benchmark Risk	20.78
Active Risk	0.89
Portfolio Beta	0.97

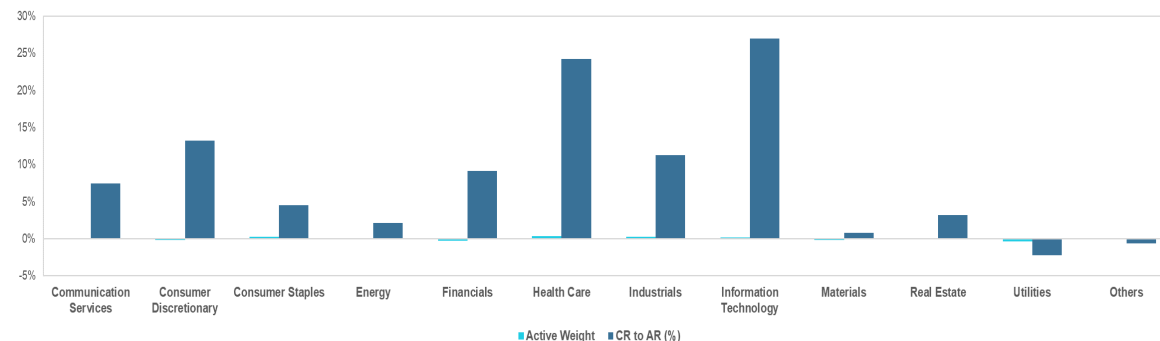
Top Countries by Weight%



Top 10 Assets by Contribution to Active Risk

Asset	Weight			Total Risk	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active			
JPMORGAN CHASE & CO	0.00%	0.86%	-0.86%	28.46	3.77	-0.170
SNOWFLAKE INC	0.06%	0.11%	-0.05%	57.89	1.44	-0.397
CLOUDFLARE INC	0.00%	0.04%	-0.03%	65.81	1.26	-0.457
TWILIO INC	0.00%	0.03%	-0.03%	58.23	1.18	-0.446
PALANTIR TECHNOLOGIES INC	0.00%	0.04%	-0.04%	59.62	1.09	-0.389
BILL COM HLDGS INC	0.00%	0.03%	-0.03%	60.22	1.07	-0.406
ZSCALER INC	0.00%	0.04%	-0.04%	54.21	1.07	-0.375
BLOCK INC	0.05%	0.08%	-0.03%	56.60	1.00	-0.415
THE TRADE DESK INC	0.04%	0.07%	-0.04%	58.22	1.00	-0.363
PINTEREST INC	0.00%	0.04%	-0.04%	56.50	0.99	-0.361

Portfolio Risk by GICS Sector



Growth – Global Equity Lazard Emerging Markets

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to provide long-term capital appreciation by investing in companies trading at a discount to their estimated net asset value, sum of the parts valuation, and/or underlying investments/businesses. The strategy may be suited to investors looking to capture growth opportunities in emerging markets and increase portfolio diversification.

Inception Date: February 2013

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	25,043.2	79,705.1
No. Of Issues	51.0	0.0
Dividend Yield	5.5	3.8
Return on Equity	14.3	18.1
Price to Sales	6.3	4.4
Price to Book	1.9	4.1
PE Ratio	14.3	11.2

Top Holdings (% of assets)

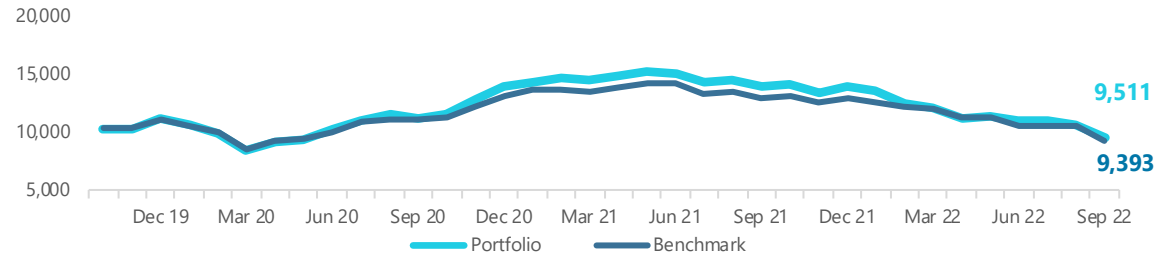
PROSUS NV	8.6%
JPMORGAN EMERGING MARKETS INVE	6.5%
TEMPLETON EMERGING MARKETS INV	5.7%
CITIC SECURITIES CO LTD H	5.6%
FIDELITY CHINA SPECIAL SITUATI	5.6%
Top 5 Holdings	32.0%

Performance (net)¹

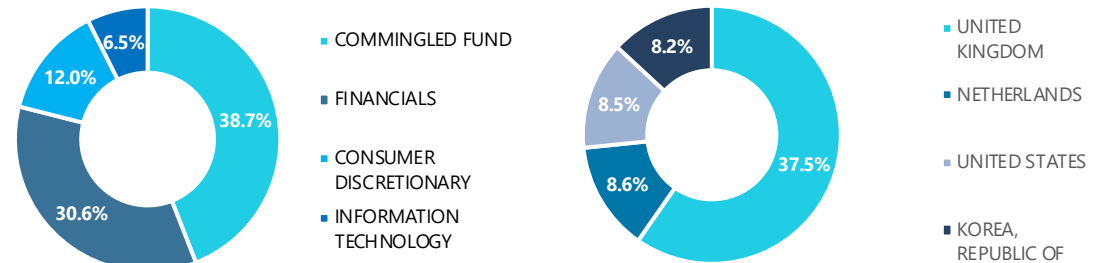
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Lazard Emerging Markets	321.5	-14.1%	-31.7%	-1.7%	-1.0%
MSCI EMERGING MARKETS		-11.6%	-28.1%	-2.1%	-1.8%
Growth Policy Benchmark		-8.5%	-16.7%	6.1%	--

Universe data: Intl Equity Emerging Mkt Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Lazard Emerging Markets	-14.0%	100	-31.3%	74	-1.0%	57	-0.4%	47
Median	-9.8%		-27.7%		-0.4%		-0.5%	

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity Lazard Emerging Markets

for the quarter ended September 30, 2022

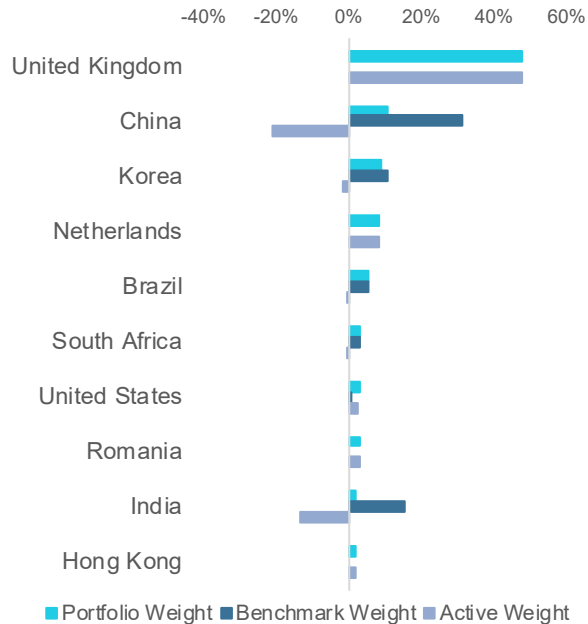


Los Angeles County Employees Retirement Association

Portfolio Risk Summary

	Value
Total Risk	20.27
Benchmark Risk	18.41
Active Risk	10.76
Portfolio Beta	0.94

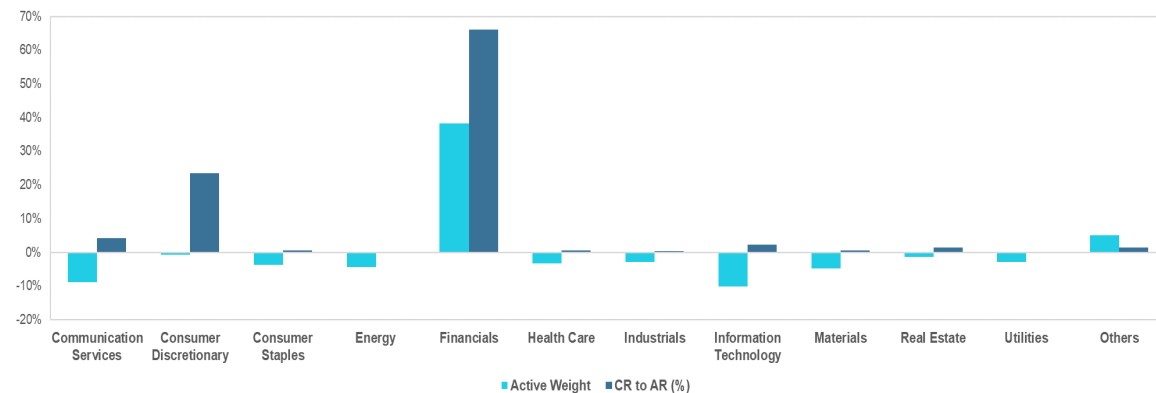
Top Countries by Weight%



Top 10 Assets by Contribution to Active Risk

Asset	Weight			Total Risk	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active			
PROSUS NV	8.59%	0.00%	8.59%	43.61	14.18	0.157
JPMORGAN EMERGING MK	6.52%	0.00%	6.52%	29.98	9.72	0.140
FIDELITY CHINA SPECIAL SITUATIONS PLC	5.56%	0.00%	5.56%	39.84	9.36	0.161
TEMPLETON EMERG MARKETS INV TRUST	5.74%	0.00%	5.74%	30.45	7.68	0.124
VINACAPITAL VIETNAM OPPORTUNITY FD	4.18%	0.00%	4.18%	29.83	6.00	0.134
ASIA DRAGON TRUST PLC	2.66%	0.00%	2.66%	30.90	3.75	0.131
SCHRODER ASIA PAC	2.84%	0.00%	2.84%	28.46	3.73	0.121
TENCENT HOLDINGS LTD	0.16%	3.70%	-3.53%	37.95	3.60	-0.130
ABERDEEN NEW INDIA INV TRUST PLC	2.24%	0.00%	2.24%	33.20	3.54	0.150
UTILICO EMERGING MARKETS TRUST PLC	2.53%	0.00%	2.53%	30.04	3.51	0.129

Portfolio Risk by GICS Sector



Note: Weights represent country of domicile of closed-end fund and not country of underlying fund holdings.

Growth – Global Equity SSGA MSCI ACWI IMI

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to provide global equity market exposure and passive index returns. This strategy may be suited to investors looking to gain passive, global equity exposures with low tracking error.

Inception Date: January 2020

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	269,176.6	269,003.4
No. Of Issues	6,611.0	0.0
Dividend Yield	2.3	2.3
Return on Equity	24.2	24.1
Price to Sales	4.5	4.5
Price to Book	14.2	14.3
PE Ratio	16.1	16.3

Top Holdings (% of assets)

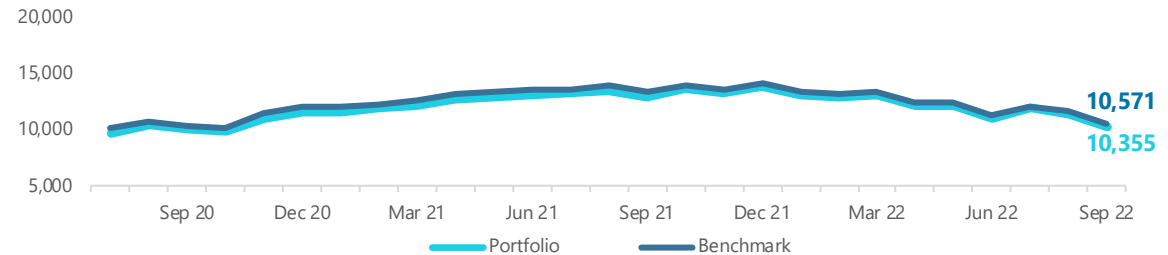
APPLE INC	3.8%
MICROSOFT CORP	2.8%
AMAZON.COM INC	1.7%
TESLA INC	1.2%
ALPHABET INC CL A	1.0%
Top 5 Holdings	10.4%

Performance (net)¹

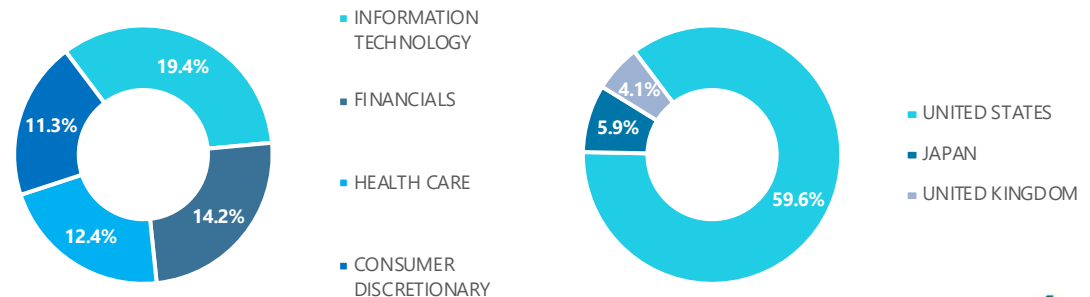
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
SSGA MSCI ACWI IMI	12,667.3	-6.8%	-20.5%	--	--
MSCI ACWI IMI Net		-6.6%	-21.2%	--	--
Growth Policy Benchmark		-8.5%	-16.7%	6.1%	--

Universe data: Global Equity Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
SSGA MSCI ACWI IMI	-6.8%	58	-20.5%	49	--	--	--	--
Median	-6.2%		-20.7%		--	--	--	--

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.
2. Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

SSGA MSCI ACWI IMI

for the quarter ended September 30, 2022

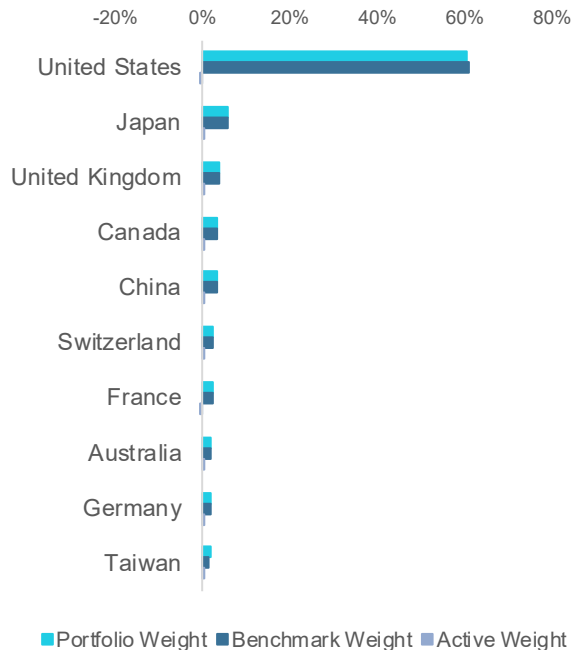


Los Angeles County Employees Retirement Association

Portfolio Risk Summary

	Value
Total Risk	19.12
Benchmark Risk	19.11
Active Risk	0.22
Portfolio Beta	1.00

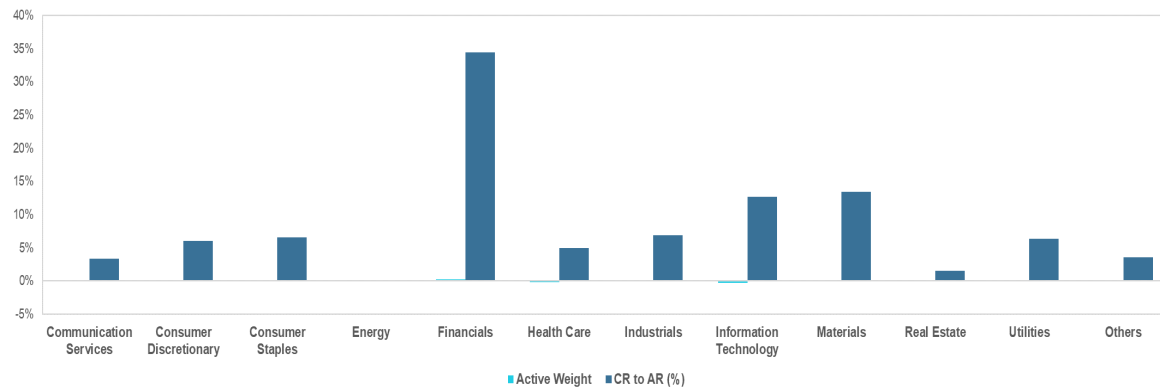
Top Countries by Weight%



Top 10 Assets by Contribution to Active Risk

Asset	Weight			Total Risk	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active			
AURELIUS EQUITY OPPORTUNITIES SE	0.29%	0.00%	0.29%	40.87	18.29	0.145
ASML HOLDING NV	0.01%	0.30%	-0.29%	39.05	8.10	-0.057
RELIANCE INDUSTRIES LTD	0.00%	0.15%	-0.15%	31.00	3.87	-0.053
USD Future Cash Offset	-1.36%	0.00%	-1.36%	0.00	2.84	0.000
VALE SA COMMON STOC	0.08%	0.00%	0.08%	51.20	2.46	0.069
HOUSING DEVELOPMENT FINANCE COR	0.00%	0.08%	-0.08%	32.59	2.32	-0.058
AL RAJHI BANK	0.00%	0.07%	-0.07%	28.73	2.24	-0.065
BAJAJ FINANCE LTD	0.00%	0.04%	-0.04%	39.71	2.00	-0.102
ICICI BANK LTD	0.00%	0.09%	-0.09%	31.00	1.95	-0.042
SAUDI NATIONAL BANK SJSC	0.00%	0.06%	-0.06%	27.16	1.83	-0.061

Portfolio Risk by GICS Sector



Growth – Global Equity Symphony Financial

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to invest in profitable Japanese companies where the share prices do not reflect the true value of the underlying business. The strategy may be suited to investors looking to capture return opportunities in Japan.

Inception Date: November 2016

Risk Statistics (since inception)

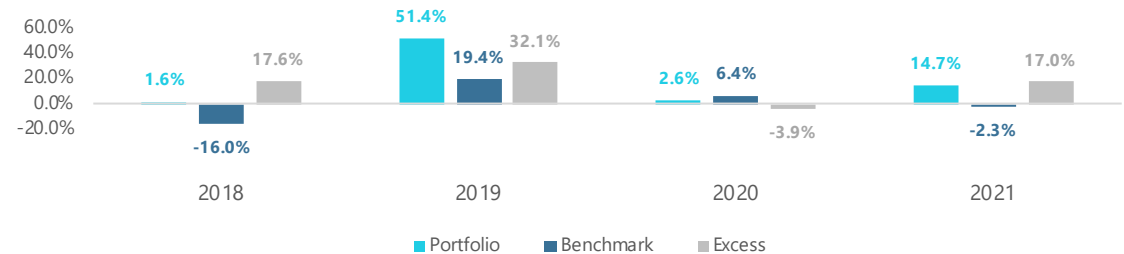
Standard Deviation	22.1%
Benchmark Standard Deviation	14.0%
Sharpe Ratio	0.51
Information Ratio	0.53
Beta	0.89
Tracking Error	18.3%

Performance (net)¹

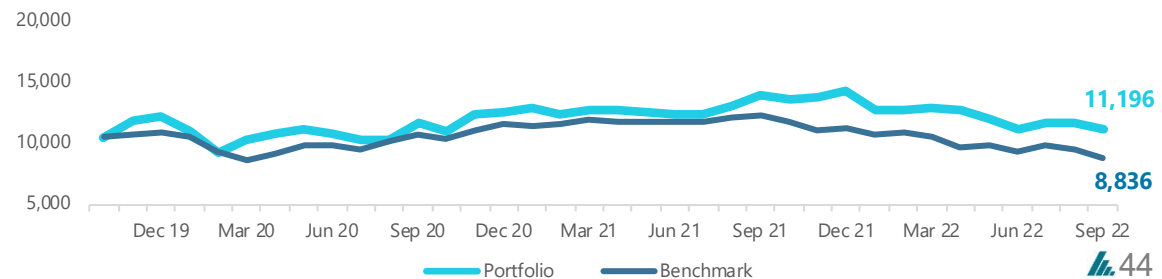
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Symphony Financial - Activist	206.9	1.5%	-19.7%	3.8%	8.4%
MSCI Japan Small Cap		-4.5%	-27.6%	-4.0%	-2.3%
Growth Policy Benchmark		-8.5%	-16.7%	6.1%	--

Universe data: Intl Equity Developed Mkt Funds (Active)	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Symphony Financial - Activist	1.6%	2	-16.4%	14	7.3%	5	11.3%	1
Median	-9.0%		-24.2%		-1.0%		-0.4%	

Calendar Year Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
1. Universe data is gross-of-fees.

Growth Risk Analysis – Global Equity Symphony Financial

for the quarter ended September 30, 2022

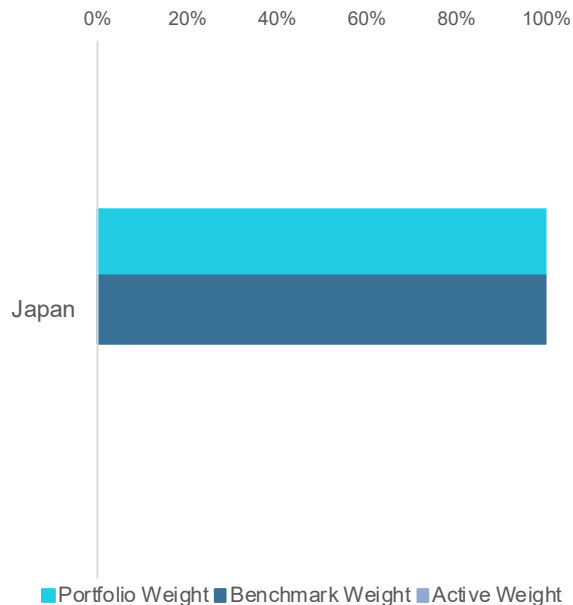


Los Angeles County Employees Retirement Association

Portfolio Risk Summary

	Value
Total Risk	20.50
Benchmark Risk	15.37
Active Risk	11.79
Portfolio Beta	1.09

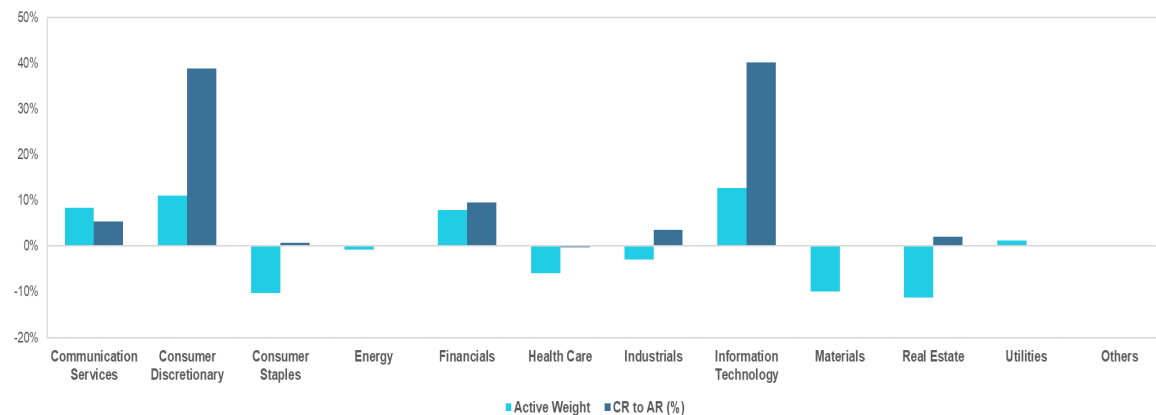
Top Countries by Weight%



Top 10 Assets by Contribution to Active Risk

Asset	Weight			Total Risk	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active			
NAGAWA	23.56%	0.05%	23.51%	33.45	36.77	0.203
INFOMART	12.76%	0.09%	12.67%	52.26	29.80	0.296
RIKEN KEIKI	9.92%	0.05%	9.87%	43.42	12.17	0.164
JAPAN SECURITIES FINANCE CO LTD	14.60%	0.08%	14.53%	28.90	9.28	0.094
UNDISCLOSED – ENTERTAINMENT ¹	10.56%	0.10%	10.45%	28.04	5.66	0.083
ZUIKO	5.91%	0.00%	5.91%	28.95	2.00	0.059
KOMATSU MATERE CO LTD	4.05%	0.00%	4.05%	33.47	1.76	0.070
NISHIO RENT ALL	9.45%	0.06%	9.39%	23.81	1.51	0.038
DENYO	2.06%	0.00%	2.06%	27.26	0.43	0.044
SINKO INDUSTRIES LTD	1.23%	0.00%	1.23%	28.07	0.19	0.037

Portfolio Risk by GICS Sector



¹ Security name undisclosed due to confidentiality reasons.

Growth – Global Equity Systematic US Small Cap Value

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to identify high quality small cap companies capable of generating high rates of return with attractive valuations. The strategy may be suited for investors looking to increase U.S. small cap exposure with defensive characteristics.

Inception Date: July 2018

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	3,737.9	2,566.1
No. Of Issues	149.0	0.0
Dividend Yield	3.5	1.4
Return on Equity	17.7	10.9
Price to Sales	1.8	12.0
Price to Book	6.9	5.3
PE Ratio	11.9	30.7

Top Holdings (% of assets)

FIRST CITIZENS BCSHS CL A	3.5%
CROSS COUNTRY HEALTHCARE INC	2.1%
MAGNOLIA OIL + GAS CORP A	2.0%
ICF INTERNATIONAL INC	1.5%
NORTHWESTERN CORP	1.5%

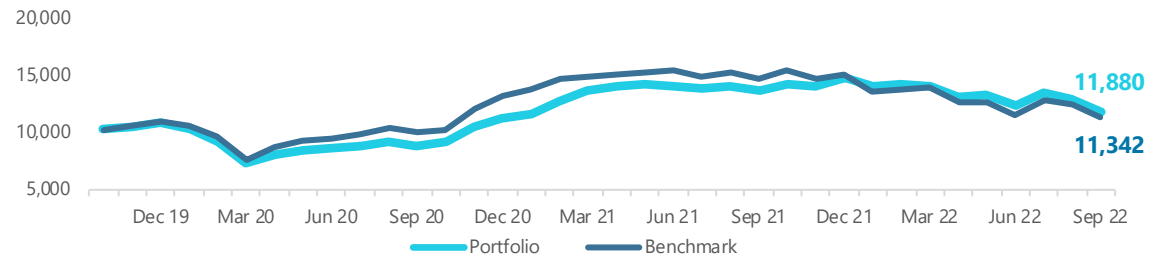
Top 5 Holdings **10.6%**

Performance (net)¹

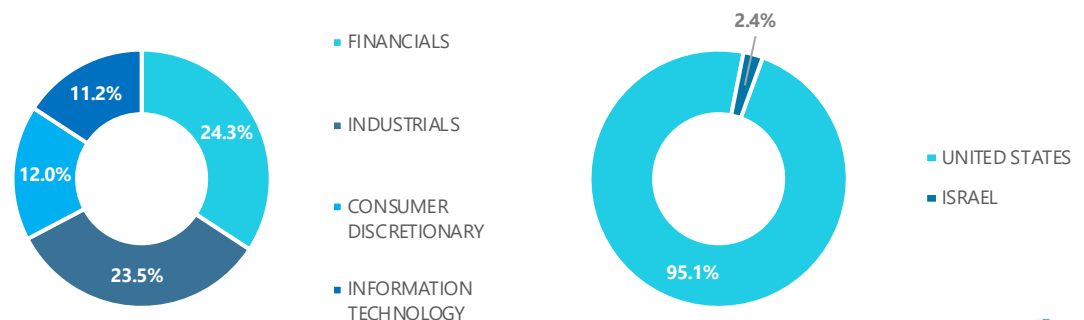
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Systematic US Small Cap Value	166.7	-4.0%	-13.2%	5.9%	--
RUSSELL 2000		-2.2%	-23.5%	4.3%	--
Growth Policy Benchmark		-8.5%	-16.7%	6.1%	--

Universe data: US Equity Funds - Small Cap	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Systematic US Small Cap Value	-3.8%	62	-12.7%	20	6.5%	33	--	--
Median	-2.8%		-16.2%		6.0%		--	

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity Systematic US Small Cap Value

for the quarter ended September 30, 2022

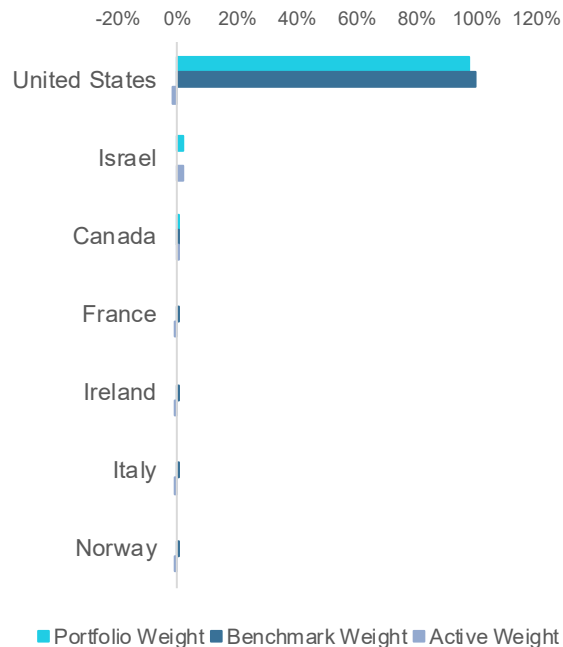


Los Angeles County Employees Retirement Association

Portfolio Risk Summary

	Value
Total Risk	22.64
Benchmark Risk	26.01
Active Risk	6.90
Portfolio Beta	0.84

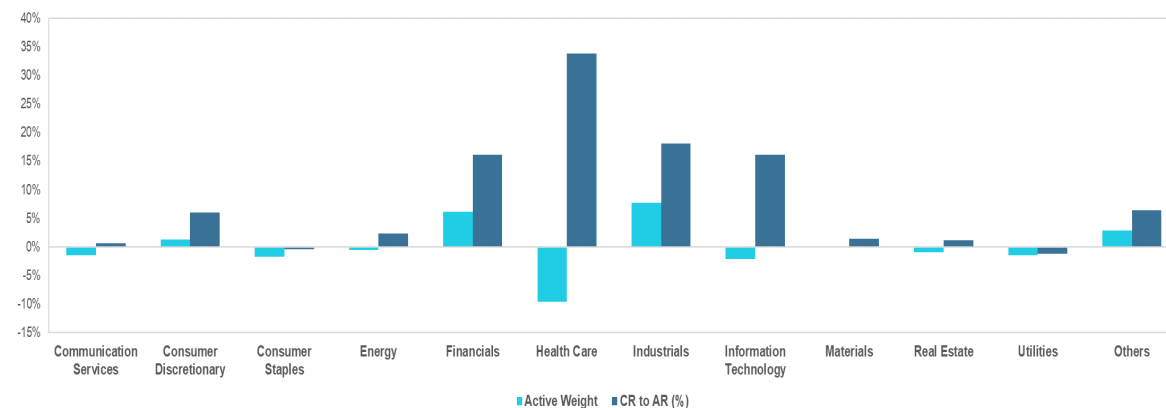
Top Countries by Weight%



Top 10 Assets by Contribution to Active Risk

Asset	Weight			Total Risk	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active			
FIRST CITIZENS BANCSHARES INC NRTH	3.49%	0.00%	3.49%	33.64	5.15	-0.052
NORTHWESTERN CORP	1.52%	0.13%	1.39%	24.38	2.51	-0.029
WASHINGTON FEDERAL INC	1.31%	0.09%	1.23%	28.82	2.41	-0.018
WEBSTER FINANCIAL CORP	1.42%	0.00%	1.42%	33.06	2.09	-0.052
CROSS COUNTRY HEALTHCARE INC	2.14%	0.05%	2.09%	55.66	1.95	-0.089
ICF INTERNATIONAL INC	1.53%	0.09%	1.43%	27.62	1.89	-0.063
LAKELAND BANCORP INC	0.94%	0.05%	0.89%	27.66	1.78	-0.015
SILICON MOTION TECHNOLOGY CORP	1.20%	0.00%	1.20%	43.06	1.72	-0.055
UNITED COMMUNITY BANKS INC	1.10%	0.16%	0.94%	31.62	1.71	-0.028
CURTISS-WRIGHT CORP	1.18%	0.00%	1.18%	27.81	1.69	-0.054

Portfolio Risk by GICS Sector

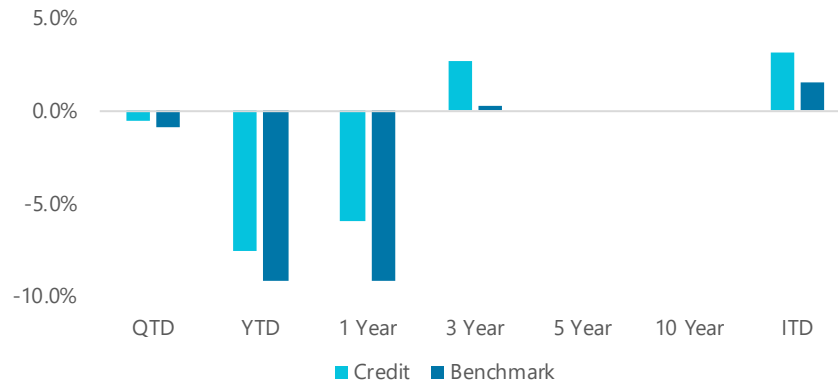


credit

Summary

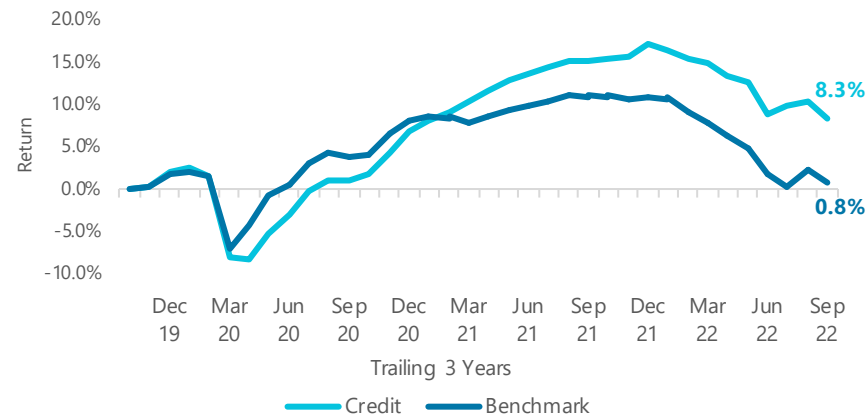
for the quarter ended September 30, 2022

Performance (net)



	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Credit	-0.6%	-7.6%	-5.9%	2.7%	--	--	3.2%
Benchmark	-0.9%	-9.1%	-9.2%	0.3%	--	--	1.6%
Excess	0.4%	1.6%	3.3%	2.4%	--	--	1.6%

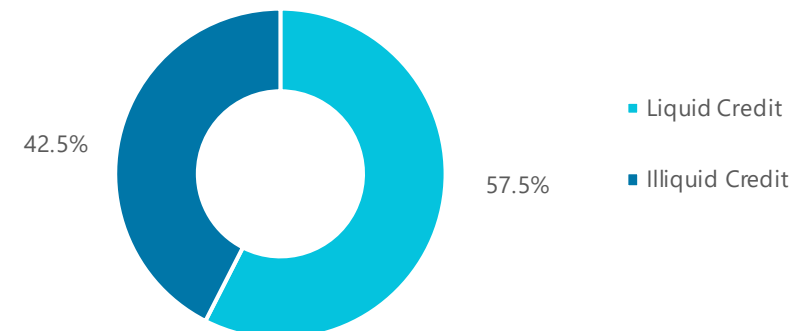
Cumulative Return



Functional Category

	QTD	FYTD	1 Year	3 Year
Liquid Credit	-1.1%	-1.1%	-11.6%	--
Liquid Credit Policy Benchmark	-0.6%	-0.6%	-11.3%	--
Excess	-0.4%	-0.4%	-0.3%	--
Illiquid Credit	0.0%	0.0%	3.7%	10.8%
Illiquid Credit Policy Benchmark	-1.3%	-1.3%	-6.8%	1.4%
Excess	1.3%	1.3%	10.5%	9.5%

Exposure



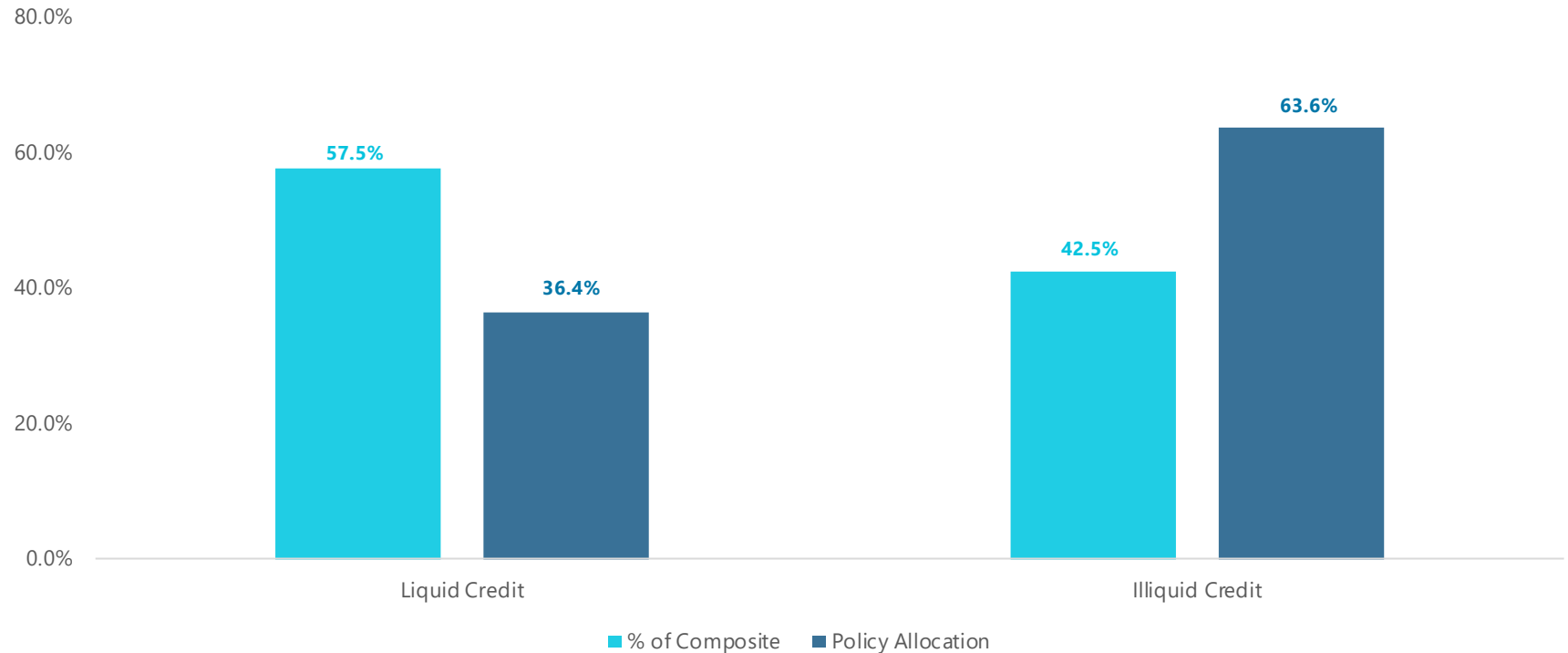
Asset Allocation

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Actual vs. Policy

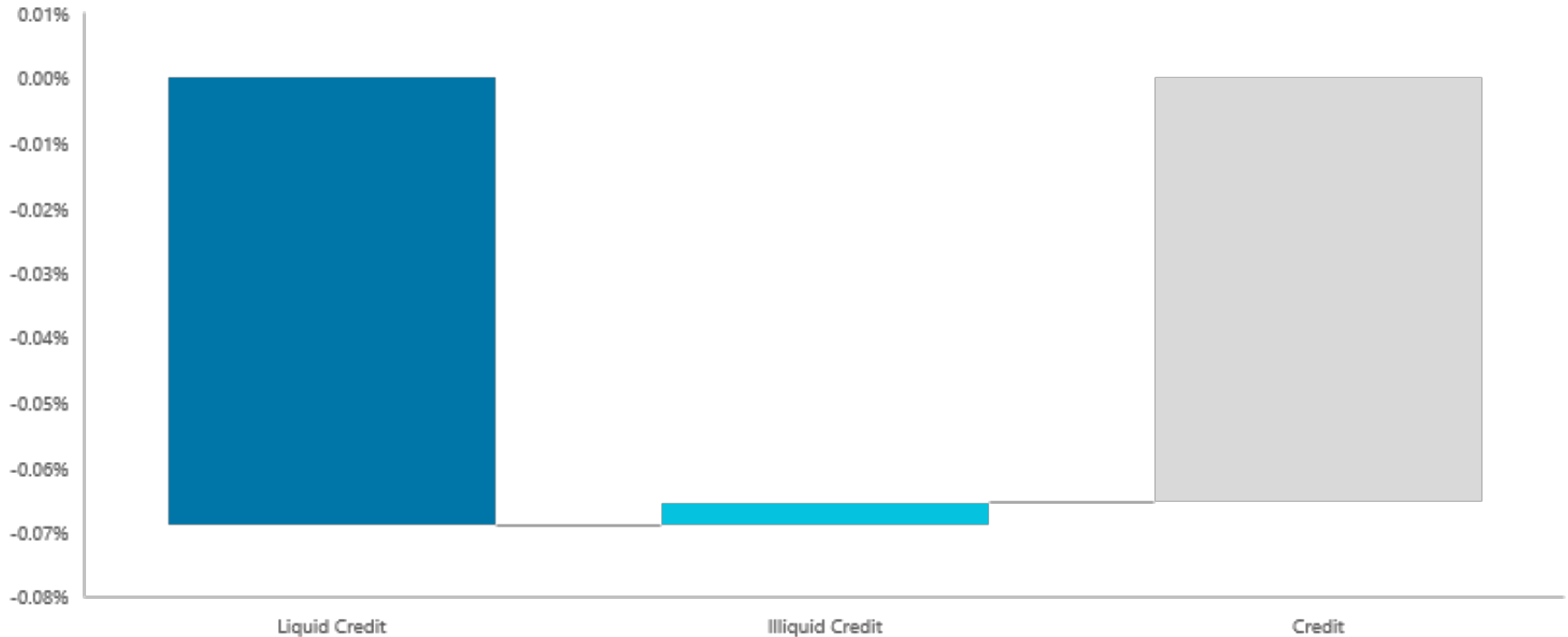


	Ending Market Value (mm)	% of Composite	Policy Allocation	Over / Under (%)	Over / Under (mm)
Credit	7,883	100.0%	100.0%		
Liquid Credit	4,533	57.5%	36.4%	21.1%	1,667
Illiquid Credit	3,350	42.5%	63.6%	-21.1%	-1,667

Contribution to Return

for the quarter ended September 30, 2022

QTD Contribution to Return



Functional Category		Contributors		Detractors	
Liquid Credit	-0.07%	Credit Suisse Bank Loans	0.02%	Ashmore Investment Management	-0.03%
Illiquid Credit	0.00%	BlackRock/Tennenbaum	0.01%	Brigade Cap Mgmt	-0.02%
Credit	-0.07%			abrdn	-0.02%
				BlackRock HY ETF	-0.01%
				PIMCO Tac Opps	-0.01%

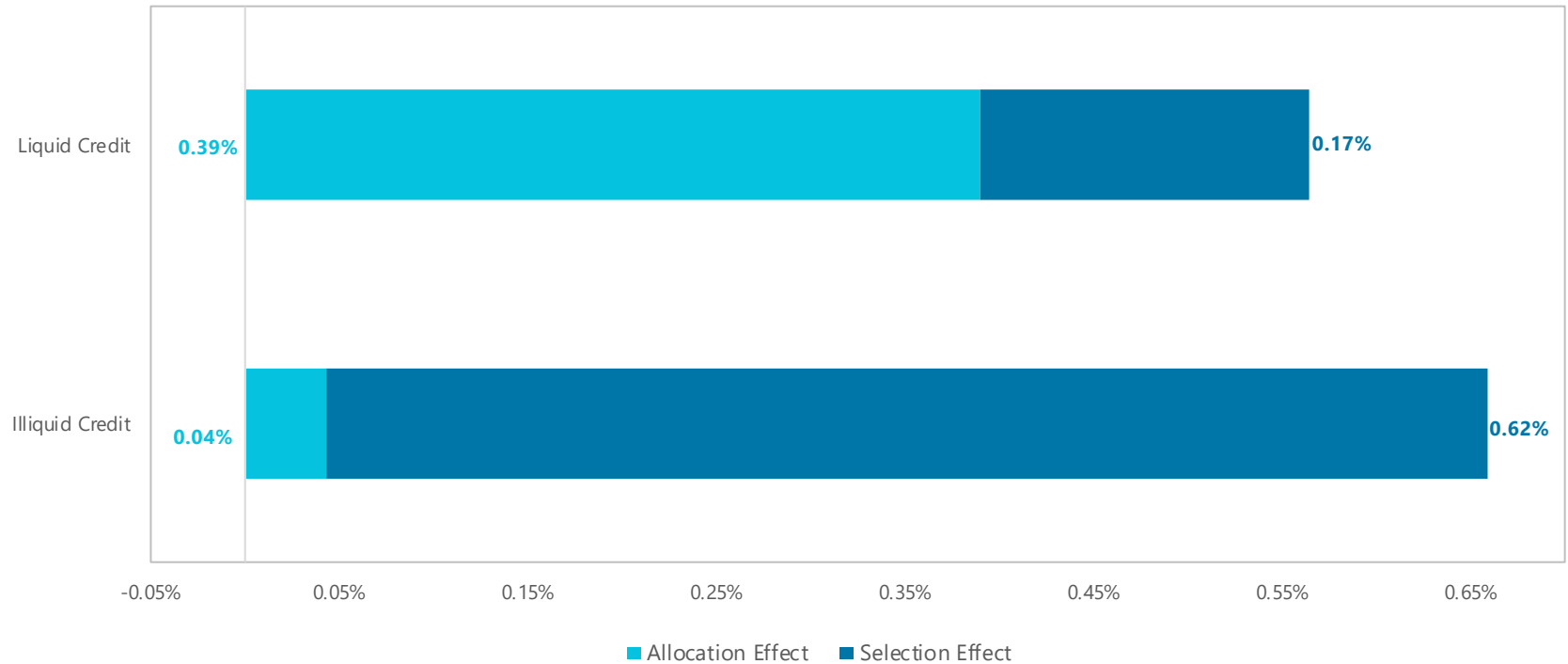
Return Attribution

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

QTD Performance Attribution¹



	Ending Market Value (mm)	% of Composite	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Credit	7,883	100.0%	100.0%	-0.6%	-0.9%	0.43%	0.79%	0.36%
Liquid Credit	4,533	57.5%	36.4%	-1.1%	-0.6%	0.39%	0.17%	-0.20%
Illiquid Credit	3,350	42.5%	63.6%	0.0%	-1.3%	0.04%	0.62%	0.56%

1. Total Value Add includes Interaction Effect.

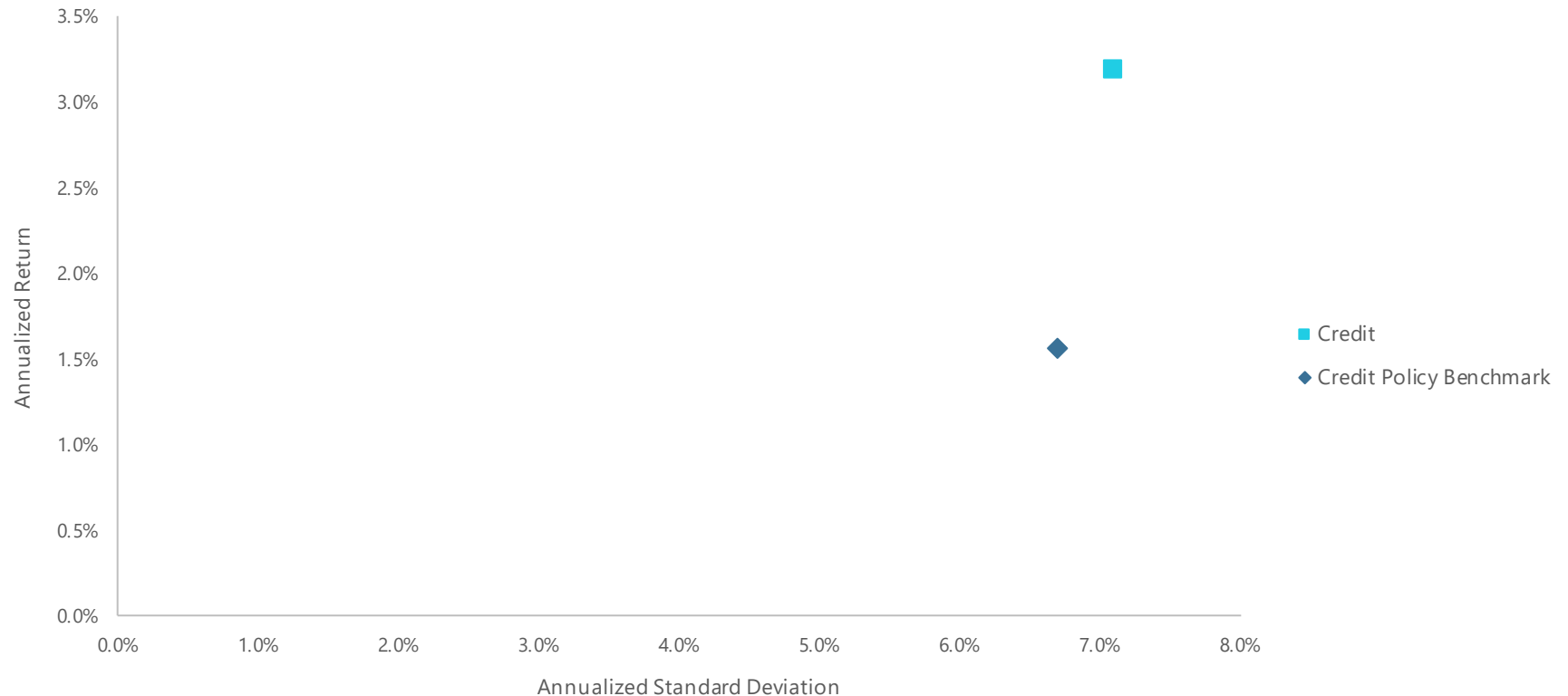
Risk vs. Return

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Since Inception (Annualized)¹



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Credit	3.2%	7.1%				
Credit Policy Benchmark	1.6%	6.7%	0.38	0.56	0.96	3.2%

1. Composite risk statistics are relative to the policy benchmark.

Performance Detail

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Annualized Net Returns

	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Credit	100.0%	7,883	7,824	-0.6%	-7.6%	-5.9%	2.7%	--	--	3.2%	Apr-2019
Credit Policy Benchmark				-0.9%	-9.1%	-9.2%	0.3%	--	--	1.6%	
Liquid Credit	57.5%	4,533	4,581	-1.1%	-11.9%	-11.6%	--	--	--	-11.6%	Oct-2021
Liquid Credit Policy Benchmark				-0.6%	-11.6%	-11.3%	--	--	--	-11.3%	
abrdn	4.3%	340	356	-4.4%	-23.3%	-24.6%	-7.3%	-3.5%	--	-2.6%	Jul-2017
Ashmore Investment Management	3.9%	311	330	-5.7%	-24.8%	-27.0%	-9.3%	-5.2%	--	-4.2%	Jun-2017
Bain Capital	5.2%	407	407	0.2%	-3.3%	-2.5%	3.1%	3.3%	--	3.3%	Jun-2014
Beach Point	3.4%	269	273	-1.3%	-15.2%	-14.8%	-1.3%	1.4%	--	3.5%	Mar-2014
BlackRock HY ETF	7.0%	553	561	-1.3%	-14.9%	-14.2%	--	--	--	-2.2%	Feb-2020
Brigade Cap Mgmt	7.8%	616	632	-2.5%	-13.2%	-12.5%	1.8%	2.0%	4.0%	5.6%	Jul-2010
Credit Suisse Bank Loans	14.1%	1,115	1,103	1.2%	-3.7%	-3.0%	--	--	--	5.5%	Apr-2020
Crescent Capital	6.2%	489	489	0.0%	-6.1%	-5.4%	3.1%	3.3%	--	3.1%	May-2014
Pinebridge Investments	5.5%	432	432	-0.1%	-15.0%	-14.2%	--	--	--	-13.2%	Sep-2021
Illiquid Credit	42.5%	3,350	3,243	0.0%	-0.7%	3.7%	10.8%	--	--	10.0%	Apr-2019
Illiquid Credit Policy Benchmark				-1.3%	-6.2%	-6.8%	1.4%	--	--	3.8%	
Beach Point - Fund II	0.2%	16	12	--	--	--	--	--	--	--	Jun-2014
Beach Point - Fund III	2.0%	162	180	-3.0%	-7.9%	12.1%	13.6%	11.1%	--	11.5%	Jun-2017
Grosvenor OPCRD 2 HFOF	0.4%	29	31	-0.7%	5.0%	7.0%	4.8%	3.9%	--	5.6%	Mar-2016
Lake Vineyard	3.4%	268	134	-2.2%	--	--	--	--	--	-1.6%	Apr-2022
Magnetar	10.5%	826	840	0.2%	-0.9%	5.2%	--	--	--	20.5%	Aug-2020
Napier Park	10.2%	806	805	0.2%	-4.8%	-3.1%	--	--	--	16.9%	Apr-2020
PIMCO Tac Opps	3.5%	275	282	-2.4%	-5.5%	-1.0%	6.0%	--	--	5.9%	Nov-2018
Private Equity - Credit	2.7%	216	221	-1.8%	8.3%	12.3%	15.4%	--	--	13.4%	Jan-2019
Real Estate - Credit	1.4%	112	109	0.9%	7.7%	13.1%	9.7%	9.4%	8.6%	8.9%	Oct-2011
BlackRock/Tennenbaum	8.1%	640	630	1.6%	4.2%	6.1%	7.1%	7.3%	--	7.2%	Nov-2014

Liquid Credit Risk Summary

for the quarter ended September 30, 2022

Risk Summary

	Value
Total Risk	6.01
Benchmark Risk	5.67
Active Risk	0.61
Portfolio Beta	1.06
Cont. to Eff. Duration	2.80
Convexity	0.14
Yield to Worst (%)	10.31
OAS to Sw ap (bp)	504

Risk Decomposition

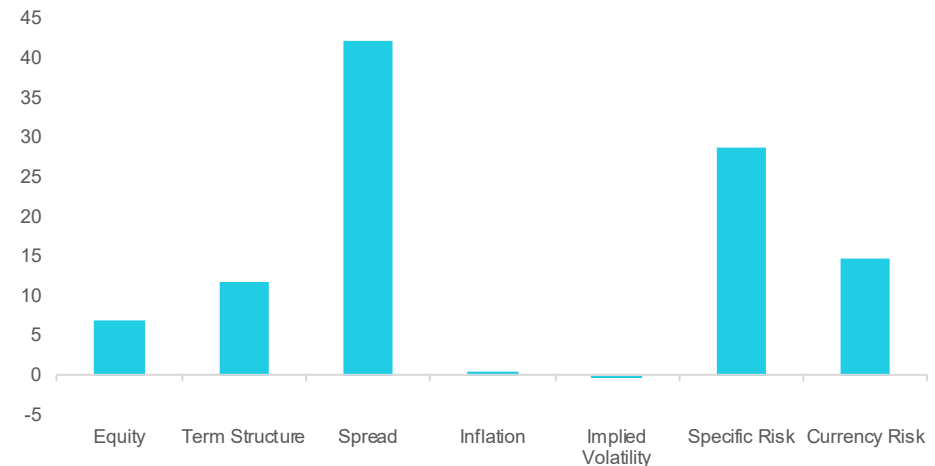
Risk Source	Portfolio		Active	
	Risk Contribution	%Risk	Risk Contribution	%Risk
Total Risk	6.01	100.00	0.61	100.00
Local Market Risk	5.80	96.40	0.52	85.44
Common Factor Risk	5.78	96.04	0.35	57.08
Specific Risk	0.02	0.36	0.17	28.36
Currency Risk	0.22	3.60	0.09	14.56

Contribution to Risk



	Mkt Value (mm)	Weight%	Total Risk	Risk Contribution	%CR to TR
Liquid Credit	4,398	100.00	6.01	6.01	100.00
High Yield	1,825	41.50	7.32	2.93	48.65
Bank Loans	1,921	43.68	4.81	1.87	31.09
Emerging Market Debt	652	14.82	9.49	1.22	20.26

Active Risk from Common Factors



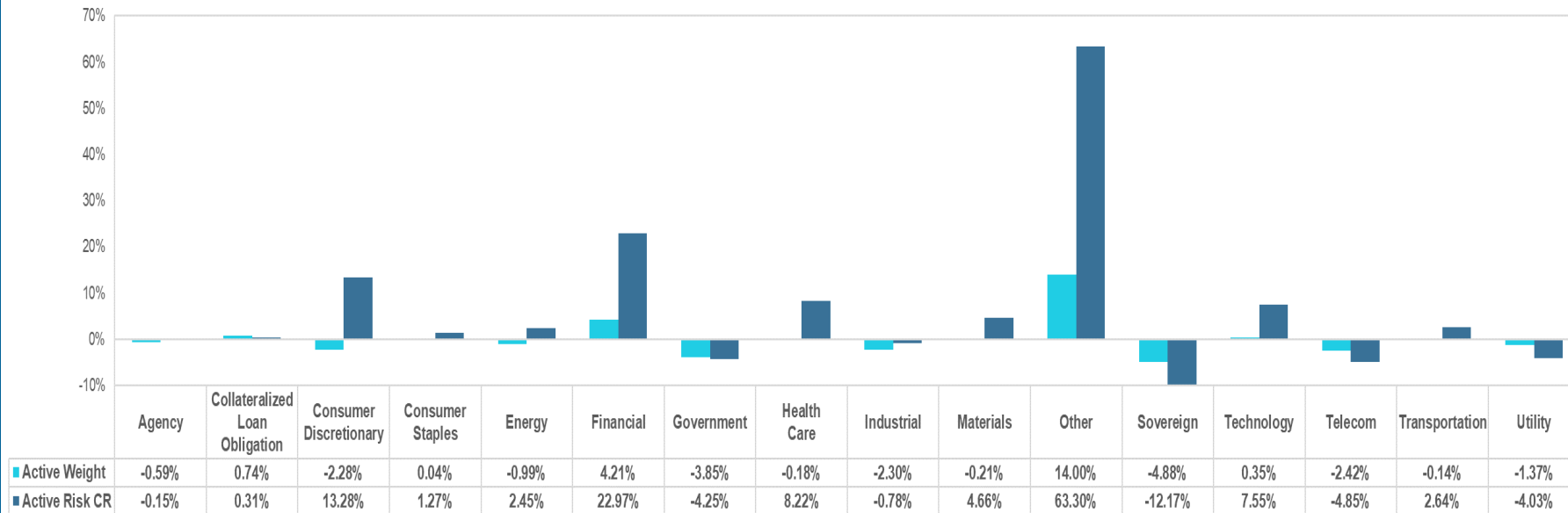
Liquid Credit Risk Summary

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

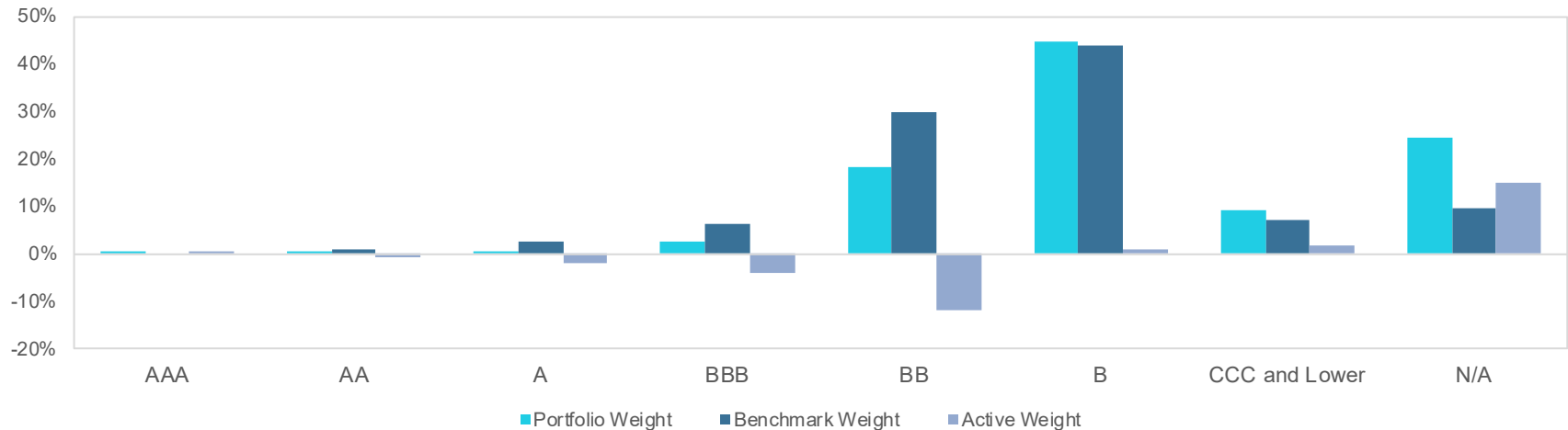
Portfolio Allocation By Bond Sector



Liquid Credit Risk Summary

for the quarter ended September 30, 2022

Portfolio Allocation By Moody's Rating



Rating	Weight%			Total Risk	Active Risk CR	% of Active TR	CR to Effective Duration
	Portfolio	Benchmark	Active				
Credit	100.00%	100.00%	0.00%	6.01	0.61	100.00	2.80
AAA	0.13%	0.00%	0.13%	13.55	0.00	-0.60%	0.02
AA	0.30%	0.98%	-0.68%	10.43	0.02	-0.1%	0.03
A	0.69%	2.42%	-1.72%	10.64	0.04	-1.1%	0.09
BBB	2.45%	6.32%	-3.87%	5.99	0.06	-9.5%	0.14
BB	18.07%	29.69%	-11.62%	6.12	0.19	-25.1%	0.75
B	44.83%	43.90%	0.93%	6.38	0.24	42.9%	0.84
CCC and Lower	9.05%	7.28%	1.78%	10.02	0.05	16.4%	0.21
N/A	24.49%	9.43%	15.06%	4.82	0.02	76.5%	0.70

Credit – Liquid Credit

Aberdeen Asset Management

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

An emerging market debt strategy that invests in sovereigns, quasi-sovereigns, and corporate bonds denominated in US Dollar or local currencies.

Inception Date: July 2017

Risk Statistics (since inception)

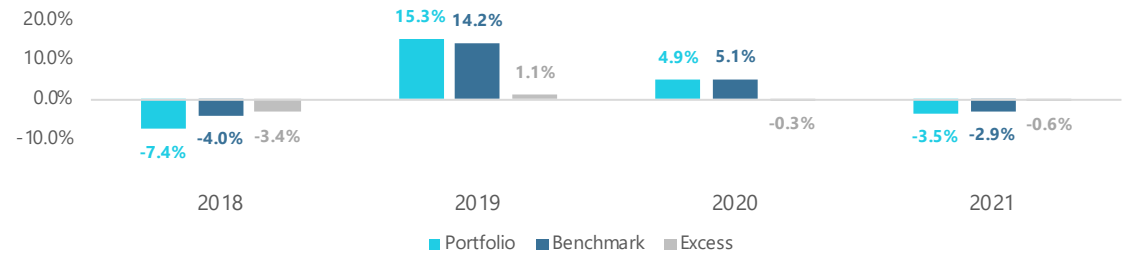
Standard Deviation	11.1%
Benchmark Standard Deviation	9.3%
Sharpe Ratio	-0.29
Information Ratio	-0.45
Beta	1.17
Tracking Error	2.6%

Performance (net)¹

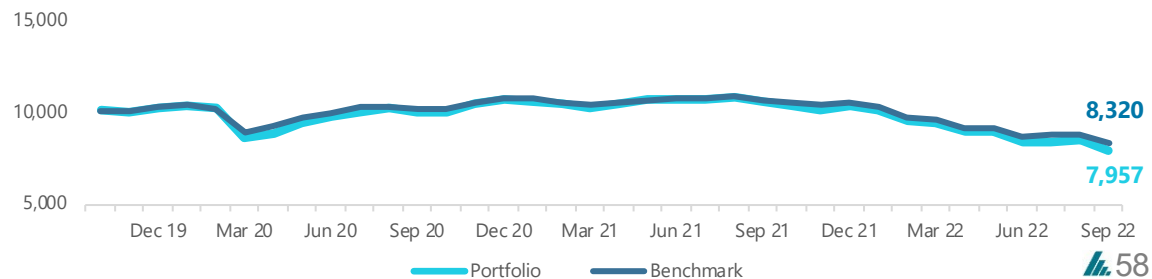
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
abrdn	340.1	-4.4%	-24.6%	-7.3%	-3.5%
EMD Custom Benchmark		-4.1%	-21.5%	-5.9%	-2.2%
Credit Policy Benchmark		-0.9%	-9.2%	0.3%	--

Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
abrdn	-4.3%	65	-24.3%	93	-7.0%	95	-3.1%	97
Median	-2.9%		-10.0%		-1.2%		0.6%	

Calendar Year Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
 1. Universe data is gross-of-fees.

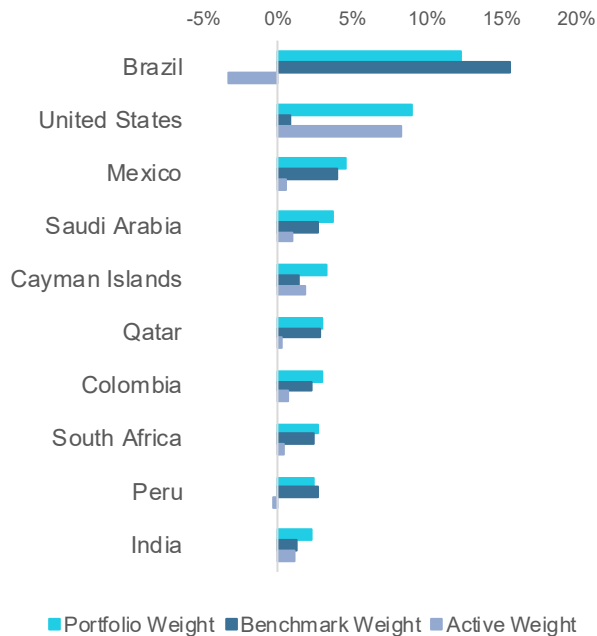
Credit Risk Analysis – Liquid Credit Aberdeen Asset Management

for the quarter ended September 30, 2022

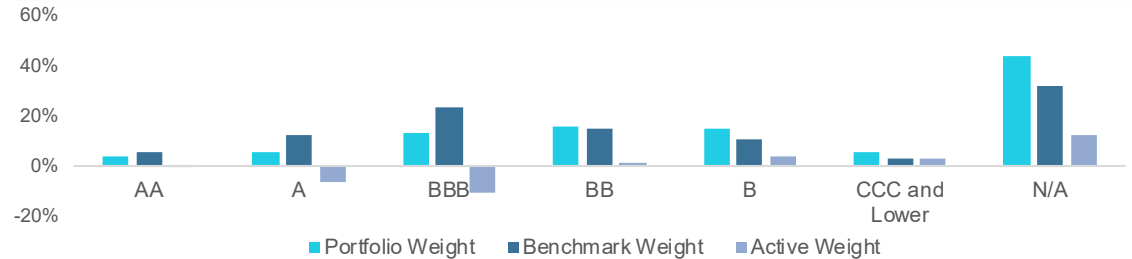
Portfolio Risk Summary

	Value
Total Risk	10.32
Benchmark Risk	7.45
Active Risk	3.76
Portfolio Beta	1.33
Cont. to Eff. Duration	5.23
Yield to Worst (%)	10.73
OAS to Swap (bp)	513

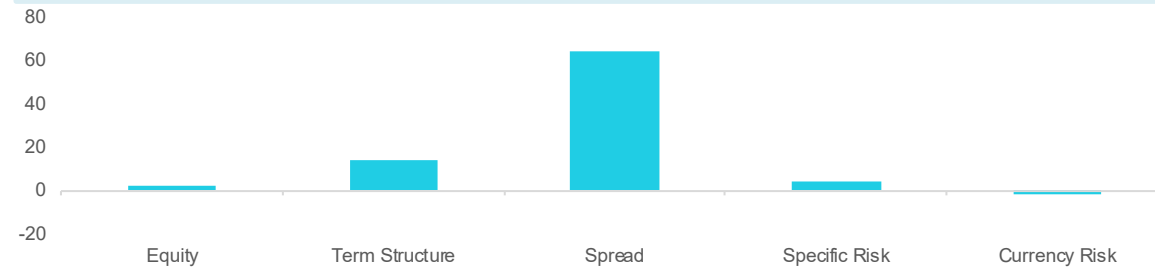
Top Countries by Weight%



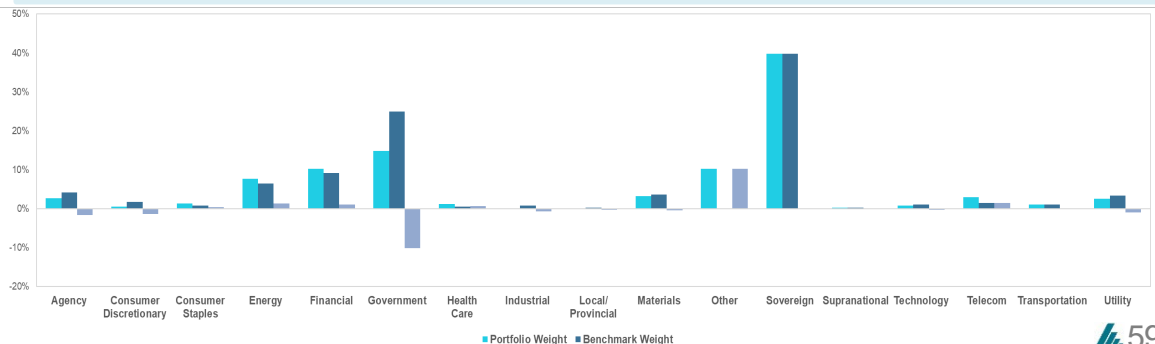
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Risk by Bond Sector



Credit – Liquid Credit Ashmore

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

A value-driven emerging market debt strategy that applies a macro, top-down approach to build a well-diversified portfolio that adds value through asset rotation, security selection, and currency positioning utilizing a committee driven, systematic risk mitigating process.

Inception Date: June 2017

Risk Statistics (since inception)

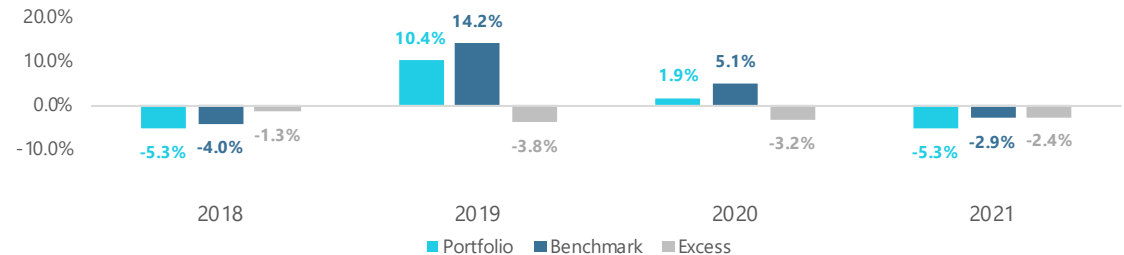
Standard Deviation	13.2%
Benchmark Standard Deviation	9.3%
Sharpe Ratio	-0.33
Information Ratio	-0.56
Beta	1.39
Tracking Error	4.6%

Performance (net)¹

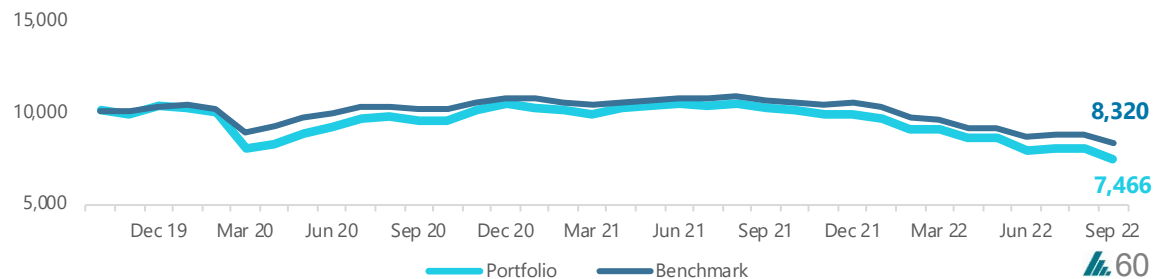
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Ashmore Investment Management	311.3	-5.7%	-27.0%	-9.3%	-5.2%
EMD Custom Benchmark		-4.1%	-21.5%	-5.9%	-2.2%
Credit Policy Benchmark		-0.9%	-9.2%	0.3%	--

Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Ashmore Investment Management	-5.6%	85	-26.7%	94	-8.8%	98	-4.6%	98
Median	-2.9%		-10.0%		-1.2%		0.6%	

Calendar Year Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
1. Universe data is gross-of-fees.

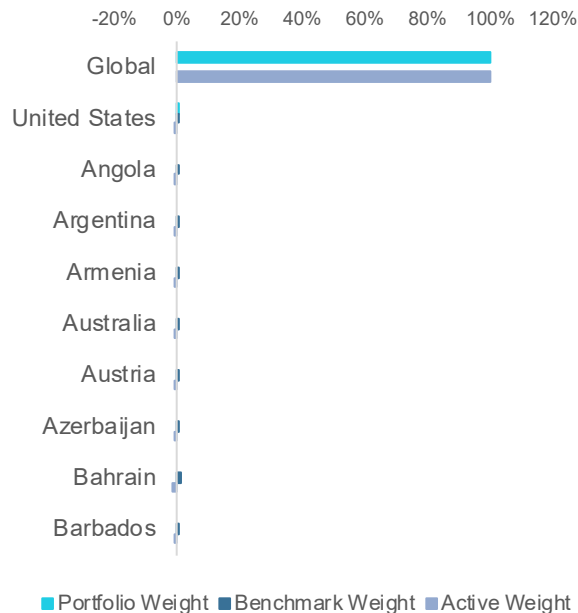
Credit Risk Analysis – Liquid Credit Ashmore

for the quarter ended September 30, 2022

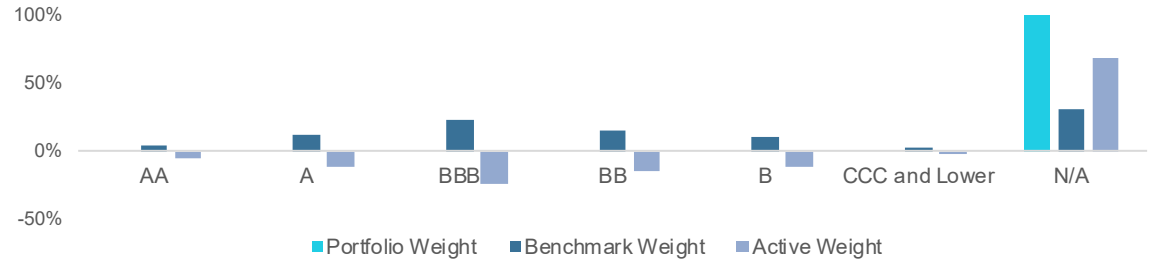
Portfolio Risk Summary

	Value
Total Risk	9.65
Benchmark Risk	7.45
Active Risk	5.31
Portfolio Beta	1.08
Cont. to Eff. Duration	5.51
Yield to Worst (%)	0.00
OAS to Swap (bp)	-428

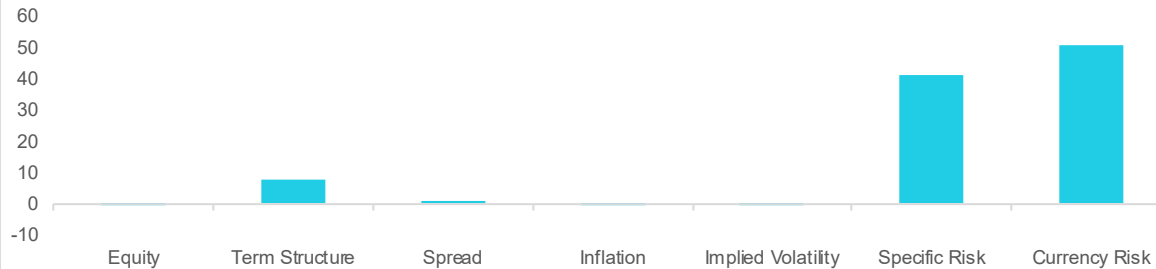
Top Countries by Weight%



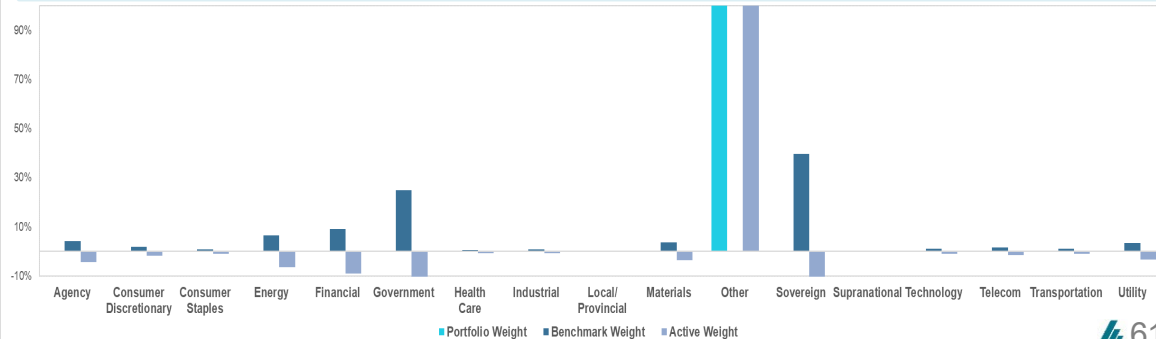
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Risk by Bond Sector



Credit – Liquid Credit Bain Capital

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

A long-only strategy designed to provide exposure to senior secured, floating-rate bank loans. The strategy takes a fundamental, active, and global approach to investing, capitalizing on opportunities in an inefficient asset class. The return objective is to outperform the Index through strong credit selection and active portfolio management.

Inception Date: June 2014

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	551.0	0.0
Effective Duration	0.2	4.2
Convexity	0.0	0.1
Coupon Rate	5.9	5.8
Yield to Maturity	8.1	9.3
Current Yield	6.3	6.9
Rating – Moody's	B-2	B-1
Rating – S & P	B	BB-

Top Holdings (% of assets)

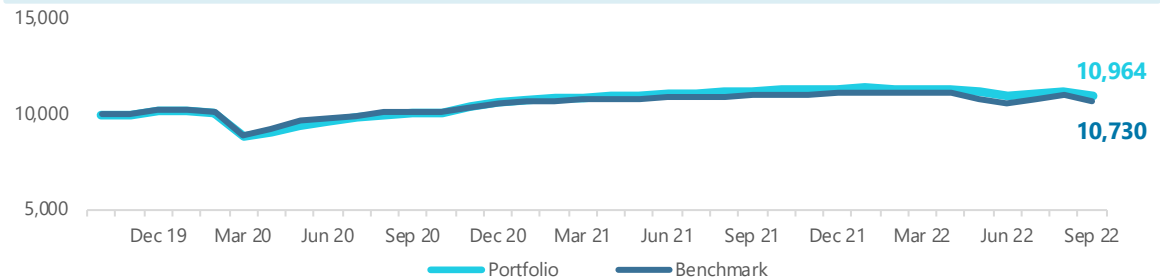
CPS GROUP HOLDINGS INC	0.9%
AQGEN ISLAND HOLDINGS INC	0.9%
NAVICURE INC	0.7%
CHAMBER BIDCO LIMITED	0.7%
CST BUYER COMPANY	0.6%
Top 5 Holdings	3.8%

Performance (net)¹

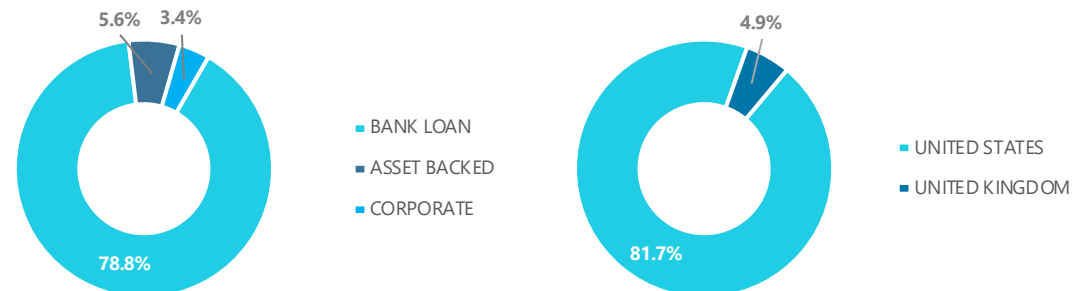
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Bain Capital	407.5	0.2%	-2.5%	3.1%	3.3%
Bank Loans Custom Benchmark		1.2%	-2.6%	2.4%	3.2%
Credit Policy Benchmark		-0.9%	-9.2%	0.3%	--

Universe data: U.S. Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Bain Capital	0.4%	22	-2.0%	33	3.7%	19	3.9%	14
Median	-2.9%		-10.0%		-1.2%		0.6%	

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

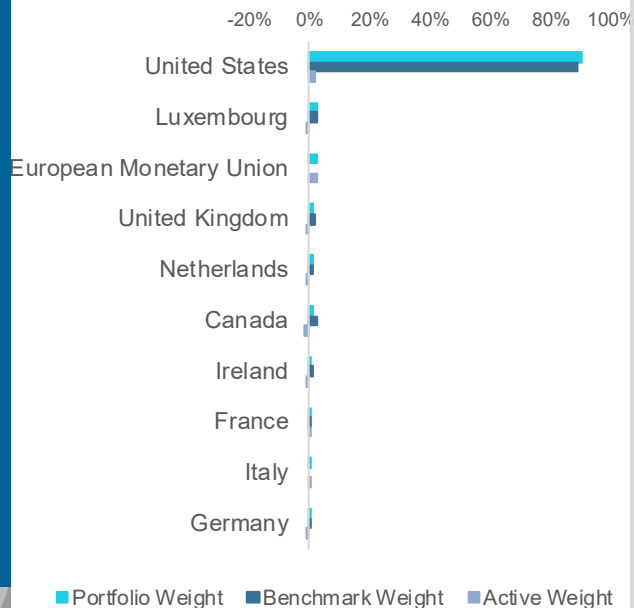
Credit Risk Analysis – Liquid Credit Bain Capital

for the quarter ended September 30, 2022

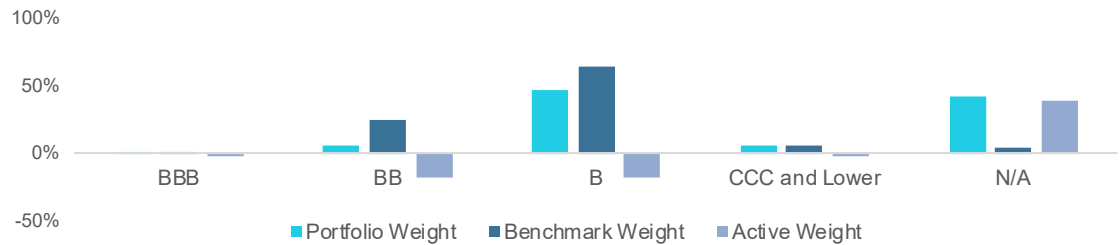
Portfolio Risk Summary

	Value
Total Risk	3.60
Benchmark Risk	5.33
Active Risk	1.90
Portfolio Beta	0.66
Cont. to Eff. Duration	0.54
Yield to Worst (%)	8.25
OAS to Swap (bp)	510

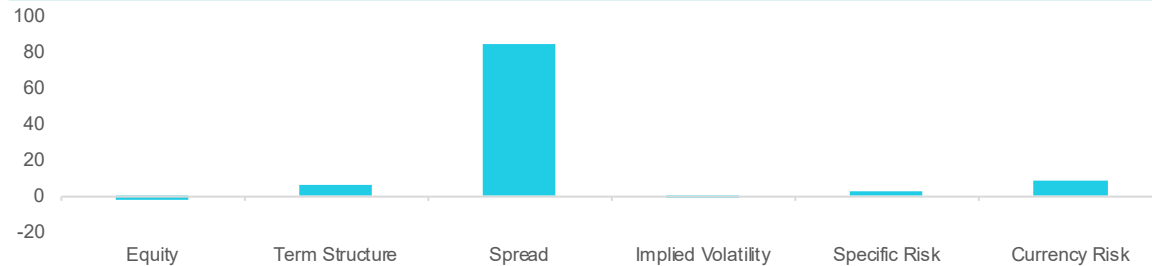
Top Countries by Weight%



Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Risk by Bond Sector



Credit – Liquid Credit Beach Point

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

A fundamental, value oriented high yield bond strategy that utilizes legal skills to identify market anomalies in bond covenants and indentures. The primary investment goal is to generate superior returns while controlling risk to minimize the possibility of capital impairment.

Inception Date: March 2014

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	262.0	0.0
Effective Duration	4.0	4.2
Convexity	0.1	0.1
Coupon Rate	5.8	5.8
Yield to Maturity	9.7	9.3
Current Yield	7.0	6.9
Rating – Moody's	B-2	B-1
Rating – S & P	B	BB-

Top Holdings (% of assets)

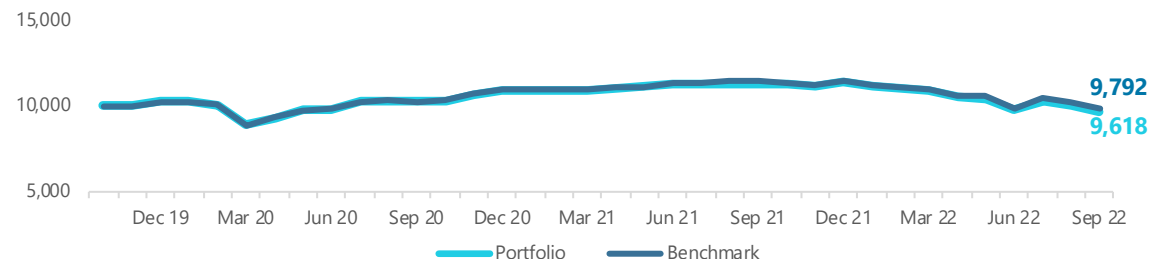
AMERICAN GREETINGS CORP	1.9%
DEALER TIRE LLC/DT ISSR	1.6%
MPH ACQUISITION HOLDINGS	1.4%
COMPASS GROUP DIVERSIFIE	1.3%
SANDSTONE PEAK LTD.	1.2%
Top 5 Holdings	7.4%

Performance (net)¹

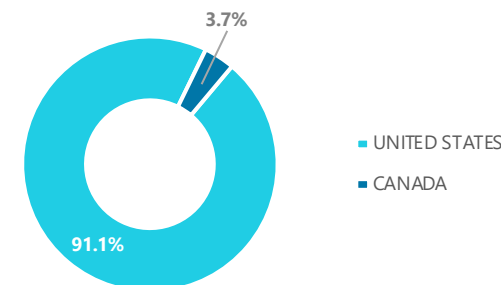
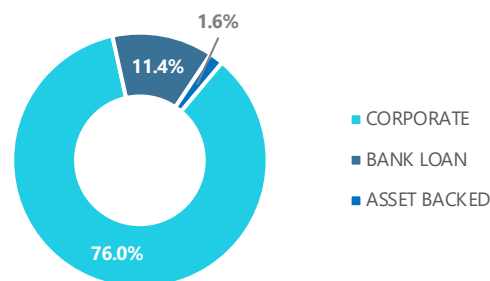
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Beach Point	269.0	-1.3%	-14.8%	-1.3%	1.4%
Beachpoint Custom Benchmark		-0.6%	-14.1%	-0.7%	1.4%
Credit Policy Benchmark		-0.9%	-9.2%	0.3%	--

Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Beach Point	-1.2%	40	-14.4%	73	-0.8%	47	1.9%	24
Median	-2.9%		-10.0%		-1.2%		0.6%	

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

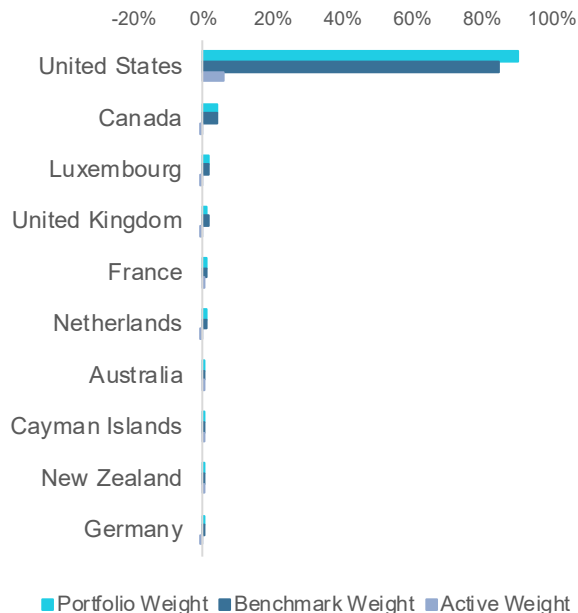
Credit Risk Analysis – Liquid Credit Beach Point

for the quarter ended September 30, 2022

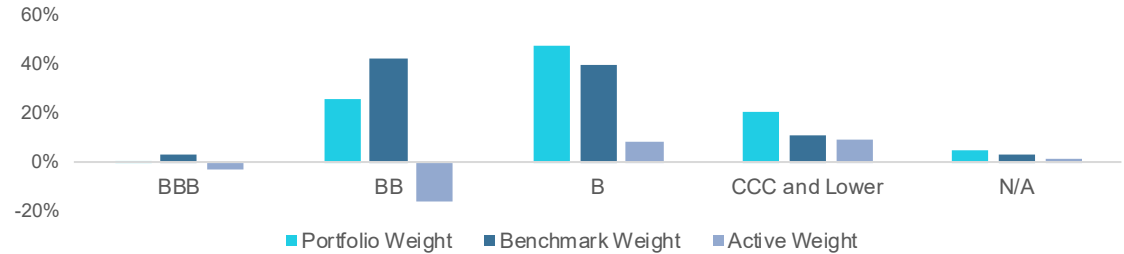
Portfolio Risk Summary

	Value
Total Risk	7.82
Benchmark Risk	6.80
Active Risk	1.57
Portfolio Beta	1.13
Cont. to Eff. Duration	4.07
Yield to Worst (%)	9.43
OAS to Swap (bp)	520

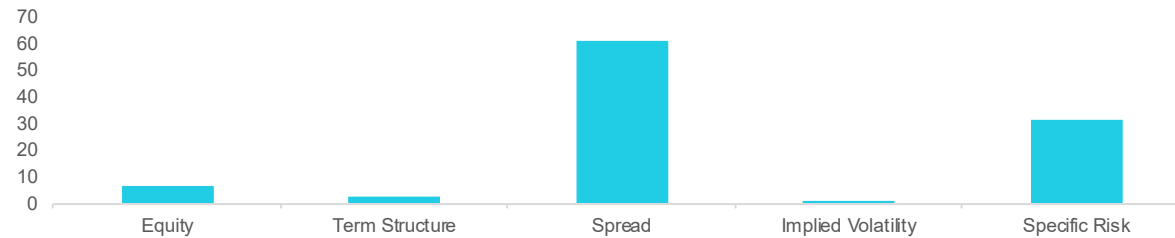
Top Countries by Weight%



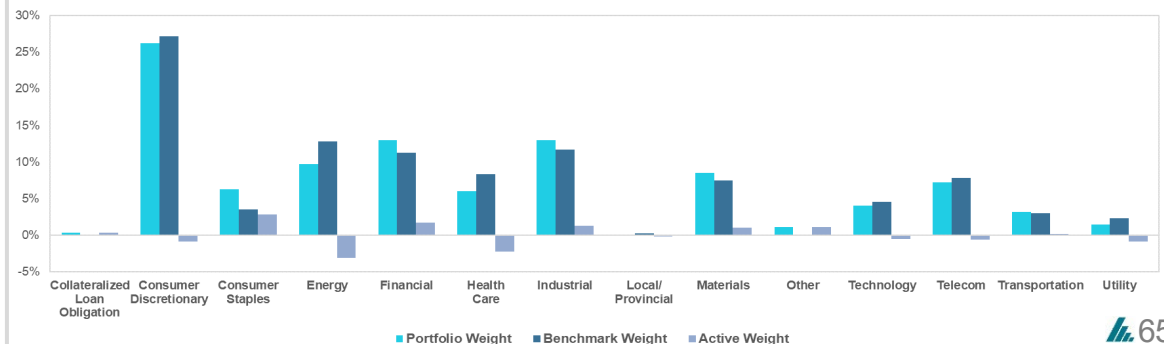
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Risk by Bond Sector



Credit – Liquid Credit Brigade Capital

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

A strategy that focuses on identifying attractive companies within the high yield bond marketplace. The strategy invests in companies that have a lower likelihood of default or are better able to recover from economic downturns because of their substantial asset value relative to debt.

Inception Date: July 2010

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	340.0	0.0
Effective Duration	4.0	4.2
Convexity	0.4	0.1
Coupon Rate	6.6	5.8
Yield to Maturity	11.8	9.3
Current Yield	8.3	6.9
Rating – Moody's	B-2	B-1
Rating – S & P	B	BB-

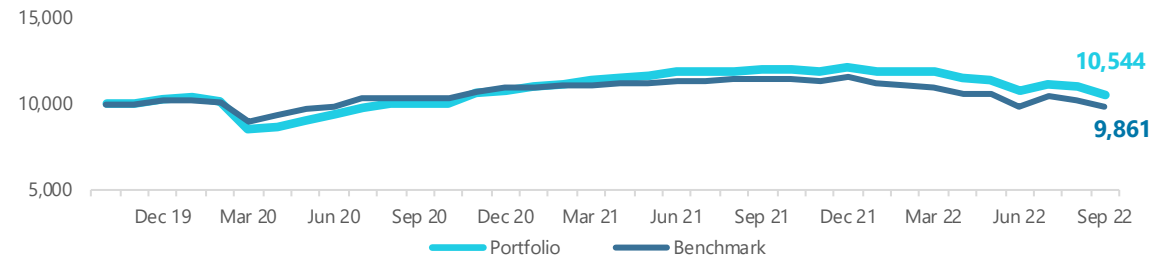
Top Holdings (% of assets)

CORNERSTONE CHEMICAL CO	1.9%
EPIC Y GRADE SERVICES, LP	1.8%
RAIN CII CARBON LLC/CII	1.2%
BAFFINLAND IRON CORP/LP	1.1%
LIFESCAN GLOBAL CORP	1.1%
Top 5 Holdings	7.1%

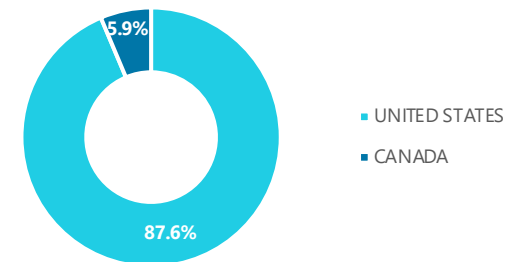
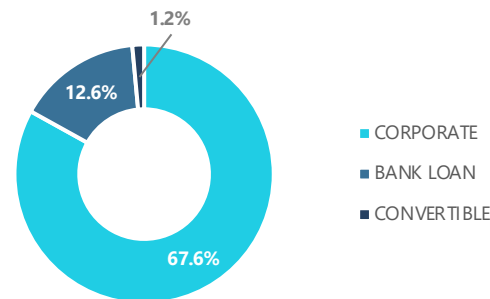
Performance (net)¹

	Ending Market Value (mm)		QTD	1 Year	3 Year	5 Year		
Brigade Cap Mgmt	615.9		-2.5%	-12.5%	1.8%	2.0%		
Brigade Custom Benchmark			-0.6%	-14.1%	-0.5%	1.6%		
Credit Policy Benchmark			-0.9%	-9.2%	0.3%	--		
Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Brigade Cap Mgmt	-2.4%	48	-12.1%	61	2.3%	21	2.6%	16
Median	-2.9%		-10.0%		-1.2%		0.6%	

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

Credit Risk Analysis – Liquid Credit Brigade Capital

for the quarter ended September 30, 2022

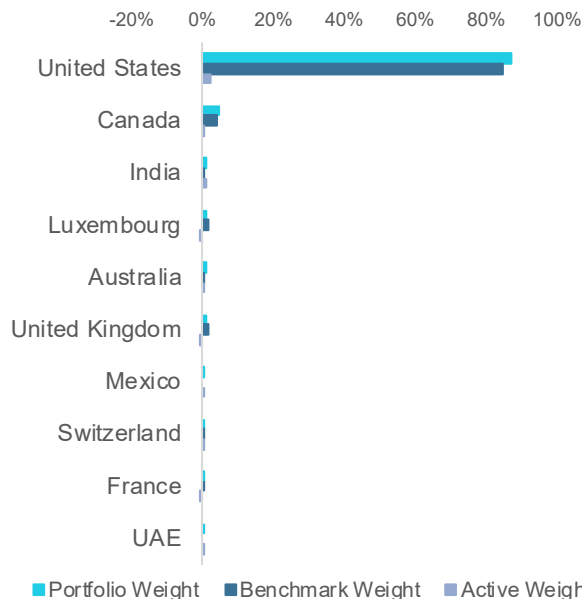


Los Angeles County Employees Retirement Association

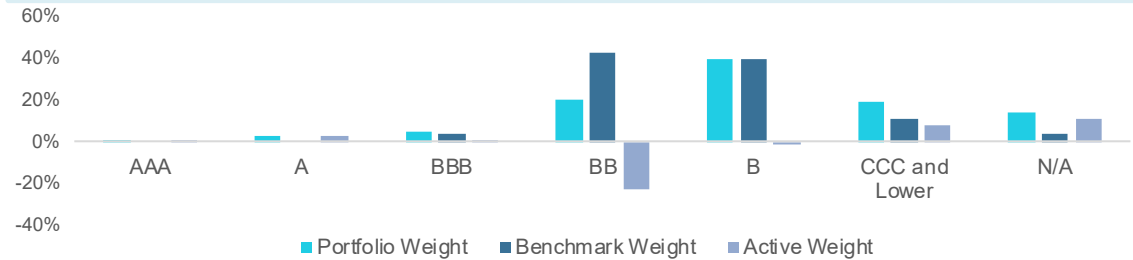
Portfolio Risk Summary

	Value
Total Risk	7.95
Benchmark Risk	6.80
Active Risk	1.98
Portfolio Beta	1.14
Cont. to Eff. Duration	4.04
Yield to Worst (%)	10.06
OAS to Sw ap (bp)	579

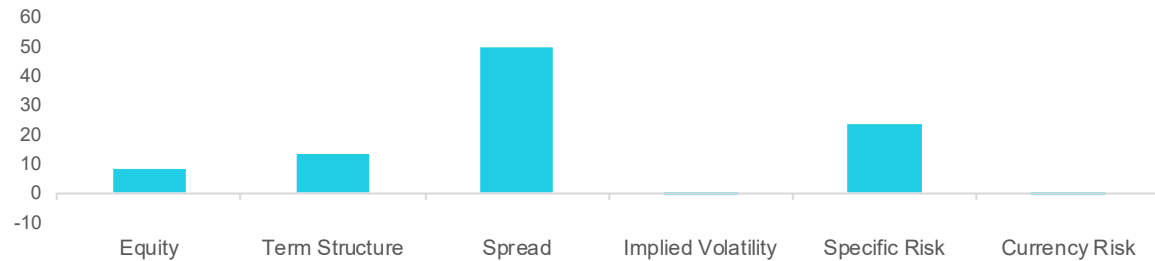
Top Countries by Weight%



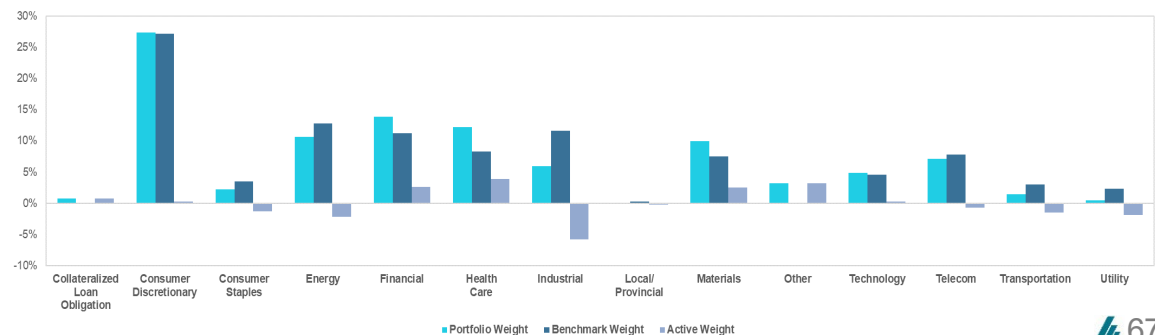
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Risk by Bond Sector



Credit – Liquid Credit

Credit Suisse

for the quarter ended September 30, 2022

Strategy

A bank loan strategy that invests in senior floating rate loans whose primary performance objective is to generate alpha while mitigating loss, utilizing bottom-up, fundamental credit analysis emphasizing a relative value approach.

Inception Date: April 2020

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	498.0	0.0
Effective Duration	0.2	4.2
Convexity	0.0	0.1
Coupon Rate	6.4	5.8
Yield to Maturity	9.2	9.3
Current Yield	6.9	6.9
Rating – Moody's	B-2	B-1
Rating – S & P	B	BB-

Top Holdings (% of assets)

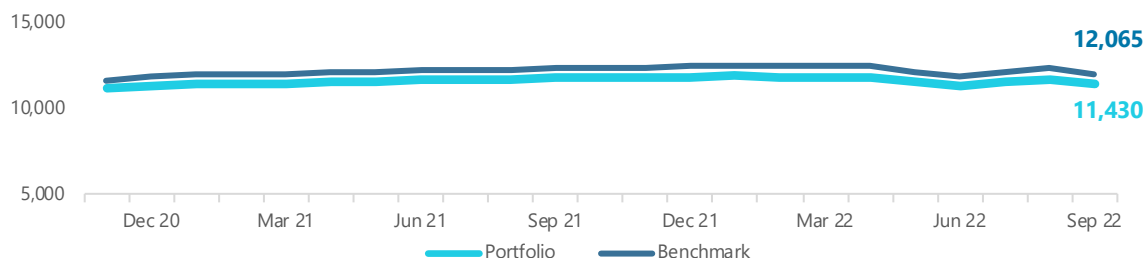
FINASTRA USA, INC.	0.8%
POLARIS NEWCO, LLC	0.7%
WILLIAM MORRIS ENDEAVOR ENTMT	0.7%
MEDLINE BORROWER, LP	0.7%
NFP CORP	0.7%
Top 5 Holdings	3.6%

Performance (net)¹

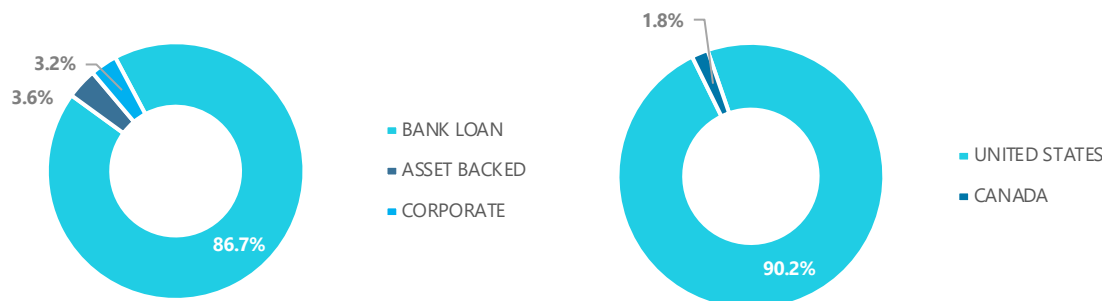
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Credit Suisse Bank Loans	1,115.4	1.2%	-3.0%	--	--
CS Leveraged Loan Index		1.2%	-2.6%	--	--
Credit Policy Benchmark		-0.9%	-9.2%	0.3%	--

Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Credit Suisse Bank Loans	1.2%	13	-2.8%	34	--	--	--	--
Median	-2.9%		-10.0%		--	--	--	--

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

Credit Risk Analysis – Liquid Credit

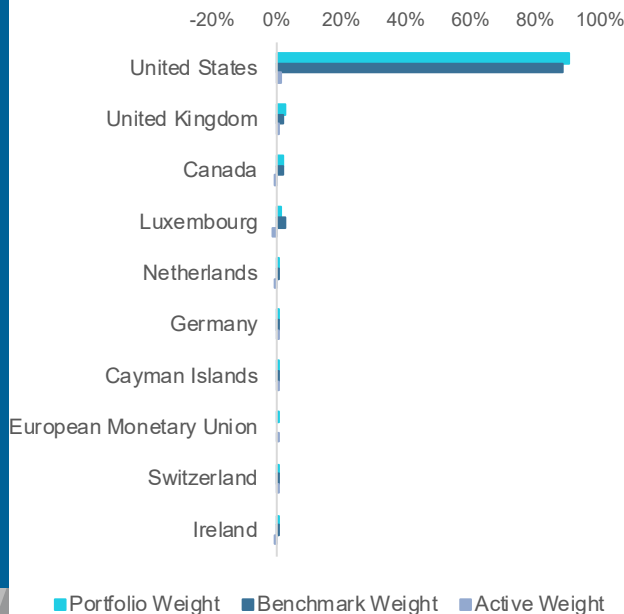
Credit Suisse

for the quarter ended September 30, 2022

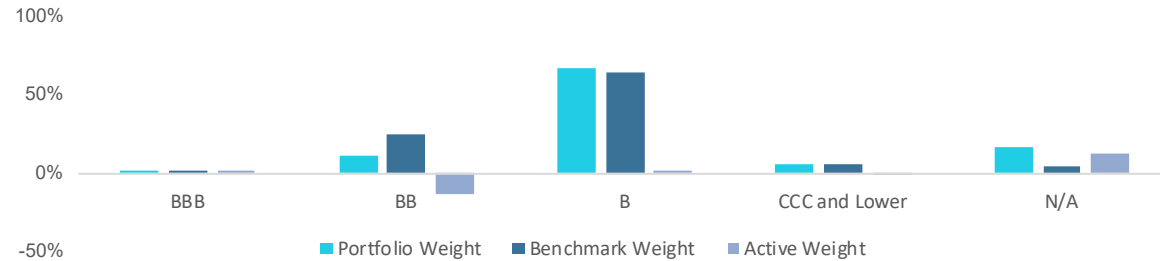
Portfolio Risk Summary

	Value
Total Risk	4.62
Benchmark Risk	5.33
Active Risk	0.94
Portfolio Beta	0.86
Cont. to Eff. Duration	0.59
Yield to Worst (%)	6.37
OAS to Swap (bp)	489

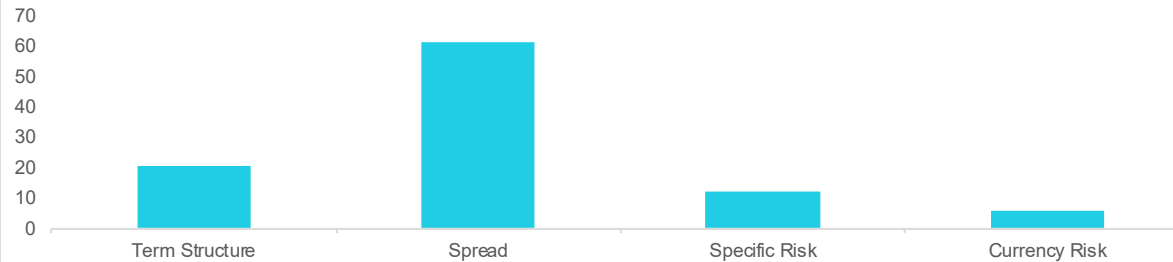
Top Countries by Weight%



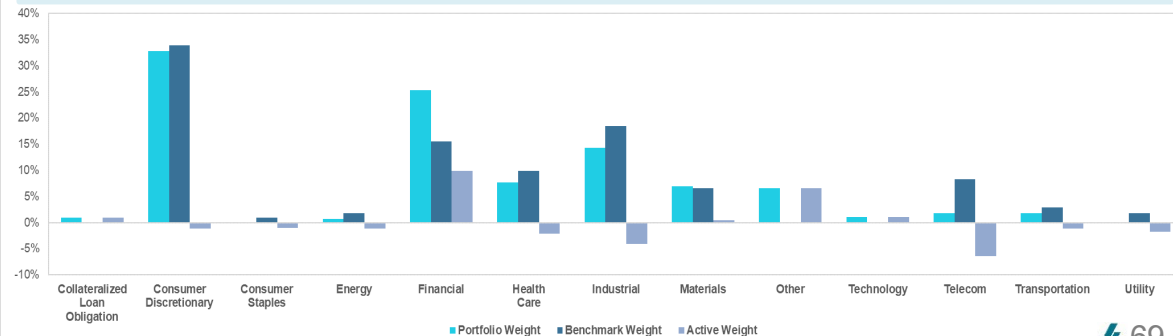
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Risk by Bond Sector



Credit – Liquid Credit Crescent Capital

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

A bank loan strategy that invests in privately negotiated, below investment grade, secured corporate debt. The primary target is U.S. based middle market companies whose EBITDA falls between \$30M to \$100M. The strategy's bottom-up credit research process emphasizes high current income and principal preservation.

Inception Date: May 2014

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	139.0	0.0
Effective Duration	0.3	4.2
Convexity	0.0	0.1
Coupon Rate	7.8	5.8
Yield to Maturity	10.9	9.3
Current Yield	8.5	6.9
Rating – Moody's	B-2	B-1
Rating – S & P	B-	BB-

Top Holdings (% of assets)

THE KNOT WORLDWIDE INC	2.0%
MAGNATE WORLDWIDE LLC	1.9%
EVERGREEN ACQCO 1 LP	1.8%
BARRACUDA NETWORKS INC	1.7%
KAMC HOLDINGS INC	1.6%

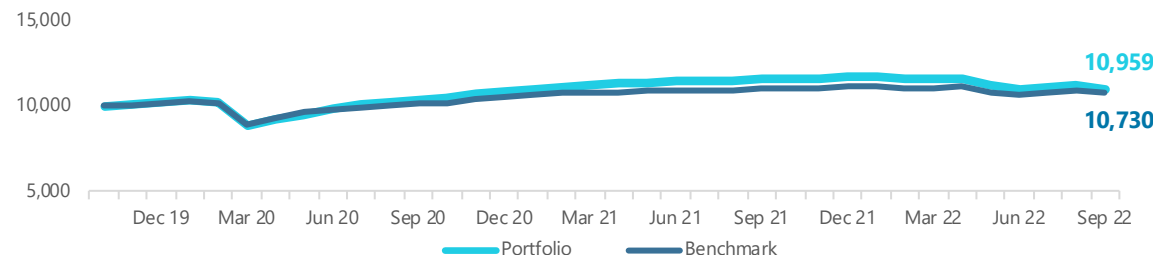
Top 5 Holdings **8.9%**

Performance (net)¹

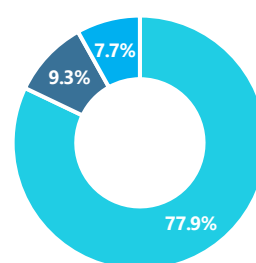
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Crescent Capital	488.6	0.0%	-5.4%	3.1%	3.3%
Bank Loans Custom Benchmark		1.2%	-2.6%	2.4%	3.2%
Credit Policy Benchmark		-0.9%	-9.2%	0.3%	--

Universe data: U.S. Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Crescent Capital	0.1%	24	-5.0%	38	3.6%	19	3.8%	14
Median	-2.9%		-10.0%		-1.2%		0.6%	

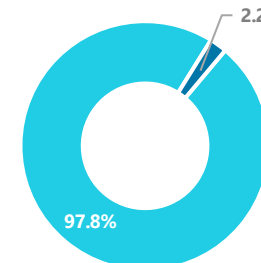
Growth of \$10,000



Top Exposures (% of assets)²



■ BANK LOAN
■ CORPORATE
■ ASSET BACKED



■ UNITED STATES
■ CANADA

1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

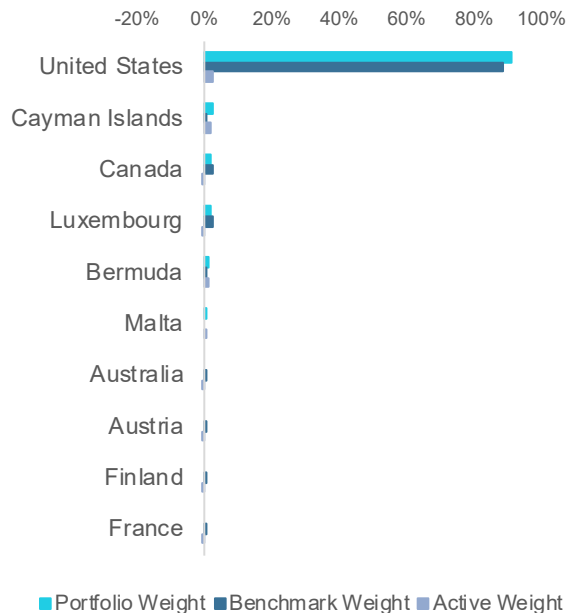
Credit Risk Analysis – Liquid Credit Crescent Capital

for the quarter ended September 30, 2022

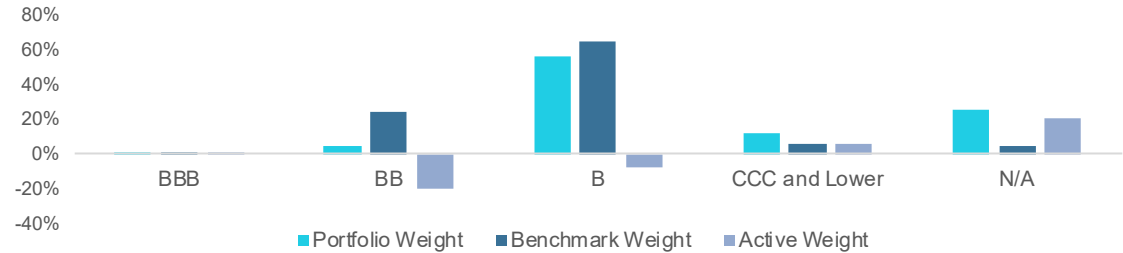
Portfolio Risk Summary

	Value
Total Risk	6.30
Benchmark Risk	5.33
Active Risk	1.56
Portfolio Beta	1.15
Cont. to Eff. Duration	0.62
Yield to Worst (%)	45.59
OAS to Swap (bp)	637

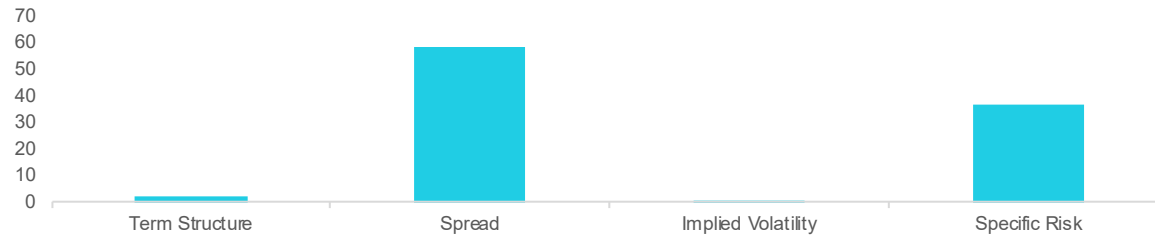
Top Countries by Weight%



Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Risk by Bond Sector



Credit – Liquid Credit Pinebridge

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Active manager of a broadly diversified portfolio primarily of U.S. dollar denominated high yield securities.

Inception Date: August 2021

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	238.0	0.0
Effective Duration	6.5	6.4
Convexity	0.7	0.7
Coupon Rate	2.8	2.5
Yield to Maturity	3.8	3.6
Current Yield	3.0	2.7
Rating – Moody's	AA-2	AA-2
Rating – S & P	AA-2	AA

Top Holdings (% of assets)

AMERICAN AIRLINES INC	1.2%
OCCIDENTAL PETROLEUM COR	1.0%
ALTICE FINANCING SA	0.9%
CCO HLDGS LLC/CAP CORP	0.8%
HOLLY NRG PRTNR/FIN CORP	0.7%

Top 5 Holdings

4.6%

Note: Commingled fund account with no position-level transparency.

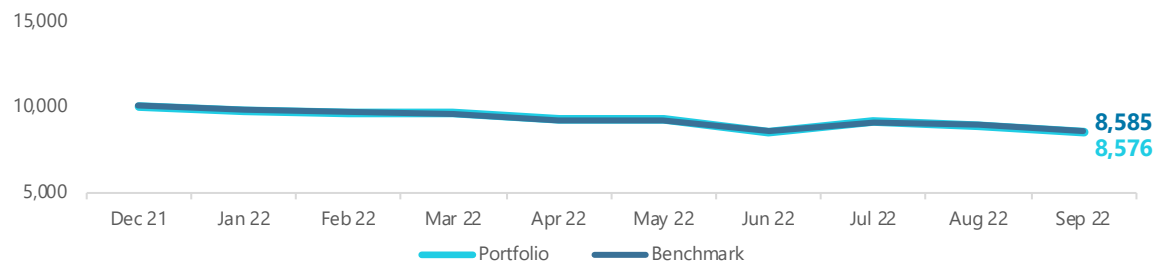
1. Universe data is gross-of-fees.

Performance (net)¹

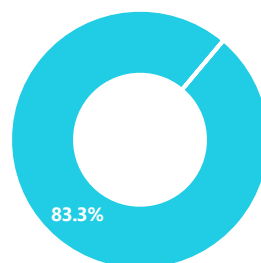
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Pinebridge Investments	431.6	-0.1%	-14.2%	--	--
BBG BARC US Corp HY Idx		-0.6%	-14.1%	--	--
Credit Policy Benchmark		-0.9%	-9.2%	0.3%	--

Universe data: US Fixed Income Pools	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Pinebridge Investments	-10.6%	82	--	--	--	--	--	--
Median	-4.6%		--		--		--	

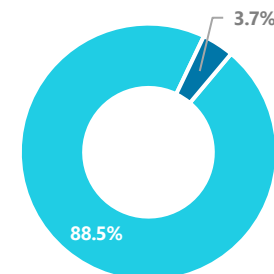
Growth of \$10,000



Top Exposures (% of assets)



■ CORPORATE



■ UNITED STATES

■ CANADA

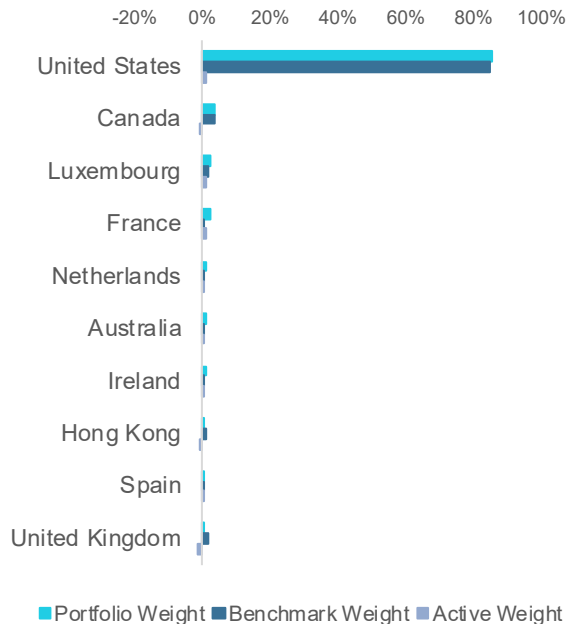
Credit Risk Analysis – Liquid Credit Pinebridge

for the quarter ended September 30, 2022

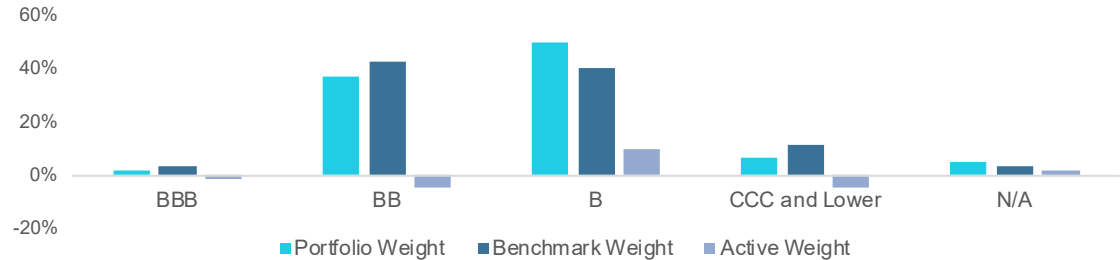
Portfolio Risk Summary

	Value
Total Risk	7.03
Benchmark Risk	6.80
Active Risk	0.68
Portfolio Beta	1.03
Cont. to Eff. Duration	4.32
Yield to Worst (%)	8.90
OAS to Swap (bp)	454

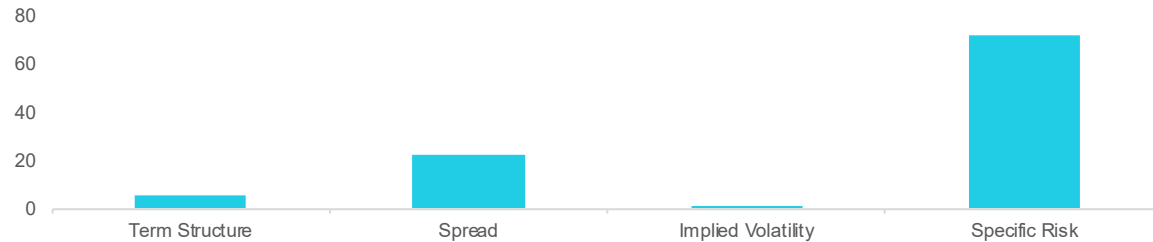
Top Countries by Weight%



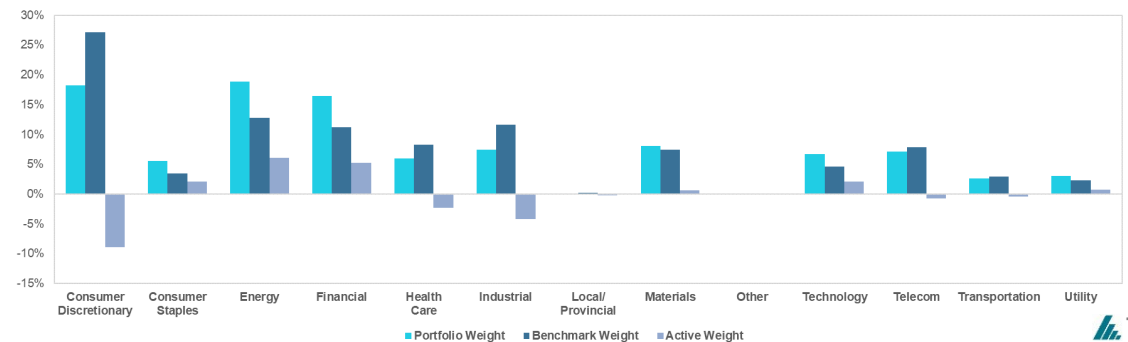
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Risk by Bond Sector

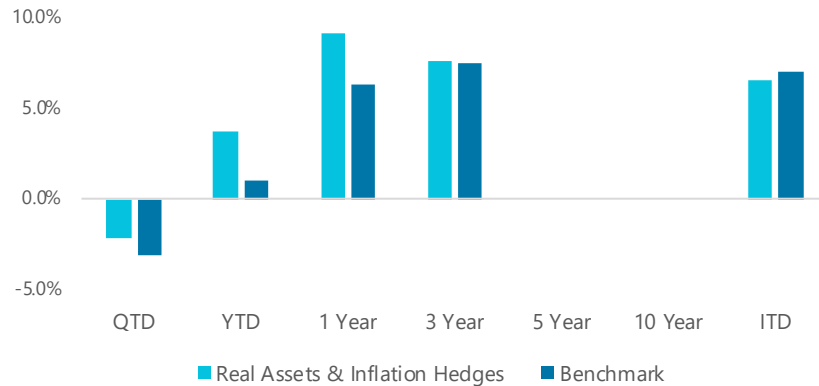


real assets & inflation hedges

Summary

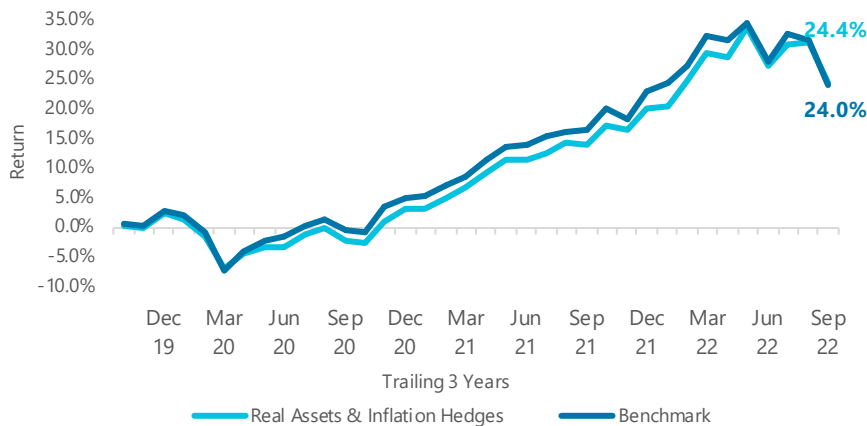
for the quarter ended September 30, 2022

Performance (net)



	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Real Assets & Inflation Hedges	-2.1%	3.7%	9.2%	7.6%	--	--	6.5%
Benchmark	-3.1%	1.0%	6.4%	7.4%	--	--	7.0%
Excess	1.0%	2.8%	2.8%	0.1%	--	--	-0.4%

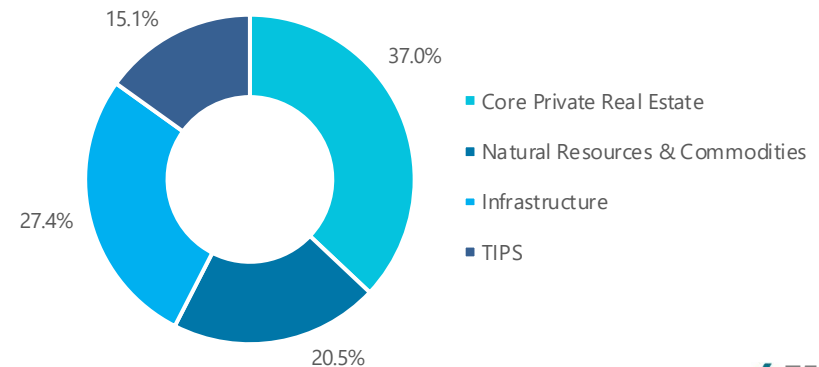
Cumulative Return



Functional Category

	QTD	FYTD	1 Year	3 Year
Core Private Real Estate	5.0%	5.0%	29.1%	10.8%
Core Private RE Policy Benchmark	4.5%	4.5%	28.3%	12.0%
Excess	0.5%	0.5%	0.8%	-1.3%
Natural Resources & Commodities	-3.4%	-3.4%	11.3%	12.3%
Nat Res & Comm Policy Benchmark	-4.5%	-4.5%	4.2%	11.0%
Excess	1.1%	1.1%	7.1%	1.4%
Infrastructure	-7.6%	-7.6%	-3.6%	4.0%
DJ Brookfield Global Infra Comp	-10.2%	-10.2%	-7.2%	-0.7%
Excess	2.6%	2.6%	3.6%	4.7%
TIPS	-5.6%	-5.6%	-11.6%	0.7%
BBG BARC US Tsy TIPS Idx	-5.1%	-5.1%	-11.6%	0.8%
Excess	-0.5%	-0.5%	0.0%	-0.1%

Exposure



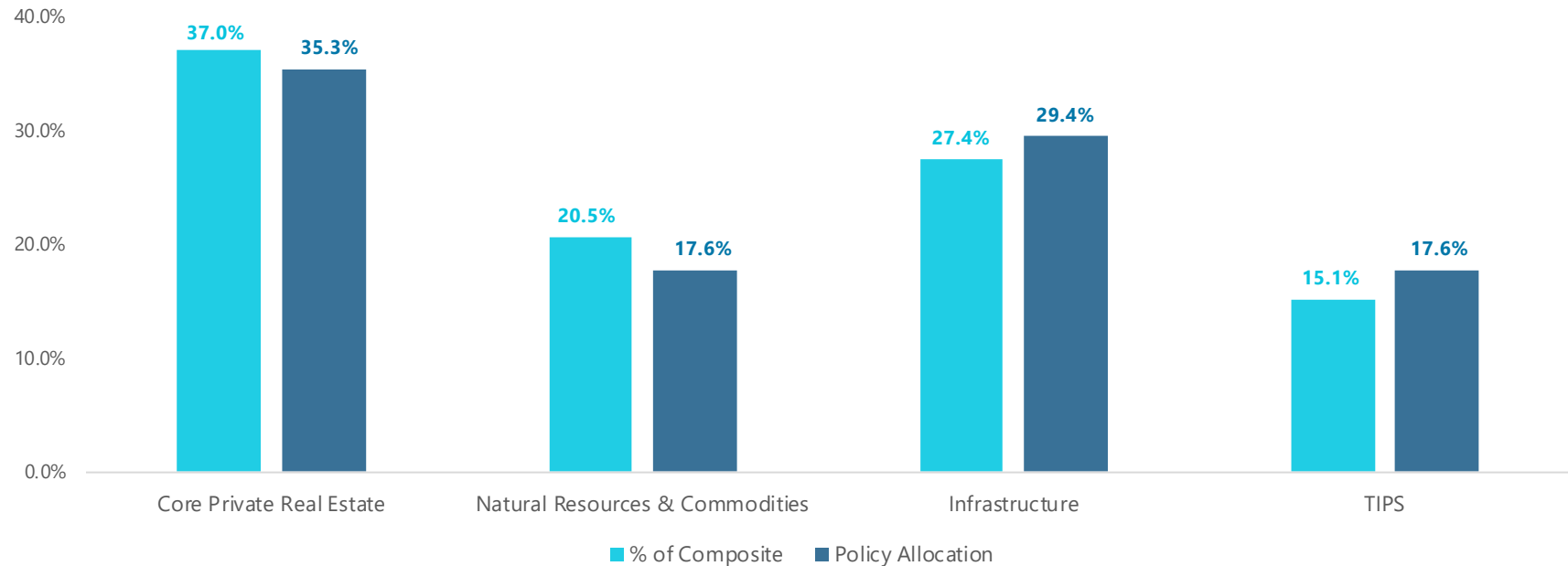
Asset Allocation

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Actual vs. Policy

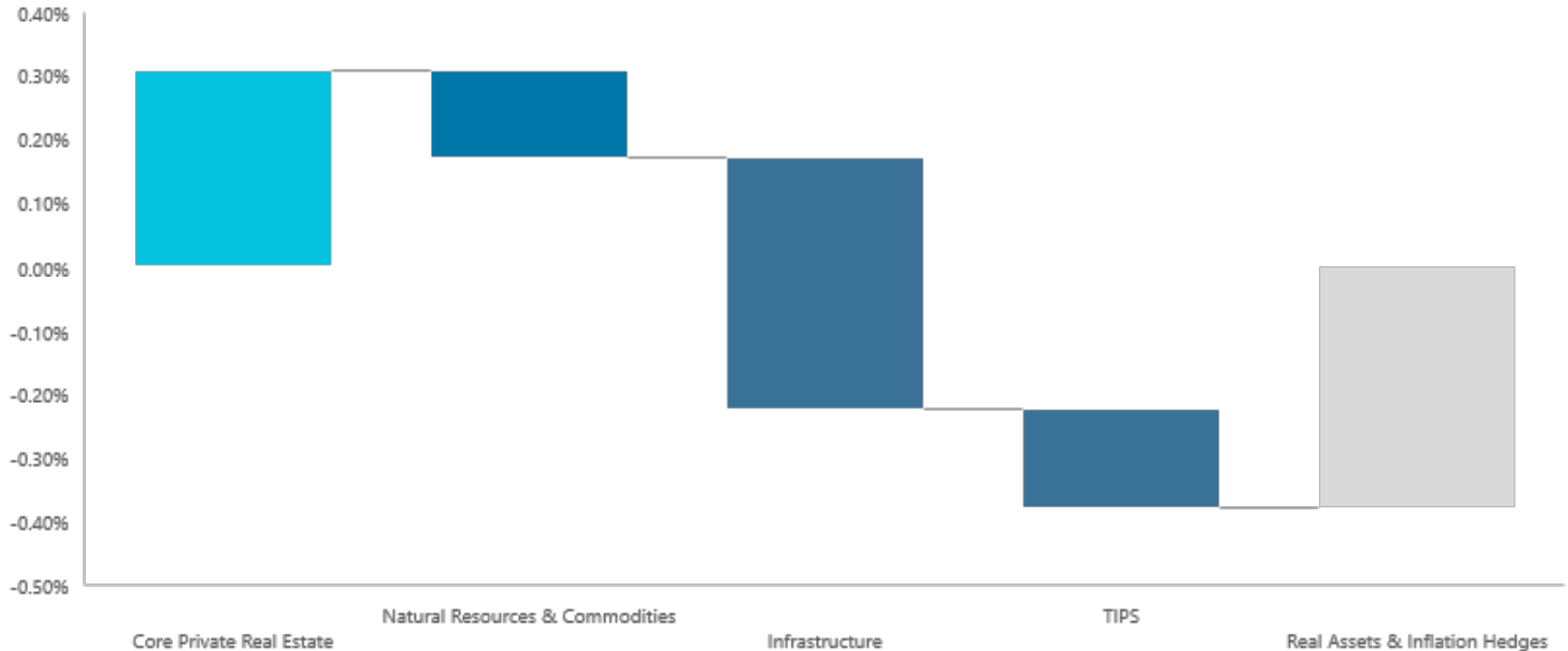


	Ending Market Value (mm)	% of Composite	Policy Allocation	Over / Under (%)	Over / Under (mm)
Real Assets & Inflation Hedges	12,075	100.0%	100.0%		
Core Private Real Estate	4,471	37.0%	35.3%	1.7%	209
Natural Resources & Commodities	2,476	20.5%	17.6%	2.9%	346
Infrastructure	3,305	27.4%	29.4%	-2.0%	-247
TIPS	1,823	15.1%	17.6%	-2.6%	-308

Contribution to Return

for the quarter ended September 30, 2022

QTD Contribution to Return



Functional Category		Contributors		Detractors	
Core Private Real Estate	0.31%	Real Estate - Real Assets	0.31%	DWS Infrastructure	-0.39%
Natural Resources & Commodities	-0.14%			BlackRock TIPS	-0.15%
Infrastructure	-0.40%			DWS Natural Resources	-0.04%
TIPS	-0.15%			Credit Suisse Commodity	-0.02%
Real Assets & Inflation Hedges	-0.38%			PIMCO Commodity Plus	-0.01%

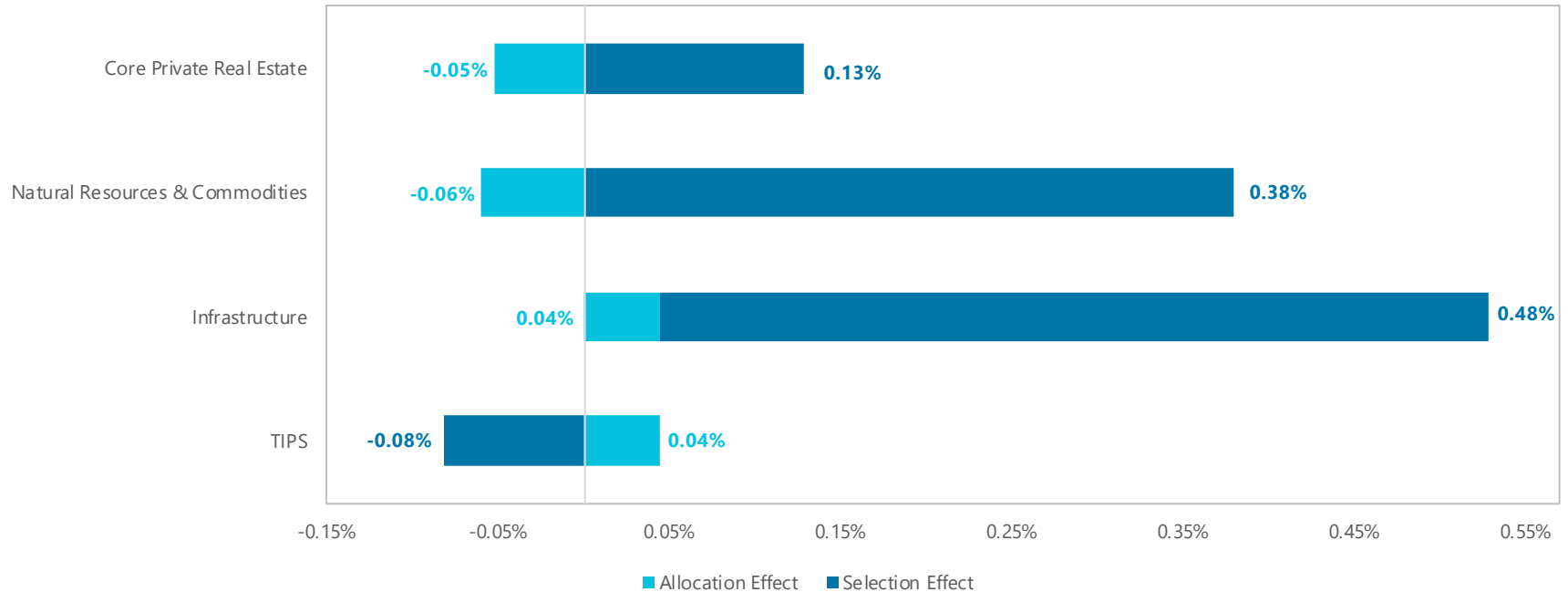
Return Attribution

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

QTD Performance Attribution¹



	Ending Market Value (mm)	% of Composite	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Real Assets & Inflation Hedges	12,075	100.0%	100.0%	-2.1%	-3.1%	-0.02%	0.91%	0.97%
Core Private Real Estate	4,471	37.0%	35.3%	5.0%	4.5%	-0.05%	0.13%	0.04%
Natural Resources & Commodities	2,476	20.5%	17.6%	-3.4%	-4.5%	-0.06%	0.38%	0.16%
Infrastructure	3,305	27.4%	29.4%	-7.6%	-10.2%	0.04%	0.48%	0.80%
TIPS	1,823	15.1%	17.6%	-5.6%	-5.1%	0.04%	-0.08%	-0.03%

1. Total Value Add includes Interaction Effect.

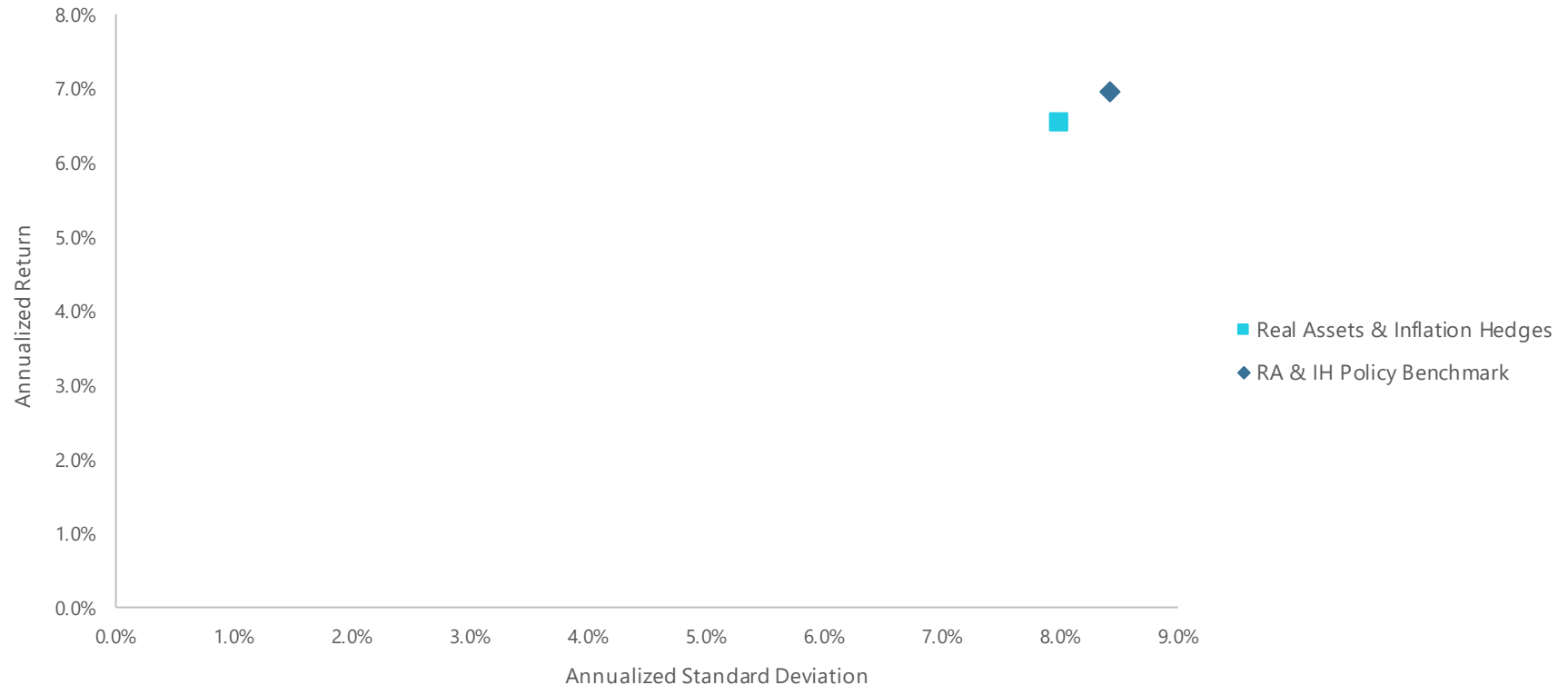
Risk vs. Return

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Since Inception (Annualized)¹



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Real Assets & Inflation Hedges	6.5%	8.0%				
RA & IH Policy Benchmark	7.0%	8.4%	0.74	(0.12)	0.93	2.3%

1. Composite risk statistics are relative to the policy benchmark.

Performance Detail

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Annualized Net Returns¹

	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Real Assets & Inflation Hedges RA & IH Policy Benchmark	100.0%	12,075	12,539	-2.1% -3.1%	3.7% 1.0%	9.2% 6.4%	7.6% 7.4%	-- --	-- --	6.5% 7.0%	Apr-2019
Core Private Real Estate Core Private RE Policy Benchmark	37.0%	4,471	4,323	5.0% 4.5%	21.7% 20.6%	29.1% 28.3%	10.8% 12.0%	9.2% 10.0%	9.1% 10.6%	7.4% 7.2%	Oct-1985
Natural Resources & Commodities Nat Res & Comm Policy Benchmark	20.5%	2,476	2,958	-3.4% -4.5%	7.5% 0.0%	11.3% 4.2%	12.3% 11.0%	6.5% 5.4%	-1.6% -2.8%	-1.2% -2.5%	Jul-2007
Cibus Enterprise II	0.0%	4	4	-6.9%	--	--	--	--	--	-6.9%	Jun-2022
Cibus Fund II	0.1%	17	18	-6.3%	--	--	--	--	--	-6.3%	Jun-2022
Credit Suisse Commodity	3.6%	434	551	-3.4%	15.4%	14.4%	15.2%	7.7%	-1.5%	-2.2%	Mar-2011
DWS Natural Resources	5.5%	663	934	-3.3%	-3.6%	4.2%	10.1%	--	--	10.2%	Jun-2019
HiTecVision New Energy	0.5%	59	0	--	--	--	--	--	--	-4.6%	Sep-2022
Neuberger Berman/Gresham	4.0%	486	541	-4.7%	15.5%	13.5%	13.7%	7.6%	-1.2%	-0.7%	Jul-2007
Orion Mine Finance Fund III	1.0%	116	108	-3.5%	3.0%	5.6%	--	--	--	5.6%	Sep-2021
Orion Mining Royalty Fund I	0.2%	18	15	-5.2%	-4.0%	6.7%	--	--	--	6.6%	Sep-2021
PIMCO Commodity Plus	1.0%	121	213	-3.3%	14.2%	13.4%	14.6%	7.8%	-0.7%	-0.7%	Jul-2007
Private Equity - Real Assets	0.7%	82	85	-2.0%	9.0%	18.8%	-8.7%	--	--	-9.6%	Jan-2019
TIAA-CREF Global Agriculture I	1.7%	205	211	-2.8%	13.5%	--	--	--	--	13.5%	Dec-2021
TIAA-CREF Global Agriculture II	2.2%	271	278	-2.4%	9.6%	--	--	--	--	9.6%	Dec-2021
Infrastructure DJ Brookfield Global Infra Comp	27.4%	3,305	3,327	-7.6% -10.2%	-11.0% -13.1%	-3.6% -7.2%	4.0% -0.7%	-- --	-- --	5.6% 1.0%	Jun-2019
Antin Mid Cap	0.2%	25	17	-6.6%	-20.8%	--	--	--	--	-20.6%	Dec-2021
Axiom Infrastructure	1.6%	194	193	1.4%	0.5%	--	--	--	--	0.5%	Dec-2021
Axiom Infrastructure Canada	0.0%	0	0	--	--	--	--	--	--	-100.0%	Nov-2021
DIF CIF III	0.0%	5	7	2.9%	--	--	--	--	--	2.0%	Jun-2022
DIF Infrastructure VI	0.7%	88	66	-2.4%	-0.7%	5.1%	--	--	--	16.8%	Mar-2021
DWS Infrastructure	21.6%	2,606	2,668	-9.4%	-13.6%	-6.0%	3.3%	--	--	5.0%	Jun-2019
Grain Communications Opportunity III	0.3%	32	27	-3.7%	-11.0%	-14.7%	--	--	--	-100.0%	Feb-2021
Grain Spectrum Holdings III	0.4%	48	47	-0.2%	-0.4%	-0.6%	--	--	--	-1.1%	Nov-2020
KKR DCIF	1.7%	200	200	0.7%	--	--	--	--	--	0.7%	Apr-2022
Pan-European Infrastructure Fund III	0.5%	58	52	-3.5%	-1.5%	-2.5%	--	--	--	-1.0%	Nov-2020
Partners Grp Direct Infra 2020	0.4%	48	50	-2.4%	--	--	--	--	--	-0.2%	Jan-2022
TIPS											
Blackrock TIPS	15.1%	1,823	1,931	-5.6% -5.1%	-13.7% -13.6%	-11.6% -11.6%	0.7% 0.8%	-- --	-- --	1.7% 1.8%	May-2019

1. Private natural resources and infrastructure funds reflect early-stage life cycle performance.

Real Assets & Inflation Hedges

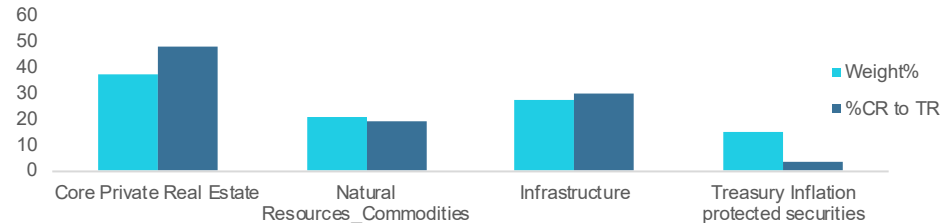
Risk Summary

for the quarter ended September 30, 2022

Risk Summary

	Value
Total Risk	14.90
Benchmark Risk	14.42
Active Risk	2.35
Portfolio Beta	1.02

Contribution to Risk

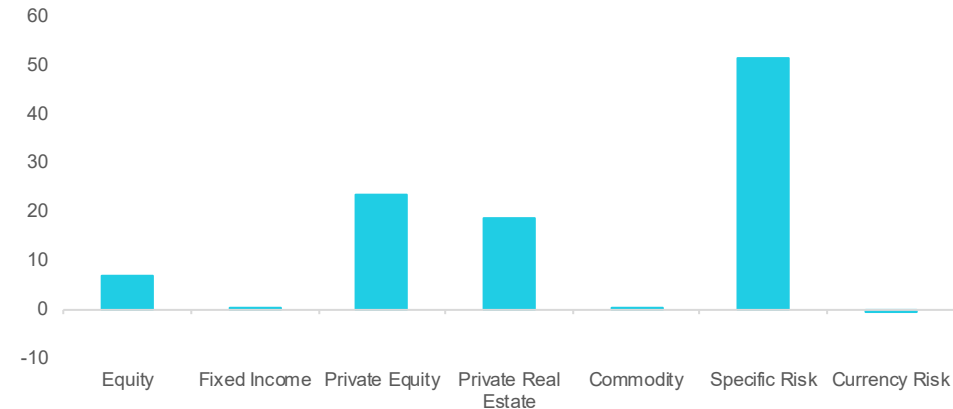


	Mkt Value (mm)	Weight%	Total Risk	Risk Contribution	%CR to TR
Real Assets & Inflation Hedges	12,060	100.00	14.90	14.90	100.00
Core Private Real Estate	4,471	37.07	21.83	7.17	48.13
Natural Resources Commodities	2,510	20.82	17.54	2.81	18.85
Infrastructure	3,253	26.98	18.42	4.46	29.91
Treasury Inflation protected securities	1,825	15.14	6.53	0.46	3.11

Risk Decomposition

Risk Source	Portfolio		Active	
	Risk Contribution	%Risk	Risk Contribution	%Risk
Total Risk	14.90	100.00	2.35	100.00
Common Factor Risk	14.09	94.60	1.15	48.92
Specific Risk	0.08	0.57	1.21	51.23
Currency Risk	0.72	4.83	0.00	-0.16

Active Risk from Common Factors

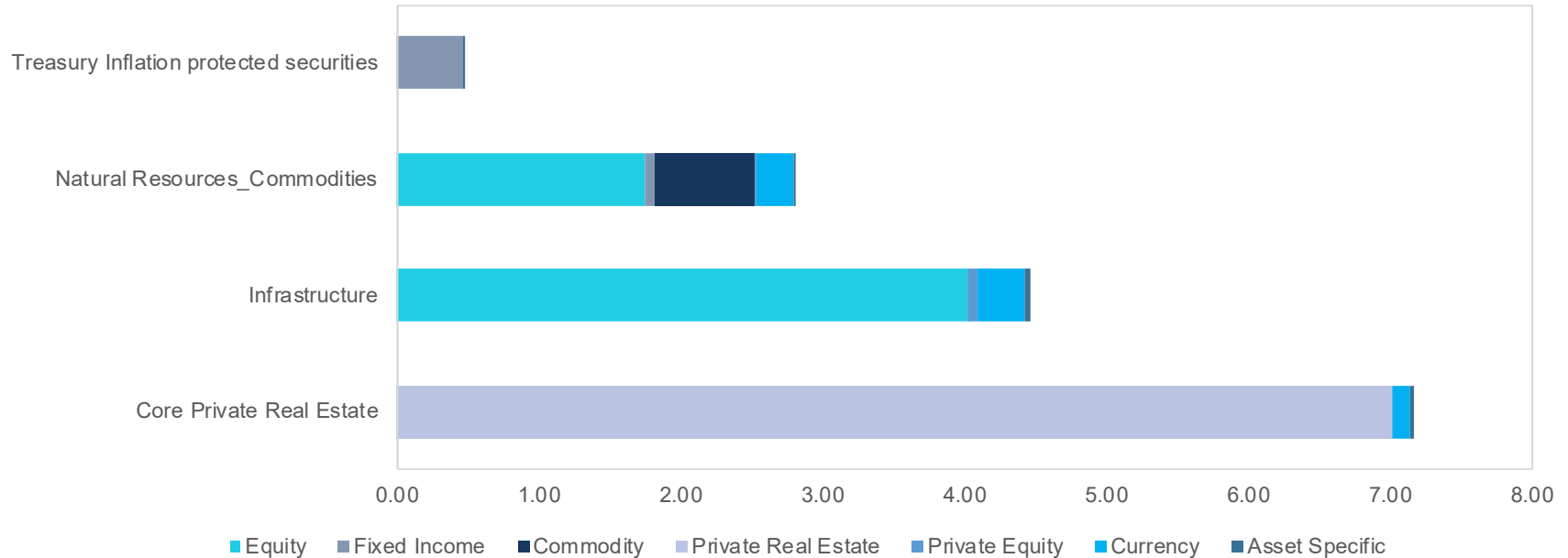


Real Assets & Inflation Hedges

Risk Summary

for the quarter ended September 30, 2022

Risk Contribution Breakdown by Risk Type



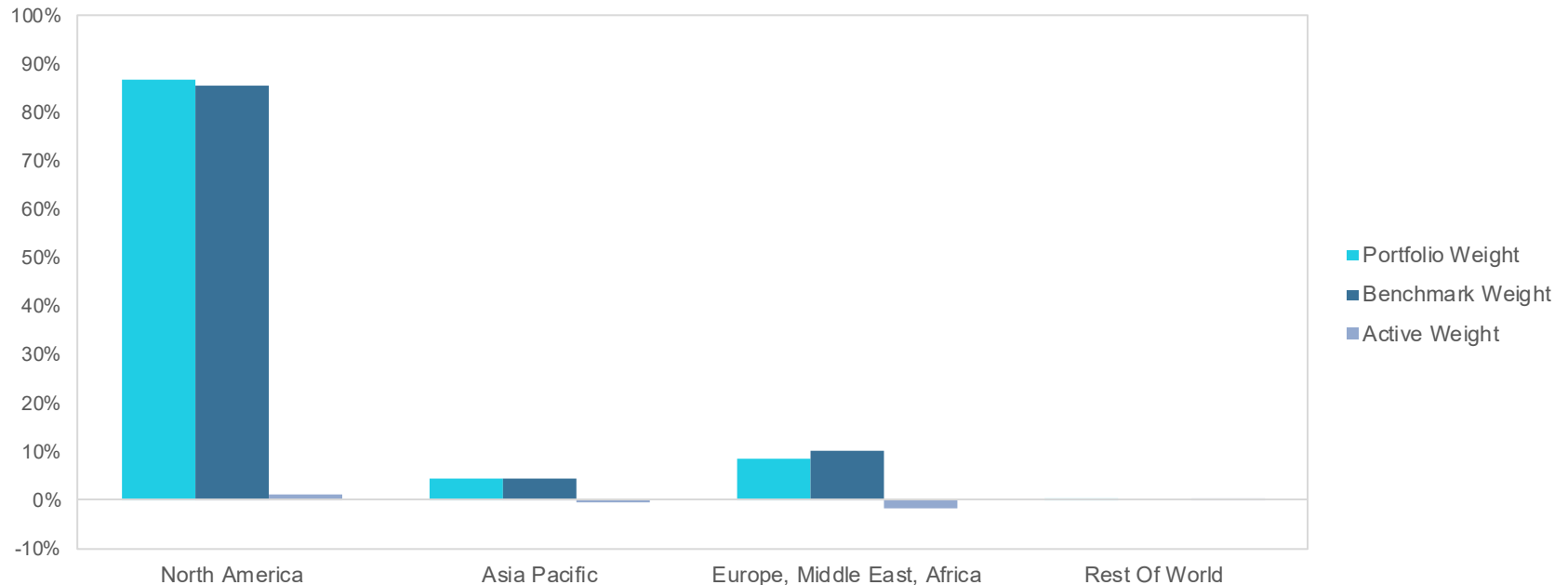
Functional Category	Port Risk Contribution	Equity	Fixed Income	Commodity	Private Real Estate	Private Equity	Currency	Asset Specific
Total Fund	14.90	5.77	0.53	0.70	7.01	0.09	0.72	0.08
Core Private Real Estate	7.17	0.00	0.00	0.00	7.01	0.00	0.12	0.04
Infrastructure	4.46	4.02	0.00	0.00	0.00	0.06	0.33	0.04
Natural Resources_Commodities	2.81	1.75	0.06	0.70	0.00	0.02	0.26	0.01
Treasury Inflation protected securities	0.46	0.00	0.46	0.00	0.00	0.00	0.00	0.00

Real Assets & Inflation Hedges

Risk Summary

for the quarter ended September 30, 2022

Portfolio Allocation By Region



Region	Weight%			Total Risk	Active Risk CR	% of Active TR	MC to Total Tracking Error
	Portfolio	Benchmark	Active				
Total Fund	100.00%	100.00%	0.00%	14.90	2.35	100.00	0.02
North America	86.87%	85.45%	1.42%	14.59	2.07	87.85	0.03
Asia Pacific	4.31%	4.32%	-0.01%	17.30	0.06	2.49	-0.01
Europe, Middle East, Africa	8.68%	10.23%	-1.55%	23.42	0.22	9.17	0.00
Rest Of World	0.14%	0.00%	0.14%	36.26	0.01	0.49	0.08

Real Assets & Inflation Hedges

Natural Resources & Commodities

Credit Suisse

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to provide a hedge against inflation and exposure to commodities markets such as energy, agriculture and timber, and metals and mining.

Inception Date: March 2011

Risk Statistics (since inception)

Standard Deviation	16.2%
Benchmark Standard Deviation	16.6%
Sharpe Ratio	0.44
Information Ratio	1.04
Beta	0.98
Tracking Error	0.9%

Top Holdings (% of assets)

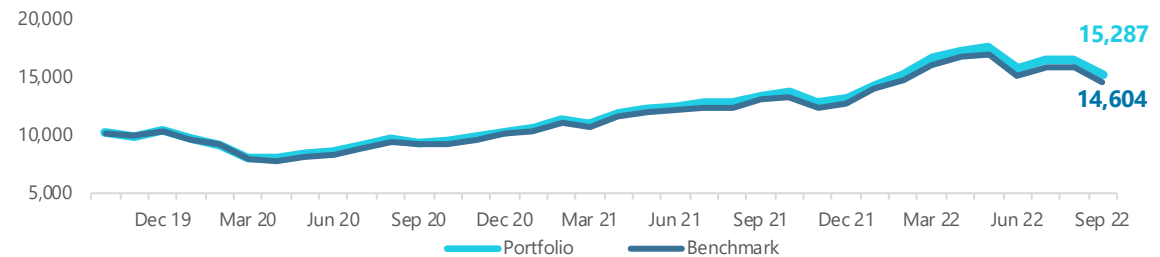
US TREASURY FRN	15.1%
GOLD 100 OZ FUTR DEC22	13.3%
US TREASURY FRN	12.9%
NATURAL GAS FUTR NOV22	12.6%
US TREASURY FRN	11.7%
Top 5 Holdings	65.6%

Performance (net)¹

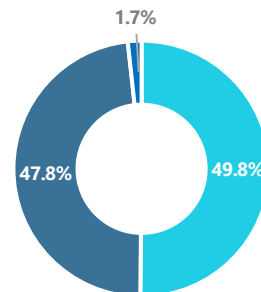
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Credit Suisse Commodity	433.8	-3.4%	14.4%	15.2%	7.7%
Bloomberg Commodity Index Total Return		-4.1%	11.8%	13.5%	7.0%
RA & IH Policy Benchmark		-3.1%	6.4%	7.4%	--

Universe data: Commodity Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Credit Suisse Commodity	-3.3%	60	14.7%	39	15.5%	38	7.9%	52
Median	0.0%		9.8%		12.4%		8.4%	

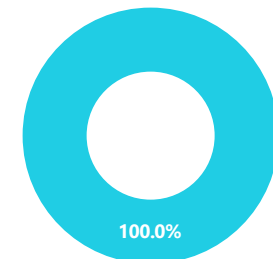
Growth of \$10,000



Top Exposures (% of assets)²



■ FUTURES
■ AGENCY
■ US TREASURY



■ UNITED STATES

1. Universe data is gross-of-fees.
2. Charts display top exposures and may not add up to 100%.

Real Assets & Inflation Hedges Risk Analysis

Natural Resources & Commodities

Credit Suisse

for the quarter ended September 30, 2022

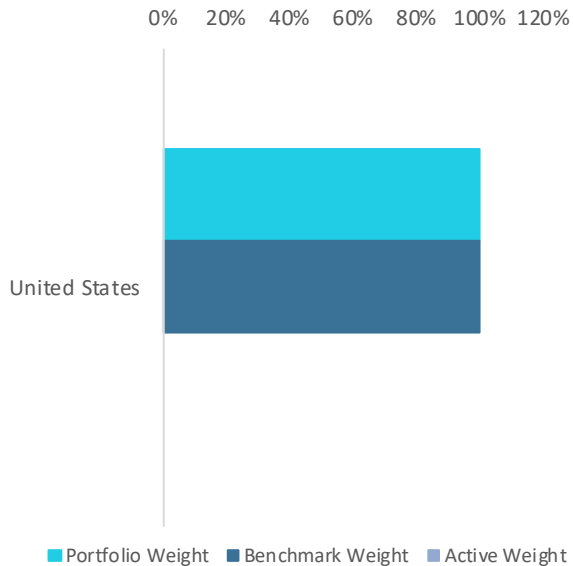


Los Angeles County Employees Retirement Association

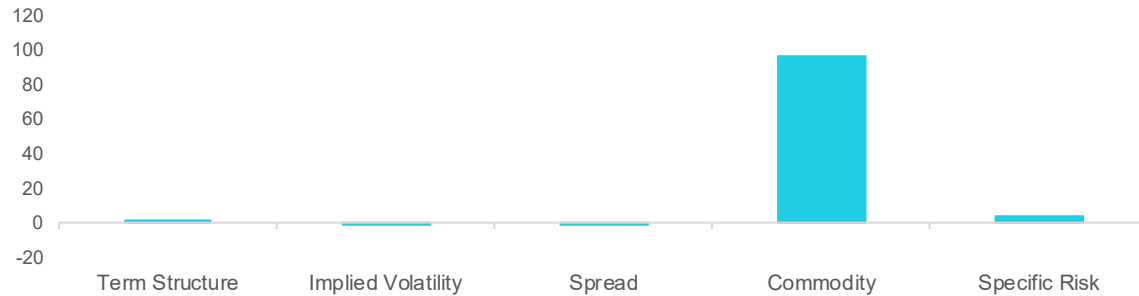
Portfolio Risk Summary

	Value
Total Risk	18.74
Benchmark Risk	19.50
Active Risk	5.74
Portfolio Beta	0.92

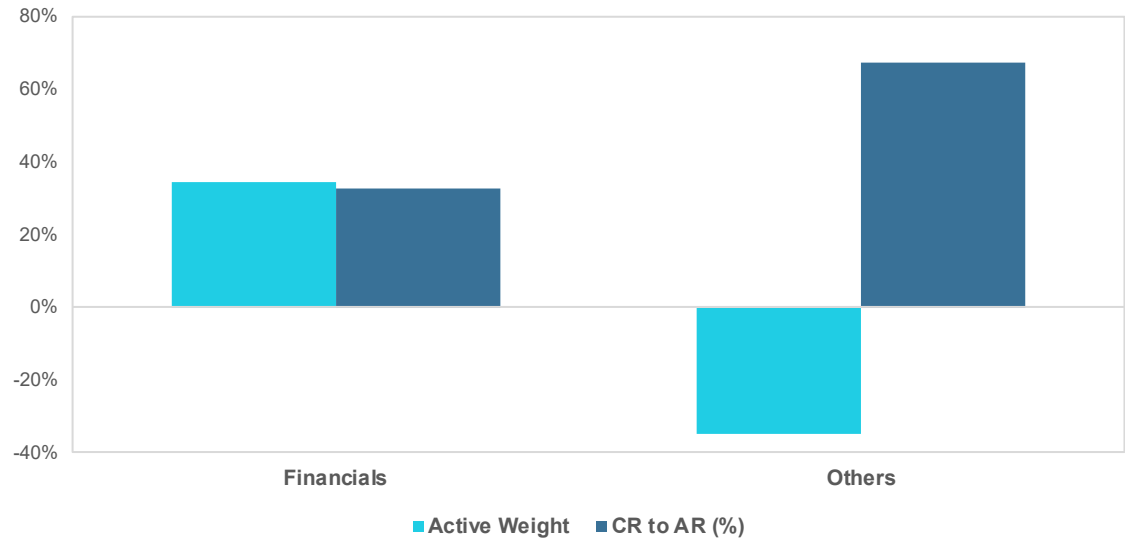
Top Countries by Weight%



Active Risk from Common Factors



Portfolio Risk by Sector



Real Assets & Inflation Hedges

Natural Resources & Commodities

DWS

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to provide capital appreciation and a hedge to inflation. A diversified approach within infrastructure to gain exposure to infrastructure related to telecommunication, transportation, utilities, waste and energy.

Inception Date: June 2019

Risk Statistics (since inception)

Standard Deviation	24.7%
Benchmark Standard Deviation	24.7%
Sharpe Ratio	0.49
Information Ratio	-0.47
Beta	0.99
Tracking Error	4.2%

Top Holdings (% of assets)

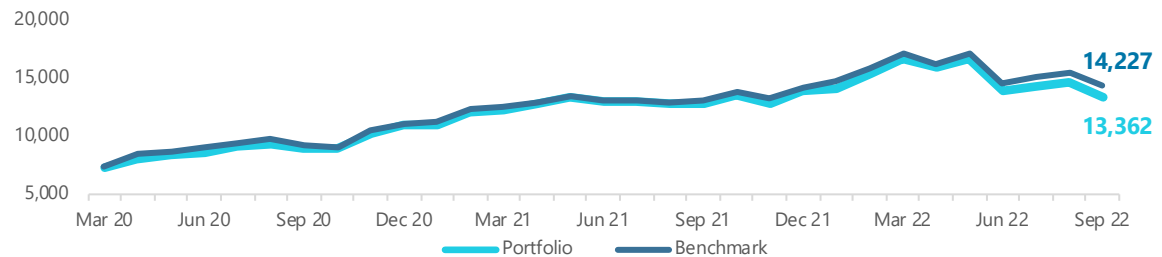
NUTRIEN LTD	9.7%
CHEVRON CORP	8.7%
CORTEVA INC	6.8%
BUNGE LTD	5.4%
AGNICO EAGLE MINES LTD	5.0%
Top 5 Holdings	35.6%

Performance (net)¹

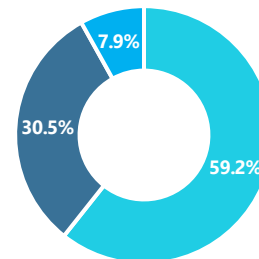
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
DWS Natural Resources	663.4	-3.3%	4.2%	10.1%	--
S&P Glb LargeMidCap Commod & Resources		-1.3%	9.7%	12.5%	--
RA & IH Policy Benchmark		-3.1%	6.4%	7.4%	--

Universe data: Commodity Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
DWS Natural Resources	-3.3%	60	4.3%	61	10.4%	58	--	--
Median	0.0%		9.8%		12.4%		--	

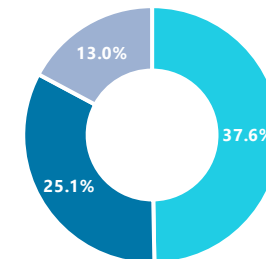
Growth of \$10,000



Top Exposures (% of assets)²



■ MATERIALS
■ ENERGY
■ CONSUMER STAPLES



■ UNITED STATES
■ CANADA
■ UNITED KINGDOM

1. Universe data is gross-of-fees.
2. Charts display top exposures and may not add up to 100%.

Real Assets & Inflation Hedges Risk Analysis

Natural Resources & Commodities

DWS

for the quarter ended September 30, 2022

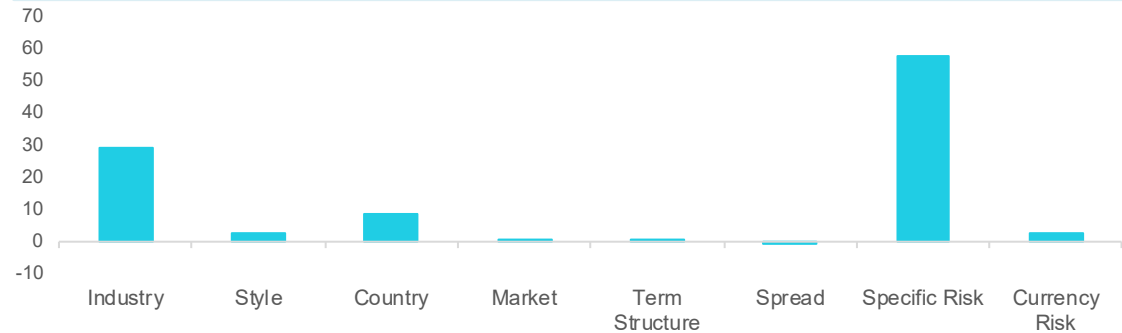


Los Angeles County Employees Retirement Association

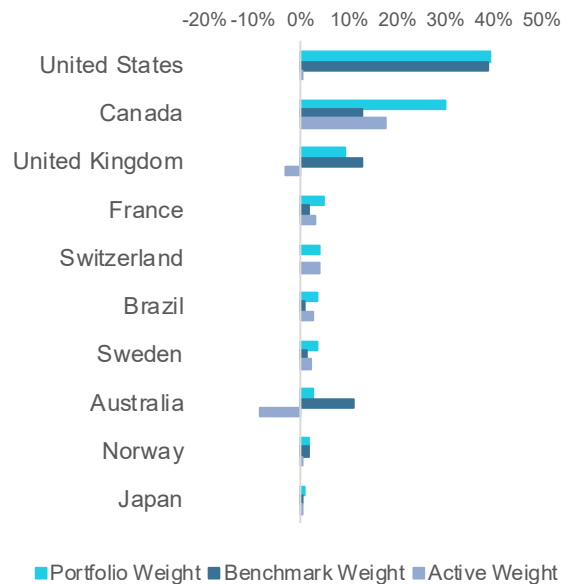
Portfolio Risk Summary

	Value
Total Risk	25.00
Benchmark Risk	25.30
Active Risk	5.09
Portfolio Beta	0.97

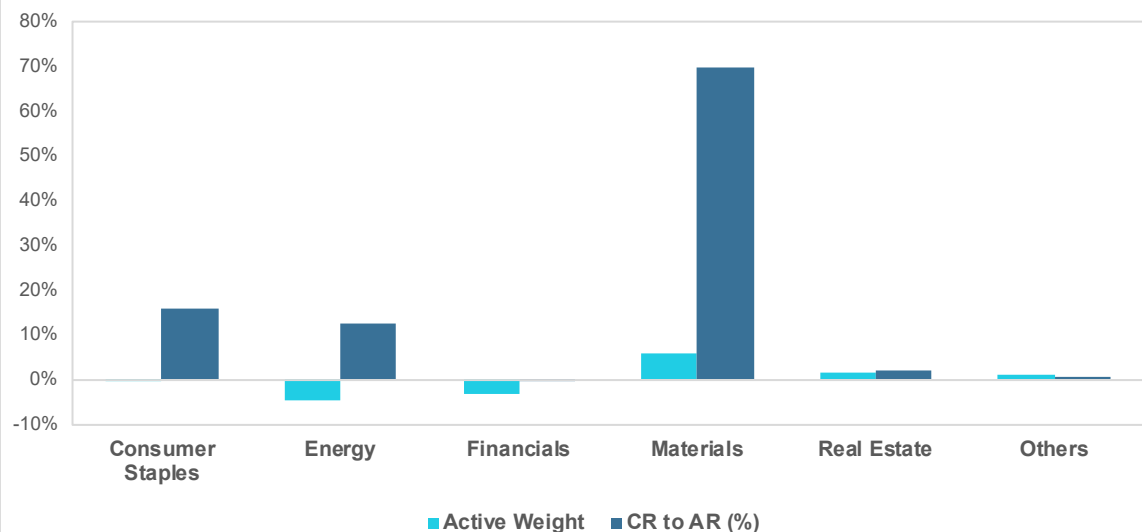
Active Risk from Common Factors



Top Countries by Weight%



Portfolio Risk by Sector



Real Assets & Inflation Hedges

Natural Resources & Commodities

Neuberger Berman / Gresham

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to provide a hedge against inflation and exposure to commodities markets such as energy, agriculture and timber, and metals and mining. The collateral portfolio provides income with conservative fixed income exposure.

Inception Date: July 2007

Risk Statistics (since inception)

Standard Deviation	18.6%
Benchmark Standard Deviation	17.1%
Sharpe Ratio	0.13
Information Ratio	0.50
Beta	1.05
Tracking Error	4.9%

Top Holdings (% of assets)

GOLD 100 OZ FUTR DEC22	10.0%
NATURAL GAS FUTR NOV22	9.8%
SOYBEAN FUTURE NOV22	7.2%
CORN FUTURE DEC22	7.1%
BRENT CRUDE FUTR MAR23	5.5%

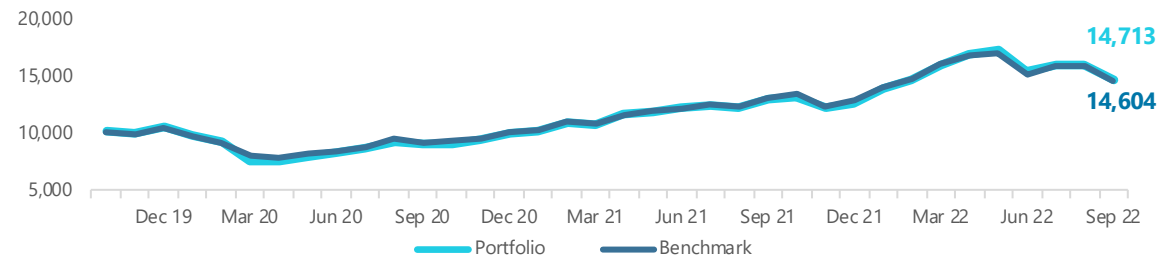
Top 5 Holdings **39.5%**

Performance (net)¹

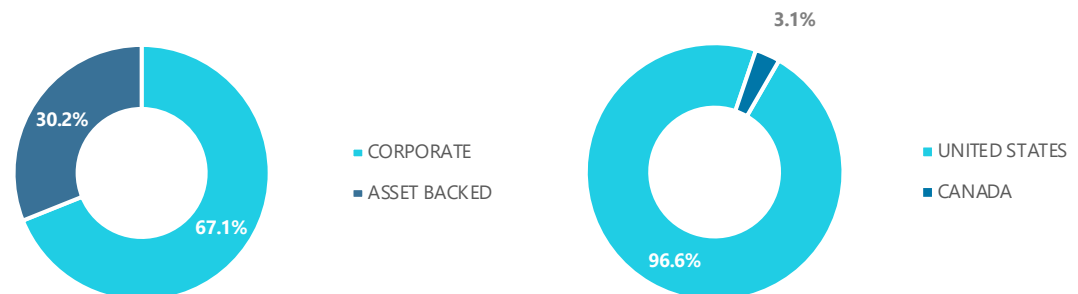
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Neuberger Berman/Gresham	486.4	-4.7%	13.5%	13.7%	7.6%
Bloomberg Commodity Index Total Return		-4.1%	11.8%	13.5%	7.0%
RA & IH Policy Benchmark		-3.1%	6.4%	7.4%	--

Universe data: Commodities Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Neuberger Berman/Gresham	-4.6%	61	13.9%	41	14.2%	41	8.0%	52
Median	0.0%		9.8%		12.4%		8.4%	

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.
2. Charts display top exposures and may not add up to 100%.

Real Assets & Inflation Hedges Risk Analysis

Natural Resources & Commodities

Neuberger Berman / Gresham

for the quarter ended September 30, 2022

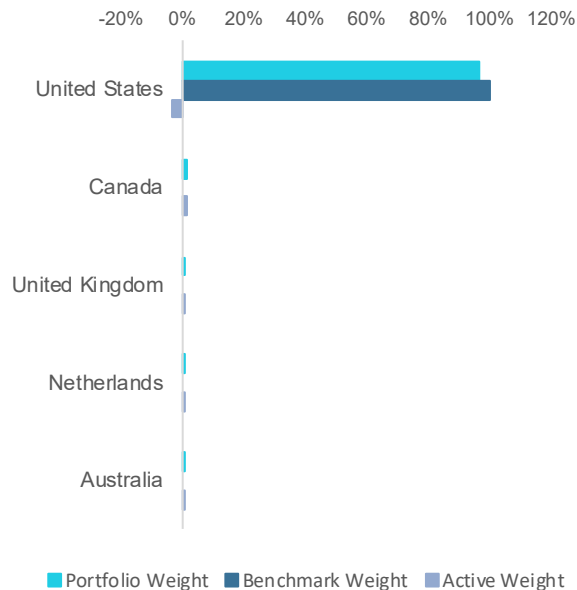


Los Angeles County Employees Retirement Association

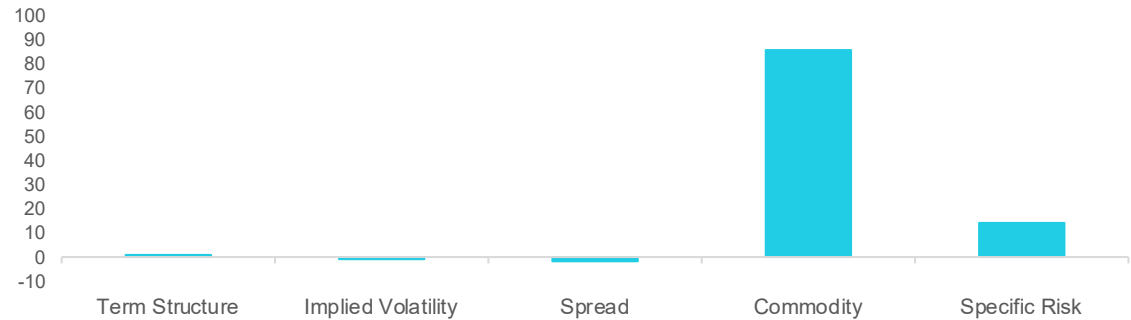
Portfolio Risk Summary

	Value
Total Risk	16.14
Benchmark Risk	20.50
Active Risk	5.35
Portfolio Beta	0.78

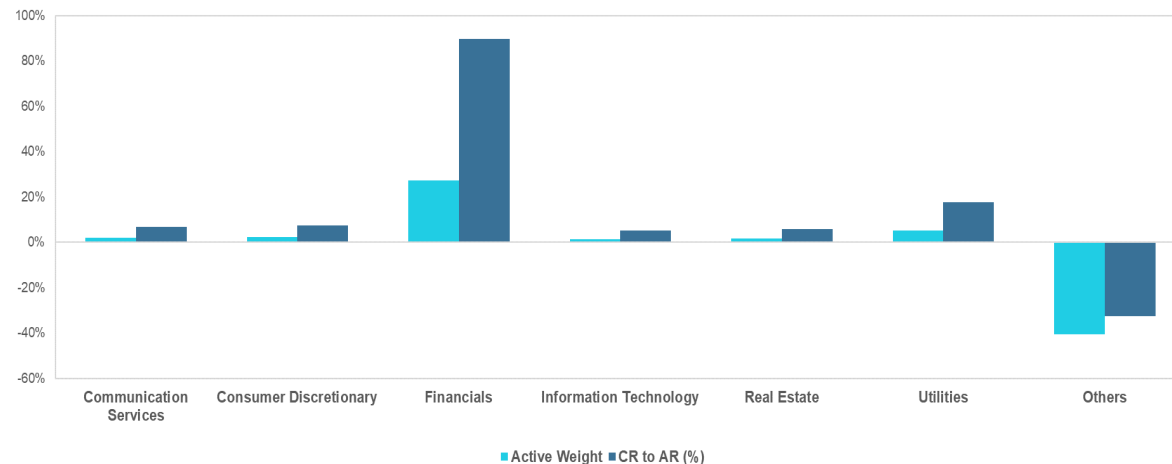
Top Countries by Weight%



Active Risk from Common Factors



Portfolio Risk by Sector



Real Assets & Inflation Hedges

Natural Resources & Commodities

PIMCO

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to provide a hedge against inflation and exposure to commodities markets such as energy, agriculture and timber, and metals and mining. The collateral portfolio provides income with conservative fixed income exposure.

Inception Date: July 2007

Risk Statistics (since inception)

Standard Deviation	18.2%
Benchmark Standard Deviation	17.1%
Sharpe Ratio	0.01
Information Ratio	0.52
Beta	1.05
Tracking Error	2.5%

Top Holdings (% of assets)

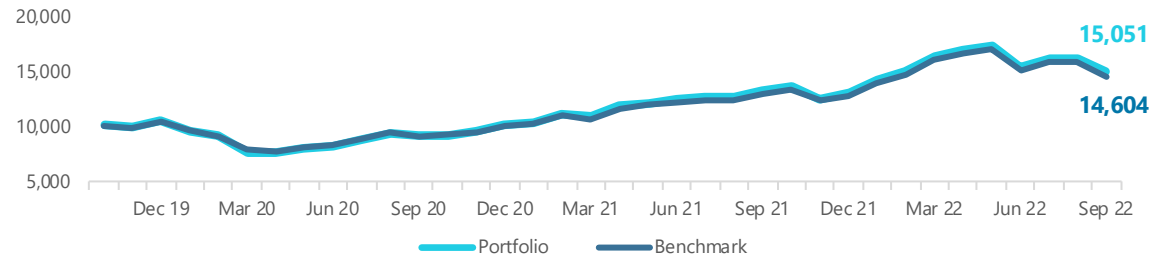
SWU0SY268 TRS USD R E	22.5%
SWU0SY235 TRS USD R E	21.8%
SWU0JI123 TRS USD R E	19.4%
SWU0SY425 TRS USD R E	13.2%
US 10YR NOTE	13.0%
Top 5 Holdings	90.0%

Performance (net)¹

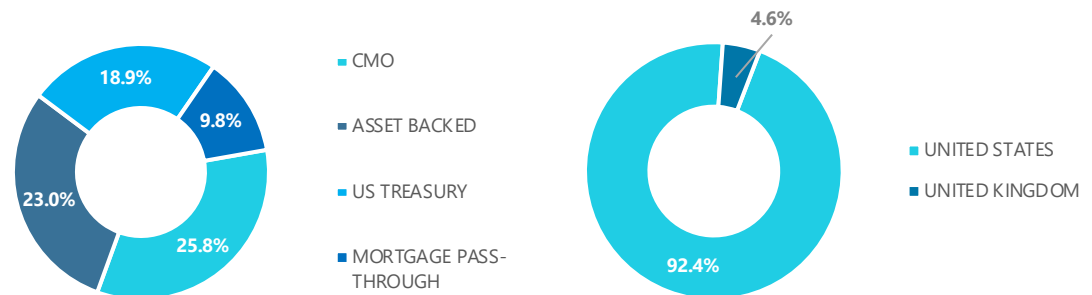
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
PIMCO Commodity Plus	121.1	-3.3%	13.4%	14.6%	7.8%
Bloomberg Commodity Index Total Return		-4.1%	11.8%	13.5%	7.0%
RA & IH Policy Benchmark		-3.1%	6.4%	7.4%	--

Universe data: Commodity Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
PIMCO Commodity Plus	-3.3%	60	13.8%	41	15.0%	40	8.2%	51
Median	0.0%		9.8%		12.4%		8.4%	

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

Real Assets & Inflation Hedges Risk Analysis

Natural Resources & Commodities

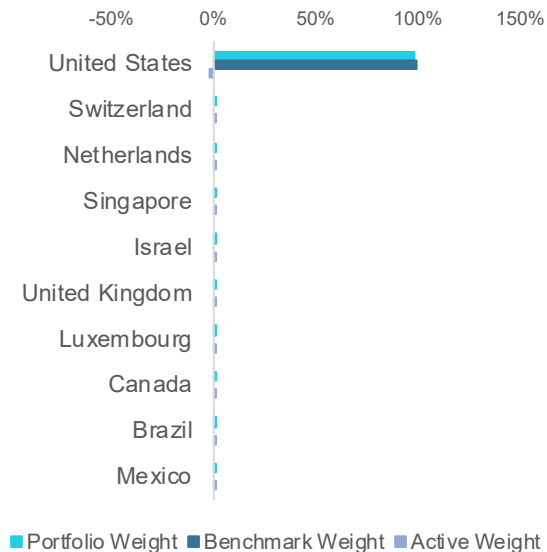
PIMCO

for the quarter ended September 30, 2022

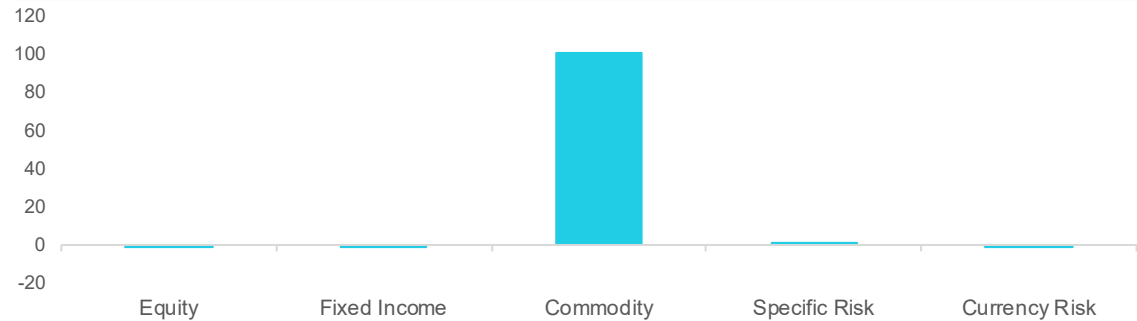
Portfolio Risk Summary

	Value
Total Risk	2.05
Benchmark Risk	19.50
Active Risk	19.30
Portfolio Beta	0.02

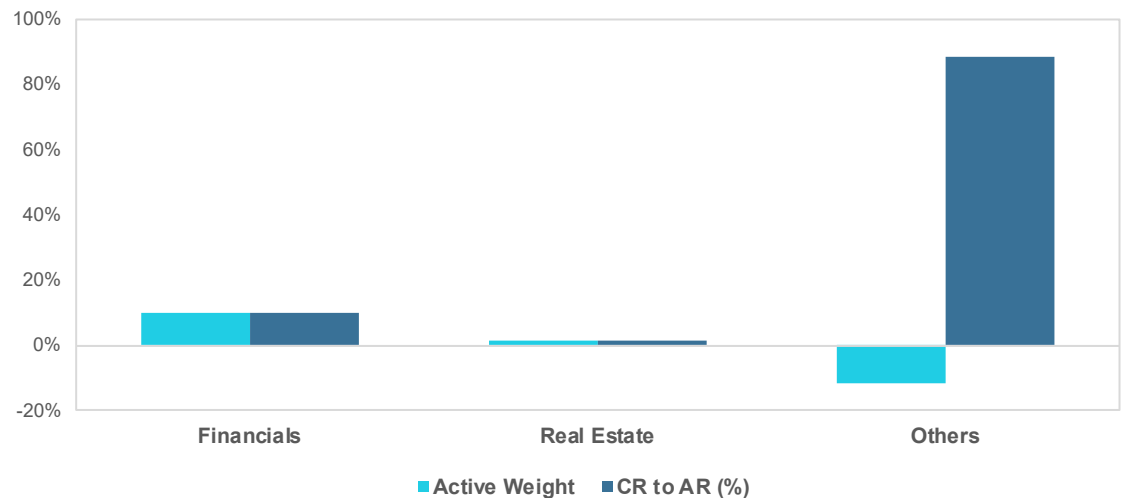
Top Countries by Weight%



Active Risk from Common Factors



Portfolio Risk by Sector



Real Assets & Inflation Hedges

Infrastructure

DWS

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to provide capital appreciation and income with global infrastructure securities. The strategy takes a diversified approach within infrastructure to gain exposure to infrastructure related to telecommunication, transportation, utilities, waste and energy.

Inception Date: June 2019

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	40,079.7	36,613.4
No. Of Issues	48.0	0.0
Dividend Yield	2.8	3.4
Return on Equity	16.6	15.8
Price to Sales	4.6	4.5
Price to Book	2.9	28.0
PE Ratio	27.2	24.5

Top Holdings (% of assets)

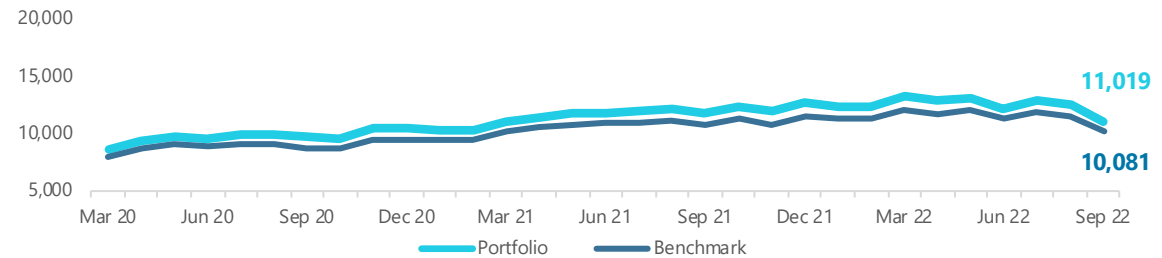
AMERICAN TOWER CORP	8.1%
SEMPRA ENERGY	5.8%
ENBRIDGE INC	5.6%
CROWN CASTLE INC	4.8%
SBA COMMUNICATIONS CORP	4.7%
Top 5 Holdings	29.1%

Performance (net)¹

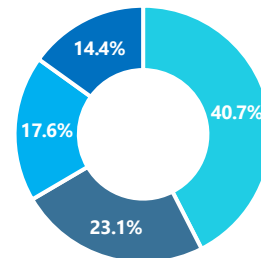
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
DWS Infrastructure	2,606.0	-9.4%	-6.0%	3.3%	--
DJ Brookfield Global Infra Comp		-10.2%	-7.2%	--	--
RA & IH Policy Benchmark		-3.1%	6.4%	7.4%	--

Universe data: Infrastructure	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
DWS Infrastructure	-9.3%	--	-5.9%	--	3.5%	--	--	--
Median	--	--	--	--	--	--	--	--

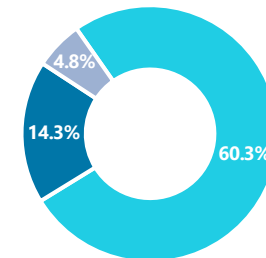
Growth of \$10,000



Top Exposures (% of assets)²



UTILITIES
ENERGY
REAL ESTATE
INDUSTRIALS



UNITED STATES
CANADA
UNITED KINGDOM

1. Universe data for infrastructure is unavailable.
2. Charts display top exposures and may not add up to 100%.

Real Assets & Inflation Hedges Risk Analysis

Infrastructure

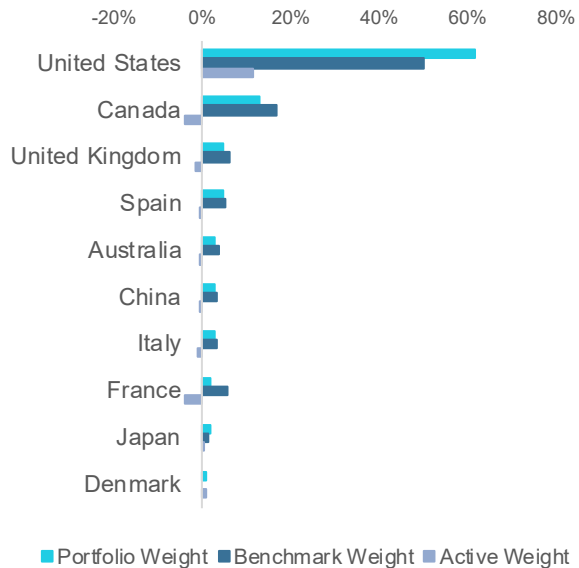
DWS

for the quarter ended September 30, 2022

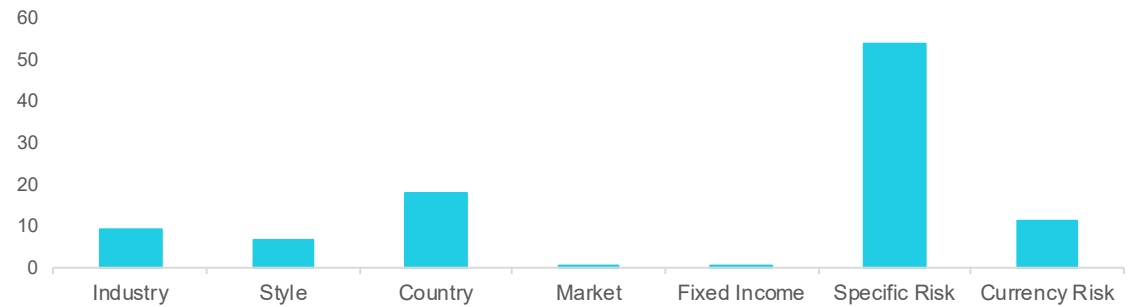
Portfolio Risk Summary

	Value
Total Risk	18.17
Benchmark Risk	18.40
Active Risk	2.18
Portfolio Beta	0.98

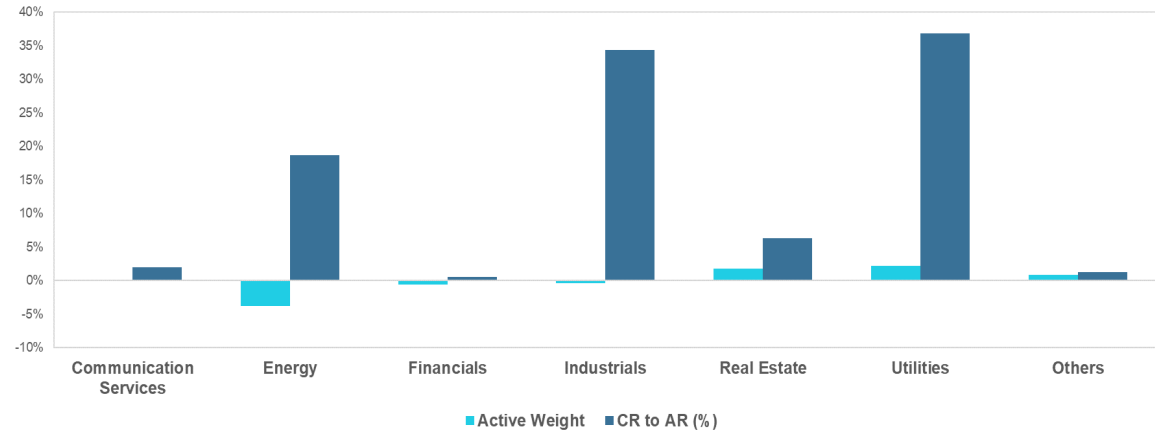
Top Countries by Weight%



Active Risk from Common Factors



Portfolio Risk by Sector



Real Assets & Inflation Hedges

TIPS

BlackRock

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks to provide income and a hedge against inflation with passive TIPS exposure.

Inception Date: May 2019

Risk Statistics (since inception)

Standard Deviation	6.7%
Benchmark Standard Deviation	6.7%
Sharpe Ratio	0.17
Information Ratio	-0.13
Beta	1.00
Tracking Error	0.7%

Top Holdings (% of assets)

TSY INFL IX N/B	5.3%
TSY INFL IX N/B	4.7%
TSY INFL IX N/B	4.1%
TSY INFL IX N/B	3.9%
TSY INFL IX N/B	3.7%

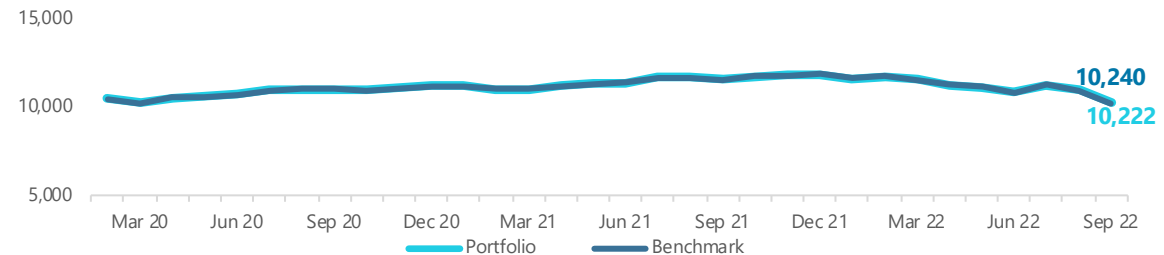
Top 5 Holdings **21.7%**

Performance (net)¹

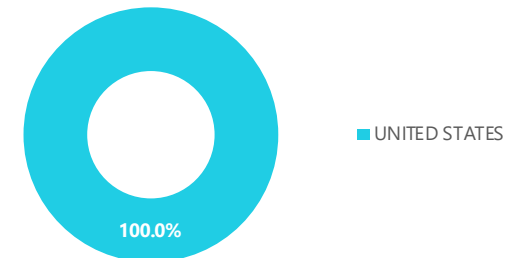
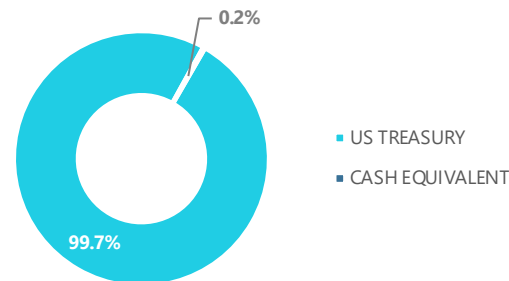
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
BlackRock TIPS	1,822.5	-5.6%	-11.6%	0.7%	--
Bloomberg U.S. Treasury: U.S. TIPS		-5.1%	-11.6%	0.8%	--
Real Assets & Inflation Hedges Policy BM		-3.1%	6.4%	7.4%	--

Universe data: Inflation Linked Bond Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
BlackRock TIPS	-5.6%	--	-11.6%	--	0.7%	--	--	--
Median	--	--	--	--	--	--	--	--

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data for TIPS is unavailable.
2. Charts display top exposures and may not add up to 100%.

Real Assets & Inflation Hedges Risk Analysis

TIPS

BlackRock

for the quarter ended September 30, 2022

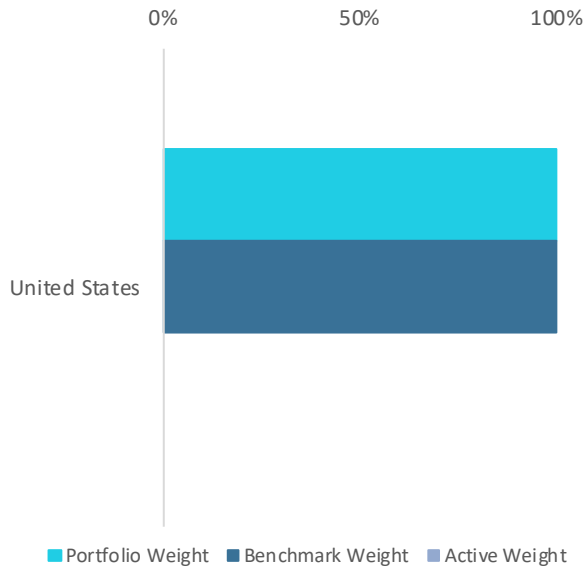


Los Angeles County Employees Retirement Association

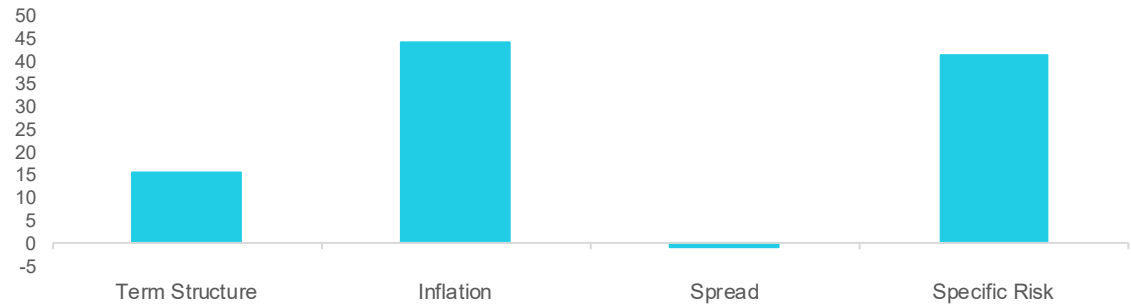
Portfolio Risk Summary

	Value
Total Risk	6.53
Benchmark Risk	6.55
Active Risk	0.04
Portfolio Beta	1.00

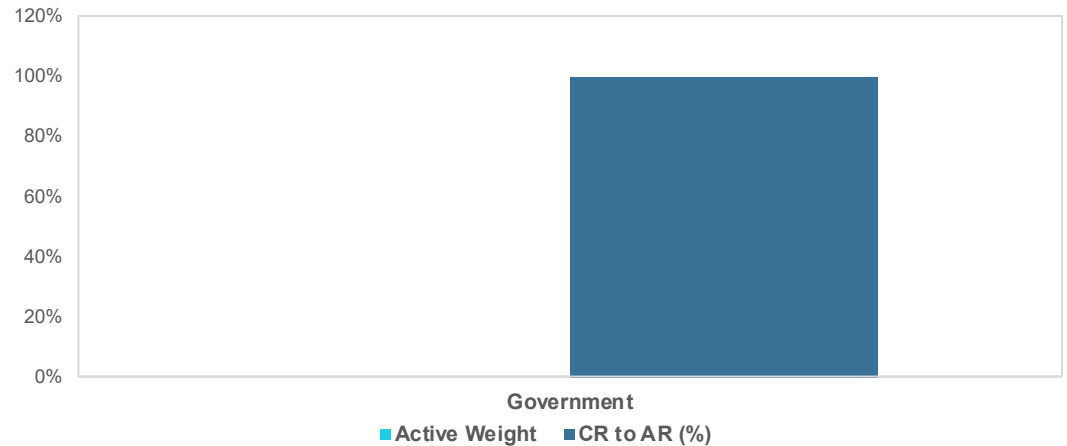
Top Countries by Weight%



Active Risk from Common Factors



Portfolio Risk by Sector



risk reduction & mitigation

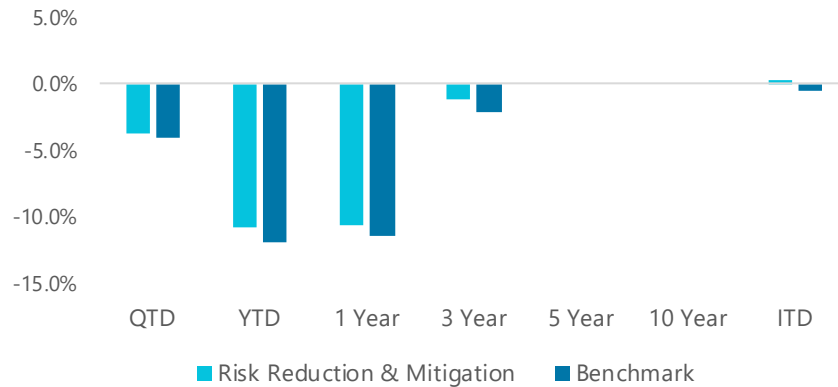
Summary

for the quarter ended September 30, 2022



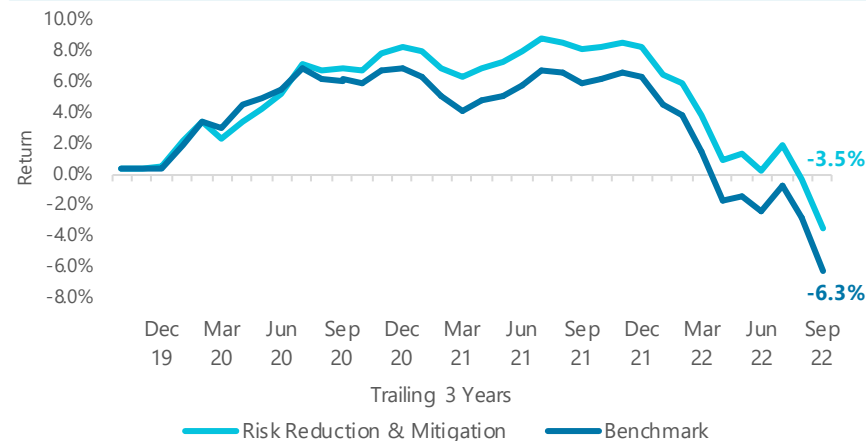
Los Angeles County Employees Retirement Association

Performance (net)



	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Risk Reduction & Mitigation	-3.7%	-10.8%	-10.7%	-1.2%	--	--	0.3%
Benchmark	-4.0%	-11.9%	-11.5%	-2.2%	--	--	-0.5%
Excess	0.2%	1.1%	0.8%	1.0%	--	--	0.9%

Cumulative Return

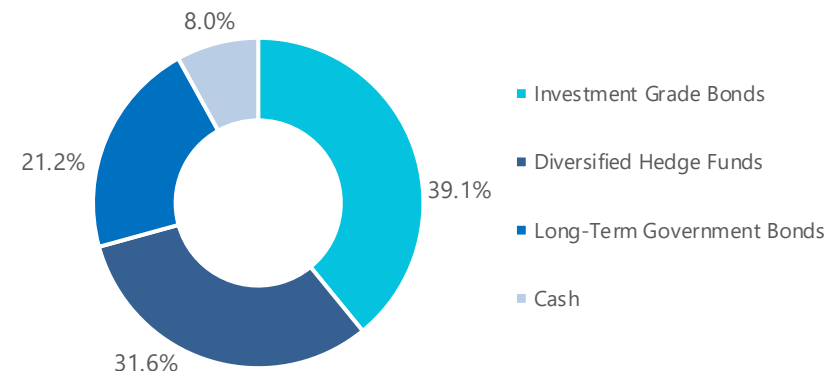


Functional Category¹

	QTD	FYTD	1 Year	3 Year
Investment Grade Bonds	-4.7%	-4.7%	-14.9%	-3.1%
BBG BC Aggregate Bond Index	-4.8%	-4.8%	-14.6%	-3.3%
Excess	0.0%	0.0%	-0.3%	0.2%
Diversified Hedge Funds	1.3%	1.3%	5.3%	7.1%
Diversified Hedge Funds Policy Benchmark	0.9%	0.9%	3.0%	3.1%
Excess	0.3%	0.3%	2.3%	4.0%
Long-Term Government Bonds	-10.2%	-10.2%	--	--
Bloomberg U.S. Treasury: Long	-9.6%	-9.6%	--	--
Excess	-0.6%	-0.6%	--	--
Cash	0.9%	0.9%	2.2%	1.4%
Cash Policy Benchmark	0.4%	0.4%	0.6%	0.6%
Excess	0.5%	0.5%	1.5%	0.9%

1. Diversified Hedge Funds returns are net of all fees and expenses.

Exposure



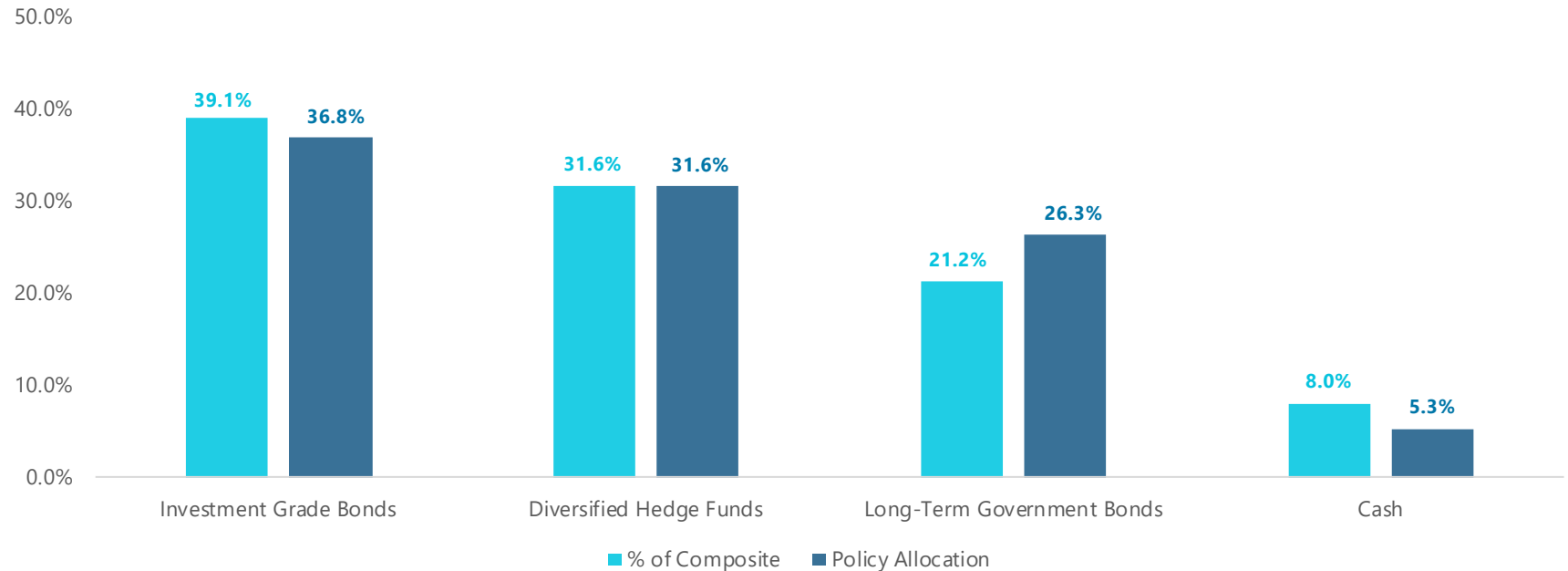
Asset Allocation

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Actual vs. Policy

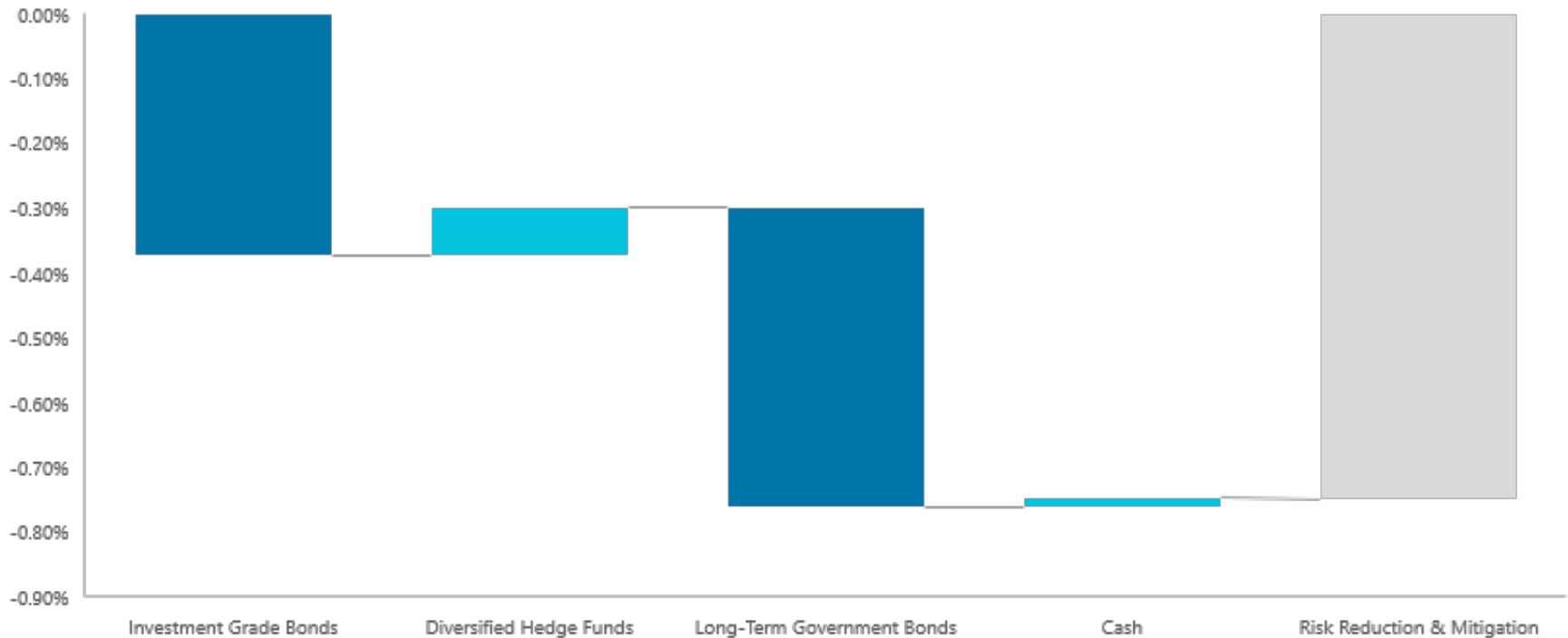


	Ending Market Value (mm)	% of Composite	Policy Allocation	Over / Under (%)	Over / Under (mm)
Risk Reduction & Mitigation	13,536	100.0%	100.0%		
Investment Grade Bonds	5,292	39.1%	36.8%	2.3%	306
Diversified Hedge Funds	4,281	31.6%	31.6%	0.0%	7
Long-Term Government Bonds	2,874	21.2%	26.3%	-5.1%	-688
Cash	1,088	8.0%	5.3%	2.8%	376

Contribution to Return

for the quarter ended September 30, 2022

QTD Contribution to Return



Functional Category		Contributors		Detractors	
Investment Grade Bonds	-0.38%	Brevan Howard Master Fund	0.03%	BlackRock Long Treasury Bonds	-0.46%
Diversified Hedge Funds	0.08%	Capula GRV	0.03%	BTC US Debt Index Fund	-0.20%
Long-Term Government Bonds	-0.46%	Cash	0.01%	Allspring/Wells	-0.11%
Cash	0.01%	Hudson Bay	0.01%	Pugh Capital Mgmt	-0.06%
Risk Reduction & Mitigation	-0.75%	HBK Multi-strategy	0.01%	Sparta	-0.01%

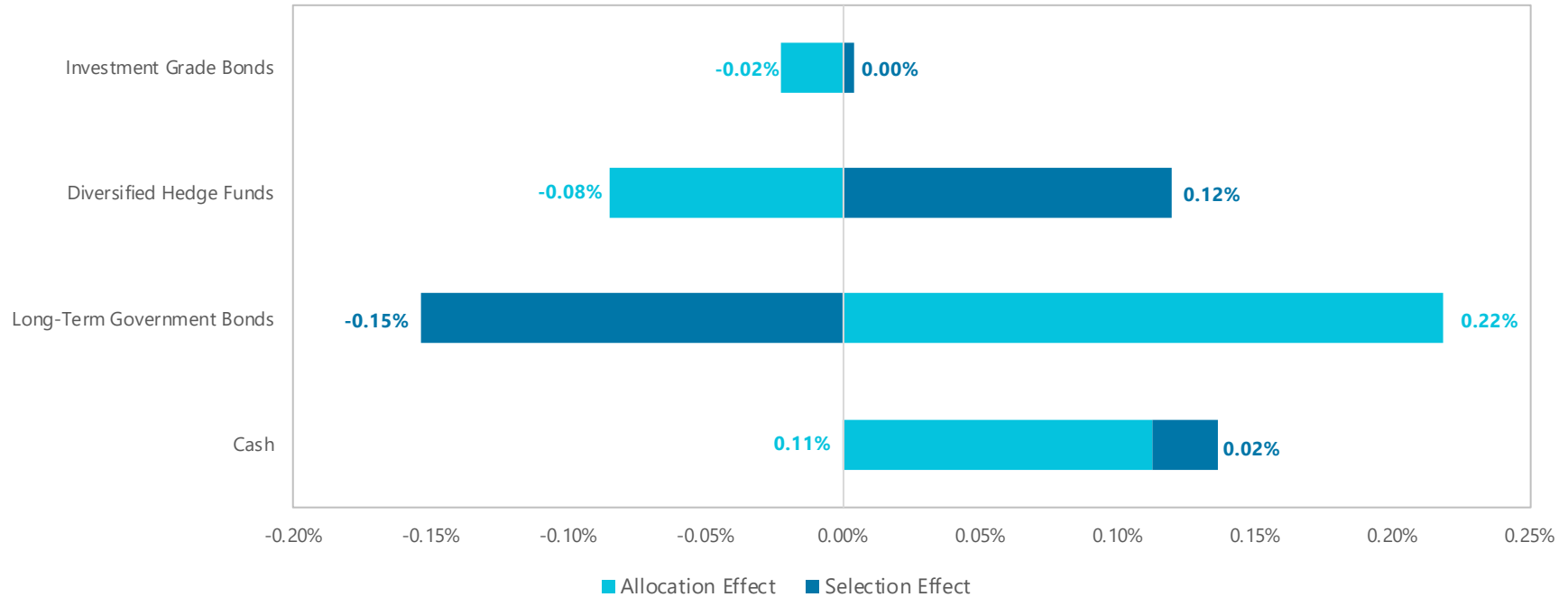
Return Attribution

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

QTD Performance Attribution¹



	Ending Market Value (mm)	% of Composite	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Risk Reduction & Mitigation	13,536	100.0%	100.0%	-3.7%	-4.0%	0.22%	-0.01%	0.22%
Investment Grade Bonds	5,292	39.1%	36.8%	-4.7%	-4.8%	-0.02%	0.00%	-0.02%
Diversified Hedge Funds	4,281	31.6%	31.6%	1.3%	0.9%	-0.08%	0.12%	0.03%
Long-Term Government Bonds	2,874	21.2%	26.3%	-10.2%	-9.6%	0.22%	-0.15%	0.07%
Cash	1,088	8.0%	5.3%	0.9%	0.4%	0.11%	0.02%	0.15%

1. Total Value Add includes Interaction Effect.

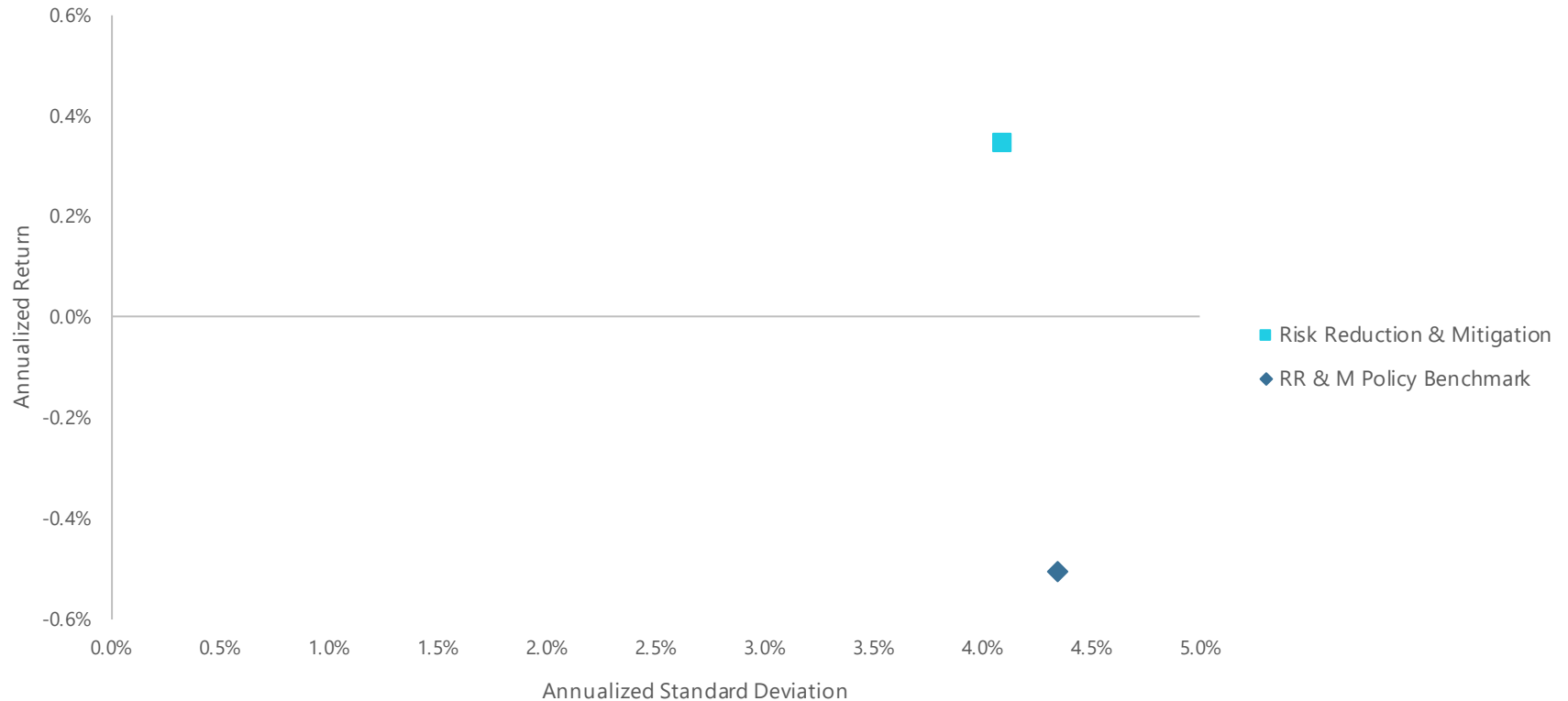
Risk vs. Return

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Since Inception (Annualized)¹



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Risk Reduction & Mitigation	0.3%	4.1%				
RR & M Policy Benchmark	-0.5%	4.3%	(0.10)	1.11	0.94	0.8%

1. Composite risk statistics are relative to the policy benchmark.

Performance Detail

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Annualized Net Returns¹

	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Risk Reduction & Mitigation RR & M Policy Benchmark	100.0%	13,536	14,020	-3.7% -4.0%	-10.8% -11.9%	-10.7% -11.5%	-1.2% -2.2%	-- --	-- --	0.3% -0.5%	Apr-2019
Investment Grade Bonds BBG BARC Agg	39.1%	5,292	5,556	-4.7% -4.8%	-14.7% -14.6%	-14.9% -14.6%	-3.1% -3.3%	-0.1% -0.3%	1.4% 0.9%	5.1% 4.6%	Nov-1994
Allspring/Wells	11.9%	1,605	1,686	-4.8%	-14.7%	-14.7%	-2.7%	0.1%	1.3%	3.7%	Mar-2004
BTC US Debt Index Fund	21.1%	2,856	2,998	-4.7%	-14.5%	-14.5%	-3.2%	-0.2%	1.0%	3.8%	Nov-1999
MHLP	0.1%	11	12	1.2%	3.6%	4.9%	5.2%	7.6%	5.2%	5.4%	Apr-2005
Pugh Capital Mgmt	6.1%	819	861	-4.8%	-14.8%	-14.9%	-3.1%	-0.2%	1.0%	3.1%	Jul-2005
Diversified Hedge Funds Diversified Hedge Funds Policy Benchmark	31.6%	4,281	4,196	1.3% 0.9%	4.3% 2.3%	5.3% 3.0%	7.1% 3.1%	-- --	-- --	6.8% 3.3%	Apr-2019
AM Asia Strategies	1.6%	221	220	0.7%	-1.9%	0.0%	--	--	--	-1.5%	Jun-2021
Brevan Howard Master Fund	4.8%	648	625	3.6%	18.0%	18.4%	--	--	--	10.8%	Apr-2021
Capula GRV	4.6%	626	608	3.1%	9.2%	9.3%	6.4%	--	--	6.3%	Dec-2018
Caxton Global Investments	2.2%	292	289	0.9%	13.9%	18.0%	--	--	--	10.7%	Feb-2021
DK Institutional Partners	3.6%	487	486	0.1%	-1.2%	-1.0%	5.4%	--	--	4.9%	May-2018
Grosvenor HFOF	0.2%	34	45	-6.4%	-11.8%	-10.1%	4.6%	3.8%	3.7%	3.7%	Nov-2011
HBK Multi-strategy	4.1%	555	549	1.1%	-0.2%	2.3%	5.5%	--	--	4.8%	Jun-2018
Hudson Bay	4.7%	641	632	1.4%	1.6%	3.0%	--	--	--	11.2%	Jul-2020
Polar	3.4%	462	459	0.5%	-0.1%	-0.4%	--	--	--	11.0%	May-2020
Stable Asset Management	2.3%	315	281	-2.3%	-2.2%	-2.1%	--	--	--	-1.8%	Aug-2021
Long-Term Government Bonds Bloomberg U.S. Treasury: Long	21.2%	2,874	1,210	-10.2% -9.6%	-28.5% -28.8%	-- --	-- --	-- --	-- --	-28.3% -29.6%	Nov-2021
BlackRock Long Treasury Bonds	21.2%	2,874	1,210	-10.2%	-28.5%	--	--	--	--	-28.3%	Nov-2021
Cash Cash Policy BM	8.0%	1,088	1,067	0.9% 0.4%	1.8% 0.6%	2.2% 0.6%	1.4% 0.6%	1.7% 1.1%	1.1% 0.7%	1.8% 1.4%	Jun-2001

1. Diversified Hedge Funds returns are net of all fees and expenses.

Risk Reduction & Mitigation

Risk Summary

for the quarter ended September 30, 2022

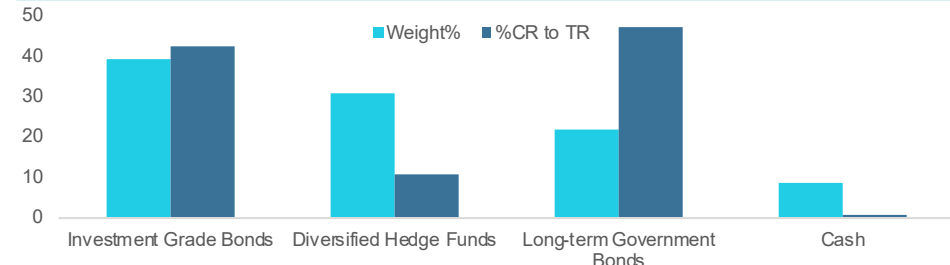
Risk Summary

	Value
Total Risk	5.46
Benchmark Risk	5.42
Active Risk	1.25
Portfolio Beta	0.98
Cont. to Eff. Duration	6.57
Convexity	5.46
Yield to Worst (%)	4.27
OAS to Sw ap (bp)	59

Risk Decomposition

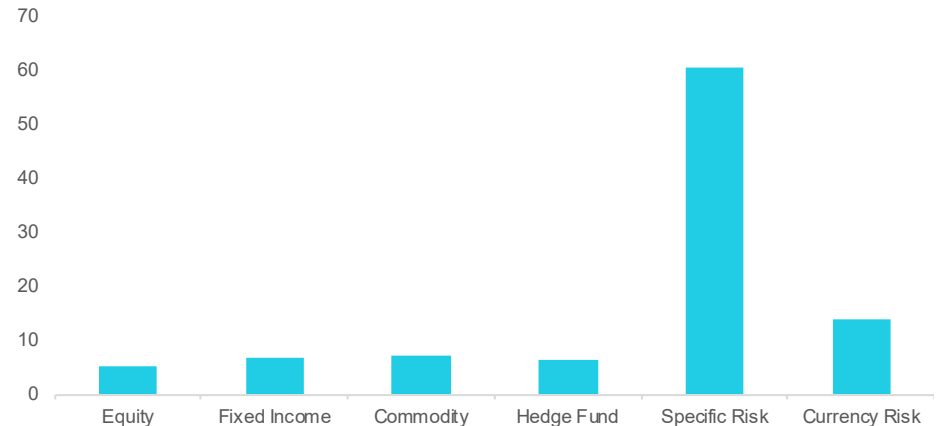
Risk Source	Portfolio		Active	
	Risk Contribution	%Risk	Risk Contribution	%Risk
Total Risk	5.46	100.00	1.25	100.00
Local Market Risk	5.36	98.11	1.08	86.11
Common Factor Risk	5.19	94.93	0.32	25.69
Specific Risk	0.17	3.18	0.76	60.42
Currency Risk	0.10	1.89	0.17	13.89

Contribution to Risk



Risk Reduction & Mitigation	(mm)	Weight%	Total Risk	Contribution	%CR to TR
Total	13,197	100.00	5.46	5.46	100.00
Investment Grade Bonds	5,172	39.19	6.10	2.31	42.20
Diversified Hedge Funds	4,064	30.80	4.03	0.59	10.73
Long-term Government Bonds	2,871	21.76	12.46	2.57	47.03
Cash	1,090	8.26	0.03	0.00	0.03

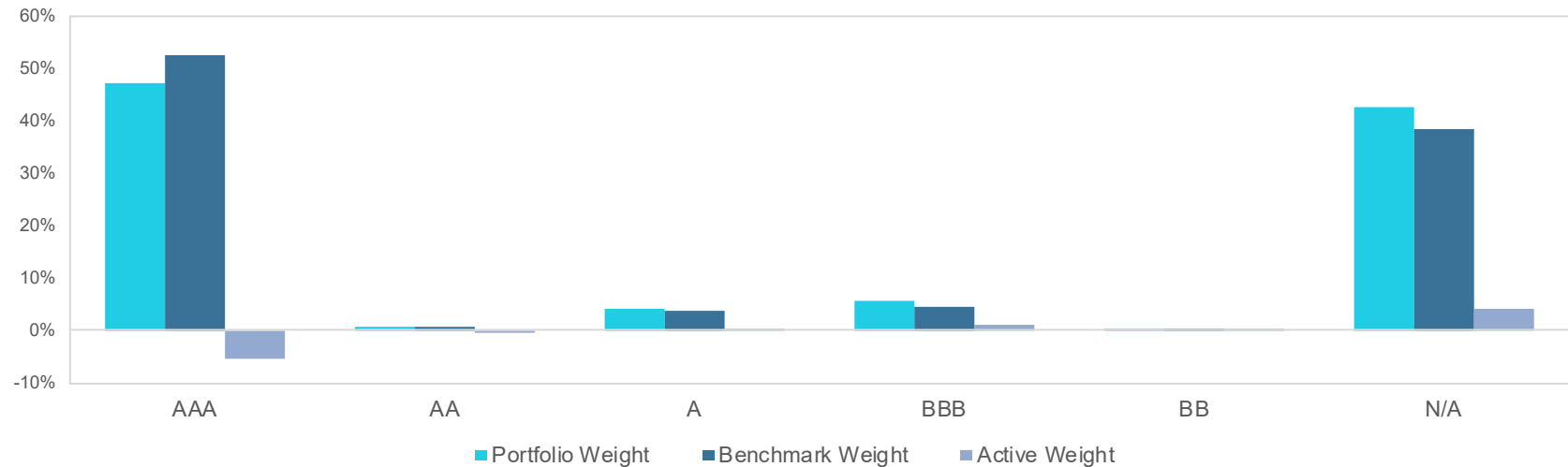
Active Risk from Common Factors



Risk Reduction & Mitigation Risk Summary

for the quarter ended September 30, 2022

Portfolio Allocation By Moody's Rating



Rating	Weight%			Total Risk	Active Risk CR	% of Active TR	CR to Effective Duration
	Portfolio	Benchmark	Active				
Risk Reduction & Mitigation	100.00%	100.00%	0.00%	5.46	1.25	100.00	6.57
AAA	47.10%	52.38%	-5.28%	8.99	0.05	5.5%	5.07
AA	0.69%	0.77%	-0.08%	6.29	0.00	0.0%	0.05
A	3.95%	3.90%	0.04%	5.59	0.00	0.1%	0.26
BBB	5.63%	4.46%	1.17%	6.13	0.01	0.8%	0.39
BB	0.14%	0.12%	0.02%	7.86	0.00	0.0%	0.01
N/A	42.49%	38.36%	4.13%	3.13	1.19	93.6%	0.79

Risk Reduction & Mitigation

Investment Grade Bonds

Allspring/Wells

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

A core fixed income strategy focusing on bottom-up quantitative and qualitative security selection and comprehensive risk management. Value is added primarily through security selection and sector rotation.

Inception Date: March 2004

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	923.0	0.0
Effective Duration	6.3	6.1
Convexity	0.6	0.7
Coupon Rate	2.8	2.6
Yield to Maturity	4.7	4.5
Current Yield	3.1	2.9
Rating – Moody's	AA-2	AA-2
Rating – S & P	AA	AA-2

Top Holdings (% of assets)

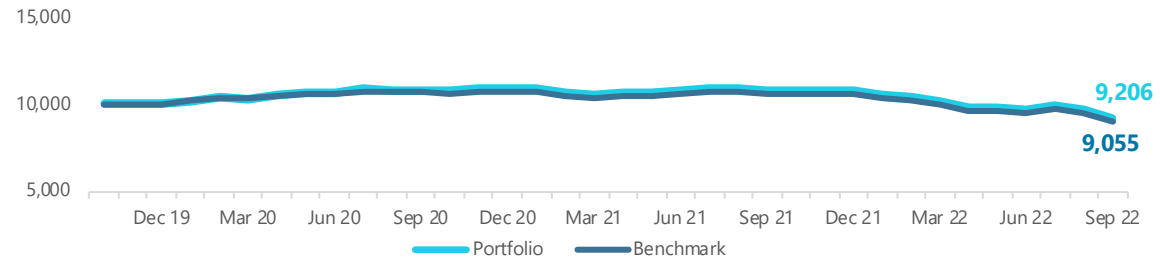
US TREASURY N/B	2.9%
US TREASURY N/B	2.3%
US TREASURY N/B	2.2%
US TREASURY N/B	1.6%
US TREASURY N/B	1.5%
Top 5 Holdings	10.5%

Performance (net)¹

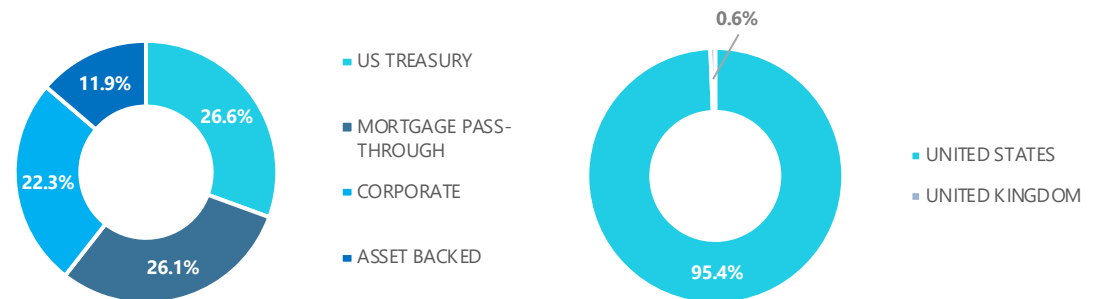
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Allspring/Wells	1,605.1	-4.8%	-14.7%	-2.7%	0.1%
BBG BARC Agg		-4.8%	-14.6%	-3.3%	-0.3%
RR & M Policy Benchmark		-4.0%	-11.5%	-2.2%	--

Universe data: US Fixed Income Pools	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Allspring/Wells	-4.8%	64	-14.6%	65	-2.6%	63	0.2%	63
Median	-3.6%		-11.9%		-1.8%		0.5%	

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.
2. Charts display top exposures and may not add up to 100%.

Risk Reduction & Mitigation Risk Analysis

Investment Grade Bonds

Allspring/Wells

for the quarter ended September 30, 2022

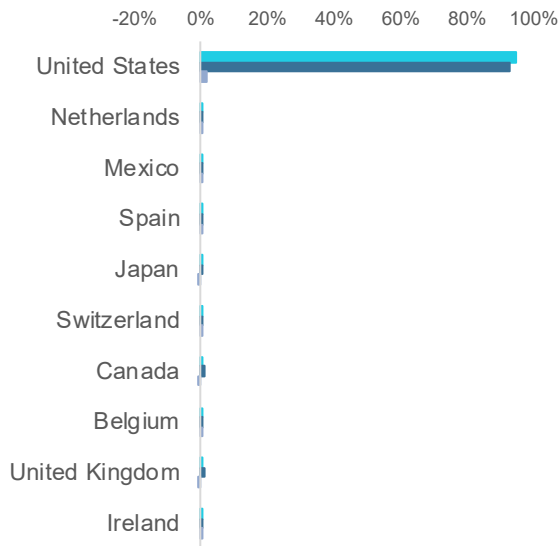


Los Angeles County Employees Retirement Association

Portfolio Risk Summary

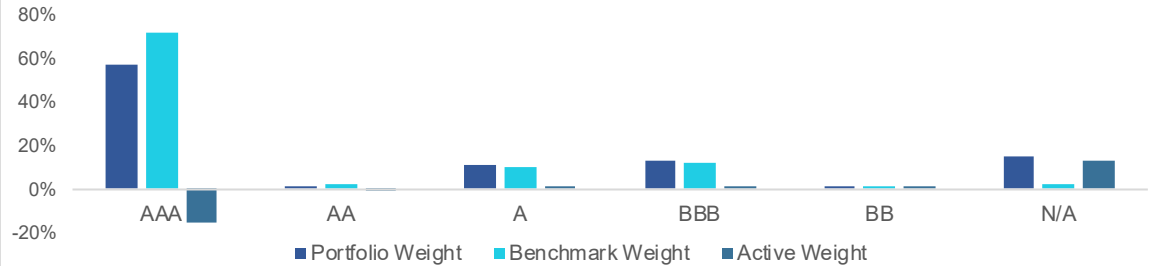
	Value
Total Risk	6.29
Benchmark Risk	6.04
Active Risk	0.53
Portfolio Beta	1.04
Cont. to Eff. Duration	6.99
Yield to Worst (%)	4.58
OAS to Swap (bp)	74

Top Countries by Weight%

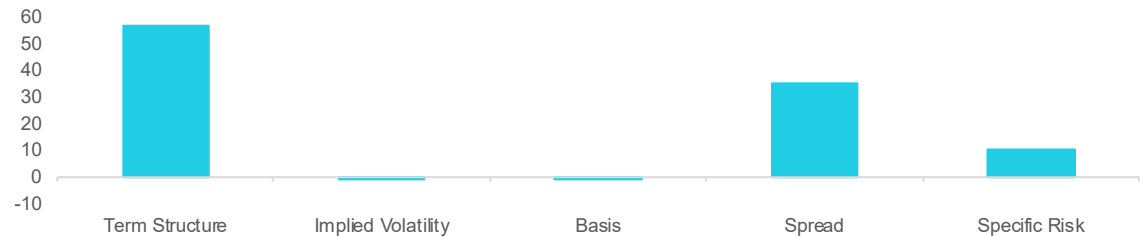


■ Portfolio Weight ■ Benchmark Weight ■ Active Weight

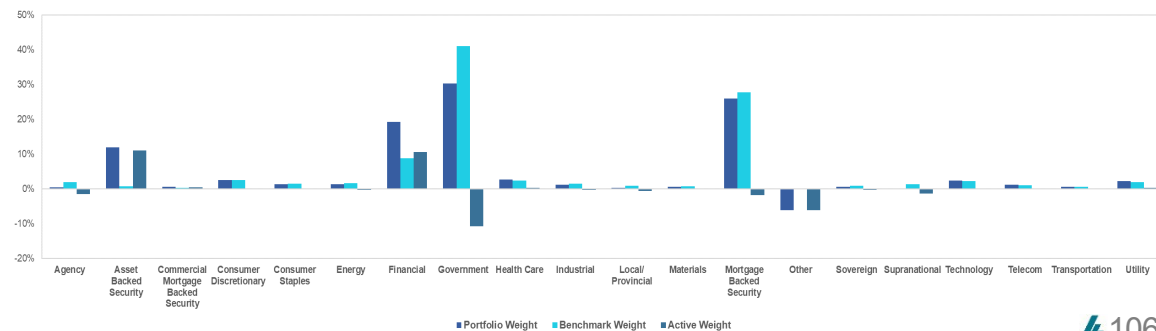
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Risk by Bond Sector



■ Portfolio Weight ■ Benchmark Weight ■ Active Weight

Risk Reduction & Mitigation

Investment Grade Bonds

Pugh Capital

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

A core fixed income strategy that invests in investment-grade securities, with an emphasis on higher credit quality and mortgage-backed securities. The strategy seeks to add value relative to the Index by minimizing downside risk across the portfolio while adding incremental return through issue selection.

Inception Date: July 2005

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	260.0	0.0
Effective Duration	6.3	6.1
Convexity	0.6	0.7
Coupon Rate	3.0	2.6
Yield to Maturity	4.7	4.5
Current Yield	3.3	2.9
Rating – Moody's	AAA-2	AA-2
Rating – S & P	AA-	AA-

Top Holdings (% of assets)

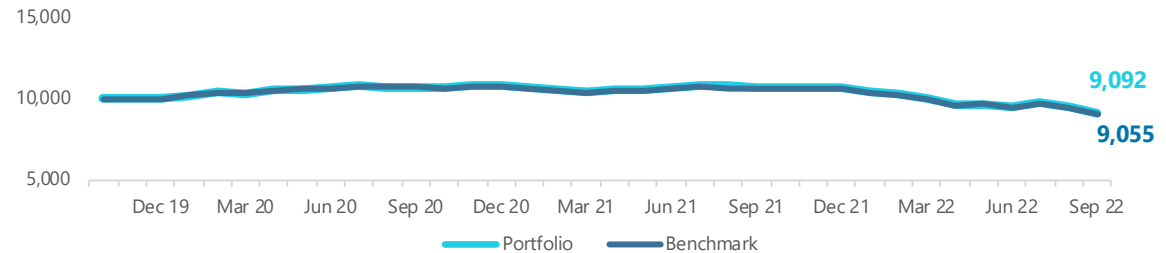
US TREASURY N/B	4.7%
US TREASURY N/B	3.2%
US TREASURY N/B	2.2%
US TREASURY N/B	1.8%
US TREASURY N/B	1.8%
Top 5 Holdings	13.8%

Performance (net)¹

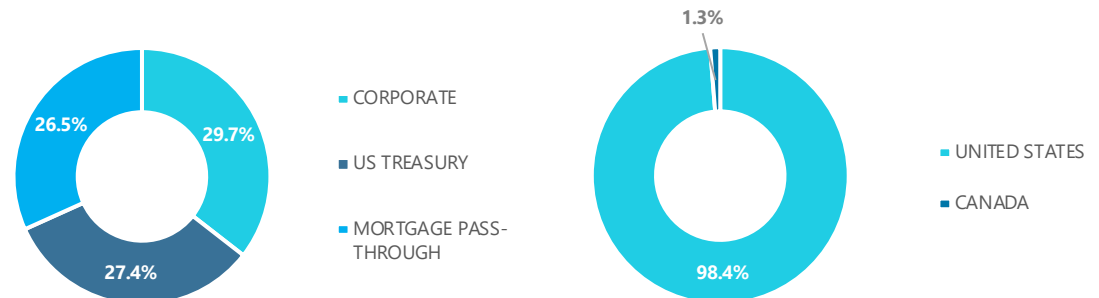
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Pugh Capital Mgmt	819.4	-4.8%	-14.9%	-3.1%	-0.2%
BBG BARC Agg		-4.8%	-14.6%	-3.3%	-0.3%
RR & M Policy Benchmark		-4.0%	-11.5%	-2.2%	--

Universe data: US Fixed Income Pools	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Pugh Capital Mgmt	-4.8%	64	-14.8%	65	-3.0%	69	0.0%	66
Median	-3.6%		-11.9%		-1.8%		0.5%	

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

Risk Reduction & Mitigation Risk Analysis

Investment Grade Bonds

Pugh Capital

for the quarter ended September 30, 2022

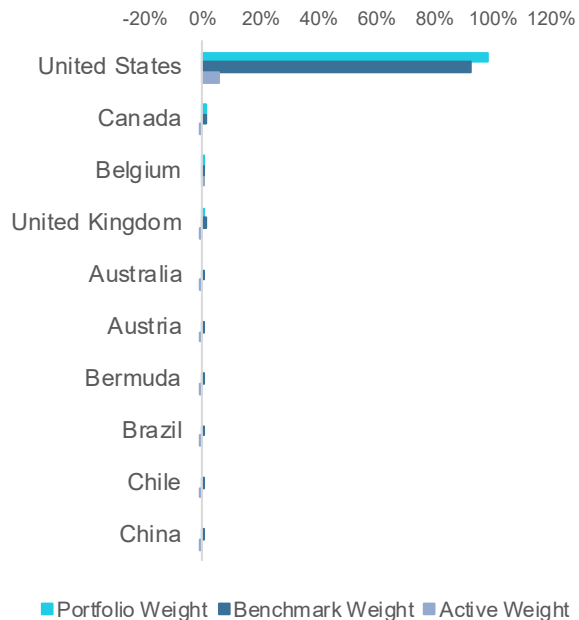


Los Angeles County Employees Retirement Association

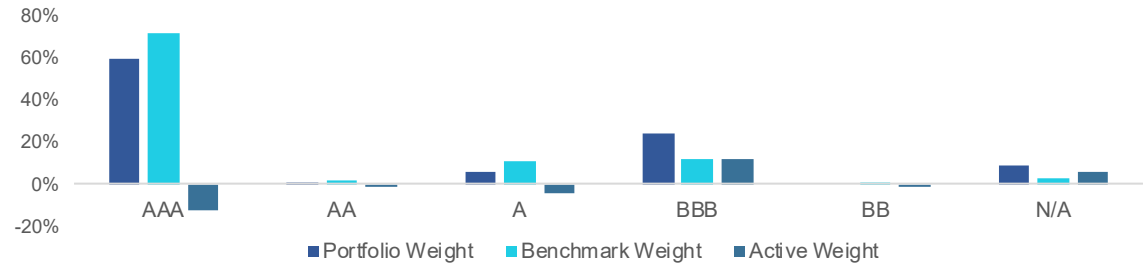
Portfolio Risk Summary

	Value
Total Risk	6.06
Benchmark Risk	6.04
Active Risk	0.37
Portfolio Beta	1.00
Cont. to Eff. Duration	6.47
Yield to Worst (%)	4.74
OAS to Swap (bp)	83

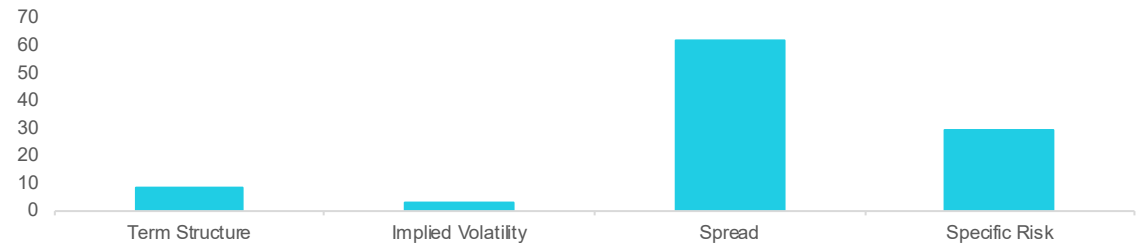
Top Countries by Weight%



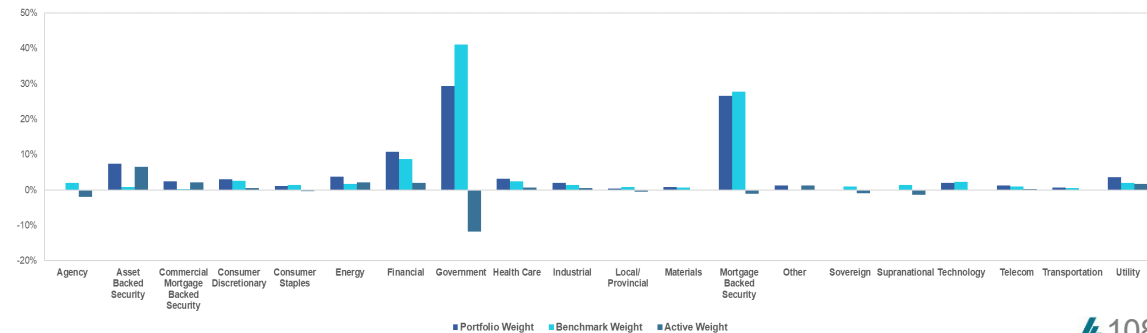
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Risk by Bond Sector



Risk Reduction & Mitigation

Long-term Government Bonds

BlackRock

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Seeks investment results that correspond generally to the price and yield performance of long duration U.S. government bonds.

Inception Date: Nov 2021

Portfolio Characteristics

Standard Deviation	3.7%
Benchmark Standard Deviation	3.7%
Sharpe Ratio	-0.80
Information Ratio	-0.73
Beta	0.99
Tracking Error	0.4%

Top Holdings (% of assets)

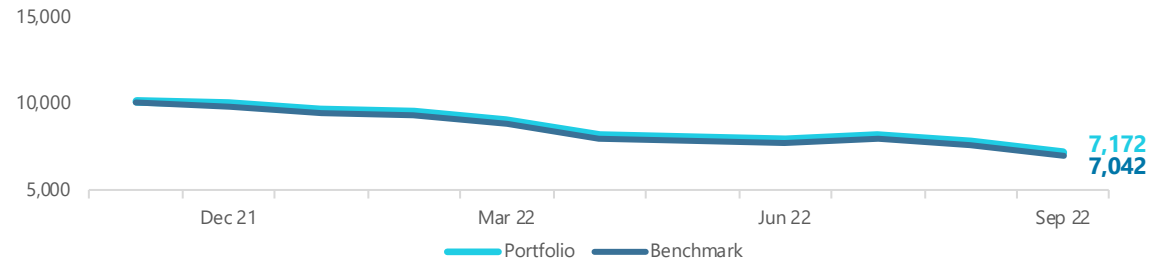
US TREASURY N/B	4.7%
US TREASURY N/B	3.2%
US TREASURY N/B	2.2%
US TREASURY N/B	1.8%
US TREASURY N/B	1.8%
Top 5 Holdings	13.8%

Performance (net)¹

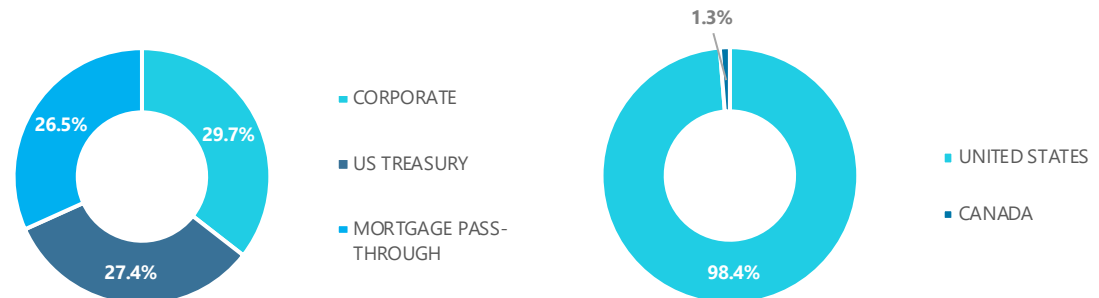
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
BlackRock Long Treasury Bonds	2,874.4	-10.2%	--	--	--
Bloomberg U.S. Treasury: Long		-9.6%	--	--	--
RR & M Policy Benchmark		-4.0%	-11.5%	-2.2%	--

Universe data: US Fixed Income Funds - Long	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
BlackRock Long Treasury Bonds	-10.2%	89	--	--	--	--	--	--
Median	-8.6%		--	--	--	--	--	--

Growth of \$10,000



Top Exposures (% of assets)²



1. Universe data is gross-of-fees.

2. Charts display top exposures and may not add up to 100%.

Risk Reduction & Mitigation Risk Analysis

Long-term Government Bonds

BlackRock

for the quarter ended September 30, 2022

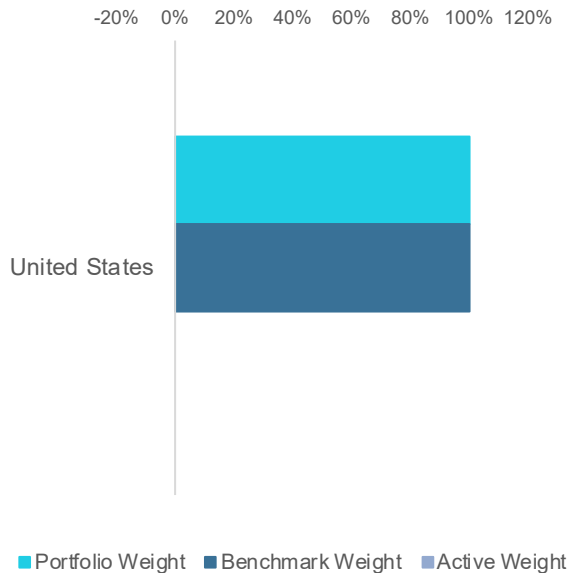


Los Angeles County Employees Retirement Association

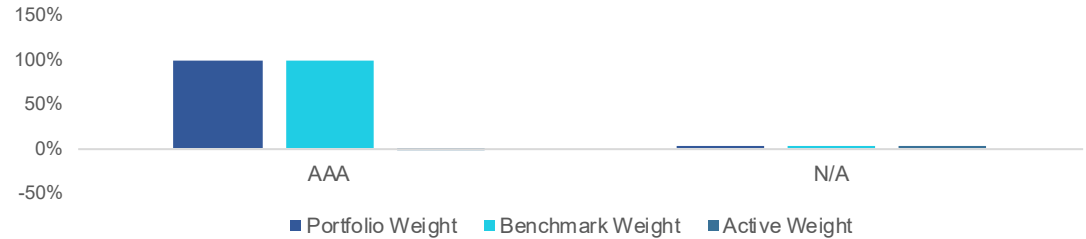
Portfolio Risk Summary

	Value
Total Risk	12.46
Benchmark Risk	12.46
Active Risk	0.03
Portfolio Beta	1.00
Cont. to Eff. Duration	16.26
Yield to Worst (%)	3.98
OAS to Swap (bp)	45

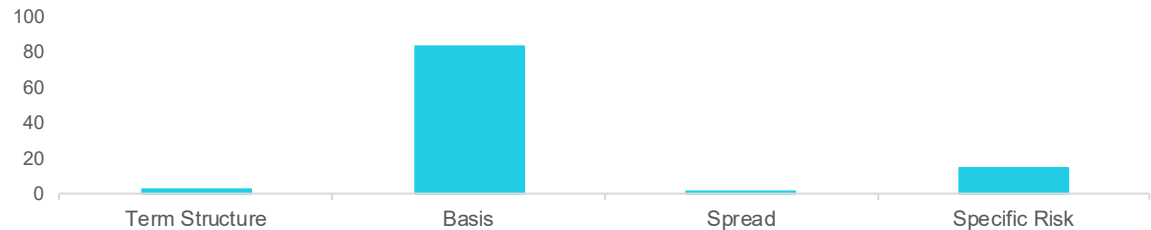
Top Countries by Weight%



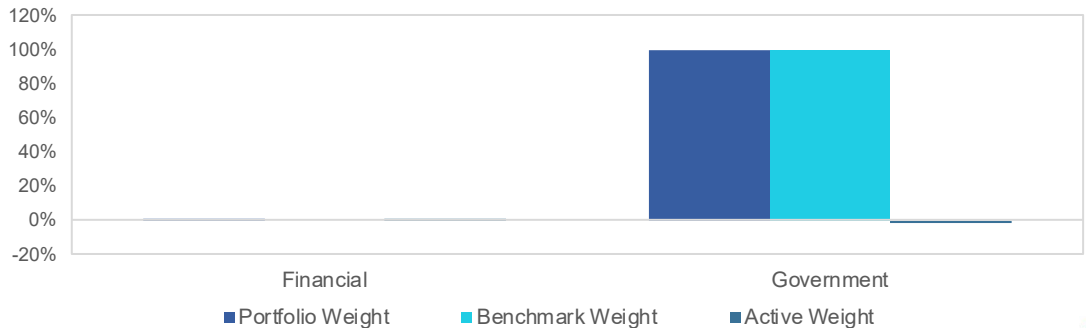
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Risk by Bond Sector



Risk Reduction & Mitigation

Diversified Hedge Funds

AM Asia Strategies Fund

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Relative value multi-strategy hedge fund. The strategy deploys capital opportunistically to relative value strategies such as convertible bond arbitrage, credit relative value, capital structure arbitrage, and equity long/short.

Inception Date: June 2021

Risk Statistics (since inception)

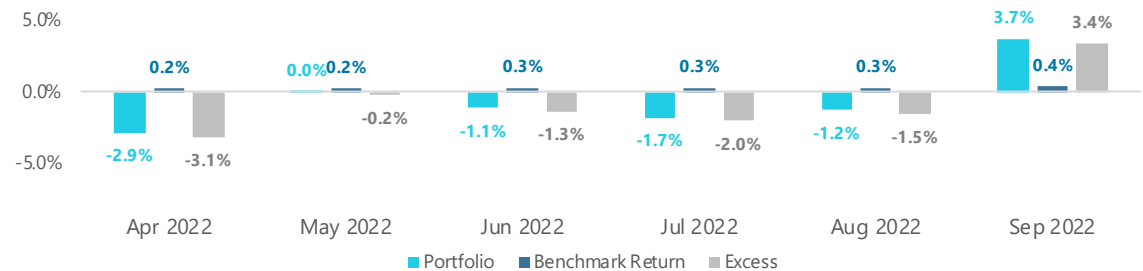
Standard Deviation	1.7%
Benchmark Standard Deviation	0.0%
Sharpe Ratio	-0.20
Information Ratio	-0.20
Beta	9.38
Tracking Error	5.9%

Performance (net all)¹

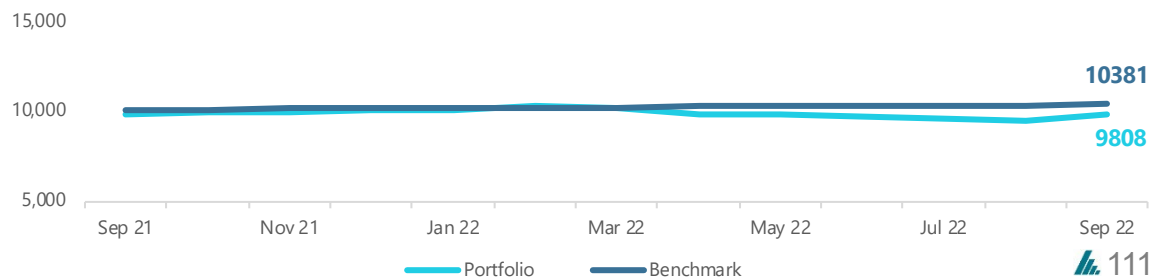
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
AM Asia Strategies	221.5	0.7%	0.0%	--	--
Custom Hedge Fund Benchmark		0.9%	3.0%	--	--
RR & M Policy Benchmark		-4.0%	-11.5%	-2.2%	--

Universe data: Hedge Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
AM Asia Strategies	0.7%	41	0.0%	47	--	--	--	--
Median	0.1%		-1.1%		--		--	

Monthly Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
1. Universe data is gross-of-fees.

Risk Reduction & Mitigation

Diversified Hedge Funds

Brevan Howard

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Discretionary global macro fund with multiple portfolio manager teams that focus on both directional and relative value trading strategies.

Inception Date: March 2021

Risk Statistics (since inception)

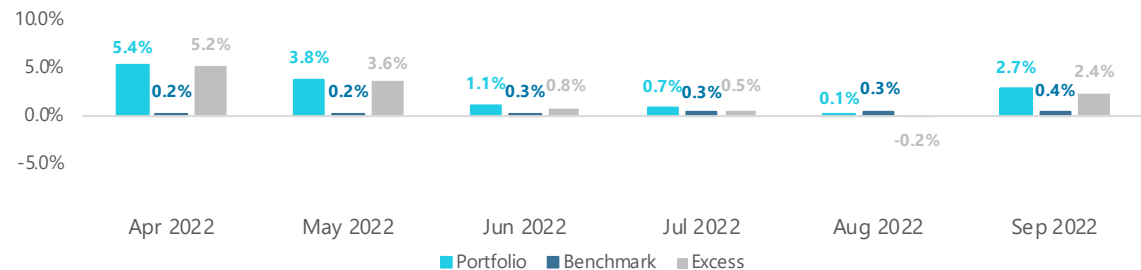
Standard Deviation	5.5%
Benchmark Standard Deviation	0.1%
Sharpe Ratio	1.63
Information Ratio	1.26
Beta	-16.16
Tracking Error	5.5%

Performance (net all)¹

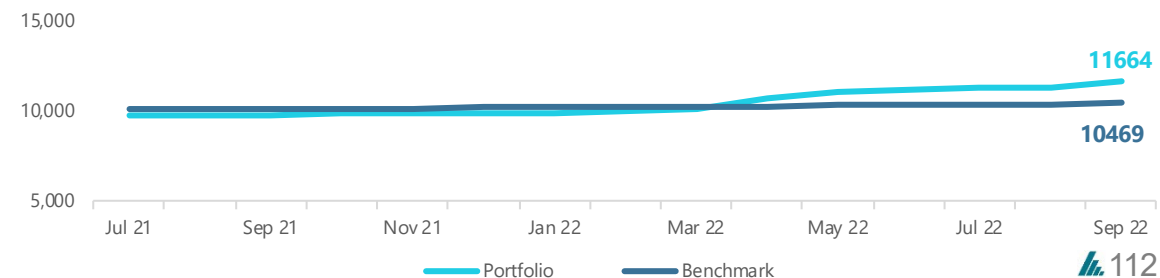
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Brevan Howard Master Fund	647.6	3.6%	18.4%	--	--
Custom Hedge Fund Benchmark		0.9%	3.0%	--	--
RR & M Policy Benchmark		-4.0%	-11.5%	-2.2%	--

Universe data: Hedge Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Brevan Howard Master Fund	3.6%	15	18.4%	17	--	--	--	--
Median	0.1%		-1.1%		--		--	

Monthly Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
1. Universe data is gross-of-fees.

Risk Reduction & Mitigation

Diversified Hedge Funds

Capula GRV

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Global fixed income relative value hedge fund. The strategy seeks to benefit from pricing distortions generally caused by market flows in the government bond, interest rate swap and bond futures markets.

Inception Date: December 2018

Risk Statistics (since inception)

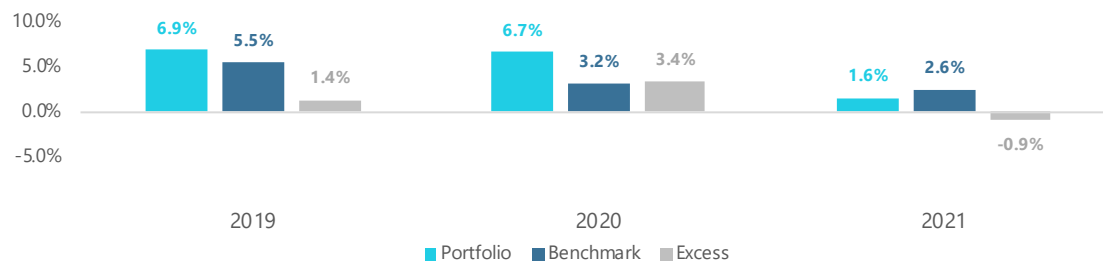
Standard Deviation	1.9%
Benchmark Standard Deviation	0.4%
Sharpe Ratio	2.74
Information Ratio	1.40
Beta	-1.25
Tracking Error	1.9%

Performance (net all)¹

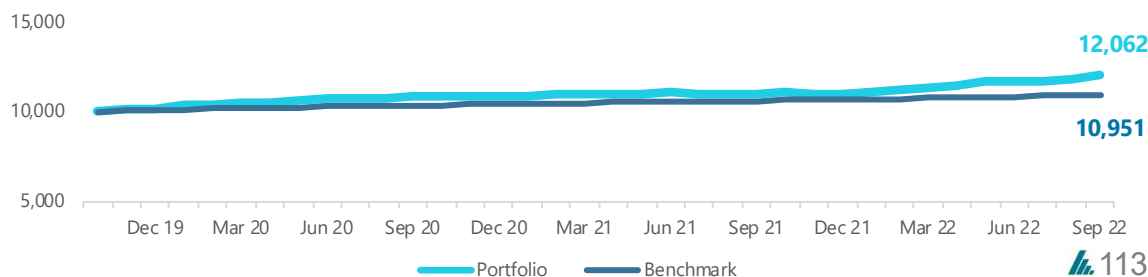
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Capula GRV	626.2	3.1%	9.3%	6.4%	--
Custom Hedge Fund Benchmark		0.9%	3.0%	3.1%	--
RR & M Policy Benchmark		-4.0%	-11.5%	-2.2%	--

Universe data: Hedge Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Capula GRV	3.1%	18	9.3%	30	6.5%	39	--	--
Median	0.1%		-1.1%		4.4%		--	

Calendar Year Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
1. Universe data is gross-of-fees.

Risk Reduction & Mitigation

Diversified Hedge Funds

Caxton

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Discretionary global macro fund with multiple portfolio manager teams that focus on both directional and relative value trading strategies.

Inception Date: February 2021

Risk Statistics (since inception)

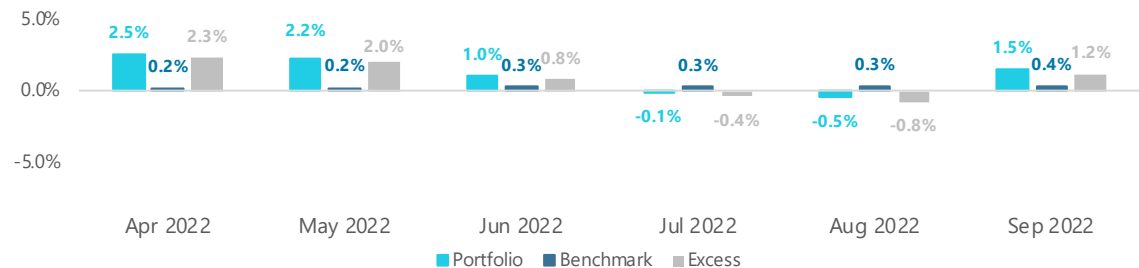
Standard Deviation	5.3%
Benchmark Standard Deviation	0.1%
Sharpe Ratio	1.78
Information Ratio	1.39
Beta	-4.45
Tracking Error	5.3%

Performance (net all)¹

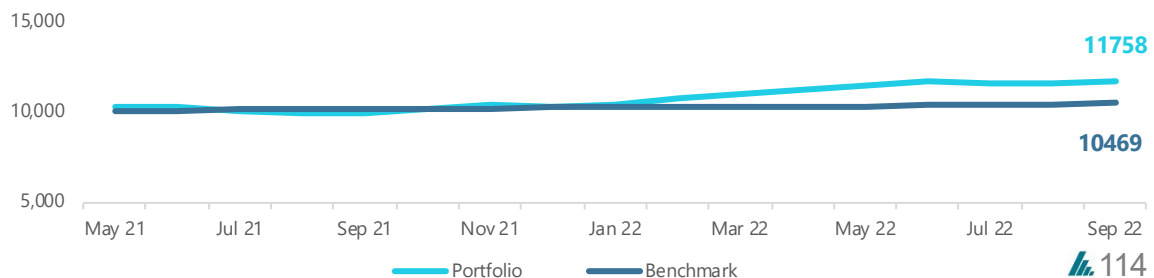
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Caxton Global Investments	292.1	0.9%	18.0%	--	--
Custom Hedge Fund Benchmark		0.9%	3.0%	--	--
RR & M Policy Benchmark		-4.0%	-11.5%	-2.2%	--

Universe data: Hedge Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Caxton Global Investments	0.9%	37	18.0%	19	--	--	--	--
Median	0.1%		-1.1%		--		--	

Monthly Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
1. Universe data is gross-of-fees.

Risk Reduction & Mitigation

Diversified Hedge Funds

DK Institutional Partners

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Relative value multi-strategy hedge fund. The strategy deploys capital opportunistically to relative value strategies such as convertible bond arbitrage, risk arbitrage, credit relative value, capital structure arbitrage, and equity long/short.

Inception Date: May 2018

Risk Statistics (since inception)

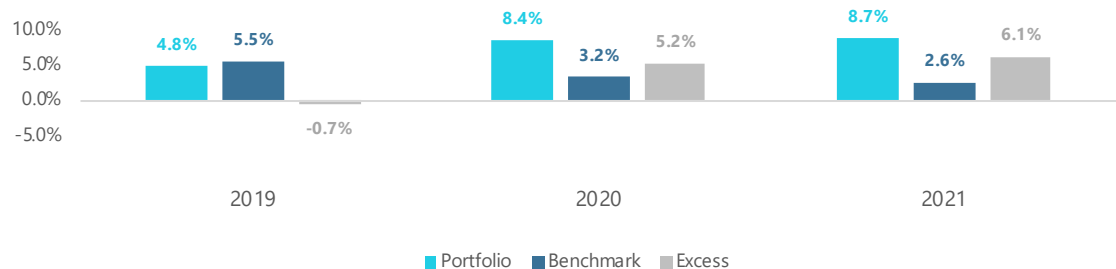
Standard Deviation	4.7%
Benchmark Standard Deviation	0.5%
Sharpe Ratio	0.82
Information Ratio	0.17
Beta	-3.07
Tracking Error	4.8%

Performance (net all)¹

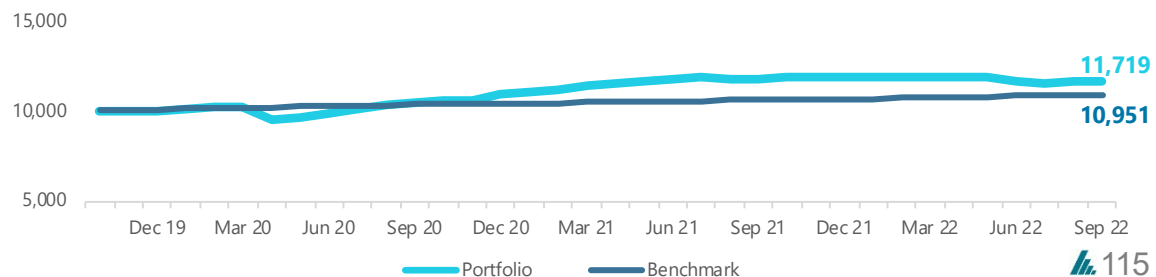
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
DK Institutional Partners	486.7	0.1%	-1.0%	5.4%	--
Custom Hedge Fund Benchmark		0.9%	3.0%	3.1%	--
RR & M Policy Benchmark		-4.0%	-11.5%	-2.2%	--

Universe data: Hedge Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
DK Institutional Partners	0.1%	51	-1.0%	50	5.4%	45	--	--
Median	0.1%		-1.1%		4.4%		--	

Calendar Year Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
1. Universe data is gross-of-fees.

Risk Reduction & Mitigation

Diversified Hedge Funds

HBK Multi-Strategy

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Relative value multi-strategy hedge fund. The strategy deploys capital opportunistically to relative value strategies such as convertible bond arbitrage, risk arbitrage, credit relative value, capital structure arbitrage, and equity long/short.

Inception Date: June 2018

Risk Statistics (since inception)

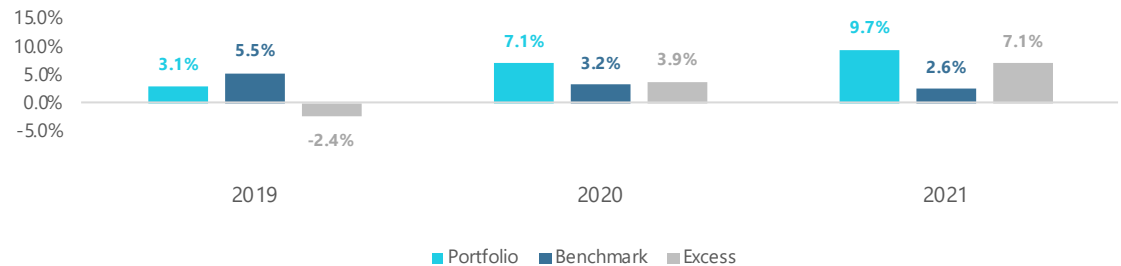
Standard Deviation	5.8%
Benchmark Standard Deviation	0.5%
Sharpe Ratio	0.64
Information Ratio	0.11
Beta	-2.23
Tracking Error	5.9%

Performance (net all)¹

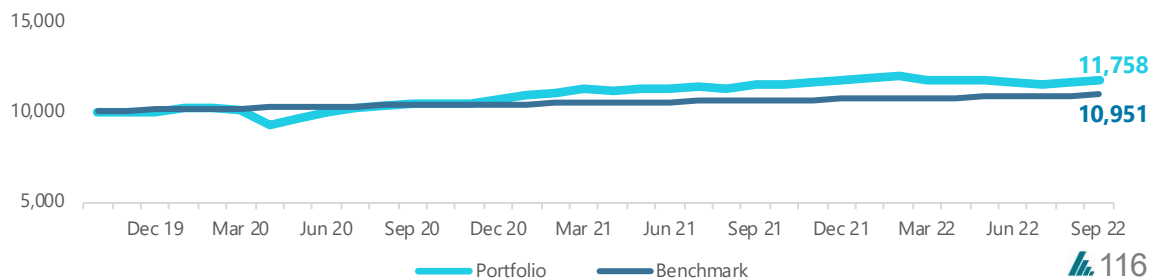
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
HBK Multi-strategy	555.1	1.1%	2.3%	5.5%	--
Custom Hedge Fund Benchmark		0.9%	3.0%	3.1%	--
RR & M Policy Benchmark		-4.0%	-11.5%	-2.2%	--

Universe data: Hedge Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
HBK Multi-strategy	1.1%	34	2.3%	40	5.6%	44	--	--
Median	0.1%		-1.1%		4.4%		--	

Calendar Year Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
1. Universe data is gross-of-fees.

Risk Reduction & Mitigation

Diversified Hedge Funds

Hudson Bay Fund

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Relative value multi-strategy hedge fund. The strategy deploys capital opportunistically to relative value strategies such as convertible bond arbitrage, risk arbitrage, credit relative value, capital structure arbitrage, and equity long/short.

Inception Date: July 2020

Risk Statistics (since inception)

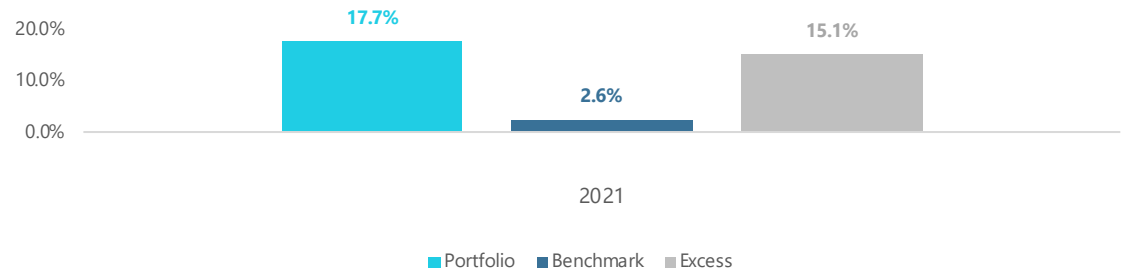
Standard Deviation	4.8%
Benchmark Standard Deviation	0.1%
Sharpe Ratio	2.17
Information Ratio	1.75
Beta	0.91
Tracking Error	4.8%

Performance (net all)¹

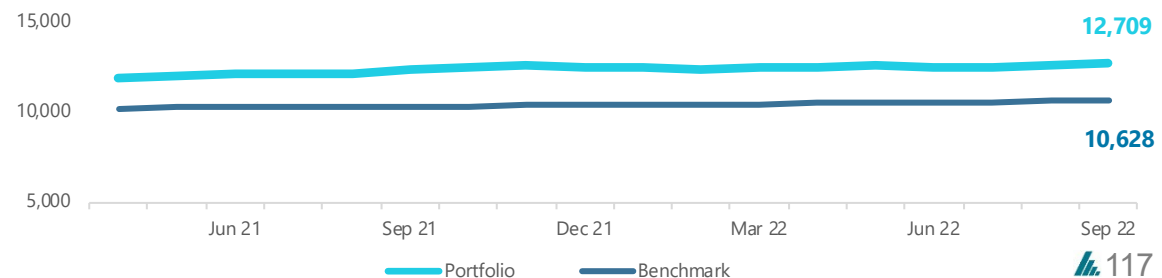
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Hudson Bay	641.1	1.4%	3.0%	--	--
Custom Hedge Fund Benchmark		0.9%	3.0%	--	--
RR & M Policy Benchmark		-4.0%	-11.5%	-2.2%	--

Universe data: Hedge Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Hudson Bay	1.4%	32	3.0%	39	--	--	--	--
Median	0.1%		-1.1%		--	--	--	--

Calendar Year Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
1. Universe data is gross-of-fees.

Risk Reduction & Mitigation

Diversified Hedge Funds

Polar

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Strategy

Relative value multi-strategy hedge fund. The strategy deploys capital opportunistically to relative value strategies such as convertible bond arbitrage, risk arbitrage, credit relative value, capital structure arbitrage, and equity long/short.

Inception Date: May 2020

Risk Statistics (since inception)

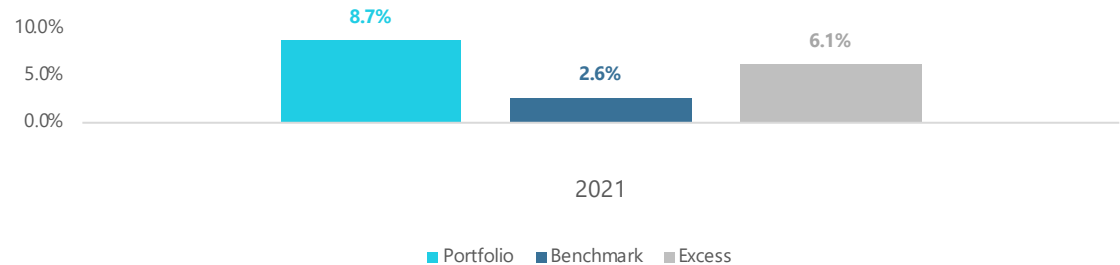
Standard Deviation	5.3%
Benchmark Standard Deviation	0.2%
Sharpe Ratio	1.52
Information Ratio	1.07
Beta	0.16
Tracking Error	5.3%

Performance (net all)¹

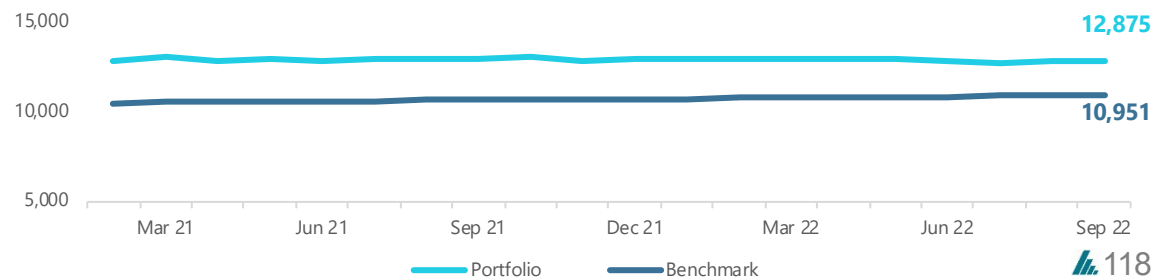
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Polar	461.7	0.5%	-0.4%	--	--
Custom Hedge Fund Benchmark		0.9%	3.0%	--	--
RR & M Policy Benchmark		-4.0%	-11.5%	-2.2%	--

Universe data: Hedge Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Polar	-2.2%	72	-1.8%	56	--	--	--	--
Median	0.1%		-1.1%		--		--	

Calendar Year Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
1. Universe data is gross-of-fees.

private markets

Summary

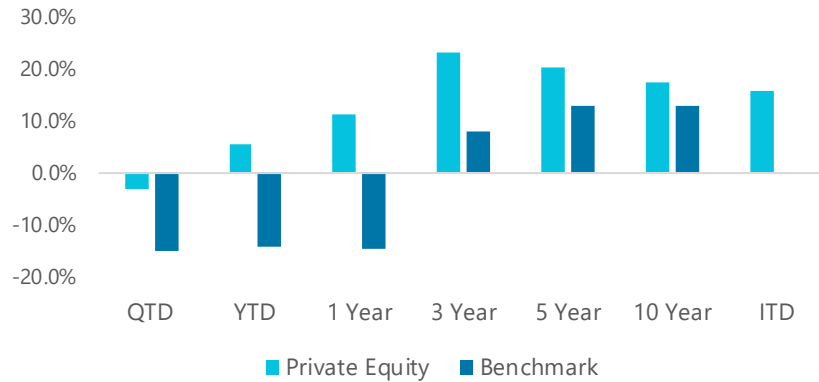
Private Equity

for the quarter ended September 30, 2022



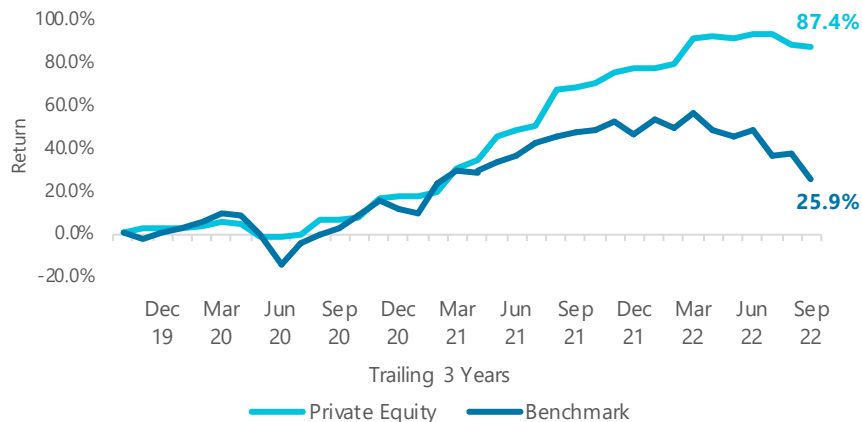
Los Angeles County Employees Retirement Association

Performance (net)



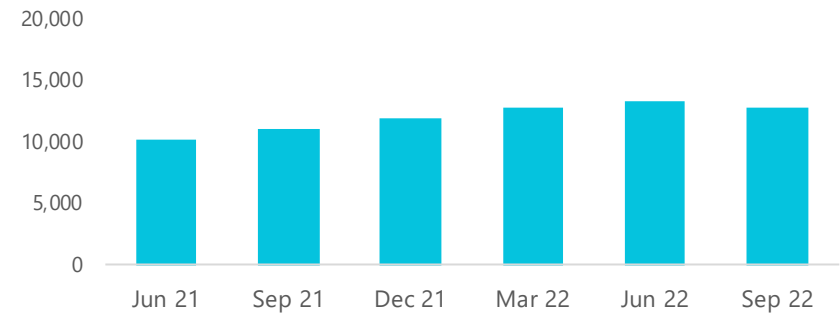
	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Private Equity	-3.2%	5.7%	11.4%	23.3%	20.2%	17.3%	15.6%
Benchmark	-15.2%	-14.1%	-14.6%	8.0%	12.8%	13.0%	--
Excess	12.0%	19.7%	26.0%	15.3%	7.4%	4.3%	--

Cumulative Return

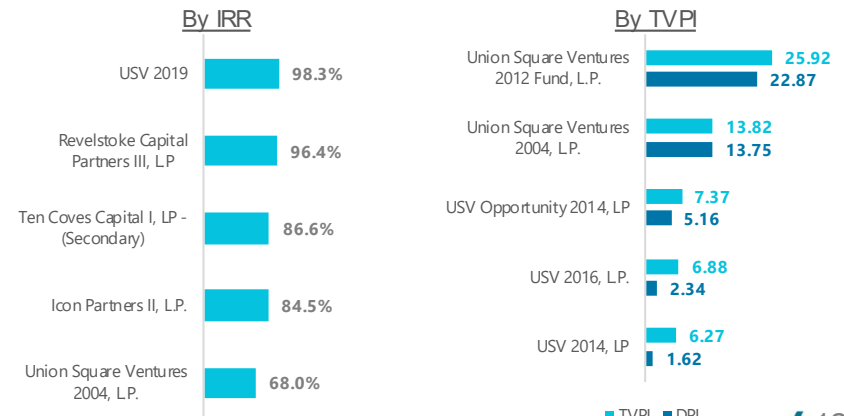


Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	13,207	11,037	6,055
Net Cash Flow	34	516	859
Gain/Loss	-420	1,268	5,907
Ending Market Value	12,821	12,821	12,821



Top Performing Investments (since inception)



TVPI DPI

Historical Returns

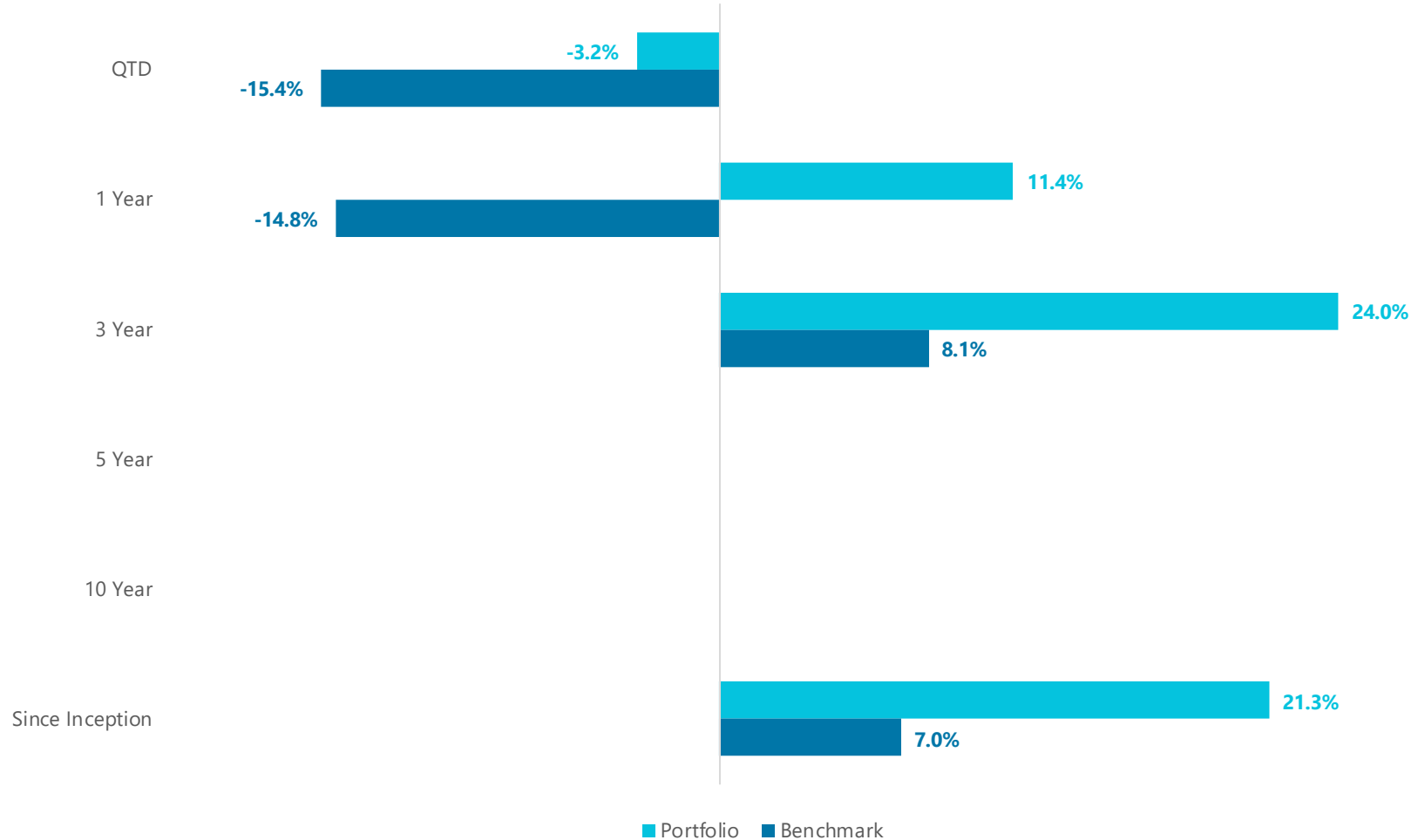
Private Equity – Growth

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Time-Weighted Returns (net)¹



Performance by Strategy

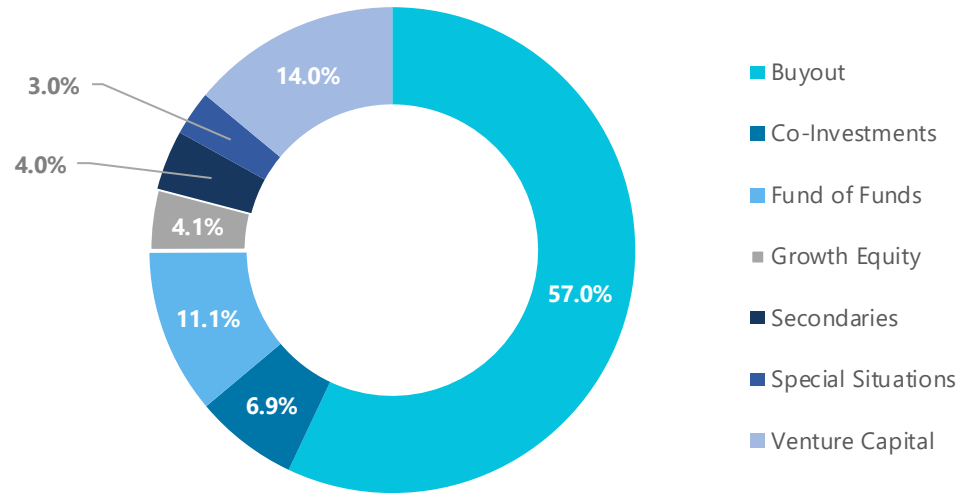
Private Equity – Growth

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Strategy^{1,2}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / Loss (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Buyout	199	14,068.0	12,585.7	13,949.5	7,117.9	21,067.4	8,481.7	1.11x	1.67x	14.1%	1.62
Co-Investments	12	1,174.8	1,132.9	1,004.8	858.4	1,863.1	730.2	0.89x	1.64x	18.4%	1.56
Fund of Funds	16	1,423.8	1,303.8	1,492.0	1,380.8	2,872.8	1,569.0	1.14x	2.20x	14.9%	1.70
Growth Equity	21	1,343.3	1,059.5	1,490.7	515.0	2,005.7	946.3	1.41x	1.89x	86.9%	1.75
Secondaries	15	803.0	651.6	366.4	495.1	861.5	209.9	0.56x	1.32x	17.6%	1.37
Special Situations	22	1,165.0	1,012.0	1,054.5	372.3	1,426.9	414.8	1.04x	1.41x	9.3%	1.17
Venture Capital	104	2,253.4	1,919.2	2,555.0	1,744.8	4,299.8	2,380.6	1.33x	2.24x	21.8%	2.13
Total Growth Portfolio	389	22,231.3	19,664.8	21,913.0	12,484.3	34,397.3	14,732.6	1.11x	1.75x	16.4%	1.78

1. Based on best available cash flow adjusted market values.

2. Investment counts for Co-Investments and Fund of Funds do not include underlying funds.

Performance by Geography

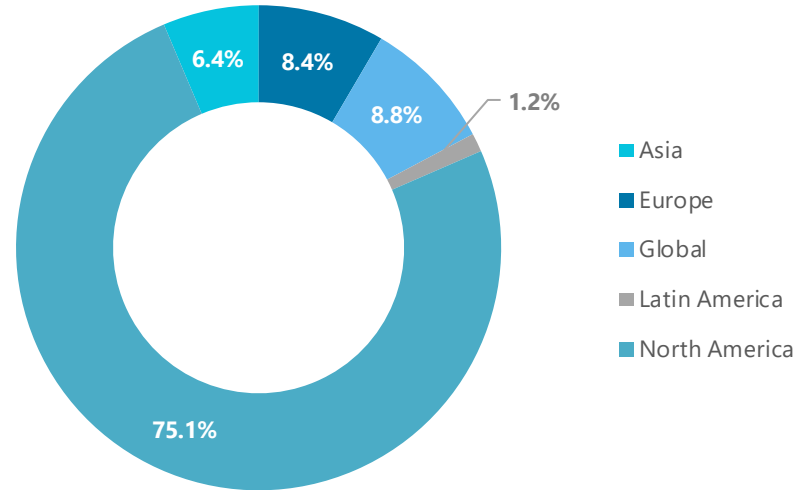
Private Equity – Growth

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Geography^{1,2}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / Loss (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Asia	14	826.0	688.2	426.4	799.2	1,225.5	537.3	0.62x	1.78x	16.2%	1.48
Europe	34	2,141.0	2,107.5	2,187.6	1,053.2	3,240.8	1,133.2	1.04x	1.54x	15.4%	1.37
Global	25	2,162.1	1,276.2	793.6	1,097.6	1,891.2	615.0	0.62x	1.48x	16.2%	1.41
Latin America	2	200.0	183.1	51.3	154.1	205.4	22.2	0.28x	1.12x	4.6%	1.02
North America	314	16,902.2	15,409.7	18,454.2	9,380.3	27,834.5	12,424.8	1.20x	1.81x	16.5%	1.81
Total Growth Portfolio	389	22,231.3	19,664.8	21,913.0	12,484.3	34,397.3	14,732.6	1.11x	1.75x	16.4%	1.78

1. Based on best available cash flow adjusted market values.

2. Investment counts for Co-Investments and Fund of Funds do not include underlying funds.

Performance by Vintage Year

Private Equity – Growth

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Vintage Year^{1,2,3}

	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / Loss (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME	Quartile Ranking
1986	3	80.0	80.0	267.5	0.0	267.5	187.5	3.34x	3.34x	15.7%	--	1st
1987	1	25.0	25.0	40.3	0.0	40.3	15.3	1.61x	1.61x	7.3%	--	3rd
1988	2	200.0	216.6	466.9	0.0	466.9	250.3	2.16x	2.16x	15.5%	89.91	2nd
1989	0	--	--	--	--	--	--	--	--	--	--	NA
1990	1	7.5	7.5	16.7	0.0	16.7	9.2	2.22x	2.22x	13.0%	9.13	3rd
1991	0	--	--	--	--	--	--	--	--	--	--	NA
1992	10	116.0	111.0	242.5	0.0	242.5	131.6	2.19x	2.19x	29.1%	3.78	2nd
1993	8	68.0	64.8	239.5	0.0	239.5	174.7	3.70x	3.70x	39.7%	3.22	2nd
1994	5	56.9	58.8	237.6	0.0	237.6	178.8	4.04x	4.04x	54.1%	2.82	1st
1995	7	100.5	102.3	362.6	0.0	362.6	260.2	3.54x	3.54x	43.2%	2.58	1st
1996	12	222.9	225.2	608.8	0.0	608.8	383.6	2.70x	2.70x	37.5%	2.15	1st
1997	11	397.5	410.4	606.4	0.0	606.4	196.0	1.48x	1.48x	7.7%	1.20	3rd
1998	22	644.4	655.2	945.2	0.8	946.0	290.7	1.44x	1.44x	7.3%	1.19	2nd
1999	21	361.0	369.7	436.6	0.1	436.7	67.0	1.18x	1.18x	3.4%	0.96	2nd
2000	25	374.9	387.3	575.0	0.2	575.2	187.9	1.48x	1.49x	8.7%	1.07	2nd
2001	15	404.3	442.4	834.2	3.4	837.6	395.2	1.89x	1.89x	21.7%	1.38	1st
2002	8	220.4	230.3	537.4	0.0	537.4	307.1	2.33x	2.33x	19.0%	1.64	2nd
2003	8	305.8	339.2	700.6	1.2	701.9	362.7	2.07x	2.07x	21.3%	1.60	1st
2004	7	333.4	392.2	744.2	2.3	746.5	354.3	1.90x	1.90x	19.5%	1.58	1st
2005	15	496.2	506.2	1,039.0	3.0	1,042.1	535.8	2.05x	2.06x	13.3%	1.64	2nd
2006	28	1,495.8	1,607.3	2,559.4	44.3	2,603.7	996.4	1.59x	1.62x	9.0%	1.26	2nd
2007	11	514.7	461.1	778.4	31.9	810.3	349.1	1.69x	1.76x	11.4%	1.20	2nd
2008	10	625.6	700.2	1,228.9	33.4	1,262.2	562.0	1.75x	1.80x	13.3%	1.21	2nd
2009	0	--	--	--	--	--	--	--	--	--	--	NA
2010	2	450.0	471.4	681.7	297.8	979.5	508.1	1.45x	2.08x	16.2%	1.51	2nd
2011	7	391.0	413.5	796.8	166.7	963.5	549.9	1.93x	2.33x	18.7%	1.52	2nd
2012	7	435.0	580.8	1,054.5	130.6	1,185.0	604.2	1.82x	2.04x	22.0%	1.71	2nd
2013	10	888.5	972.4	1,142.8	573.9	1,716.7	744.3	1.18x	1.77x	15.0%	1.35	3rd
2014	11	1,237.9	1,376.4	1,428.5	1,226.1	2,654.6	1,278.2	1.04x	1.93x	17.8%	1.52	3rd
2015	10	1,087.0	1,215.0	1,245.7	1,575.0	2,820.8	1,605.8	1.03x	2.32x	24.9%	1.93	2nd
2016	12	1,117.1	1,278.9	879.6	1,373.5	2,253.0	974.1	0.69x	1.76x	18.5%	1.45	3rd
2017	8	594.0	567.2	322.7	760.7	1,083.4	516.2	0.57x	1.91x	23.4%	1.66	3rd
2018	9	1,242.8	1,117.6	327.7	1,389.4	1,717.2	599.5	0.29x	1.54x	22.8%	1.56	3rd
2019	32	2,540.3	2,155.2	420.0	2,691.3	3,111.2	956.0	0.19x	1.44x	22.8%	1.50	3rd
2020	10	1,013.5	684.9	98.4	734.0	832.3	147.5	0.14x	1.22x	19.4%	1.44	3rd
2021	35	2,770.9	1,175.3	47.3	1,191.7	1,238.9	63.6	0.04x	1.05x	7.3%	1.29	2nd
2022	6	1,412.7	263.5	0.0	253.2	253.2	(10.3)	0.00x	0.96x	-5.7%	1.16	2nd
Total Growth Portfolio	389	22,231.3	19,664.8	21,913.0	12,484.3	34,397.3	14,732.6	1.11x	1.75x	16.4%	1.78	

1. Based on best available cash flow adjusted market values.
2. Investment counts for Co-Investments and Fund of Funds do not include underlying funds.
3. Benchmark data used is latest available by Burgiss Private IQ. Quartile rankings are reported as not applicable (N/A) if commitment date is within 3 years of reporting date or if no commitments were made for the respective vintage year.

Risk vs. Return

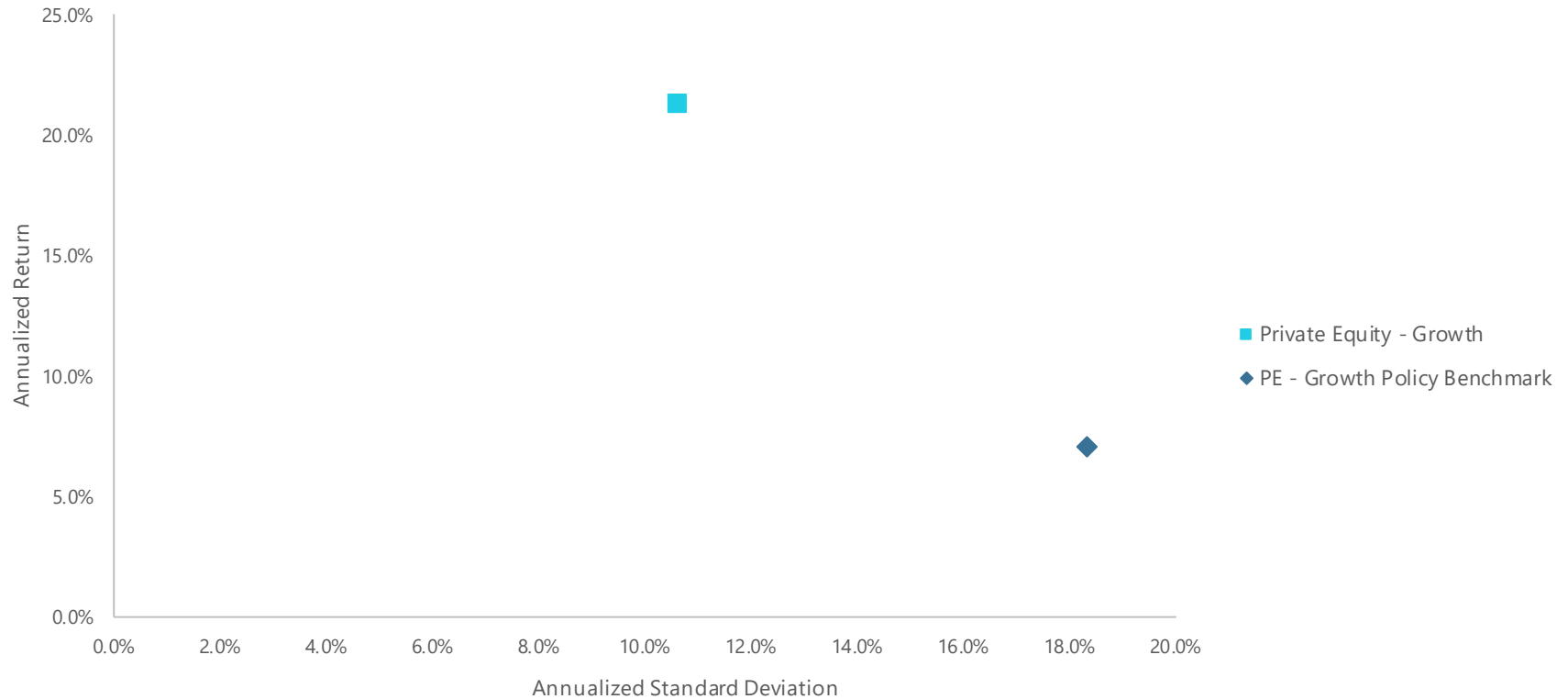
Private Equity – Growth

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Since Inception (Annualized)¹



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Private Equity - Growth	21.3%	10.6%				
PE - Growth Policy Benchmark	7.0%	18.3%	1.79	0.79	0.19	18.1%

1. Composite risk statistics are relative to the policy benchmark.

Annual Cash Flow Activity

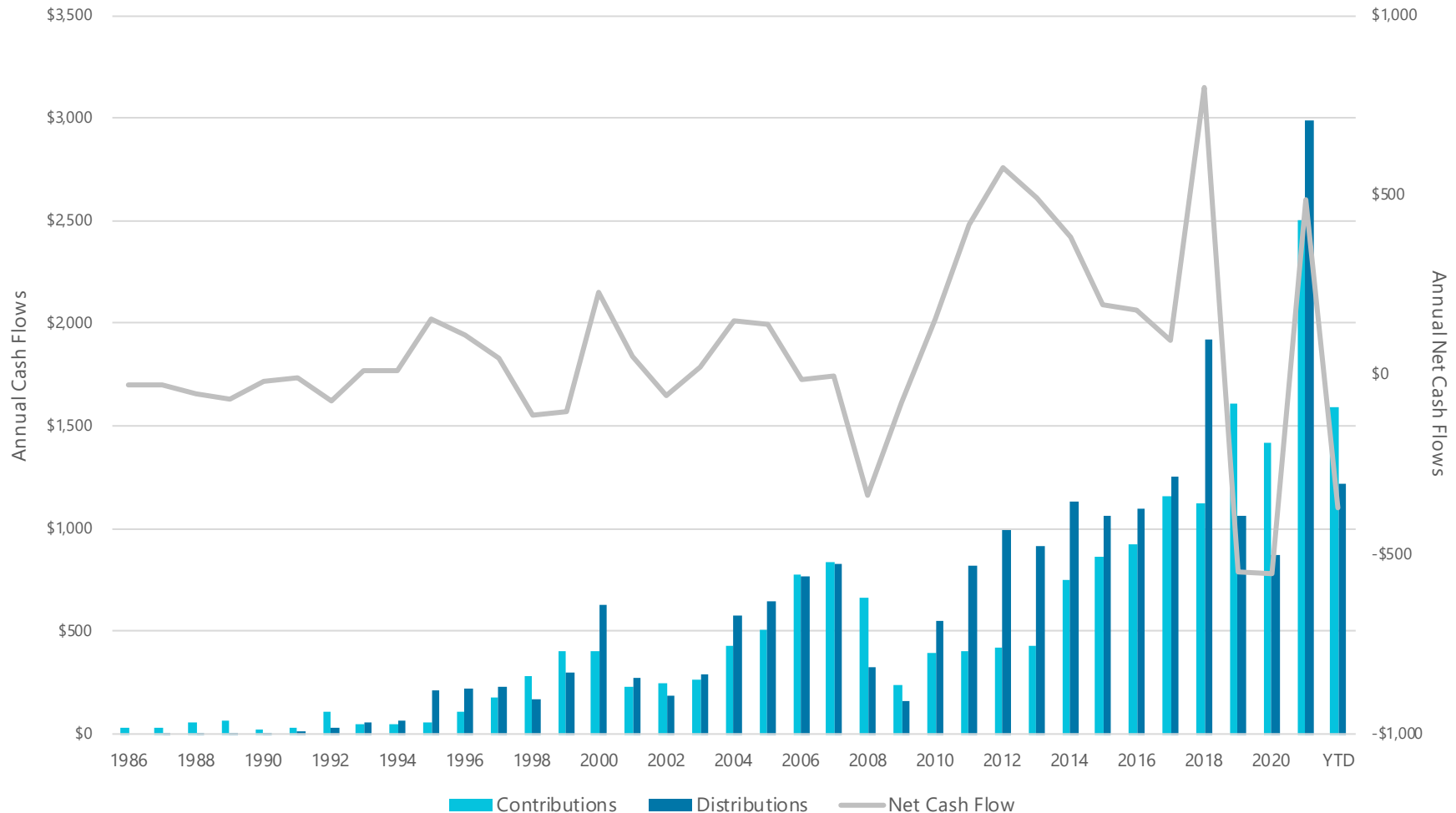
Private Equity

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Year (mm)



Summary

Real Estate

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Performance (net)



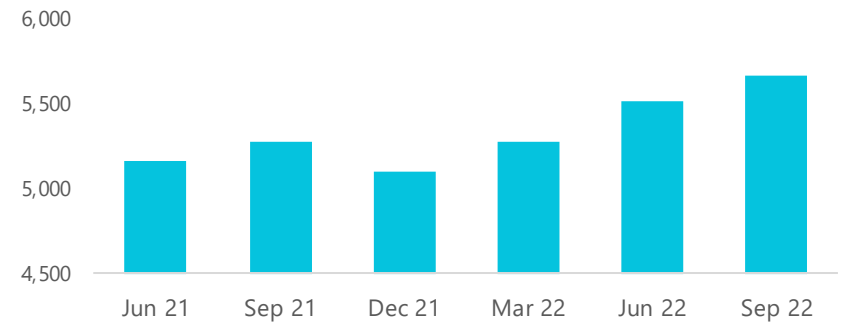
	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Real Estate	4.9%	20.7%	27.0%	11.2%	9.6%	9.5%	8.2%
Benchmark	4.5%	20.4%	28.0%	12.2%	10.1%	10.5%	--
Excess	0.4%	0.4%	-0.9%	-1.0%	-0.5%	-1.0%	--

Cumulative Return

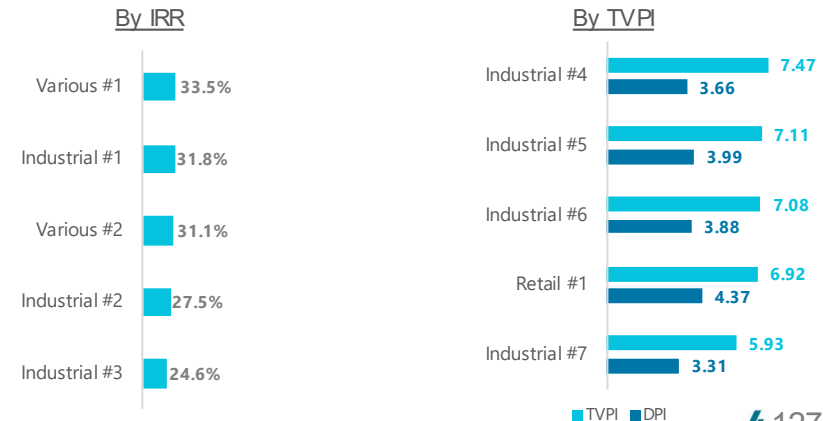


Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	5,519	5,277	6,209
Net Cash Flow	-128	-901	-2,265
Gain/Loss	269	1,284	1,715
Ending Market Value	5,660	5,660	5,660



Top Performing Investments (since inception)¹



1. Property names removed due to confidentiality reasons.

Historical Returns

Real Estate

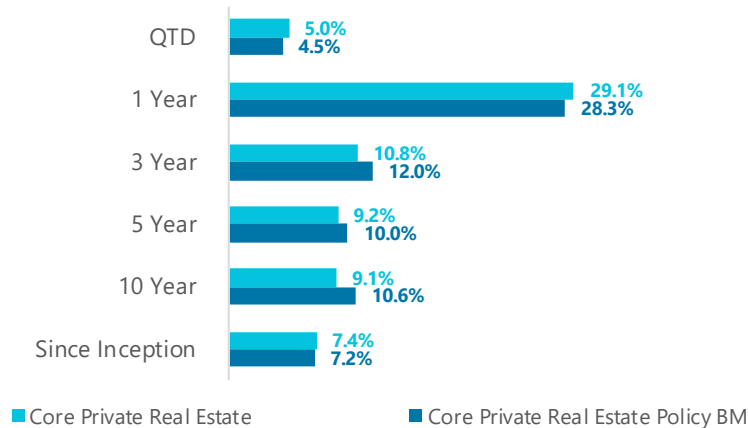
for the quarter ended September 30, 2022



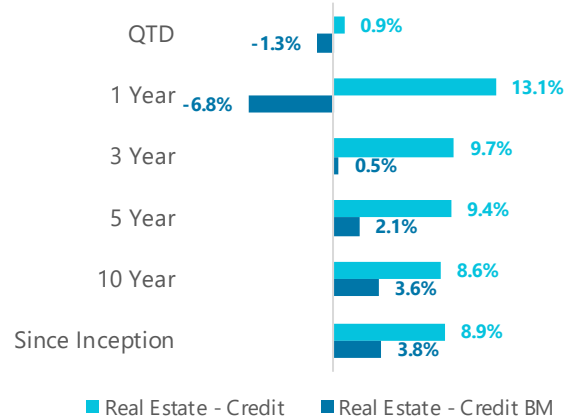
Los Angeles County Employees Retirement Association

Time-Weighted Returns (net)

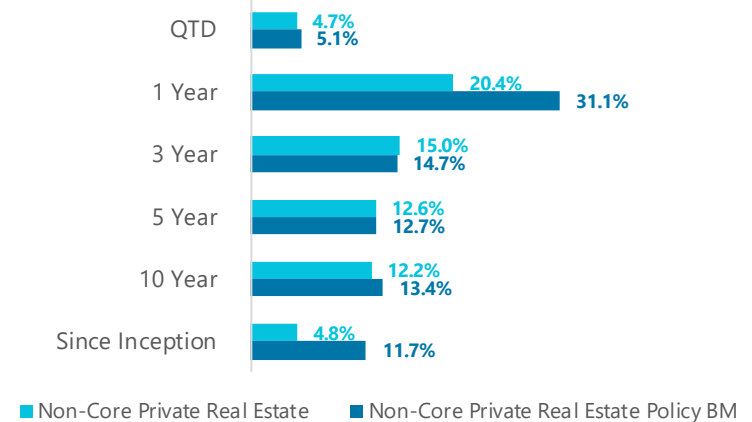
Core



Debt



Non-Core



Performance by Strategy

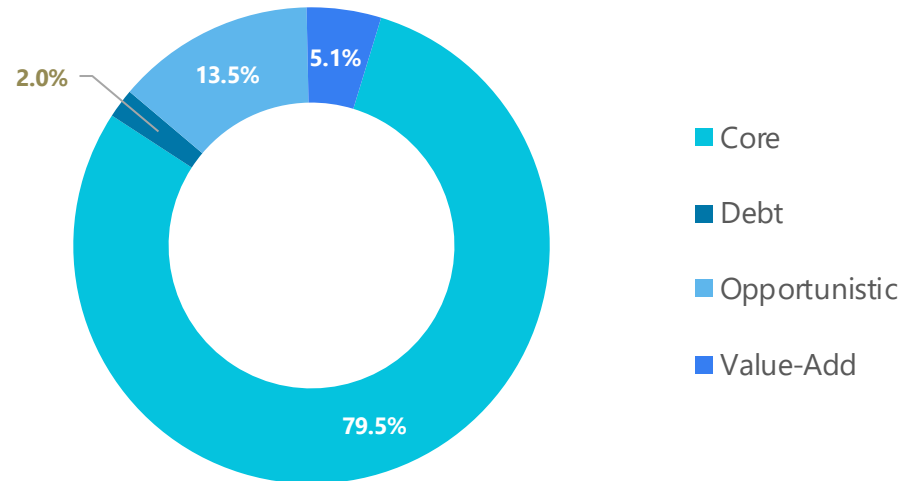
Real Estate

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Strategy^{1,2}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / (Loss) (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Core	79	423.0	7,359.8	6,537.5	4,550.8	11,088.3	3,728.5	0.89x	1.51x	9.0%	1.21
Debt	7	0.0	155.9	77.5	113.8	191.3	35.3	0.50x	1.23x	8.2%	1.18
Opportunistic	15	975.0	1,102.7	724.9	773.2	1,498.1	395.4	0.66x	1.36x	7.0%	1.04
Value-Add	12	454.6	588.2	214.5	289.4	503.9	(84.3)	0.36x	0.86x	-3.6%	0.63
Total Real Estate	113	1,852.5	9,206.7	7,554.5	5,727.1	13,281.6	4,074.9	0.82x	1.44x	8.4%	1.16

1. Based on best available cash flow adjusted market values and includes only active investments.

2. Commitment amounts reflect only commingled fund investments.

Performance by Property Type

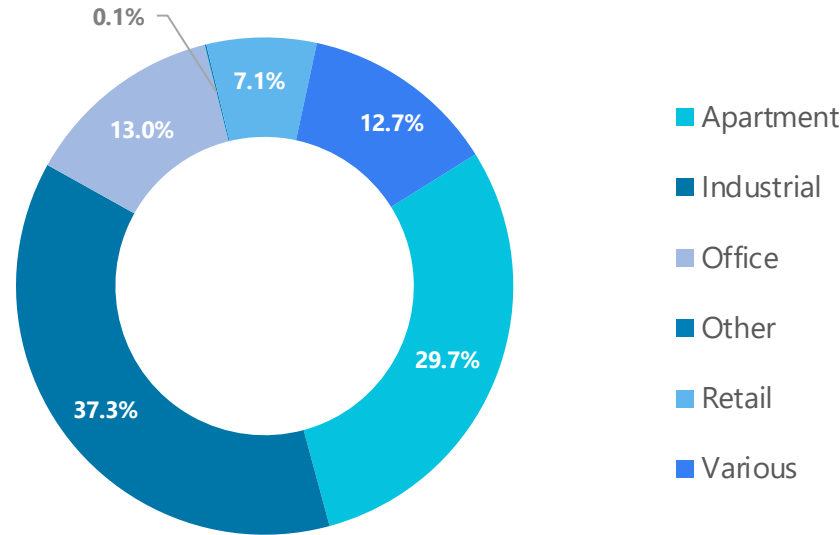
Real Estate

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Property Type^{1,2,3}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / (Loss) (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Apartment	36	384.0	3,079.3	2,512.1	1,699.8	4,211.9	1,132.6	0.82x	1.37x	8.7%	1.20
Industrial	21	223.0	1,682.5	1,278.6	2,136.5	3,415.1	1,732.6	0.76x	2.03x	13.6%	1.79
Office	19	0.0	1,998.2	1,874.1	746.5	2,620.6	622.3	0.94x	1.31x	6.3%	1.10
Other	4	100.0	170.1	199.0	5.7	204.7	34.6	1.17x	1.20x	4.0%	0.76
Retail	15	0.0	1,247.1	1,260.7	409.3	1,670.0	423.0	1.01x	1.34x	6.6%	0.85
Various	18	1,145.5	1,029.5	430.0	729.3	1,159.3	129.8	0.42x	1.13x	2.6%	0.84
Total Real Estate	113	1,852.5	9,206.7	7,554.5	5,727.1	13,281.6	4,074.9	0.82x	1.44x	8.4%	1.16

1. Based on best available cash flow adjusted market values and includes only active investments.
2. Commitment amounts reflect only commingled fund investments.
3. Various refers to commingled fund investments with more than one property type; Other refers to hotel.

Performance by Geography

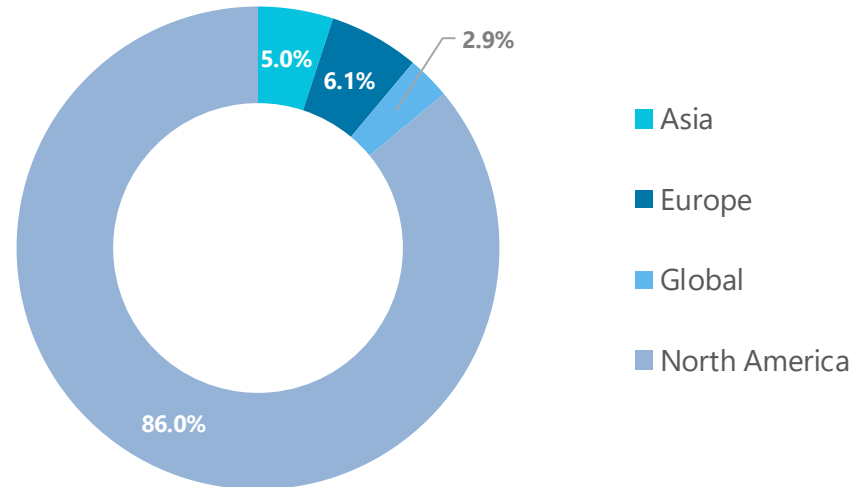
Real Estate

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Geography (non-US)^{1,2}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / (Loss) (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Asia	4	300.0	304.1	107.3	288.1	395.4	91.3	0.35x	1.30x	6.2%	1.13
Europe	10	434.8	595.8	358.9	346.8	705.7	109.8	0.60x	1.18x	4.1%	0.89
Global	4	358.8	248.1	209.6	166.0	375.6	127.5	0.84x	1.51x	12.4%	1.16
North America	95	759.0	8,058.7	6,878.7	4,926.3	11,805.0	3,746.3	0.85x	1.46x	8.5%	1.18
Total Real Estate	113	1,852.5	9,206.7	7,554.5	5,727.1	13,281.6	4,074.9	0.82x	1.44x	8.4%	1.16

1. Based on best available cash flow adjusted market values and includes only active investments.

2. Commitment amounts reflect only commingled fund investments.

Performance by Geography

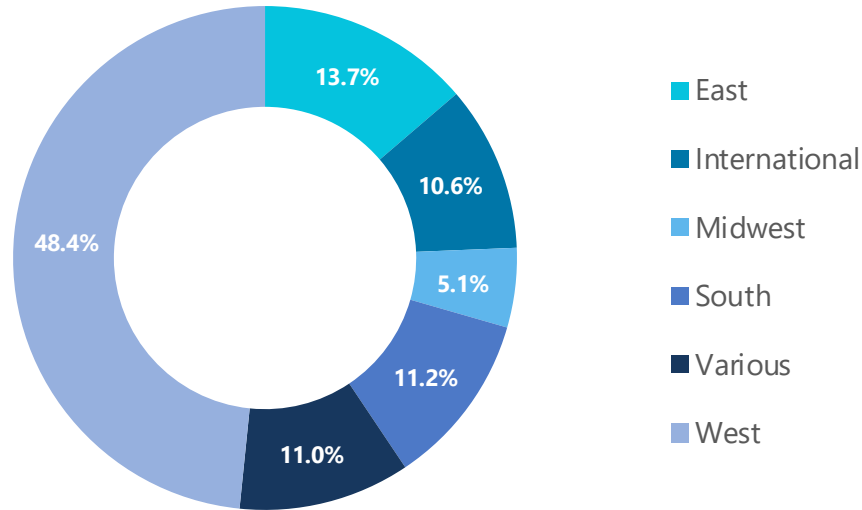
Real Estate

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Geography (US NCREIF)^{1,2}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / (Loss) (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
East	26	0.0	2,469.7	2,242.8	785.8	3,028.6	558.9	0.91x	1.23x	5.9%	0.91
International	13	685.8	865.3	466.2	608.9	1,075.1	209.8	0.54x	1.24x	5.0%	0.97
Midwest	10	0.0	591.5	485.4	292.0	777.4	186.0	0.82x	1.31x	5.8%	0.89
South	11	0.0	1,183.8	1,033.2	638.6	1,671.9	488.1	0.87x	1.41x	8.8%	1.05
Various	10	782.7	662.0	341.5	630.6	972.1	310.1	0.52x	1.47x	7.4%	1.08
West	43	384.0	3,434.5	2,985.3	2,771.1	5,756.4	2,321.9	0.87x	1.68x	9.9%	1.50
Total Real Estate	113	1,852.5	9,206.7	7,554.5	5,727.1	13,281.6	4,074.9	0.82x	1.44x	8.4%	1.16

1. Based on best available cash flow adjusted market values and includes only active investments.

2. Commitment amounts reflect only commingled fund investments.

Performance by Vintage Year

Real Estate

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Vintage Year^{1,2,3}

	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / (Loss) (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME	Quartile Ranking	
1990	1	0.0	249.9	297.5	130.9	428.4	178.5	1.19x	1.71x	6.4%	4.69	NA	1. Based on best available cash flow adjusted market values. 2. Commitment amounts reflect only commingled fund investments. 3. Benchmark data used is latest available by Burgiss Private IQ. Quartile rankings exclude IMAs and Core Funds.
1991	3	0.0	32.8	123.0	92.5	215.4	182.6	3.75x	6.57x	12.4%	13.97	NA	
1992	0	0.0	--	--	--	--	--	--	--	--	--	NA	
1993	0	0.0	--	--	--	--	--	--	--	--	--	NA	
1994	1	0.0	15.3	67.0	38.8	105.8	90.5	4.37x	6.90x	13.0%	1.49	NA	
1995	1	0.0	39.2	110.6	75.3	185.9	146.7	2.82x	4.75x	11.7%	1.28	NA	
1996	1	0.0	24.0	38.8	32.5	71.4	47.4	1.62x	2.97x	7.8%	0.82	NA	
1997	1	0.0	18.3	67.1	75.9	143.0	124.7	3.66x	7.81x	16.0%	2.19	NA	
1998	1	0.0	48.8	66.0	49.4	115.4	66.6	1.35x	2.36x	6.4%	0.71	NA	
1999	0	0.0	--	--	--	--	--	--	--	--	--	NA	
2000	0	0.0	--	--	--	--	--	--	--	--	--	NA	
2001	1	0.0	143.4	76.4	94.2	170.6	27.2	0.53x	1.19x	4.7%	0.76	NA	
2002	0	0.0	--	--	--	--	--	--	--	--	--	NA	
2003	1	0.0	142.7	131.2	69.4	200.5	57.8	0.92x	1.40x	4.4%	0.72	NA	
2004	0	0.0	--	--	--	--	--	--	--	--	--	NA	
2005	0	0.0	--	--	--	--	--	--	--	--	--	NA	
2006	0	0.0	--	--	--	--	--	--	--	--	--	NA	
2007	3	33.8	454.5	401.8	1.4	403.2	(51.4)	0.88x	0.89x	-5.4%	0.55	4th	
2008	1	150.0	150.0	95.5	0.7	96.2	(53.8)	0.64x	0.64x	-5.7%	0.34	4th	
2009	1	16.9	22.3	28.5	0.4	28.8	6.5	1.27x	1.29x	8.2%	0.84	3rd	
2010	1	100.0	97.1	152.0	5.5	157.5	60.4	1.57x	1.62x	9.6%	0.92	3rd	
2011	4	15.7	213.5	114.9	22.0	136.9	(76.6)	0.54x	0.64x	-47.5%	0.29	4th	
2012	3	134.0	438.6	185.0	176.3	361.3	(77.3)	0.42x	0.82x	-4.8%	0.67	4th	
2013	7	100.0	469.9	580.6	118.0	698.7	228.7	1.24x	1.49x	9.0%	1.03	3rd	
2014	15	246.9	980.1	802.6	678.2	1,480.8	500.7	0.82x	1.51x	8.9%	1.22	3rd	
2015	9	0.0	952.8	745.1	787.0	1,532.1	579.3	0.78x	1.61x	13.9%	1.55	2nd	
2016	7	150.0	483.7	214.8	574.7	789.5	305.7	0.44x	1.63x	14.5%	1.52	2nd	
2017	12	174.0	1,339.6	878.0	944.8	1,822.8	483.3	0.66x	1.36x	11.6%	1.28	3rd	
2018	10	150.0	376.7	189.1	276.3	465.4	88.7	0.50x	1.24x	8.8%	1.18	3rd	
2019	25	407.7	2,381.9	2,109.0	1,415.2	3,524.2	1,142.3	0.89x	1.48x	9.3%	1.08	3rd	
2020	2	0.0	71.6	77.0	4.8	81.9	10.2	1.08x	1.14x	5.6%	1.14	3rd	
2021	2	173.5	59.8	2.9	63.0	65.9	6.1	0.05x	1.10x	12.3%	1.35	3rd	
2022	0	0.0	--	--	--	--	--	--	--	--	--	NA	
Total Real Estate	113	1,852.5	9,206.7	7,554.5	5,727.1	13,281.6	4,074.9	0.82x	1.44x	8.4%	1.16		

Leverage Exposure

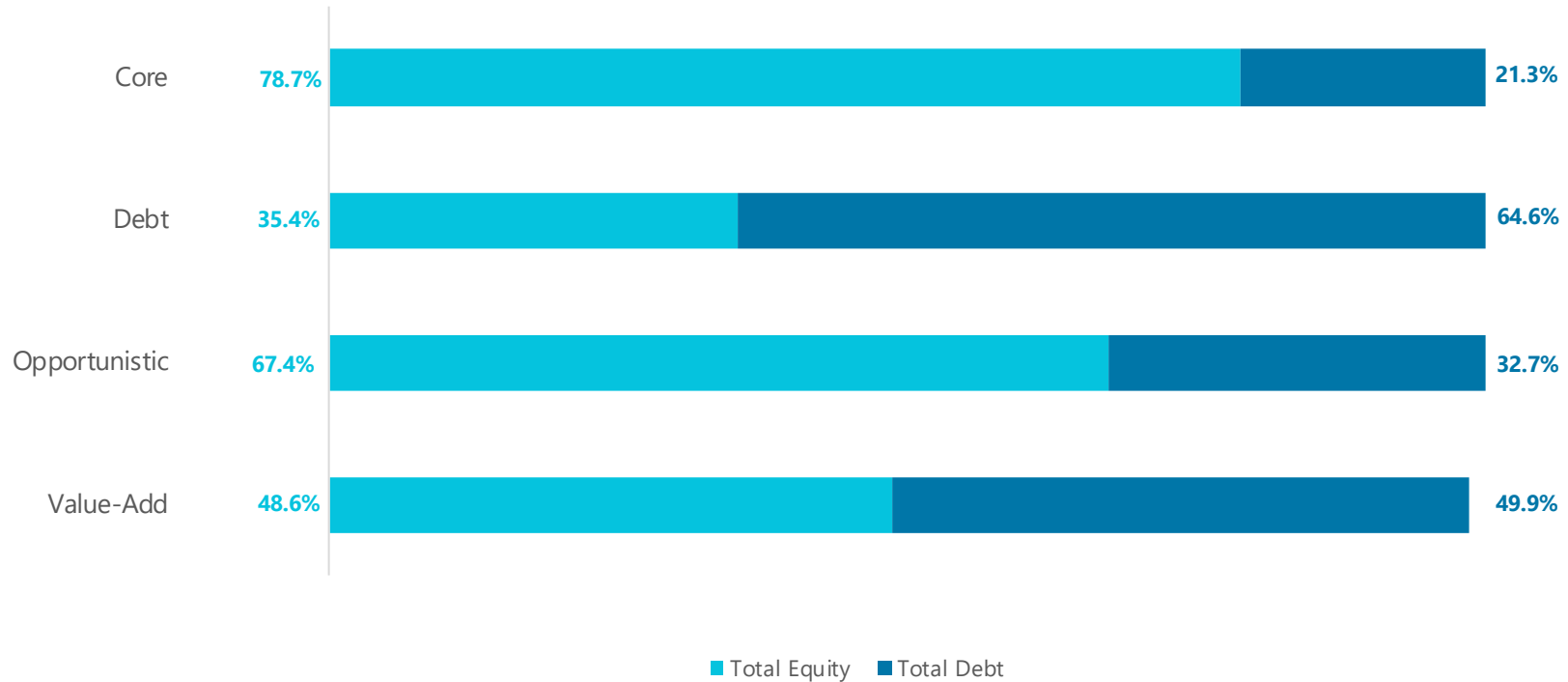
Real Estate

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Leverage Exposure^{1,2}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / (Loss) (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME	Total Debt-Fund Level (mm)	Total Equity-Fund Level (mm)	Total Debt-Fund Level (%)	Total Equity-Fund Level (%)
Core	79	423.0	7,359.8	6,537.5	4,550.8	11,088.3	3,728.5	0.89x	1.51x	9.0%	1.21	7,556.4	27,927.2	21.3%	78.7%
Debt	7	0.0	155.9	77.5	113.8	191.3	35.3	0.50x	1.23x	8.2%	1.18	165.8	90.7	64.6%	35.4%
Opportunistic	15	975.0	1,102.7	724.9	773.2	1,498.1	395.4	0.66x	1.36x	7.0%	1.04	5,748.1	11,852.1	32.7%	67.4%
Value-Add	12	454.6	588.2	214.5	289.4	503.9	(84.3)	0.36x	0.86x	-3.6%	0.63	74,261.5	72,286.2	49.9%	48.6%
Total Real Estate	113	1,852.5	9,206.7	7,554.5	5,727.1	13,281.6	4,074.9	0.82x	1.44x	8.4%	1.16	87,731.7	112,156.3	43.4%	55.5%

1. Based on best available cash flow adjusted market values and includes only active investments.

2. Commitment amounts reflect only commingled fund investments.

Risk vs. Return

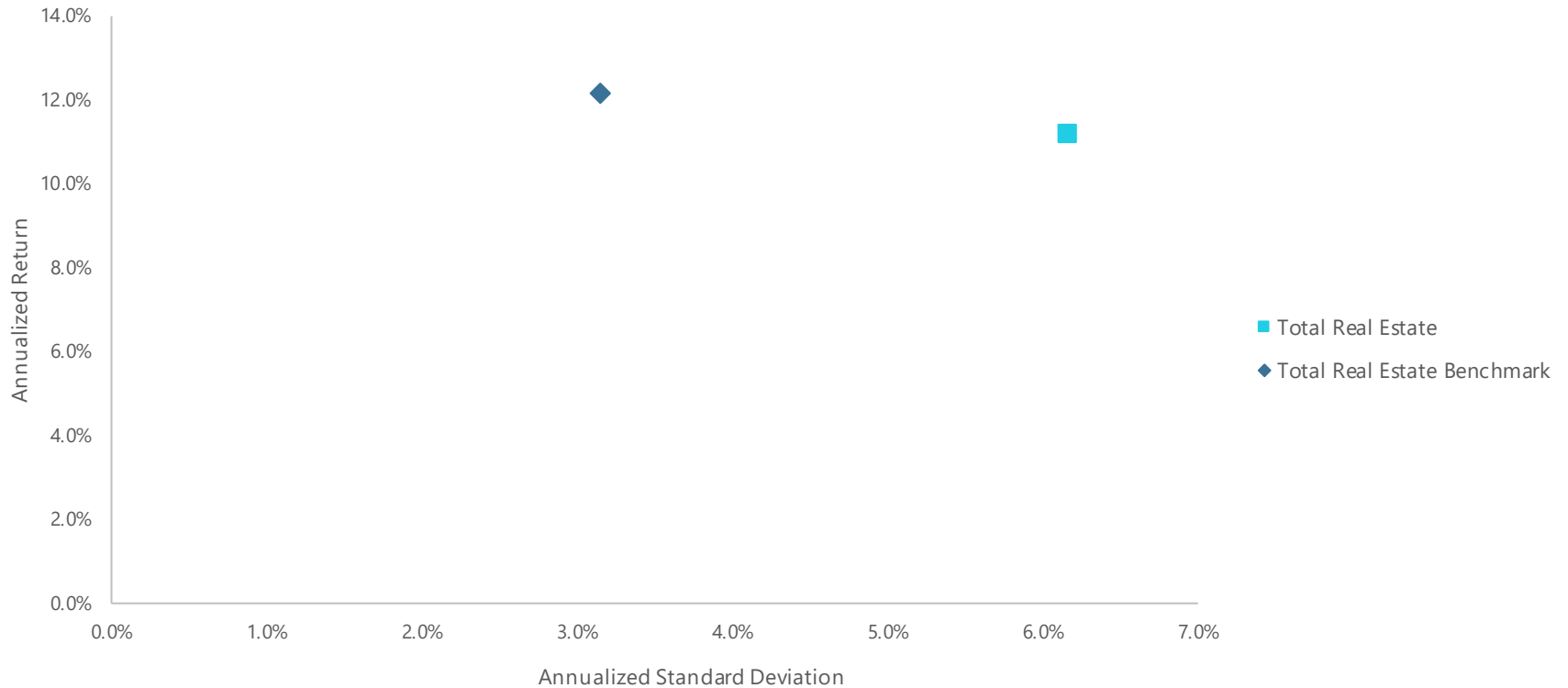
Real Estate

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

3 Year (Annualized)¹



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Total Real Estate	11.2%	6.2%				
Total Real Estate Benchmark	12.2%	3.1%	1.66	(0.19)	1.01	18.2%

1. Composite risk statistics are relative to the policy benchmark.

Annual Cash Flow Activity

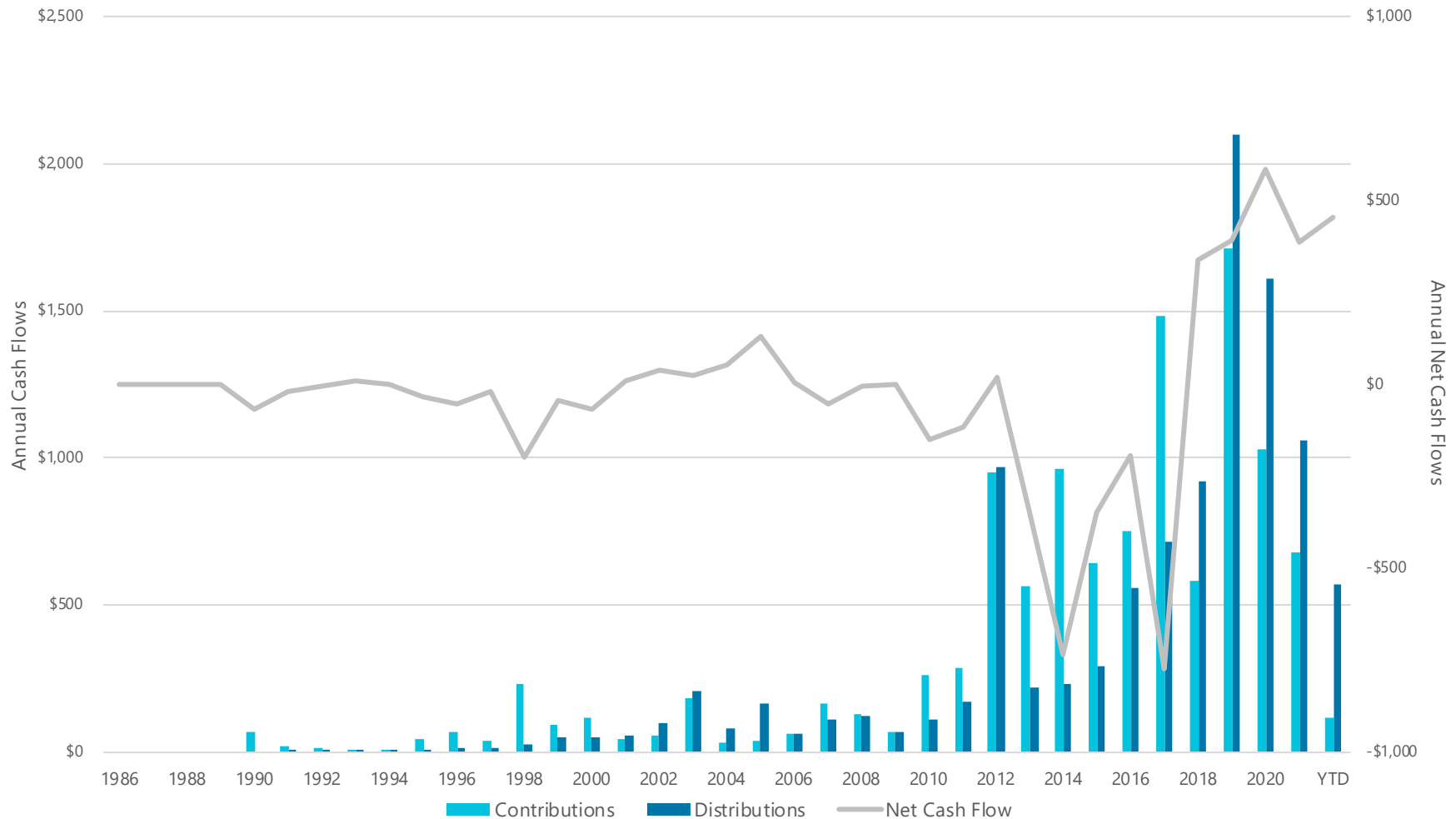
Real Estate

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Year (mm)



Summary

Private Real Assets ex. Real Estate
for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Performance (net)¹



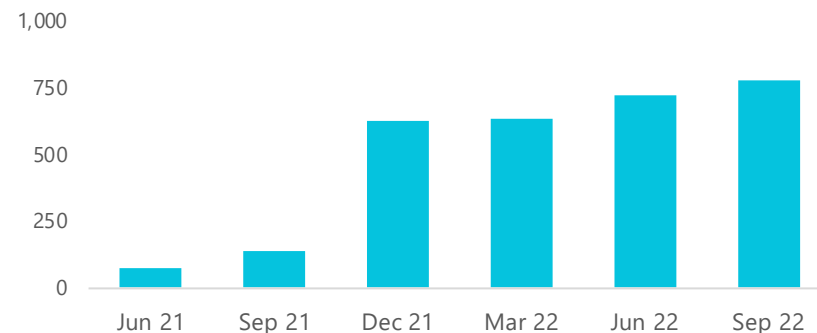
	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Private Natural Resources & Commodities	-3.1%	8.9%	15.5%	-9.6%	--	--	-8.6%
Benchmark	-15.1%	11.2%	10.2%	12.4%	--	--	14.9%
Excess	12.0%	-2.3%	5.3%	-22.0%	--	--	-23.5%

Cumulative Return¹

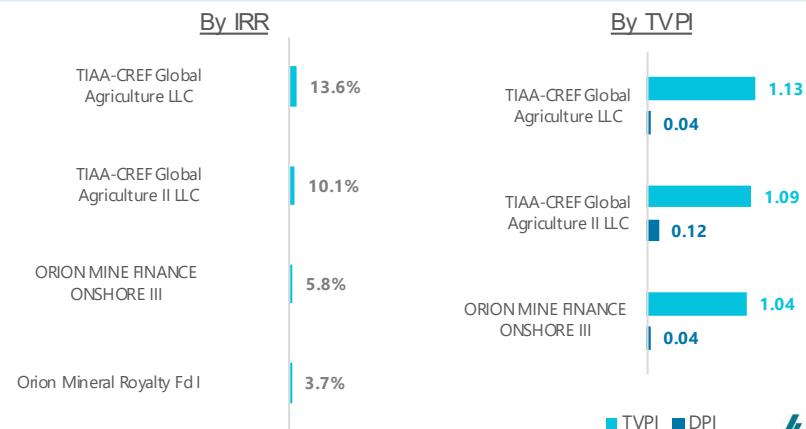


Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	719	138	109
Net Cash Flow	76	568	637
Gain/Loss	-23	66.0	25.5
Ending Market Value	772	772	772



Top Performing Investments (since inception)¹



1. Private natural resources & commodities funds reflect early-stage life cycle performance.

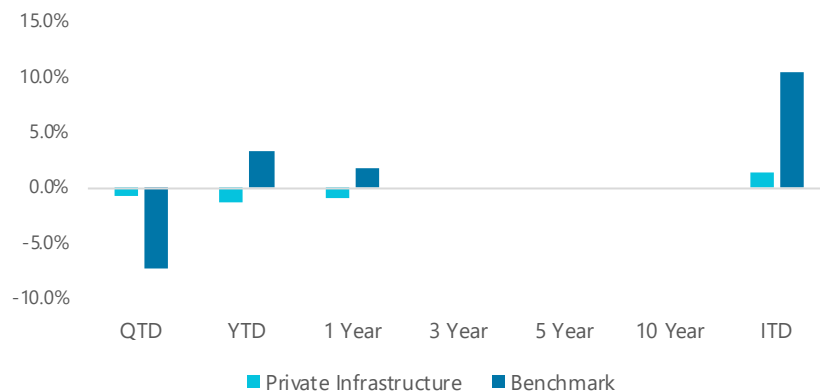
Summary

Private Real Assets ex. Real Estate
for the quarter ended September 30, 2022



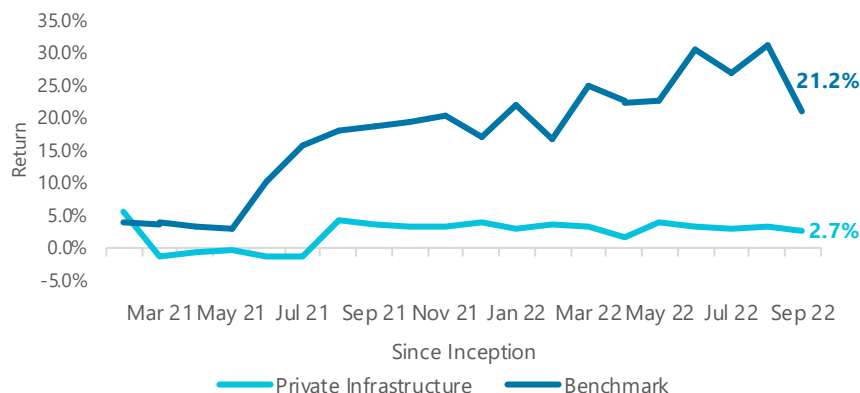
Los Angeles County Employees Retirement Association

Performance (net)¹



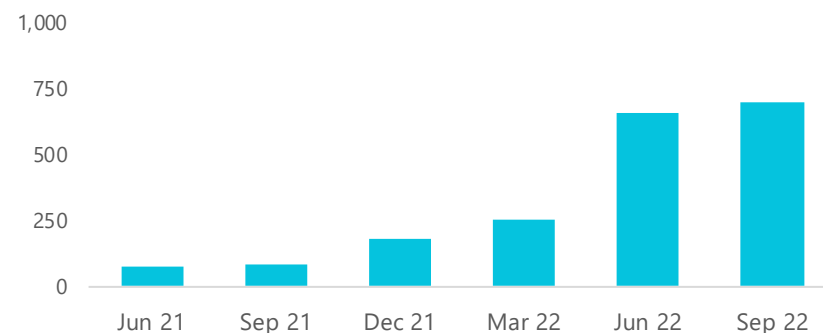
	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Private Infrastructure	-0.7%	-1.2%	-0.9%	--	--	--	1.4%
Benchmark	-7.2%	3.3%	1.8%	--	--	--	10.5%
Excess	6.5%	-4.6%	-2.8%	--	--	--	-9.1%

Cumulative Return¹

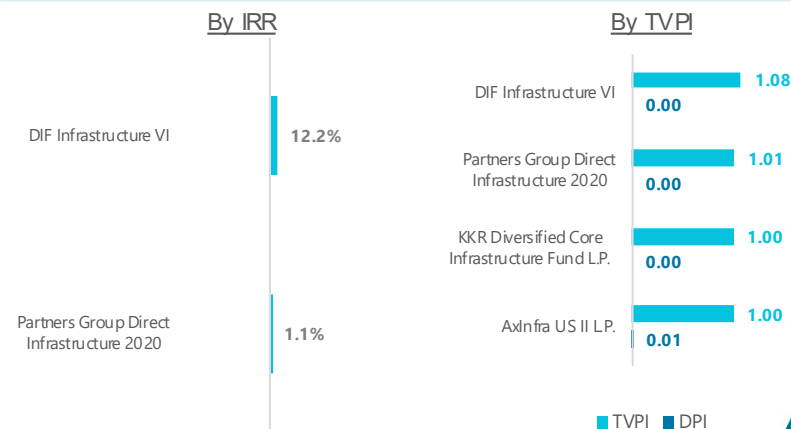


Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	659	85	--
Net Cash Flow	45	620	--
Gain/Loss	-5	-6	--
Ending Market Value	699	699	--



Top Performing Investments (since inception)¹



1. Private infrastructure funds reflect early-stage life cycle performance.

Historical Returns

Private Real Assets ex. Real Estate

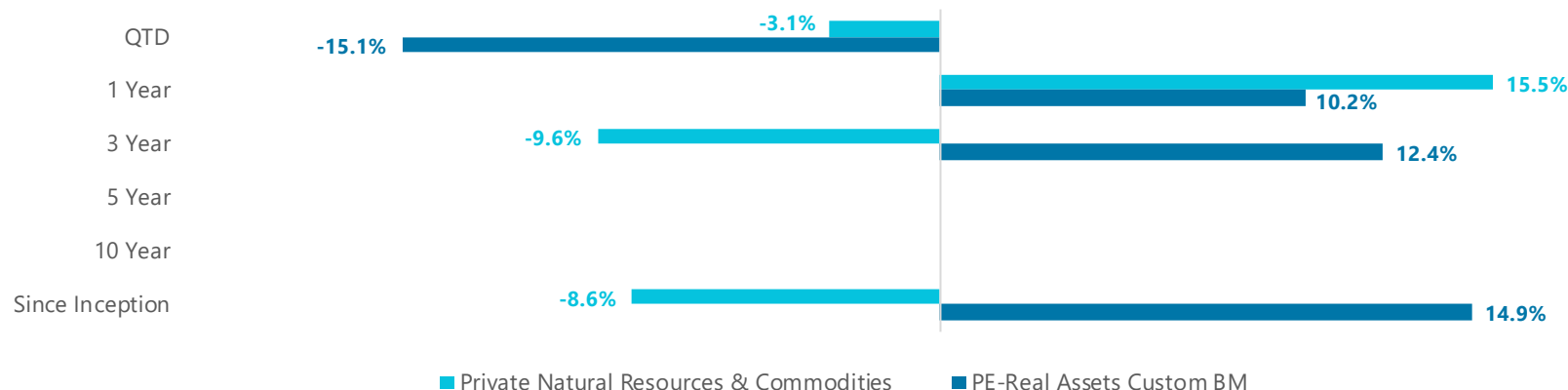
for the quarter ended September 30, 2022



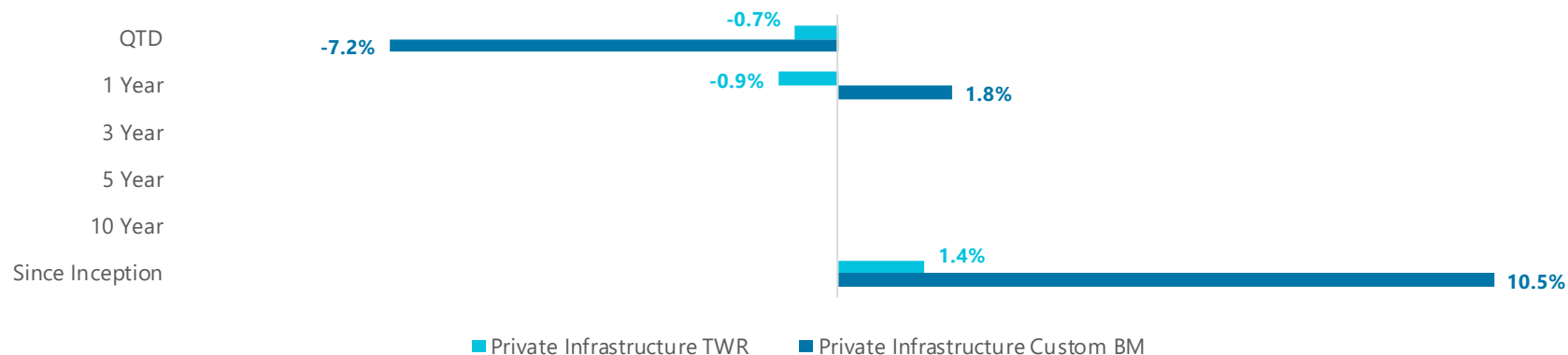
Los Angeles County Employees Retirement Association

Time-Weighted Returns (net)¹

Private Natural Resources & Commodities



Private Infrastructure



1. Private natural resources and infrastructure funds reflect early-stage life cycle performance.

Performance by Strategy

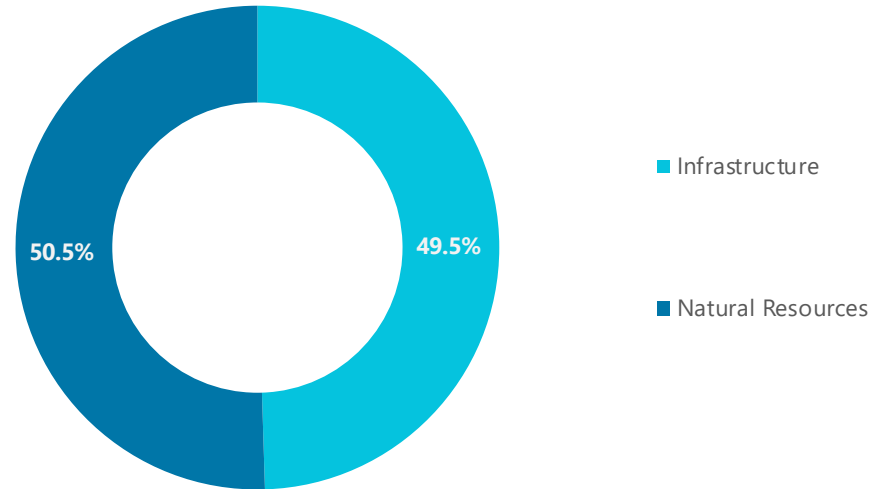
Private Real Assets ex. Real Estate

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Strategy¹



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / Loss (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Infrastructure	10	1,712.9	715.0	9.8	698.4	708.2	(6.7)	0.01x	0.99x	-1.5%	1.12
Natural Resources	8	1,100.0	827.5	161.9	712.4	874.3	46.8	0.20x	1.06x	4.1%	1.03
Total Private Real Assets ex. Real Estate	18	2,812.9	1,542.5	171.7	1,410.8	1,582.5	40.0	0.11x	1.03x	2.6%	1.07

1. Based on best available cash flow adjusted market values.

Performance by Geography

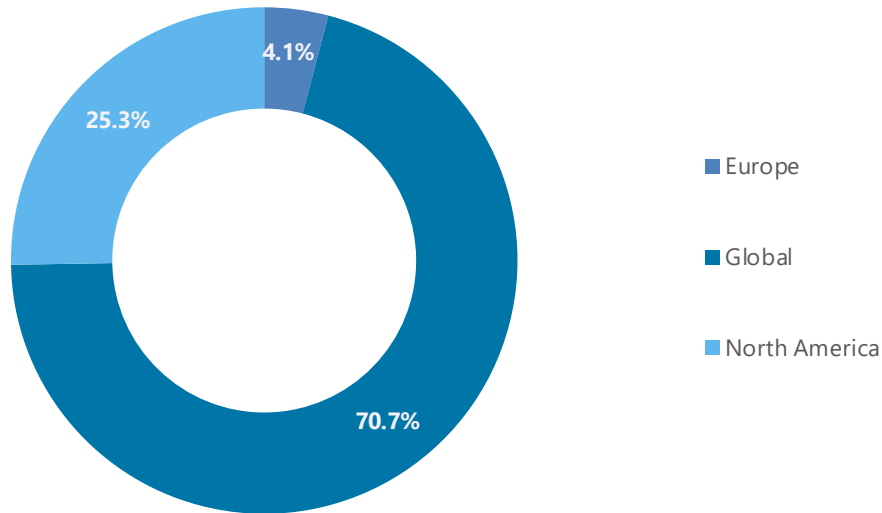
Private Real Assets ex. Real Estate

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Geography¹



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / Loss (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Europe	1	98.0	65.5	5.8	57.5	63.3	(2.3)	0.09x	0.97x	-3.8%	0.93
Global	11	1,991.9	991.4	48.0	996.9	1,044.9	53.5	0.05x	1.05x	8.4%	1.16
North America	6	723.1	485.6	117.9	356.5	474.4	(11.2)	0.24x	0.98x	-1.5%	0.94
Total Private Real Assets ex. Real Estate	18	2,812.9	1,542.5	171.7	1,410.8	1,582.5	40.0	0.11x	1.03x	2.6%	1.07

1. Based on best available cash flow adjusted market values.

Performance by Vintage Year

Private Real Assets ex. Real Estate

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Vintage Year¹

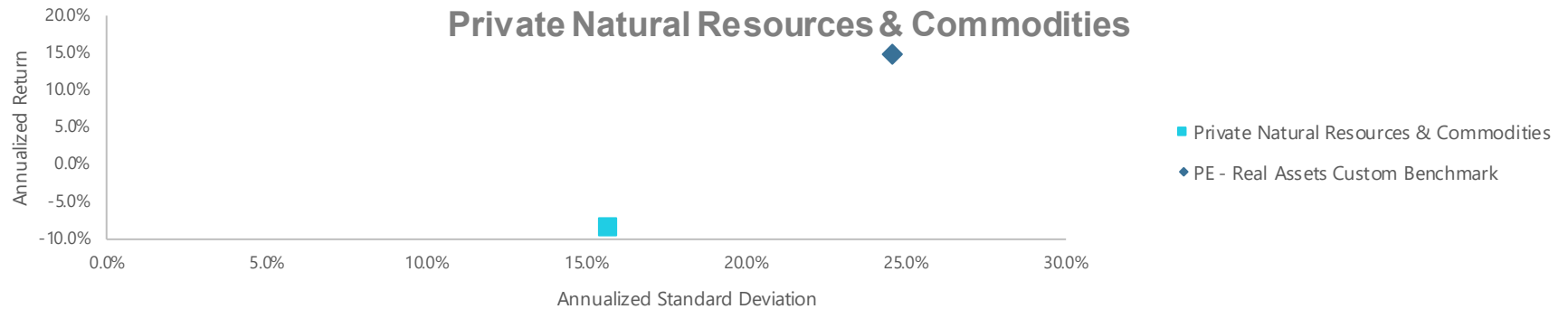
	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / Loss (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
2004	1	50.0	50.0	91.4	0.0	91.4	41.4	1.83x	1.83x	31.1%	1.40
2011	1	250.0	--	--	--	--	--	--	--	--	--
2014	2	450.0	434.7	58.5	353.2	411.7	(23.0)	0.13x	0.95x	-2.0%	0.86
2020	3	304.9	199.4	5.8	192.9	198.7	(0.7)	0.03x	1.00x	-0.3%	1.00
2021	6	811.0	394.0	7.5	385.3	392.7	(1.3)	0.02x	1.00x	-0.6%	1.12
2022	5	946.9	276.4	1.0	274.1	275.1	(1.3)	0.00x	1.00x	-0.6%	1.21
Total Private Real Assets ex. Real Estate	18	2,812.9	1,542.5	171.7	1,410.8	1,582.5	40.0	0.11x	1.03x	2.6%	1.07

1. Based on best available cash flow adjusted market values.

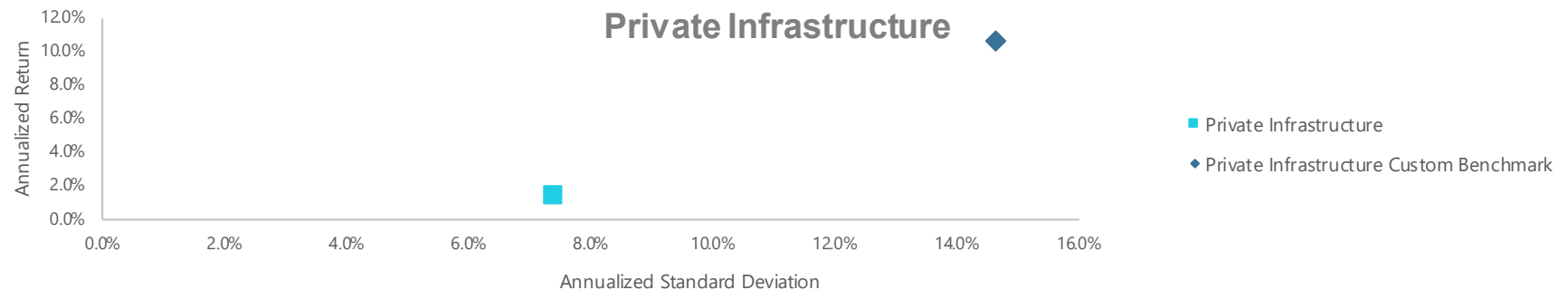
Risk vs. Return

Private Real Assets ex. Real Estate
for the quarter ended September 30, 2022

Since Inception (Annualized)¹



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Private Natural Resources & Commodities	-8.6%	15.7%				
PE - Real Assets Custom Benchmark	14.9%	24.6%	(0.54)	(0.93)	0.00	25.4%



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Private Infrastructure	1.4%	7.4%				
Private Infrastructure Custom Benchmark	10.5%	14.7%	0.18	(0.54)	0.00	17.0%

1. Composite risk statistics are relative to the custom benchmark.

Annual Cash Flow Activity

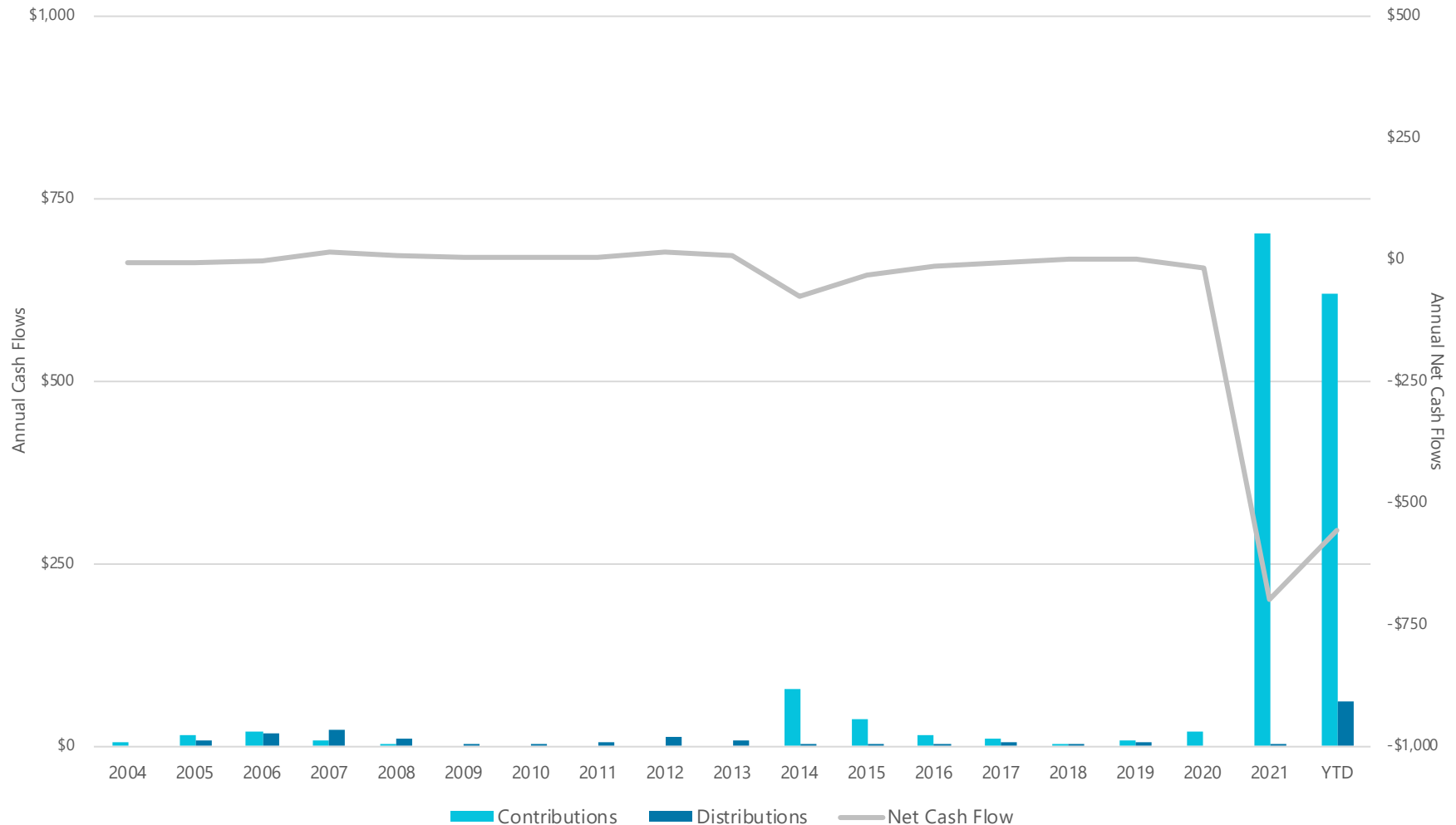
Private Real Assets ex. Real Estate

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Year (mm)



Summary

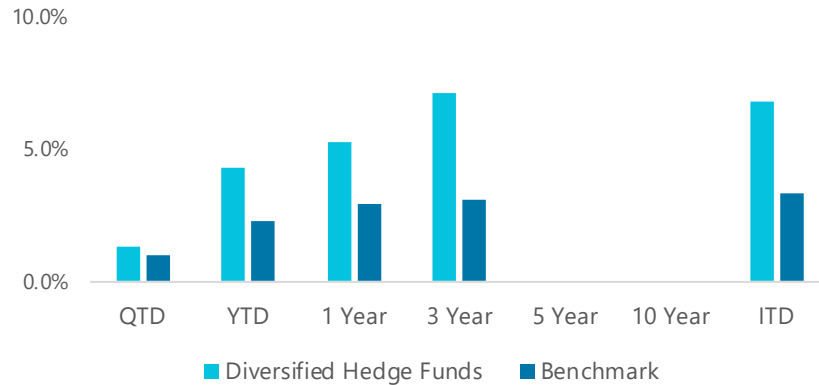
Diversified Hedge Funds

for the quarter ended September 30, 2022



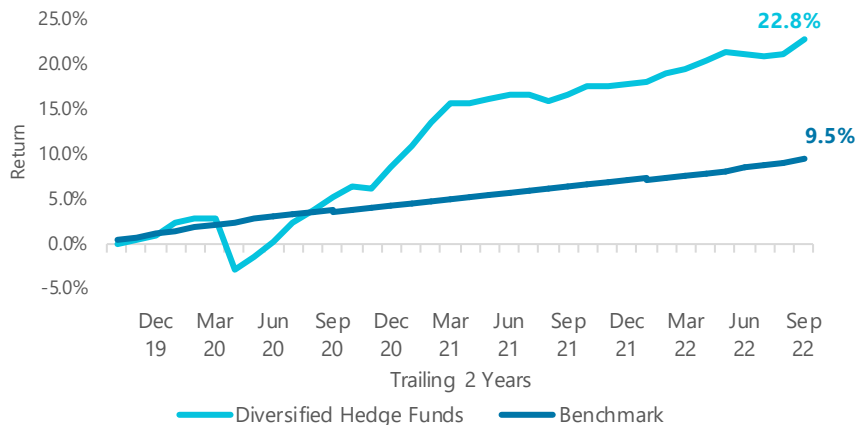
Los Angeles County Employees Retirement Association

Performance (net all)



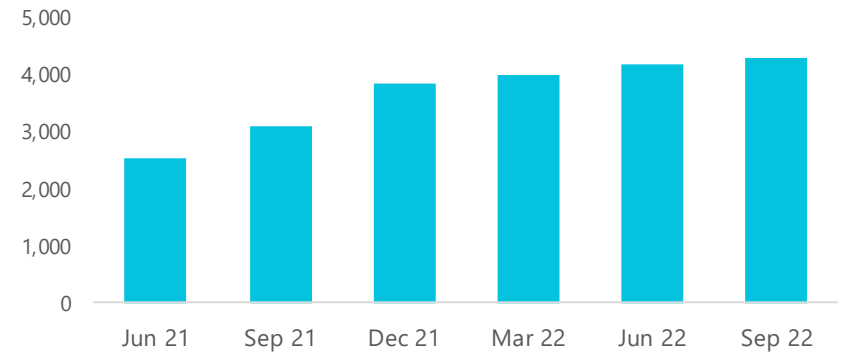
	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Diversified Hedge Funds	1.3%	4.3%	5.3%	7.1%	--	--	6.8%
Benchmark	0.9%	2.3%	3.0%	3.1%	--	--	3.3%
Excess	0.3%	2.0%	2.3%	4.0%	--	--	3.4%

Cumulative Return

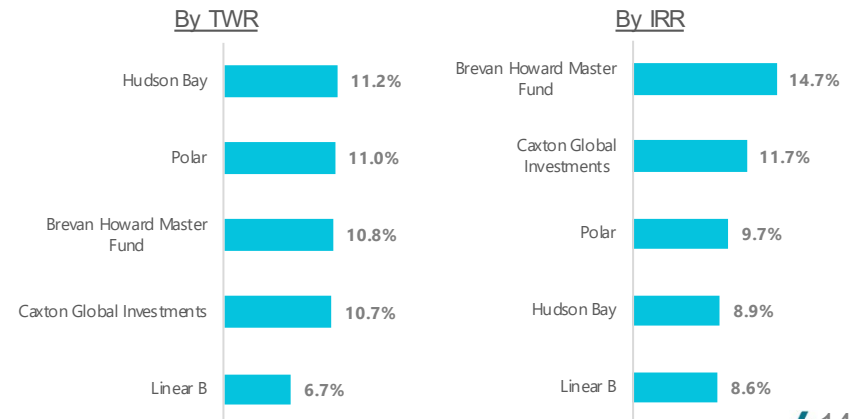


Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	4,196	3,098	1,694
Net Cash Flow	31	980	2,070
Gain/Loss	54	204	518
Ending Market Value	4,281	4,281	4,281



Top Performing Investments (since inception)



Risk vs. Return

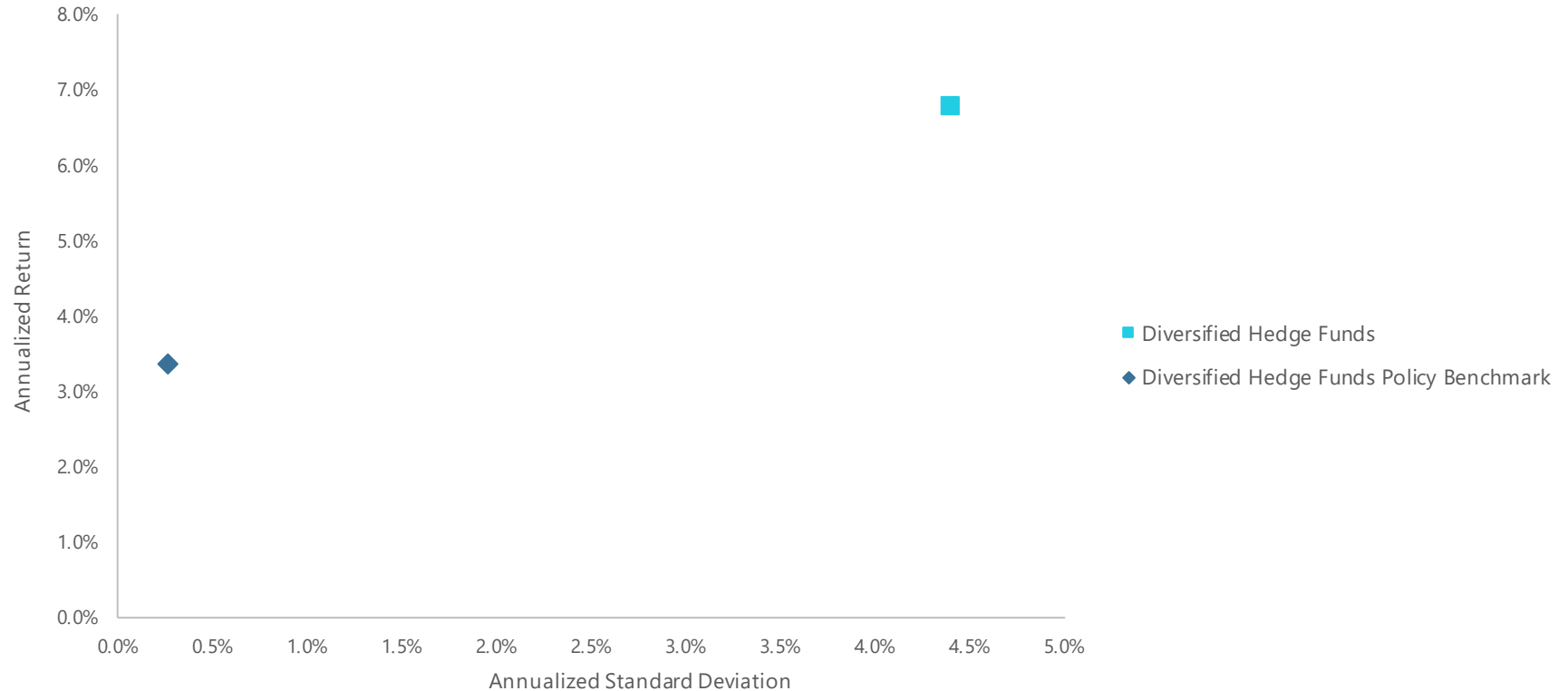
Diversified Hedge Funds

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Since Inception (Annualized)¹



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Diversified Hedge Funds	6.8%	4.4%				
Diversified Hedge Funds Policy Benchmark	3.3%	0.3%	1.32	0.77	(8.46)	4.5%

1. Composite risk statistics are relative to the policy benchmark.

Performance Detail

Diversified Hedge Funds

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Annualized Net All Returns

	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Diversified Hedge Funds	100.0%	4,281	4,196	1.3%	4.3%	5.3%	7.1%	--	--	6.8%	Apr-2019
Diversified Hedge Funds Policy Benchmark				0.9%	2.3%	3.0%	3.1%	--	--	3.3%	
LACERA HF Direct	91.8%	3,932	3,869	1.6%	4.9%	5.9%	7.1%	--	--	5.1%	Apr-2019
Custom Hedge Fund Benchmark				0.9%	2.3%	3.0%	3.1%	--	--	4.1%	Apr-2019
AM Asia Strategies	5.2%	221	220	0.7%	-1.9%	0.0%	--	--	--	-1.5%	Jun-2021
Brevan Howard Master Fund	15.1%	648	625	3.6%	18.0%	18.4%	--	--	--	10.8%	Apr-2021
Capula GRV	14.6%	626	608	3.1%	9.2%	9.3%	6.4%	--	--	6.3%	Dec-2018
Caxton Global Investments	6.8%	292	289	0.9%	13.9%	18.0%	--	--	--	10.7%	Feb-2021
DK Institutional Partners	11.4%	487	486	0.1%	-1.2%	-1.0%	5.4%	--	--	4.9%	May-2018
HBK Multi-strategy	13.0%	555	549	1.1%	-0.2%	2.3%	5.5%	--	--	4.8%	Jun-2018
Hudson Bay	15.0%	641	632	1.4%	1.6%	3.0%	--	--	--	11.2%	Jul-2020
Polar	10.8%	462	459	0.5%	-0.1%	-0.4%	--	--	--	11.0%	May-2020
HF Emerging Managers Program	7.4%	315	281	-2.3%	-2.2%	-2.1%	--	--	--	-1.8%	Aug-2021
Custom Hedge Fund Benchmark				0.9%	2.3%	3.0%	--	--	--	2.9%	
Stable Asset Management	7.4%	315	281	-2.3%	-2.2%	-2.1%	--	--	--	-1.8%	Aug-2021
Stable Fund Investments	7.4%	315	281	-2.2%	-2.1%	-2.0%	--	--	--	-1.8%	Aug-2021
Amundsen	1.4%	60	62	-1.9%	-10.1%	-7.0%	--	--	--	-6.5%	Sep-2021
Clear Sky	1.7%	72	72	-0.6%	--	--	--	--	--	2.3%	Apr-2022
Linear B	1.6%	70	68	1.8%	7.3%	8.1%	--	--	--	6.7%	Aug-2021
Quarry	0.9%	40	0	--	--	--	--	--	--	0.0%	Sep-2022
Sparta	1.1%	47	51	-7.0%	-4.8%	-5.3%	--	--	--	-5.0%	Sep-2021
Trutino	0.6%	26	28	-7.6%	-5.7%	-12.5%	--	--	--	-10.8%	Aug-2021

emerging manager program

Emerging Manager Program

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Annualized Net Returns

	Ending Market Value (mm)	QTD TWR	1 Year TWR	3 Year TWR	5 Year TWR	ITD TWR	ITD IRR	Inception Date
Growth								
Global Equity								
Corner Cap	72.7	-5.1%	-11.0%	7.9%	--	4.9%	5.0%	Sep-2018
Global Equity Policy Benchmark		-6.6%	-21.2%	3.6%	--	4.0%	4.0%	
Private Equity								
J.P. Morgan Emerging Managers Program	84.6	0.0%	-5.2%	30.3%	24.5%	26.6%	22.8%	Jan-2010
J.P. Morgan Emerging Managers Program II	94.2	-0.2%	-5.8%	25.0%	22.7%	31.2%	38.0%	Apr-2014
J.P. Morgan Emerging Managers Program III	116.0	1.0%	10.5%	40.5%	34.7%	33.0%	36.2%	Jan-2017
J.P. Morgan Emerging Managers Program IV	189.2	-0.4%	11.1%	20.2%	--	20.3%	19.6%	Nov-2018
Total Private Equity Custom Benchmark		-15.2%	-14.6%	8.0%	12.8%	13.6%	13.6%	
Non-Core Private Real Estate								
Cityview Bay Area Fund II	80.2	0.0%	5.2%	4.0%	5.4%	--	11.1%	Oct-2012
Cityview Western Fund I, L.P	213.2	0.2%	28.8%	17.3%	14.8%	-51.4%	16.0%	Jun-2016
CVBAF II Union City Co-Invest	23.8	0.2%	3.2%	6.4%	3.1%	5.7%	5.9%	Nov-2015
Non-Core Private RE Policy Benchmark		5.1%	31.1%	14.7%	12.7%	11.7%	11.7%	
Real Assets & Inflation Hedges								
Core Private Real Estate								
Cityview Core I.M.A	205.7	0.1%	5.8%	2.0%	5.6%	5.2%	5.4%	Jun-2014
Core Private RE Policy Benchmark		4.5%	28.3%	12.0%	10.0%	7.2%	7.2%	
Risk Reduction & Mitigation								
Hedge Funds								
Stable Asset Management	315.3	-2.3%	-2.1%	--	--	-1.8%	-2.0%	Aug-2021
Custom Hedge Fund Benchmark		0.9%	-2.1%	--	--	2.9%	2.9%	

risk reports

Summary

for the quarter ended September 30, 2022

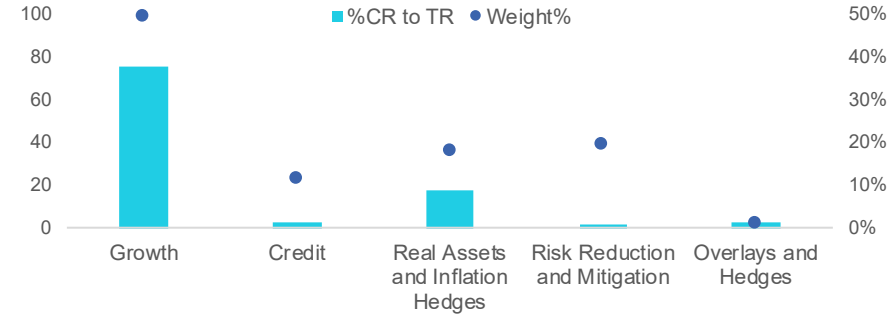


Los Angeles County Employees Retirement Association

Risk Summary

	Value
Total Risk	13.75
Benchmark Risk	13.30
Active Risk	1.06
Portfolio Beta	1.03
Effective Duration	1.71

Contribution to Risk

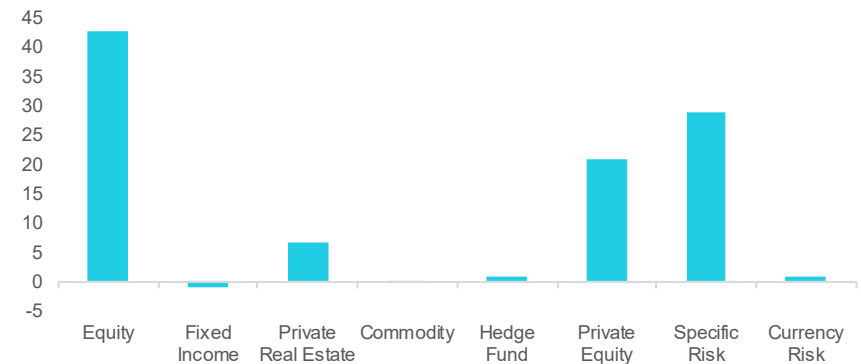


	Mkt Value (mm)	Weight%	Total Risk	Risk Contribution	%CR to TR
Total Fund	66,995	100.0%	13.75	13.75	100.00
Growth	33,198	49.6%	21.27	10.42	75.73
Credit	7,762	11.6%	4.65	0.41	3.01
Real Assets and Inflation Hedges	12,060	18.0%	14.90	2.40	17.45
Risk Reduction and Mitigation	13,197	19.7%	5.41	0.19	1.35
Overlays and Hedges	779	1.2%	37.79	0.34	2.45

Risk Decomposition

Risk Source	Portfolio			Active		
	Risk Contribution	%Risk	Correlation	Risk Contribution	%Risk	Correlation
Total Risk	13.75	100.00	1.00	1.06	100.00	1.00
Local Market Risk	13.17	95.79	1.00	1.05	99.12	0.99
Common Factor Risk	13.15	95.61	1.00	0.74	70.20	0.83
Equity	10.13	73.68	0.95	0.45	42.76	0.66
Fixed Income	0.57	4.16	0.40	-0.01	-1.11	-0.09
Private Real Estate	1.46	10.62	0.69	0.07	6.77	0.32
Commodity	0.07	0.52	0.35	0.00	-0.02	0.00
Hedge Fund	0.00	0.01	0.01	0.01	0.99	0.10
Private Equity	0.90	6.55	0.26	0.22	20.95	0.46
Specific Risk	0.02	0.18	0.04	0.31	28.92	0.54
Currency Risk	0.58	4.21	0.55	0.01	0.88	0.07

Active Risk from Risk Factors



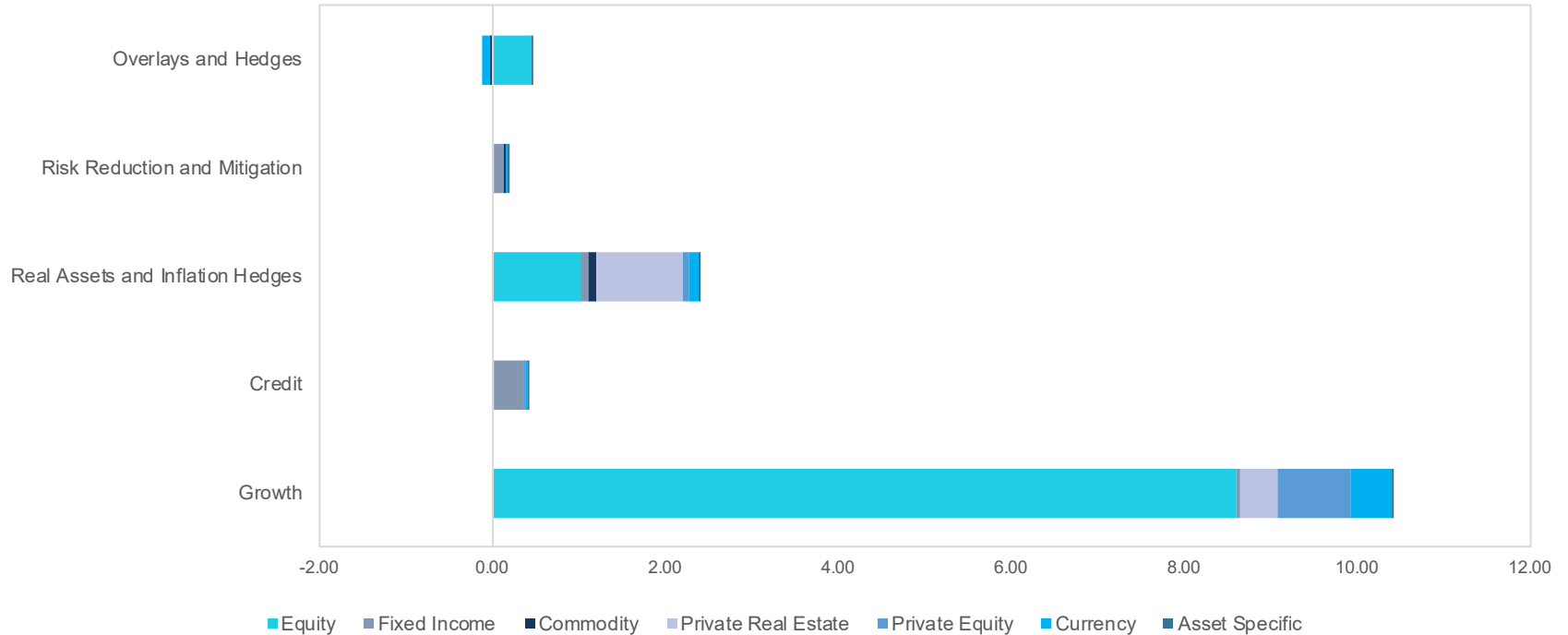
Risk Contribution Breakdown

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Risk Type



Functional Category	Mkt Value	Weight%	Total Risk	%CR to Total Risk	Port Risk Contribution	Equity	Fixed Income	Commodity	Private Real Estate	Private Equity	Currency	Asset Specific
Total Fund	66,995	100.0%	13.75	100.00	13.75	10.13	0.58	0.07	1.46	0.90	0.58	0.02
Growth	33,198	49.6%	21.27	75.73	10.42	8.60	0.04	0.00	0.44	0.85	0.47	0.02
Credit	7,762	11.6%	4.65	3.01	0.41	0.01	0.34	0.00	0.02	0.01	0.04	0.00
Real Assets and Inflation Hedges	12,060	18.0%	14.90	17.45	2.40	1.03	0.09	0.10	1.00	0.05	0.13	0.00
Risk Reduction and Mitigation	13,197	19.7%	5.41	1.35	0.19	0.03	0.11	0.00	0.00	0.00	0.04	0.00
Overlays and Hedges	779	1.2%	37.70	2.45	0.34	0.46	0.00	-0.03	0.00	0.00	-0.09	0.00

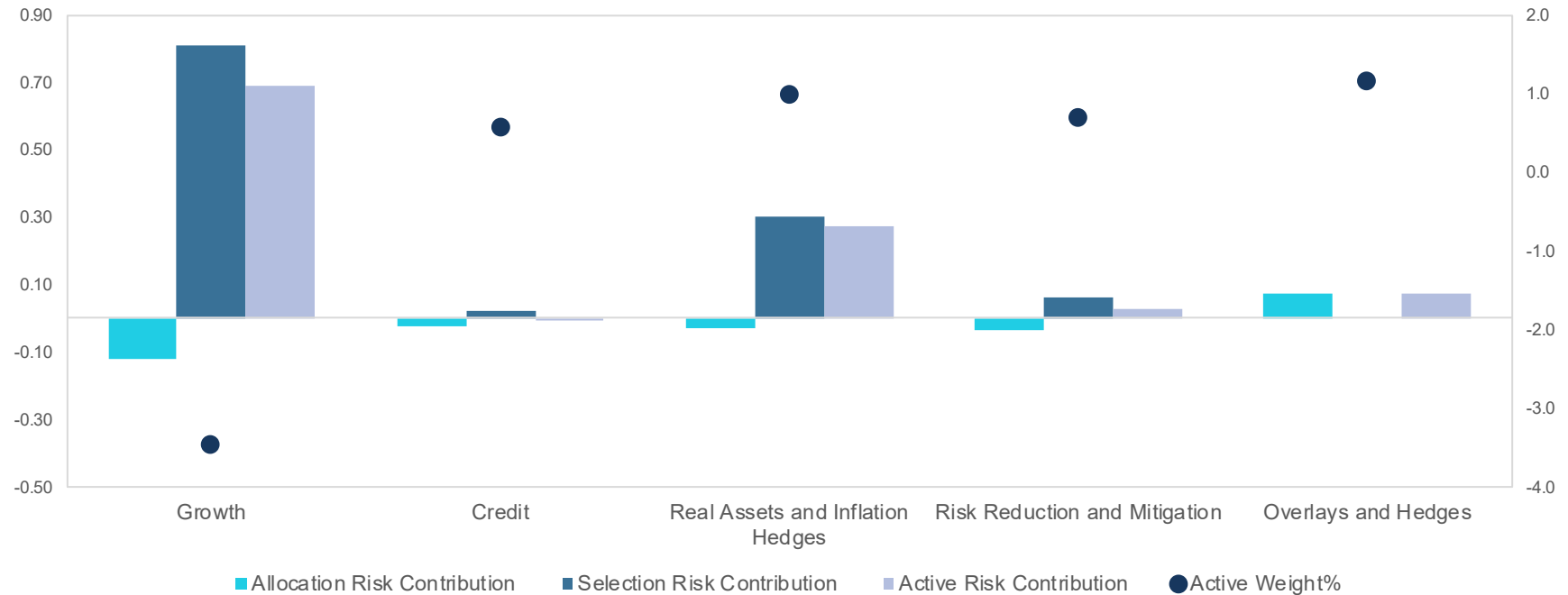
Allocation Selection

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Active Total Risk



Functional Category	Active Weight%	Allocation			Selection			Active Risk Contribution
		Volatility	Correlation	Risk Contribution	Volatility	Correlation	Risk Contribution	
Active Total Risk				-0.13			1.20	1.06
Growth	-3.45	7.25	0.48	-0.12	1.86	0.88	0.81	0.69
Credit	0.59	9.64	-0.44	-0.02	1.93	0.11	0.02	0.00
Real Assets and Inflation Hedges	1.00	6.49	-0.42	-0.03	2.46	0.68	0.30	0.27
Risk Reduction and Mitigation	0.70	13.88	-0.35	-0.03	1.18	0.27	0.06	0.03
Overlays and Hedges	1.17	28.75	0.22	0.07	0.00	0.00	0.00	0.07

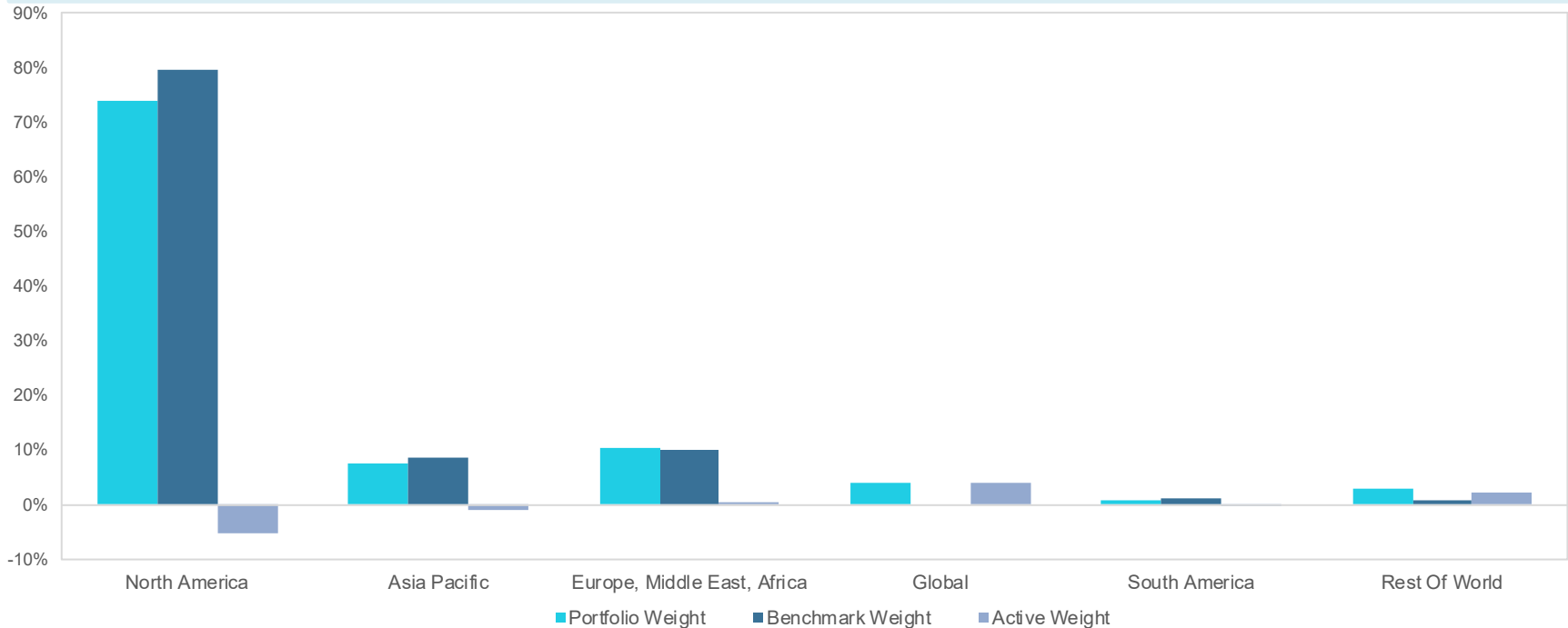
Portfolio Allocation

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

By Region



Region	Weight%			Total Risk	Active Risk CR	% of Active TR	MC to Total Tracking Error
	Portfolio	Benchmark	Active				
Total Fund	100.00%	100.00%	0.00%	13.75	1.06	100.00	0.01
North America	74.12%	79.51%	-5.39%	14.17	0.92	86.72	0.02
Asia Pacific	7.49%	8.50%	-1.01%	15.79	0.11	9.98	-0.01
Europe, Middle East, Africa	10.54%	10.20%	0.33%	21.08	0.20	18.71	0.02
Global	3.94%	0.00%	3.94%	6.85	-0.12	-11.79	-0.03
South America	0.81%	1.01%	-0.20%	27.25	0.05	4.33	-0.01
Rest Of World	3.10%	0.78%	2.33%	6.42	-0.08	-7.95	-0.04

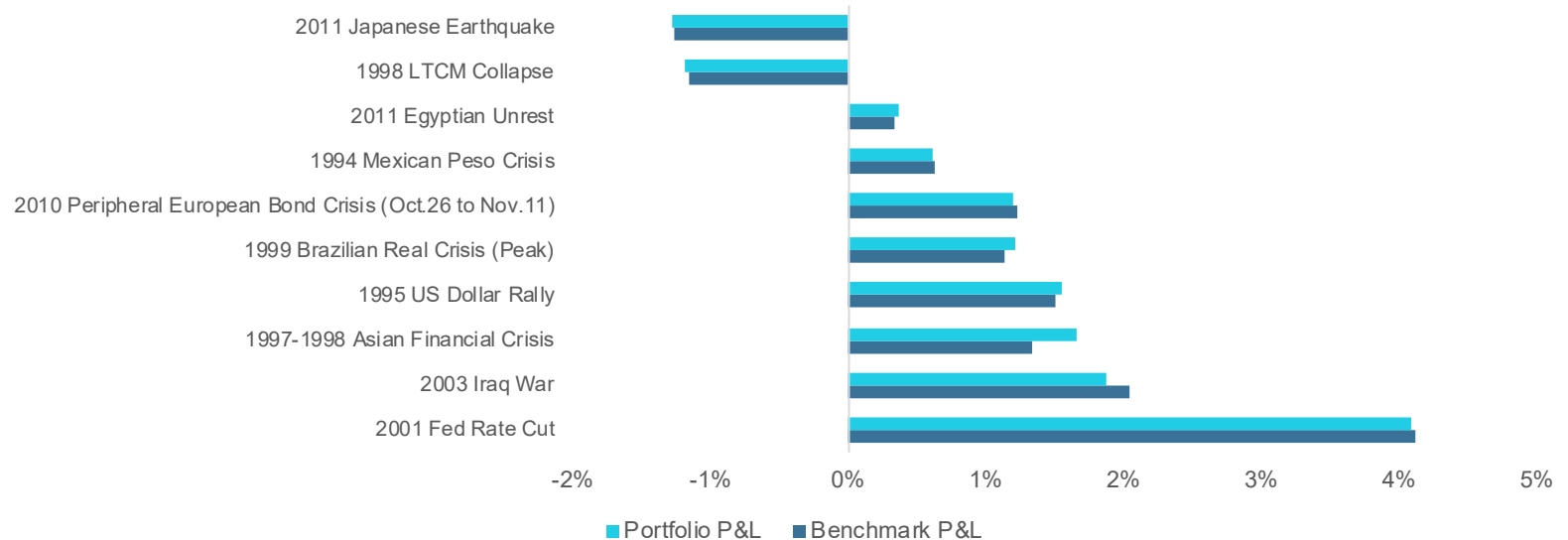
Stress Tests

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Top 10 Best Stress Scenarios



Scenario	Portfolio P&L	Benchmark P&L	Market Change (\$)
2001 Fed Rate Cut	4.09%	4.12%	3,054,699,403
2003 Iraq War	1.87%	2.04%	1,394,117,492
1997-1998 Asian Financial Crisis	1.66%	1.33%	1,239,081,388
1995 US Dollar Rally	1.55%	1.50%	1,157,093,547
1999 Brazilian Real Crisis (Peak)	1.21%	1.14%	906,904,701
2010 Peripheral European Bond Crisis (1.20%	1.22%	895,230,888
1994 Mexican Peso Crisis	0.60%	0.63%	451,546,508
2011 Egyptian Unrest	0.37%	0.33%	273,465,516
1998 LTCM Collapse	-1.19%	-1.16%	(888,384,639)
2011 Japanese Earthquake	-1.27%	-1.27%	(950,795,977)

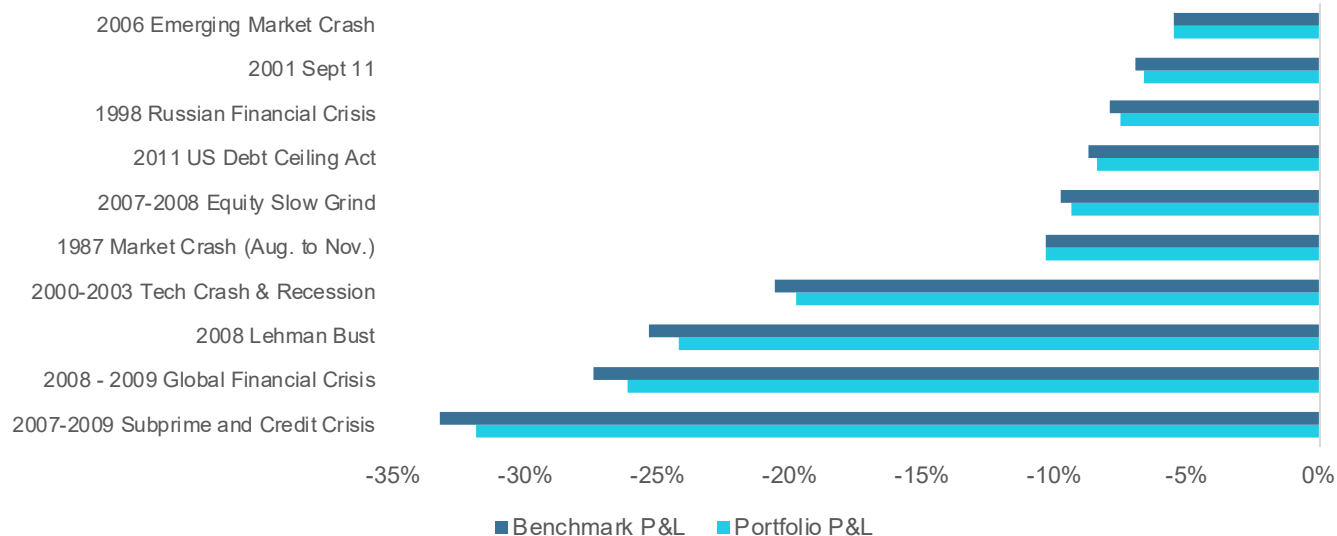
Stress Tests

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Top 10 Worst Stress Scenarios








Scenario	Portfolio P&L	Benchmark P&L	Market Change (\$)
2007-2009 Subprime and Credit Crisis	-31.87%	-33.25%	(23,821,346,931)
2008 - 2009 Global Financial Crisis	-26.19%	-27.43%	(19,573,890,669)
2008 Lehman Bust	-24.19%	-25.31%	(18,084,969,086)
2000-2003 Tech Crash & Recession	-19.80%	-20.59%	(14,801,674,578)
1987 Market Crash (Aug. to Nov.)	-10.34%	-10.33%	(7,730,205,537)
2007-2008 Equity Slow Grind	-9.35%	-9.79%	(6,991,539,316)
2011 US Debt Ceiling Act	-8.38%	-8.74%	(6,261,858,907)
1998 Russian Financial Crisis	-7.55%	-7.89%	(5,640,036,103)
2001 Sept 11	-6.62%	-6.92%	(4,950,361,913)
2006 Emerging Market Crash	-5.48%	-5.47%	(4,093,577,998)

manager scorecards

				Performance	Organization & Operations	ESG	Partnership	Fees & Terms
				1 to 5 (with 5 the best)	S+, S, or S- (with S+ the best)	1 to 5 (with 5 the best)	A, B, or C (with A the best)	1 to 5 (with 5 the best)
				SCORE	SCORE	SCORE	SCORE	SCORE
Manager	Market Value (in \$ millions)	% of Total Fund	Risk-Adjusted Return	ER				
GROWTH	GLOBAL EQUITY							
	Acadian Developed Markets	488.3	0.7%	5	S-	3	B	3
	BTC Euro Tilts	443.7	0.7%	5	S+	4	B	3
	Capital Group Developed Markets	310.0	0.5%	3	S	2	B	3
	Cevian Capital II - Activist	363.7	0.5%	4	S	4	B	1
	Cornercap US SC - EMP	72.7	0.1%	4	S-	1	A	3
	Frontier US SMID Growth	230.6	0.3%	2	S	2	B	1
	Global Alpha	143.8	0.2%	3	S+	3	A	3
	JPMAM Strategic Beta Non-U.S.	482.5	0.7%	3	S	2	B	3
	JPMAM Strategic Beta U.S.	3,716.9	5.5%	3	S	2	B	3
	Lazard Emerging Markets	321.5	0.5%	2	S	3	B	1
	SSGA MSCI ACWI IMI	12,667.3	18.7%	3	S	—	B	5
	Symphony Financial - Activist	206.9	0.3%	4	S	2	B	3
	Systematic US Small Cap Value	166.7	0.2%	3	S-	2	A	3
CREDIT	HIGH YIELD							
	Beach Point	269.0	0.4%	5	S	3	B	3
	Brigade Cap Mgmt	615.9	0.9%	5	S	2	B	3
	Pinebridge Investments	431.6	0.6%	3	S	4	B	3
	BANK LOANS							
	Bain Capital Credit	407.5	0.6%	4	S	2	B	1
	Credit Suisse Bank Loans	1,115.4	1.6%	3	S	3	B	5
	Crescent Capital	488.6	0.7%	3	S	2	B	3
	EMERGING MARKET DEBT							
	Aberdeen Asset Management	340.1	0.5%	1	S	3	B	3
	Ashmore Investment Management	311.3	0.5%	1	S	3	B	3
REAL ASSETS & INFLATION HEDGES	NATURAL RESOURCES & COMMODITIES							
	Credit Suisse Commodity	433.8	0.6%	4	S-	3	A	3
	DWS Natural Resources	663.4	1.0%	2	S	2	A	5
	Neuberger Berman/Gresham	486.4	0.7%	3	S	3	A	1
	Pimco Commodity Plus	121.1	0.2%	4	S-	3	C	1
	INFRASTRUCTURE							
	DWS Infrastructure	2,606.0	3.9%	2	S	2	A	5
	TIPS							
	Blackrock TIPS	1,822.5	2.7%	2	S+	—	B	5

				Performance	Organization & Operations	ESG	Partnership	Fees & Terms
				1 to 5 (with 5 the best)	S+, S, or S- (with S+ the best)	1 to 5 (with 5 the best)	A, B, or C (with A the best)	1 to 5 (with 5 the best)
				SCORE	SCORE	SCORE	SCORE	SCORE
Manager	Market Value (in \$ millions)	% of Total Fund	Risk-Adjusted Return	ER				
RISK REDUCTION & MITIGATION	INVESTMENT GRADE BONDS							
	Allspring/Wells	1,605.1	2.4%	3	S	3	B	5
	BTC US Debt Index Fund	2,856.1	4.2%	4	S+	—	B	5
	Pugh Capital Mgmt	819.4	1.2%	1	S	1	A	3
	LONG-TERM GOVERNMENT BONDS							
	BlackRock	2,874.4	4.3%	* 3	S+	—	B	5
OVERLAYS & HEDGES	CASH							
	SSGA Cash	779.5	1.2%	* 3	S+	—	A	5
	OVERLAYS							
	Parametric Cash Overlay	424.0	0.6%	—	S	—	A	5
	HEDGES							
	BTC Passive Currency Hedge	163.0	0.2%	—	S+	—	B	5

	Exceeds 3-Year Net Excess Return
	Meets 3-Year Net Excess Return
	Below 3-Year Net Excess Return

For Organization and Partnership	
	Downgrade from the prior quarter
	Upgrade from the prior quarter

Footnotes

- Pillar methodologies in refinement and may evolve over time

Category Descriptions

Performance

- Quarterly score based on Sharpe and Information Ratios, which provide insight into a manager's risk-adjusted performance and performance relative to its benchmark, respectively
- '*' denotes a manager with an inception date of less than 3 years, resulting in a neutral score of 3
- Circle icons reflect trailing 3-year net excess returns against the manager's benchmark above or below a specified range

Organization & Operations

- Includes factors such as organization, professional staff, diversity & inclusion, investment philosophy & process, risk management, legal & compliance framework
- 'S' stands for Satisfactory

ESG

- Evaluates the extent to which material ESG factors are identified, assessed, and incorporated into risk/return analysis and portfolio construction
- '—' denotes passive index funds and cash where ESG scores are not relevant and/or reflect strategies that do not incorporate active decisions, including ESG considerations, in portfolio construction
- '+' denotes mandates where ESG scores are currently under review

Partnership

- Blended score based on:
 - Value added services – e.g., providing education, distributing research, and performing analytics on portfolio
 - Client service – e.g., responsiveness, timeliness, competency, and approach
 - Size of LACERA's investment relative to the firm's assets under management

Fees & Terms

- Compared to a benchmark of median fees by asset category and/or investment structure



Los Angeles County Employees Retirement Association
PRIVATE MARKETS MANAGER SCORECARD
 3rd Quarter 2022

			Performance	Organization & Operations	ESG	Partnership	Fees & Terms
			1 to 5 (with 5 the best)	S+, S, or S- (with S+ the best)	1 to 5 (with 5 the best)	A, B, or C (with A the best)	1 to 5 (with 5 the best)
			SCORE	SCORE	SCORE	SCORE	SCORE
Manager	Market Value (in \$ millions)	% of Total Fund					
GLOBAL/LARGE BUYOUT							
Advent International Group	121.6	0.2%	5	S+	3	C	4
Blackstone Management	231.5	0.3%	1	S-	4	B	5
CVC Capital Partners	521.7	0.8%	4	S	4	A	4
Green Equity Investors	380.6	0.6%	5	S+	3	A	4
Hellman & Friedman	458.6	0.7%	2	S+	3	B	4
MBK	219.2	0.3%	1	S	4	A	2
Silver Lake Partners	507.2	0.8%	3	S+	3	A	5
Thoma Bravo LLC	151.3	0.2%	*	S+	3	B	3
Vista Equity Partners	824.8	1.2%	3	S-	3	A	2
MID-MARKET BUYOUT							
Accel-KKR Capital Partners	200.2	0.3%	3	S+	4	A	3
BlackFin Capital Partners	33.3	0.0%	2	S	3	B	3
Carlyle Group	234.4	0.3%	2	S+	4	B	4
Clearlake Capital	530.8	0.8%	5	S+	4	A	4
GHO Capital	96.1	0.1%	*	S	3	A	3
Gilde Partners	111.3	0.2%	5	S	2	A	5
Harvest Partners	113.5	0.2%	5	S	1	C	3
Marlin Equity	28.8	0.0%	1	S-	2	C	3
Novacap	10.7	0.0%	*	S	3	B	3
Onex Partners	328.9	0.5%	2	S	4	A	5
PAI	125.4	0.2%	5	S-	2	B	4
Revelstoke	140.1	0.2%	2	S	4	A	2
Riverside Capital	110.1	0.2%	1	S	3	C	3
Siris Capital Group	161.6	0.2%	3	S	3	A	4
Sterling Partners	120.7	0.2%	5	S	3	A	4
STG Partners	35.2	0.1%	*	S	3	A	3
Triton	123.1	0.2%	4	S-	3	C	5
TSG	0.0	0.0%	*	S+	3	C	2
Veritas Capital	19.7	0.0%	*	S+	3	B	3
Vinci Partners	66.8	0.1%	4	S	4	B	5
Webster Equity Partners	38.3	0.1%	*	S	3	B	3
Wynnchurch Capital	41.5	0.1%	*	S+	3	C	3
SMALL BUYOUT							
AE Industrial Partners	131.5	0.2%	5	S+	3	A	3
Atlantic Street Capital	37.3	0.1%	2	S	3	A	3
Clarion	21.5	0.0%	5	S+	2	B	4
Excellere Partners	118.5	0.2%	3	S-	3	A	3
Incline Equity Partners	36.3	0.1%	4	S-	2	C	4
Insignia Capital Partners	206.5	0.3%	4	S	1	B	5
Juggernaut Capital Partners	268.9	0.4%	4	S	3	A	4
Lightyear Capital	268.0	0.4%	5	S-	2	A	5
Livingbridge	57.9	0.1%	1	S+	4	A	3
Montefiore Investment	14.8	0.0%	*	S+	4	B	4
One Rock Capital Partners	185.3	0.3%	2	S	3	A	4
Palladium Equity Partners	82.8	0.1%	1	S-	4	C	2

PRIVATE EQUITY



Los Angeles County Employees Retirement Association
PRIVATE MARKETS MANAGER SCORECARD
 3rd Quarter 2022

			Performance	Organization & Operations	ESG	Partnership	Fees & Terms
			1 to 5 (with 5 the best)	S+, S, or S- (with S+ the best)	1 to 5 (with 5 the best)	A, B, or C (with A the best)	1 to 5 (with 5 the best)
			SCORE	SCORE	SCORE	SCORE	SCORE
Manager	Market Value (in \$ millions)	% of Total Fund					
PRIVATE EQUITY (continued)	GROWTH EQUITY						
	Australis Partners	84.7 0.1%	1	S-	4	B	5
	Great Hill Partners	-4.7 0.0%	*	S	4	A	4
	JMI Equity	4.0 0.0%	3	S	3	C	2
	RedBird Capital Partners	182.7 0.3%	2	S	4	A	3
	Summit Partners	77.3 0.1%	4	S+	4	A	4
	TA Associates	119.5 0.2%	5	S+	4	B	4
	Technology Crossover Ventures	4.1 0.0%	5	S	2	B	3
	VENTURE CAPITAL						
	BlueRun Ventures	109.0 0.2%	2	S	2	A	2
	Canaan Partners	168.3 0.2%	5	S+	3	A	4
	GGV Capital	536.3 0.8%	3	S	3	A	3
	Institutional Venture Partners	193.6 0.3%	4	S	1	C	4
	Joy Capital	84.3 0.1%	1	S-	2	B	4
	Lilly Asia Ventures	144.3 0.2%	2	S	4	B	2
	Primary Ventures	0.0 0.0%	*	S	2	C	4
	Sinovation Ventures	92.1 0.1%	1	S-	2	C	2
	Storm Ventures LLC	269.2 0.4%	4	S	3	A	4
	Union Square	151.2 0.2%	5	S-	1	B	5
	SPECIAL SITUATIONS						
	Alchemy Partners	30.2 0.0%	5	S	3	B	4
	Black Diamond	147.4 0.2%	1	S	3	B	4
	Centerbridge	169.9 0.3%	3	S	4	A	2
	FUND OF FUNDS						
	Gateway	909.1 1.3%	5	S	3	B	4
	MS GTB Capital Partners	286.4 0.4%	1	S	4	A	2
	J.P. Morgan	480.8 0.7%	3	S+	+	B	4



Los Angeles County Employees Retirement Association

PRIVATE MARKETS MANAGER SCORECARD

3rd Quarter 2022

			Performance	Organization & Operations	ESG	Partnership	Fees & Terms
			1 to 5 (with 5 the best)	S+, S, or S- (with S+ the best)	1 to 5 (with 5 the best)	A, B, or C (with A the best)	1 to 5 (with 5 the best)
			SCORE	SCORE	SCORE	SCORE	SCORE
Manager	Market Value (in \$ millions)	% of Total Fund					
REAL ESTATE	COMMINGLED FUNDS						
	AERMONT Real Estate Fund IV	29.0 0.0%	2	S	4	B	3
	AEW Value Investors Asia III	31.0 0.0%	2	S	4	B	4
	AG Asia Realty Fund IV	82.0 0.1%	*	S-	3	B	3
	AG Europe Realty Fund II	49.0 0.1%	2	S-	3	B	3
	Bain Capital Real Estate Fund I	78.0 0.1%	5	S	3	B	3
	Bain Capital Real Estate Fund II	37.0 0.1%	*	S	3	B	3
	CapMan Nordic Real Estate Fund II	44.0 0.1%	2	S	4	A	3
	CapMan Nordic Real Estate Fund III	24.0 0.0%	*	S	4	A	3
	Capri Urban Investors	1.0 0.0%	4	S-	1	C	3
	CityView Bay Area Fund II	80.0 0.1%	1	S	3	B	3
	CityView Southern California Fund II	1.0 0.0%	3	S	3	B	3
	CityView Western Fund I, L.P.	185.0 0.3%	5	S	3	B	3
	Core Property Index Fund	131.0 0.2%	4	S	2	A	5
	Europa Fund IV	10.0 0.0%	1	S	3	A	2
	Heitman Asia-Pacific Property Investors	38.0 0.1%	2	S	4	B	4
	Invesco Real Estate Asia Fund	154.0 0.2%	3	S	4	B	5
	Prologis European Logistics Fund (PELF)	219.0 0.3%	4	S	4	A	1
	RREEF Core Plus Industrial Fund (CPIF)	306.0 0.5%	5	S-	3	B	5
	Starwood Capital Hospitality Fund	19.0 0.0%	1	S	3	C	3
	TPG Real Estate Partners III	45.0 0.1%	*	S	3	C	3
	SEPARATE ACCOUNTS						
	Cityview Core I.M.A.	205.0 0.3%	1	S	3	B	1
	Clarion I.M.A.	536.0 0.8%	5	S	4	B	4
	Clarion Takeover Core IMA	364.0 0.5%	*	S	4	B	4
	Clarion Takeover Value IMA	60.0 0.1%	*	S	4	B	3
	Clarion Takeover Value IMA Vintage 2012	12.0 0.0%	*	S	4	B	4
	Heitman I.M.A.	428.0 0.6%	4	S	3	B	4
	RREEF Core/High Return I.M.A. III	863.0 1.3%	1	S-	3	C	5
	RREEF Takeover I.M.A.	724.0 1.1%	4	S-	3	C	4
	Stockbridge I.M.A.	644.0 1.0%	4	S	3	B	4
	Stockbridge High I.M.A. Vintage 2014	113.0 0.2%	*	S	3	B	5
	Stockbridge Value I.M.A. Vintage 2014	22.0 0.0%	*	S	3	B	3



Los Angeles County Employees Retirement Association
PRIVATE MARKETS MANAGER SCORECARD
 3rd Quarter 2022

**HEDGE FUNDS &
ILLIQUID CREDIT**

			Performance	Organization & Operations	ESG	Partnership	Fees & Terms
			1 to 5 (with 5 the best)	S+, S, or S- (with S+ the best)	1 to 5 (with 5 the best)	A, B, or C (with A the best)	1 to 5 (with 5 the best)
			SCORE	SCORE	SCORE	SCORE	SCORE
Manager	Market Value (in \$ millions)	% of Total Fund					
HEDGE FUNDS							
AM Asia	221.5	0.3%	4	S-	2	A	5
Brevan Howard	647.6	1.0%	5	S+	2	A	2
Capula GRV	626.2	0.9%	5	S	1	A	3
Caxton	292.1	0.4%	5	S	3	B	3
DK Institutional Partners	486.7	0.7%	3	S	1	B	3
HBK Multistrategy	555.1	0.8%	4	S	1	B	3
Hudson Bay	641.1	0.9%	5	S	1	B	3
Polar	461.7	0.7%	4	S	2	B	4
Stable	315.3	0.5%	*	S	2	A	5
ILLIQUID CREDIT							
Barings	58.0	0.1%	5	S	3	A	5
Beach Point	446.3	0.7%	4	S	1	A	3
BlackRock/Tennenbaum	6,601.5	9.8%	3	S-	2	B	5
Glendon	124.2	0.2%	1	S	1	A	2
Magnetar	826.2	1.2%	*	S	2	A	3
Napier Park	806.5	1.2%	*	S	2	A	4
Oaktree	96.3	0.1%	5	S	2	B	2
PIMCO Tac Opps	396.4	0.6%	1	S-	1	C	3
Quadrant	55.8	0.1%	2	S	1	B	5
Silver Rock	268.1	0.4%	*	S	2	A	4

For Organization and Partnership	
	Downgrade from the prior quarter
	Upgrade from the prior quarter

Footnotes

- Pillar methodologies in refinement and may evolve over time

Category Descriptions

Performance

- Quarterly score based on risk-adjusted performance metrics over time
- '*' denotes a manager with an inception date of less than 3 years

Organization & Operations

- Includes factors such as organization, professional staff, investment philosophy & process, risk management, legal & compliance framework, diversity & inclusion
- 'S' stands for Satisfactory

ESG

- Evaluates the extent to which material ESG factors are identified, assessed, and incorporated into risk/return analysis and portfolio construction
- '+' denotes mandates where ESG scores are currently under review

Partnership

- Assesses the quality of investment manager relationships both quantitatively and qualitatively

Fees & Terms

- Compares various fees and terms within each asset category, strategy and/or investment structure

appendix

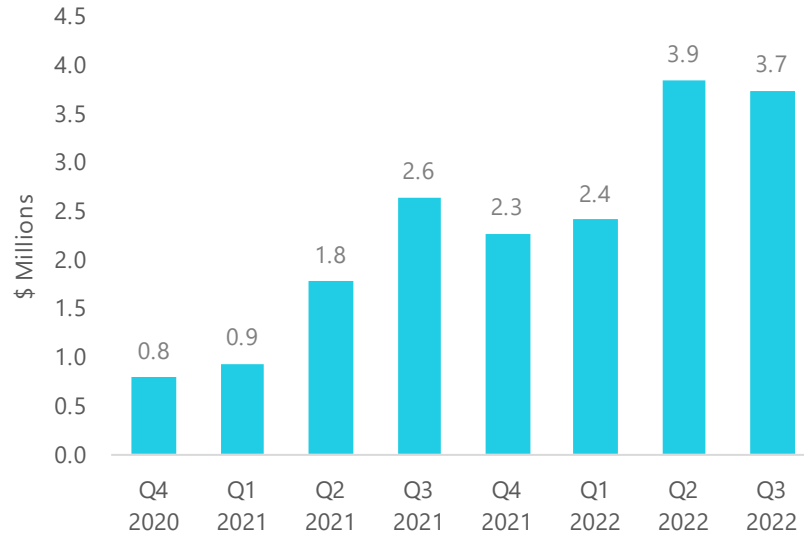
Summary

Securities Lending Income
for the quarter ended September 30, 2022

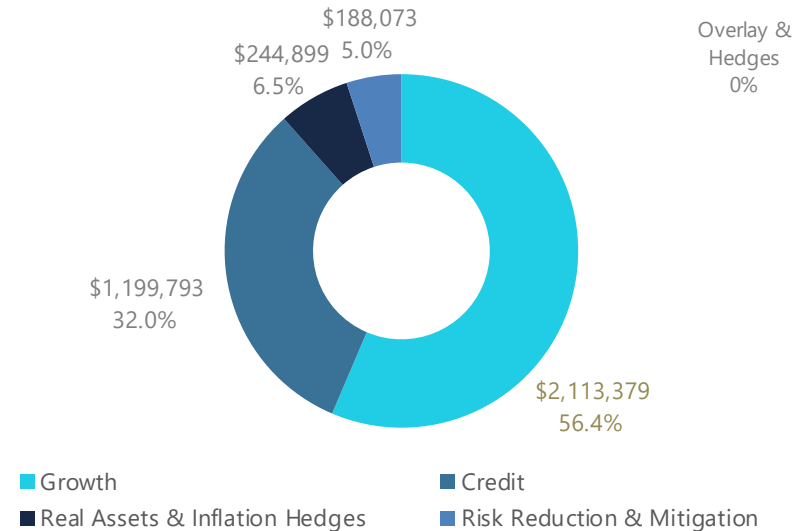


Los Angeles County Employees Retirement Association

Earnings by Quarter



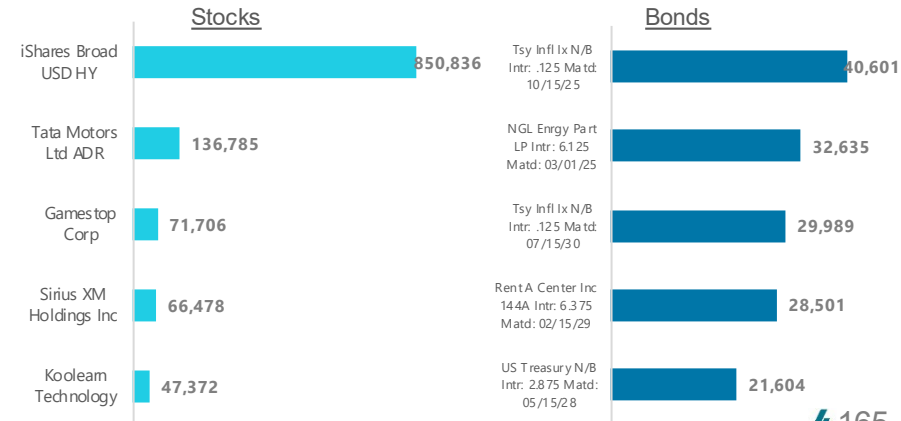
Earnings by Functional Category



Top Earning Funds

	% of Total Fund Earnings	Total Earnings	Cash Earnings	Non-Cash Earnings
SSGA MSCI ACWI IMI	44.2%	1,655,562	886,841	768,721
BlackRock HY ETF	22.7%	850,836	322,414	528,423
JPMAM Strategic Beta US	6.7%	250,771	145,622	105,149
BlackRock TIPS	3.9%	147,176	76,586	70,590
Allspring/Wells	3.6%	134,215	67,322	66,893

Top Earning Securities



Public Markets Manager Fees

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Growth

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Active			
Acadian Asset Management	\$531.7	\$502,729	37.8
BTC Europe Alpha Tilts	\$481.5	\$424,764	35.3
Capital Guardian	\$338.2	\$293,324	34.7
Cevian Capital	\$380.9	\$1,024,055	107.5
CornerCap	\$79.1	\$104,519	52.8
Frontier Capital Management	\$252.6	\$473,705	75.0
Global Alpha	\$161.1	\$289,214	71.8
Lazard Asset Management	\$352.8	\$566,750	64.3
Parametric GE Market Cap	\$888.2	\$55,787	2.5
Parametric GE Region	\$692.1	\$43,472	2.5
Symphony Financial	\$186.4	\$349,440	75.0
Systematic	\$178.9	\$245,962	55.0
Subtotal:	\$4,523.6	\$4,373,720	38.7
Factor-Based			
JPMAM Strategic Beta Non-US	\$523.0	\$44,974	3.4
JPMAM Strategic Beta US	\$4,025.7	\$346,177	3.4
Subtotal:	\$4,548.7	\$391,151	3.4
Passive			
SSGA MSCI ACWI IMI	\$13,577.3	\$272,358	0.8
Subtotal:	\$13,577.3	\$272,358	0.8

1. Reflects estimated investment management fees.

Public Markets Manager Fees

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Credit

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Liquid Credit			
Aberdeen Standard Investments	\$357.7	\$346,110	38.7
Ashmore Investment Management	\$311.3	\$390,845	50.2
Bain Capital	\$407.5	\$512,790	50.3
Beach Point Capital	\$278.8	\$313,638	45.0
Brigade Capital Management	\$637.4	\$651,449	40.9
Credit Suisse Bank Loan	\$1,130.1	\$558,555	19.8
Crescent Capital Group	\$493.4	\$574,607	46.6
Pinebridge	\$447.0	\$368,747	33.0
Subtotal:	\$4,063.0	\$3,716,742	36.6
Illiquid Credit			
Beach Point Capital - Fund II	\$14.8	\$127,693	345.8
Beach Point Capital - Fund III	\$185.4	\$261,289	56.4
Tennenbaum Capital Partners	\$634.9	\$1,181,684	74.5
Subtotal:²	\$2,665.6	\$1,570,665	23.6

1. Reflects estimated investment management fees.

2. Magnetar and Napier Park market values are included in the subtotal, but the fees are deducted directly from the fund by the manager.

Public Markets Manager Fees

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Real Assets & Inflation Hedges

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Natural Resources & Commodities			
Credit Suisse	\$529.1	\$339,979	25.7
DWS Natural Resources	\$2,268.0	\$350,714	6.2
Neuberger Berman/Gresham	\$539.2	\$508,707	37.7
PIMCO	\$189.0	\$216,663	45.8
Subtotal:	\$3,525.5	\$1,416,063	16.1
Infrastructure			
DWS Infrastructure	\$2,841.1	\$1,318,005	18.6
Subtotal:	\$2,841.1	\$1,318,005	18.6
Treasury Inflation-Protected Securities			
BlackRock TIPS	\$1,929.6	\$48,636	1.0
Subtotal:	\$1,929.6	\$48,636	1.0

1. Reflects estimated investment management fees.

Public Markets Manager Fees

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Risk Reduction & Mitigation

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Investment Grade Bonds			
Allspring/Wells	\$1,669.3	\$386,160	9.3
Pugh Capital Management	\$853.3	\$284,405	13.3
Subtotal:²	\$5,493.5	\$734,216	5.3
Cash			
SSGA Cash	\$699.1	\$69,905	4.0
Subtotal:	\$699.1	\$69,905	4.0

1. Reflects estimated investment management fees.

2. Includes BTC US Debt Index.

Public Markets Manager Fees

for the quarter ended September 30, 2022



Los Angeles County Employees Retirement Association

Overlays & Hedges

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Overlays			
Parametric Cash Overlay	\$3,201.3	\$201,071	2.5
Subtotal:	\$3,201.3	\$201,071	2.5
Hedges			
BlackRock Developed Markets Currency Hedge	\$6,210.5	\$234,809	1.5
Subtotal:	\$6,210.5	\$234,809	1.5

1. Reflects estimated investment management fees.

Benchmark Definitions

Current Composition

	Weight	Component
Total Fund		
Total Fund Policy Benchmark		
	53%	Growth Policy Benchmark
	11%	Credit Policy Benchmark
	17%	RA & IH Policy Benchmark
	19%	RR & M Policy Benchmark
Growth		
Growth Policy Benchmark		
	60%	Global Equity Policy Benchmark
	32%	Private Equity – Growth Policy BM
	8%	Non-Core Private RE Policy Benchmark
Global Equity Policy Benchmark		
	100%	MSCI ACWI IMI Net
Private Equity – Growth Policy BM		
	100%	MSCI ACWI IMI Net + 200 bps (3-month lagged)
Non-Core Private RE Policy Benchmark		
	100%	NFI ODCE + 225 bps (3-month lagged)
<hr/>		
EAFE Custom Index	100%	MSCI EAFE + Canada Net Index

Benchmark Definitions

Current Composition

	Weight	Component
Credit		
Credit Policy Benchmark		
	36%	Liquid Credit Policy Benchmark
	64%	Illiquid Credit Policy Benchmark
Liquid Credit Policy Benchmark		
	40%	Bloomberg U.S. Corporate High Yield
	40%	CS Leveraged Loan Index
	10%	JPMorgan EMBI Global Diversified Index
	5%	JPM GBI-EM Global Diversified Index
	5%	JPM CEMBI Broad Diversified
Illiquid Credit Policy Benchmark		
	100%	Liquid Credit Policy BM + 150 bps (1-month lagged)
Bank Loans Custom Benchmark	100%	CS Leveraged Loan Index
Beachpoint Custom Benchmark	100%	Bloomberg U.S. Corporate High Yield
Brigade Custom Index	100%	Bloomberg U.S. Corporate High Yield
EMD Custom Benchmark	50%	JPMorgan EMBI Global Diversified Index
	25%	JPM CEMBI Broad Diversified
	25%	JPM GBI-EM Global Diversified Index

Benchmark Definitions

Current Composition

	Weight	Component
Real Assets & Inflation Hedges		
RA & IH Policy Benchmark		
	35%	Core Private RE Policy Benchmark
	18%	Nat Res & Comm Policy Benchmark
	29%	DJ Brookfield Global Infra Comp
	18%	Bloomberg U.S. Treasury: U.S. TIPS
Core Private RE Policy Benchmark		
	100%	NFI ODCE (3-month lagged)
Nat Res & Comm Policy Benchmark		
	33%	Bloomberg Commodity Index Total Return
	66%	S&P Global Natural Resources Index
<hr/>		
Private Equity – Real Assets Custom BM	100%	S&P Glb LargeMidCap Commod & Resources (3-month lagged)
Private Infrastructure Custom BM	100%	DJ Brookfield Global Infra Comp (3-month lagged)
Risk Reduction & Mitigation		
RR & M Policy Benchmark		
	37%	Bloomberg U.S. Aggregate
	32%	Diversified Hedge Funds Policy Benchmark
	26%	Bloomberg U.S. Treasury: Long
	5%	FTSE 3-Month US Treasury Bill
Diversified Hedge Funds Policy Benchmark		
	100%	FTSE 3-Month US Treasury Bill + 250 bps (1-month lagged)
Cash Policy Benchmark		
	100%	FTSE 3-Month US Treasury Bill
<hr/>		
Custom Hedge Fund BM	100%	Diversified Hedge Funds Policy Benchmark

A

ANNUAL RETURN

The total return of a security over a specified period, expressed as an annual rate of interest.

ACTIVE RISK

The expected standard deviation of the differential return between the portfolio and the benchmark. Active total risk arises from active management, and it is the result of active weights (deviations from the benchmark at the asset level) and therefore active exposures; for passively managed portfolios, it is referred to as “total tracking error.”

ACTIVE RISK CONTRIBUTION

Percent contribution to active total risk (or tracking error). The percent of active total risk that an individual asset or risk source contributes. For example, a % CR to Active Total Risk of 10% indicates that 10% of the portfolio’s active total risk is arising from the active position in that particular asset.

B

BASIS POINTS (BPS)

One one-hundredth of one percent. One hundred basis points equal one percent.

BETA

A measure of the volatility of a stock relative to the overall market. A beta of less than one indicates lower risk than the market; a beta of more than one indicates higher risk than the market.

D

DURATION

A measure of the price sensitivity of a bond portfolio to changes in interest rates.

DISTRIBUTED TO PAID-IN (DPI)

A measure of distributions received relative to contributed capital.

F

FUTURES CONTRACT

Agreement to buy or sell a specific amount of a commodity or financial instrument at a particular price and a stipulated future date.

H

HIGH YIELD BOND

A bond with a low investment quality and credit worthiness, usually with a rating of BB or less.

I

INFORMATION RATIO

The excess return (alpha) per unit of active risk (tracking error).

INTERNAL RATE OF RETURN (IRR)

A total rate of return that gives full weight to the size and timing of cash flows over the period measured and fully reflects unrealized gains and losses in addition to realized gains and losses, interest and dividend income.

K

KAPLAN & SCHOAR PUBLIC MARKET EQUIVALENT (KS-PME)

A ratio that benchmarks the performance of a fund against an appropriate public market index while accounting for the timing of a fund's cash flows.

M

MC TO TOTAL TRACKING ERROR

This value represents the change in the active risk of an asset's portfolio or group that would result from a one percent increase in the asset's effective position plus an equal short position in the benchmark.

S

SHARPE RATIO

Measures the performance of an investment compared to a risk-free asset, after adjusting for its risk. It is the difference between the returns of the investment and the risk-free return, divided by the standard deviation of the investment.

STANDARD DEVIATION

Statistical measure of the degree to which an individual value in a probability distribution tends to vary from the mean of the distribution. The greater the degree of dispersion, the greater the risk.

T

TIME-WEIGHTED RATE OF RETURN (TWR)

A measure of the compound rate of growth in a portfolio. Often used to compare the returns of investment managers because it eliminates the distorting effects on growth rates created by inflows and outflows of money.

TOTAL RISK

The total (gross) risk to an asset (or portfolio), which is the standard deviation of the asset's total return distribution, expressed in percent. Total risk is forecasted using MSCI Barra's multiple factor models. The total risk for an asset depends on the asset's exposures to the risk factors, the factor variance/covariance matrix, and the forecast selection risk of the asset.

TOTAL RISK CONTRIBUTION

The percent of total risk that an individual asset or risk source contributes. For example, a % CR to Total Risk of 10% indicates that 10% of the portfolio's total risk is arising from the portfolio's position in that particular asset.

TOTAL VALUE TO PAID-IN (TVPI)

A measure of total value created relative to capital invested.

TRACKING ERROR

The volatility of a manager's excess return. It is measured by subtracting the benchmark return from the manager's return and calculating the standard deviation.

Y

YIELD TO MATURITY

The return a bond earns on the price at which it was purchased if it were held to maturity. It assumes that coupon payments can be reinvested at the yield to maturity.