



Los Angeles County Employees Retirement Association

Investments Division

TOTAL FUND

**PERFORMANCE
REPORT**

For the quarter ended
September 30, 2023

A photograph of a cityscape at dusk or night. The central focus is a large, illuminated building with a prominent dome, likely a government or institutional building. The sky is a mix of purple, blue, and orange. In the foreground, there are trees and a street with some lights. The word 'review' is overlaid in a large, light blue, lowercase font across the bottom half of the image.

review

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 MANAGER SCORECARDS

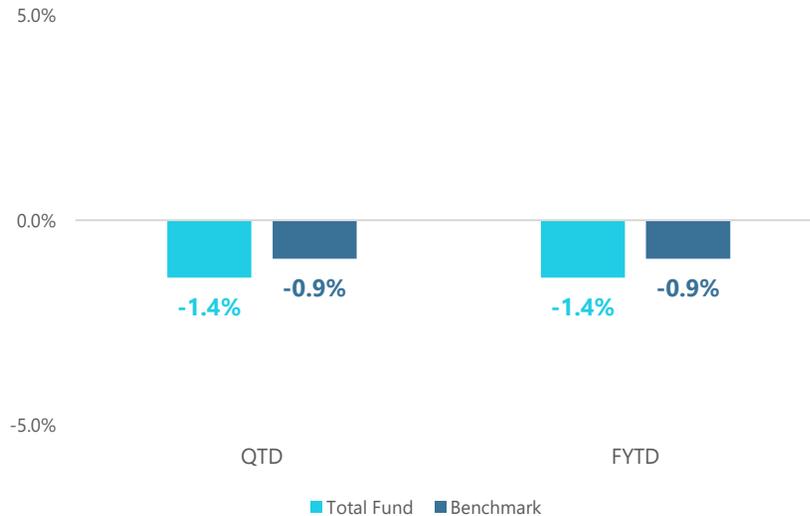
09 APPENDIX

total fund

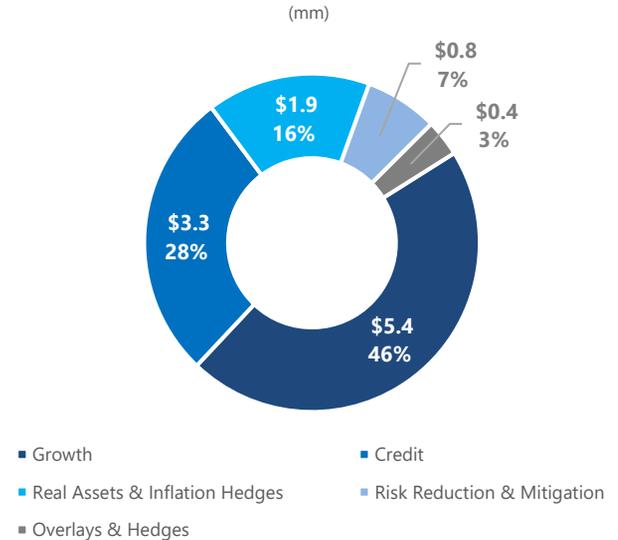
Quarterly Snapshot

for the quarter ended September 30, 2023

Performance (net)



Public Markets Fees¹



Ending Market Value

72,167

↓ -2%
from prior quarter

Sharpe Ratio²

0.8

↓ -27%
from prior quarter

Batting Average³

58%

↑ 25%
from prior quarter

Standard Deviation²

8.2

↓ -1%
from prior quarter

Tracking Error²

2.9

—
from prior quarter

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

² 3 Year Annualized.

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

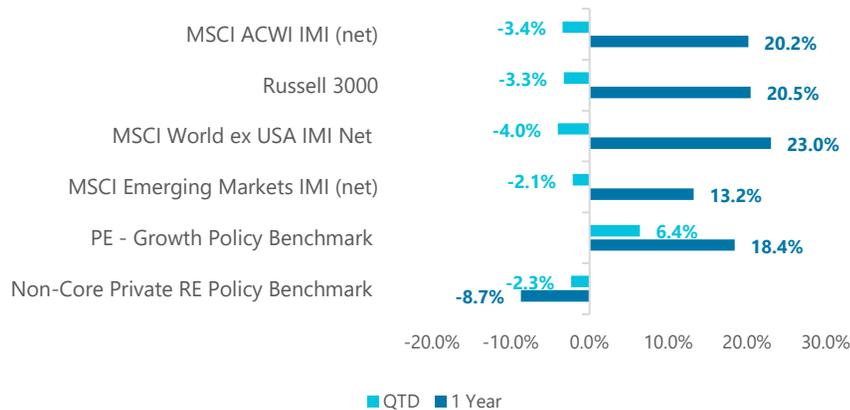
Market Environment

for the quarter ended September 30, 2023

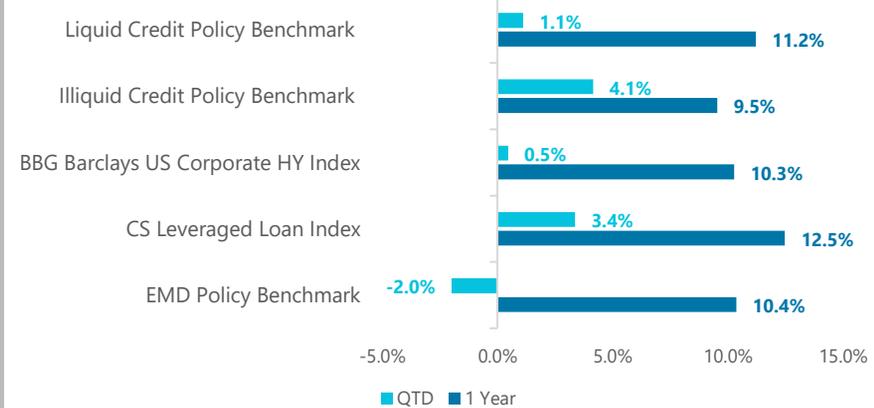


Los Angeles County Employees Retirement Association

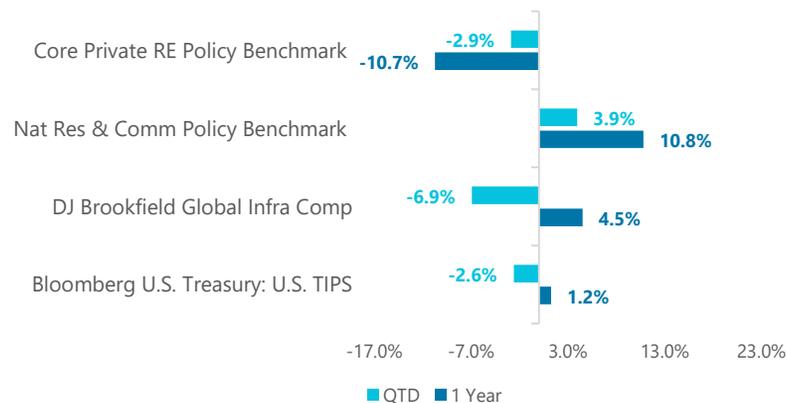
Growth



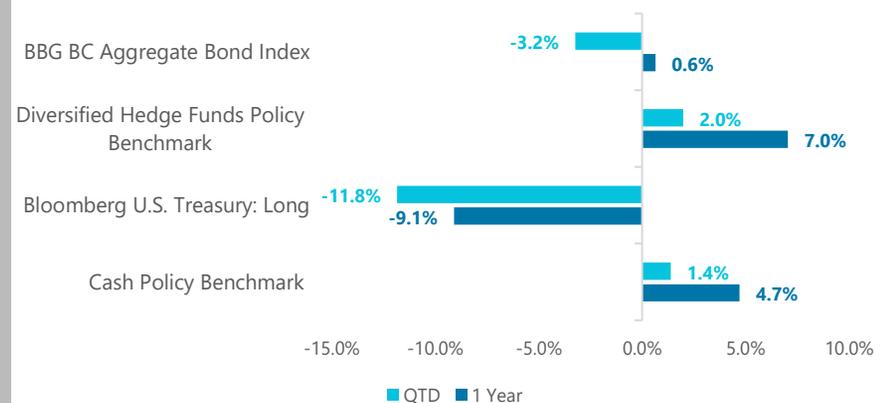
Credit



Real Assets & Inflation Hedges



Risk Reduction & Mitigation



Summary

for the quarter ended September 30, 2023

Performance (net)



	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Total Fund	-1.4%	-1.4%	4.4%	8.7%	7.9%	6.8%	7.4%	8.5%
Benchmark	-0.9%	-0.9%	6.7%	10.5%	5.0%	5.7%	6.7%	--
Excess	-0.5%	-0.5%	-2.3%	-1.7%	2.9%	1.1%	0.7%	--

	FY23	FY22	FY21	FY20	FY19
Total Fund	6.4%	0.1%	25.2%	1.8%	6.4%
Benchmark	5.0%	-4.6%	23.1%	2.0%	8.6%

Cumulative Return

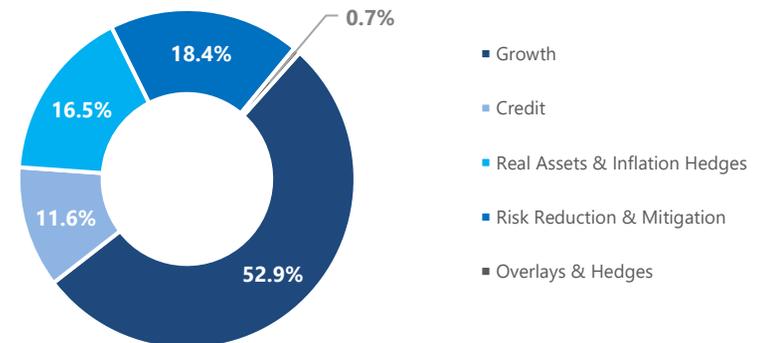


Functional Category¹

	QTD	FYTD	YTD	1 Year	3 Year
Growth	-1.6%	-1.6%	7.5%	14.0%	12.2%
Growth Policy Benchmark	-0.2%	-0.2%	13.3%	17.8%	8.9%
Excess	-1.4%	-1.4%	-5.8%	-3.8%	3.3%
Credit	3.1%	3.1%	9.2%	11.6%	6.1%
Credit Policy Benchmark	3.0%	3.0%	8.2%	10.2%	2.3%
Excess	0.0%	0.0%	1.1%	1.4%	3.9%
Real Assets & Inflation Hedges	-2.3%	-2.3%	-3.9%	-0.1%	8.4%
RA & IH Policy Benchmark	-2.8%	-2.8%	-5.4%	-0.3%	7.5%
Excess	0.5%	0.5%	1.5%	0.2%	0.9%
Risk Reduction & Mitigation	-3.2%	-3.2%	-0.8%	0.3%	-3.3%
RR & M Policy Benchmark	-3.7%	-3.7%	-0.7%	0.3%	-4.0%
Excess	0.4%	0.4%	-0.1%	0.0%	0.7%
Overlays & Hedges	13.0%	13.0%	68.8%	50.9%	--

¹ Cash Overlay composite returns reflect non-notionalized returns.

Exposure



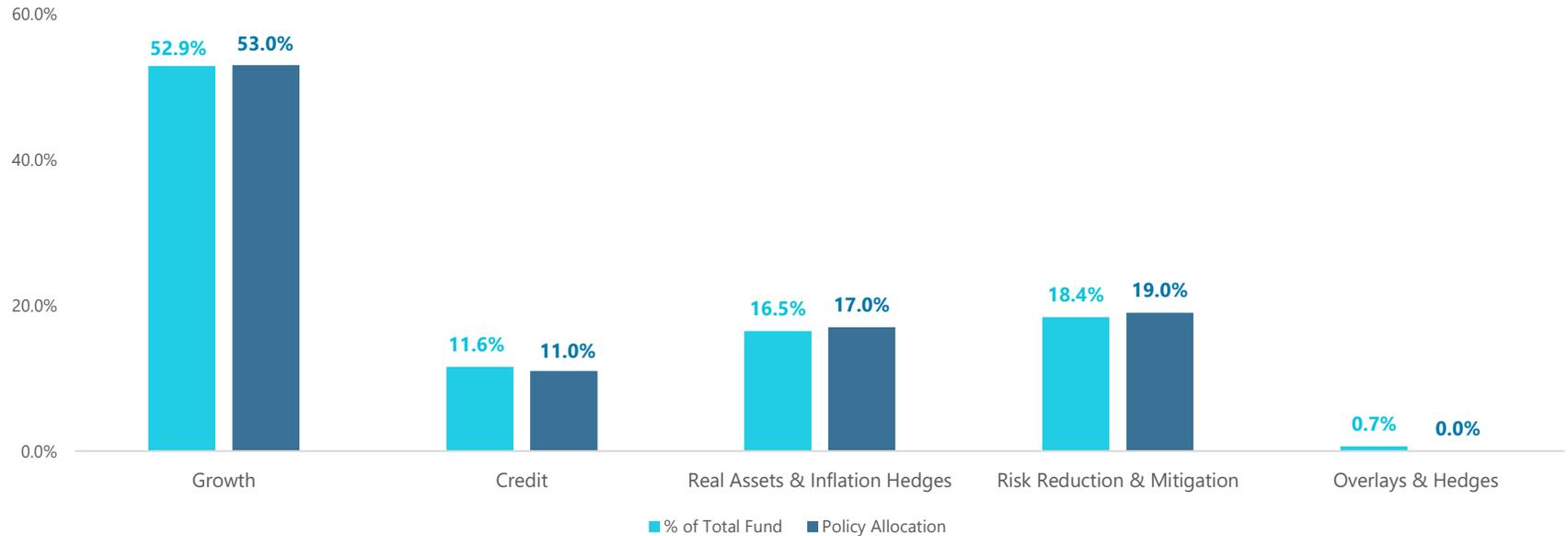
Asset Allocation

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Actual vs. Policy

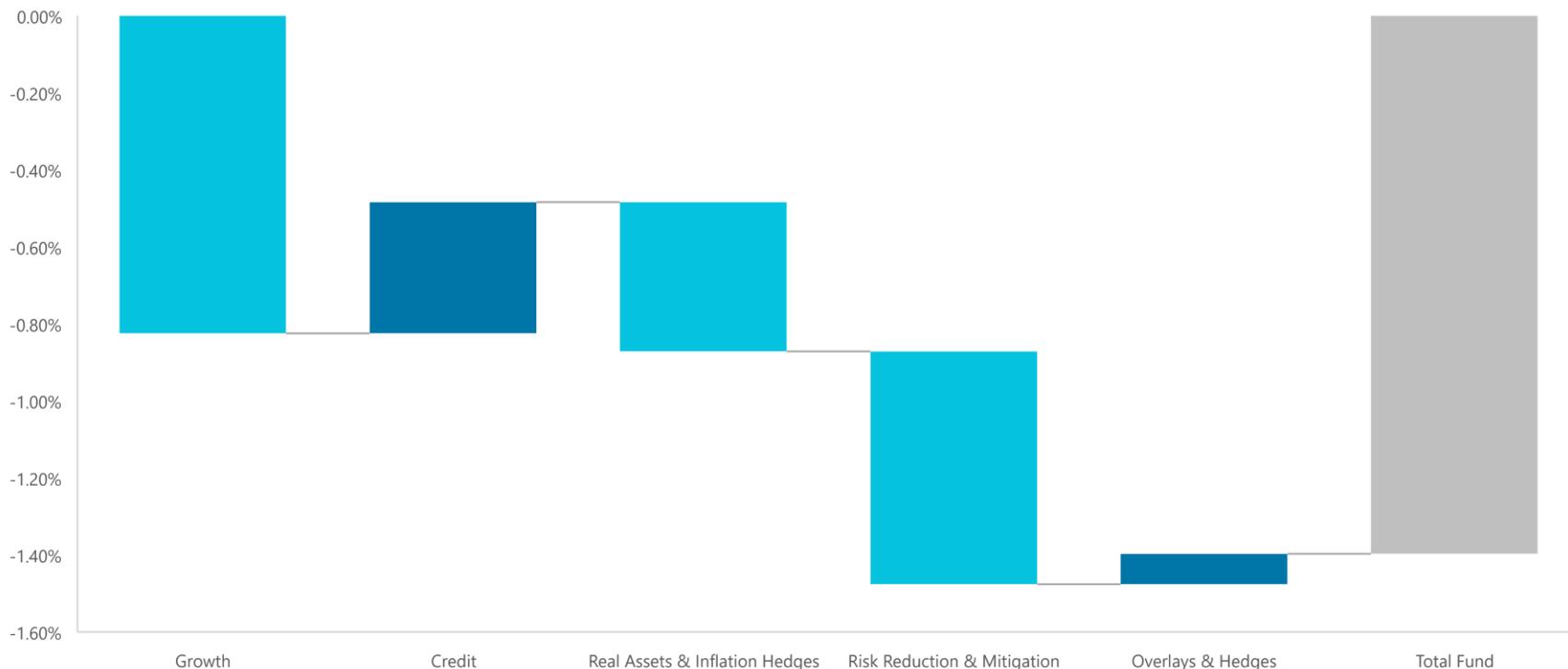


	Ending Market Value (mm)	% of Total Fund	Policy Allocation	Over/Under (%)	Over/Under (mm)
Total Fund	72,167	100.0%	100.0%		
Growth	38,154	52.9%	53.0%	-0.1%	-94
Credit	8,351	11.6%	11.0%	0.6%	413
Real Assets & Inflation Hedges	11,912	16.5%	17.0%	-0.5%	-356
Risk Reduction & Mitigation	13,268	18.4%	19.0%	-0.6%	-444
Overlays & Hedges	482	0.7%	0.0%	0.7%	482

Contribution to Return

for the quarter ended September 30, 2023

QTD/FYTD Contribution to Return



Functional Category	Contributors	Detractors
Growth	-0.83% Private Equity - Growth	0.27% SSGA MSCI ACWI IMI
Credit	0.34% Napier Park	0.08% BlackRock Long Treasury Bonds
Real Assets & Inflation Hedges	-0.39% Magnetar	0.06% Real Estate - Real Assets
Risk Reduction & Mitigation	-0.61% Lake Cascade	0.03% DWS Infrastructure
Overlays & Hedges	0.08% Credit Suisse Bank Loans	0.03% JPMAM Strategic Beta US
Total Fund	-1.40%	

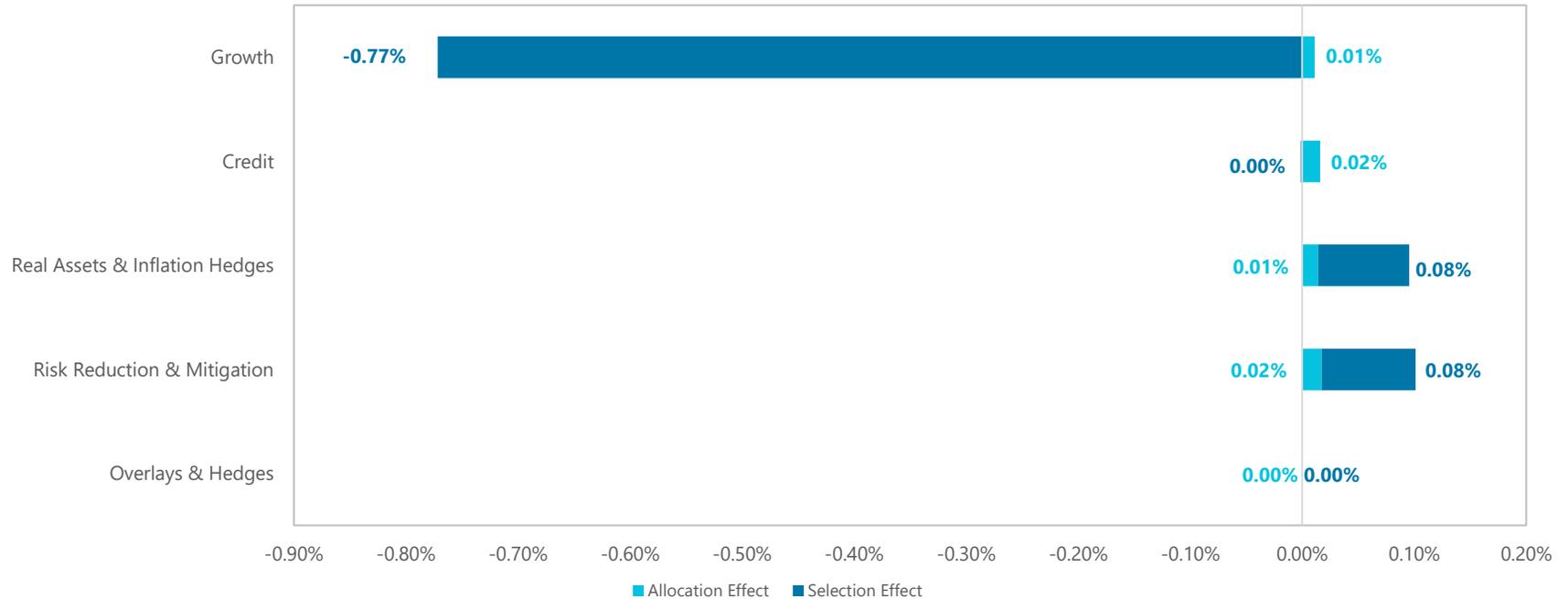
Return Attribution

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

QTD/FYTD Performance Attribution¹



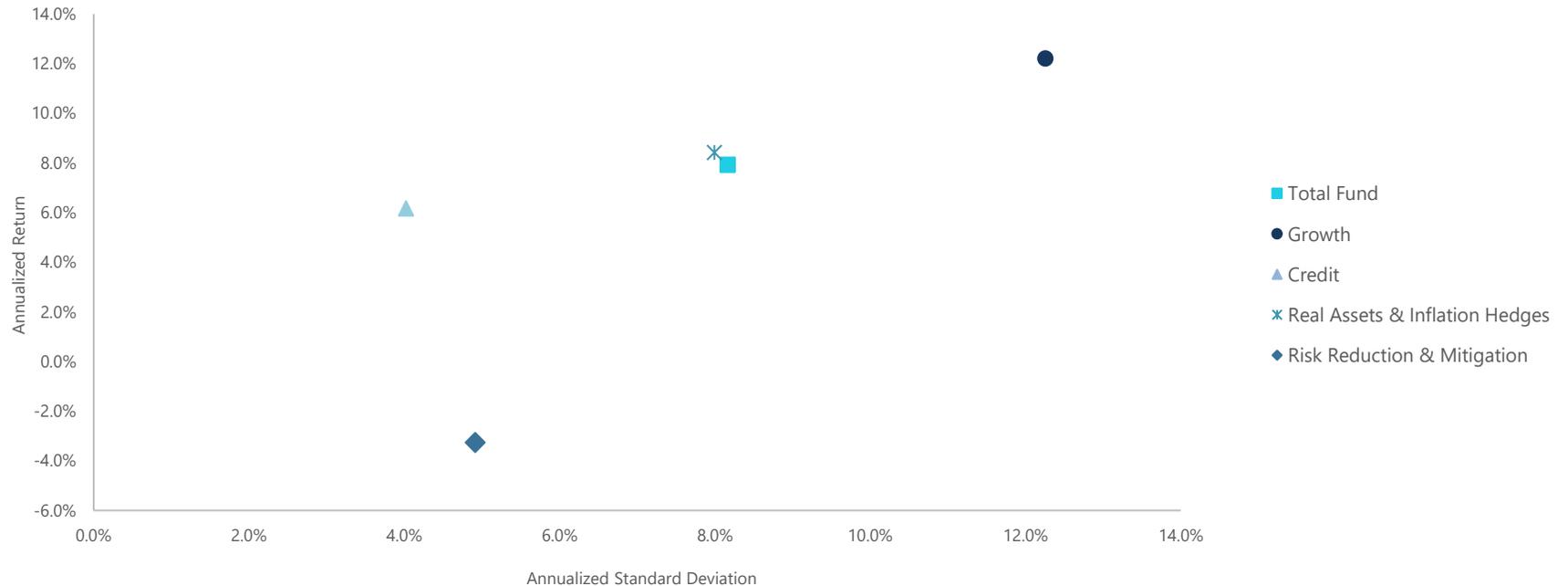
	Ending Market Value (mm)	% of Total Fund	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Total Fund	72,167	100.0%	100.0%	-1.4%	-0.9%	0.07%	-0.53%	-0.46%
Growth	38,154	52.9%	53.0%	-1.6%	-0.2%	0.01%	-0.77%	-0.76%
Credit	8,351	11.6%	11.0%	3.1%	3.0%	0.02%	0.00%	0.01%
Real Assets & Inflation Hedges	11,912	16.5%	17.0%	-2.3%	-2.8%	0.01%	0.08%	0.10%
Risk Reduction & Mitigation	13,268	18.4%	19.0%	-3.2%	-3.7%	0.02%	0.08%	0.10%
Overlays & Hedges	482	0.7%	0.0%	13.0%	--	--	--	--

¹ Total Value Add column includes Interaction Effect.

Risk vs. Return

for the quarter ended September 30, 2023

3 Year (Annualized)¹



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Total Fund	7.9%	8.2%	0.77	0.95	0.90	2.9%
Growth	12.2%	12.3%	0.87	0.56	0.86	5.2%
Credit	6.1%	4.0%	1.09	1.21	0.68	3.1%
Real Assets & Inflation Hedges	8.4%	8.0%	0.84	0.32	0.89	2.5%
Risk Reduction & Mitigation	-3.3%	4.9%	(1.00)	0.93	0.91	0.8%
Overlays & Hedges	125.0%	51.6%				

¹ Cash Overlay composite returns reflect non-notionalized returns.

Performance Detail

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns¹

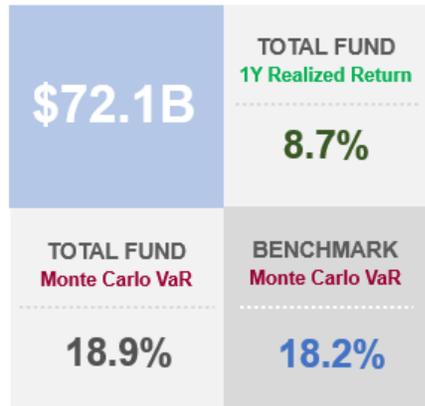
	% of Total Fund	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Total Fund	100.0%	72,167	73,569	-1.4%	-1.4%	4.4%	8.7%	7.9%	6.8%	7.4%	8.5%	Dec-1988
Total Fund Policy Benchmark				-0.9%	-0.9%	6.7%	10.5%	5.0%	5.7%	6.7%	--	
Growth	52.9%	38,154	39,155	-1.6%	-1.6%	7.5%	14.0%	12.2%	--	--	11.1%	Apr-2019
Growth Policy Benchmark				-0.2%	-0.2%	13.3%	17.8%	8.9%	--	--	9.3%	
Global Equity	32.4%	23,352	24,583	-3.2%	-3.2%	9.6%	20.6%	7.8%	--	--	8.0%	Apr-2019
Global Equity Policy Benchmark				-3.4%	-3.4%	9.4%	20.2%	6.9%	--	--	7.4%	
Private Equity - Growth	18.9%	13,625	13,428	1.4%	1.4%	4.6%	4.7%	22.8%	--	--	17.6%	Jan-2019
PE - Growth Policy Benchmark				6.4%	6.4%	26.2%	18.4%	13.2%	--	--	9.3%	
Non-Core Private Real Estate	1.6%	1,177	1,145	-1.4%	-1.4%	-3.9%	-2.1%	11.5%	10.2%	10.3%	4.5%	Jan-1996
Non-Core Private RE Policy Benchmark				-2.3%	-2.3%	-9.5%	-8.7%	9.7%	8.4%	10.8%	10.9%	
Credit	11.6%	8,351	8,297	3.1%	3.1%	9.2%	11.6%	6.1%	--	--	5.0%	Apr-2019
Credit Policy Benchmark				3.0%	3.0%	8.2%	10.2%	2.3%	--	--	3.4%	
Liquid Credit	4.3%	3,089	3,458	1.8%	1.8%	8.0%	12.2%	--	--	--	-0.4%	Oct-2021
Liquid Credit Policy Benchmark				1.1%	1.1%	6.9%	11.2%	--	--	--	--	
Illiquid Credit	7.3%	5,262	4,839	3.8%	3.8%	9.7%	9.6%	12.7%	--	--	9.9%	Apr-2019
Illiquid Credit Policy Benchmark				4.1%	4.1%	8.8%	9.5%	1.5%	--	--	5.0%	
Real Assets & Inflation Hedges	16.5%	11,912	12,050	-2.3%	-2.3%	-3.9%	-0.1%	8.4%	--	--	5.0%	Apr-2019
RA & IH Policy Benchmark				-2.8%	-2.8%	-5.4%	-0.3%	7.5%	--	--	5.3%	
Core Private Real Estate	5.4%	3,920	4,071	-4.0%	-4.0%	-11.7%	-10.2%	7.4%	4.9%	7.0%	6.9%	Oct-1985
Core Private RE Policy Benchmark				-2.9%	-2.9%	-11.0%	-10.7%	7.2%	5.9%	8.2%	6.7%	
Natural Resources & Commodities	3.0%	2,179	2,110	3.4%	3.4%	3.8%	8.4%	19.7%	7.2%	0.5%	-0.6%	Jul-2007
Nat Res & Comm Policy Benchmark				3.9%	3.9%	-1.1%	10.8%	18.1%	7.1%	-0.3%	-1.7%	
Infrastructure	5.5%	3,966	3,974	-3.5%	-3.5%	-1.0%	6.1%	7.3%	--	--	5.7%	Jun-2019
DJ Brookfield Global Infra Comp				-6.9%	-6.9%	-4.5%	4.5%	5.8%	--	--	1.8%	
TIPS	2.6%	1,847	1,896	-2.6%	-2.6%	-0.8%	1.3%	-2.0%	--	--	1.6%	May-2019
Bloomberg U.S. Treasury: U.S. TIPS				-2.6%	-2.6%	-0.8%	1.2%	-2.0%	--	--	1.7%	
Risk Reduction & Mitigation	18.4%	13,268	13,659	-3.2%	-3.2%	-0.8%	0.3%	-3.3%	--	--	0.3%	Apr-2019
RR & M Policy Benchmark (BMLACE)				-3.7%	-3.7%	-0.7%	0.3%	-4.0%	--	--	-0.3%	
Investment Grade Bonds	6.8%	4,883	5,044	-3.2%	-3.2%	-0.9%	0.9%	-5.1%	0.2%	1.5%	5.0%	Nov-1994
BBG BC Aggregate Bond Index				-3.2%	-3.2%	-1.2%	0.6%	-5.2%	0.1%	1.1%	4.5%	
Diversified Hedge Funds	6.5%	4,677	4,570	1.5%	1.5%	3.4%	4.9%	7.0%	--	--	6.3%	Apr-2019
Diversified Hedge Funds Policy Benchmark				2.0%	2.0%	5.6%	7.0%	4.2%	--	--	4.2%	
Long-Term Government Bonds	3.9%	2,792	2,962	-11.9%	-11.9%	-8.7%	-9.2%	--	--	--	-20.3%	Nov-2021
Bloomberg U.S. Treasury: Long				-11.8%	-11.8%	-8.6%	-9.1%	--	--	--	-21.0%	
Long Treasury Bonds Transition	0.0%	0	0	--	--	--	--	--	--	--	75.9%	Jun-2022
Bloomberg U.S. Treasury: Long				--	--	--	--	--	--	--	-14.1%	
Cash	1.3%	916	1,083	0.6%	0.6%	3.8%	5.1%	2.7%	2.4%	1.6%	1.9%	Jun-2001
Cash Policy Benchmark				1.4%	1.4%	3.8%	4.7%	1.8%	1.7%	1.2%	1.5%	
Overlays & Hedges	0.7%	482	407	13.0%	13.0%	68.8%	50.9%	--	--	--	125.0%	Oct-2021
Cash Overlay	0.5%	353	364	-15.1%	-15.1%	7.0%	49.1%	19.6%	--	--	0.7%	Aug-2019
Total Overlay Custom BM				-3.0%	-3.0%	5.6%	12.6%	3.0%	--	--	4.4%	
Currency Hedge	0.2%	129	43	1.7%	1.7%	2.4%	-0.9%	--	--	--	3.8%	Oct-2021
50% FX Hedge Custom Benchmark				1.7%	1.7%	2.4%	-0.9%	--	--	--	3.9%	

¹ Cash Overlay composite returns reflect non-notionalized returns.

Risk Summary

for the quarter ended September 30, 2023

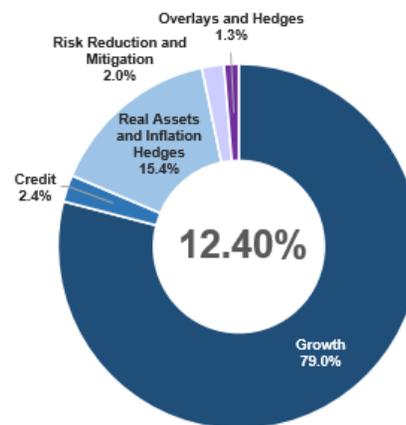
Realized (Ex-Post) Risks



Projected (Ex-Ante) Risks

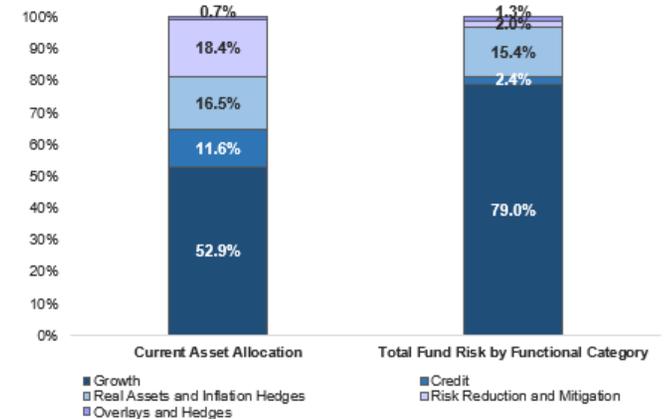


Functional Category Contributions to Total Fund Risk



Total Fund Asset Allocation

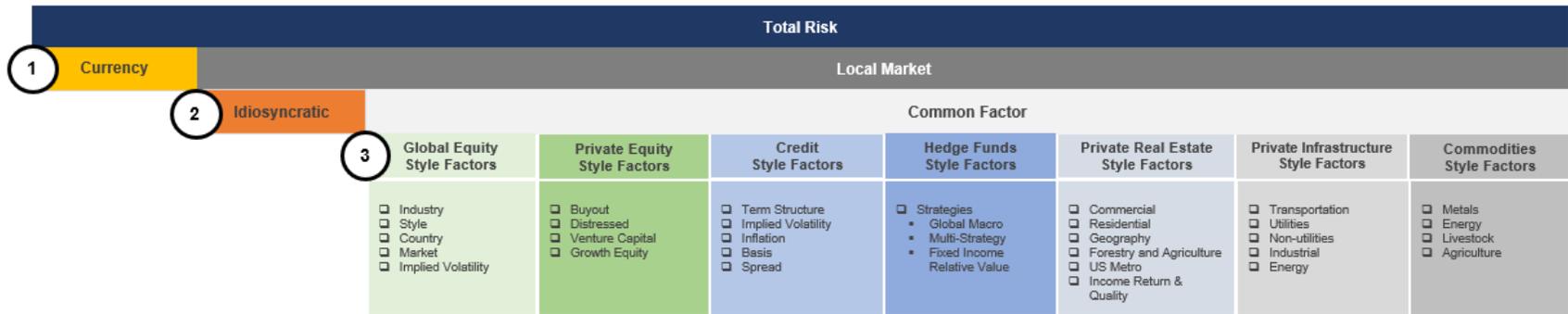
Capital-based versus Risk-based



Risk Summary

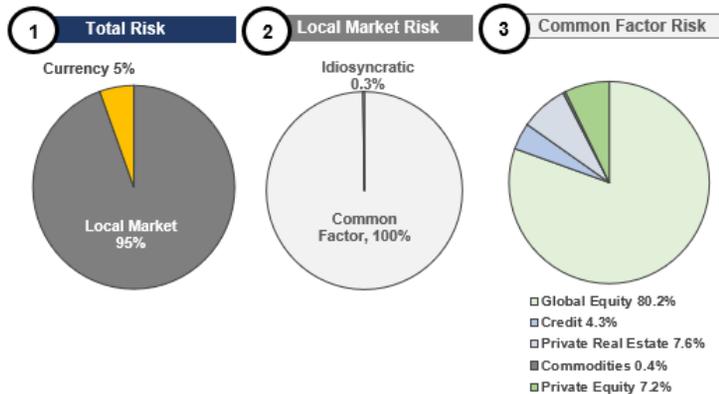
for the quarter ended September 30, 2023

Decomposition of MSCI Risk Factors



Total Fund Risk Decomposition

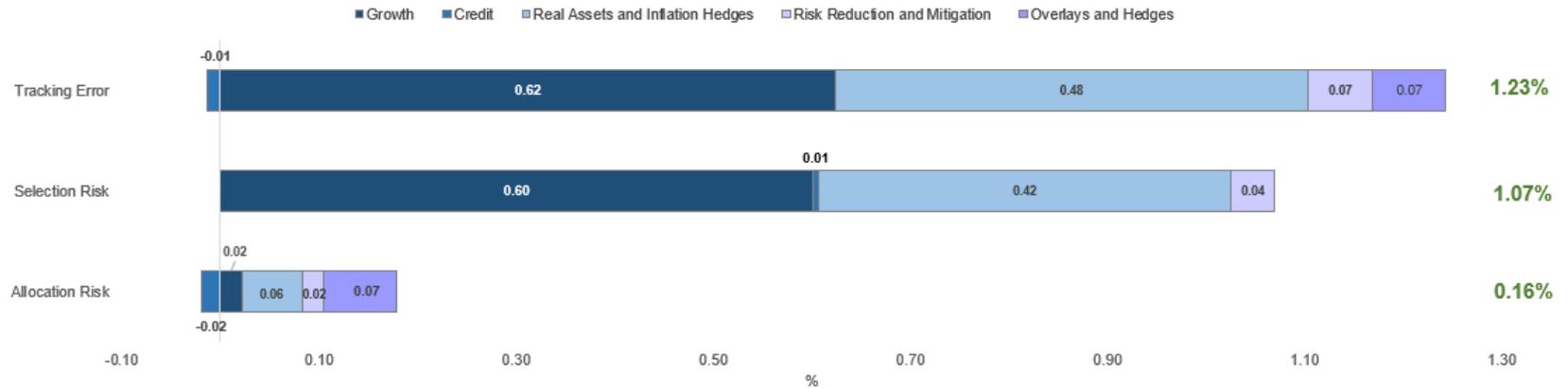
Total Fund Contribution by Risk Factor



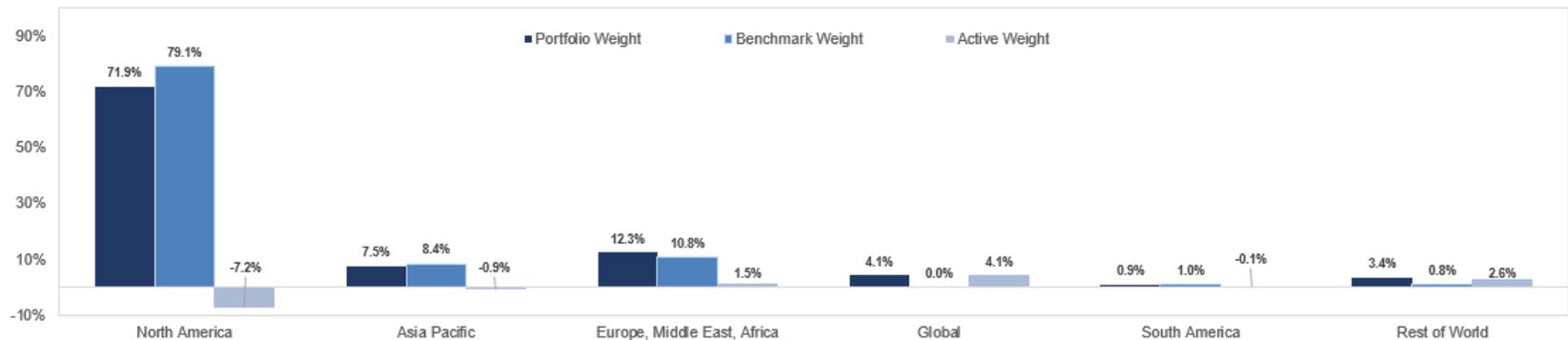
Risk Summary

for the quarter ended September 30, 2023

Functional Category Contributions to Tracking Error



Portfolio Allocation by Region^{1,2}



¹ Global represents investments made in regions where specific country allocations are not available.²

² Rest of World is sum of countries with weights below 0.5%.

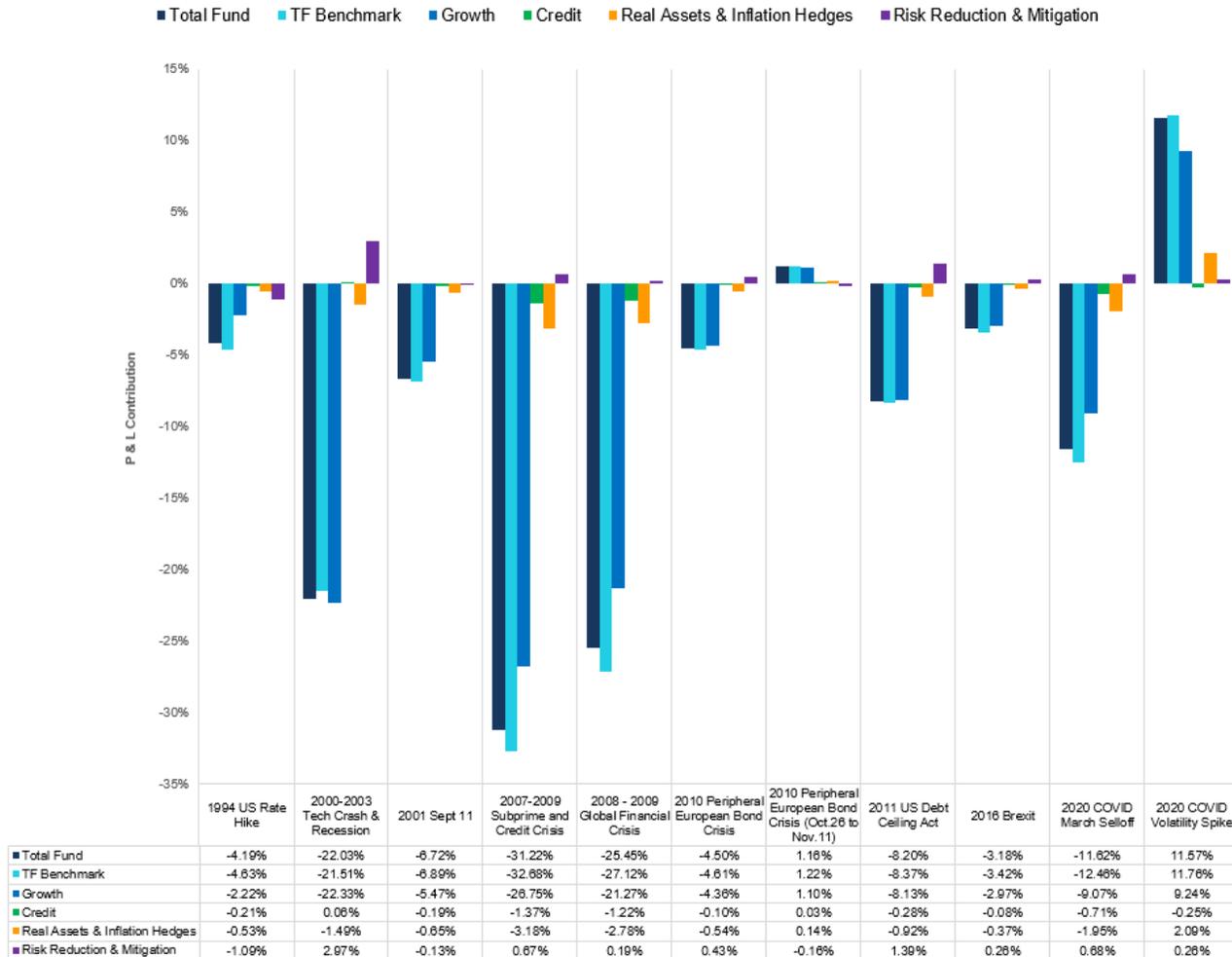
Stress Tests

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Scenarios by Asset Category



Stress Tests

for the quarter ended September 30, 2023

Historical Scenario	Description	Stock Market	Interest Rates	Bond Market	Commodity Market
1994 US Rate Hike	In combating inflation, the US Federal Reserve raised rates from 3.25% in February to 5.5% in November 1994.				
2000-2003 Tech Crash & Recession	Period of crisis and slowdown for technological firms due to a rapid jump in stock prices when tech bubble began to burst.				
2001 September 11th	The US stock market was closed for a week upon a series of coordinated suicide attacks upon the US on September 11, 2001.				
2008-2009 Global Financial Crisis	Major financial crisis starting with the failure of several US-based financial firms. Extended into 2009, when stock markets reached their lowest.				
2010 European Bond Crisis	During crisis, the liquidity access for peripheral countries was affected by budget deficits, high borrowing costs, and failing banking systems.				
2011 US Debt Ceiling Act	Political deadlock on appropriate level of US government spending and its impacts. Debt and equity markets experienced significant volatility.				
2016 Brexit	The referendum by British voters to exit the European Union roiled global markets causing the pound to fall to its lowest level in decades.				
2020 COVID March Selloff	Peak and Valley of the MSCI ACWI index when Covid became a Global Pandemic.				
2020 COVID Volatility Spike	Period it took for the Cboe Volatility Index (VIX) to revert to pre-pandemic levels.				

Market Trend Signals

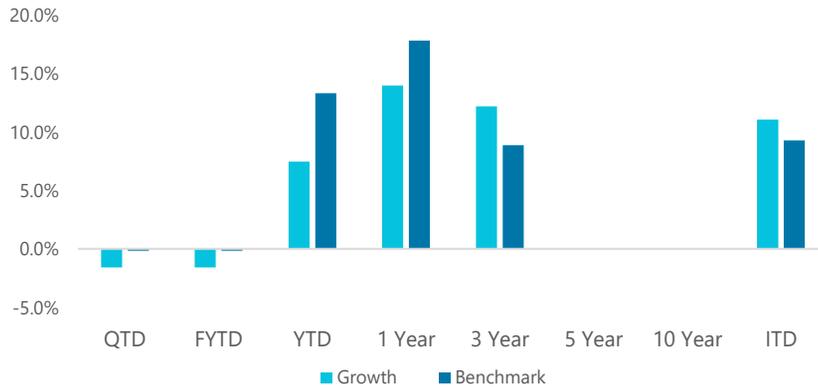


growth

Summary

for the quarter ended September 30, 2023

Performance (net)



	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Growth	-1.6%	-1.6%	7.5%	14.0%	12.2%	--	--	11.1%
Benchmark	-0.2%	-0.2%	13.3%	17.8%	8.9%	--	--	9.3%
Excess	-1.4%	-1.4%	-5.8%	-3.8%	3.3%	--	--	1.8%

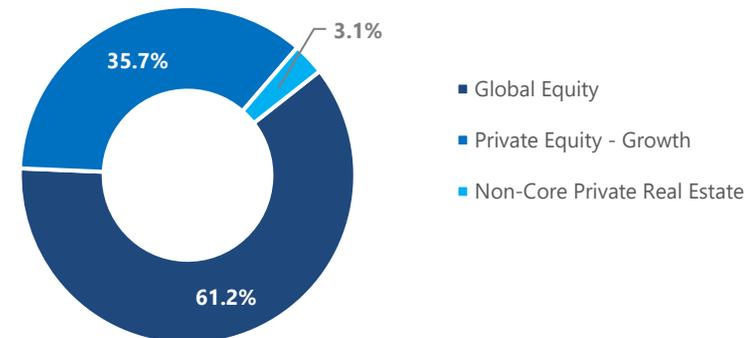
Cumulative Return



Functional Category

	QTD	FYTD	YTD	1 Year	3 Year
Global Equity	-3.2%	-3.2%	9.6%	20.6%	7.8%
Global Equity Policy Benchmark	-3.4%	-3.4%	9.4%	20.2%	6.9%
Excess	0.2%	0.2%	0.2%	0.4%	1.0%
Private Equity - Growth	1.4%	1.4%	4.6%	4.7%	22.8%
PE - Growth Policy Benchmark	6.4%	6.4%	26.2%	18.4%	13.2%
Excess	-5.0%	-5.0%	-21.6%	-13.7%	9.6%
Non-Core Private Real Estate	-1.4%	-1.4%	-3.9%	-2.1%	11.5%
Non-Core Private RE Policy Benchmark	-2.3%	-2.3%	-9.5%	-8.7%	9.7%
Excess	1.0%	1.0%	5.6%	6.6%	1.8%

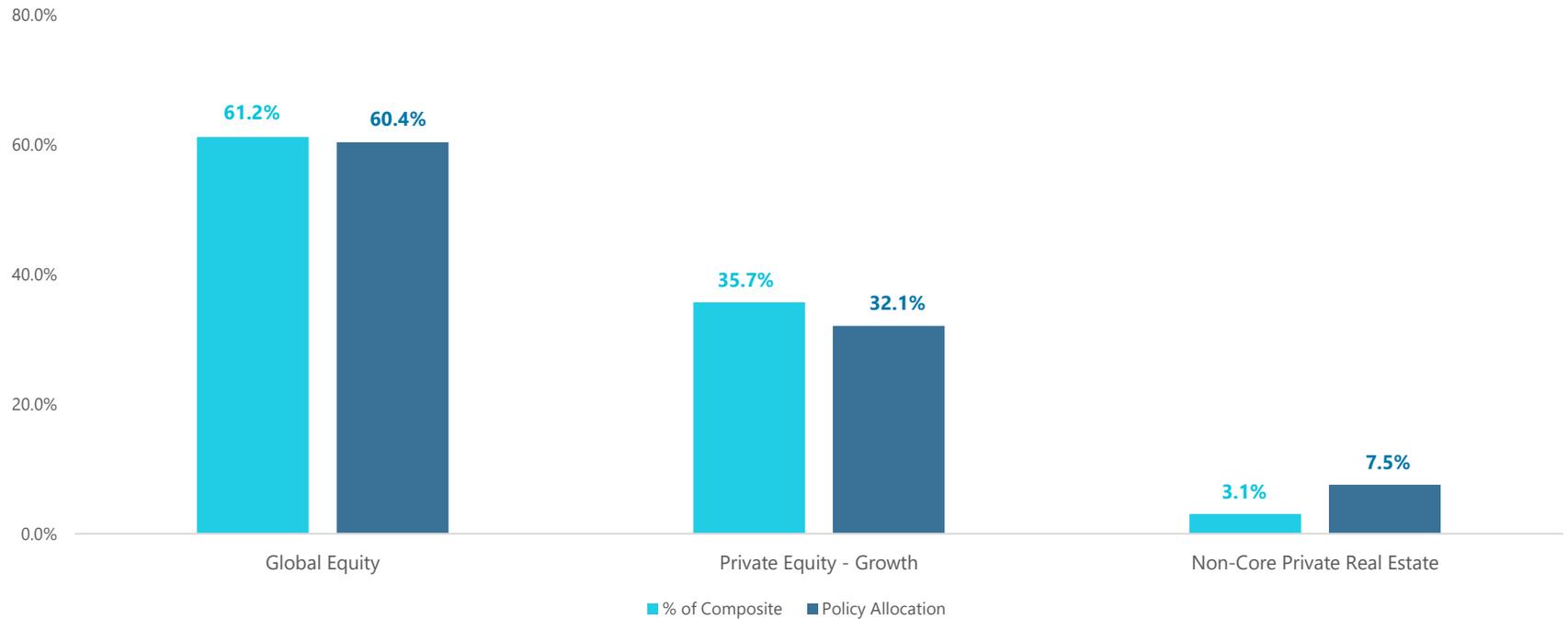
Exposure



Asset Allocation

for the quarter ended September 30, 2023

Actual vs. Policy



	Ending Market Value (mm)	% of Composite	Policy Allocation	Over / Under (%)	Over / Under (mm)
Growth	38,154	100.0%	100.0%		
Global Equity	23,352	61.2%	60.4%	0.6%	236
Private Equity - Growth	13,625	35.7%	32.1%	3.5%	1,339
Non-Core Private Real Estate	1,177	3.1%	7.5%	-4.5%	-1,704

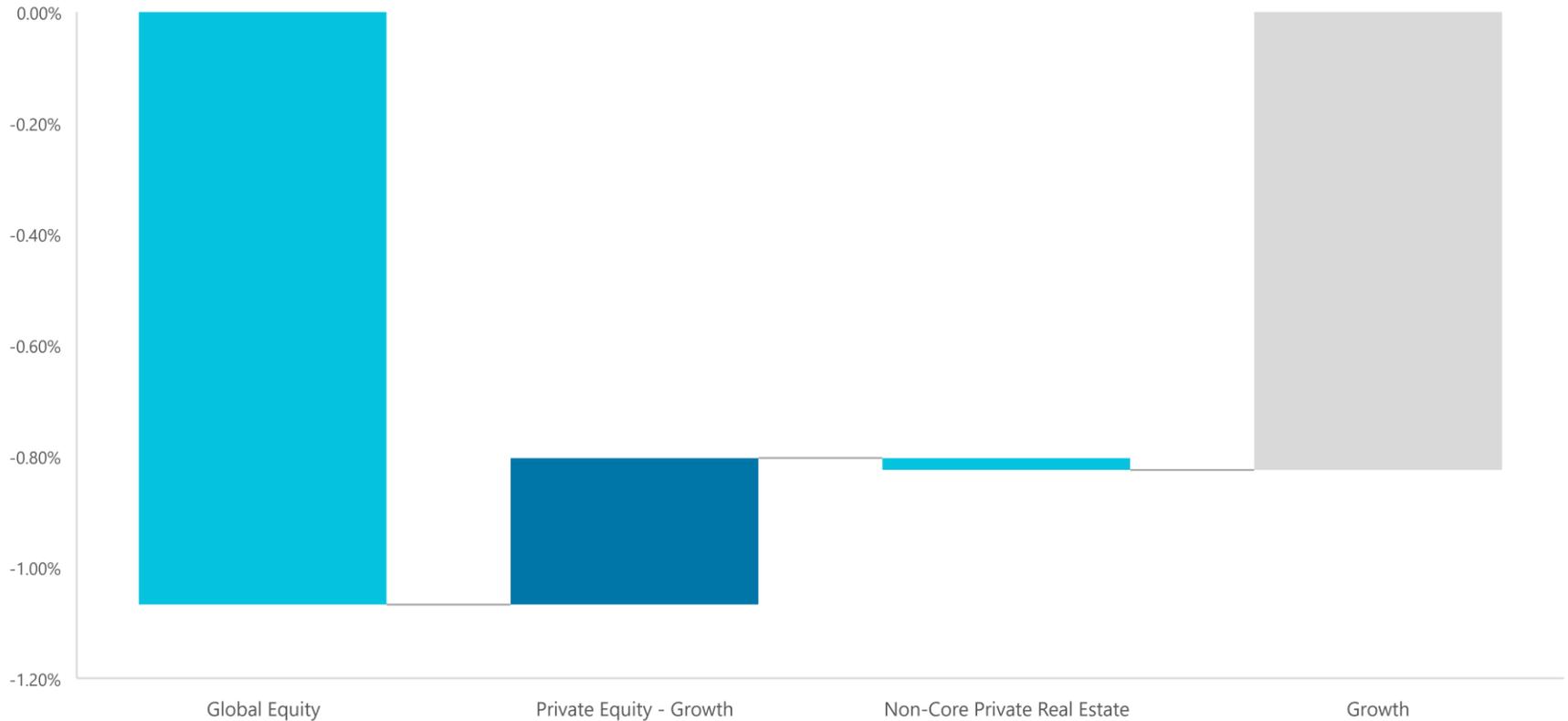
Contribution to Return

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

QTD Contribution to Return

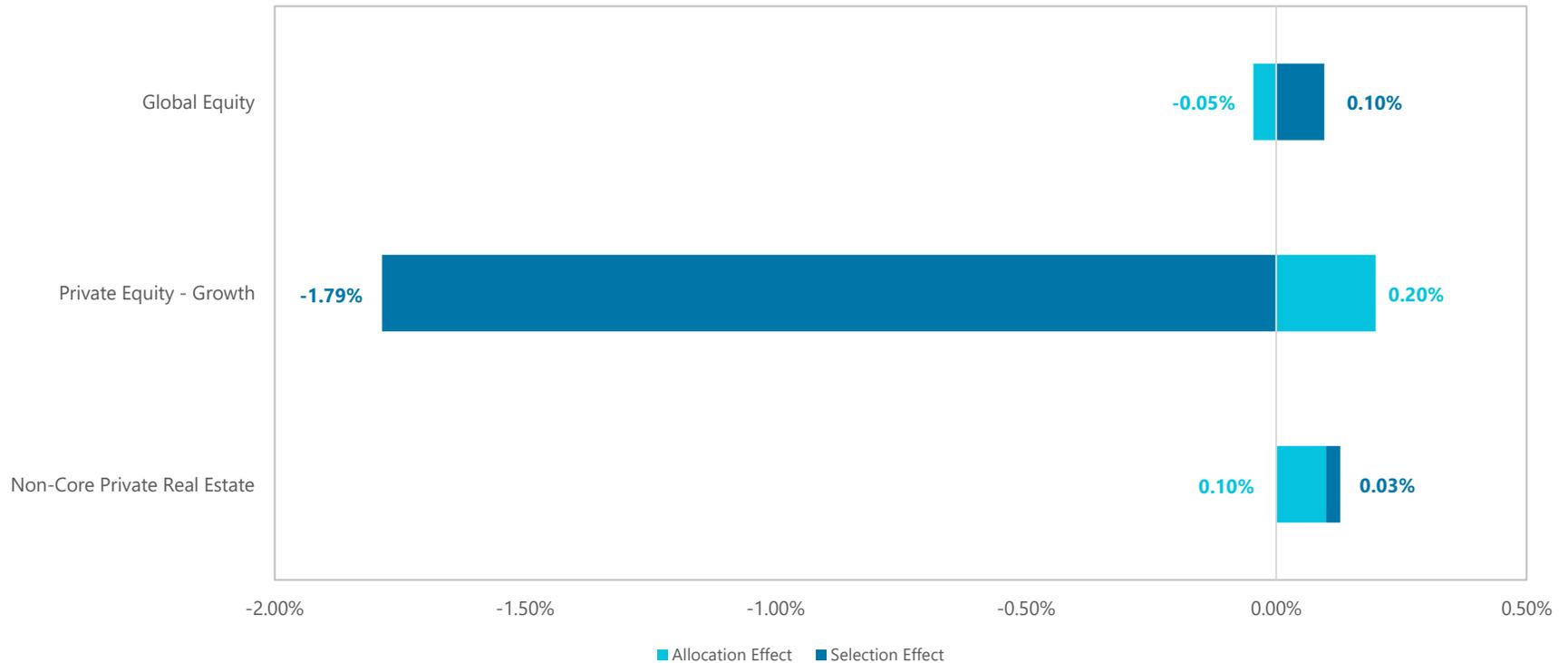


Functional Category	Contributors	Detractors
Global Equity	-1.07%	Private Equity - Growth 0.27%
Private Equity - Growth	0.26%	SSGA MSCI ACWI IMI -0.71%
Non-Core Private Real Estate	-0.02%	Cevian Capital II - Activist 0.01%
Growth	-0.83%	JPMAM Strategic Beta US -0.19%

Return Attribution

for the quarter ended September 30, 2023

QTD Performance Attribution¹



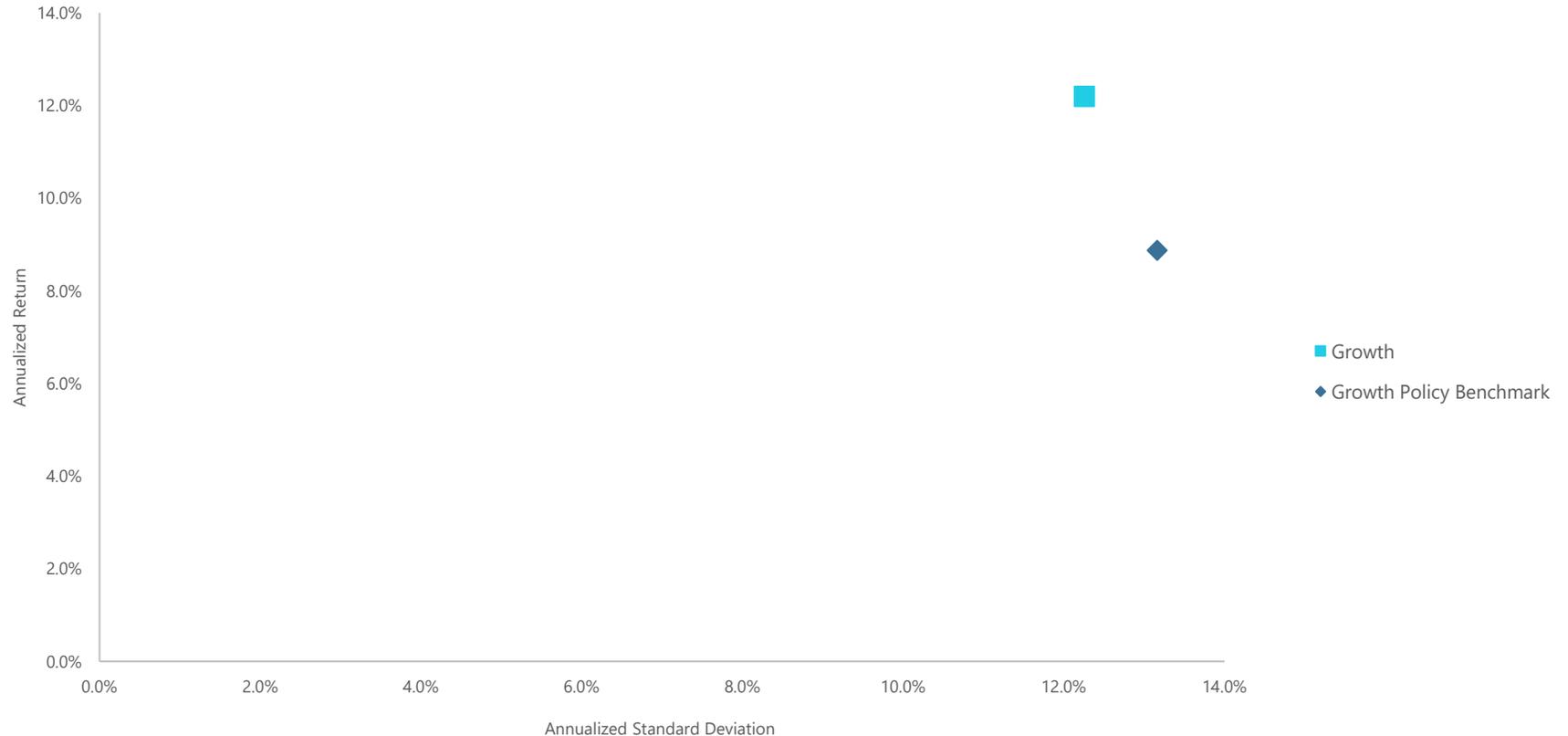
	Ending Market Value (mm)	% of Composite	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Growth	38,154	100.0%	100.0%	-1.6%	-0.2%	0.25%	-1.66%	-1.41%
Global Equity	23,352	61.2%	60.4%	-3.2%	-3.4%	-0.05%	0.10%	0.05%
Private Equity - Growth	13,625	35.7%	32.1%	1.4%	6.4%	0.20%	-1.79%	-1.59%
Non-Core Private Real Estate	1,177	3.1%	7.5%	-1.4%	-2.3%	0.10%	0.03%	0.13%

¹ Total Value Add column includes Interaction Effect.

Risk vs. Return

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Growth	12.2%	12.3%				
Growth Policy Benchmark	8.9%	13.2%	0.87	0.56	0.86	5.2%

Performance Detail

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns¹

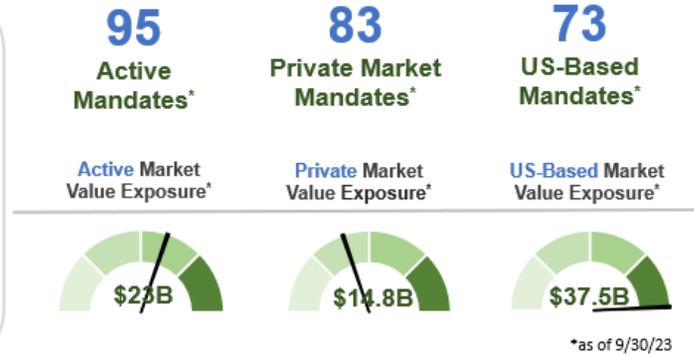
	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Growth	100.0%	38,154	39,155	-1.6%	-1.6%	7.5%	14.0%	12.2%	--	--	11.1%	Apr-2019
Growth Policy Benchmark				-0.2%	-0.2%	13.3%	17.8%	8.9%	--	--	9.3%	
Global Equity	61.2%	23,352	24,583	-3.2%	-3.2%	9.6%	20.6%	7.8%	--	--	8.0%	Apr-2019
Global Equity Policy Benchmark				-3.4%	-3.4%	9.4%	20.2%	6.9%	--	--	7.4%	
Passive												
SSGA MSCI ACWI IMI	39.2%	14,947	15,868	-3.4%	-3.4%	9.5%	20.6%	7.5%	--	--	6.1%	Jan-2020
Factor Based												
JPMAM Strategic Beta Non-US	1.5%	582	600	-3.0%	-3.0%	5.8%	20.7%	5.0%	--	--	5.2%	Aug-2020
JPMAM Strategic Beta US	11.8%	4,519	4,656	-3.0%	-3.0%	13.0%	21.6%	10.3%	--	--	12.6%	Jul-2020
Active												
Acadian Developed Markets	1.5%	573	586	-2.2%	-2.2%	2.2%	17.3%	5.5%	3.5%	6.2%	4.3%	Apr-2006
BTC Euro Tilts	1.5%	580	608	-4.6%	-4.6%	9.8%	30.5%	10.2%	5.6%	5.6%	3.7%	Jan-2007
Cevian Capital II - Activist	1.2%	457	452	1.1%	1.1%	14.8%	25.7%	16.6%	8.0%	--	9.0%	Oct-2016
CGT International Equity	1.0%	382	414	-7.7%	-7.7%	4.8%	23.1%	-0.4%	3.9%	4.8%	5.2%	Nov-1994
Cornercap US Small Cap - EMP	0.2%	81	82	-1.8%	-1.8%	-0.1%	10.9%	16.5%	6.1%	--	6.1%	Oct-2018
Frontier US SMID Growth	0.7%	282	303	-6.9%	-6.9%	10.3%	22.5%	11.4%	5.5%	8.5%	9.8%	Jun-2002
Global Alpha	0.4%	167	176	-5.3%	-5.3%	0.7%	15.9%	2.6%	--	--	3.7%	Nov-2018
Lazard Emerging Markets	1.0%	367	381	-3.9%	-3.9%	-0.4%	14.0%	-1.1%	2.4%	3.0%	1.9%	Feb-2013
Parametric GE Market Cap	0.5%	184	173	3.1%	3.1%	35.3%	26.4%	--	--	--	17.3%	Oct-2021
Parametric GE Region	0.0%	16	56	-15.2%	-15.2%	-39.0%	-48.0%	--	--	--	-33.0%	Dec-2021
Systematic US Small Cap Value	0.5%	196	199	-1.2%	-1.2%	5.4%	17.8%	16.6%	5.6%	--	5.6%	Jul-2018
Private Equity - Growth	35.7%	13,625	13,428	1.4%	1.4%	4.6%	4.7%	22.8%	--	--	17.6%	Jan-2019
PE - Growth Policy Benchmark				6.4%	6.4%	26.2%	18.4%	13.2%	--	--	9.3%	
Non-Core Private Real Estate	3.1%	1,177	1,145	-1.4%	-1.4%	-3.9%	-2.1%	11.5%	10.2%	10.3%	4.5%	Jan-1996
Non-Core Private RE Policy Benchmark				-2.3%	-2.3%	-9.5%	-8.7%	9.7%	8.4%	10.8%	10.9%	

¹ Excludes Parametric GE offset accounts.

Growth Risk Summary

for the quarter ended September 30, 2023

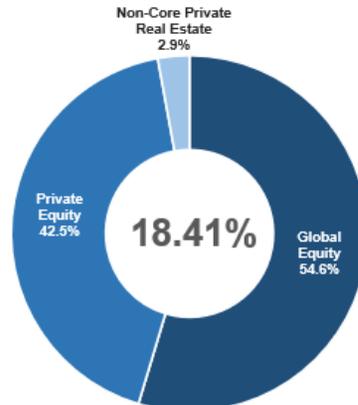
Realized (Ex-Post) Risks



Projected (Ex-Ante) Risks

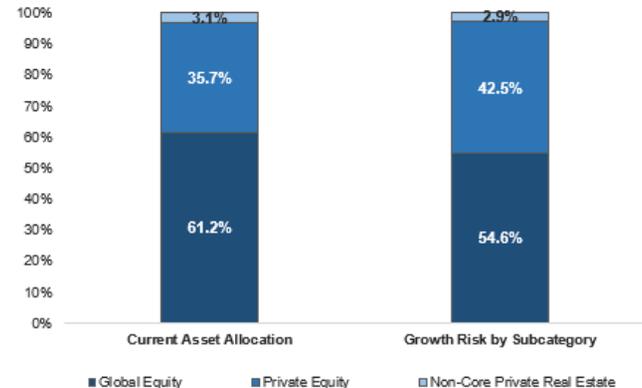


Subcategory Contributions to Growth Risk



Growth Asset Allocation

Capital-based versus Risk-based



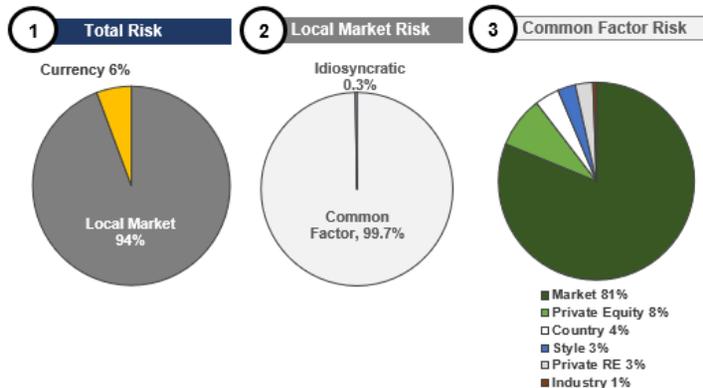
Growth Risk Summary

for the quarter ended September 30, 2023

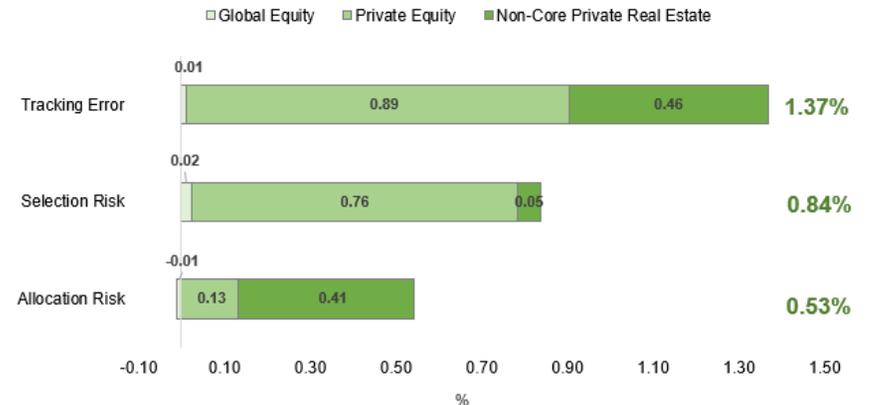
Decomposition of MSCI Risk Factors



Growth Risk Decomposition



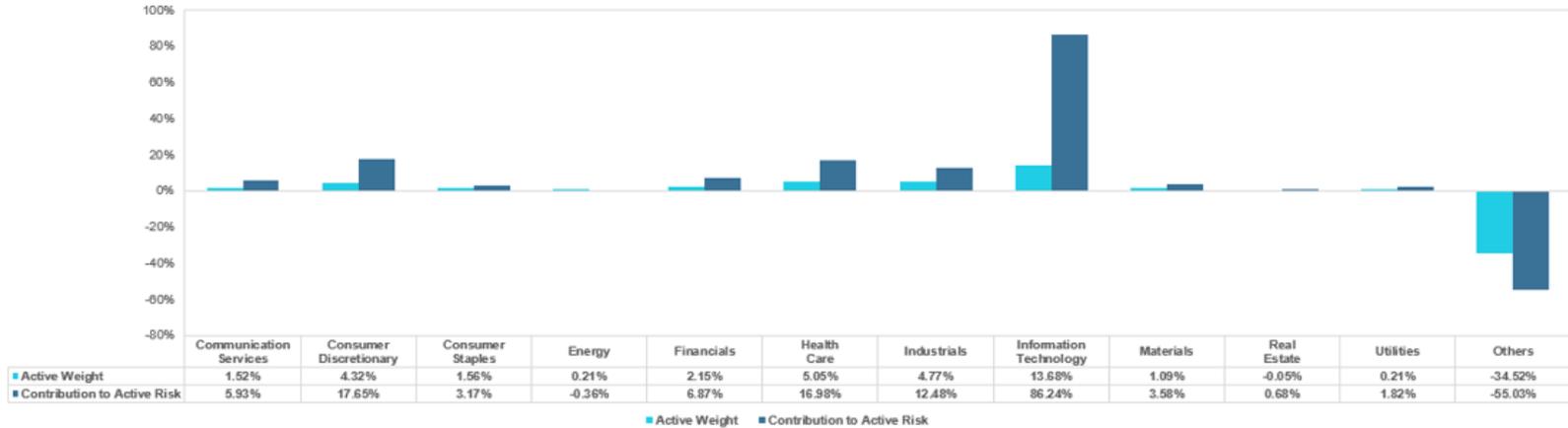
Subcategory Contributions to Tracking Error



Growth Risk Summary

for the quarter ended September 30, 2023

Portfolio Allocation by GICS Sector



Portfolio Allocation by Region^{1,2}



¹ Global represents investments made in regions where specific country allocations are not available.

² Rest of World is sum of countries with weights below 0.5%.

Growth – Global Equity

Acadian Developed Markets

for the quarter ended September 30, 2023



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)	61,185.8	76,954.7
No. Of Issues	673.0	0.0
Dividend Yield	4.0	3.2
Return on Equity	22.3	18.3
Price to Sales	0.8	1.3
Price to Book	1.6	1.7
PE Ratio	10.3	14.5

Top Holdings (% of assets)

NOVO NORDISK A/S B	3.5%
INDUSTRIA DE DISEÑO TEXTIL	2.4%
BP PLC SPONS ADR	2.4%
WOLTERS KLUWER	2.1%
STELLANTIS NV	1.9%
Top 5 Holdings	12.4%

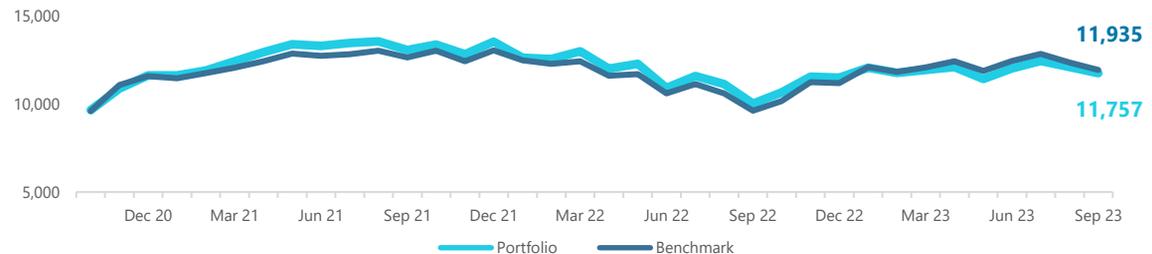
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Acadian Developed Markets	572.6	-2.2%	17.3%	5.5%	3.5%
MSCI EAFE + Canada Net Index		-4.1%	24.0%	6.1%	3.4%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

Universe data: Intl/Global Equity Funds - Core	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Acadian Developed Markets	-2.1%	21	17.7%	68	5.9%	56	3.9%	57
Median	-3.3%		20.9%		7.1%		4.4%	

No. of Observations: 52

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

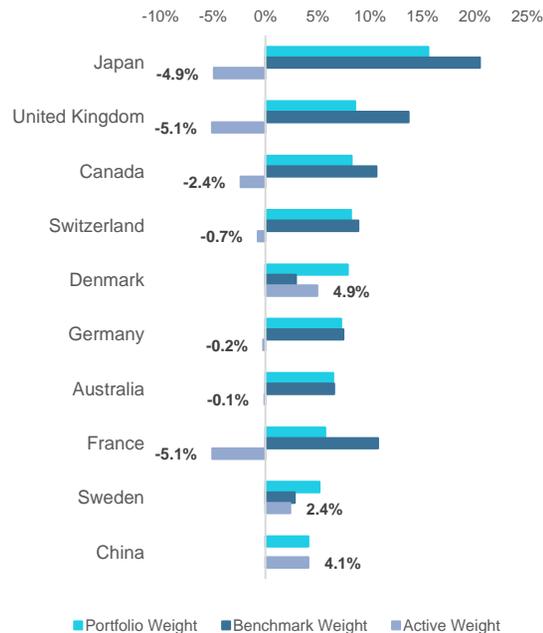
Acadian Developed Markets

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
17.2%	16.7%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
3.5%	1.01

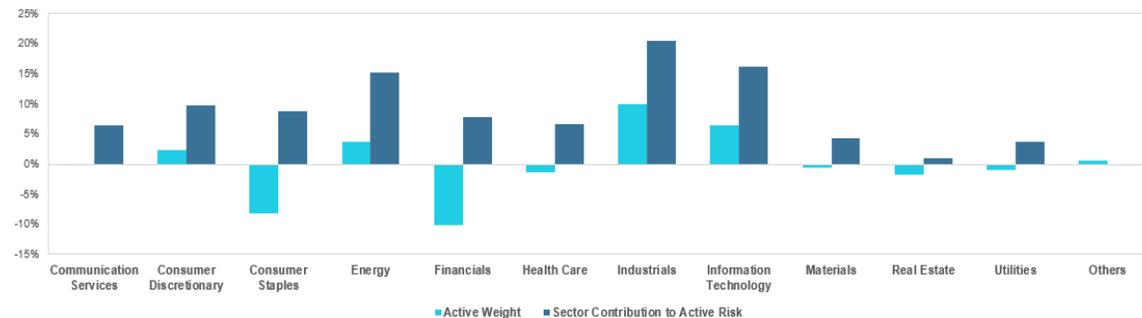
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
MEG ENERGY CORP	0.98%	0.00%	0.98%	0.17%
BP PLC	2.43%	0.00%	2.43%	0.13%
AP MOLLER MAERSK	1.44%	0.00%	1.44%	0.10%
NESTLE SA	0.00%	1.83%	-1.83%	0.09%
SPOTIFY TECHNOLOGY SA	1.17%	0.00%	1.17%	0.09%
ATLASSIAN CORP	0.86%	0.00%	0.86%	0.09%
NOVO NORDISK A/S	3.54%	1.81%	1.74%	0.08%
WIX.COM LTD	0.78%	0.03%	0.75%	0.08%
BLUESCOPE STEEL LTD	1.07%	0.03%	1.03%	0.08%
MONDAY.COM LTD	0.65%	0.02%	0.63%	0.08%

Portfolio Allocation by GICS Sector



Growth – Global Equity BTC Europe Alpha Tilts

for the quarter ended September 30, 2023

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

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	102.7	97.6
No. Of Issues	156.0	0.0
Dividend Yield	3.9	3.4
Return on Equity	19.7	21.9
Price to Sales	2.9	3.3
Price to Book	4.2	4.8
PE Ratio	12.8	14.2

Top Holdings (% of assets)

NESTLE SA REG	4.5%
NOVARTIS AG REG	3.6%
ASTRAZENECA PLC	3.4%
NOVO NORDISK A/S B	2.8%
SAP SE	2.7%
Top 5 Holdings	17.0%

Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
BTC Euro Tilts	579.8	-4.6%	30.5%	10.2%	5.6%
MSCI EUROPE		-5.0%	28.8%	7.2%	4.0%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

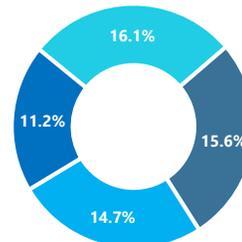
Universe data: Intl Equity Developed Mkt Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
BTC Euro Tilts	-4.5%	63	30.5%	17	10.5%	17	5.9%	16
Median	-3.6%		22.8%		5.6%		3.7%	

No. of Observations: 176

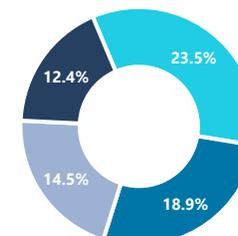
Growth of \$10,000



Top Exposures (% of assets)²



- INDUSTRIALS
- HEALTH CARE
- FINANCIALS
- CONSUMER STAPLES



- UNITED KINGDOM
- FRANCE
- SWITZERLAND
- GERMANY

¹ Universe data is gross-of-fees.

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

Growth Risk Analysis – Global Equity

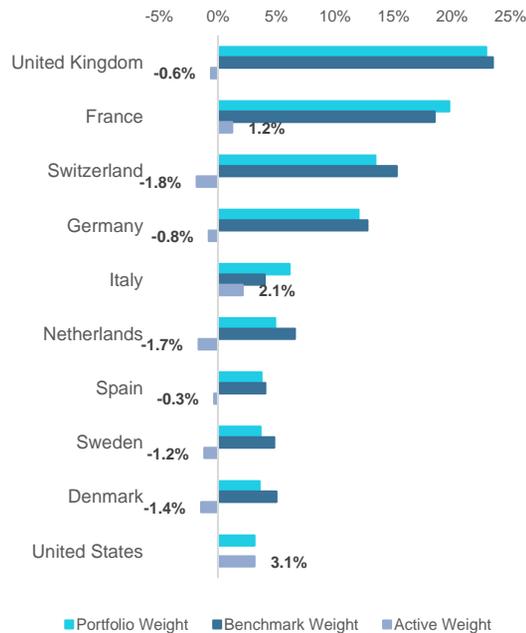
BTC Europe Alpha Tilts

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
18.1%	18.6%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
1.7%	0.97

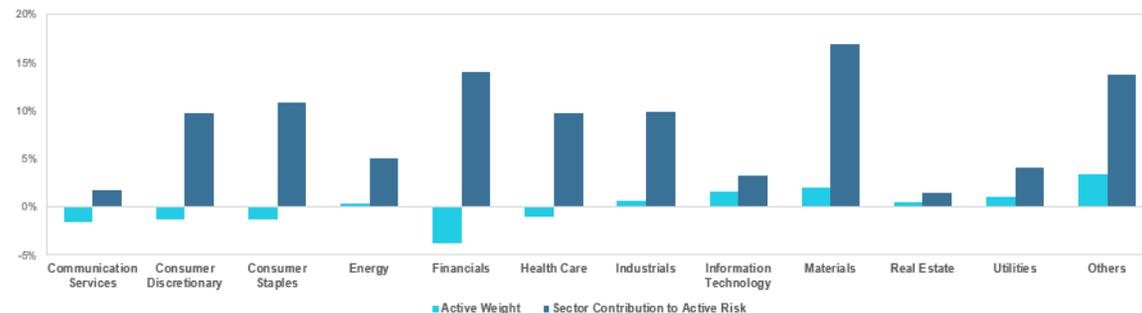
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
ASML HOLDING NV	0.00%	2.48%	-2.48%	0.18%
EQUINOR ASA	1.75%	0.31%	1.44%	0.14%
ARCELORMITTAL SA	1.37%	0.13%	1.23%	0.08%
CARREFOUR SA	1.36%	0.11%	1.26%	0.07%
BRITISH AMERICAN TOBACCO PLC	2.07%	0.70%	1.37%	0.06%
ENGIE	1.75%	0.29%	1.45%	0.06%
NOVARTIS AG	3.64%	2.19%	1.45%	0.05%
RIO TINTO PLC	1.62%	0.74%	0.88%	0.05%
HOLCIM AG	1.79%	0.35%	1.44%	0.04%
TESCO PLC	1.64%	0.24%	1.40%	0.04%

Portfolio Allocation by GICS Sector



Growth – Global Equity Capital Group Developed Markets

for the quarter ended September 30, 2023

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)	112,789.9	76,954.7
No. Of Issues	156.0	0.0
Dividend Yield	2.2	3.2
Return on Equity	22.5	18.3
Price to Sales	4.8	3.3
Price to Book	5.9	4.3
PE Ratio	20.8	14.7

Top Holdings (% of assets)

ASML HOLDING NV	3.7%
SAFRAN SA	3.3%
ASTRAZENECA PLC	2.4%
LONDON STOCK EXCHANGE GROUP	2.0%
TOTALENERGIES SE	2.0%
Top 5 Holdings	13.3%

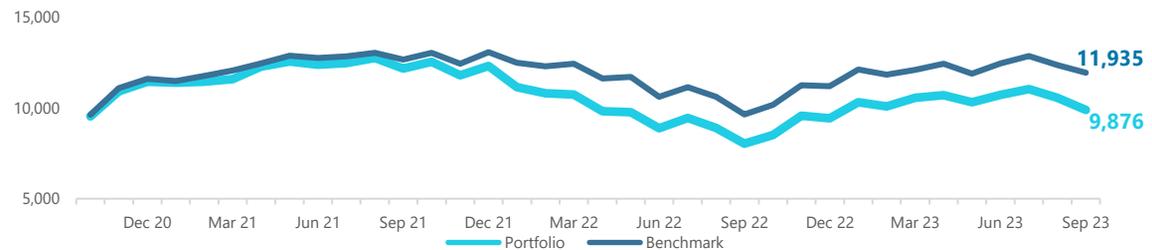
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Capital Group Developed Markets	381.6	-7.7%	23.1%	-0.4%	3.9%
EAFE Custom Benchmark		-4.1%	24.0%	6.1%	3.4%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

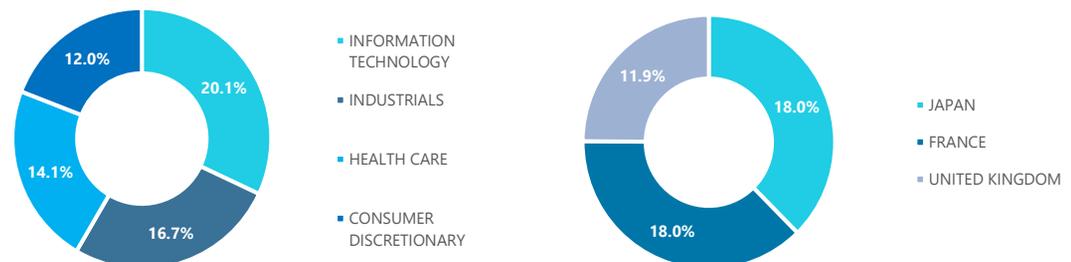
Universe data: Intl/Global Equity Funds - Core	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Capital Group Developed Markets	-7.7%	89	23.5%	30	-0.1%	77	4.3%	52
Median	-3.3%		20.9%		7.1%		4.4%	

No. of Observations: 52

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%.

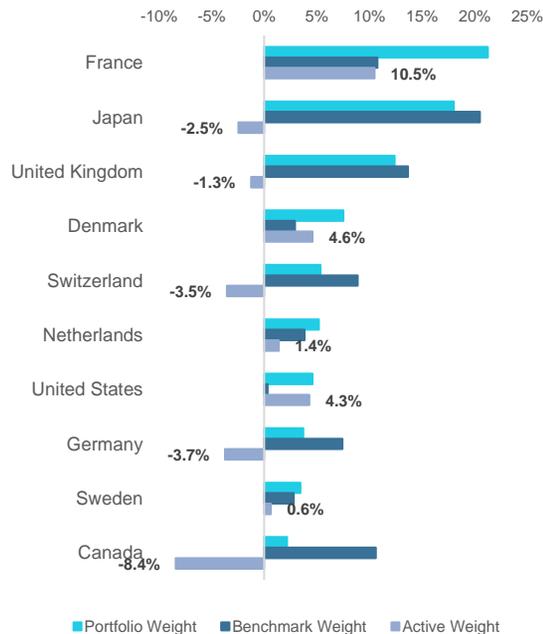
Growth Risk Analysis – Global Equity Capital Group Developed Markets

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
16.8%	16.7%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
3.6%	0.98

Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
ASML HOLDING NV	3.69%	0.00%	3.69%	0.48%
NOVO NORDISK A/S	4.13%	1.81%	2.33%	0.19%
OCADO GROUP PLC	1.37%	0.03%	1.34%	0.17%
TOKYO ELECTRON LTD	1.56%	0.39%	1.16%	0.15%
SHELL PLC	0.00%	1.29%	-1.29%	0.12%
EVOLUTION AB	1.98%	0.11%	1.87%	0.14%
GENMAB A/S	1.71%	0.14%	1.57%	0.13%
KEYENCE CORP	1.72%	0.44%	1.28%	0.12%
HAMAMATSU PHOTONICS KK	1.81%	0.04%	1.77%	0.12%
CAPGEMINI SE	1.69%	0.18%	1.51%	0.10%

Portfolio Allocation by GICS Sector



Growth – Global Equity

Cevian Capital II

for the quarter ended September 30, 2023



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	16.3%
Benchmark Standard Deviation	17.3%
Sharpe Ratio	0.52
Information Ratio	0.32
Beta	0.77
Tracking Error	10.1%

Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Cevian Capital II - Activist	457.3	1.1%	25.7%	16.6%	8.0%
MSCI EUROPE		-5.0%	28.8%	7.2%	4.0%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

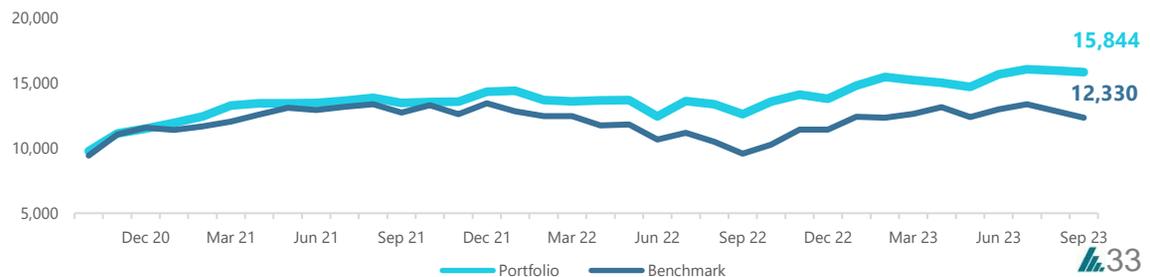
Universe data: Intl Equity Developed Mkt Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Cevian Capital II - Activist	1.4%	24	27.1%	69	17.9%	58	9.2%	--
Median	-3.6%		22.8%		5.6%		3.7%	

No. of Observations: 176

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

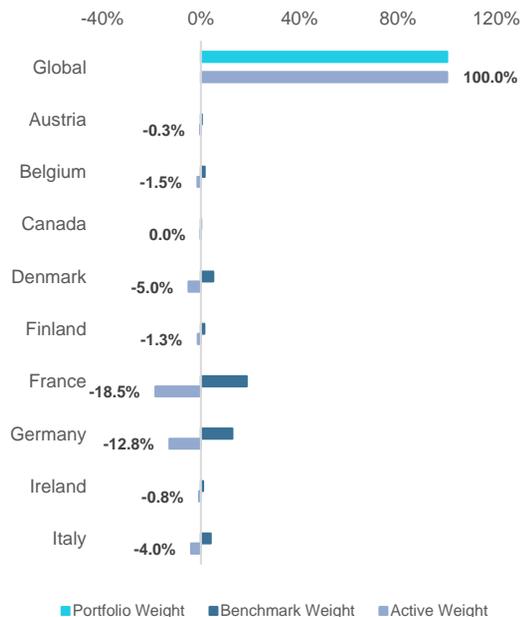
Cevian Capital II

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
19.4%	18.6%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
9.2%	0.92

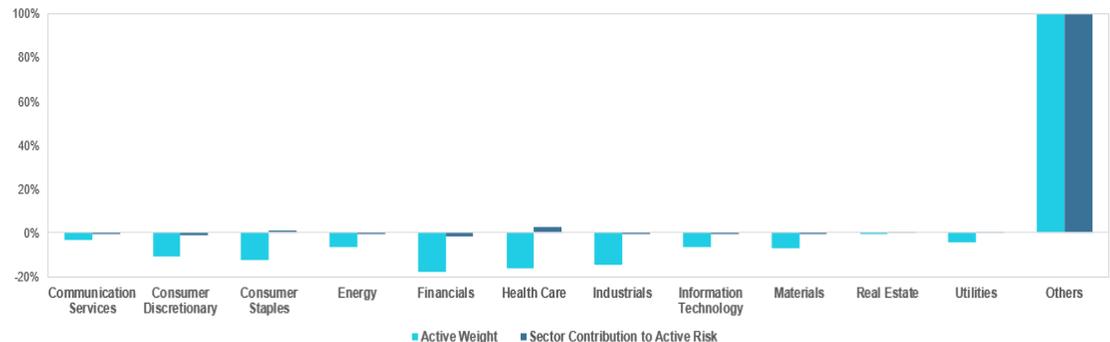
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
CEVIAN CAPITAL II	100.00%	0.00%	100.00%	9.16%
NOVO NORDISK A/S	0.00%	3.11%	-3.11%	0.07%
ASTRAZENECA PLC	0.00%	2.19%	-2.19%	0.06%
NESTLE SA	0.00%	3.15%	-3.15%	0.04%
ROCHE HOLDING AG	0.00%	2.00%	-2.00%	0.04%
NOVARTIS AG	0.00%	2.19%	-2.19%	0.03%
ASML HOLDING NV	0.00%	2.48%	-2.48%	0.00%
SHELL PLC	0.00%	2.22%	-2.22%	0.01%
UNILEVER PLC	0.00%	1.30%	-1.30%	0.02%
HSBC HOLDINGS PLC	0.00%	1.62%	-1.62%	0.01%

Portfolio Allocation by GICS Sector



Growth – Global Equity CornerCap US Small Cap

for the quarter ended September 30, 2023

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)	2,530.1	2,824.8
No. Of Issues	353.0	0.0
Dividend Yield	1.6	1.4
Return on Equity	10.7	11.0
Price to Sales	4.0	10.0
Price to Book	1.5	1.9
PE Ratio	15.5	27.0

Top Holdings (% of assets)

HELIX ENERGY SOLUTIONS GROUP	0.6%
AMERICAN WOODMARK CORP	0.6%
PERDOCEO EDUCATION CORP	0.5%
CARPENTER TECHNOLOGY	0.5%
COCA COLA CONSOLIDATED INC	0.5%
Top 5 Holdings	2.8%

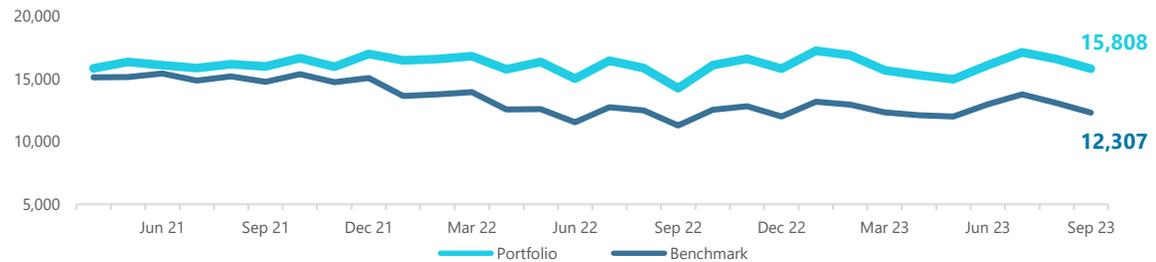
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Cornercap US Small Cap - EMP	80.6	-1.8%	10.9%	16.5%	6.1%
RUSSELL 2000		-5.1%	8.9%	7.2%	2.4%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

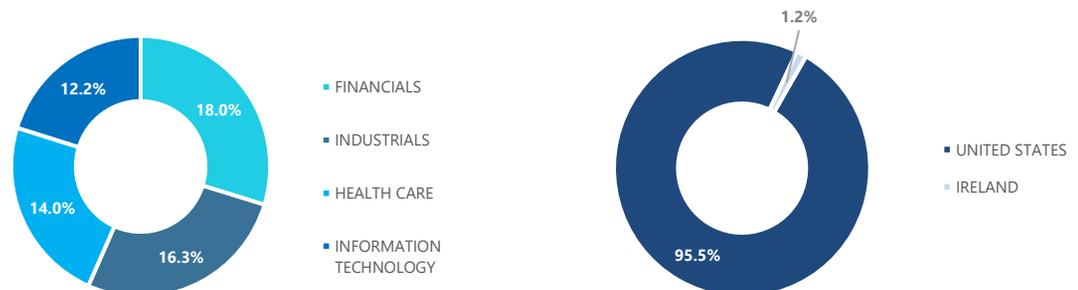
Universe data: US Equity Funds - Small Cap	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Cornercap US Small Cap - EMP	-1.7%	24	11.5%	11	17.1%	28	6.7%	20
Median	-4.1%		14.4%		12.2%		5.3%	

No. of Observations: 55

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

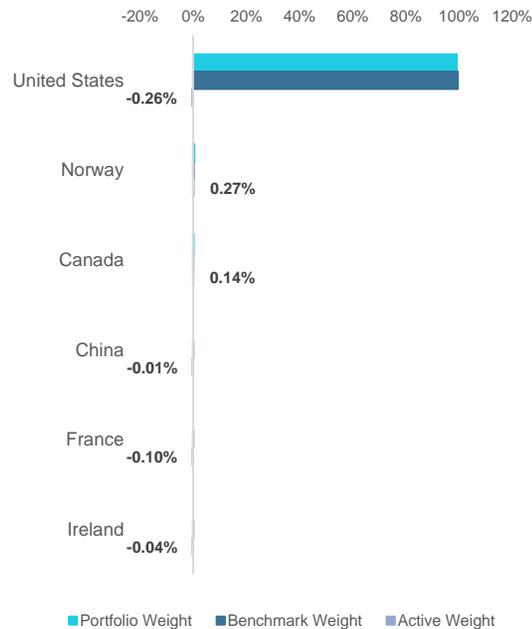
CornerCap US Small Cap

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
22.7%	24.0%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
3.1%	0.94

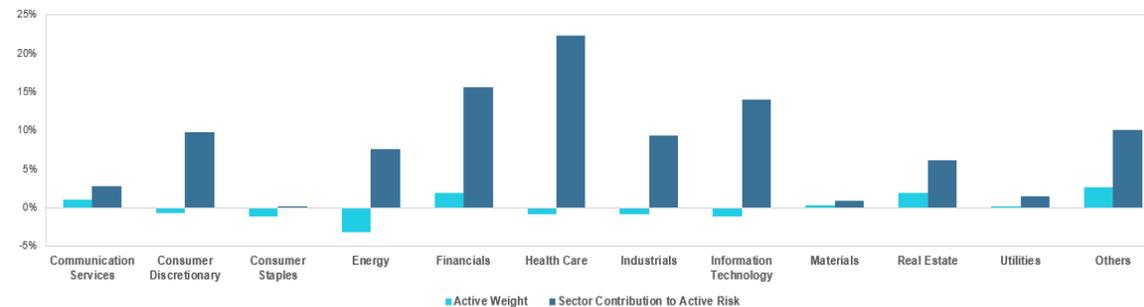
Top Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
SUPER MICRO COMPUTER INC	0.00%	0.57%	-0.57%	0.08%
CHART INDUSTRIES INC	0.00%	0.32%	-0.32%	0.03%
ONTO INNOVATION INC	0.00%	0.28%	-0.28%	0.03%
AXCELIS TECHNOLOGIES INC	0.00%	0.24%	-0.24%	0.03%
MATADOR RESOURCES CO	0.00%	0.30%	-0.30%	0.02%
RAMBUS INC	0.00%	0.27%	-0.27%	0.02%
WEATHERFORD INTERNATIONAL PLC	0.00%	0.29%	-0.29%	0.01%
CHARVANA CO	0.00%	0.18%	-0.18%	0.03%
CHAMPIONX CORP	0.00%	0.32%	-0.32%	0.01%
FABRINET	0.00%	0.27%	-0.27%	0.01%

Portfolio Allocation by GICS Sector



Growth – Global Equity

Frontier US SMID Growth

for the quarter ended September 30, 2023

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)	7,310.5	6,141.6
No. Of Issues	142.0	0.0
Dividend Yield	0.6	1.5
Return on Equity	12.2	13.8
Price to Sales	2.7	2.8
Price to Book	3.3	3.2
PE Ratio	18.4	16.5

Top Holdings (% of assets)

ARRAY TECHNOLOGIES INC	1.9%
ATI INC	1.8%
MRC GLOBAL INC	1.8%
XPO INC	1.7%
BANCORP INC/THE	1.7%
Top 5 Holdings	8.8%

Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Frontier US SMID Growth	282.5	-6.9%	22.5%	11.4%	5.5%
RUSSELL 2500		-4.8%	11.3%	8.4%	4.5%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

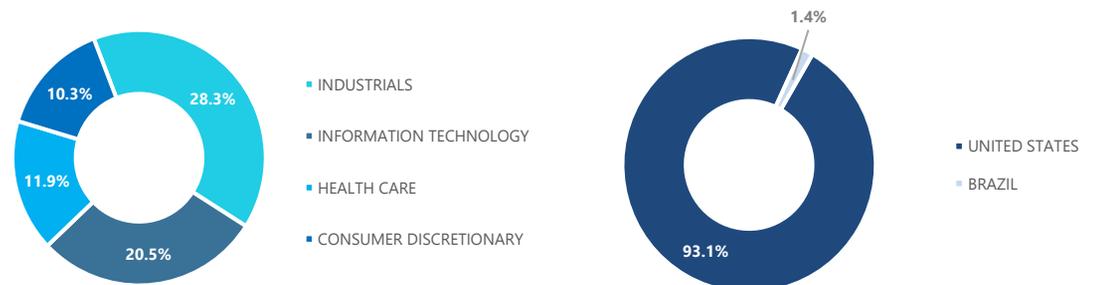
Universe data: US Equity Funds - Small Cap	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Frontier US SMID Growth	-6.7%	85	23.4%	11	12.2%	50	6.3%	29
Median	-4.1%		14.4%		12.2%		5.3%	

No. of Observations: 55

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%.

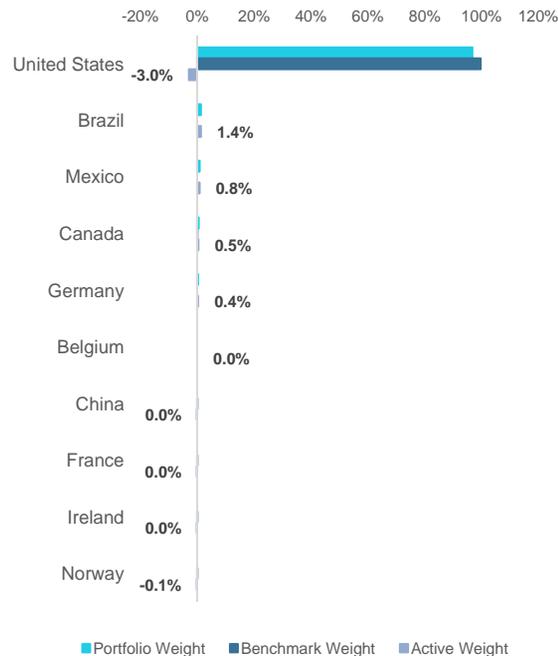
Growth Risk Analysis – Global Equity Frontier US SMID Growth

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
25.5%	22.8%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
4.8%	1.10

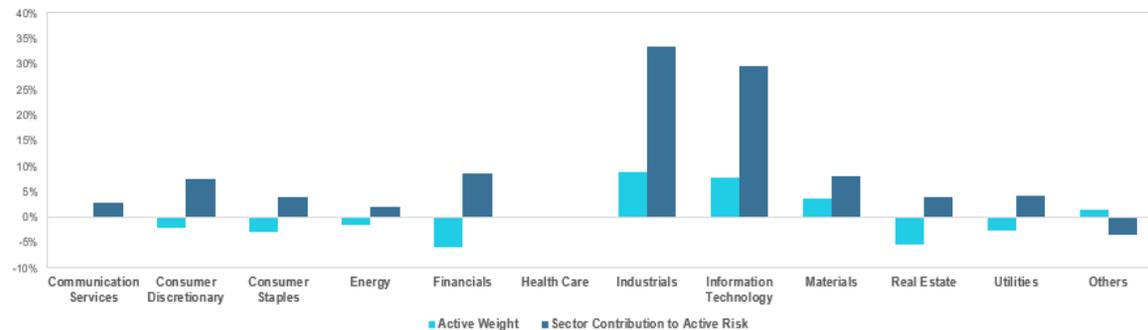
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
ARRAY TECHNOLOGIES INC	1.88%	0.06%	1.81%	0.41%
AZUL SA	1.39%	0.00%	1.39%	0.31%
JABIL INC	2.51%	0.31%	2.21%	0.16%
WOLFSPEED INC	1.29%	0.09%	1.20%	0.27%
MRC GLOBAL INC	1.76%	0.02%	1.75%	0.17%
CAESARS ENTERTAINMENT INC	1.45%	0.00%	1.45%	0.13%
ALBEMARLE CORP	1.32%	0.00%	1.32%	0.13%
SITIME CORPORATION	0.94%	0.04%	0.90%	0.18%
PAYMENTUS HOLDINGS INC	1.19%	0.00%	1.19%	0.15%
XPO INC	1.70%	0.16%	1.53%	0.11%

Portfolio Allocation by GICS Sector



Growth – Global Equity

Global Alpha

for the quarter ended September 30, 2023

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)	2,718.7	2,574.3
No. Of Issues	61.0	0.0
Dividend Yield	2.7	3.7
Return on Equity	12.5	11.6
Price to Sales	8.7	5.8
Price to Book	2.3	4.1
PE Ratio	12.6	14.4

Top Holdings (% of assets)

SOPRA STERIA GROUP	3.8%
MELIA HOTELS INTERNATIONAL	3.7%
L OCCITANE INTERNATIONAL SA	3.6%
SAMSONITE INTERNATIONAL SA	3.1%
RAFFLES MEDICAL GROUP LTD	3.1%
Top 5 Holdings	17.4%

Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Global Alpha	166.7	-5.3%	15.9%	2.6%	--
MSCI EAFE SMALL CAP NET		-3.5%	17.9%	1.1%	--
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

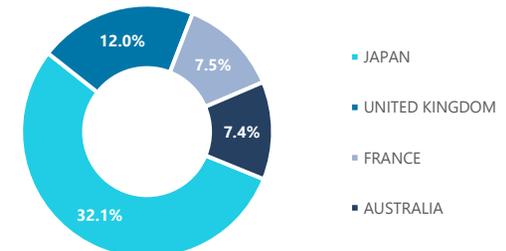
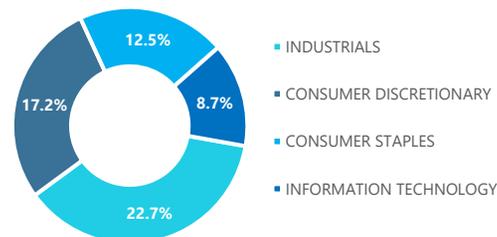
Universe data: International Equity Funds - Core	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Global Alpha	-5.1%	83	16.7%	71	3.3%	72	--	--
Median	-3.3%		20.9%		7.1%		--	--

No. of Observations 52

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

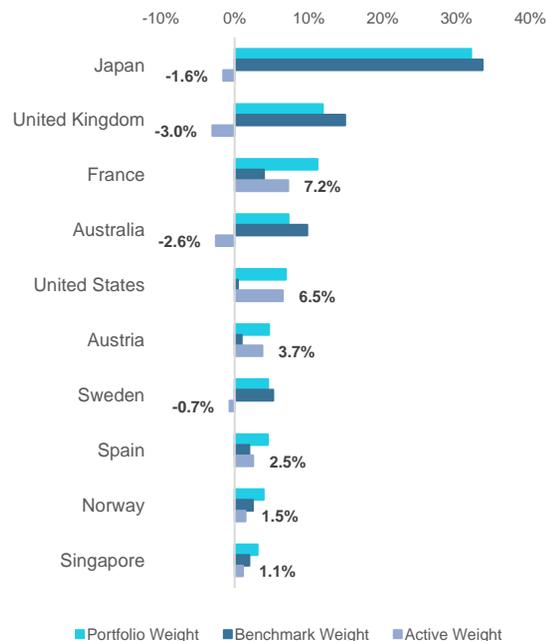
Global Alpha

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
17.4%	18.0%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
4.0%	0.94

Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
L'OCCITANE INTERNATIONAL SA	3.66%	0.00%	3.66%	0.56%
SAMSONITE INTERNATIONAL SA	3.14%	0.00%	3.14%	0.31%
ASICS CORP	3.06%	0.24%	2.82%	0.22%
SEGA SAMMY HOLDINGS INC	2.92%	0.12%	2.80%	0.19%
SALMAR ASA	2.91%	0.00%	2.91%	0.19%
VITASOY INTERNATIONAL HOLDINGS LTD	1.40%	0.04%	1.36%	0.11%
INTERNET INITIATIVE JAPAN INC	2.61%	0.08%	2.53%	0.16%
ARIAKE JAPAN	1.96%	0.03%	1.94%	0.13%
CVS GROUP PLC	2.28%	0.06%	2.22%	0.14%
BANCO BPM SPA	0.00%	0.29%	-0.29%	0.01%

Portfolio Allocation by GICS Sector



Growth – Global Equity

JPMorgan Strategic Beta Non-US

for the quarter ended September 30, 2023

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)	70,892.7	70,251.1
No. Of Issues	1,799.0	0.0
Dividend Yield	3.5	3.3
Return on Equity	18.7	17.2
Price to Sales	3.4	3.9
Price to Book	4.1	4.1
PE Ratio	12.1	14.4

Top Holdings (% of assets)

ISHARES MSCI INDIA ETF	4.3%
TAIWAN SEMICONDUCTOR MANUFAC	1.5%
NOVO NORDISK A/S B	1.1%
NESTLE SA REG	1.1%
TENCENT HOLDINGS LTD	1.0%
Top 5 Holdings	9.0%

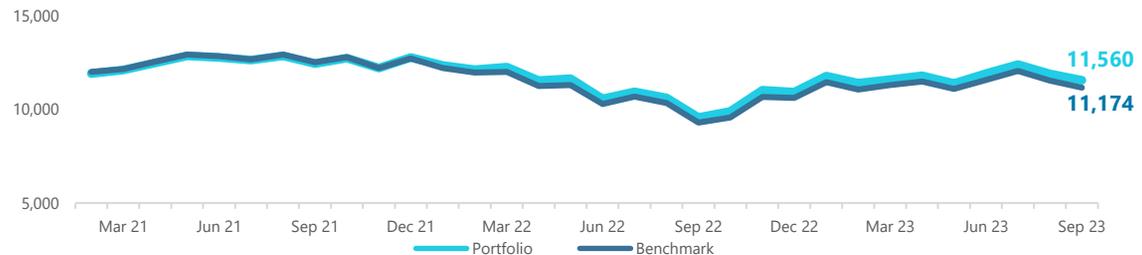
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
JPMAM Strategic Beta Non-US	582.4	-3.0%	20.7%	5.0%	--
MSCI ACWI ex USA IMI Net		-3.5%	20.2%	3.8%	--
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

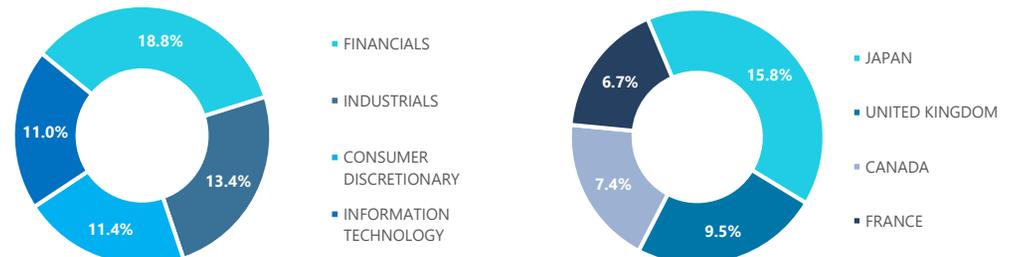
Universe data: Intl Equity Developed Mkt Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
JPMAM Strategic Beta Non-US	-3.0%	39	20.8%	58	4.9%	52	--	--
Median	-3.6%		22.8%		5.6%		--	

No. of Observations 176

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

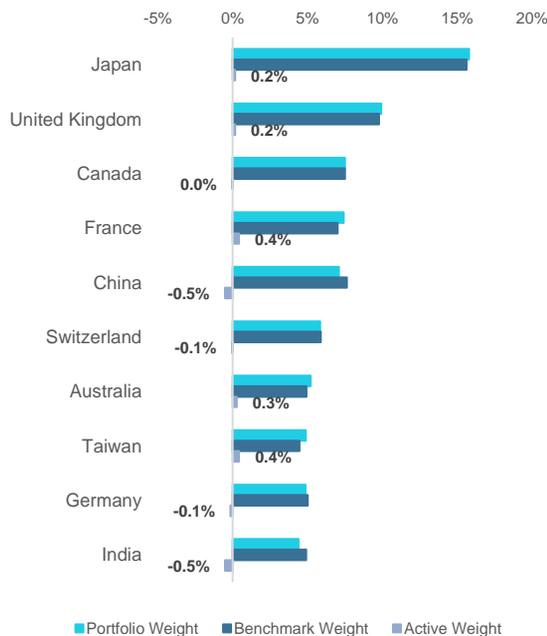
JPMorgan Strategic Beta Non-US

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
16.1%	16.3%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
0.7%	0.99

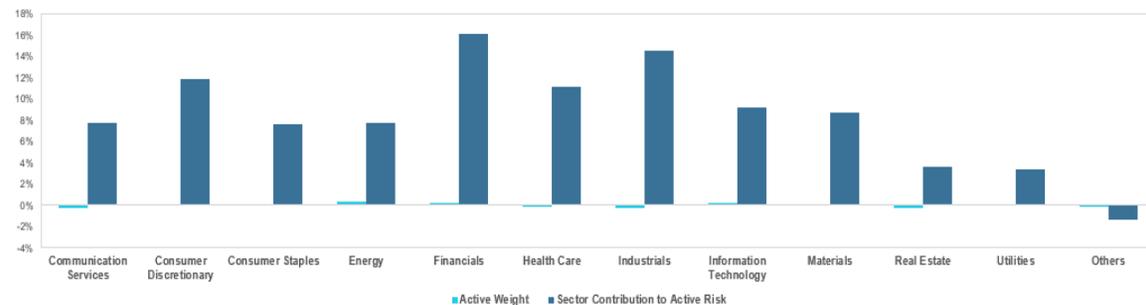
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
ASML HOLDING NV	0.00%	0.89%	-0.89%	0.07%
ARGENX SE	0.00%	0.10%	-0.10%	0.01%
MITSUBISHI UFJ FINANCIAL GROUP INC	0.00%	0.36%	-0.36%	-0.01%
UNILEVER PLC	0.03%	0.47%	-0.44%	-0.01%
ADVANTEST CORP	0.00%	0.08%	-0.08%	0.00%
XPENG INC	0.01%	0.03%	-0.02%	0.01%
NIO INC	0.02%	0.05%	-0.02%	0.01%
SHOPIFY INC	0.21%	0.24%	-0.03%	0.01%
WUXI BIOLOGICS CAYMAN INC	0.05%	0.08%	-0.03%	0.01%
SEA LIMITED	0.04%	0.06%	-0.02%	0.01%

Portfolio Allocation by GICS Sector



Growth – Global Equity

JPMorgan Strategic Beta US

for the quarter ended September 30, 2023



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)	546,914.0	547,445.0
No. Of Issues	920.0	0.0
Dividend Yield	1.6	1.6
Return on Equity	24.4	22.5
Price to Sales	2.2	2.2
Price to Book	3.6	3.6
PE Ratio	19.6	20.6

Top Holdings (% of assets)

APPLE INC	6.4%
MICROSOFT CORP	5.3%
AMAZON.COM INC	2.8%
NVIDIA CORP	2.6%
ALPHABET INC CL A	1.9%
Top 5 Holdings	18.9%

Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
JPMAM Strategic Beta US	4,518.6	-3.0%	21.6%	10.3%	--
MSCI USA IMI Gross		-3.2%	20.7%	9.6%	--
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

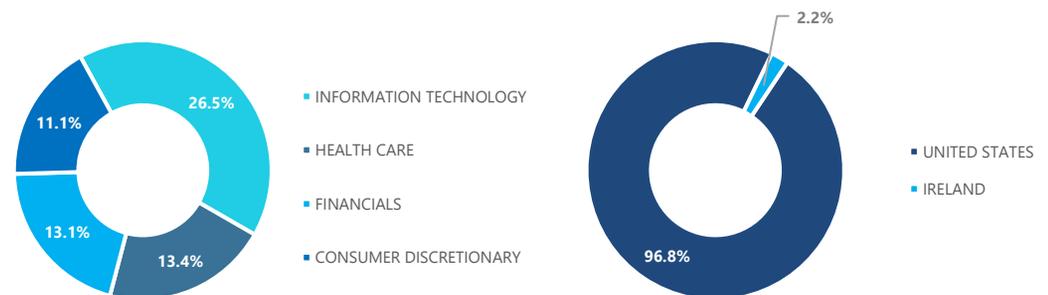
Universe data: US Equities Total Large Cap	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
JPMAM Strategic Beta US	-3.0%	50	21.6%	53	10.3%	45	--	--
Median	-3.0%		21.6%		10.2%		--	--

No. of Observations: 78

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

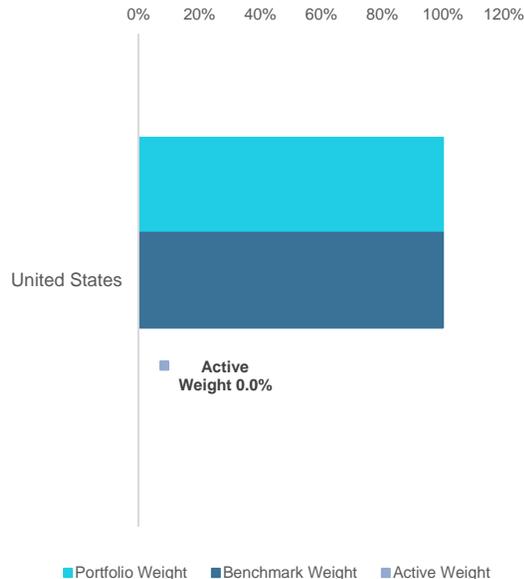
JPMorgan Strategic Beta US

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility <hr/> 18.5%	BENCHMARK Forecast Volatility <hr/> 18.7%
PORTFOLIO Forecast Tracking Error <hr/> 0.6%	PORTFOLIO Beta <hr/> 0.99

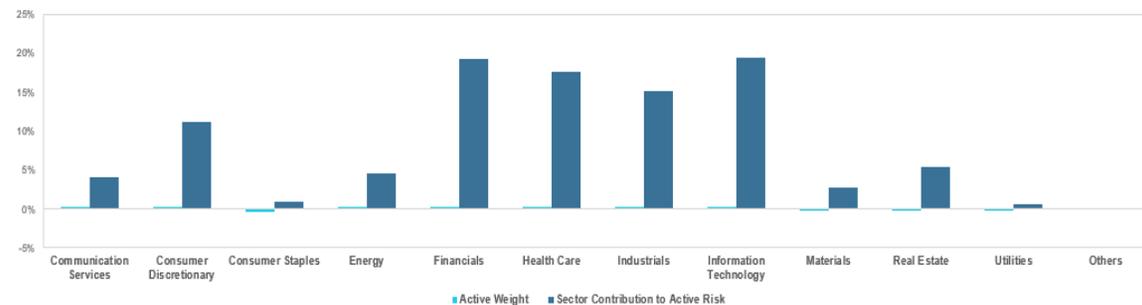
Top Country by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
JPMORGAN CHASE & CO	0.00%	1.01%	-1.01%	0.05%
RIVIAN AUTOMOTIVE INC	0.00%	0.04%	-0.04%	0.01%
SNOWFLAKE INC	0.05%	0.10%	-0.04%	0.01%
SPLUNK INC	0.00%	0.05%	-0.05%	0.01%
TESLA INC	1.66%	1.71%	-0.05%	0.01%
MODERNA INC	0.04%	0.08%	-0.04%	0.01%
MONGODB INC	0.02%	0.06%	-0.04%	0.01%
COINBASE GLOBAL INC	0.00%	0.03%	-0.03%	0.01%
DATADOG INC	0.01%	0.05%	-0.04%	0.01%
CROWDSTRIKE HOLDINGS INC	0.04%	0.09%	-0.05%	0.00%

Portfolio Allocation by GICS Sector



Growth – Global Equity Lazard Emerging Markets

for the quarter ended September 30, 2023

Strategy

Seeks to provide long-term capital appreciation by investing in funds 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)	26,687.7	91,736.2
No. Of Issues	48.0	0.0
Dividend Yield	2.4	3.0
Return on Equity	12.2	12.0
Price to Sales	1.4	1.2
Price to Book	1.5	1.6
PE Ratio	12.6	13.1

Top Holdings (% of assets)

PROSUS NV	8.3%
CITIC SECURITIES CO LTD H	6.5%
JPMORGAN EMERGING MARKETS INVE	6.4%
TEMPLETON EMERGING MARKETS INV	6.4%
FIDELITY CHINA SPECIAL SITUATI	5.2%
Top 5 Holdings	32.7%

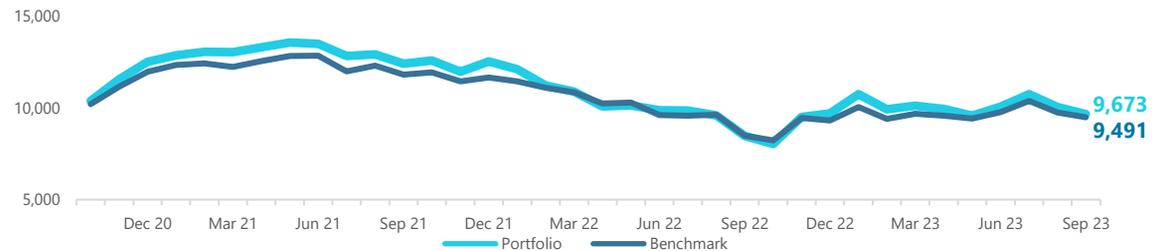
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Lazard Emerging Markets	366.7	-3.9%	14.0%	-1.1%	2.4%
MSCI EMERGING MARKETS		-2.9%	11.7%	-1.7%	0.6%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

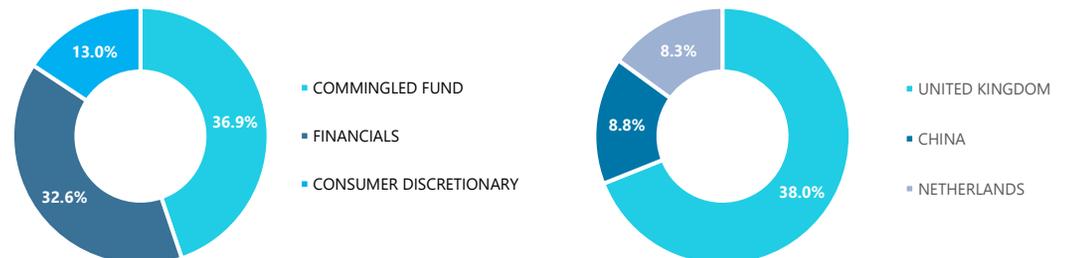
Universe data: Intl Equity Emerging Mkt Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Lazard Emerging Markets	-3.7%	64	14.8%	52	-0.5%	58	3.1%	53
Median	-3.1%		15.1%		1.7%		3.3%	

No. of Observations: 92

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

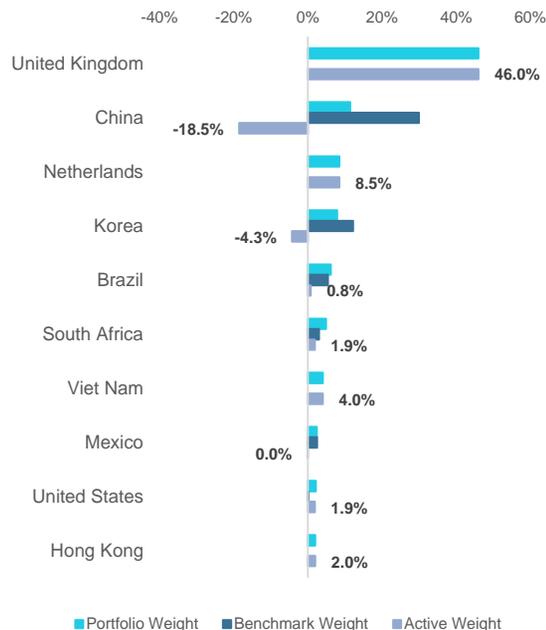
Lazard Emerging Markets

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
19.1%	17.0%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
9.9%	0.96

Top 10 Countries by Weight

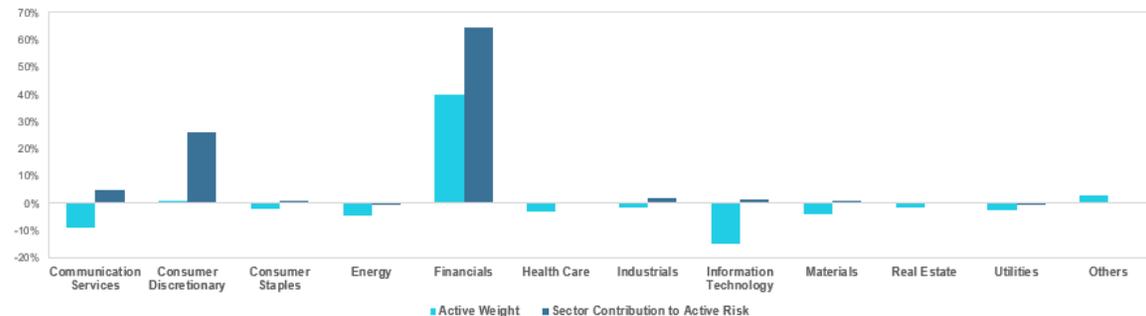


Top 10 Assets¹ by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
PROSUS NV	8.48%	0.00%	8.48%	1.49%
JPM EMERGING MARKETS INVT TRUST PLC	6.54%	0.00%	6.54%	0.98%
FIDELITY CHINA SPECIAL SITUATIONS PLC	5.29%	0.00%	5.29%	0.94%
TEMPLETON EMERGING MKTS INVT TRUST PLC	6.52%	0.00%	6.52%	0.92%
NASPERS	4.86%	0.48%	4.38%	0.57%
SCHRODER ASIAPACIFIC FUND PLC	2.79%	0.00%	2.79%	0.37%
UTILICO EMERGING MARKETS TRUST PLC	3.05%	0.00%	3.05%	0.37%
ASIA DRAGON TRUST PLC	2.44%	0.00%	2.44%	0.35%
FIDELITY EMERGING MARKETS LTD	2.39%	0.00%	2.39%	0.34%
ABRDN NEW INDIA INVESTMENT TRUST PLC	2.30%	0.00%	2.30%	0.33%

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

Portfolio Allocation by GICS Sector



Growth – Global Equity SSGA MSCI ACWI IMI

for the quarter ended September 30, 2023



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)	363,170.0	361,911.2
No. Of Issues	6,413.0	0.0
Dividend Yield	2.0	2.0
Return on Equity	24.1	24.0
Price to Sales	5.4	5.3
Price to Book	11.0	11.2
PE Ratio	19.1	19.2

Top Holdings (% of assets)

APPLE INC	3.9%
MICROSOFT CORP	3.2%
AMAZON.COM INC	1.7%
ALPHABET INC CL A	1.1%
TESLA INC	1.0%
Top 5 Holdings	10.9%

Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
SSGA MSCI ACWI IMI	14,947.5	-3.4%	20.6%	7.5%	--
MSCI ACWI IMI Net		-3.4%	20.2%	6.9%	--
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

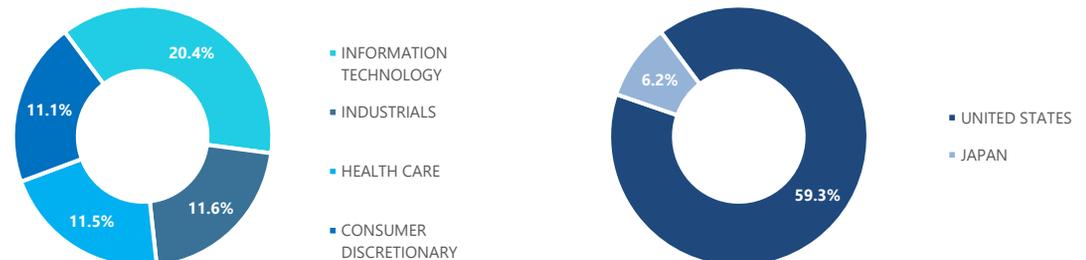
Universe data: Global Equity Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
SSGA MSCI ACWI IMI	-3.4%	59	20.6%	47	7.5%	48	--	--
Median	-2.9%		20.3%		7.2%		--	

No. of Observations: 110

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

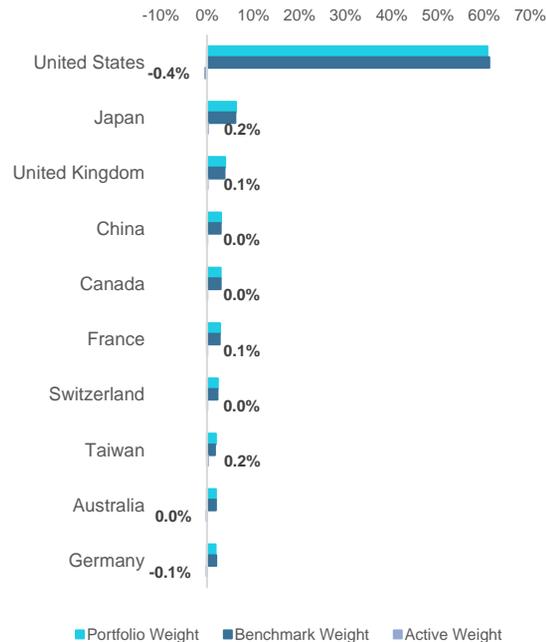
SSGA MSCI ACWI IMI

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
17.2%	17.1%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
0.2%	1.00

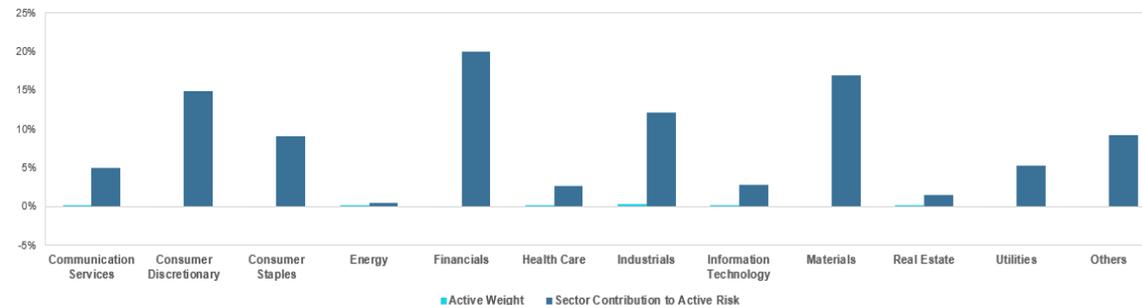
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
ASML HOLDING NV	0.34%	0.00%	0.34%	0.02%
RELIANCE INDUSTRIES LTD	0.00%	0.13%	-0.12%	0.01%
DAIMLER AG	0.08%	0.00%	0.08%	0.00%
VALE SA	0.07%	0.00%	0.07%	0.00%
ATLAS COPCO AB	0.08%	0.03%	0.05%	0.00%
FERGUSON PLC	0.05%	0.00%	0.05%	0.00%
HDFC BANK LTD	0.00%	0.07%	-0.07%	0.01%
BAJAJ FINANCE LTD	0.00%	0.04%	-0.04%	0.01%
AXIS BANK LTD	0.00%	0.04%	-0.04%	0.01%
MITSUBISHI UFJ FINANCIAL GROUP C/S	0.14%	0.00%	0.14%	0.00%

Portfolio Allocation by GICS Sector



Growth – Global Equity Systematic US Small Cap Value

for the quarter ended September 30, 2023

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)	4,593.4	2,824.8
No. Of Issues	154.0	0.0
Dividend Yield	1.4	1.4
Return on Equity	11.6	4.9
Price to Sales	1.8	1.8
Price to Book	1.9	1.9
PE Ratio	11.9	12.0

Top Holdings (% of assets)

FIRST CITIZENS BCSHS CL A	3.4%
EMCOR GROUP INC	1.8%
KBR INC	1.6%
CROSS COUNTRY HEALTHCARE INC	1.5%
COMFORT SYSTEMS USA INC	1.5%
Top 5 Holdings	9.8%

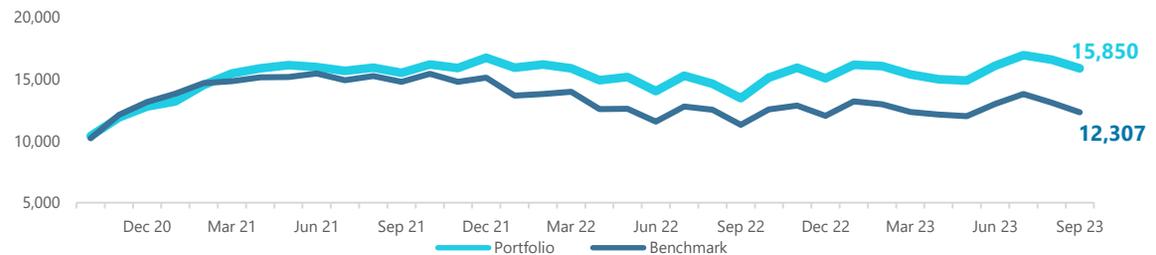
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Systematic US Small Cap Value	196.4	-1.2%	17.8%	16.6%	5.6%
RUSSELL 2000		-5.1%	8.9%	7.2%	2.4%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

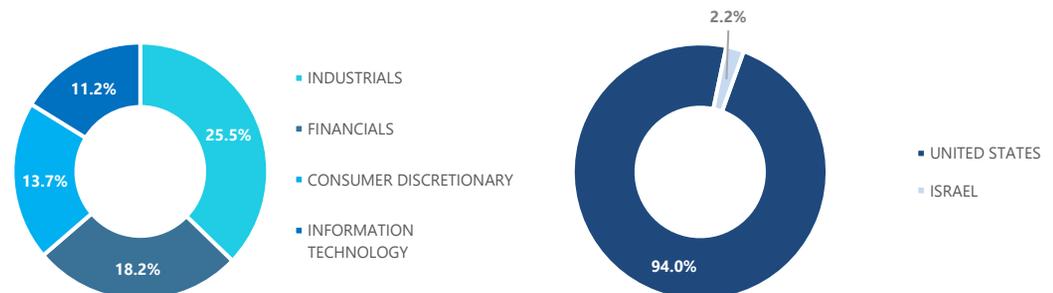
Universe data: US Equity Funds - Small Cap	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Systematic US Small Cap Value	-1.1%	18	18.5%	17	17.2%	20	6.2%	31
Median	-4.1%		14.4%		12.2%		5.3%	

No. of Observations: 55

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%.

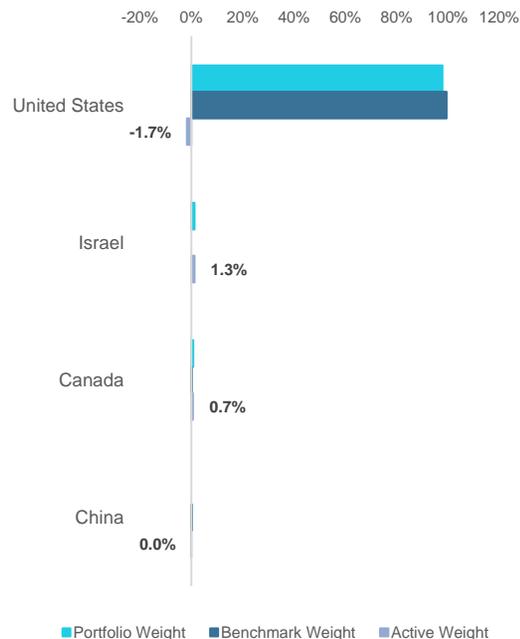
Growth Risk Analysis – Global Equity Systematic US Small Cap Value

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
21.2%	24.0%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
4.9%	0.87

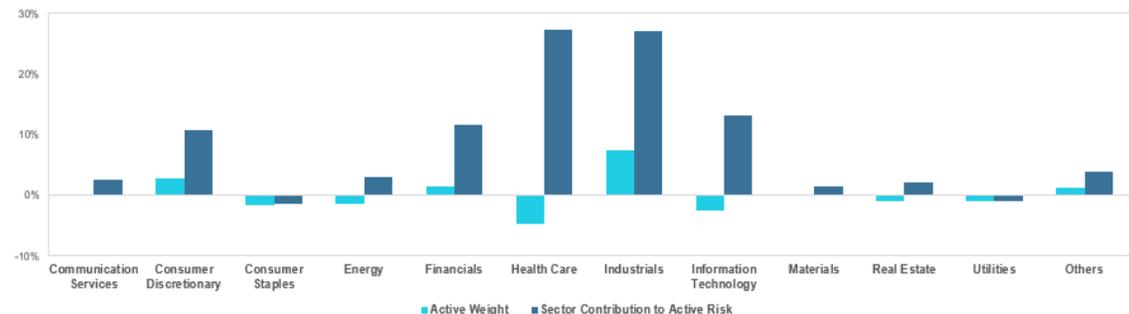
Top Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
SUPER MICRO COMPUTER INC	0.00%	0.57%	-0.57%	0.05%
CHART INDUSTRIES INC	0.00%	0.32%	-0.32%	0.02%
CARVANA CO	0.00%	0.18%	-0.18%	0.03%
MATADOR RESOURCES CO	0.00%	0.30%	-0.30%	0.01%
TENABLE HOLDINGS INC	0.00%	0.23%	-0.23%	0.02%
AXCELIS TECHNOLOGIES INC	0.00%	0.24%	-0.24%	0.01%
LIGHT & WONDER INC	0.00%	0.29%	-0.29%	0.00%
DUOLINGO INC	0.00%	0.21%	-0.21%	0.01%
CHAMPIONX CORP	0.00%	0.32%	-0.32%	0.00%
MICROSTRATEGY INC	0.00%	0.16%	-0.16%	0.02%

Portfolio Allocation by GICS Sector

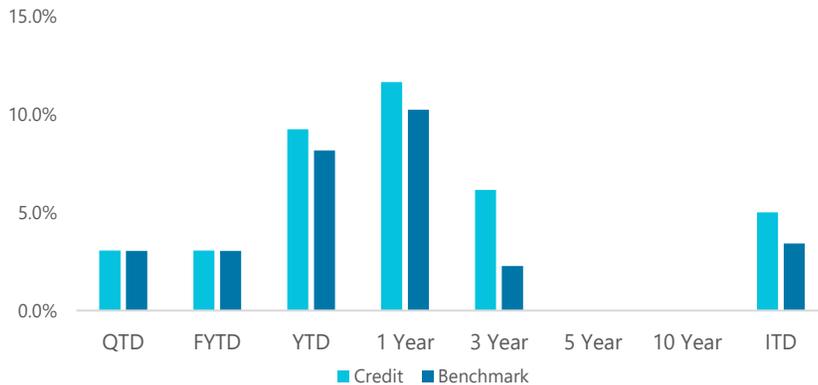


credit

Summary

for the quarter ended September 30, 2023

Performance (net)



	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Credit	3.1%	3.1%	9.2%	11.6%	6.1%	--	--	5.0%
Benchmark	3.0%	3.0%	8.2%	10.2%	2.3%	--	--	3.4%
Excess	0.0%	0.0%	1.1%	1.4%	3.9%	--	--	1.6%

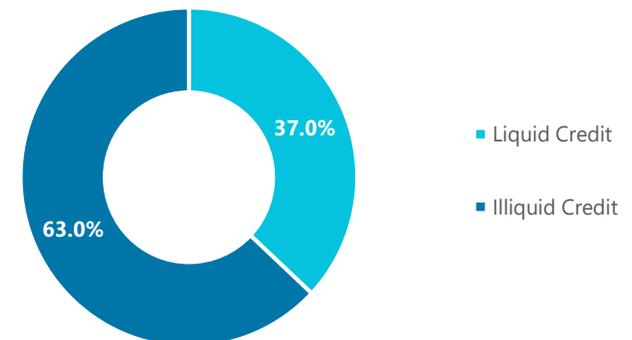
Cumulative Return



Functional Category

	QTD	FYTD	YTD	1 Year	3 Year
Liquid Credit	1.8%	1.8%	8.0%	12.2%	--
Liquid Credit Policy Benchmark	1.1%	1.1%	6.9%	11.2%	--
Excess	0.7%	0.7%	1.2%	1.0%	--
Illiquid Credit	3.8%	3.8%	9.7%	9.6%	12.7%
Illiquid Credit Policy Benchmark	4.1%	4.1%	8.8%	9.5%	1.5%
Excess	-0.4%	-0.4%	0.9%	0.1%	11.2%

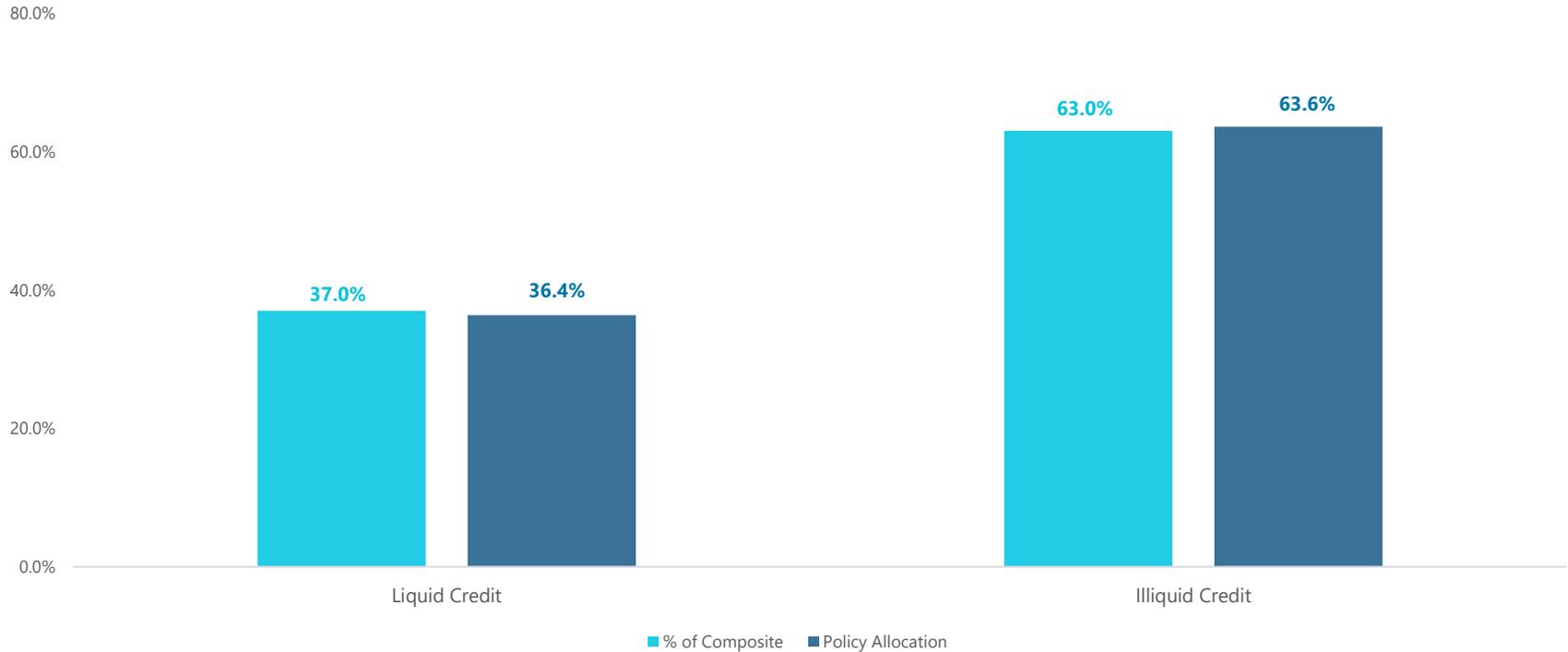
Exposure



Asset Allocation

for the quarter ended September 30, 2023

Actual vs. Policy

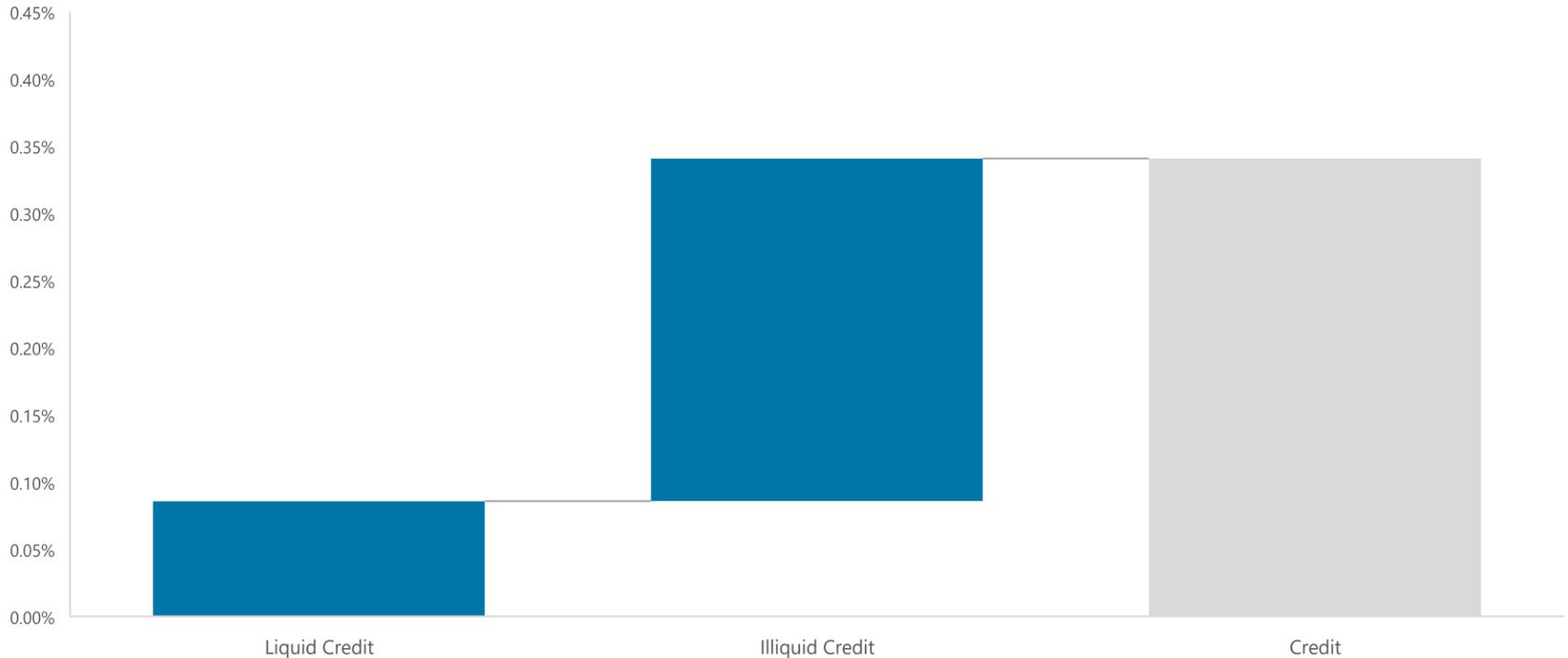


	Ending Market Value (mm)	% of Composite	Policy Allocation	Over / Under (%)	Over / Under (mm)
Credit	8,351	100.0%	100.0%		
Liquid Credit	3,089	37.0%	36.4%	0.6%	53
Illiquid Credit	5,262	63.0%	63.6%	-0.6%	-53

Contribution to Return

for the quarter ended September 30, 2023

QTD Contribution to Return



Functional Category	Contributors	Detractors
Liquid Credit	0.09% Napier Park	Ashmore Investment Management -0.01%
Illiquid Credit	0.26% Magnetar	
Credit	0.34% Lake Cascade	
	Credit Suisse Bank Loans	
	BlackRock/Tennenbaum	

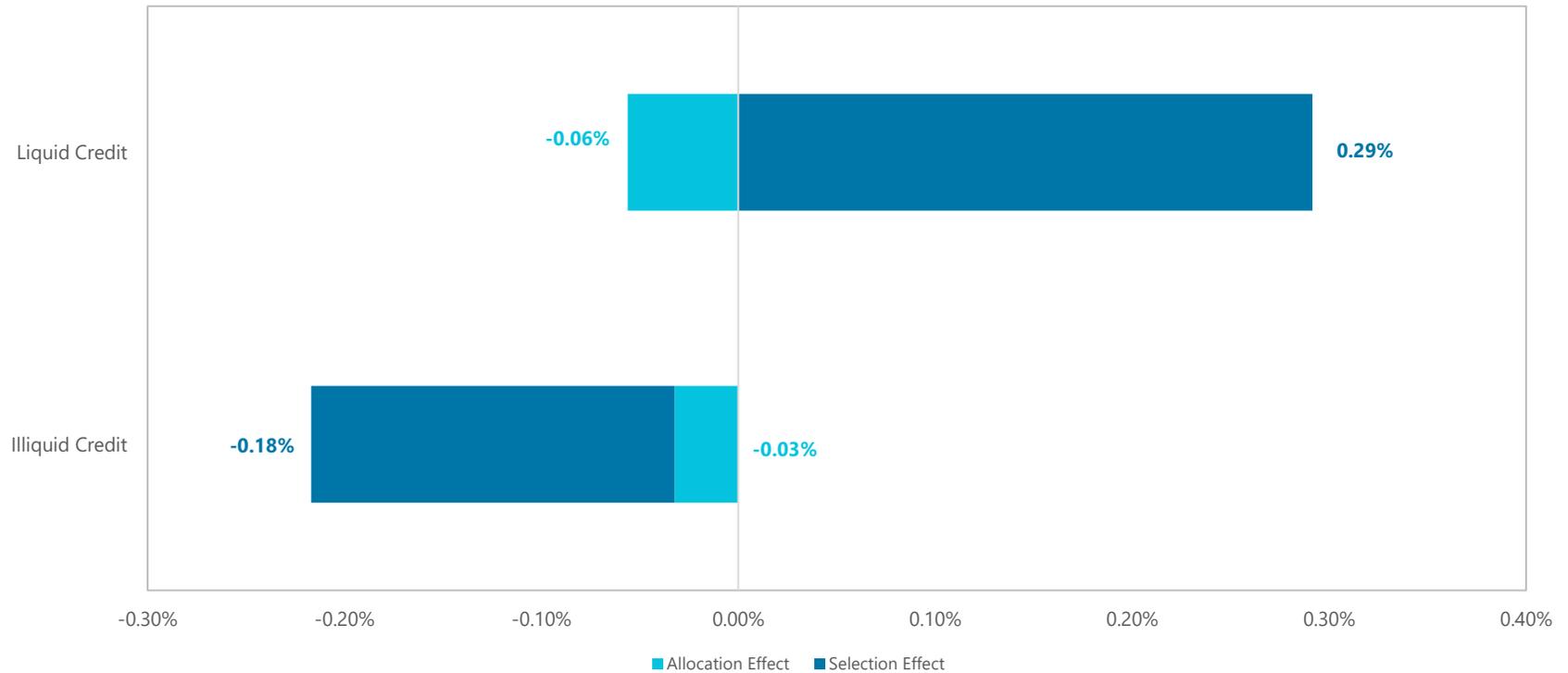
Return Attribution

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

QTD Performance Attribution¹



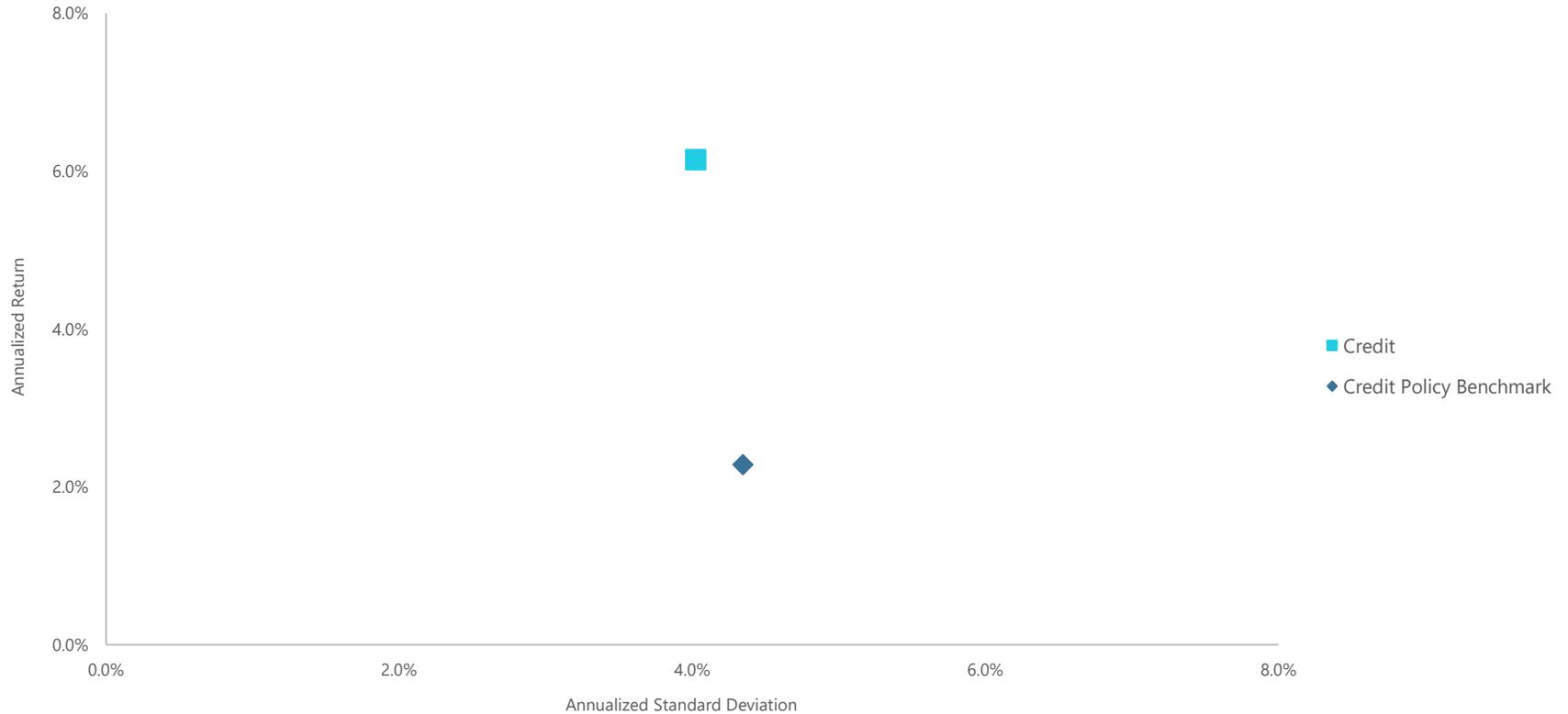
	Ending Market Value (mm)	% of Composite	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Credit	8,351	100.0%	100.0%	3.1%	3.0%	-0.09%	0.11%	0.02%
Liquid Credit	3,089	37.0%	36.4%	1.8%	1.1%	-0.06%	0.29%	0.24%
Illiquid Credit	5,262	63.0%	63.6%	3.8%	4.1%	-0.03%	-0.18%	-0.22%

¹ Total Value Add column includes Interaction Effect.

Risk vs. Return

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Credit	6.1%	4.0%				
Credit Policy Benchmark	2.3%	4.3%	1.09	1.21	0.68	3.1%

Performance Detail

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns

	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Credit	100.0%	8,351	8,297	3.1%	3.1%	9.2%	11.6%	6.1%	--	--	5.0%	Apr-2019
Credit Policy Benchmark				3.0%	3.0%	8.2%	10.2%	2.3%	--	--	3.4%	
Liquid Credit	37.0%	3,089	3,458	1.8%	1.8%	8.0%	12.2%	--	--	--	-0.4%	Oct-2021
Liquid Credit Policy Benchmark				1.1%	1.1%	6.9%	11.2%	--	--	--	-0.7%	
abrdn	2.9%	240	367	-1.9%	-1.9%	4.7%	14.7%	-2.8%	0.3%	--	-0.1%	Jul-2017
Ashmore Investment Management	3.0%	251	256	-1.8%	-1.8%	2.6%	12.5%	-4.0%	-2.1%	--	-1.7%	Jun-2017
Bain Capital	5.5%	461	446	3.4%	3.4%	10.8%	13.0%	7.1%	5.1%	--	4.3%	Jun-2014
Beach Point	3.6%	302	299	1.0%	1.0%	7.8%	12.5%	1.7%	3.1%	--	4.4%	Mar-2014
Brigade Cap Mgmt	5.6%	469	519	1.9%	1.9%	6.9%	8.3%	4.3%	2.6%	4.0%	5.8%	Jul-2010
Credit Suisse Bank Loans	5.2%	434	660	3.6%	3.6%	10.8%	14.6%	6.1%	--	--	8.0%	Apr-2020
Crescent Capital	5.7%	477	460	3.6%	3.6%	10.7%	11.2%	5.5%	4.8%	--	3.9%	May-2014
Pinebridge Investments	5.4%	454	450	1.0%	1.0%	6.6%	11.1%	--	--	--	-2.3%	Sep-2021
Illiquid Credit	63.0%	5,262	4,839	3.8%	3.8%	9.7%	9.6%	12.7%	--	--	9.9%	Apr-2019
Illiquid Credit Policy Benchmark				4.1%	4.1%	8.8%	9.5%	1.5%	--	--	5.0%	
Beach Point - Fund II	0.1%	11	12	--	--	--	--	--	--	--	--	Jun-2014
Beach Point - Fund III	1.3%	108	113	4.1%	4.1%	1.3%	-3.1%	11.7%	8.8%	--	9.0%	Jun-2017
BlackRock/Tennenbaum	7.2%	602	631	3.2%	3.2%	7.6%	8.9%	8.7%	7.4%	--	7.4%	Nov-2014
Grosvenor OPCRD 2 HFOF	0.2%	21	21	--	--	--	--	--	--	--	--	Mar-2016
Lake Cascade	8.4%	702	506	3.5%	3.5%	--	--	--	--	--	4.6%	Jan-2023
Lake Cottage	8.2%	688	522	1.5%	1.5%	6.7%	--	--	--	--	6.7%	Nov-2022
Lake Vineyard	6.7%	560	543	3.2%	3.2%	9.0%	9.6%	--	--	--	5.1%	Aug-2022
Magnetar	12.0%	1,000	958	4.4%	4.4%	10.6%	10.4%	18.3%	--	--	17.2%	Aug-2020
Napier Park	11.7%	981	907	6.8%	6.8%	15.6%	14.8%	11.4%	--	--	16.3%	Apr-2020
PIMCO Tac Opps	2.8%	234	284	3.0%	3.0%	7.3%	6.3%	7.4%	--	--	6.0%	Nov-2018
Private Equity - Credit	2.7%	227	229	-0.4%	-0.4%	11.9%	16.5%	27.5%	--	--	14.1%	Jan-2019
Real Estate - Credit	0.7%	62	59	4.7%	4.7%	12.0%	15.6%	11.7%	10.8%	9.3%	9.5%	Oct-2011
Stable Asset Management – IC	0.8%	65	55	2.1%	2.1%	2.0%	--	--	--	--	2.0%	Nov-2022

Credit Risk Summary

for the quarter ended September 30, 2023

Realized (Ex-Post) Risks

\$8.3B	CREDIT 1Y Realized Return	11.6%
	CREDIT Monte Carlo VaR	BENCHMARK Monte Carlo VaR
5.0%	7.6%	

Credit

Value at Risk VARIABLES

95% Confidence Interval
1Y Time Horizon
1,000 simulations

With 95% confidence (2σ), LACERA would not lose more than **\$409M** in 1Y.

versus

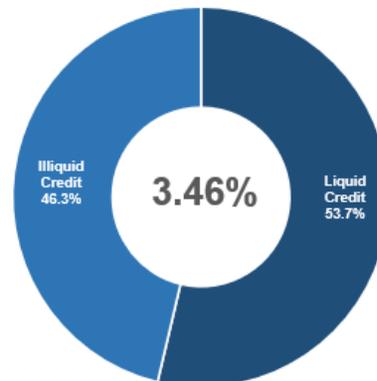
With 95% confidence (2σ), the Benchmark would not lose more than **\$620M** in 1Y.

22 Active Mandates*	13 Private Market Mandates*	18 US-Based Mandates*
Active Market Value Exposure*	Private Market Value Exposure*	US-Based Market Value Exposure*
		
		*as of 9/30/23

Projected (Ex-Ante) Risks

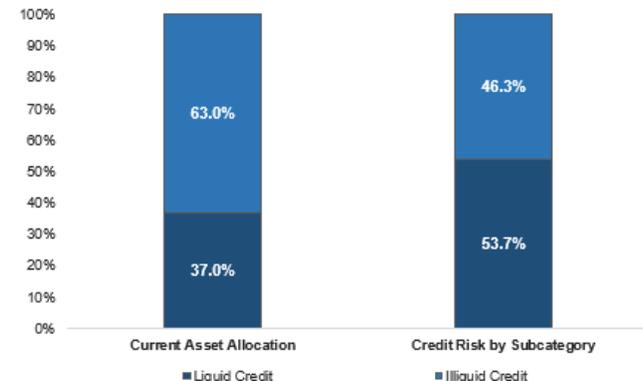
Credit Forecast Volatility	Benchmark Forecast Volatility
3.46%	5.18%
Credit Forecast Tracking Error	Portfolio Beta
2.52%	0.61
Liquid Credit TE	Effective Duration
0.87%	1.77
Illiquid Credit TE	Yield to Worst
4.18%	9.71%
	OAS to Swap
	470

Subcategory Contributions to Credit Risk



Credit Asset Allocation

Capital-based versus Risk-based



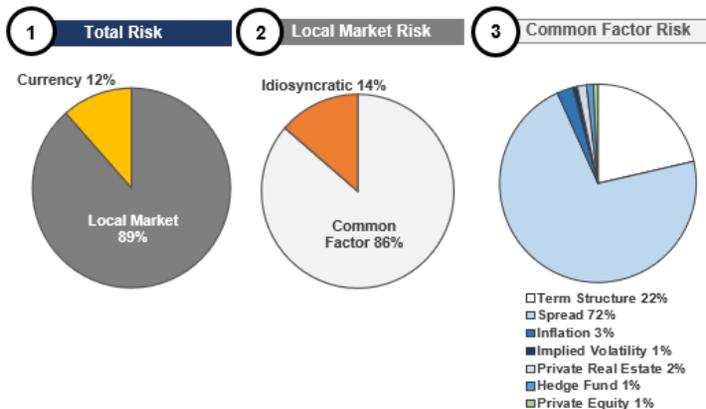
Credit Risk Summary

for the quarter ended September 30, 2023

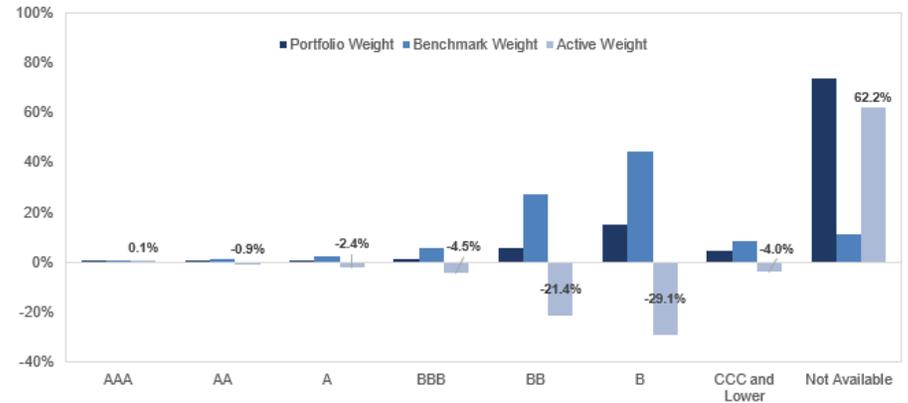
Decomposition of MSCI Risk Factors



Credit Risk Decomposition



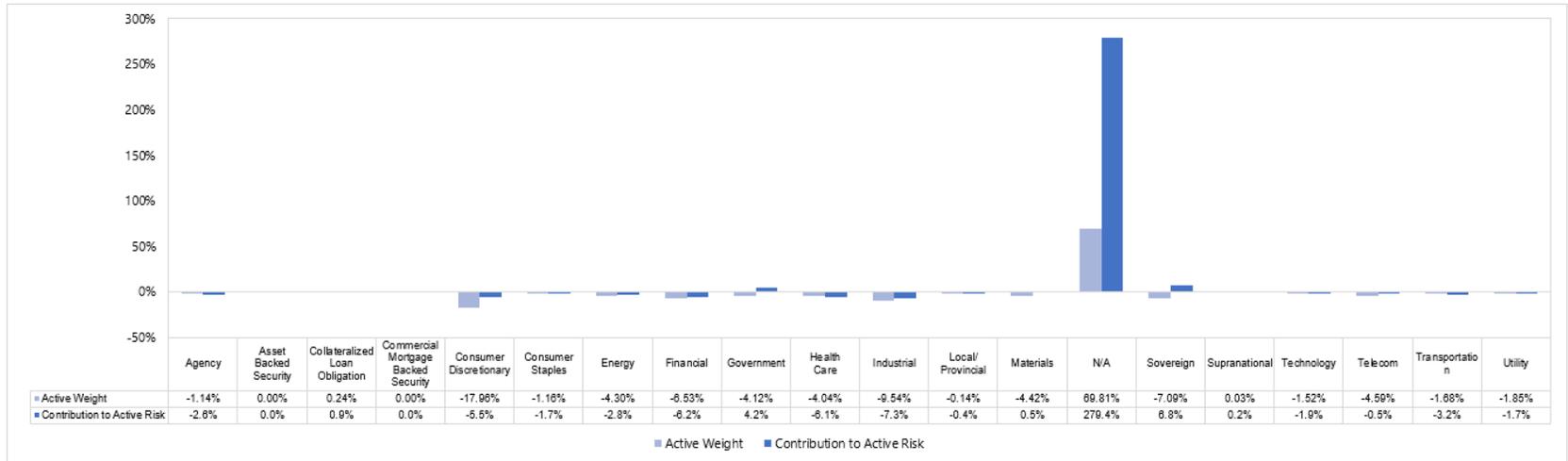
Portfolio Allocation by Moody's Rating



Credit Risk Summary

for the quarter ended September 30, 2023

Portfolio Allocation by Bond Sector



Liquid Credit Risk Summary

for the quarter ended September 30, 2023

Realized (Ex-Post) Risks

\$8.3B	CREDIT 1Y Realized Return
	11.6%
CREDIT Monte Carlo VaR	BENCHMARK Monte Carlo VaR
5.0%	7.6%

Credit

Value at Risk VARIABLES

95% Confidence Interval
1Y Time Horizon
1,000 Simulations

With 95% confidence (2σ), LACERA would not lose more than **\$409M** in 1Y.

versus

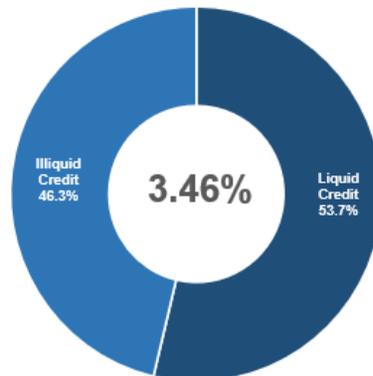
With 95% confidence (2σ), the Benchmark would not lose more than **\$620M** in 1Y.



Projected (Ex-Ante) Risks

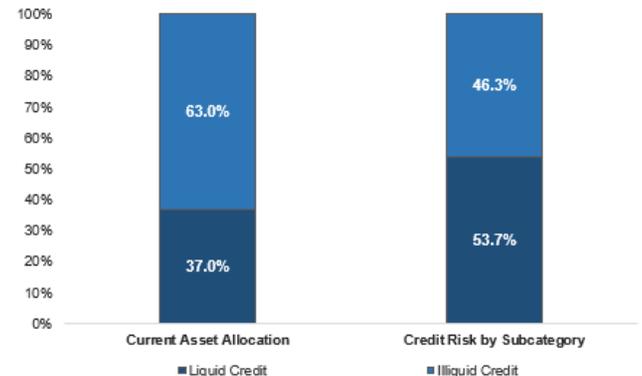
Credit Forecast Volatility 3.46%	Benchmark Forecast Volatility 5.18%
Credit Forecast Tracking Error 2.52%	Portfolio Beta 0.61
Liquid Credit TE 0.87%	Effective Duration 1.77
Illiquid Credit TE 4.18%	Yield to Worst 9.71%
	OAS to Swap 470

Subcategory Contributions to Credit Risk



Credit Asset Allocation

Capital-based versus Risk-based



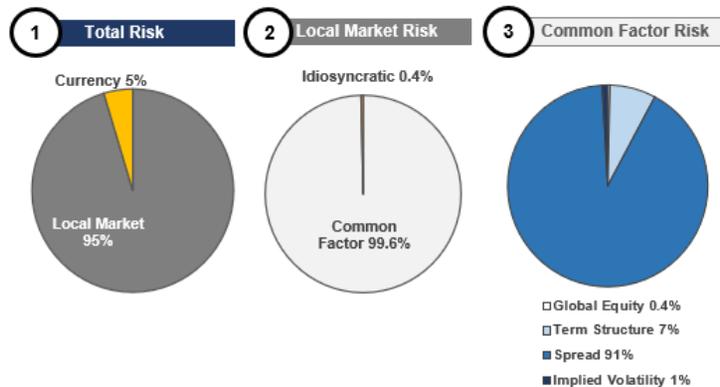
Liquid Credit Risk Summary

for the quarter ended September 30, 2023

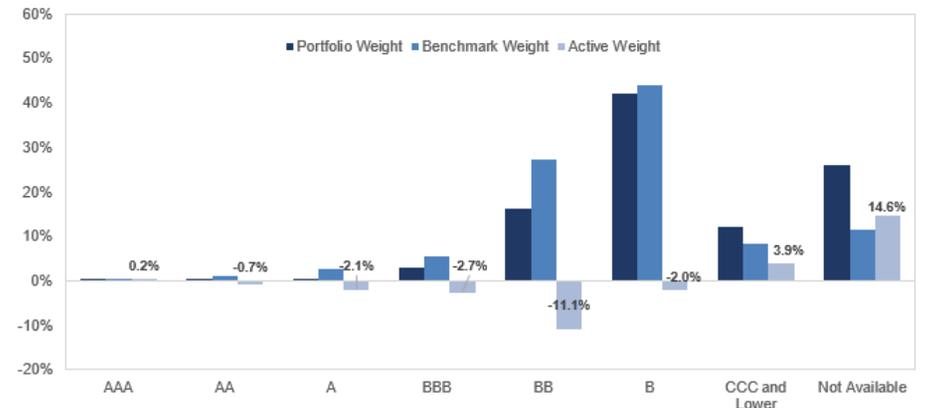
Decomposition of MSCI Risk Factors



Liquid Credit Risk Decomposition



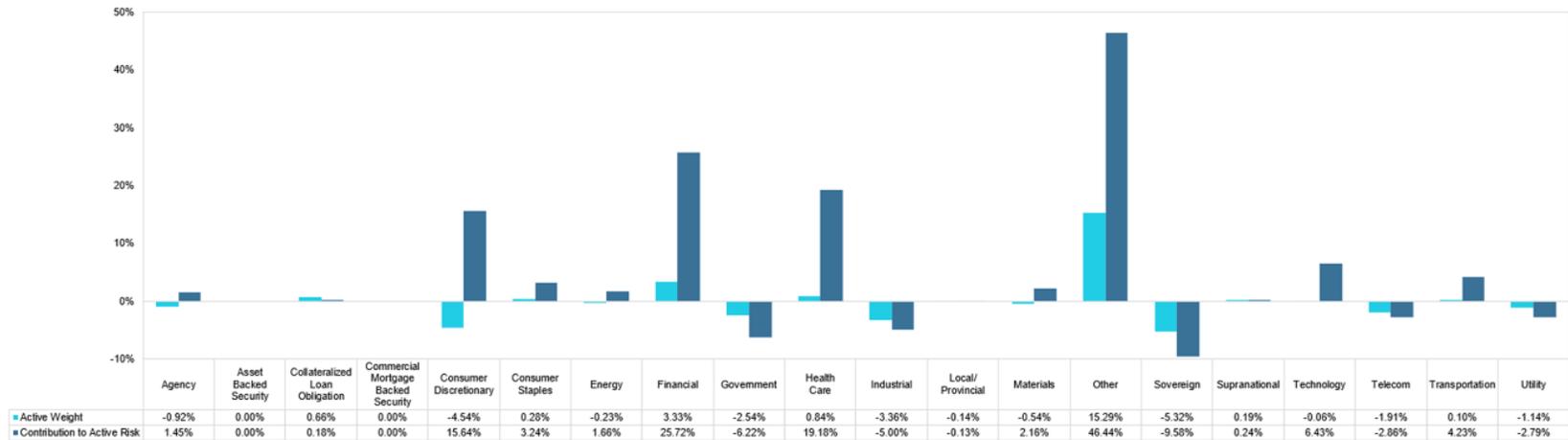
Portfolio Allocation by Moody's Rating



Liquid Credit Risk Summary

for the quarter ended September 30, 2023

Portfolio Allocation by Bond Sector



Credit – Liquid Credit abrdn

for the quarter ended September 30, 2023



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)

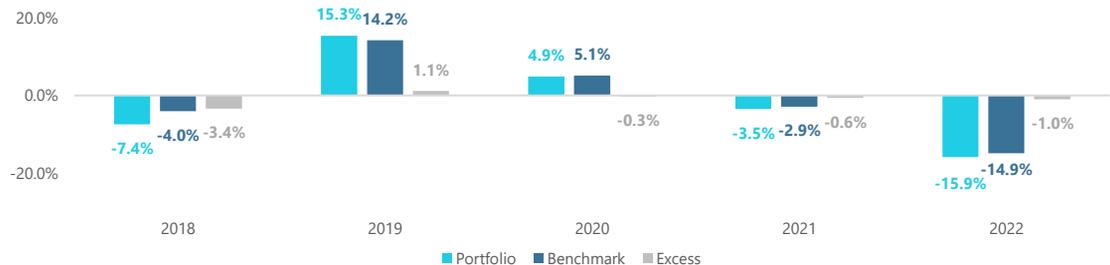
Standard Deviation	11.0%
Benchmark Standard Deviation	9.3%
Sharpe Ratio	-0.11
Information Ratio	-0.15
Beta	1.16
Tracking Error	2.7%

Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
abrdn	240.4	-1.9%	14.7%	-2.8%	0.3%
EMD Custom Benchmark		-2.0%	10.4%	-3.3%	0.4%
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
abrdn	-1.8%	59	15.1%	8	-2.5%	58	0.6%	68
Median	-0.9%		2.7%		-1.5%		1.2%	
No. of Observations	758							

Calendar Year Returns



Growth of \$10,000

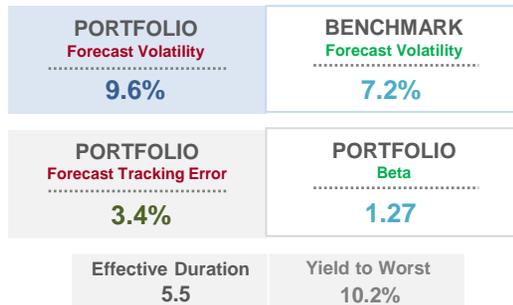


Note: Commingled fund account with no position-level transparency.
¹ Universe data is gross-of-fees.

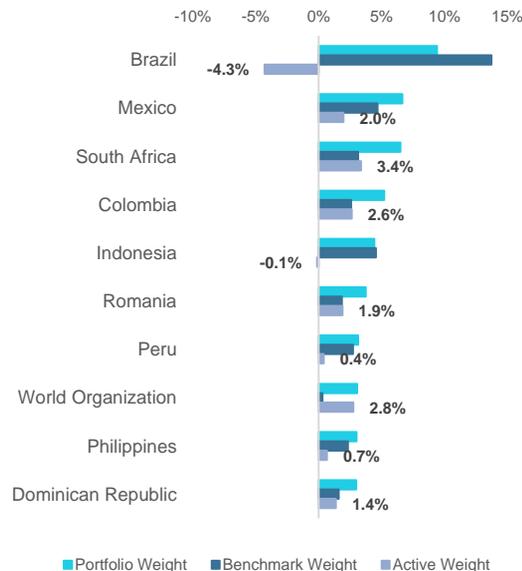
Credit Risk Analysis – Liquid Credit abrdn

for the quarter ended September 30, 2023

Portfolio Risk Summary



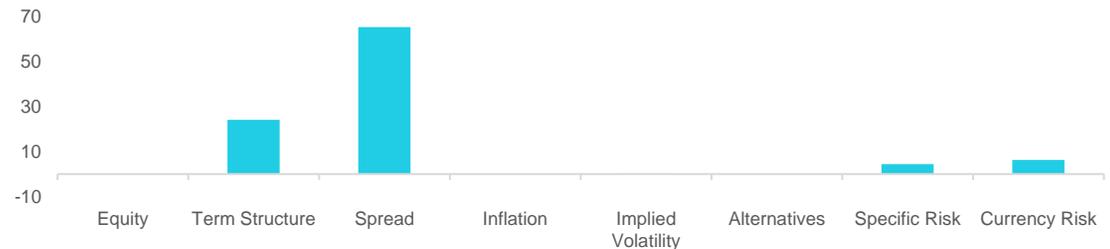
Top 10 Countries by Weight



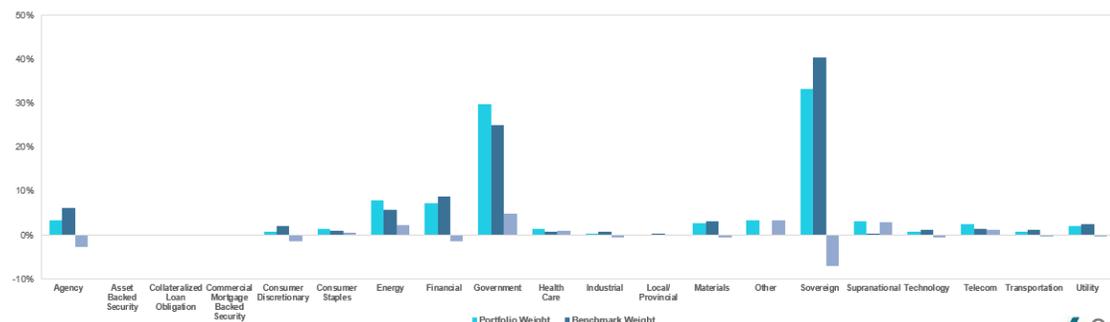
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit

Ashmore

for the quarter ended September 30, 2023



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)

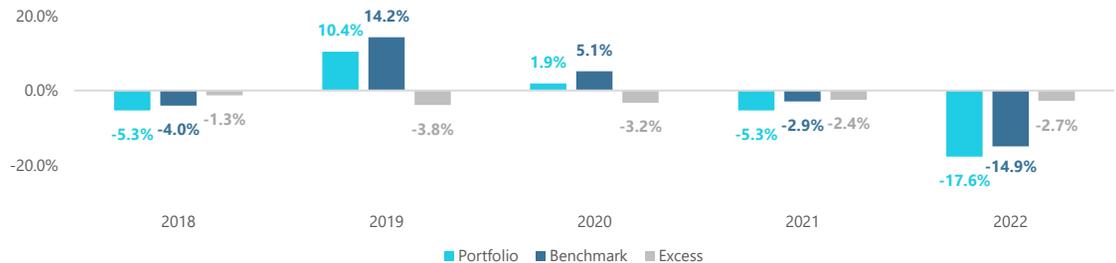
Standard Deviation	12.9%
Benchmark Standard Deviation	9.3%
Sharpe Ratio	-0.19
Information Ratio	-0.44
Beta	1.36
Tracking Error	4.3%

Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Ashmore Investment Management	251.3	-1.8%	12.5%	-4.0%	-2.1%
EMD Custom Benchmark		-2.0%	10.4%	-3.3%	0.4%
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Ashmore Investment Management	-1.7%	58	13.0%	11	-3.5%	66	-1.6%	94
Median	-0.9%		2.7%		-1.5%		1.2%	
No. of Observations	758							

Calendar Year Returns



Growth of \$10,000

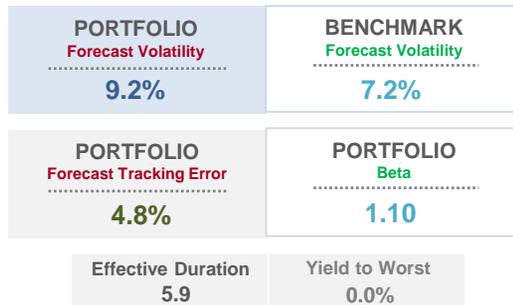


Note: Commingled fund account with no position-level transparency.
¹ Universe data is gross-of-fees.

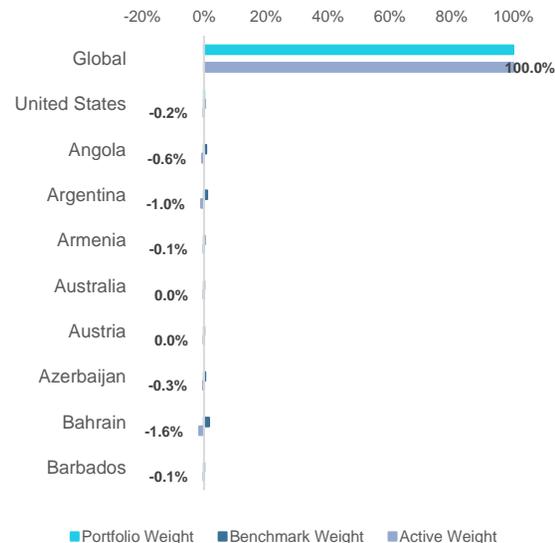
Credit Risk Analysis – Liquid Credit Ashmore

for the quarter ended September 30, 2023

Portfolio Risk Summary



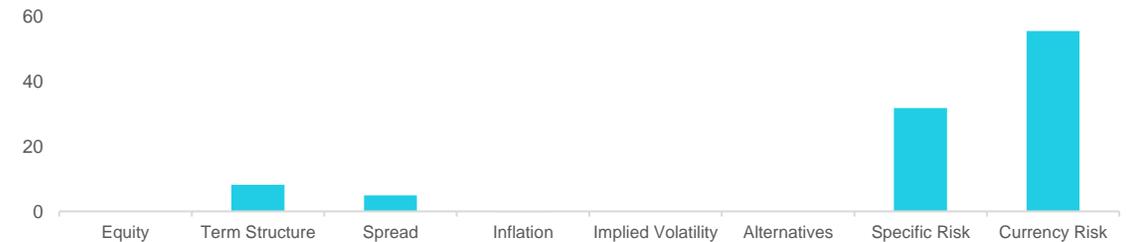
Top 10 Countries by Weight



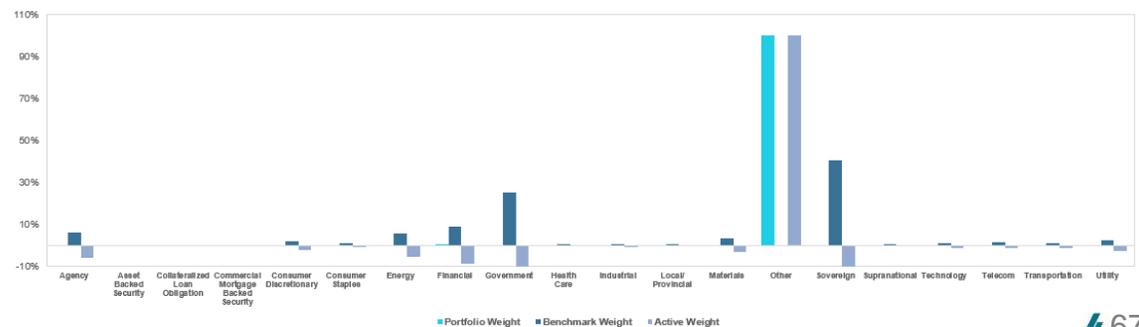
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit Bain Capital

for the quarter ended September 30, 2023

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	550.0	0.0
Effective Duration	0.2	3.6
Convexity	0.0	0.0
Coupon Rate	8.6	6.0
Yield to Maturity	7.9	8.7
Current Yield	8.8	6.7
Rating – Moody's	B-2	B-1
Rating – S & P	B	B+

Top Holdings (% of assets)

CPS GROUP HOLDINGS INC	0.8%
AQGEN ISLAND HOLDINGS, INC.	0.6%
SPRINT INTERMEDIATE HOLDING I	0.6%
PMHC II INC	0.6%
BALLINASMALLA HOLDINGS LIMITED	0.6%
Top 5 Holdings	3.1%

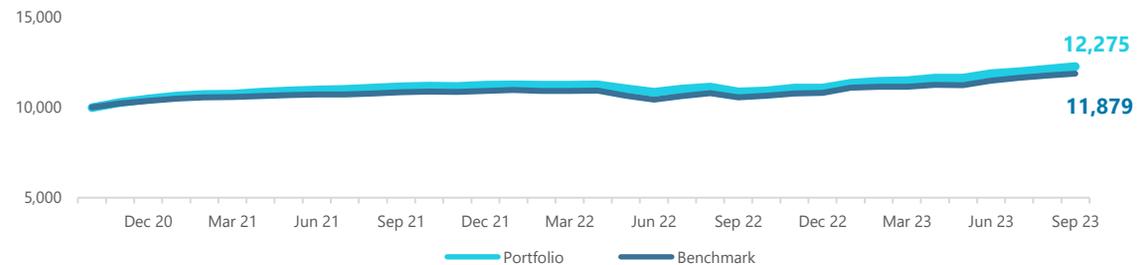
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Bain Capital	461.0	3.4%	13.0%	7.1%	5.1%
Bank Loans Custom Benchmark		3.4%	12.5%	5.9%	4.8%
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

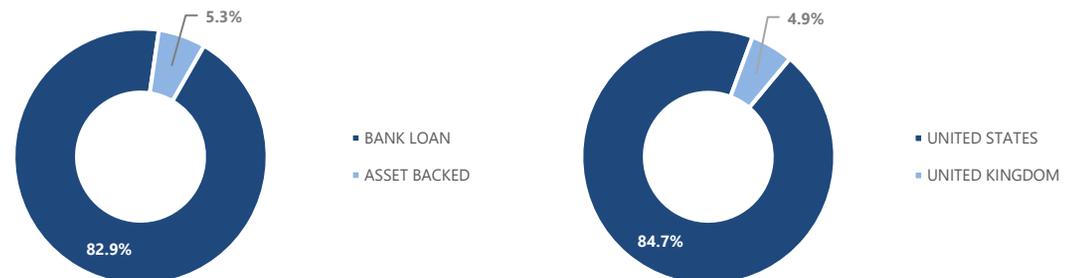
Universe data: U.S. Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Bain Capital	3.6%	10	13.6%	11	7.7%	18	5.7%	15
Median	-0.9%		2.7%		-1.5%		1.2%	

No. of Observations: 758

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%.

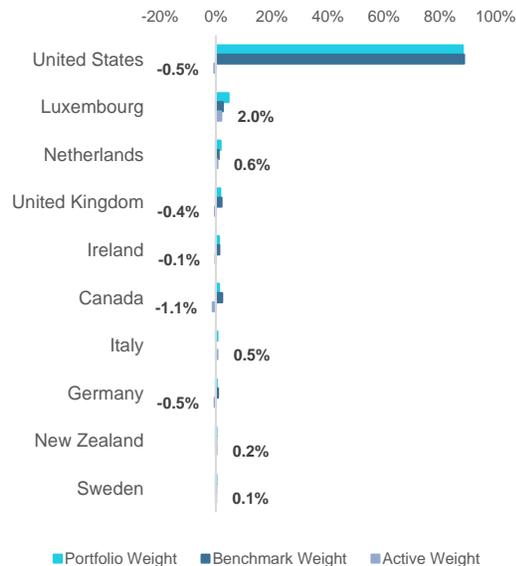
Credit Risk Analysis – Liquid Credit Bain Capital

for the quarter ended September 30, 2023

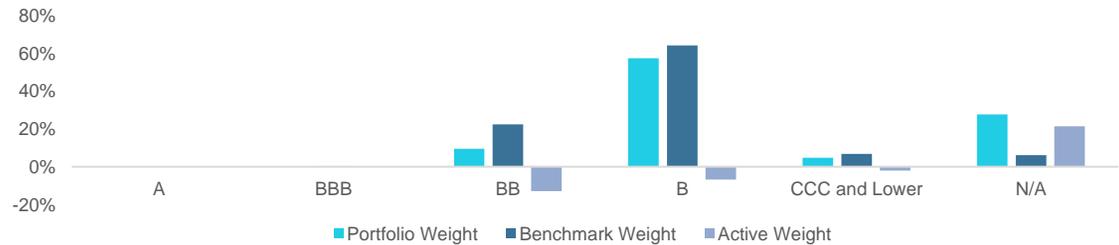
Portfolio Risk Summary



Top 10 Countries by Weight



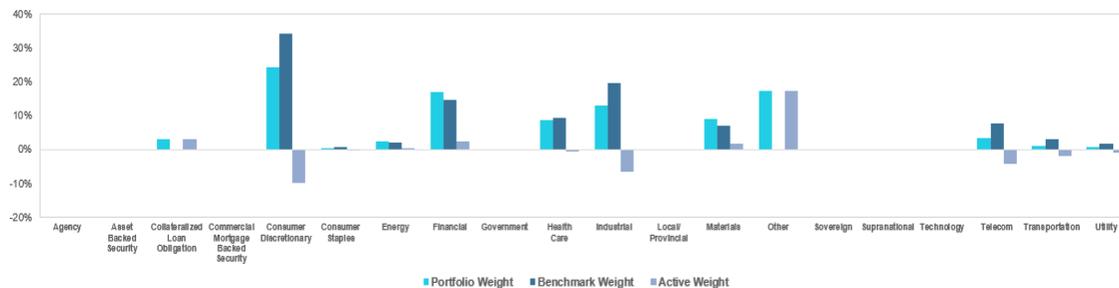
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit Beach Point

for the quarter ended September 30, 2023

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: June 2014

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	271.0	0.0
Effective Duration	3.3	3.6
Convexity	0.0	0.0
Coupon Rate	6.2	6.0
Yield to Maturity	8.8	8.7
Current Yield	7.0	6.7
Rating – Moody's	B-1	B-1
Rating – S & P	B	B+

Top Holdings (% of assets)

MPH ACQUISITION HOLDINGS	1.6%
DEALER TIRE LLC/DT ISSR	1.5%
COMPASS GROUP DIVERSIFIE	1.3%
FORTRESS TRANS + INFRAST	1.1%
AMWINS GROUP INC	1.1%
Top 5 Holdings	6.5%

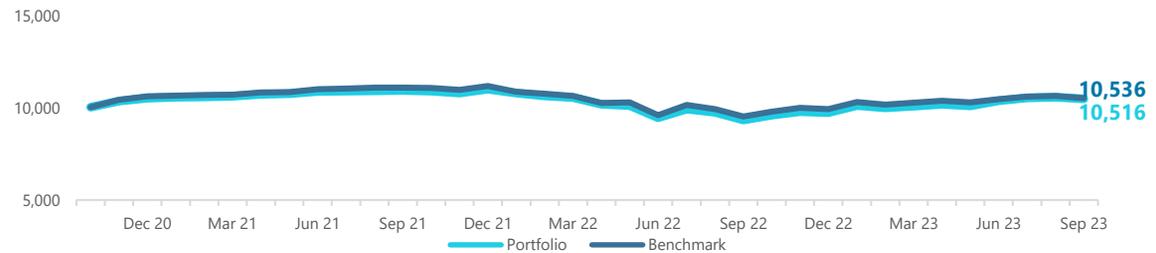
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Beach Point	302.5	1.0%	12.5%	1.7%	3.1%
Beachpoint Custom Benchmark		0.5%	10.3%	1.8%	2.5%
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

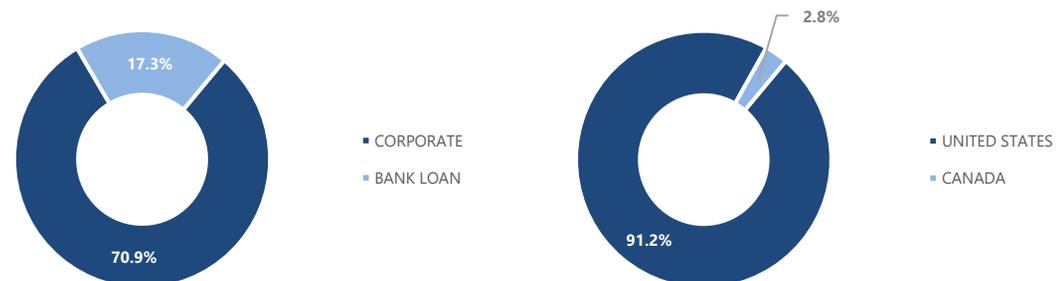
Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Beach Point	1.1%	24	13.0%	11	2.2%	28	3.6%	20
Median	-0.9%		2.7%		-1.5%		1.2%	

No. of Observations: 758

Growth of \$10,000



Top Exposures (% of assets)²



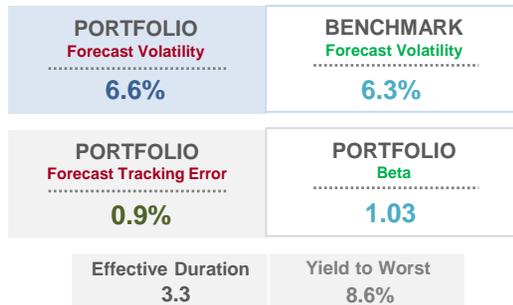
¹ Universe data is gross-of-fees.

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

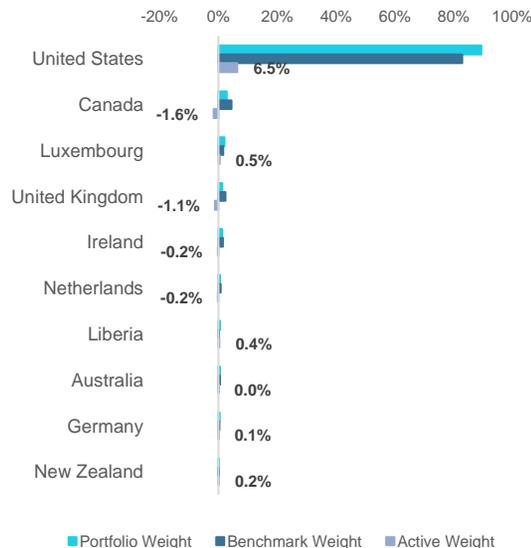
Credit Risk Analysis – Liquid Credit Beach Point

for the quarter ended September 30, 2023

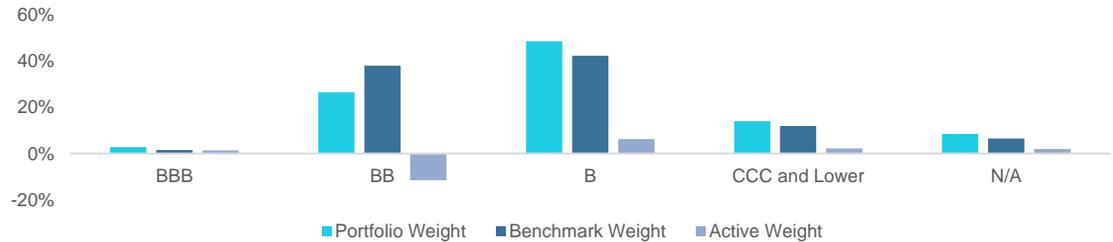
Portfolio Risk Summary



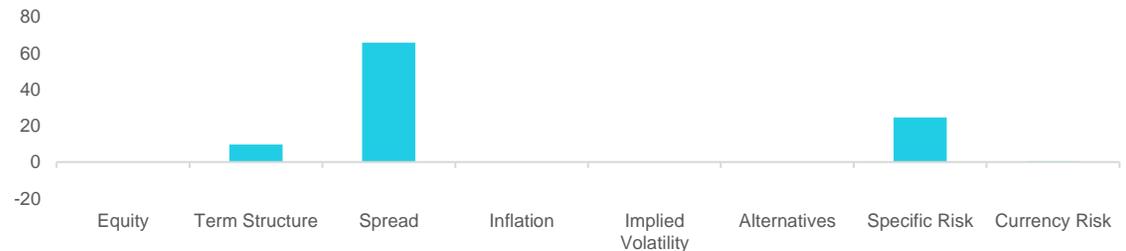
Top 10 Countries by Weight



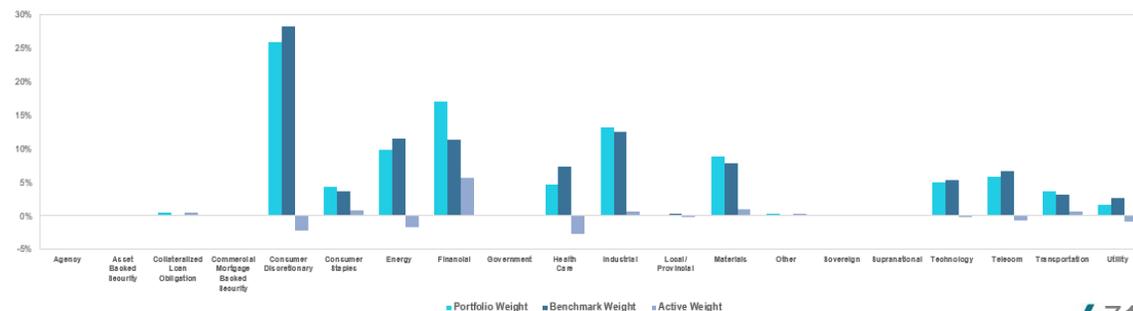
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit Brigade Capital

for the quarter ended September 30, 2023



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	243.0	0.0
Effective Duration	2.8	3.6
Convexity	0.1	0.0
Coupon Rate	7.3	6.0
Yield to Maturity	13.2	8.7
Current Yield	9.2	6.7
Rating – Moody's	B-3	B-1
Rating – S & P	B-	B+

Top Holdings (% of assets)

CORNERSTONE CHEMICAL CO	3.0%
RP ESCROW ISSUER LLC	1.9%
GLOBAL MEDICAL RESPONSE	1.8%
LIFESCAN GLOBAL CORPORATION	1.8%
CMG MEDIA CORPORATION	1.4%
Top 5 Holdings	10.0%

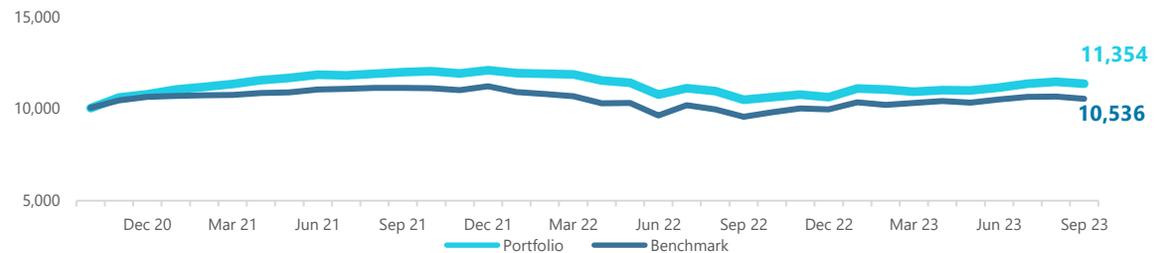
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Brigade Cap Mgmt	469.0	1.9%	8.3%	4.3%	2.6%
Brigade Custom Benchmark		0.5%	10.3%	1.8%	2.8%
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

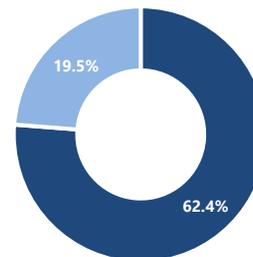
Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Brigade Cap Mgmt	2.0%	15	8.7%	19	4.7%	22	3.2%	23
Median	-0.9%		2.7%		-1.5%		1.2%	

No. of Observations: 758

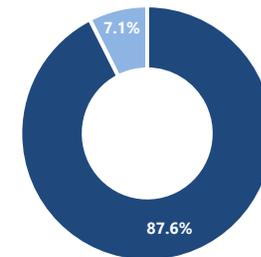
Growth of \$10,000



Top Exposures (% of assets)²



■ CORPORATE
■ BANK LOAN



■ UNITED STATES
■ CANADA

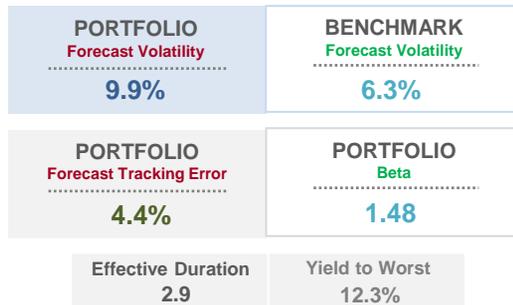
¹ Universe data is gross-of-fees.

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

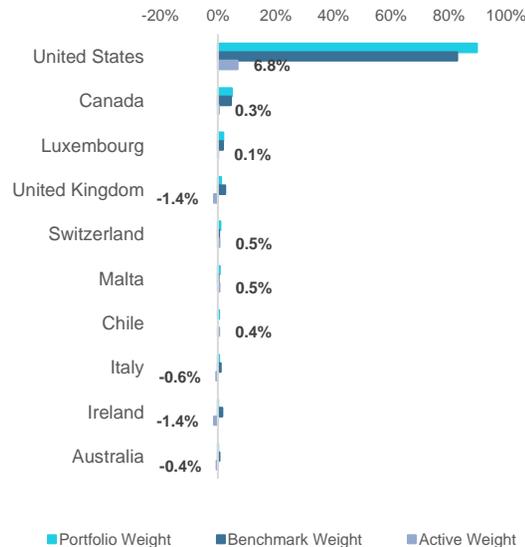
Credit Risk Analysis – Liquid Credit Brigade Capital

for the quarter ended September 30, 2023

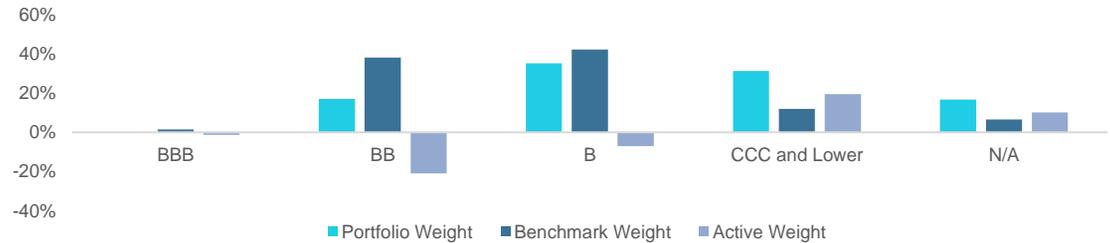
Portfolio Risk Summary



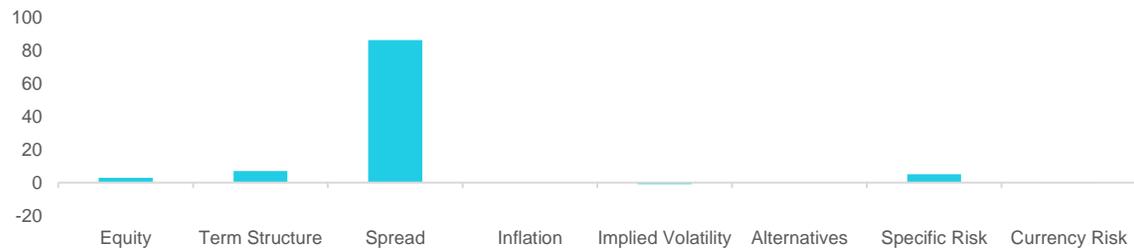
Top 10 Countries by Weight



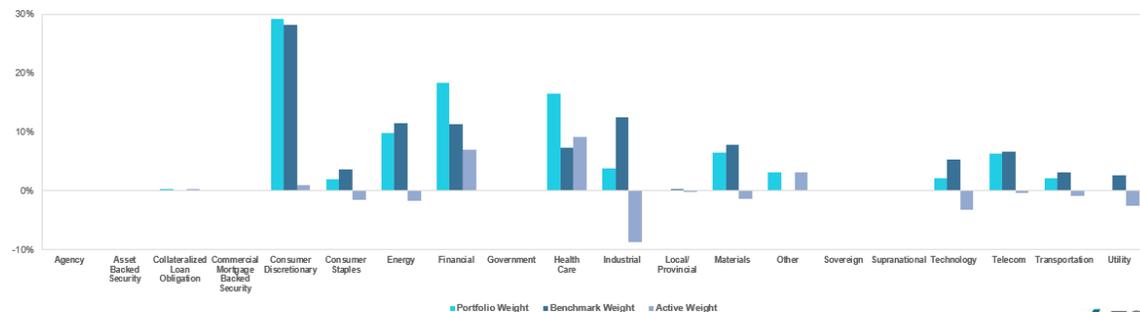
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit

Credit Suisse

for the quarter ended September 30, 2023

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	371.0	0.0
Effective Duration	0.2	3.6
Convexity	0.0	0.0
Coupon Rate	9.2	6.0
Yield to Maturity	10.2	8.7
Current Yield	9.6	6.7
Rating – Moody's	B-2	B-1
Rating – S & P	B	B+

Top Holdings (% of assets)

CERIDIAN HCM HLDG INC	1.7%
DYNACAST INTERNATIONAL LLC	1.1%
WILLIAM MORRIS ENDEAVOR ENTMT	1.0%
GLASS CONTAINER ACQUISITION L	0.9%
WRENCH GROUP LLC	0.8%
Top 5 Holdings	5.5%

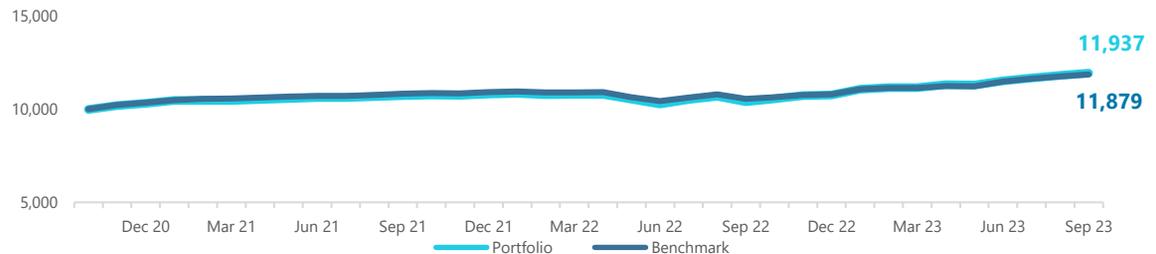
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Credit Suisse Bank Loans	434.1	3.6%	14.6%	6.1%	--
CS Leveraged Loan Index		3.4%	12.5%	5.9%	--
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

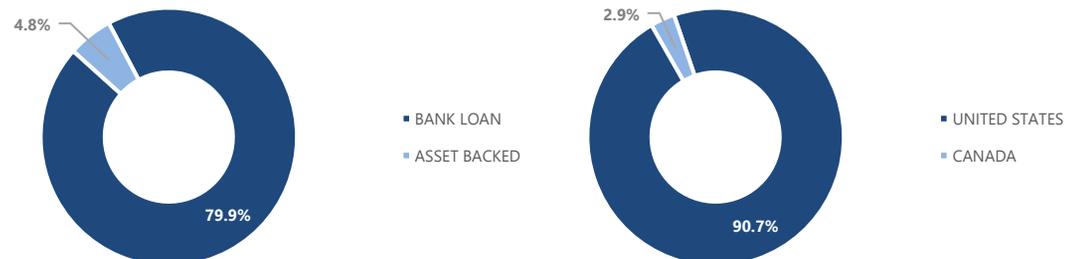
Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Credit Suisse Bank Loans	3.6%	10	14.9%	9	6.3%	20	--	--
Median	-0.9%		2.7%		-1.5%		--	

No. of Observations: 758

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

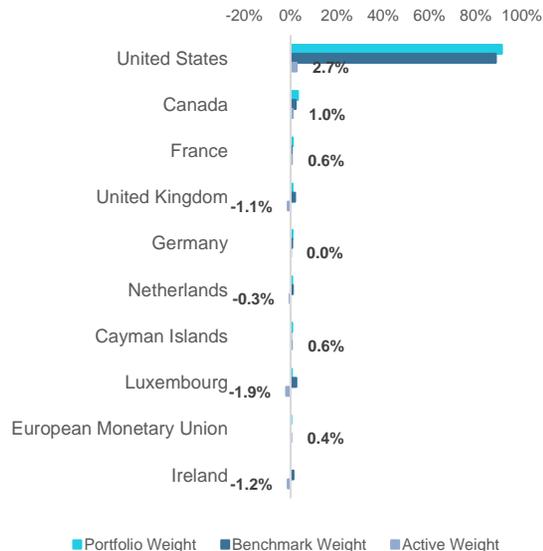
Credit Suisse

for the quarter ended September 30, 2023

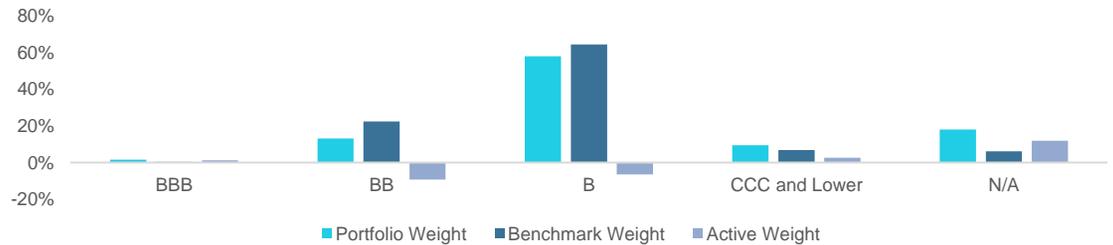
Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
3.7%	4.6%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
1.0%	0.81
Effective Duration	Yield to Worst
0.3	7.9%

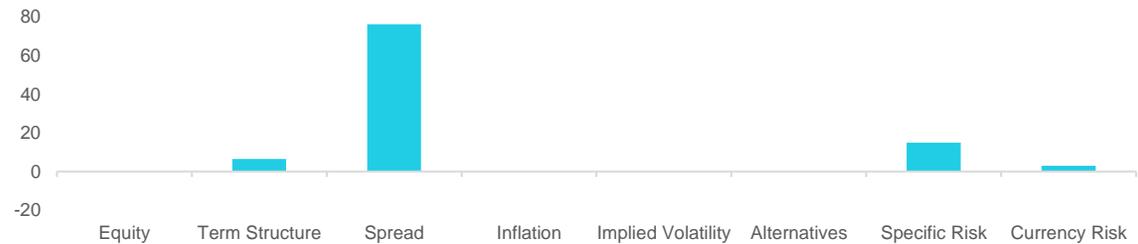
Top 10 Countries by Weight



Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit Crescent Capital

for the quarter ended September 30, 2023



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	144.0	0.0
Effective Duration	0.2	3.6
Convexity	0.0	0.0
Coupon Rate	10.1	6.0
Yield to Maturity	11.2	8.7
Current Yield	10.8	6.7
Rating – Moody's	B-3	B-1
Rating – S & P	B-	B+

Top Holdings (% of assets)

MAGNATE WORLDWIDE LLC	1.9%
ARCLINE FM HOLDINGS, LLC	1.9%
CTC HOLDINGS LP	1.8%
AIT WORLDWIDE LOGISTICS INC	1.8%
LASERAWAY INTERM HOLD II LLC	1.8%
Top 5 Holdings	9.3%

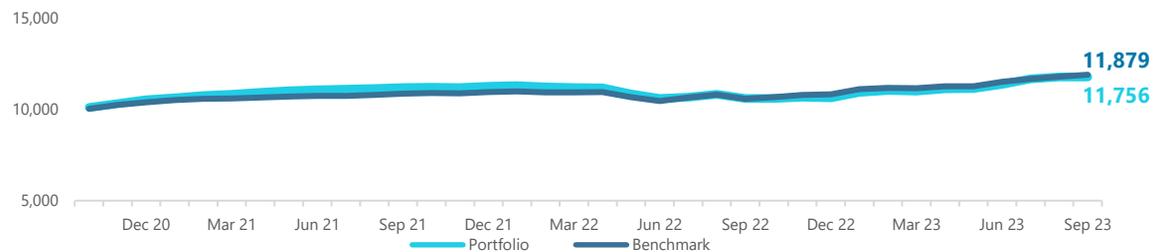
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Crescent Capital	476.7	3.6%	11.2%	5.5%	4.8%
Bank Loans Custom Benchmark		3.4%	12.5%	5.9%	4.8%
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

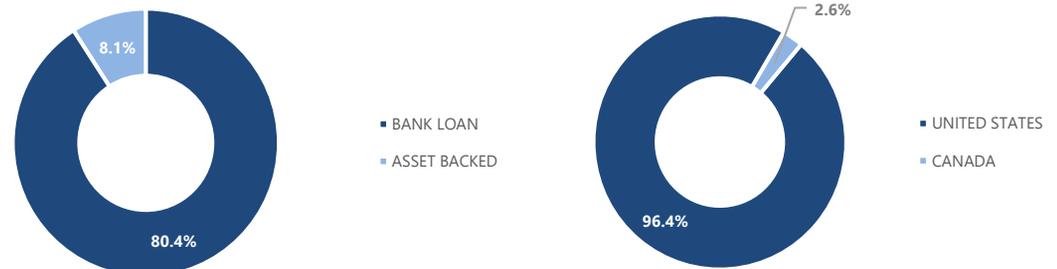
Universe data: U.S. Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Crescent Capital	3.7%	9	11.7%	13	6.0%	20	5.3%	15
Median	-0.9%		2.7%		-1.5%		1.2%	

No. of Observations: 758

Growth of \$10,000



Top Exposures (% of assets)²



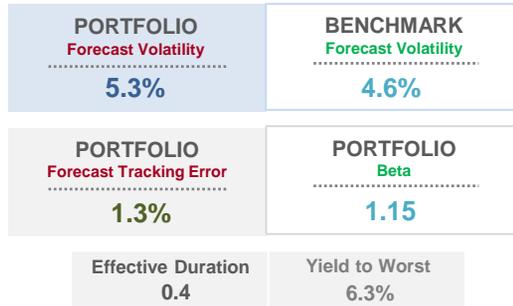
¹ Universe data is gross-of-fees.

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

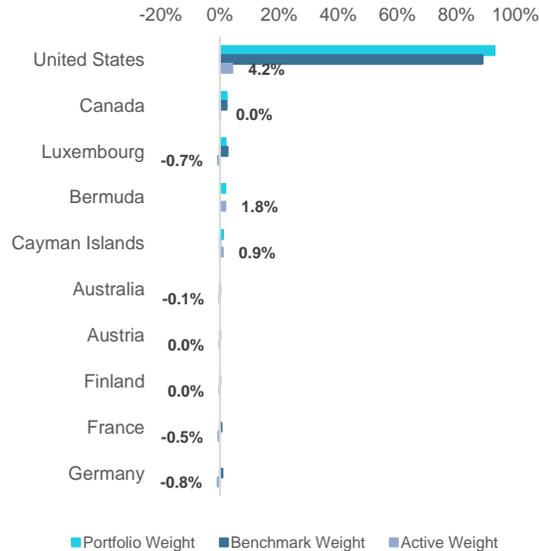
Credit Risk Analysis – Liquid Credit Crescent Capital

for the quarter ended September 30, 2023

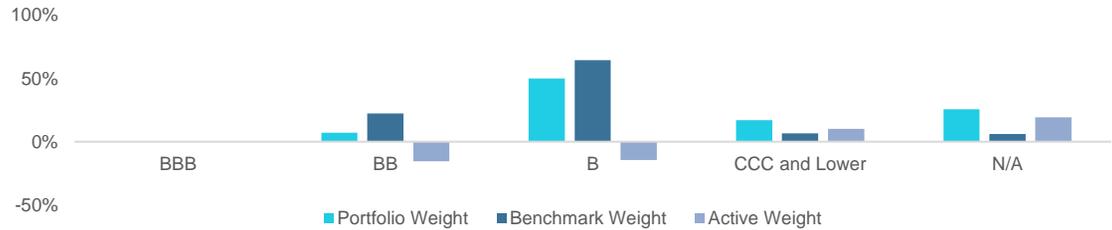
Portfolio Risk Summary



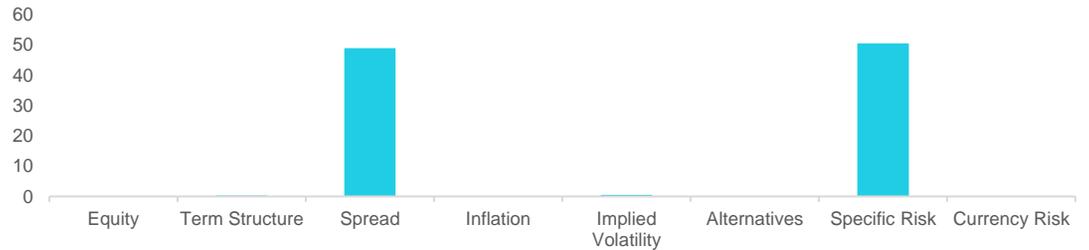
Top 10 Countries by Weight



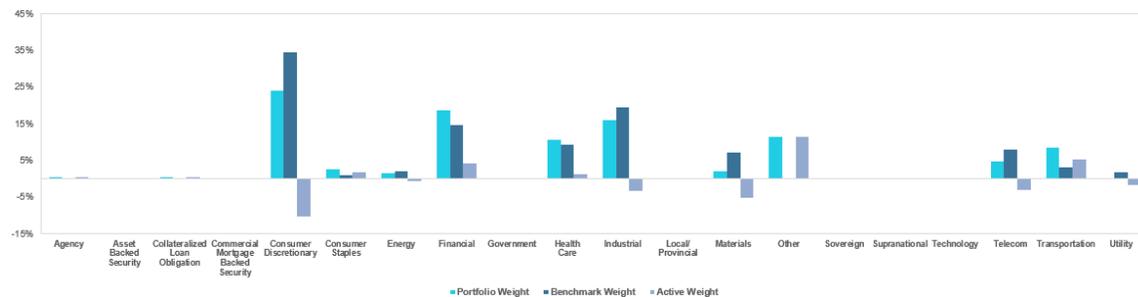
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit Pinebridge

for the quarter ended September 30, 2023

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	237.0	0.0
Effective Duration	3.7	3.6
Convexity	0.0	0.0
Coupon Rate	5.9	6.0
Yield to Maturity	8.6	8.7
Current Yield	6.6	6.7
Rating – Moody's	B-1	B-1
Rating – S & P	B+	B+

Top Holdings (% of assets)

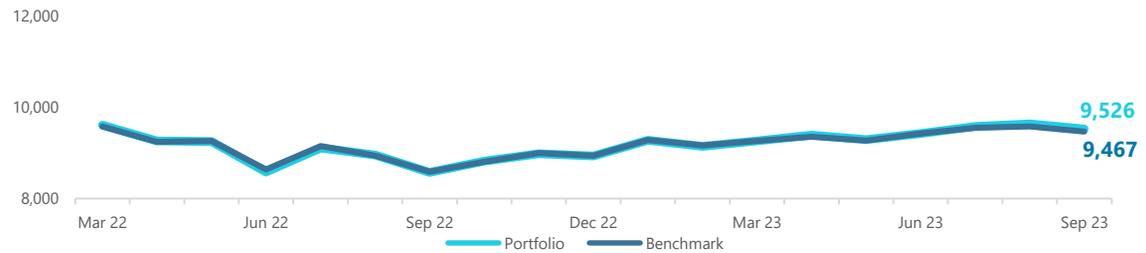
CARNIVAL CORP	1.2%
AMERICAN AIRLINES INC	1.1%
CCO HLDGS LLC/CAP CORP	0.8%
SIRIUS XM RADIO INC	0.8%
ENACT HOLDINGS INC	0.8%
Top 5 Holdings	4.8%

Performance (net)¹

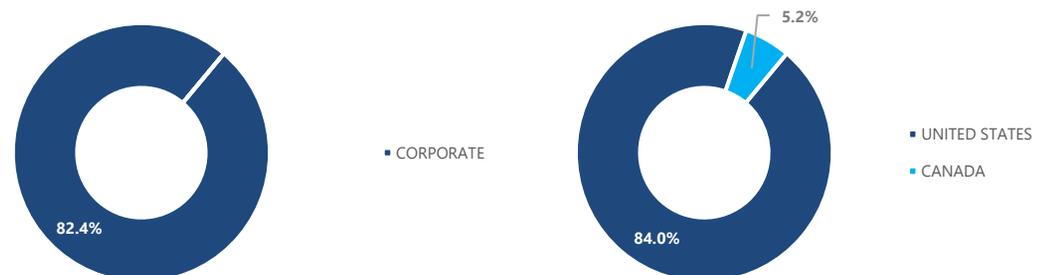
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Pinebridge Investments	454.2	1.0%	11.1%	--	--
BBG BARC US Corp HY Idx		0.5%	10.3%	--	--
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Pinebridge Investments	1.1%	24	11.5%	14	--	--	--	--
Median	-0.9%		2.7%		--		--	
No. of Observations	758							

Growth of \$10,000



Top Exposures (% of assets)



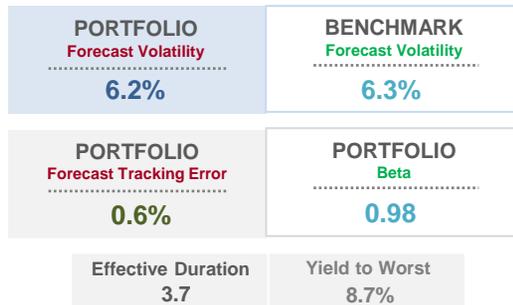
¹ Universe data is gross-of-fees.

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

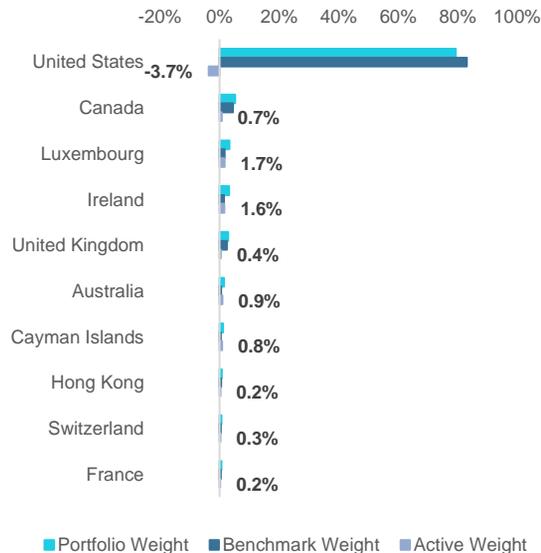
Credit Risk Analysis – Liquid Credit Pinebridge

for the quarter ended September 30, 2023

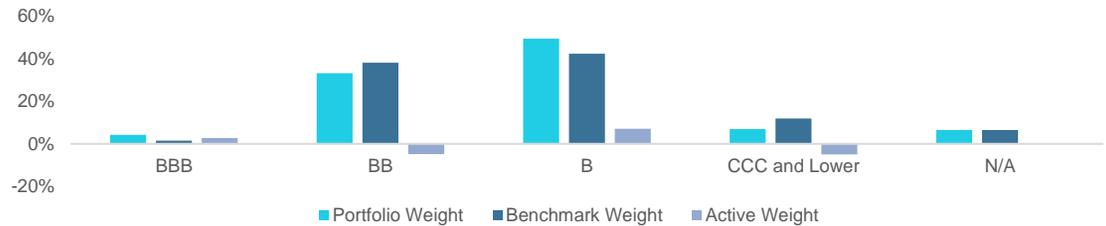
Portfolio Risk Summary



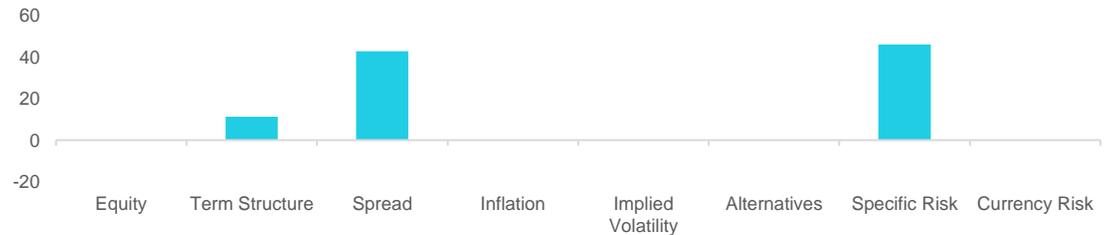
Top 10 Countries by Weight



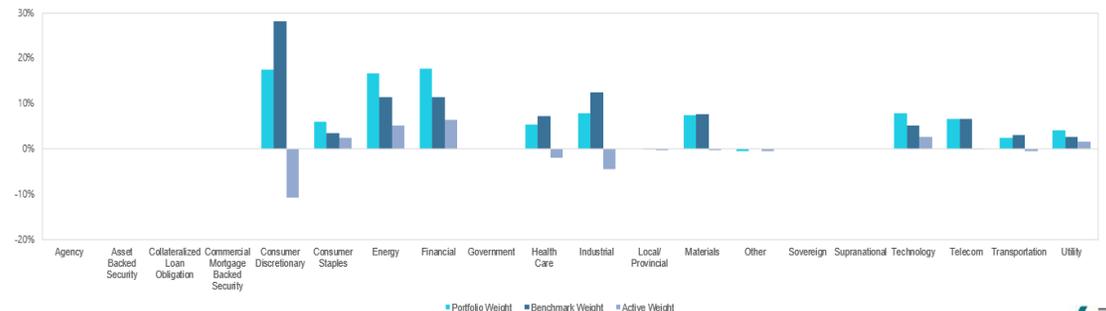
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector

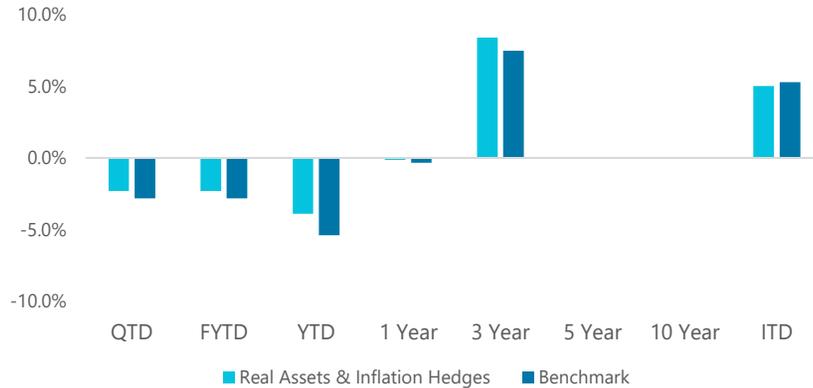


real assets & inflation hedges

Summary

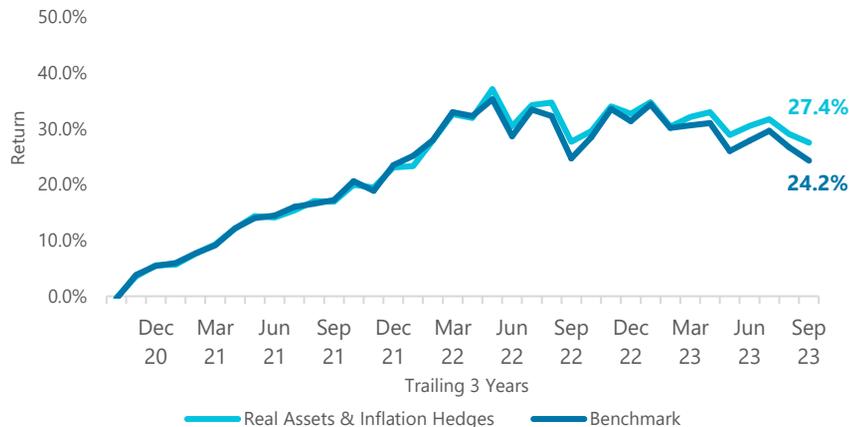
for the quarter ended September 30, 2023

Performance (net)



	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Real Assets & Inflation Hedges	-2.3%	-2.3%	-3.9%	-0.1%	8.4%	--	--	5.0%
Benchmark	-2.8%	-2.8%	-5.4%	-0.3%	7.5%	--	--	5.3%
Excess	0.5%	0.5%	1.5%	0.2%	0.9%	--	--	-0.3%

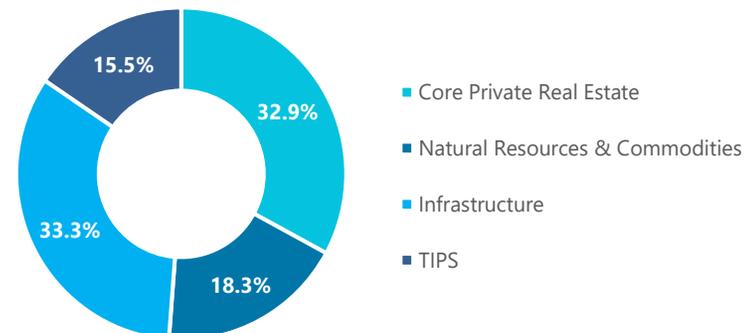
Cumulative Return



Functional Category

	QTD	FYTD	YTD	1 Year	3 Year
Core Private Real Estate	-4.0%	-4.0%	-11.7%	-10.2%	7.4%
Core Private RE Policy Benchmark	-2.9%	-2.9%	-11.0%	-10.7%	7.2%
Excess	-1.2%	-1.2%	-0.7%	0.5%	0.2%
Natural Resources & Commodities	3.4%	3.4%	3.8%	8.4%	19.7%
Nat Res & Comm Policy Benchmark	3.9%	3.9%	-1.1%	10.8%	18.1%
Excess	-0.5%	-0.5%	4.9%	-2.4%	1.6%
Infrastructure	-3.5%	-3.5%	-1.0%	6.1%	7.3%
DJ Brookfield Global Infra Comp	-6.9%	-6.9%	-4.5%	4.5%	5.8%
Excess	3.4%	3.4%	3.5%	1.6%	1.5%
TIPS	-2.6%	-2.6%	-0.8%	1.3%	-2.0%
Bloomberg U.S. Treasury: U.S. TIPS	-2.6%	-2.6%	-0.8%	1.2%	-2.0%
Excess	0.0%	0.0%	0.0%	0.1%	-0.1%

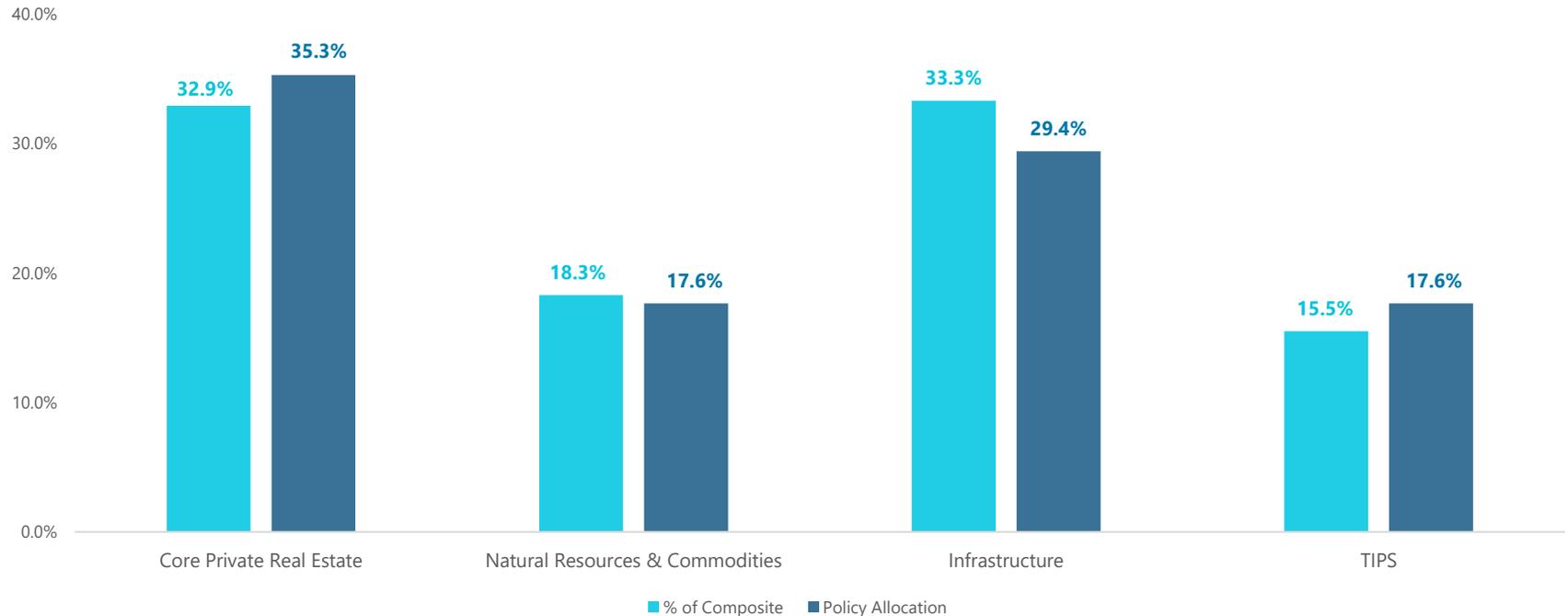
Exposure



Asset Allocation

for the quarter ended September 30, 2023

Actual vs. Policy

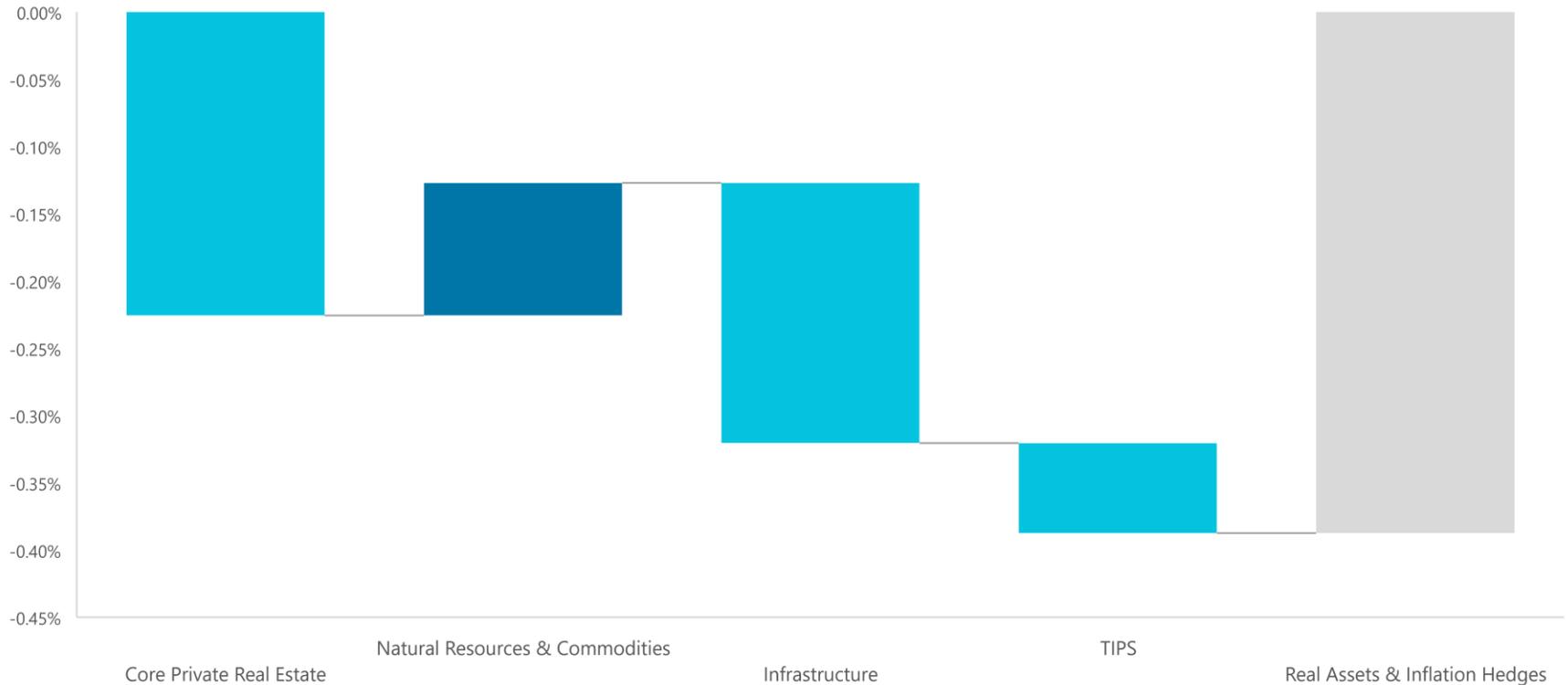


	Ending Market Value (mm)	% of Composite	Policy Allocation	Over / Under (%)	Over / Under (mm)
Real Assets & Inflation Hedges	11,912	100.0%	100.0%		
Core Private Real Estate	3,920	32.9%	35.3%	-2.4%	-284
Natural Resources & Commodities	2,179	18.3%	17.6%	0.6%	77
Infrastructure	3,966	33.3%	29.4%	3.9%	463
TIPS	1,847	15.5%	17.6%	-2.1%	-255

Contribution to Return

for the quarter ended September 30, 2023

QTD Contribution to Return



Functional Category	Contributors	Detractors
Core Private Real Estate	-0.23% DWS Natural Resources	0.02% Real Estate - Real Assets
Natural Resources & Commodities	0.10% Orion Mine Finance Fund III	0.02% DWS Infrastructure
Infrastructure	-0.19% Credit Suisse Commodity	0.02% BlackRock TIPS
TIPS	-0.07% KKR DCIF	0.01%
Real Assets & Inflation Hedges	-0.39% TIAA-CREF Global Agriculture I	0.01%

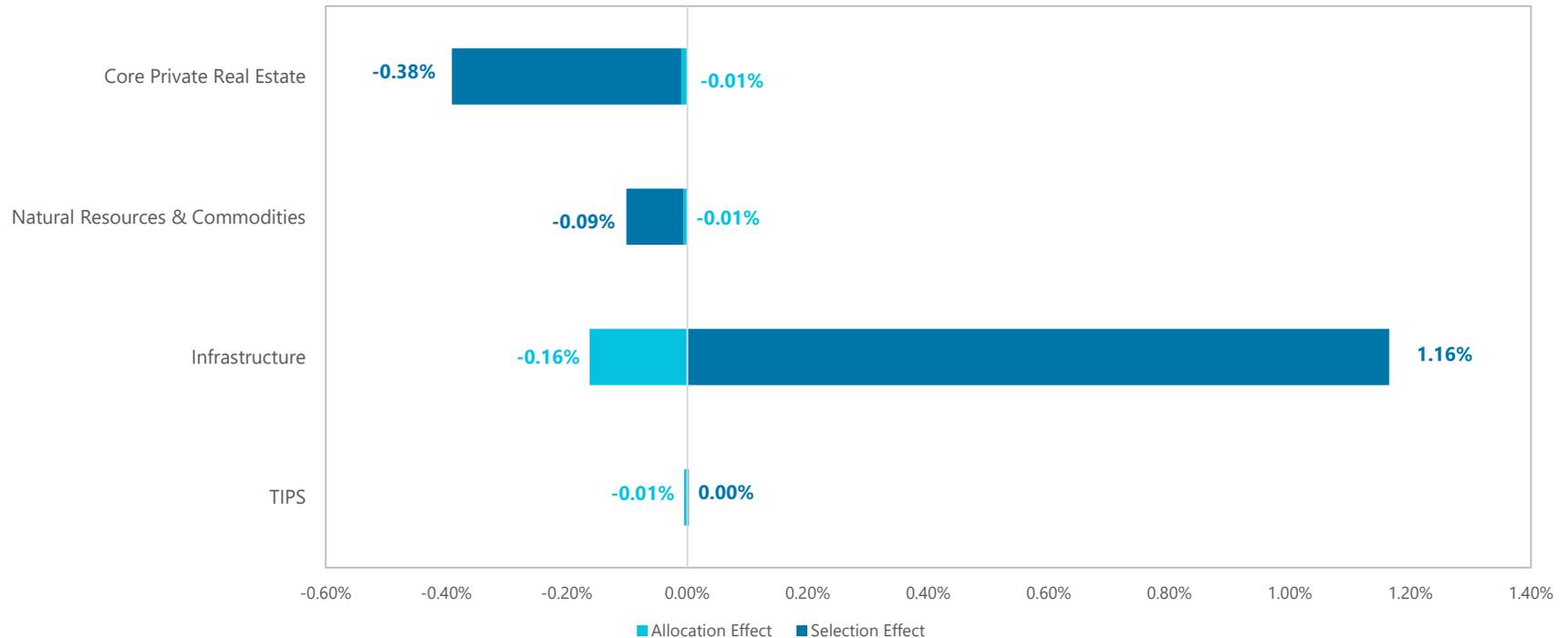
Return Attribution

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

QTD Performance Attribution¹



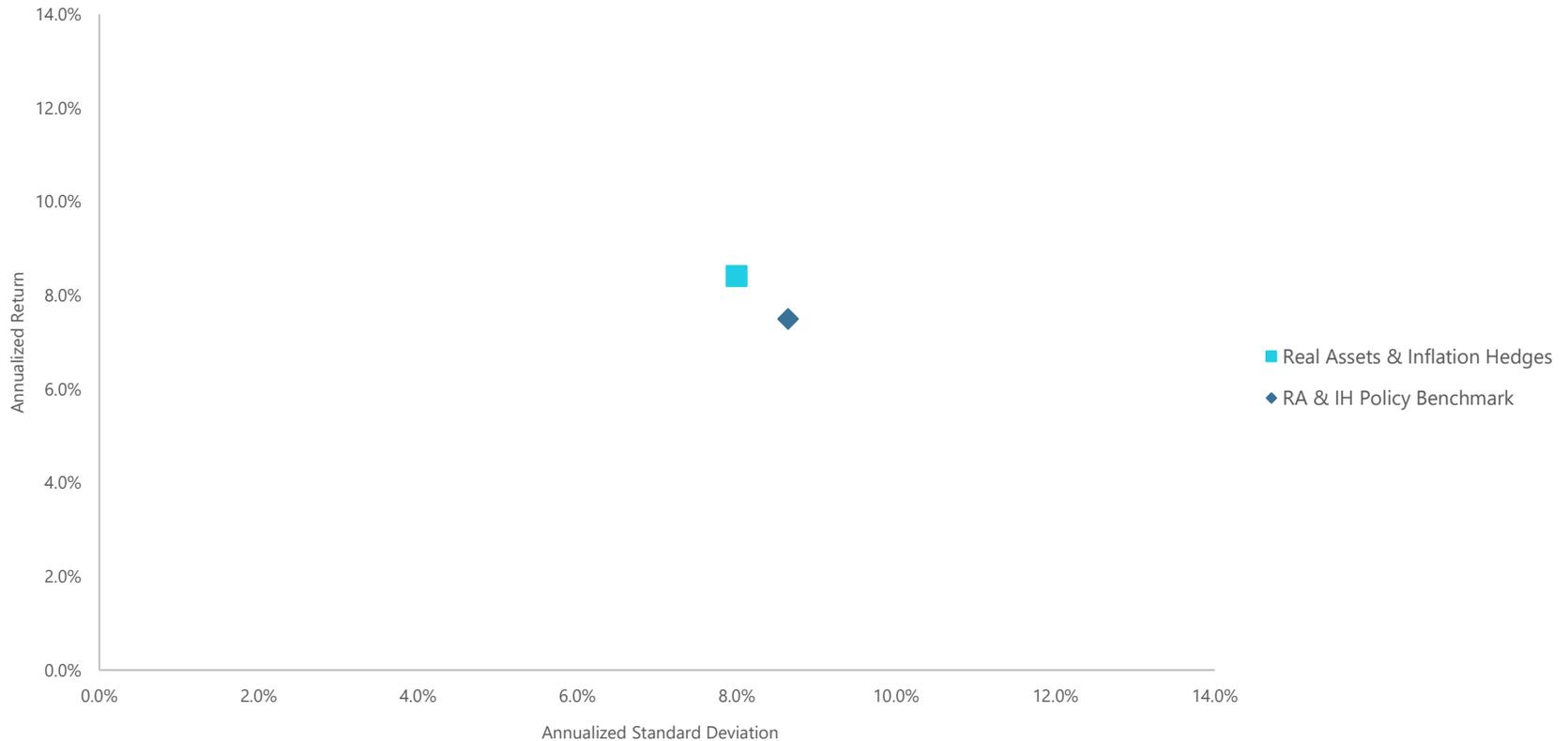
	Ending Market Value (mm)	% of Composite	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Real Assets & Inflation Hedges	11,912	100.0%	100.0%	-2.3%	-2.8%	-0.18%	0.69%	0.51%
Core Private Real Estate	3,920	32.9%	35.3%	-4.0%	-2.9%	-0.01%	-0.38%	-0.39%
Natural Resources & Commodities	2,179	18.3%	17.6%	3.4%	3.9%	-0.01%	-0.09%	-0.10%
Infrastructure	3,966	33.3%	29.4%	-3.5%	-6.9%	-0.16%	1.16%	1.00%
TIPS	1,847	15.5%	17.6%	-2.6%	-2.6%	-0.01%	0.00%	0.00%

¹ Total Value Add column includes Interaction Effect.

Risk vs. Return

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Real Assets & Inflation Hedges	8.4%	8.0%				
RA & IH Policy Benchmark	7.5%	8.6%	0.84	0.32	0.89	2.5%

Performance Detail

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns¹

	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Real Assets & Inflation Hedges	100.0%	11,912	12,050	-2.3%	-2.3%	-3.9%	-0.1%	8.4%	--	--	5.0%	Apr-2019
RA & IH Policy Benchmark				-2.8%	-2.8%	-5.4%	-0.3%	7.5%	--	--	5.3%	
Core Private Real Estate	32.9%	3,920	4,071	-4.0%	-4.0%	-11.7%	-10.2%	7.4%	4.9%	7.0%	6.9%	Oct-1985
Core Private RE Policy Benchmark				-2.9%	-2.9%	-11.0%	-10.7%	7.2%	5.9%	8.2%	6.7%	
Natural Resources & Commodities	18.3%	2,179	2,110	3.4%	3.4%	3.8%	8.4%	19.7%	7.2%	0.5%	-0.6%	Jul-2007
Nat Res & Comm Policy Benchmark				3.9%	3.9%	-1.1%	10.8%	18.1%	7.1%	-0.3%	-1.7%	
Appian Fund III	0.0%	2	4	-40.9%	-40.9%	--	--	--	--	--	-40.6%	Jun-2023
Cibus Enterprise II	0.0%	4	5	-0.9%	-0.9%	2.2%	-2.8%	--	--	--	-7.3%	Jun-2022
Cibus Fund II	0.2%	29	29	-0.9%	-0.9%	-5.1%	-10.9%	--	--	--	-12.9%	Jun-2022
Co-Investments - Natural Resources	0.2%	24	24	-0.4%	-0.4%	-0.5%	--	--	--	--	-0.5%	Oct-2022
Credit Suisse Commodity	2.5%	298	286	4.0%	4.0%	-4.7%	-3.3%	16.2%	6.5%	-0.3%	-2.3%	Mar-2011
DWS Natural Resources	4.1%	485	478	3.0%	3.0%	-3.3%	9.4%	17.9%	--	--	10.1%	Jun-2019
HiTecVision New Energy	0.8%	99	95	3.6%	3.6%	26.1%	43.3%	--	--	--	34.8%	Sep-2022
Neuberger Berman/Gresham	3.0%	356	338	5.3%	5.3%	-2.8%	-1.6%	16.8%	5.6%	-0.3%	-0.8%	Jul-2007
Orion Mine Finance Fund III	1.3%	150	133	10.6%	10.6%	27.0%	29.9%	--	--	--	17.1%	Sep-2021
Orion Mining Royalty Fund I	0.2%	28	23	5.8%	5.8%	2.9%	-5.0%	--	--	--	0.7%	Sep-2021
Private Equity - Real Assets	0.7%	81	82	-0.7%	-0.7%	0.9%	2.7%	6.9%	--	--	-7.2%	Jan-2019
Sprott	0.4%	44	45	1.0%	1.0%	--	--	--	--	--	-0.6%	Mar-2023
TIAA-CREF Global Agriculture I	2.5%	302	295	2.4%	2.4%	18.7%	17.6%	--	--	--	18.0%	Dec-2021
TIAA-CREF Global Agriculture II	2.3%	277	272	1.8%	1.8%	11.6%	11.9%	--	--	--	12.4%	Dec-2021
Infrastructure	33.3%	3,966	3,974	-3.5%	-3.5%	-1.0%	6.1%	7.3%	--	--	5.7%	Jun-2019
DJ Brookfield Global Infra Comp				-6.9%	-6.9%	-4.5%	4.5%	5.8%	--	--	1.8%	
Antin Mid Cap	0.4%	49	50	-2.2%	-2.2%	3.2%	16.2%	--	--	--	-4.3%	Dec-2021
Axiom Infrastructure	2.2%	268	263	1.8%	1.8%	5.8%	7.8%	--	--	--	4.5%	Dec-2021
Axiom Infrastructure Canada	1.3%	150	150	0.6%	0.6%	5.2%	6.7%	--	--	--	-100.0%	Nov-2021
Co-Investments - Infrastructure	0.3%	35	35	1.4%	1.4%	--	--	--	--	--	2.4%	Mar-2023
DIF CIF III	0.4%	46	44	1.2%	1.2%	-2.4%	-0.2%	--	--	--	1.4%	Jun-2022
DIF Infrastructure VI	1.0%	123	119	0.0%	0.0%	-0.1%	14.2%	--	--	--	15.8%	Mar-2021
DWS Infrastructure	17.4%	2,076	2,525	-6.9%	-6.9%	-5.5%	2.4%	5.3%	--	--	4.4%	Jun-2019
Grain Communications Opportunity III	0.3%	41	44	-7.6%	-7.6%	-3.5%	-2.2%	--	--	--	-100.0%	Feb-2021
Grain Spectrum Holdings III	0.6%	71	66	-0.1%	-0.1%	38.3%	38.2%	--	--	--	11.0%	Nov-2020
KKR DCIF	4.3%	515	509	2.1%	2.1%	4.7%	5.9%	--	--	--	4.4%	Apr-2022
MGIF	3.5%	414	0	--	--	--	--	--	--	--	0.0%	Aug-2023
Pan-European Infrastructure Fund III	0.6%	75	76	-0.5%	-0.5%	6.1%	15.4%	--	--	--	4.4%	Nov-2020
Partners Grp Direct Infra 2020	0.9%	104	92	2.9%	2.9%	13.5%	19.4%	--	--	--	11.0%	Jan-2022
TIPS	15.5%	1,847	1,896	-2.6%	-2.6%	-0.8%	1.3%	-2.0%	--	--	1.6%	May-2019
Bloomberg U.S. Treasury: U.S. TIPS				-2.6%	-2.6%	-0.8%	1.2%	-2.0%	--	--	1.7%	
Blackrock TIPS	15.5%	1,847	1,896	-2.6%	-2.6%	-0.8%	1.3%	-2.0%	--	--	1.6%	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, 2023

Realized (Ex-Post) Risks

\$11.9B	REAL ASSETS 1Y Realized Return	-0.1%
	REAL ASSETS Monte Carlo VaR	22.2%
	BENCHMARK Monte Carlo VaR	21.4%

Real Assets & Inflation Hedges

Value at Risk VARIABLES

95% Confidence Interval
1Y Time Horizon
1,000 Simulations

With 95% confidence (2σ), LACERA would not lose more than **\$2.4B** in 1Y.

versus

With 95% confidence (2σ), the Benchmark would not lose more than **\$2.3B** in 1Y.

34
Active Mandates*

Active Market Value Exposure*



29
Private Market Mandates*

Private Market Value Exposure*



21
US-Based Mandates*

US-Based Market Value Exposure*

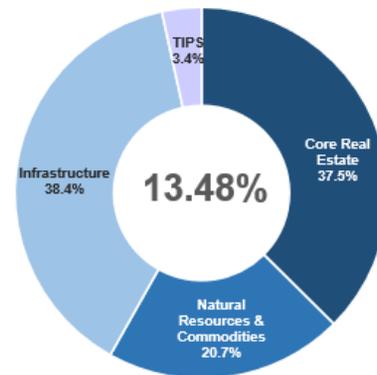


*as of 9/30/23

Projected (Ex-Ante) Risks

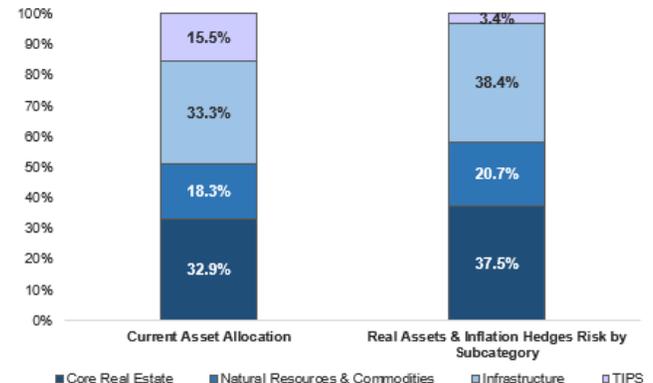
Real Assets Forecast Volatility	13.48%	Benchmark Forecast Volatility	13.16%
Real Assets Forecast Tracking Error	3.57%	Core Private Real Estate TE	4.30%
Portfolio Beta	0.99	Natural Resources & Commodities TE	4.84%
		Infrastructure TE	8.25%
		TIPS TE	0.06%

Subcategory Contributions to Real Assets and Inflation Hedges Risk



Real Assets and Inflation Hedges Asset Allocation

Capital-based versus Risk-based



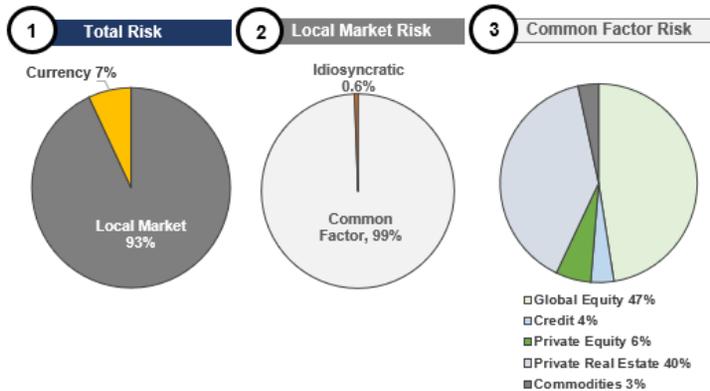
Real Assets & Inflation Hedges Risk Summary

for the quarter ended September 30, 2023

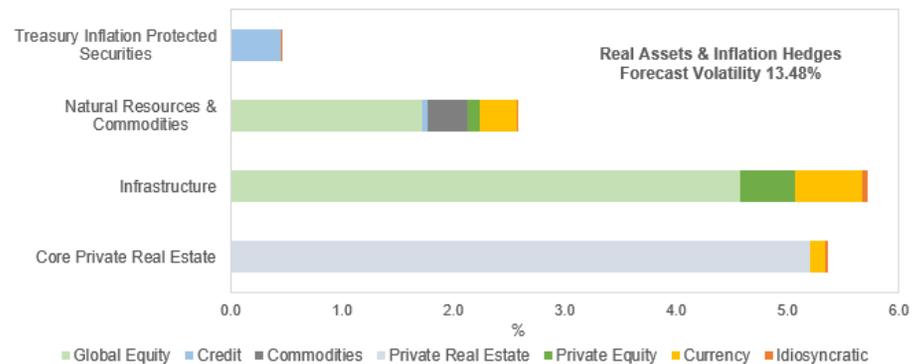
Decomposition of MSCI Risk Factors



Real Assets & Inflation Hedges Risk Decomposition



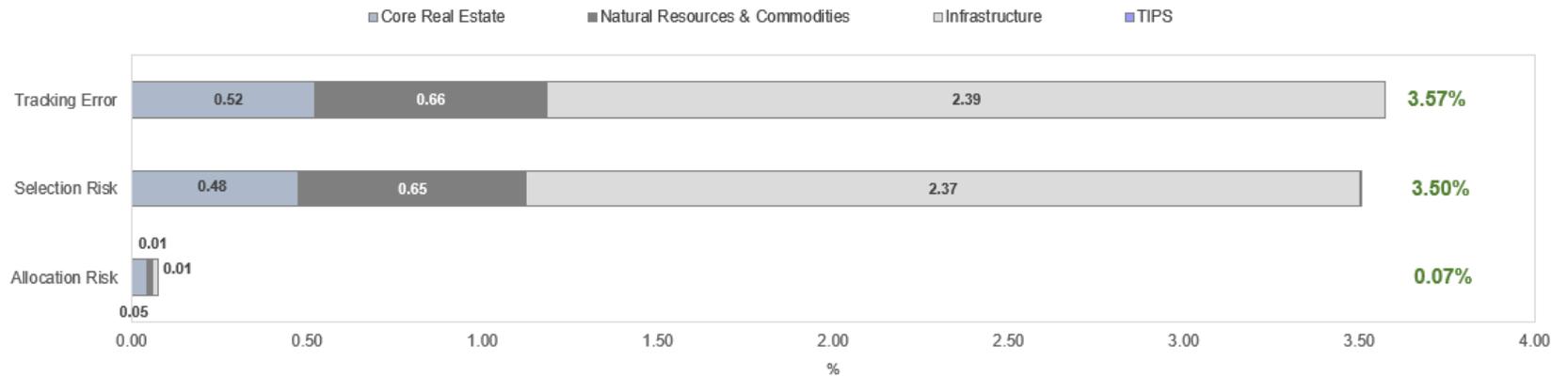
Subcategory Contributions by Risk Factor



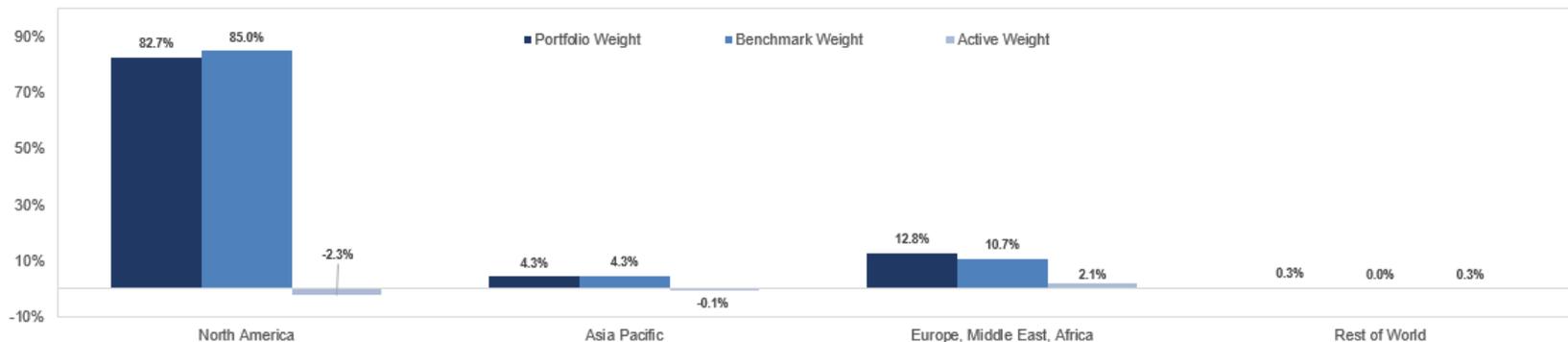
Real Assets & Inflation Hedges Risk Summary

for the quarter ended September 30, 2023

Subcategory Contributions to Tracking Error



Portfolio Allocation by Region^{1,2}



² Rest of World is sum of countries with weights below 0.5%.

Real Assets & Inflation Hedges

Natural Resources & Commodities

Credit Suisse

for the quarter ended September 30, 2023



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	15.4%
Benchmark Standard Deviation	15.8%
Sharpe Ratio	0.29
Information Ratio	0.36
Beta	0.98
Tracking Error	1.0%

Top Holdings (% of assets)

US TREASURY FRN	17.0%
US TREASURY FRN	13.9%
GOLD 100 OZ FUTR FEB24	12.3%
US TREASURY FRN	10.9%
BRENT CRUDE FUTR JAN24	8.5%
Top 5 Holdings	62.5%

Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Credit Suisse Commodity	297.7	4.0%	-3.3%	16.2%	6.5%
Bloomberg Commodity Index Total Return		4.7%	-1.3%	16.2%	6.1%
Real Assets & Inflation Hedges Policy BM		-2.8%	-0.3%	7.5%	--

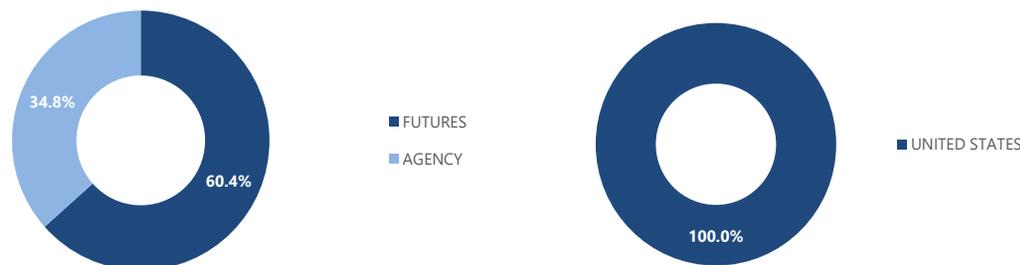
Universe data: Commodity Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Credit Suisse Commodity	4.1%	38	-3.1%	86	16.5%	36	6.8%	64
Median	0.8%		2.7%		14.3%		7.7%	

No. of Observations 11

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

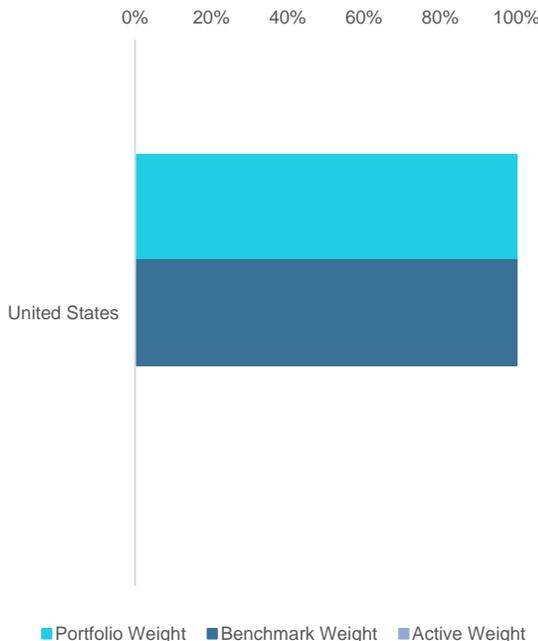
Credit Suisse

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility <hr/> 13.5%	BENCHMARK Forecast Volatility <hr/> 17.6%
PORTFOLIO Forecast Tracking Error <hr/> 5.8%	PORTFOLIO Beta <hr/> 0.74

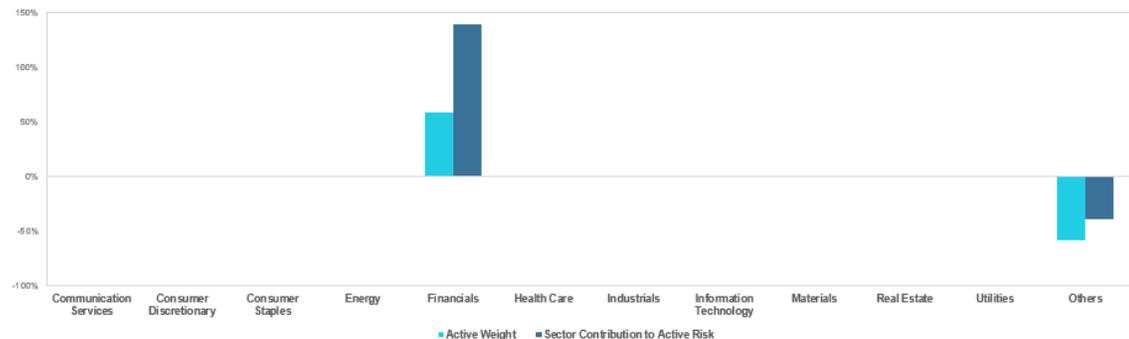
Top Country by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
NYMEX CRUDE OIL NOV23	0.00%	0.00%	0.00%	4.74%
ICE BRENT CRUDE DEC23	0.00%	0.00%	0.00%	3.05%
PROXY ISSUER 0.3651441% 20240131	16.68%	0.00%	16.68%	2.31%
PROXY ISSUER 1.66624463% 20240430	13.67%	0.00%	13.67%	1.89%
PROXY ISSUER 4.99353962% 20240731	10.68%	0.00%	10.68%	1.47%
UNITED STATES TREASURY 5.52779 07/31/2025	8.10%	0.00%	8.10%	1.12%
UNITED STATES TREASURY 5.60279 01/31/2025	6.69%	0.00%	6.69%	0.92%
UNITED STATES TREASURY 5.57179 04/30/2025	6.04%	0.00%	6.04%	0.83%
PROXY ISSUER 8.02810857% 20241031	5.68%	0.00%	5.68%	0.78%
NYMEX HEATING OIL NOV23	0.00%	0.00%	0.00%	0.75%

Portfolio Allocation by GICS Sector



Real Assets & Inflation Hedges

Natural Resources & Commodities

DWS

for the quarter ended September 30, 2023

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	24.0%
Benchmark Standard Deviation	24.0%
Sharpe Ratio	0.45
Information Ratio	-0.23
Beta	0.98
Tracking Error	4.2%

Top Holdings (% of assets)

CHEVRON CORP	7.8%
BP PLC	7.0%
TOTALENERGIES SE	6.8%
RIO TINTO LTD	6.0%
AGNICO EAGLE MINES LTD	5.1%
Top 5 Holdings	32.8%

Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
DWS Natural Resources	484.7	3.0%	9.4%	17.9%	--
DWS NR Custom Benchmark		3.6%	17.0%	18.6%	--
Real Assets & Inflation Hedges Policy BM		-2.8%	-0.3%	7.5%	--

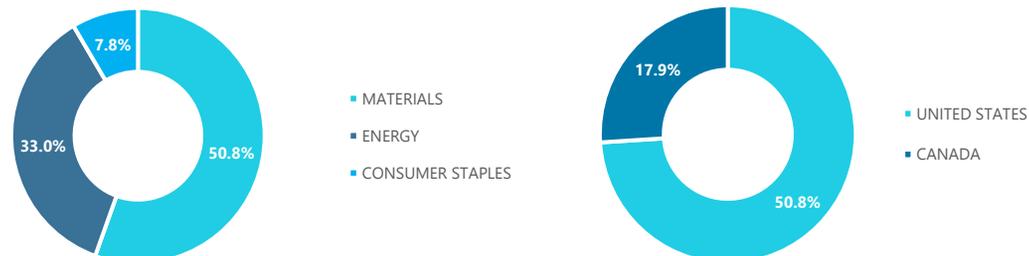
Universe data: Commodity Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
DWS Natural Resources	3.1%	41	9.6%	32	18.1%	29	--	--
Median	0.8%		2.7%		14.3%		--	

No. of Observations: 11

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

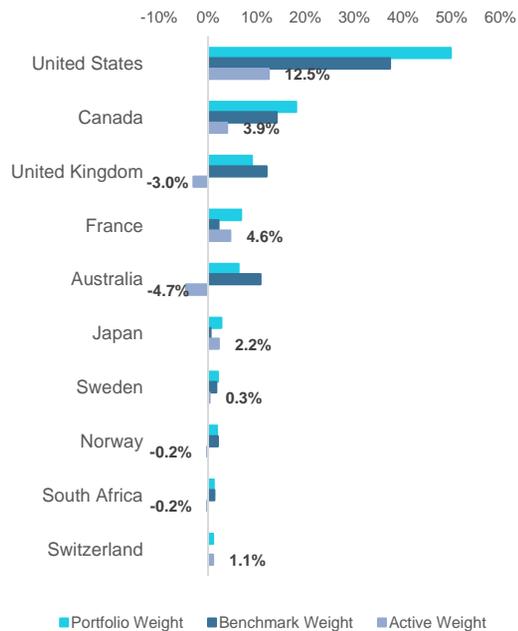
DWS

for the quarter ended September 30, 2023

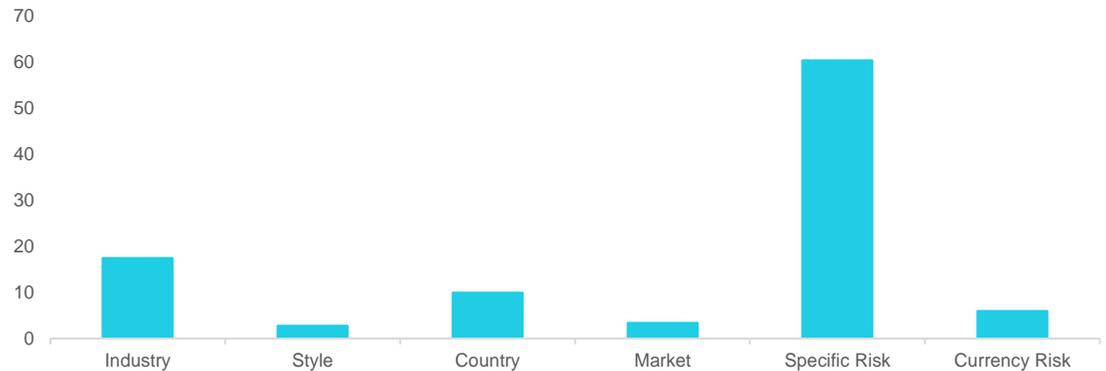
Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
21.1%	21.6%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
3.7%	0.96

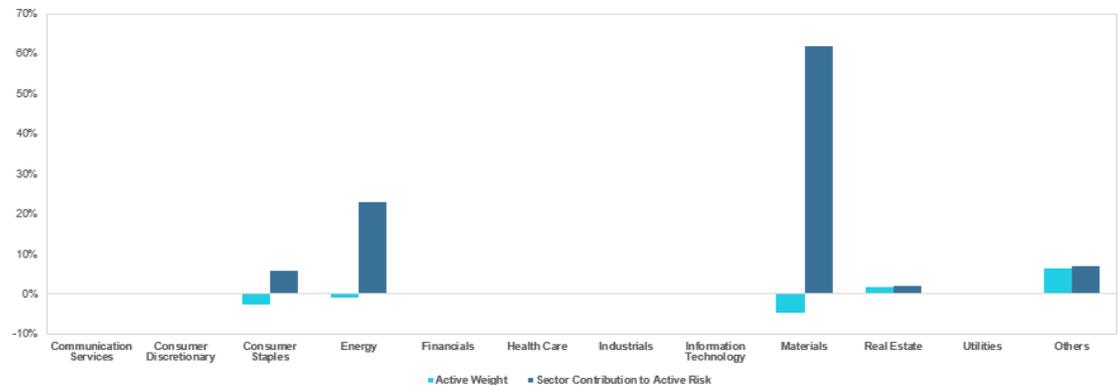
Top 10 Countries by Weight



Portfolio Active Risk from Common Factors



Portfolio Allocation by GICS Sector



Real Assets & Inflation Hedges

Natural Resources & Commodities

Neuberger Berman / Gresham

for the quarter ended September 30, 2023

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	16.8%
Sharpe Ratio	0.13
Information Ratio	0.48
Beta	1.04
Tracking Error	4.8%

Top Holdings (% of assets)

GOLD 100 OZ FUTR DEC23	12.4%
TREASURY BILL	8.3%
NATURAL GAS FUTR NOV23	7.0%
BRENT CRUDE FUTR JAN24	6.5%
WTI CRUDE FUTURE NOV23	5.2%
Top 5 Holdings	39.3%

Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Neuberger Berman/Gresham	355.9	5.3%	-1.6%	16.8%	5.6%
Bloomberg Commodity Index Total Return		4.7%	-1.3%	16.2%	6.1%
Real Assets & Inflation Hedges Policy BM		-2.8%	-0.3%	7.5%	--

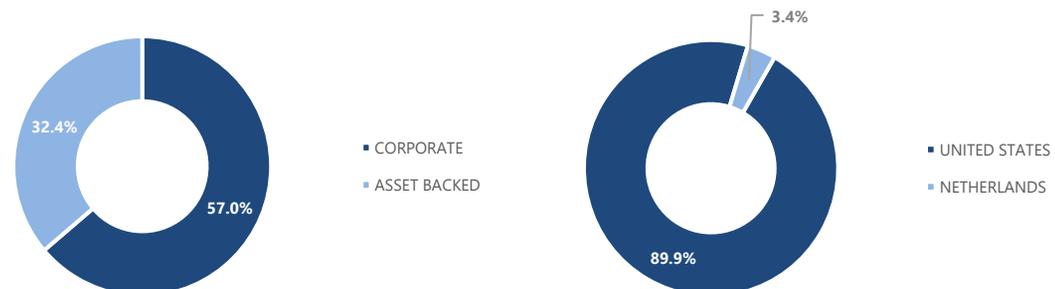
Universe data: Commodity Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Neuberger Berman/Gresham	5.4%	29	-1.3%	80	17.2%	33	6.0%	71
Median	0.8%		2.7%		14.3%		7.7%	

No. of Observations: 11

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

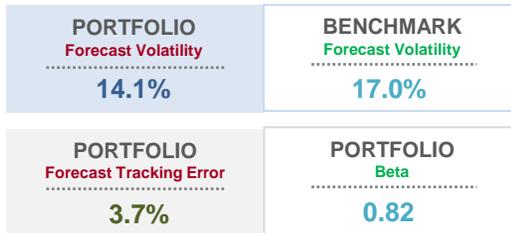
Neuberger Berman / Gresham

for the quarter ended September 30, 2023

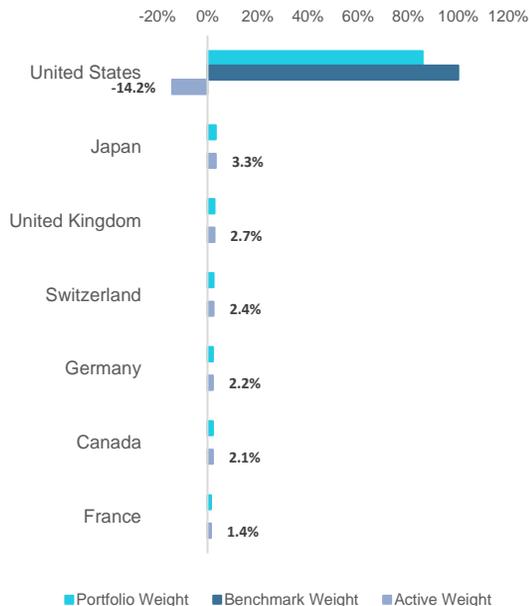


Los Angeles County Employees Retirement Association

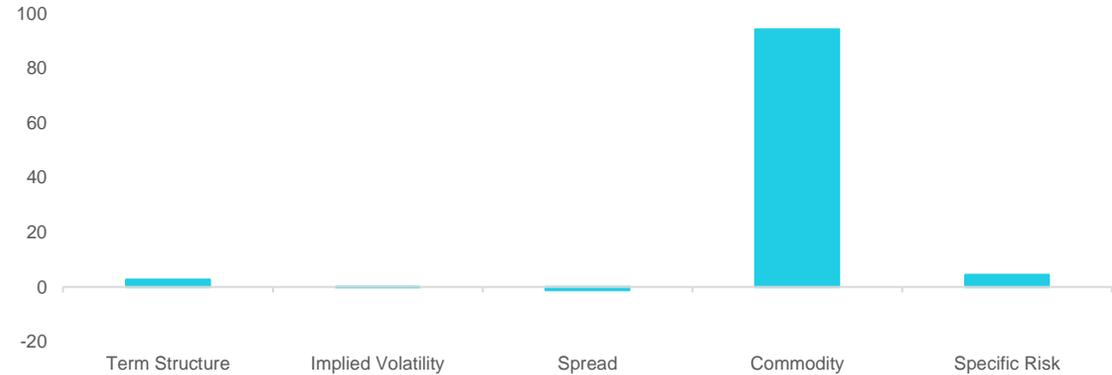
Portfolio Risk Summary



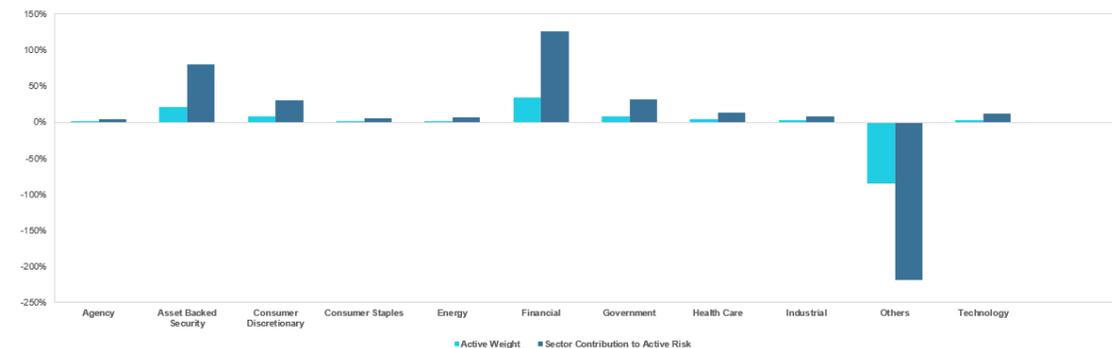
Top Countries by Weight



Portfolio Active Risk from Common Factors



Portfolio Allocation by GICS Sector



Real Assets & Inflation Hedges

Infrastructure

DWS

for the quarter ended September 30, 2023

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)	35,380.0	33,719.7
No. Of Issues	47.0	0.0
Dividend Yield	3.3	3.8
Return on Equity	12.3	11.2
Price to Sales	3.1	3.4
Price to Book	3.3	3.4
PE Ratio	18.3	17.4

Top Holdings (% of assets)

ENBRIDGE INC	5.0%
NATIONAL GRID PLC	4.8%
AMERICAN TOWER CORP	4.6%
VINCI SA	4.3%
ONEOK INC	4.0%
Top 5 Holdings	22.7%

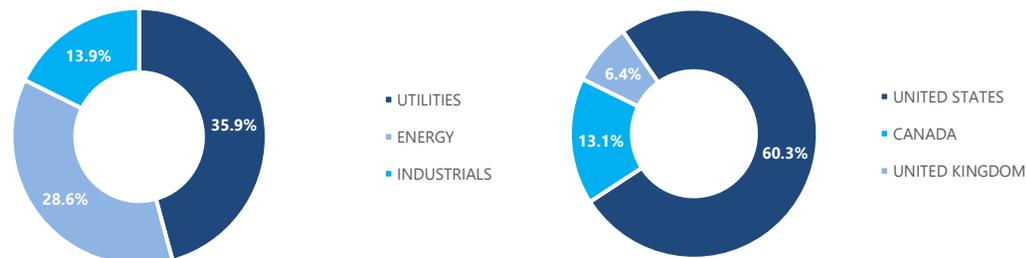
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
DWS Infrastructure	2,076.2	-6.9%	2.4%	5.3%	--
DJ Brookfield Global Infra Comp		-6.9%	4.5%	5.8%	--
Real Assets & Inflation Hedges Policy BM		-2.8%	-0.3%	7.5%	--

Growth of \$10,000



Top Exposures (% of assets)²



¹ Peer rankings not shown; comparable public market infrastructure universe not available.

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

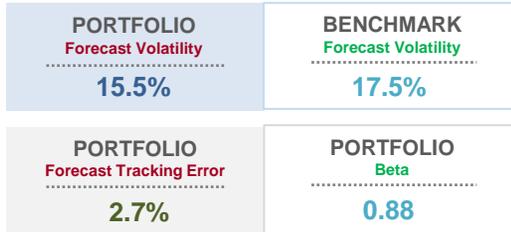
Real Assets & Inflation Hedges Risk Analysis

Infrastructure

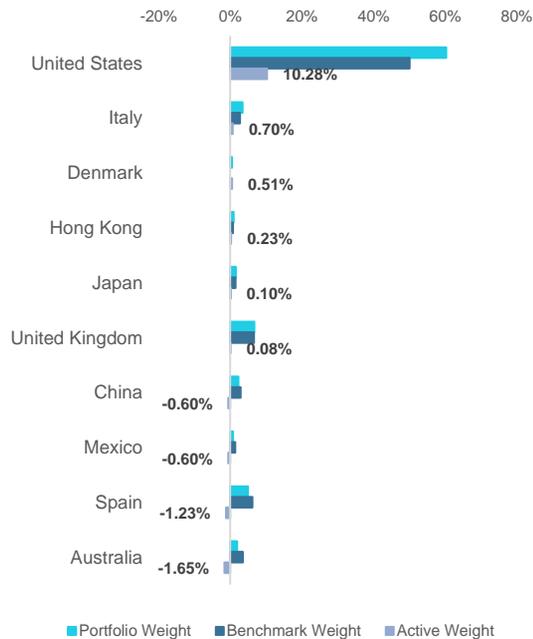
DWS

for the quarter ended September 30, 2023

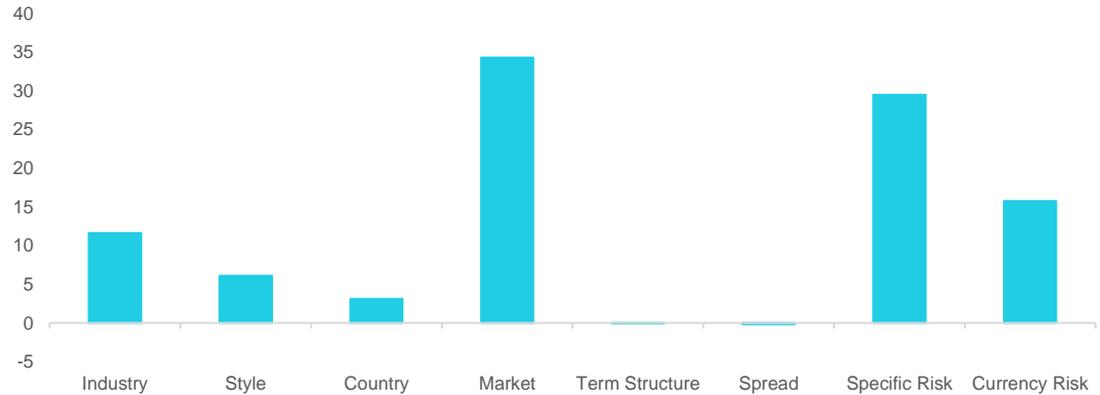
Portfolio Risk Summary



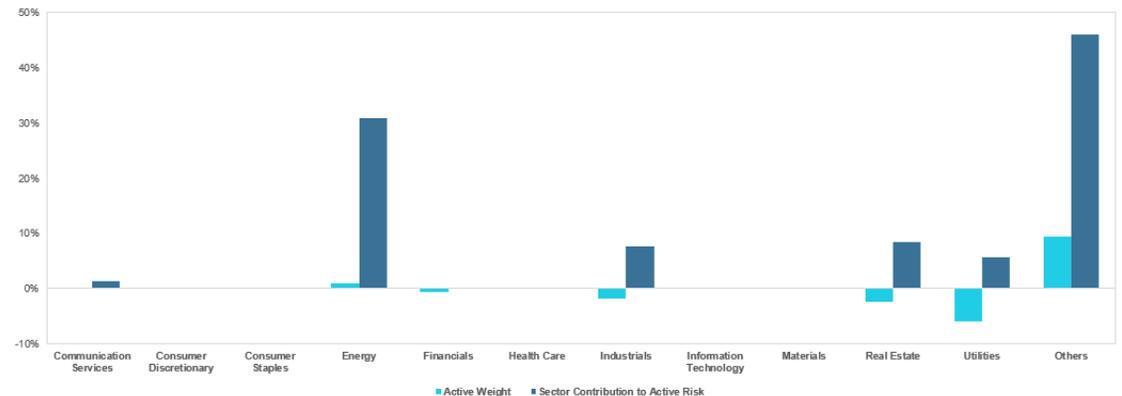
Top 10 Countries by Weight



Portfolio Active Risk from Common Factors



Portfolio Allocation by GICS Sector



Real Assets & Inflation Hedges

TIPS

BlackRock

for the quarter ended September 30, 2023

Strategy

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

Inception Date: May 2019

Risk Statistics (since inception)

Standard Deviation	6.3%
Benchmark Standard Deviation	6.3%
Sharpe Ratio	0.03
Information Ratio	-0.07
Beta	0.99
Tracking Error	0.8%

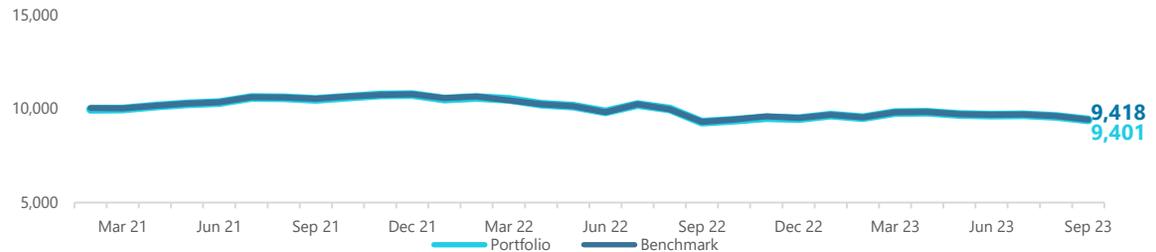
Top Holdings (% of assets)

TSY INFL IX N/B	4.5%
TSY INFL IX N/B	4.0%
TSY INFL IX N/B	3.7%
TSY INFL IX N/B	3.5%
TSY INFL IX N/B	3.5%
Top 5 Holdings	19.1%

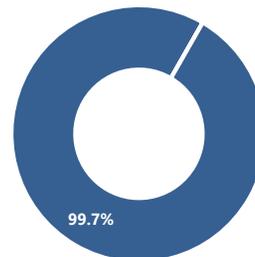
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
BlackRock TIPS	1,846.9	-2.6%	1.3%	-2.0%	--
Bloomberg U.S. Treasury: U.S. TIPS		-2.6%	1.2%	-2.0%	--
Real Assets & Inflation Hedges Policy BM		-2.8%	-0.3%	7.5%	--

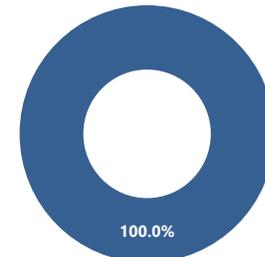
Growth of \$10,000



Top Exposures (% of assets)²



■ US TREASURY



■ UNITED STATES

¹ Peer rankings not shown; comparable TIPS universe not available.

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, 2023

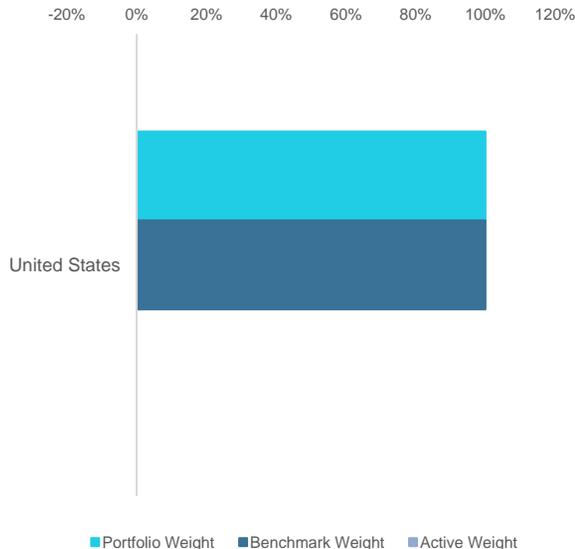


Los Angeles County Employees Retirement Association

Portfolio Risk Summary



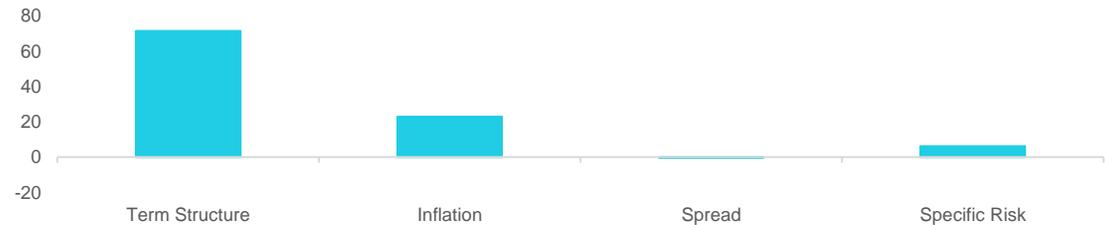
Top Country by Weight



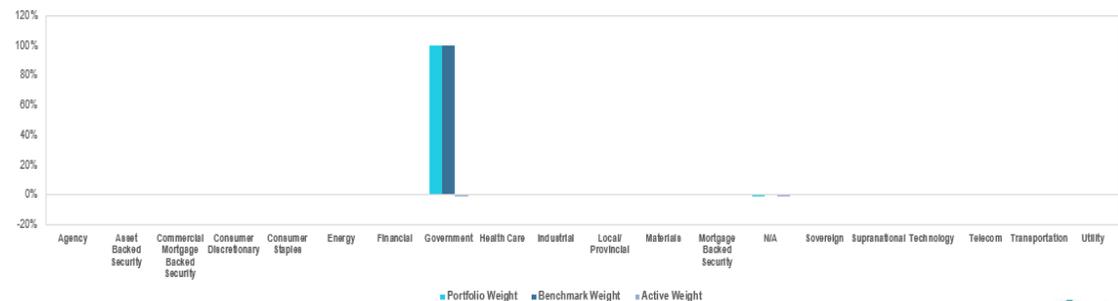
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



risk reduction & mitigation

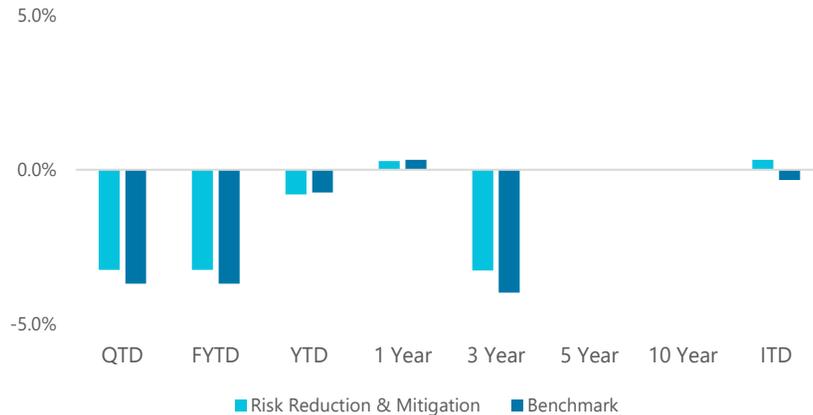
Summary

for the quarter ended September 30, 2023



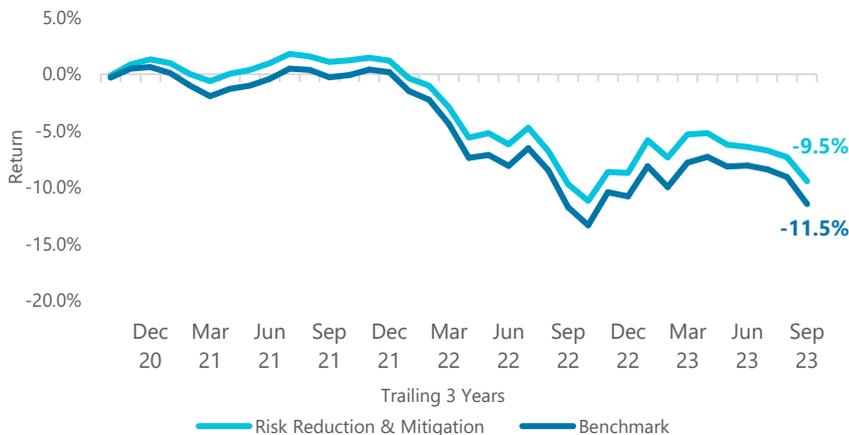
Los Angeles County Employees Retirement Association

Performance (net)



	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Risk Reduction & Mitigation	-3.2%	-3.2%	-0.8%	0.3%	-3.3%	--	--	0.3%
Benchmark	-3.7%	-3.7%	-0.7%	0.3%	-4.0%	--	--	-0.3%
Excess	0.4%	0.4%	-0.1%	0.0%	0.7%	--	--	0.7%

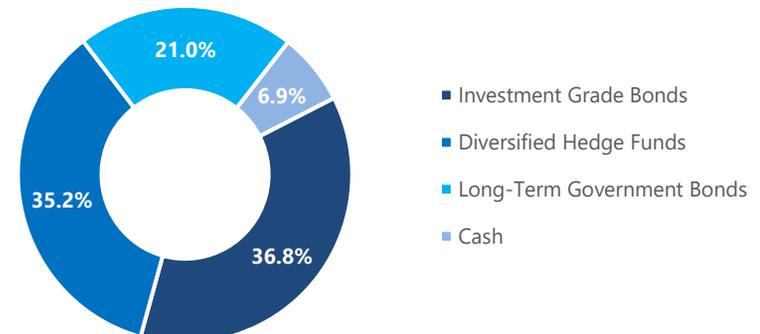
Cumulative Return



Functional Category

	QTD	FYTD	YTD	1 Year	3 Year
Investment Grade Bonds	-3.2%	-3.2%	-0.9%	0.9%	-5.1%
BBG BC Aggregate Bond Index	-3.2%	-3.2%	-1.2%	0.6%	-5.2%
Excess	0.0%	0.0%	0.3%	0.3%	0.1%
Diversified Hedge Funds	1.5%	1.5%	3.4%	4.9%	7.0%
Diversified Hedge Funds Policy Benchmark	2.0%	2.0%	5.6%	7.0%	4.2%
Excess	-0.4%	-0.4%	-2.2%	-2.2%	2.8%
Long-Term Government Bonds	-11.9%	-11.9%	-8.7%	-9.2%	--
Bloomberg U.S. Treasury: Long	-11.8%	-11.8%	-8.6%	-9.1%	--
Excess	-0.1%	-0.1%	-0.1%	-0.2%	--
Cash	0.6%	0.6%	3.8%	5.1%	2.7%
Cash Policy Benchmark	1.4%	1.4%	3.8%	4.7%	1.8%
Excess	-0.8%	-0.8%	0.0%	0.4%	0.9%

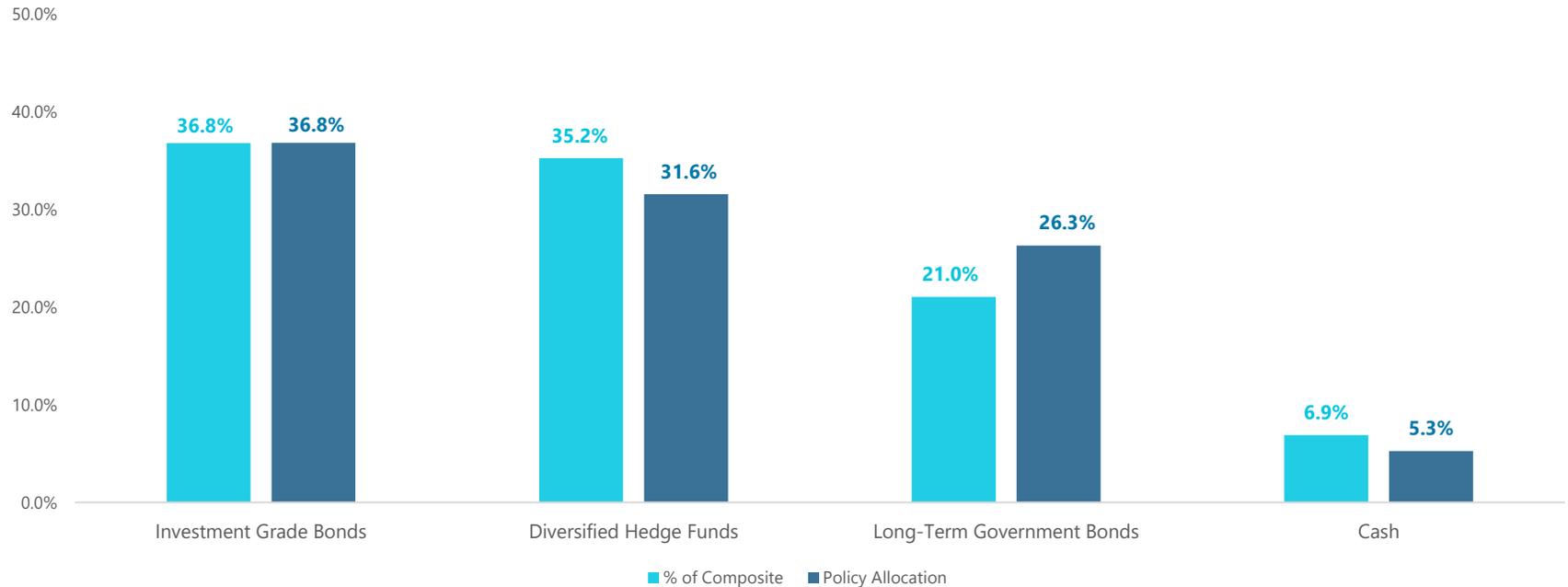
Exposure



Asset Allocation

for the quarter ended September 30, 2023

Actual vs. Policy

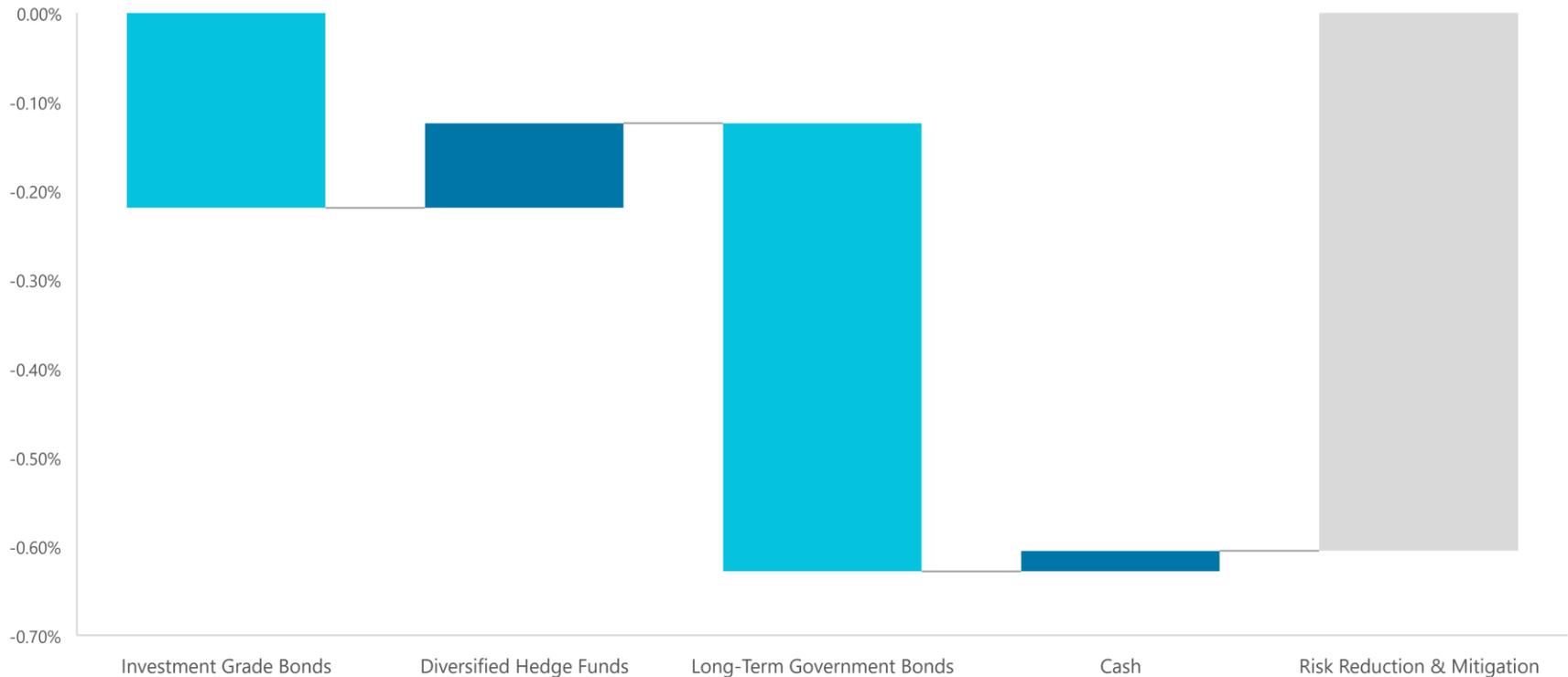


	Ending Market Value (mm)	% of Composite	Policy Allocation	Over / Under (%)	Over / Under (mm)
Risk Reduction & Mitigation	13,268	100.0%	100.0%		
Investment Grade Bonds	4,883	36.8%	36.8%	-0.7%	-90
Diversified Hedge Funds	4,677	35.2%	31.6%	3.1%	406
Long-Term Government Bonds	2,792	21.0%	26.3%	-5.6%	-749
Cash	916	6.9%	5.3%	1.5%	203

Contribution to Return

for the quarter ended September 30, 2023

QTD Contribution to Return



Functional Category		Contributors		Detractors	
Investment Grade Bonds	-0.22%	Capula GRV	0.03%	BlackRock Long Treasury Bonds	-0.50%
Diversified Hedge Funds	0.10%	HBK Multi-strategy	0.02%	BTC US Debt Index Fund	-0.13%
Long-Term Government Bonds	-0.50%			Allspring/Wells	-0.06%
Cash	0.02%			Pugh Capital Mgmt	-0.04%
Risk Reduction & Mitigation	-0.61%			AM Asia Strategies	-0.02%

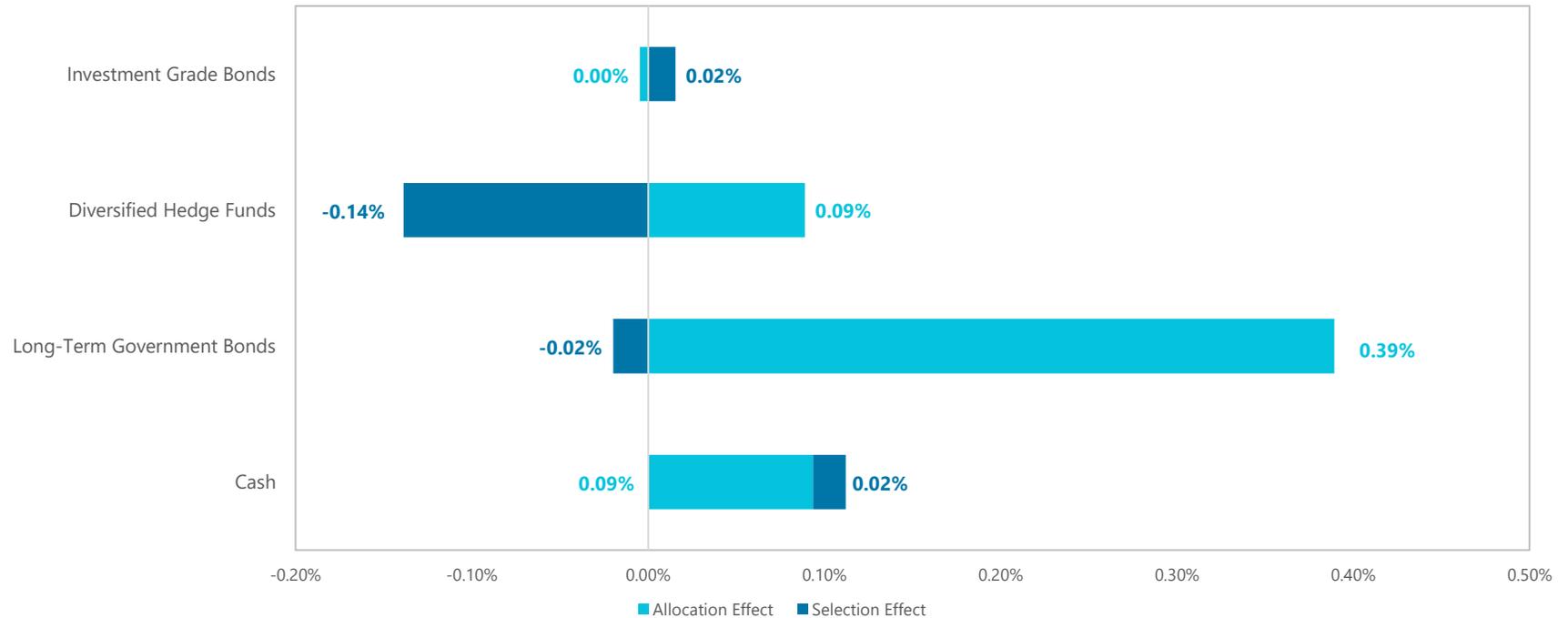
Return Attribution

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

QTD Performance Attribution¹



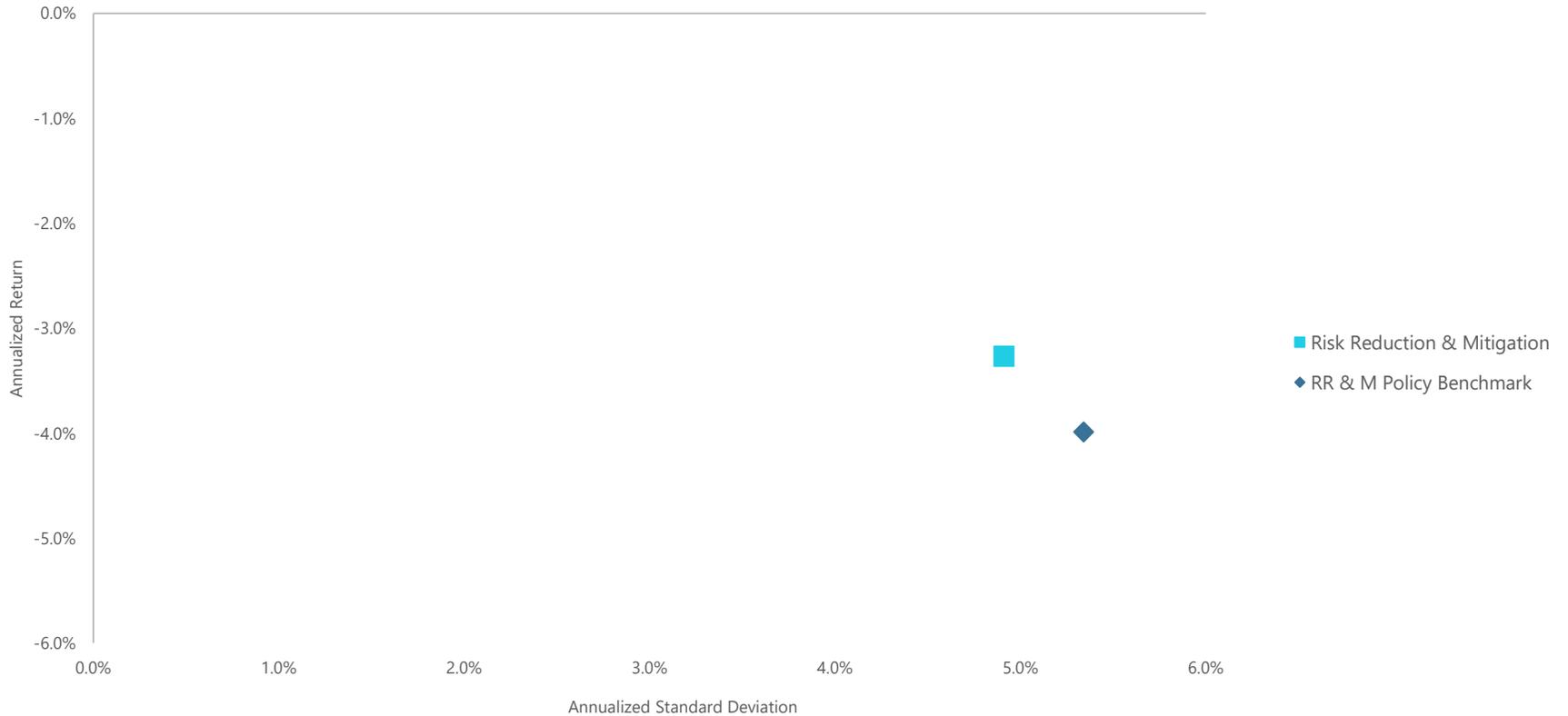
	Ending Market Value (mm)	% of Composite	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Risk Reduction & Mitigation	13,268	100.0%	100.0%	-3.2%	-3.7%	0.57%	-0.12%	0.44%
Investment Grade Bonds	4,883	36.8%	36.8%	-3.2%	-3.2%	0.00%	0.02%	0.01%
Diversified Hedge Funds	4,677	35.2%	31.6%	1.5%	2.0%	0.09%	-0.14%	-0.05%
Long-Term Government Bonds	2,792	21.0%	26.3%	-11.9%	-11.8%	0.39%	-0.02%	0.37%
Cash	916	6.9%	5.3%	0.6%	1.4%	0.09%	0.02%	0.11%

¹ Total Value Add column includes Interaction Effect.

Risk vs. Return

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Risk Reduction & Mitigation	-3.3%	4.9%				
RR & M Policy Benchmark	-4.0%	5.3%	(1.00)	0.93	0.91	0.8%

Performance Detail

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns

	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Risk Reduction & Mitigation	100.0%	13,268	13,659	-3.2%	-3.2%	-0.8%	0.3%	-3.3%	--	--	0.3%	Apr-2019
RR & M Policy Benchmark				-3.7%	-3.7%	-0.7%	0.3%	-4.0%	--	--	-0.3%	
Investment Grade Bonds	36.8%	4,883	5,044	-3.2%	-3.2%	-0.9%	0.9%	-5.1%	0.2%	1.5%	5.0%	Nov-1994
BBG BC Aggregate Bond Index				-3.2%	-3.2%	-1.2%	0.6%	-5.2%	0.1%	1.1%	4.5%	
Allspring/Wells	9.4%	1,243	1,283	-3.1%	-3.1%	-0.7%	1.3%	-4.9%	0.6%	1.5%	3.6%	Mar-2004
BTC US Debt Index Fund	21.1%	2,804	2,897	-3.2%	-3.2%	-1.0%	0.7%	-5.2%	0.2%	1.2%	3.6%	Nov-1999
MHLP	0.1%	9	10	1.2%	1.2%	3.8%	5.0%	5.1%	5.2%	5.6%	5.4%	Apr-2005
Pugh Capital Mgmt	6.2%	827	855	-3.3%	-3.3%	-1.0%	0.9%	-5.1%	0.3%	1.2%	3.0%	Jul-2005
Diversified Hedge Funds	35.2%	4,677	4,570	1.5%	1.5%	3.4%	4.9%	7.0%	--	--	6.3%	Apr-2019
Diversified Hedge Funds Policy Benchmark				2.0%	2.0%	5.6%	7.0%	4.2%	--	--	4.2%	
AM Asia Strategies	1.7%	230	245	-6.3%	-6.3%	6.0%	3.9%	--	--	--	0.8%	Jun-2021
Brevan Howard Master Fund	4.8%	631	625	1.0%	1.0%	-3.0%	-2.6%	--	--	--	5.2%	Apr-2021
Capula GRV	5.2%	694	676	2.8%	2.8%	8.1%	10.9%	7.3%	--	--	7.2%	Dec-2018
Caxton Global Investments	2.1%	283	282	0.5%	0.5%	-4.5%	-3.0%	--	--	--	5.2%	Feb-2021
DK Institutional Partners	3.8%	506	497	1.9%	1.9%	4.1%	4.0%	5.1%	4.9%	--	4.8%	May-2018
Grosvenor HFOF	0.1%	20	24	-1.3%	-1.3%	-5.5%	-6.1%	1.7%	1.3%	2.1%	2.8%	Nov-2011
HBK Multi-strategy	4.6%	604	586	3.1%	3.1%	4.5%	8.8%	7.1%	6.1%	--	5.6%	Jun-2018
Hudson Bay	5.2%	684	672	1.9%	1.9%	5.3%	6.8%	9.6%	--	--	9.8%	Jul-2020
Polar	3.7%	491	484	1.5%	1.5%	5.2%	6.4%	6.6%	--	--	9.6%	May-2020
Stable Asset Management	4.0%	532	480	2.4%	2.4%	3.2%	5.0%	--	--	--	1.3%	Aug-2021
Long-Term Government Bonds	21.0%	2,792	2,962	-11.9%	-11.9%	-8.7%	-9.2%	--	--	--	-20.3%	Nov-2021
Bloomberg U.S. Treasury: Long				-11.8%	-11.8%	-8.6%	-9.1%	--	--	--	-21.0%	Nov-2021
BlackRock Long Treasury Bonds	21.0%	2,792	2,962	-11.9%	-11.9%	-8.7%	-9.2%	--	--	--	-20.3%	Nov-2021
Cash	6.9%	916	1,083	0.6%	0.6%	3.8%	5.1%	2.7%	2.4%	1.6%	1.9%	Jun-2001
Cash Policy Benchmark				1.4%	1.4%	3.8%	4.7%	1.8%	1.7%	1.2%	1.5%	

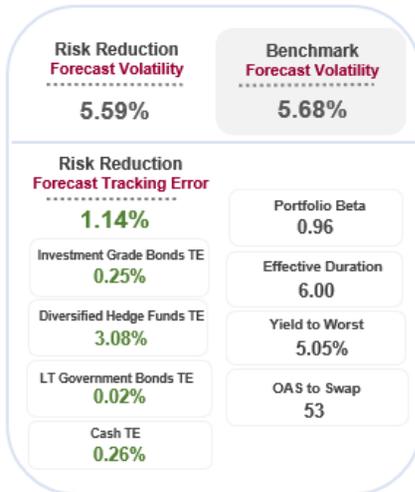
Risk Reduction & Mitigation Risk Summary

for the quarter ended September 30, 2023

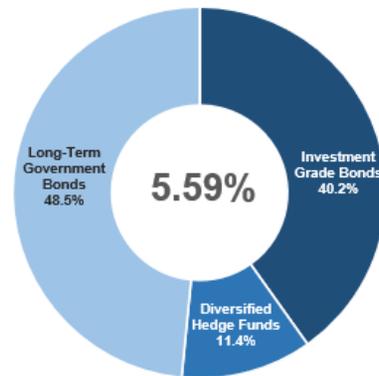
Realized (Ex-Post) Risks



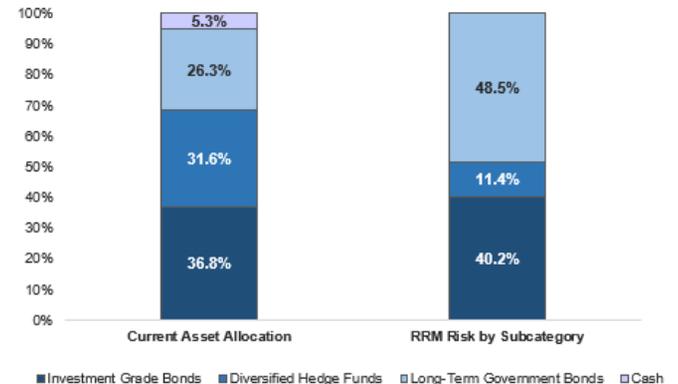
Projected (Ex-Ante) Risks



Subcategory Contributions to Risk Reduction & Mitigation (RRM) Risk



Risk Reduction & Mitigation Asset Allocation Capital-based versus Risk-based



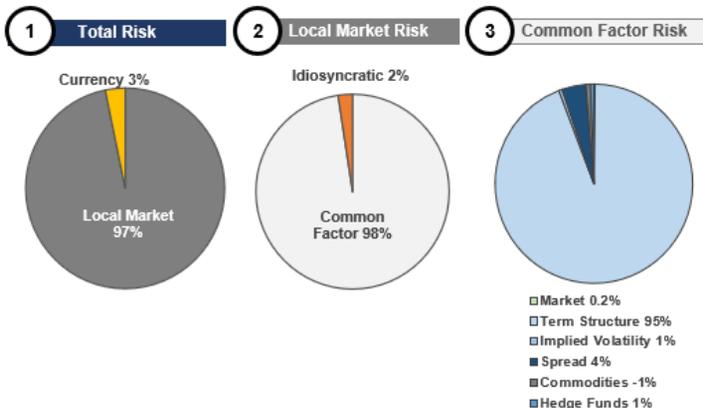
Risk Reduction & Mitigation Risk Summary

for the quarter ended September 30, 2023

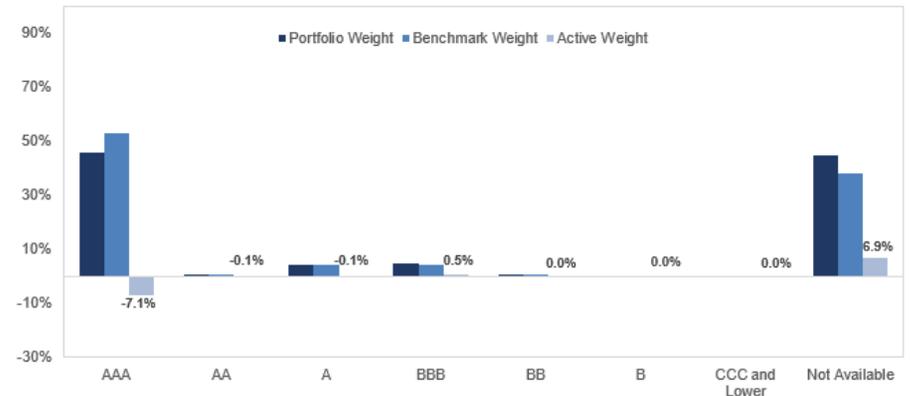
Decomposition of MSCI Risk Factors



Risk Reduction & Mitigation Risk Decomposition



Portfolio Allocation by Moody's Rating

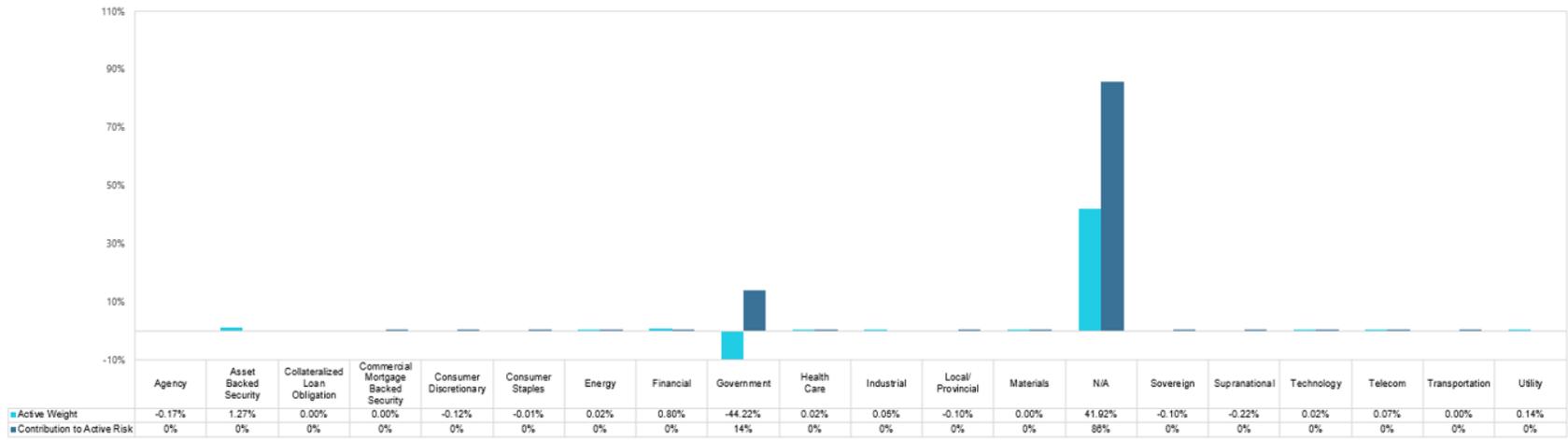


Risk Reduction & Mitigation

Risk Summary

for the quarter ended September 30, 2023

Portfolio Allocation by Bond Sector



Risk Reduction & Mitigation

Investment Grade Bonds

Allspring/Wells

for the quarter ended September 30, 2023



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: June 2004

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	945.0	0.0
Effective Duration	6.1	5.9
Convexity	0.6	0.6
Coupon Rate	3.7	3.0
Yield to Maturity	5.4	5.1
Current Yield	4.1	3.4
Rating – Moody's	AA-2	AA-2
Rating – S & P	AA	AA-

Top Holdings (% of assets)

FNMA TBA 30 YR 6	3.1%
US TREASURY N/B	3.0%
FNMA TBA 30 YR 6	2.0%
US TREASURY N/B	1.5%
US TREASURY N/B	1.4%
Top 5 Holdings	11.1%

Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Allspring/Wells	1,242.6	-3.1%	1.3%	-4.9%	0.6%
BBG BC Aggregate Bond Index		-3.2%	0.6%	-5.2%	0.1%
Risk Reduction & Mitigation Policy BM		-3.7%	0.3%	-4.0%	--

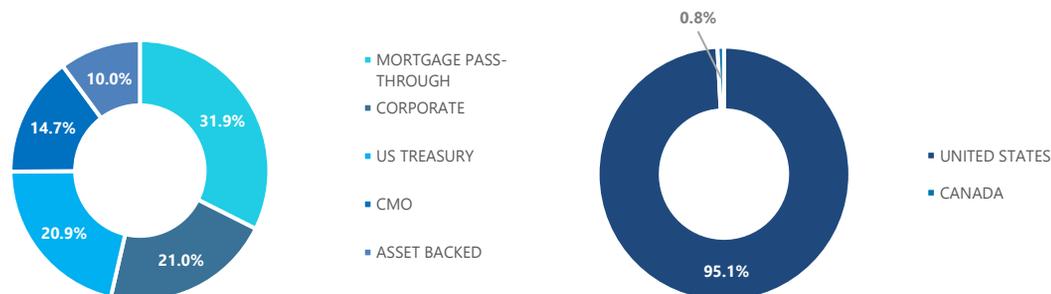
Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Allspring/Wells	-3.1%	76	1.4%	65	-4.8%	77	0.7%	67
Median	-0.9%		2.7%		-1.5%		1.2%	

No. of Observations: 758

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, 2023

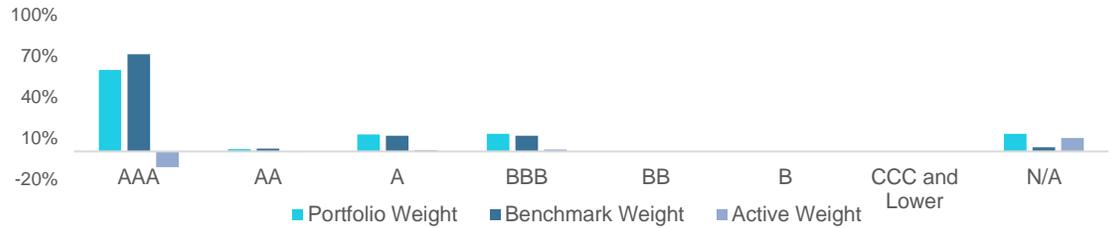
Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
6.9%	6.3%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
0.8%	1.10
Effective Duration 7.0	Yield to Worst 5.3%

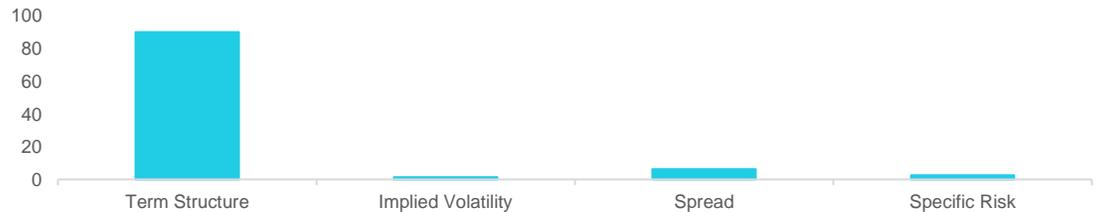
Top 10 Countries by Weight



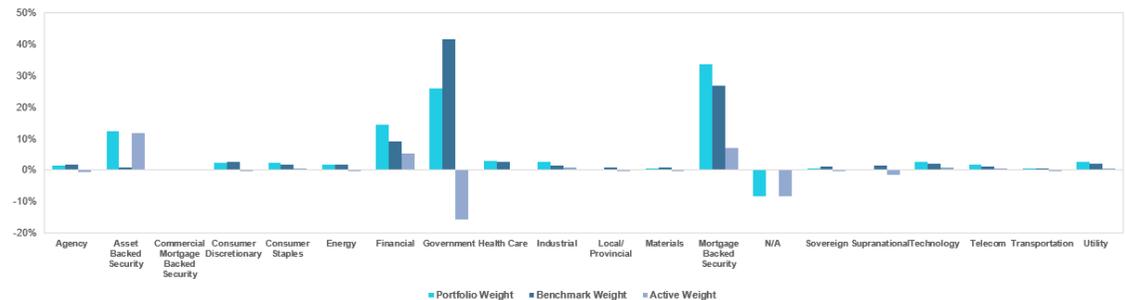
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Risk Reduction & Mitigation

Investment Grade Bonds

Pugh Capital

for the quarter ended September 30, 2023

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	303.0	0.0
Effective Duration	6.0	5.9
Convexity	0.6	0.6
Coupon Rate	3.7	3.0
Yield to Maturity	5.3	5.1
Current Yield	4.1	3.4
Rating – Moody's	AA-2	AA-2
Rating – S & P	AA-	AA-

Top Holdings (% of assets)

US TREASURY N/B	2.9%
US TREASURY N/B	2.3%
US TREASURY N/B	1.7%
GNMA II POOL MA8151	1.5%
US TREASURY N/B	1.3%
Top 5 Holdings	9.7%

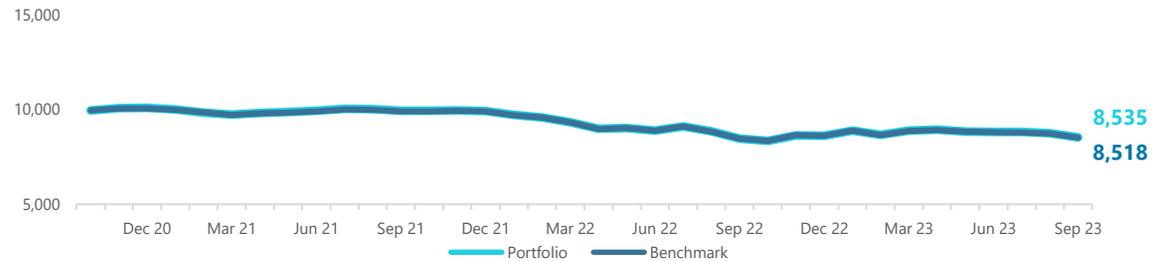
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Pugh Capital Mgmt	826.7	-3.3%	0.9%	-5.1%	0.3%
BBG BC Aggregate Bond Index		-3.2%	0.6%	-5.2%	0.1%
Risk Reduction & Mitigation Policy BM		-3.7%	0.3%	-4.0%	--

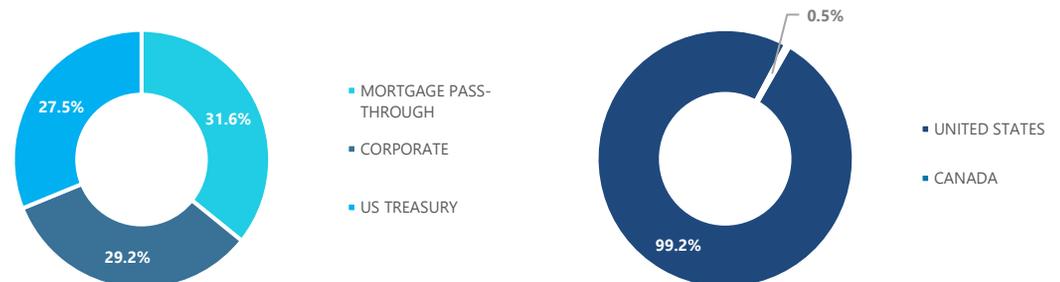
Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Pugh Capital Mgmt	-3.2%	79	1.0%	71	-5.0%	81	0.4%	78
Median	-0.9%		2.7%		-1.5%		1.2%	

No. of Observations: 758

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%.

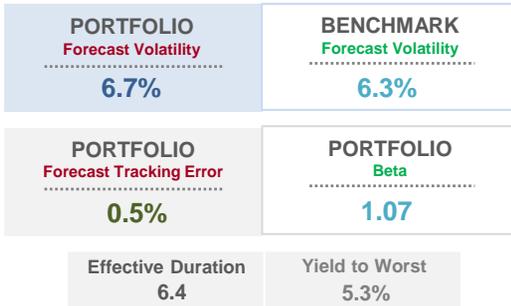
Risk Reduction & Mitigation Risk Analysis

Investment Grade Bonds

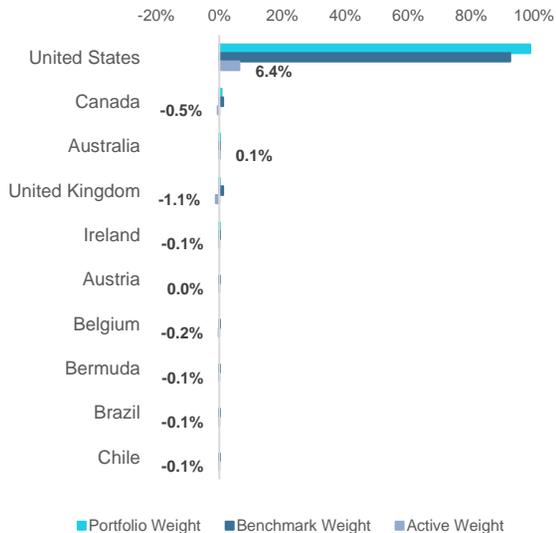
Pugh Capital

for the quarter ended September 30, 2023

Portfolio Risk Summary



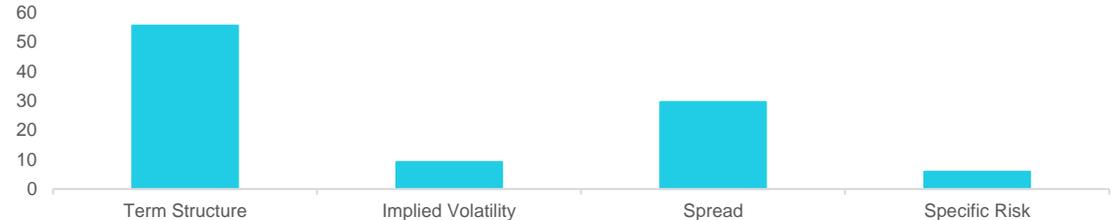
Top 10 Countries by Weight



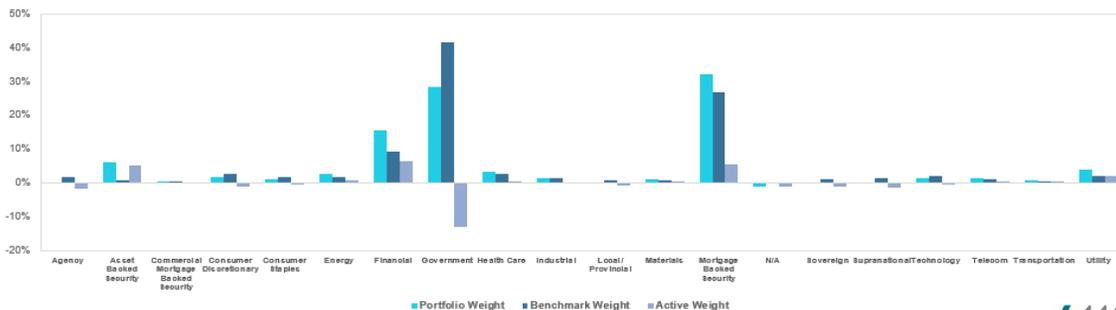
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Risk Reduction & Mitigation

Long-term Government Bonds

BlackRock

for the quarter ended September 30, 2023



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	14.9%
Benchmark Standard Deviation	14.9%
Sharpe Ratio	-1.59
Information Ratio	-0.22
Beta	1.00
Tracking Error	1.1%

Top Holdings (% of assets)

US TREASURY N/B	2.6%
US TREASURY N/B	2.5%
US TREASURY N/B	2.4%
US TREASURY N/B	2.4%
US TREASURY N/B	2.4%
Top 5 Holdings	12.2%

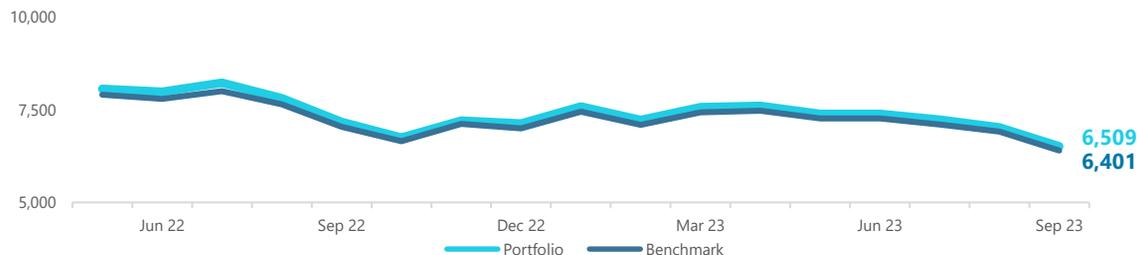
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
BlackRock Long Treasury Bonds	2,791.6	-11.9%	-9.2%	--	--
Bloomberg U.S. Treasury: Long		-11.8%	-9.1%	--	--
Risk Reduction & Mitigation Policy BM		-3.7%	0.3%	-4.0%	--

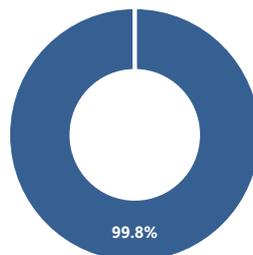
Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
BlackRock Long Treasury Bonds	-11.9%	98	-9.2%	95	--	--	--	--
Median	-0.9%		2.7%		--	--	--	--

No. of Observations: 758

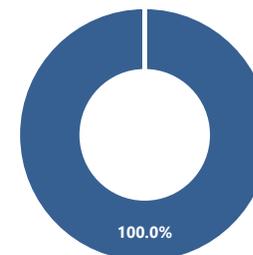
Growth of \$10,000



Top Exposures (% of assets)²



■ US TREASURY



■ UNITED STATES

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

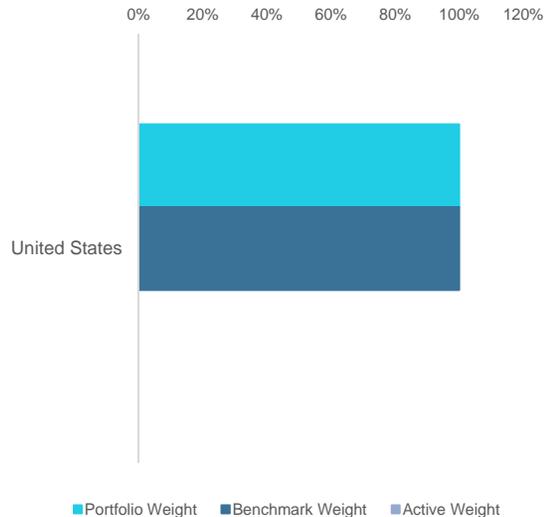
BlackRock

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
13.1%	13.1%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
0.02%	1.00
Effective Duration 15.2	Yield to Worst 4.9%

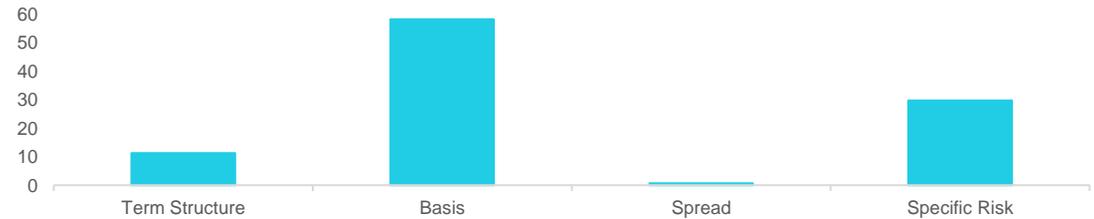
Top Country by Weight



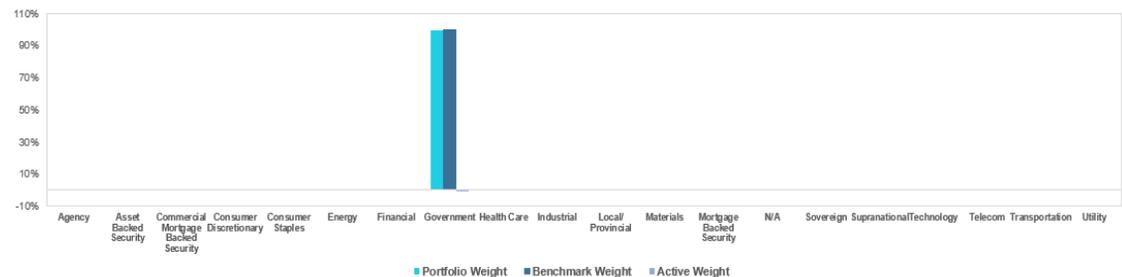
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



private markets

Summary

Private Equity

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Performance (net)



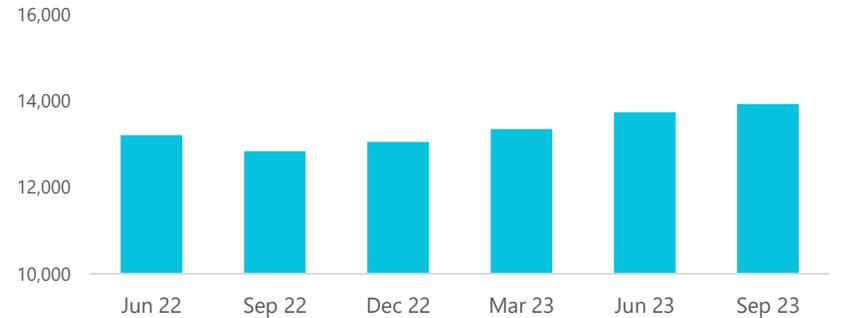
	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Private Equity	1.4%	4.7%	4.9%	22.7%	17.2%	16.2%	15.1%
Benchmark	6.2%	25.7%	18.1%	12.9%	13.6%	13.5%	--
Excess	-4.8%	-21.0%	-13.2%	9.7%	3.6%	2.7%	--

Cumulative Return

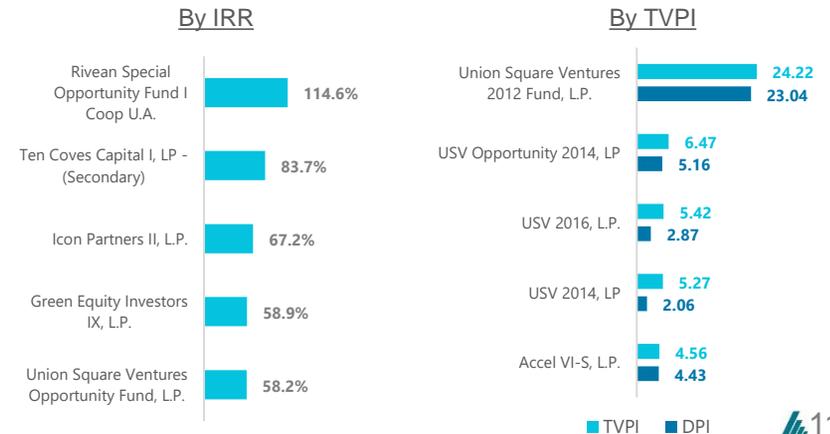


Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	13,739	12,838	7,209
Net Cash Flow	2	447	582
Gain/Loss	192	647	6,141
Ending Market Value	13,933	13,933	13,933



Top Performing Investments (since inception)

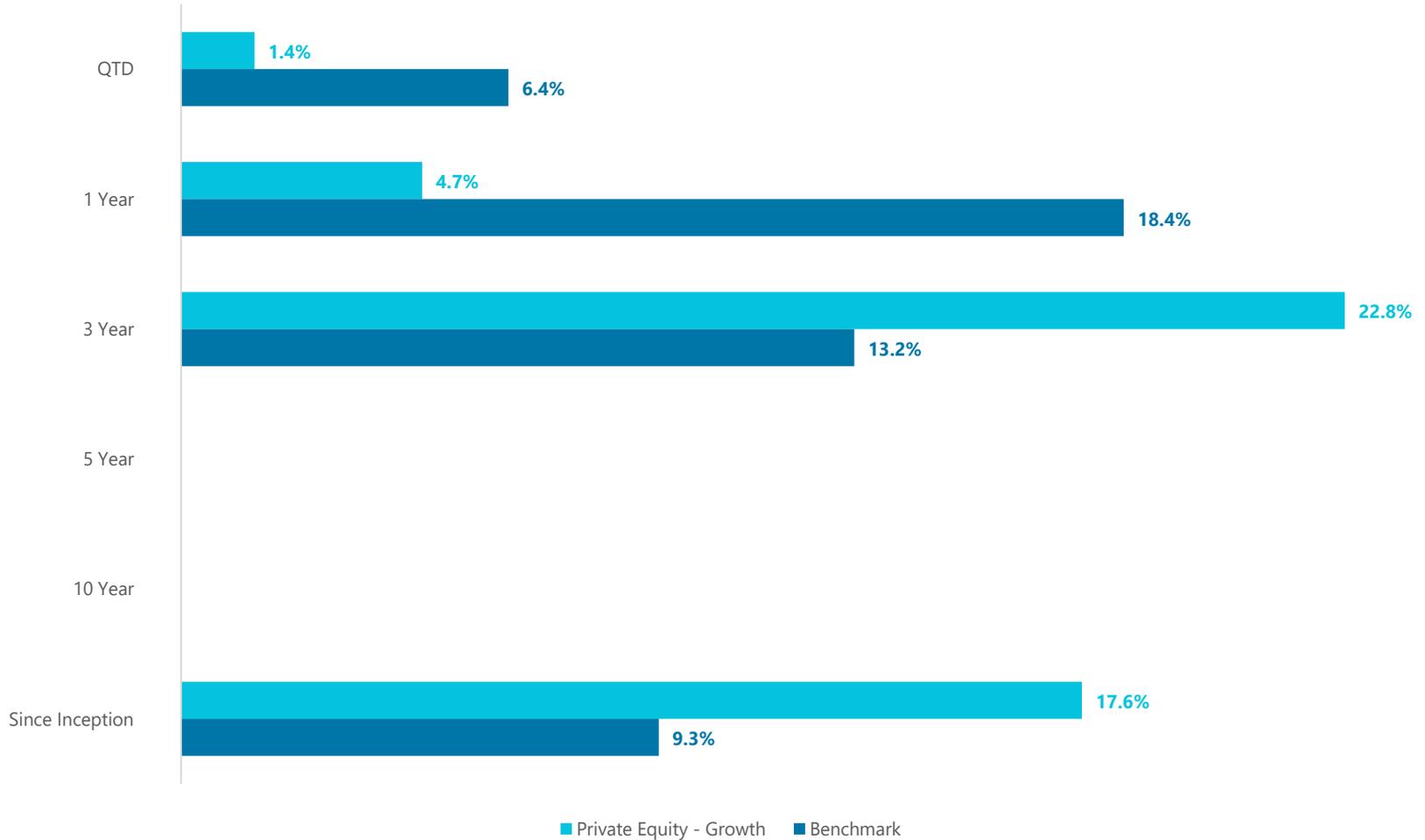


Historical Returns

Private Equity – Growth

for the quarter ended September 30, 2023

Time-Weighted Returns (net)

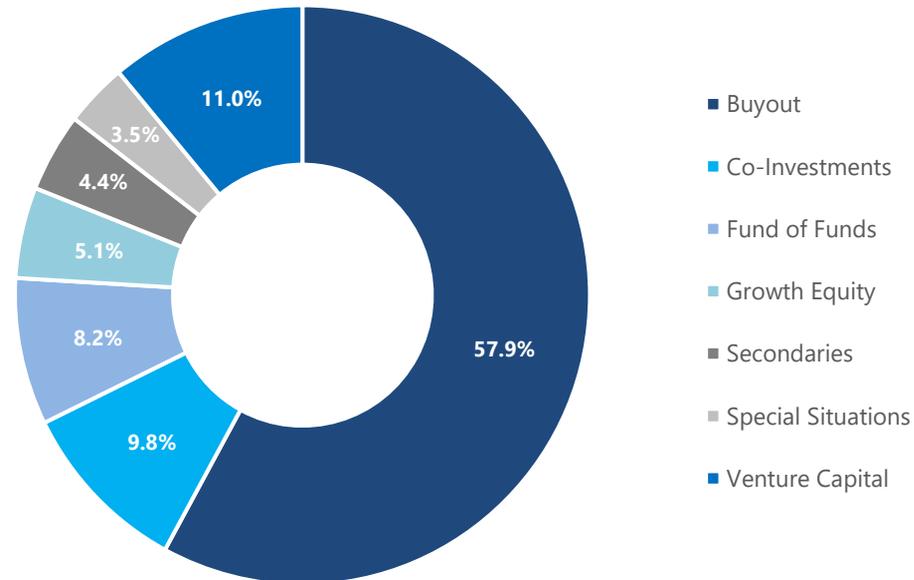


Performance by Strategy

Private Equity – Growth

for the quarter ended September 30, 2023

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	208	15,097.1	13,674.9	14,973.3	7,884.5	22,857.8	9,182.8	1.09x	1.67x	14.0%	1.56
Co-Investments	10	1,587.9	1,556.6	1,032.0	1,334.6	2,366.6	810.0	0.66x	1.52x	17.9%	1.42
Fund of Funds	15	1,808.3	1,382.5	1,640.1	1,116.6	2,756.6	1,374.1	1.19x	1.99x	13.6%	1.45
Growth Equity	23	1,346.1	1,205.8	1,532.8	690.7	2,223.5	1,017.7	1.27x	1.84x	86.9%	1.68
Secondaries	20	832.4	712.4	414.8	598.0	1,012.9	300.4	0.58x	1.42x	17.6%	1.34
Special Situations	22	1,121.7	1,064.3	1,057.9	482.8	1,540.7	476.3	0.99x	1.45x	9.7%	1.18
Venture Capital	107	2,365.2	1,992.5	2,676.5	1,501.8	4,178.3	2,185.8	1.34x	2.10x	21.7%	1.96
Total Private Equity - Growth	405	24,158.8	21,589.1	23,327.4	13,609.0	36,936.3	15,347.2	1.08x	1.71x	16.3%	1.68

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

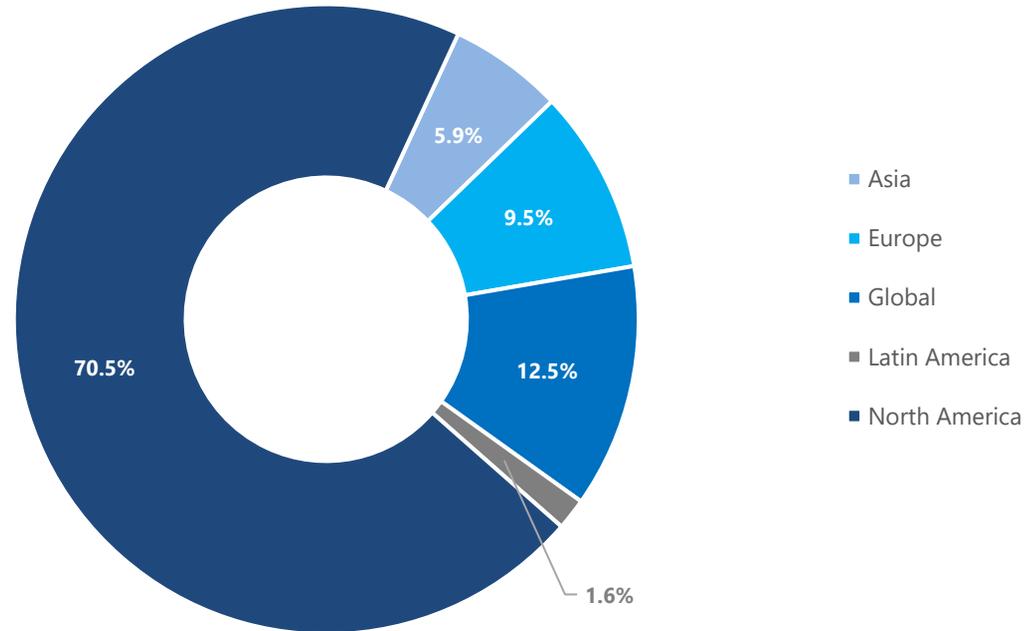
Private Equity – Growth

for the quarter ended September 30, 2023



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	753.0	495.7	802.3	1,298.0	545.0	0.66x	1.72x	14.3%	1.30
Europe	37	2,518.0	2,341.7	2,415.3	1,286.7	3,702.0	1,360.4	1.03x	1.58x	15.7%	1.36
Global	28	2,693.3	1,850.3	896.6	1,703.8	2,600.4	750.0	0.48x	1.41x	15.2%	1.27
Latin America	2	200.0	201.1	57.8	220.5	278.4	77.2	0.29x	1.38x	10.6%	1.12
North America	324	17,921.5	16,443.0	19,461.9	9,595.6	29,057.6	12,614.6	1.18x	1.77x	16.3%	1.71
Total Private Equity - Growth	405	24,158.8	21,589.1	23,327.4	13,609.0	36,936.3	15,347.2	1.08x	1.71x	16.3%	1.68

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, 2023



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	--	--	--	--	--	--	--	--	--	--	N/A
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	--	--	--	--	--	--	--	--	--	--	N/A
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	1st
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	945.3	0.5	945.8	290.6	1.44x	1.44x	7.3%	1.19	2nd
1999	21	362.5	369.7	436.6	0.0	436.6	66.9	1.18x	1.18x	3.4%	0.96	2nd
2000	25	375.3	387.3	575.0	0.1	575.1	187.8	1.48x	1.49x	8.7%	1.07	2nd
2001	15	409.5	442.6	835.5	2.5	838.1	395.5	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	308.7	339.2	701.6	0.3	701.8	362.6	2.07x	2.07x	21.3%	1.60	1st
2004	7	345.5	392.2	746.8	0.7	747.5	355.3	1.90x	1.91x	19.5%	1.58	1st
2005	15	503.2	506.2	1,040.4	3.1	1,043.6	537.4	2.06x	2.06x	13.4%	1.64	1st
2006	28	1,513.1	1,608.0	2,563.4	9.0	2,572.4	964.4	1.59x	1.60x	8.8%	1.25	2nd
2007	11	516.4	462.1	785.6	30.8	816.4	354.3	1.70x	1.77x	11.5%	1.20	2nd
2008	10	636.8	701.3	1,238.4	23.4	1,261.8	560.5	1.77x	1.80x	13.2%	1.21	2nd
2009	0	--	--	--	--	--	--	--	--	--	--	N/A
2010	2	450.0	475.1	739.9	234.3	974.2	499.1	1.56x	2.05x	15.5%	1.42	2nd
2011	7	390.3	423.5	822.4	146.2	968.6	545.1	1.94x	2.29x	18.3%	1.48	2nd
2012	7	435.0	582.0	1,071.5	93.8	1,165.4	583.4	1.84x	2.00x	21.5%	1.66	2nd
2013	10	894.4	987.9	1,289.6	500.9	1,790.5	802.6	1.31x	1.81x	14.9%	1.32	2nd
2014	11	1,244.2	1,404.7	1,552.9	1,193.0	2,745.9	1,341.2	1.11x	1.95x	16.8%	1.43	2nd
2015	10	1,087.0	1,273.8	1,440.8	1,281.1	2,721.9	1,448.0	1.13x	2.14x	20.9%	1.62	2nd
2016	12	1,127.2	1,314.5	1,238.8	1,171.4	2,410.1	1,095.7	0.94x	1.83x	17.5%	1.37	3rd
2017	8	594.0	597.8	436.0	671.4	1,107.4	509.6	0.73x	1.85x	19.2%	1.43	3rd
2018	9	1,254.2	1,196.5	422.0	1,483.6	1,905.6	709.1	0.35x	1.59x	18.8%	1.40	3rd
2019	30	2,114.2	1,943.5	430.5	2,385.4	2,816.0	872.5	0.22x	1.45x	16.3%	1.28	2nd
2020	10	1,157.5	958.2	197.8	1,140.4	1,338.3	380.0	0.21x	1.40x	20.0%	1.39	2nd
2021	30	3,009.8	1,944.3	117.1	2,146.3	2,263.4	319.1	0.06x	1.16x	11.3%	1.18	2nd
2022	16	1,535.6	884.9	73.4	880.8	954.1	69.3	0.08x	1.08x	7.9%	1.03	1st
2023	13	1,755.1	206.9	--	209.8	--	--	0.00x	1.01x	2.8%	1.00	1st

Total Private Equity - Growth

405

24,158.8

21,589.1

23,327.4

13,609.0

36,936.3

15,347.2

1.08x

1.71x

16.3%

1.68

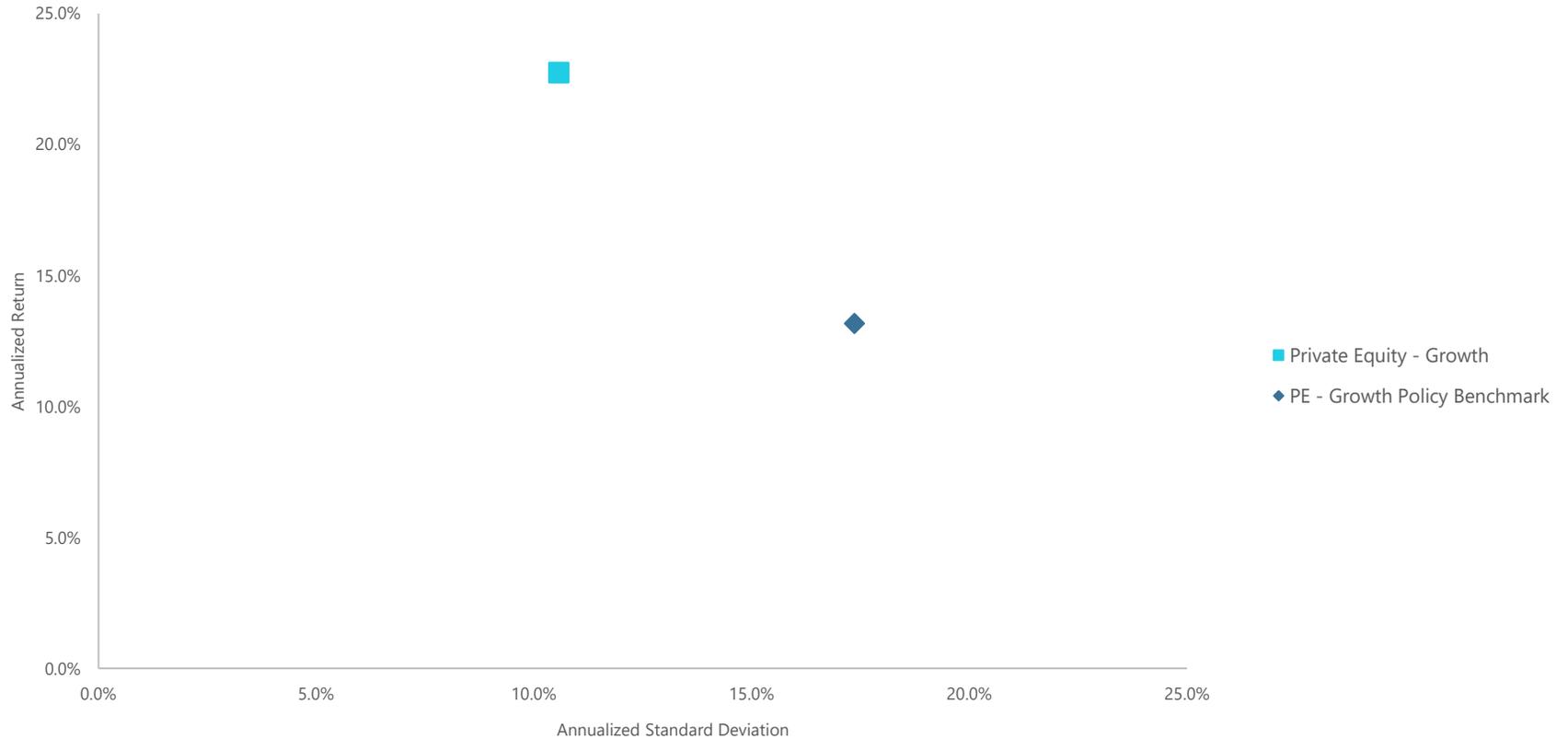
1. Based on best available cash flow adjusted market values.
2. Investment counts for Co-Investments and Fund of Funds do not include underlying funds.
3. Benchmark data used is latest available by Burgiss Private IQ. IRR quartile rankings are reported as not applicable (N/A) if no commitments were made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

Risk vs. Return

Private Equity – Growth

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Private Equity - Growth	22.8%	10.6%				
PE - Growth Policy Benchmark	13.2%	17.4%	1.85	0.40	0.16	18.1%

Annual Cash Flow Activity

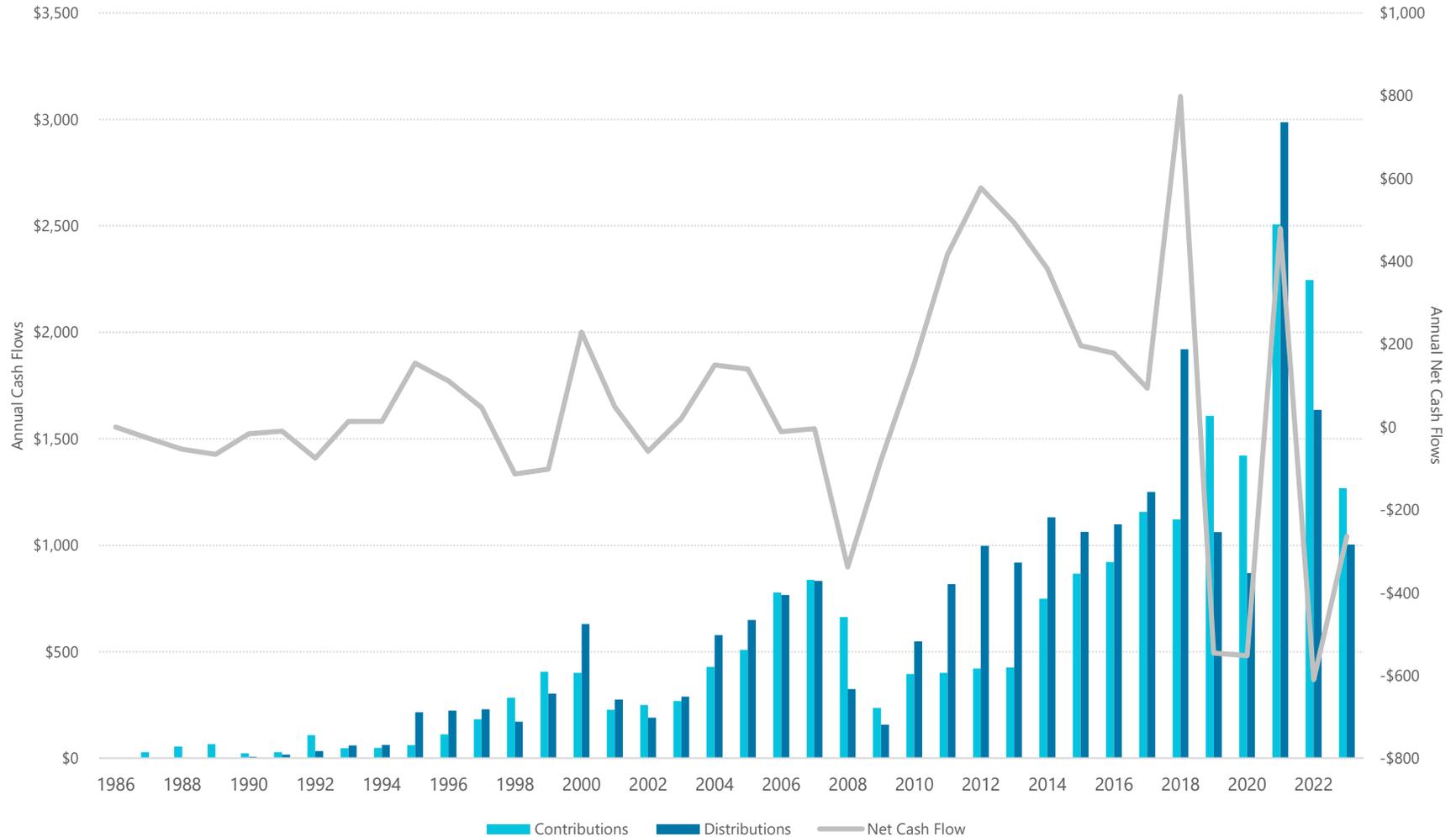
Private Equity

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

By Year (mm)



Summary

Real Estate

for the quarter ended September 30, 2023



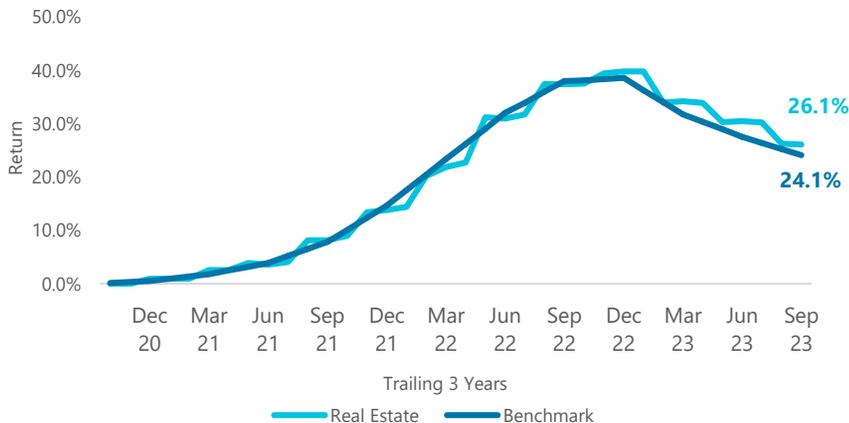
Los Angeles County Employees Retirement Association

Performance (net)



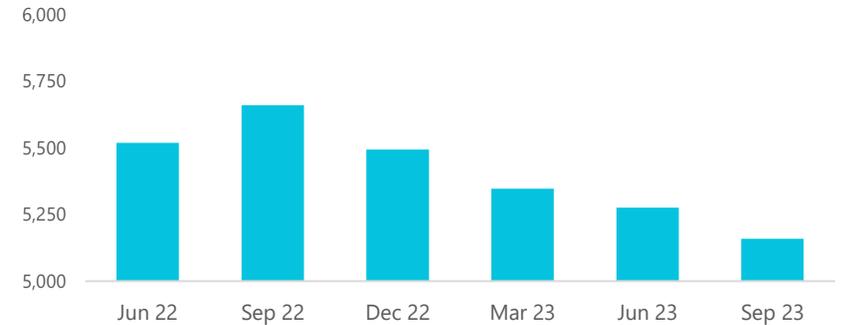
	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Real Estate	-3.4%	-9.8%	-8.2%	8.0%	5.8%	7.6%	7.6%
Benchmark	-2.7%	-10.4%	-10.1%	7.5%	6.1%	--	--
Excess	-0.7%	0.7%	1.8%	0.6%	-0.4%	--	--

Cumulative Return

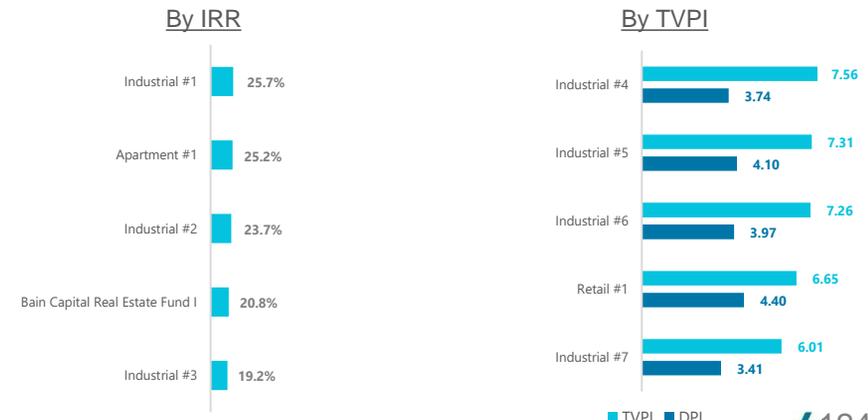


Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	5,275	5,660	5,299
Net Cash Flow	63	-51	-1,387
Gain/Loss	-179	-450	1,247
Ending Market Value	5,159	5,159	5,159



Top Performing Investments (since inception)¹



¹ Property names removed due to confidentiality reasons.

TVPI DPI

Historical Returns

Real Estate

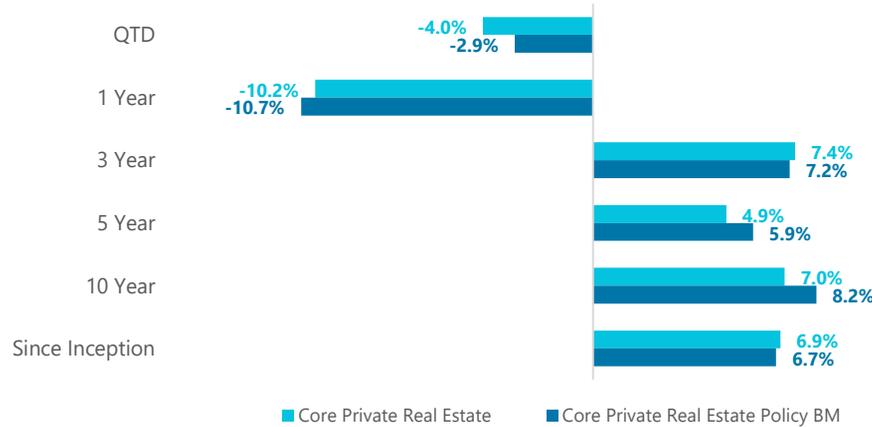
for the quarter ended September 30, 2023



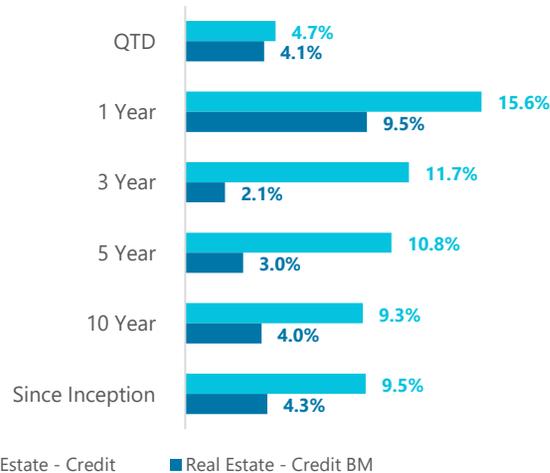
Los Angeles County Employees Retirement Association

Time-Weighted Returns (net)

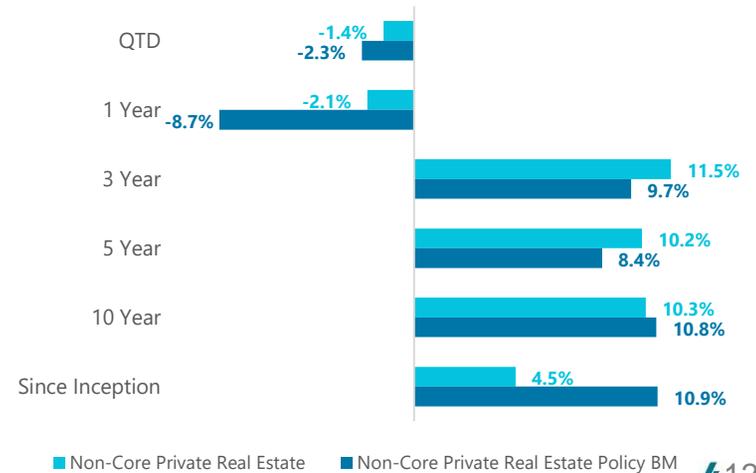
Core



Debt



Non-Core

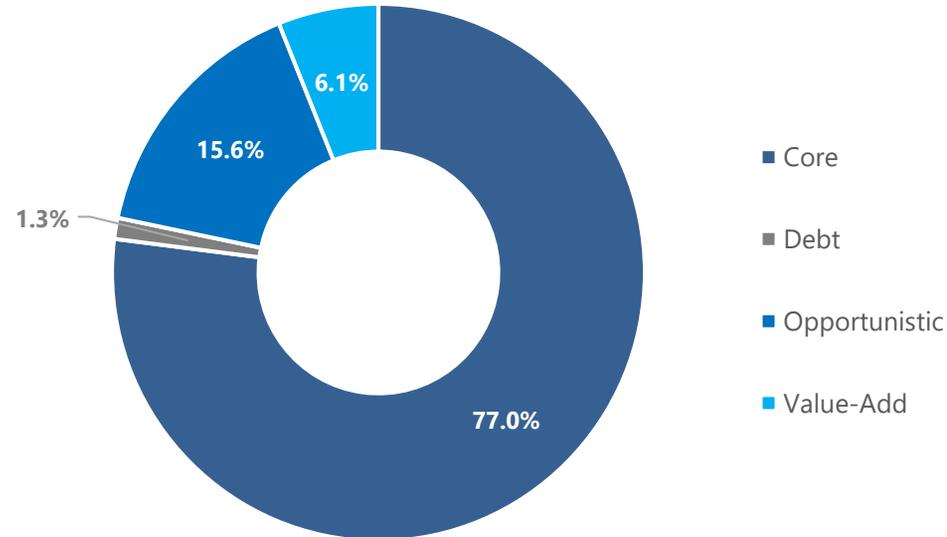


Performance by Strategy

Real Estate

for the quarter ended September 30, 2023

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	82	1,630.9	7,687.7	6,988.5	3,823.6	10,812.2	3,124.5	0.91x	1.41x	7.9%	1.13
Debt	7	0.0	158.6	140.3	62.8	203.1	44.5	0.88x	1.28x	8.7%	1.21
Opportunistic	18	1,845.8	1,289.1	803.5	776.5	1,580.1	291.0	0.62x	1.23x	5.2%	0.97
Value-Add	12	467.2	640.4	240.5	302.9	543.4	(97.0)	0.38x	0.85x	-3.7%	0.63
Total Real Estate	119	3,943.9	9,775.7	8,172.8	4,965.8	13,138.6	3,363.0	0.84x	1.34x	7.1%	1.08

¹ Based on best available cash flow adjusted market values and includes only active investments and sold assets with balance sheet residuals.

² Commitment amounts reflect only commingled fund investments.

Performance by Property Type

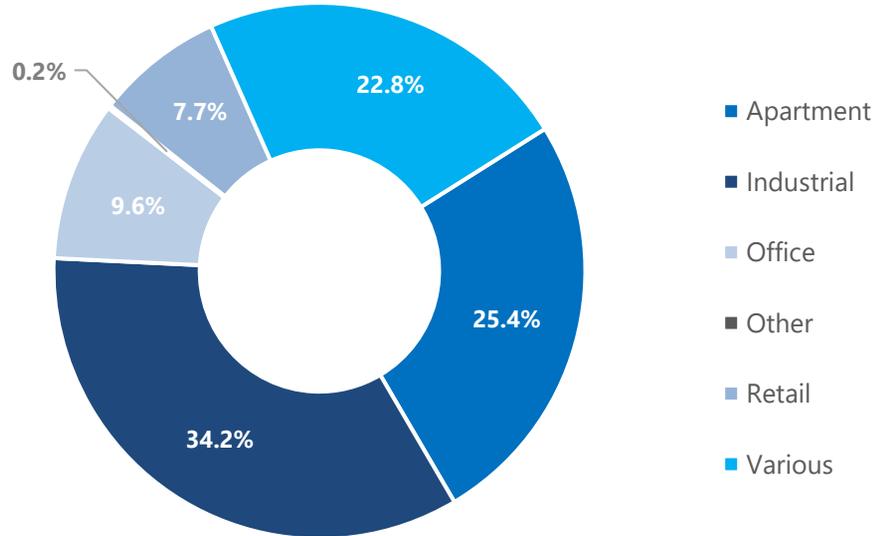
Real Estate

for the quarter ended September 30, 2023



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	384.1	3,102.9	2,666.8	1,261.9	3,928.7	825.8	0.86x	1.27x	6.3%	1.07
Industrial	21	230.9	1,697.8	1,592.1	1,700.4	3,292.5	1,594.7	0.94x	1.94x	12.7%	1.69
Office	19	0.0	2,019.6	1,943.6	478.4	2,422.0	402.3	0.96x	1.20x	4.9%	1.02
Other	4	100.0	170.6	199.0	9.3	208.3	37.7	1.17x	1.22x	4.3%	0.77
Retail	15	0.0	1,281.1	1,285.8	384.1	1,669.9	388.8	1.00x	1.30x	6.1%	0.83
Various	24	3,228.9	1,503.7	485.6	1,131.8	1,617.4	113.7	0.32x	1.08x	2.0%	0.87
Total Real Estate	119	3,943.9	9,775.7	8,172.8	4,965.8	13,138.6	3,363.0	0.84x	1.34x	7.1%	1.08

¹ Based on best available cash flow adjusted market values and includes only active investments and sold assets with balance sheet residuals.

² Commitment amounts reflect only commingled fund investments.

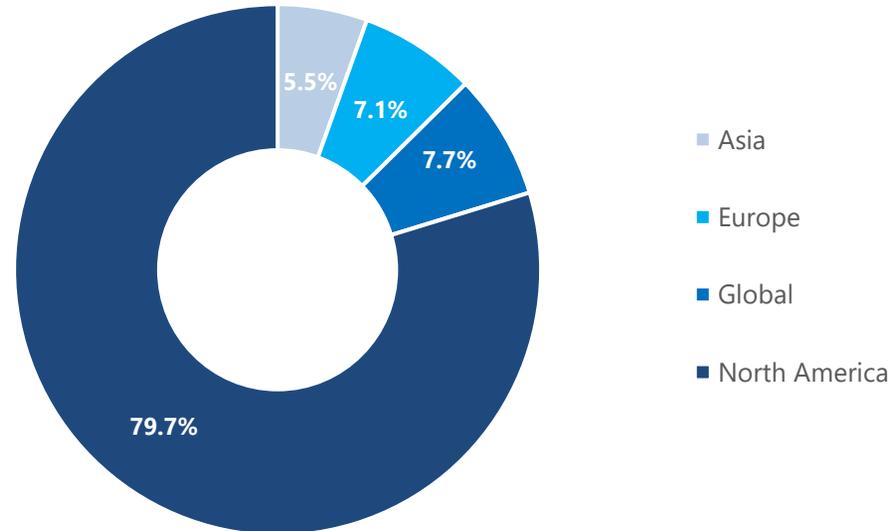
³ Various refers to commingled fund investments with more than one property type; Other refers to hotel and fund level market values for the debt program.

Performance by Geography

Real Estate

for the quarter ended September 30, 2023

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	310.7	126.0	273.7	399.7	89.0	0.41x	1.29x	5.3%	1.09
Europe	10	466.0	635.9	383.7	354.5	738.2	102.3	0.60x	1.16x	3.5%	0.87
Global	7	1,068.8	486.0	229.3	380.0	609.3	123.4	0.47x	1.25x	10.7%	1.11
North America	98	2,109.1	8,343.1	7,433.8	3,957.6	11,391.4	3,048.3	0.89x	1.37x	7.3%	1.09
Total Real Estate	119	3,943.9	9,775.7	8,172.8	4,965.8	13,138.6	3,363.0	0.84x	1.34x	7.1%	1.08

¹ Based on best available cash flow adjusted market values and includes only active investments and sold assets with balance sheet residuals.

² Commitment amounts reflect only commingled fund investments.

Performance by Geography

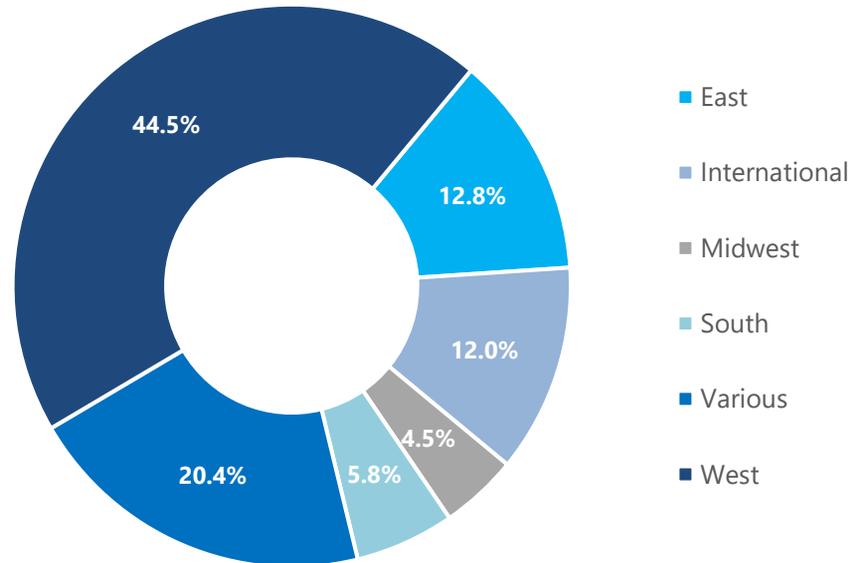
Real Estate

for the quarter ended September 30, 2023



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	2,476.7	2,310.5	637.9	2,948.5	471.7	0.93x	1.19x	5.0%	0.87
International	13	713.1	904.0	509.7	595.2	1,104.9	200.9	0.56x	1.22x	4.4%	0.95
Midwest	10	0.0	593.2	502.3	222.9	725.2	132.0	0.85x	1.22x	4.5%	0.83
South	11	0.0	1,199.1	1,318.8	286.1	1,604.9	405.8	1.10x	1.34x	7.7%	0.98
Various	16	2,846.7	1,108.2	370.8	1,011.4	1,382.2	274.0	0.33x	1.25x	6.0%	1.04
West	43	384.1	3,494.5	3,160.7	2,212.3	5,373.0	1,878.5	0.90x	1.54x	8.7%	1.37
Total Real Estate	119	3,943.9	9,775.7	8,172.8	4,965.8	13,138.6	3,363.0	0.84x	1.34x	7.1%	1.08

¹ Based on best available cash flow adjusted market values and includes only active investments and sold assets with balance sheet residuals.

² Commitment amounts reflect only commingled fund investments.

Performance by Vintage Year

Real Estate

for the quarter ended September 30, 2023



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	305.4	94.0	399.4	149.5	1.22x	1.60x	6.0%	4.49	N/A
1991	3	0.0	33.2	127.7	100.6	228.3	195.1	3.85x	6.88x	12.4%	14.12	N/A
1992	0	0.0	--	--	--	--	--	--	--	--	--	N/A
1993	0	0.0	--	--	--	--	--	--	--	--	--	N/A
1994	1	0.0	15.5	68.4	35.7	104.0	88.5	4.40x	6.70x	12.8%	1.46	N/A
1995	1	0.0	67.3	114.3	90.0	204.3	137.0	1.70x	3.04x	11.4%	1.22	N/A
1996	1	0.0	24.1	38.9	26.3	65.2	41.1	1.61x	2.70x	7.2%	0.78	N/A
1997	1	0.0	18.5	69.1	72.7	141.8	123.3	3.74x	7.66x	15.8%	2.16	N/A
1998	1	0.0	48.9	103.8	8.4	112.2	63.2	2.12x	2.29x	6.2%	0.69	N/A
1999	0	0.0	--	--	--	--	--	--	--	--	--	N/A
2000	0	0.0	--	--	--	--	--	--	--	--	--	N/A
2001	1	0.0	143.7	80.2	85.4	165.6	21.9	0.56x	1.15x	3.6%	0.73	N/A
2002	0	0.0	--	--	--	--	--	--	--	--	--	N/A
2003	1	0.0	142.9	133.8	53.9	187.7	44.7	0.94x	1.31x	3.7%	0.69	N/A
2004	0	0.0	--	--	--	--	--	--	--	--	--	N/A
2005	0	0.0	--	--	--	--	--	--	--	--	--	N/A
2006	0	0.0	--	--	--	--	--	--	--	--	--	N/A
2007	3	36.7	454.6	401.9	0.5	402.4	(52.2)	0.88x	0.89x	-5.5%	0.54	4th
2008	1	150.0	150.0	96.0	0.0	96.0	(53.9)	0.64x	0.64x	-5.7%	0.34	4th
2009	1	18.3	22.5	28.8	0.2	29.0	6.4	1.28x	1.29x	8.1%	0.84	3rd
2010	1	100.0	97.1	152.0	6.3	158.3	61.2	1.57x	1.63x	9.6%	0.92	3rd
2011	4	16.9	222.3	117.5	8.9	126.4	(96.0)	0.53x	0.57x	-22.9%	0.23	4th
2012	3	134.1	441.5	189.4	92.1	281.5	(159.9)	0.43x	0.64x	-11.8%	0.51	4th
2013	7	100.0	476.9	582.9	72.3	655.2	178.3	1.22x	1.37x	7.5%	0.96	3rd
2014	15	258.8	998.2	828.4	599.0	1,427.4	429.2	0.83x	1.43x	7.4%	1.14	3rd
2015	9	0.0	955.6	767.4	645.9	1,413.3	457.6	0.80x	1.48x	10.6%	1.38	2nd
2016	7	150.0	498.8	232.7	510.0	742.7	243.8	0.47x	1.49x	10.3%	1.36	2nd
2017	12	177.9	1,343.1	938.5	801.4	1,740.0	396.8	0.70x	1.30x	8.5%	1.19	3rd
2018	10	150.0	379.0	218.7	241.1	459.8	80.8	0.58x	1.21x	6.6%	1.14	4th
2019	25	411.7	2,425.6	2,484.0	929.1	3,413.1	987.5	1.02x	1.41x	8.4%	1.02	3rd
2020	2	0.0	71.8	82.7	(1.6)	81.2	9.4	1.15x	1.13x	5.2%	1.12	3rd
2021	2	179.4	93.9	4.4	94.3	98.7	4.8	0.05x	1.05x	3.9%	1.18	3rd
2022	3	710.0	200.7	6.0	201.0	206.9	6.2	0.03x	1.03x	5.2%	1.12	1st
2023	3	1,350.0	200.0	0.0	198.4	198.4	(1.6)	0.00x	0.99x	-0.8%	1.06	1st
Total Real Estate	119	3,943.9	9,775.7	8,172.8	4,965.8	13,138.6	3,363.0	0.84x	1.34x	7.1%	1.08	

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. IRR quartile rankings exclude IMAs and Core Funds.

Leverage Exposure

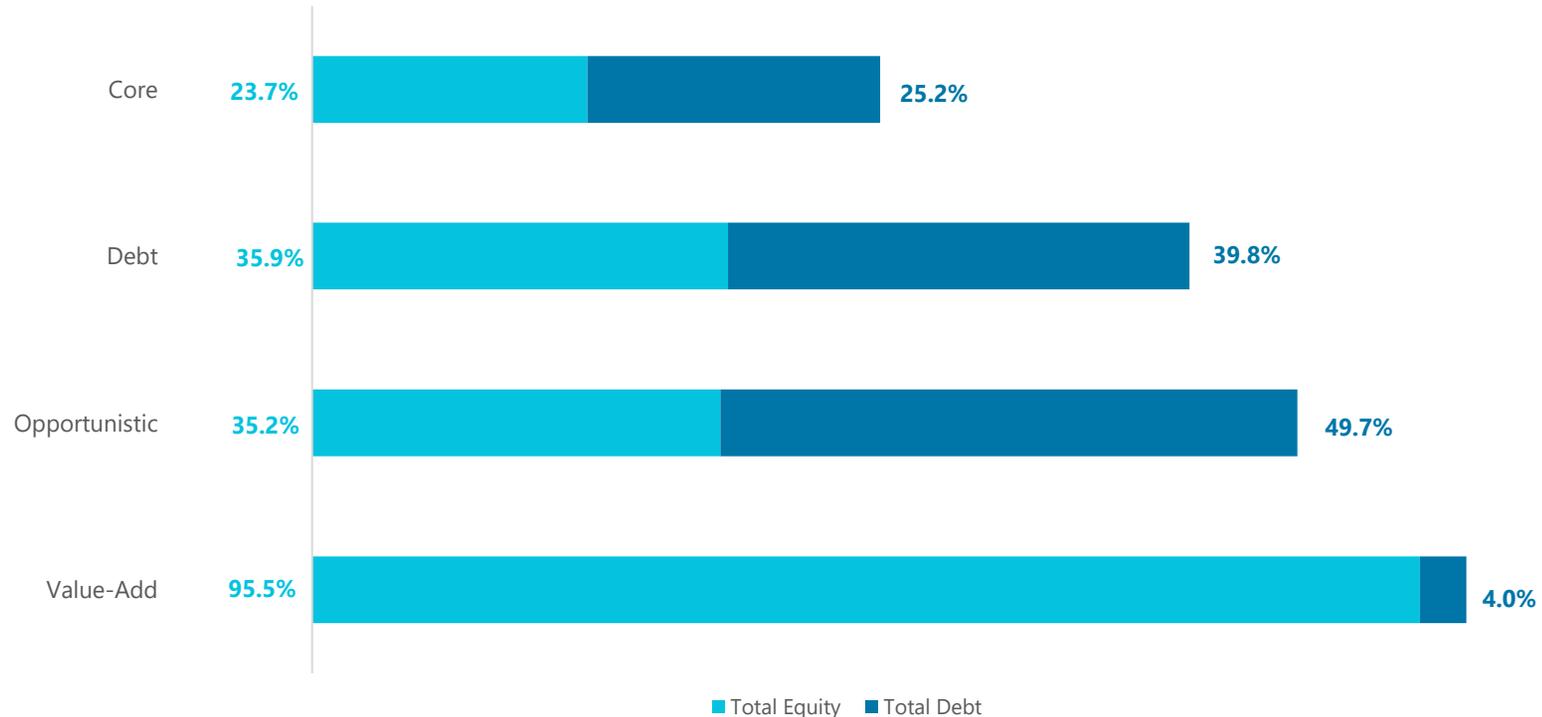
Real Estate

for the quarter ended September 30, 2023



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	82	1,630.9	7,687.7	6,988.5	3,823.6	10,812.2	3,124.5	0.91x	1.41x	7.9%	1.13	9,087.7	8,549.6	25.2%	23.7%
Debt	7	0.0	158.6	140.3	62.8	203.1	44.5	0.88x	1.28x	8.7%	1.21	109.3	98.5	39.8%	35.9%
Opportunistic	18	1,845.8	1,289.1	803.5	776.5	1,580.1	291.0	0.62x	1.23x	5.2%	0.97	15,502.1	10,977.0	49.7%	35.2%
Value-Add	12	467.2	640.4	240.5	302.9	543.4	(97.0)	0.38x	0.85x	-3.7%	0.63	5,981.1	142,298.6	4.0%	95.5%
Total Real Estate	119	3,943.9	9,775.7	8,172.8	4,965.8	13,138.6	3,363.0	0.84x	1.34x	7.1%	1.08	30,680.3	161,923.7	14.2%	74.8%

¹ Based on best available cash flow adjusted market values and includes only active investments and sold assets with balance sheet residuals.

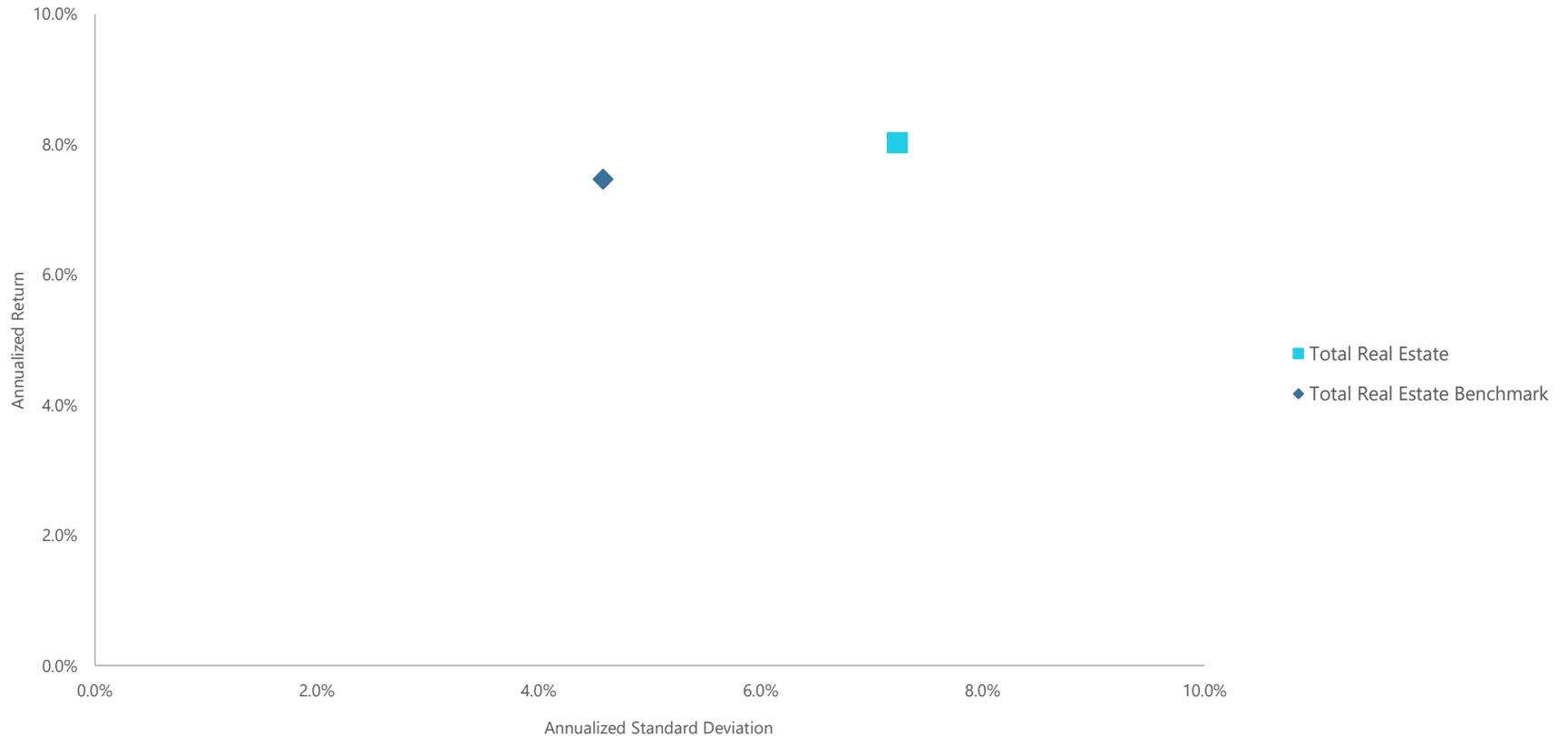
² Commitment amounts reflect only commingled fund investments.

Risk vs. Return

Real Estate

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Total Real Estate	8.0%	7.2%				
Total Real Estate Benchmark	7.5%	4.6%	0.87	0.10	0.94	20.2%

Annual Cash Flow Activity

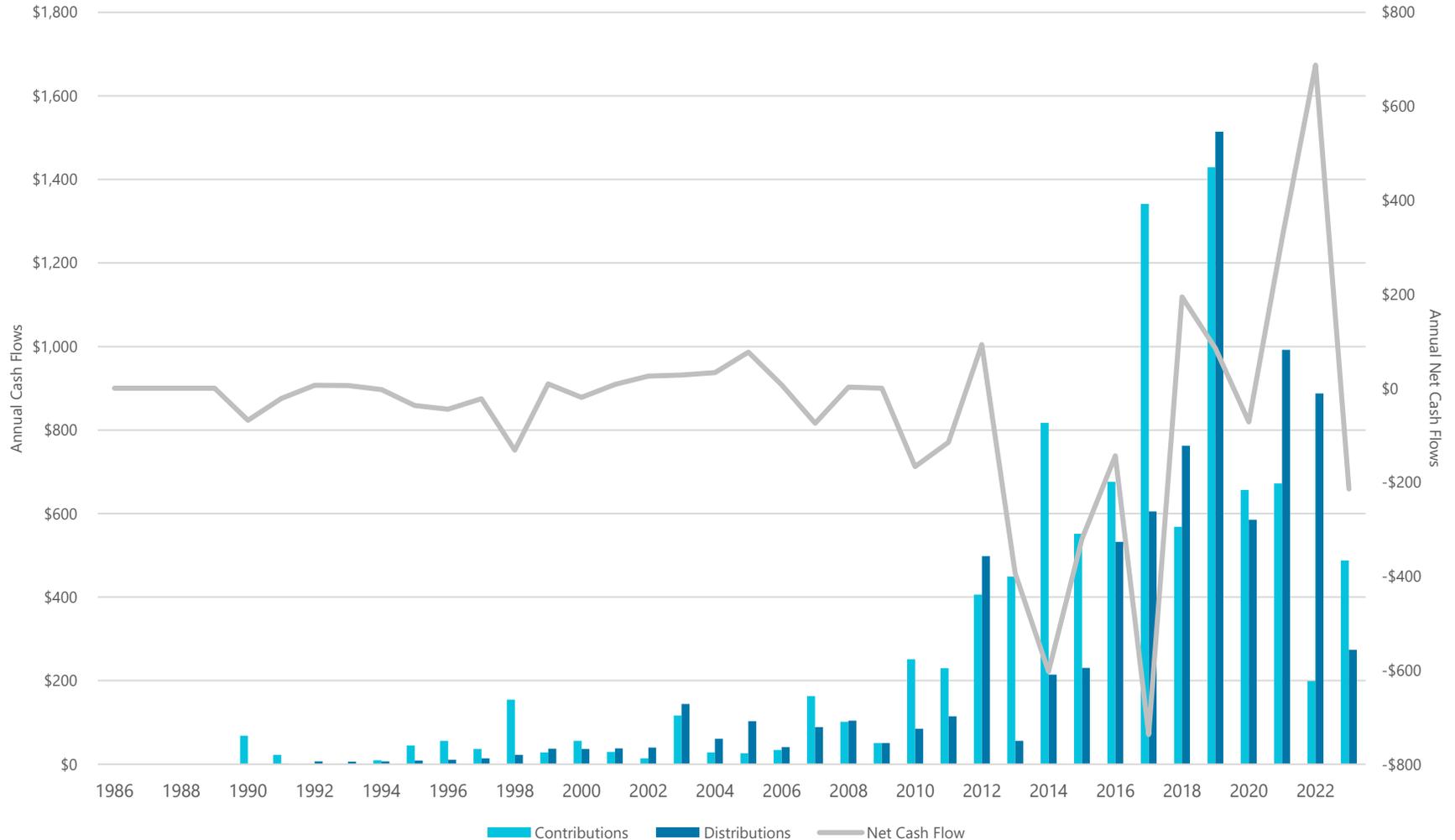
Real Estate

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

By Year (mm)



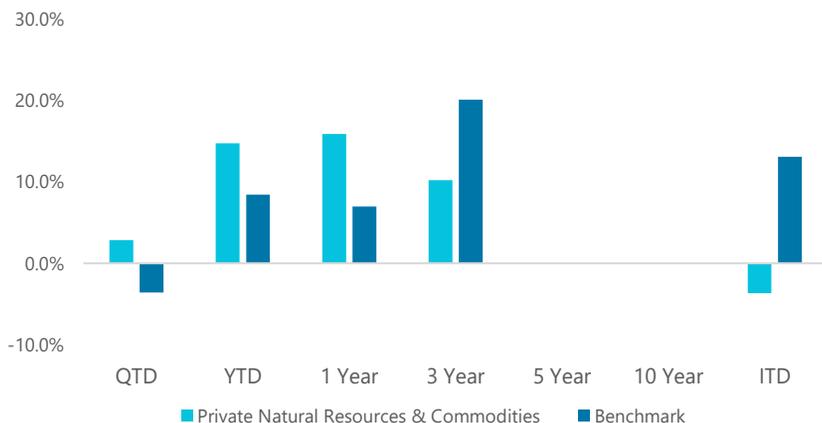
Summary

Private Real Assets ex. Real Estate
for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Performance (net)¹



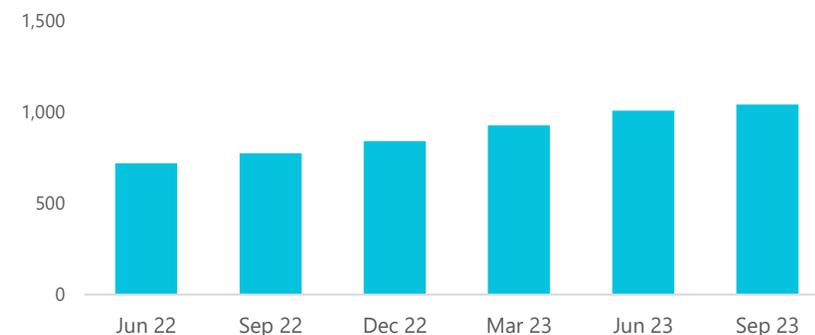
	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Private Natural Resources & Commodities	2.8%	14.7%	15.9%	10.2%	--	--	-3.7%
Benchmark	-3.6%	8.4%	7.0%	20.1%	--	--	13.1%
Excess	6.4%	6.3%	8.9%	-9.9%	--	--	-16.8%

Cumulative Return¹

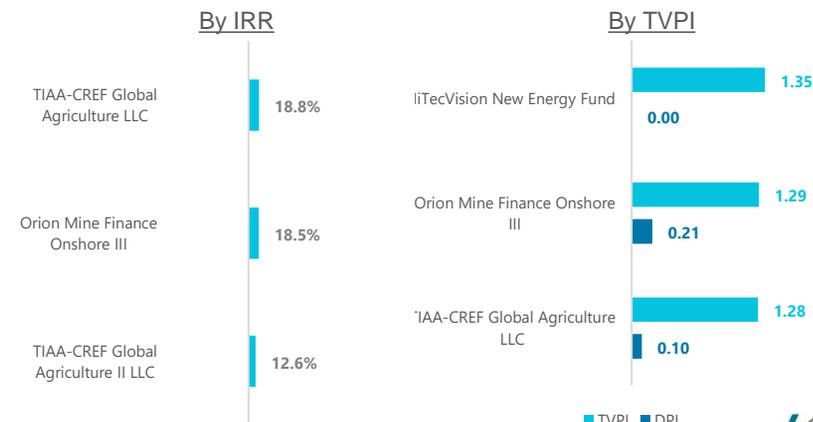


Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	1,007	772	72
Net Cash Flow	5	132	766
Gain/Loss	29	136.6	202.6
Ending Market Value	1,040	1,040	1,040



Top Performing Investments (since inception)¹



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

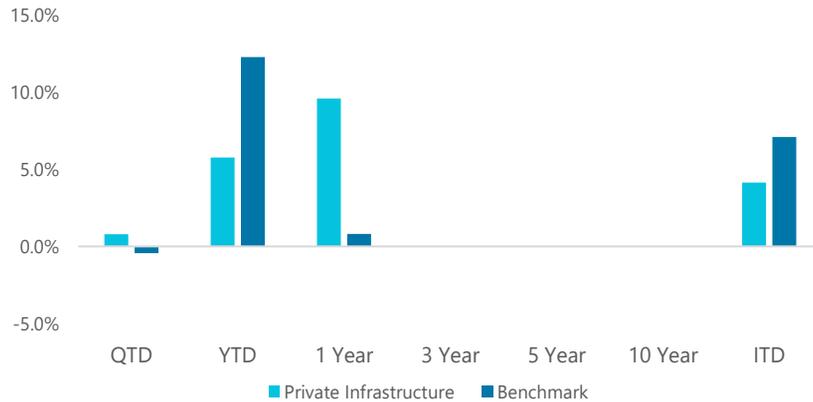
Summary

Private Real Assets ex. Real Estate
for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Performance (net)¹



	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Private Infrastructure	0.8%	5.8%	9.6%	--	--	--	4.1%
Benchmark	-0.4%	12.3%	0.8%	--	--	--	7.1%
Excess	1.2%	-6.5%	8.8%	--	--	--	-3.0%

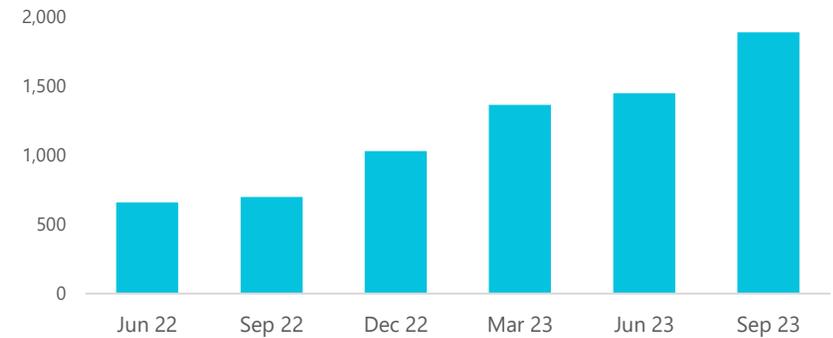
Cumulative Return¹



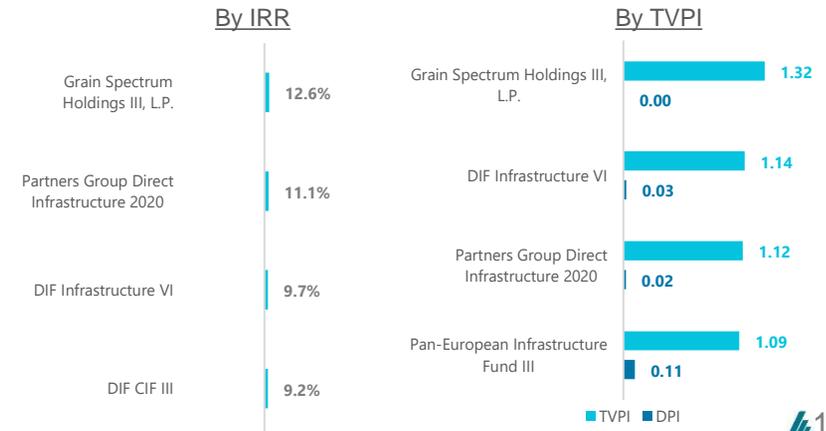
¹ Private infrastructure funds reflect early-stage life cycle performance.

Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	1,449	699	--
Net Cash Flow	426	1,077	--
Gain/Loss	15	114	--
Ending Market Value	1,890	1,890	--



Top Performing Investments (since inception)¹

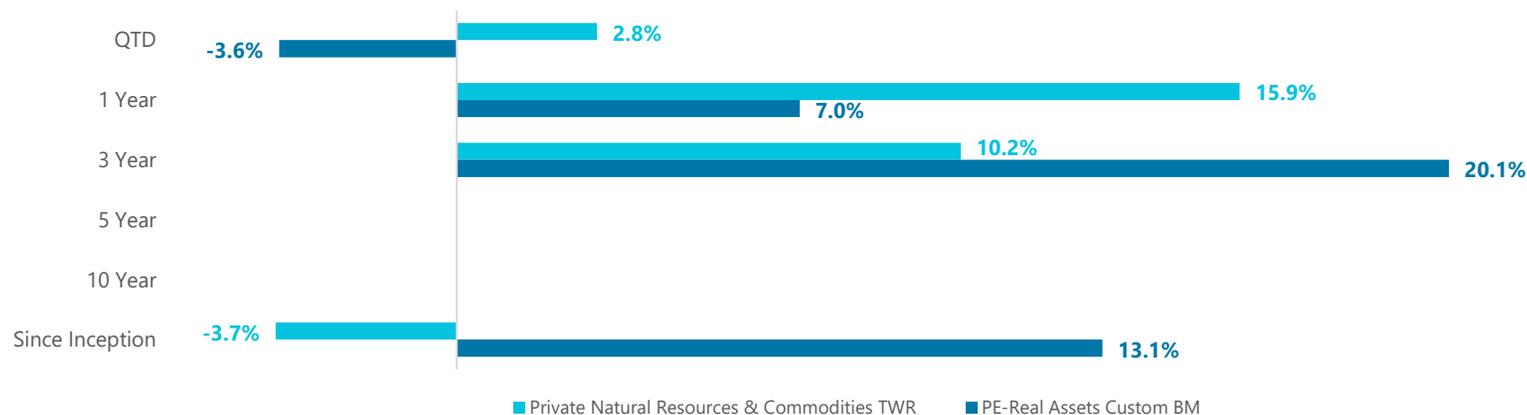


Historical Returns

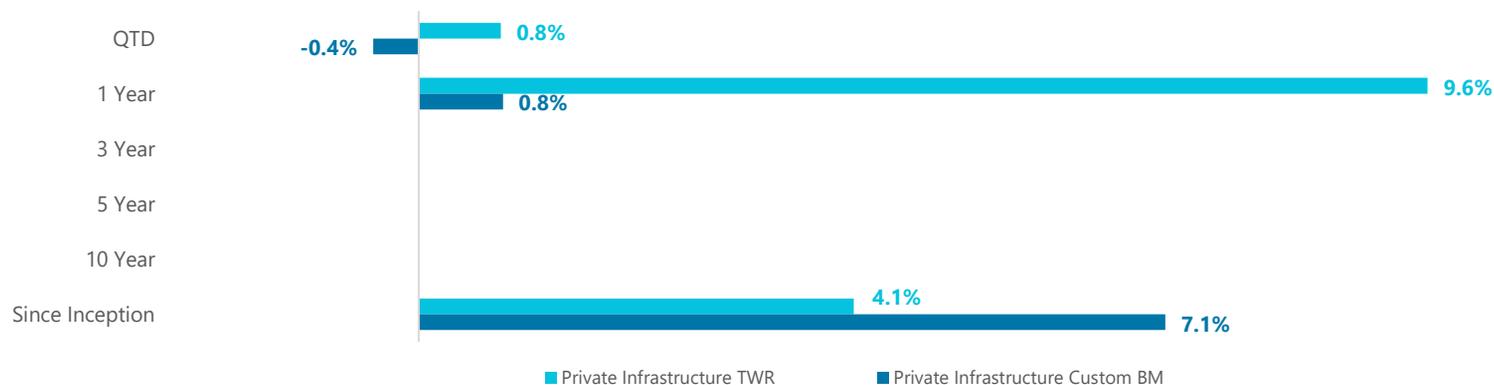
Private Real Assets ex. Real Estate
for the quarter ended September 30, 2023

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

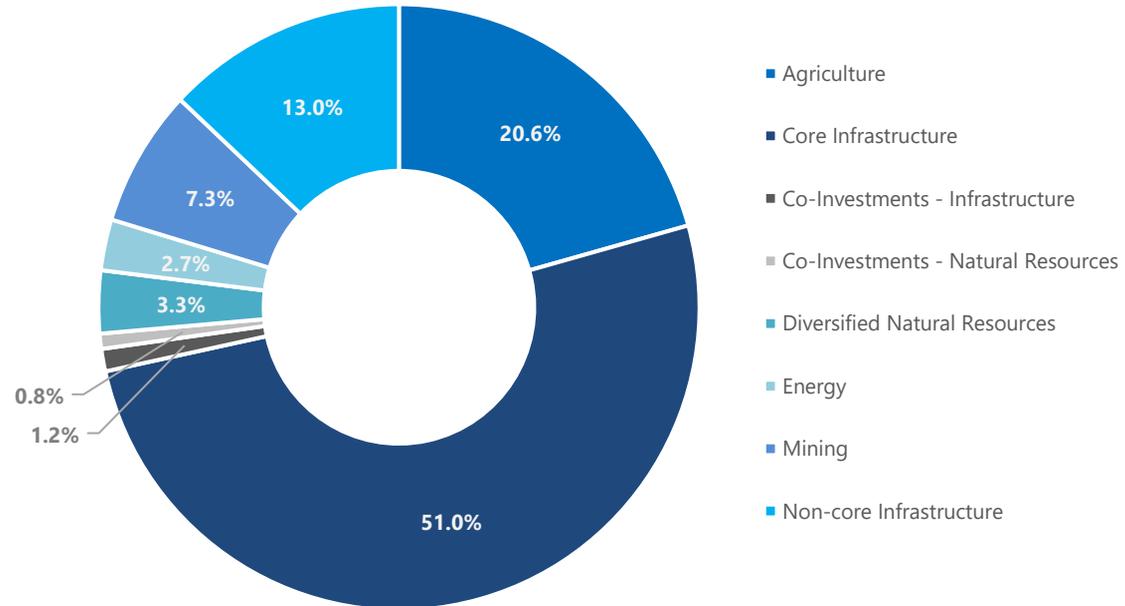
Private Real Assets ex. Real Estate

for the quarter ended September 30, 2023



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
Agriculture	4	750.0	573.3	84.4	611.9	696.3	123.0	0.15x	1.21x	14.4%	1.13
Core Infrastructure	5	1,656.7	1,466.4	41.8	1,510.0	1,551.8	85.3	0.03x	1.06x	7.1%	1.05
Co-Investments - Infrastructure	3	96.0	35.1	0.0	35.5	35.5	0.4	0.00x	1.01x	1.4%	1.03
Co-Investments - Natural Resources	3	140.1	24.0	0.0	23.9	23.9	(0.1)	0.00x	1.00x	-0.6%	0.92
Diversified Natural Resources	1	132.3	73.6	0.0	99.2	99.2	25.7	0.00x	1.35x	36.7%	1.26
Energy	3	325.0	205.6	119.3	80.6	199.9	(5.7)	0.58x	0.97x	-0.8%	0.75
Mining	4	425.0	215.4	29.2	217.6	246.7	31.4	0.14x	1.15x	11.7%	1.07
Non-core Infrastructure	7	798.1	363.0	10.3	384.8	395.0	32.1	0.03x	1.09x	6.1%	0.99
Total Private Real Assets ex. Real Estate	30	4,323.2	2,956.4	284.9	2,963.5	3,248.4	292.0	0.10x	1.10x	7.6%	1.03

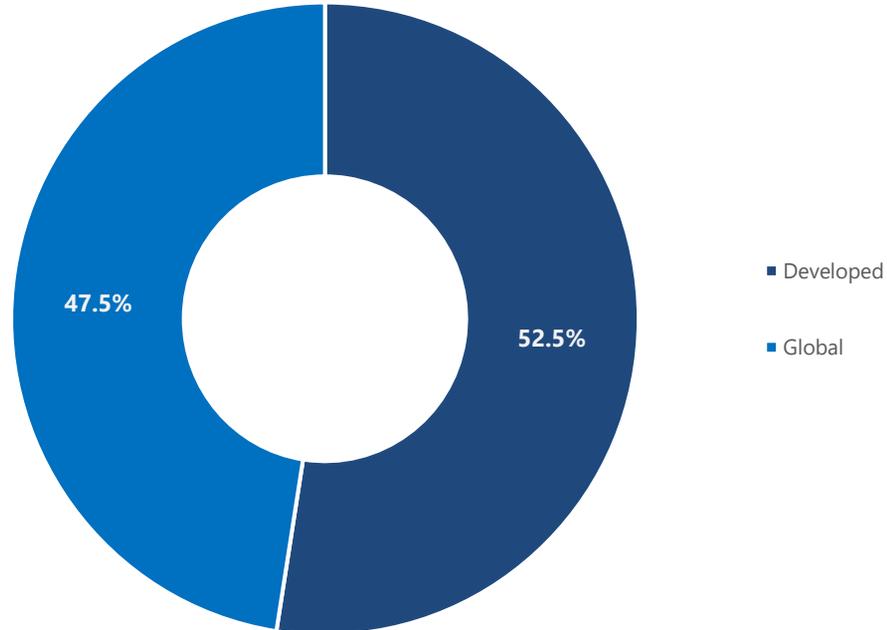
¹ Based on best available cash flow adjusted market values.

Performance by Geography

Private Real Assets ex. Real Estate

for the quarter ended September 30, 2023

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
Developed	14	2,081.1	1,640.3	211.1	1,555.2	1,766.3	126.0	0.13x	1.08x	5.7%	0.99
Global	16	2,242.1	1,316.1	73.8	1,408.3	1,482.1	166.0	0.06x	1.13x	10.4%	1.08
Total Private Real Assets ex. Real Estate	30	4,323.2	2,956.4	284.9	2,963.5	3,248.4	292.0	0.10x	1.10x	7.6%	1.03

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, 2023



Los Angeles County Employees Retirement Association

By Vintage Year^{1,2}

Private Natural Resources & Commodities

	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
2004	1	50.0	50.0	91.4	0.0	91.4	41.4	1.83x	1.83x	31.1%	1.40	1st
2011	1	350.0	256.9	25.9	301.9	327.8	71.0	0.10x	1.28x	18.8%	1.19	1st
2014	2	450.0	435.7	86.4	357.8	444.2	8.5	0.20x	1.02x	0.5%	0.81	4th
2021	2	250.0	167.3	29.2	171.0	200.2	32.9	0.17x	1.20x	13.2%	1.11	2nd
2022	4	247.4	125.0	0.0	147.1	147.1	22.1	0.00x	1.18x	18.5%	1.13	1st
2023	5	425.0	57.1	0.0	55.5	55.5	(1.7)	0.00x	0.97x	-3.9%	0.93	1st
Total Private Natural Resources & Commodities	15	1,772.4	1,092.0	232.8	1,033.3	1,266.1	174.2	0.21x	1.16x	8.2%	1.02	

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

2. Benchmark data used to generate IRR quartile rankings is latest available by Burgiss Private IQ.

Private Infrastructure

	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
2020	3	324.7	240.0	10.9	268.3	279.2	39.1	0.05x	1.16x	9.3%	1.02	3rd
2021	6	1,171.3	951.8	25.1	950.2	975.3	23.5	0.03x	1.02x	3.8%	1.02	3rd
2022	4	958.8	637.5	16.1	676.2	692.3	54.8	0.03x	1.09x	8.0%	1.06	2nd
2023	2	96.0	35.1	0.0	35.5	35.5	0.4	0.00x	1.01x	1.4%	1.03	1st
Total Private Infrastructure	15	2,550.8	1,864.5	52.1	1,930.2	1,982.3	117.8	0.03x	1.06x	6.8%	1.03	

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

2. Benchmark data used to generate IRR quartile rankings is latest available by Burgiss Private IQ.

Risk vs. Return

Private Real Assets ex. Real Estate
for the quarter ended September 30, 2023

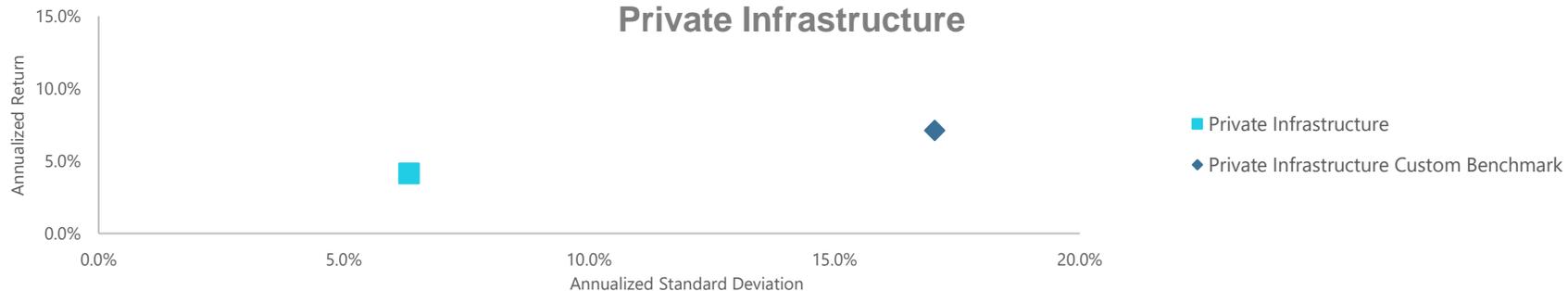
Since Inception (Annualized)

Private Natural Resources & Commodities



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Private Natural Resources & Commodities	-3.7%	14.4%				
PE - Real Assets Custom Benchmark	13.1%	23.9%	(0.29)	(0.65)	0.11	25.7%

Private Infrastructure



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Private Infrastructure	4.1%	6.3%				
Private Infrastructure Custom Benchmark	7.1%	17.0%	0.35	(0.16)	(0.05)	19.0%

Annual Cash Flow Activity

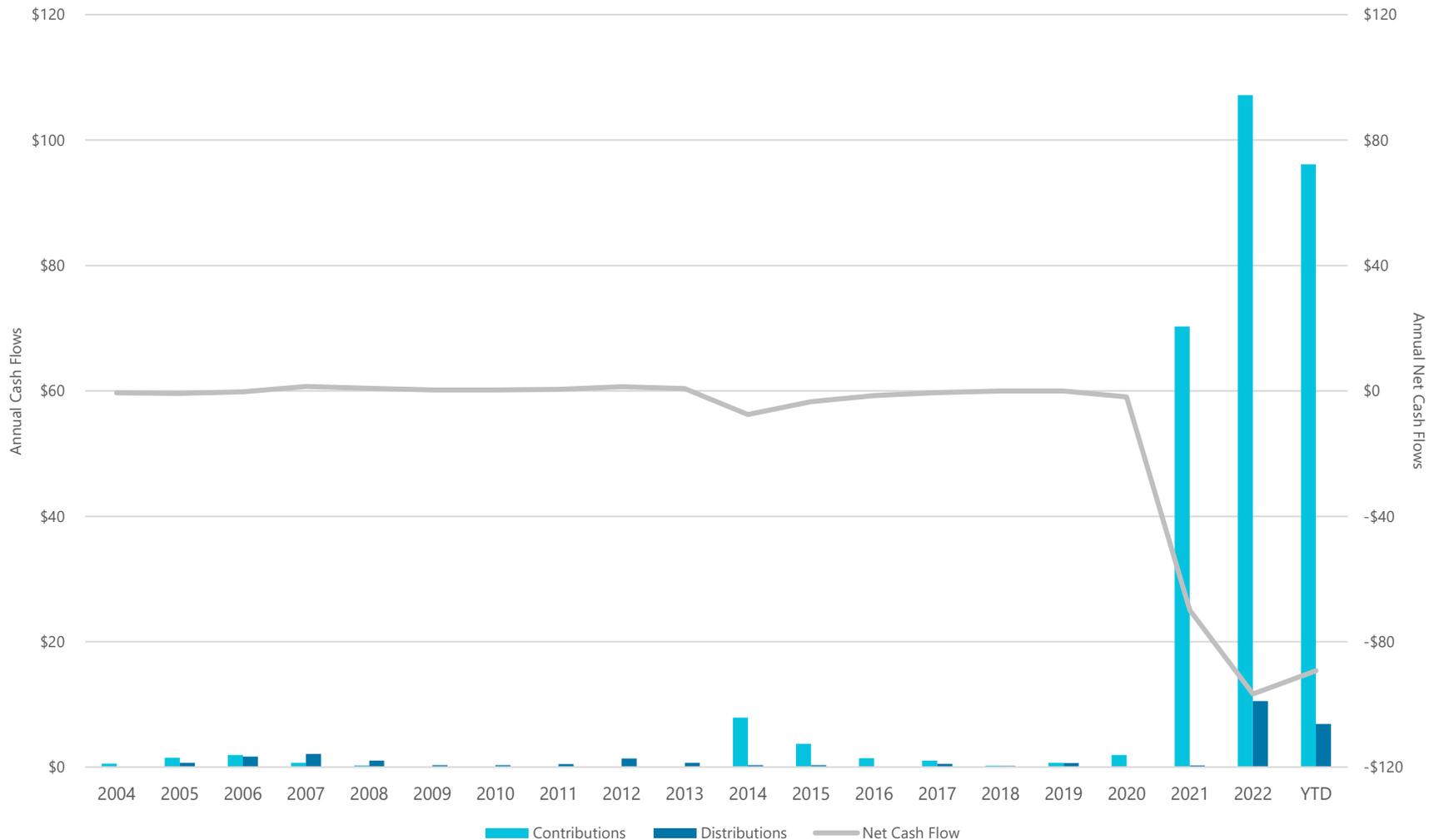
Private Real Assets ex. Real Estate

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

By Year (mm)



Summary

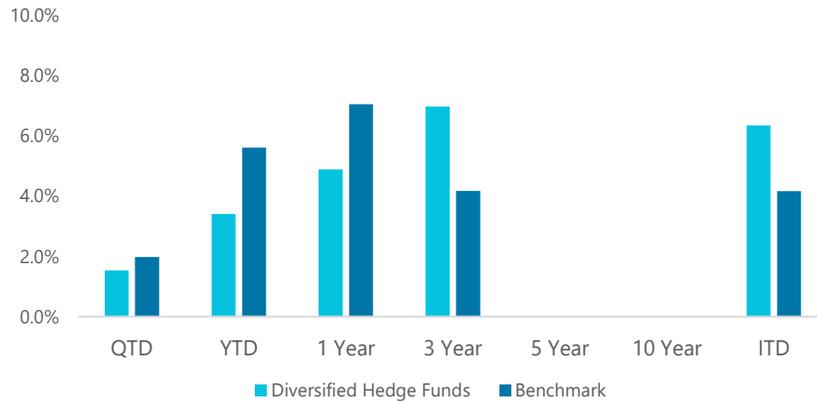
Diversified Hedge Funds

for the quarter ended September 30, 2023



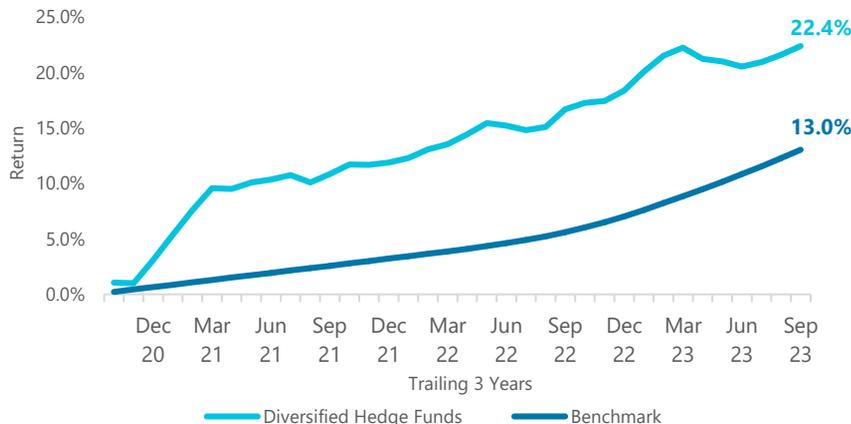
Los Angeles County Employees Retirement Association

Performance (net)



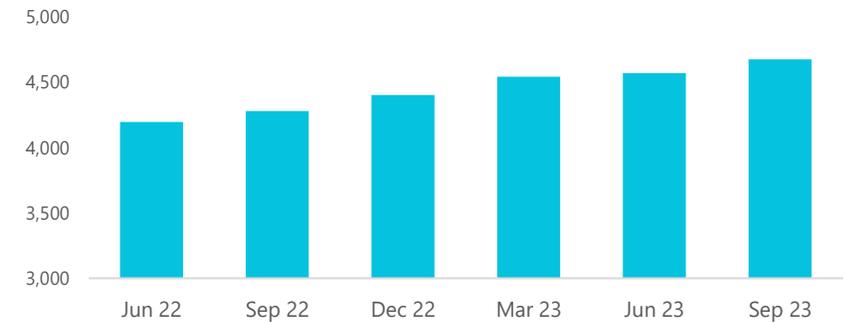
	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Diversified Hedge Funds	1.5%	3.4%	4.9%	7.0%	--	--	6.3%
Benchmark	2.0%	5.6%	7.0%	4.2%	--	--	4.2%
Excess	-0.4%	-2.2%	-2.2%	2.8%	--	--	2.2%

Cumulative Return

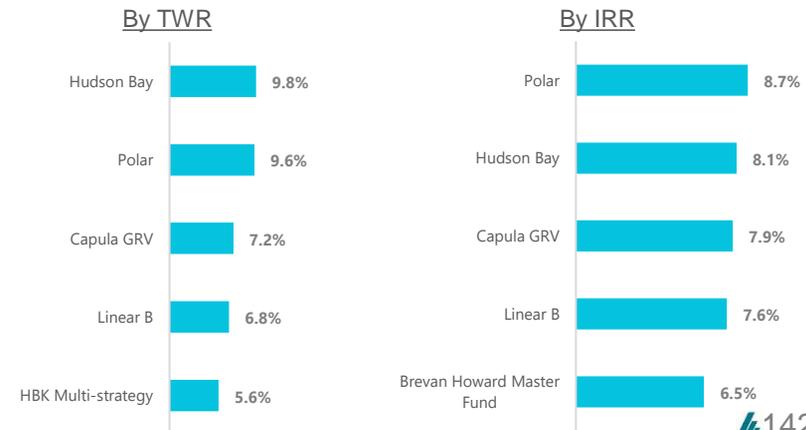


Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	4,570	4,281	1,978
Net Cash Flow	36	183	2,087
Gain/Loss	70	213	612
Ending Market Value	4,677	4,677	4,677



Top Performing Investments (since inception)

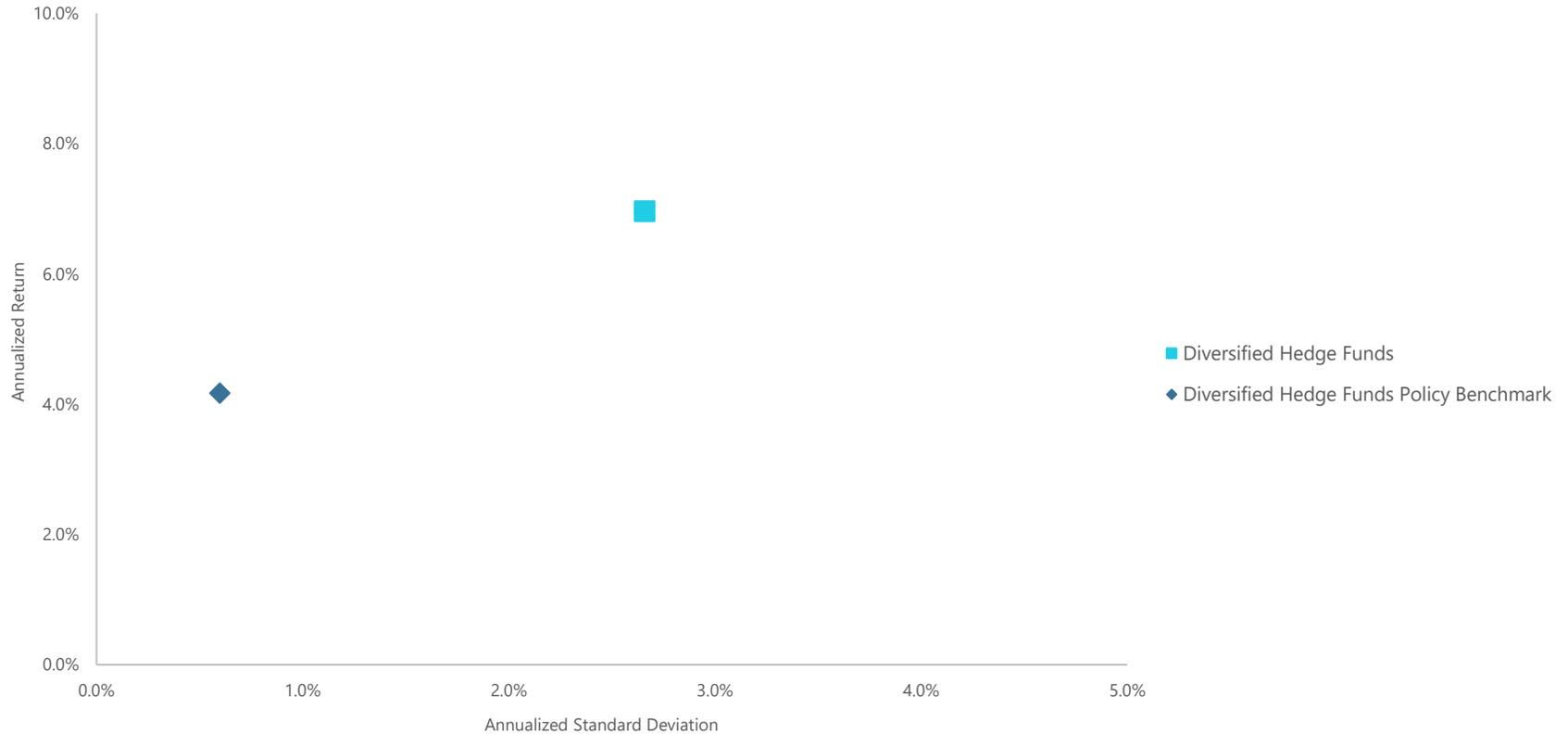


Risk vs. Return

Diversified Hedge Funds

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Diversified Hedge Funds	7.0%	2.7%				
Diversified Hedge Funds Policy Benchmark	4.2%	0.6%	1.92	0.95	(2.67)	2.8%

Performance Detail

Diversified Hedge Funds

for the quarter ended September 30, 2023



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
Diversified Hedge Funds	100.0%	4,677	4,570	1.5%	3.4%	4.9%	7.0%	--	--	6.3%	Apr-2019
Diversified Hedge Funds Policy Benchmark				2.0%	5.6%	7.0%	4.2%	--	--	4.2%	
LACERA HF Direct	88.2%	4,125	4,066	1.4%	3.4%	4.9%	7.0%	6.2%	--	5.0%	Apr-2019
Custom Hedge Fund Benchmark				2.0%	5.6%	7.0%	4.2%	4.5%	--	4.7%	
AM Asia Strategies	4.9%	230	245	-6.3%	6.0%	3.9%	--	--	--	0.8%	Jun-2021
Brevan Howard Master Fund	13.5%	631	625	1.0%	-3.0%	-2.6%	--	--	--	5.2%	Apr-2021
Capula GRV	14.8%	694	676	2.8%	8.1%	10.9%	7.3%	--	--	7.2%	Dec-2018
Caxton Global Investments	6.1%	283	282	0.5%	-4.5%	-3.0%	--	--	--	5.2%	Feb-2021
DK Institutional Partners	10.8%	506	497	1.9%	4.1%	4.0%	5.1%	4.9%	--	4.8%	May-2018
HBK Multi-strategy	12.9%	604	586	3.1%	4.5%	8.8%	7.1%	6.1%	--	5.6%	Jun-2018
Hudson Bay	14.6%	684	672	1.9%	5.3%	6.8%	9.6%	--	--	9.8%	Jul-2020
Polar	10.5%	491	484	1.5%	5.2%	6.4%	6.6%	--	--	9.6%	May-2020
HF Emerging Managers Program	11.4%	532	480	2.4%	3.2%	5.0%	--	--	--	1.3%	Aug-2021
Custom Hedge Fund Benchmark				2.0%	5.6%	7.0%	--	--	--	4.8%	
Stable Asset Management	11.4%	532	480	2.4%	3.2%	5.0%	--	--	--	1.3%	Aug-2021
Stable Fund Investments	11.4%	532	480	2.5%	3.4%	5.3%	--	--	--	1.6%	Aug-2021
Amundsen	1.4%	63	61	4.3%	0.1%	4.6%	--	--	--	-1.3%	Sep-2021
ClearAlpha	2.0%	96	93	2.9%	--	--	--	--	--	2.9%	May-2023
Clear Sky	1.8%	86	88	-2.1%	-6.8%	-6.5%	--	--	--	-2.9%	Apr-2022
Linear B	1.6%	74	72	2.7%	5.9%	6.8%	--	--	--	6.8%	Aug-2021
Quarry	1.9%	88	82	6.4%	6.7%	5.9%	--	--	--	5.7%	Sep-2022
ShadowFall	0.9%	40	0	--	--	--	--	--	--	0.0%	Sep-2023
Sparta	1.1%	53	52	1.1%	10.9%	11.4%	--	--	--	2.6%	Sep-2021
Trutino	0.7%	33	32	1.6%	11.7%	25.1%	--	--	--	4.3%	Aug-2021

emerging manager program

Emerging Manager Program

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year	ITD TWR	ITD MWR	Inception Date
Growth								
Global Equity								
Cornercap	80.6	-1.8%	10.9%	16.5%	6.1%	6.1%	6.1%	Oct-2018
Global Equity Policy Benchmark		-3.4%	20.2%	6.9%	--	7.4%	7.4%	
Private Equity								
Hamilton Lane Emerging Managers Program	4.9	80.1%	--	--	--	88.8%	55.7%	Mar-2023
J.P. Morgan Emerging Managers Program	62.0	0.8%	7.4%	27.6%	21.9%	25.4%	22.5%	Jan-2010
J.P. Morgan Emerging Managers Program II	68.0	0.4%	-8.3%	16.1%	6.9%	25.5%	35.8%	Apr-2014
J.P. Morgan Emerging Managers Program III	101.7	0.2%	-2.9%	28.3%	26.5%	27.4%	31.3%	Jan-2017
J.P. Morgan Emerging Managers Program IV	255.0	4.4%	8.7%	19.8%	--	18.3%	16.0%	Nov-2018
Total Private Equity Custom Benchmark		1.7%	13.0%	11.3%	12.6%	13.6%	13.6%	
Non-Core Private Real Estate								
Cityview Bay Area Fund II	76.0	0.0%	-9.5%	1.4%	1.1%	--	10.0%	Nov-2012
Cityview Western Fund I, L.P.	222.1	0.2%	-1.9%	15.0%	18.4%	-46.7%	12.1%	Jul-2016
CVBAF II Union City Co-Invest	23.6	0.2%	-0.9%	4.9%	-0.3%	4.9%	5.1%	Dec-2015
Non-Core Private RE Policy Benchmark		-2.3%	-8.7%	9.7%	8.4%	10.9%	10.9%	
Credit								
Illiquid Credit								
Stable Asset Management - IC	65.2	2.1%	--	--	--	2.0%	3.6%	Nov-2022
Illiquid Credit Policy Benchmark		4.1%	--	--	--	16.4%	16.4%	
Real Assets & Inflation Hedges								
Core Private Real Estate								
Cityview Core I.M.A	169.4	0.1%	-18.5%	-0.6%	-0.6%	2.5%	2.6%	Jun-2014
Core Private RE Policy Benchmark		-2.9%	-10.7%	7.2%	5.9%	6.7%	6.7%	
Risk Reduction & Mitigation								
Hedge Funds								
Stable Asset Management	532.1	2.4%	5.0%	--	--	1.3%	2.5%	Aug-2021
Custom Hedge Fund Benchmark		2.0%	7.0%	--	--	4.8%	4.8%	

manager scorecards

PUBLIC MARKETS MANAGER SCORECARD

3rd Quarter 2023

Performance	Organization & Operations	ESG	Partnership	Fees & Terms
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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)

Manager	Market Value (in \$ millions)	% of Total Fund	SCORE	SCORE	SCORE	SCORE	SCORE
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GROWTH	GLOBAL EQUITY			SCORE		SCORE	SCORE	SCORE	SCORE
	Acadian Developed Markets	572.6	0.8%	5	●	S-	3	B	3
	BTC Euro Tilts	579.8	0.8%	5	●	S	4	A	3
	Capital Group Developed Markets	381.6	0.5%	3	●	S	2	B	3
	Cevian Capital II - Activist	457.3	0.6%	4	●	S	4	B	1
	ComerCap US SC - EMP	80.6	0.1%	5	●	S-	1	A	3
	Frontier US SMID Growth	282.5	0.4%	3	●	S	2	A	1
	Global Alpha	166.7	0.2%	4	●	S+	3	A	3
	JPMAM Strategic Beta Non-U.S.	582.4	0.8%	3	●	S	2	B	3
	JPMAM Strategic Beta U.S.	4,518.6	6.3%	3	●	S	2	B	3
	Lazard Emerging Markets	366.7	0.5%	1	●	S-	3	B	1
Parametric GE Cash Overlay	200.7	0.3%	—	●	S	—	B	5	
SSGA MSCI ACWI IMI	14,947.5	20.7%	3	●	S	—	B	5	
Systematic US Small Cap Value	196.4	0.3%	4	●	S	2	A	3	

CREDIT	HIGH YIELD			SCORE		SCORE	SCORE	SCORE	SCORE
	Beach Point	302.5	0.4%	5	●	S	3	A	3
	Brigade Cap Mgmt	469.0	0.6%	3	●	S	3	B	3
	Pinebridge Investments	454.2	0.6%	* 3	●	S	3	B	3
	BANK LOANS			SCORE		SCORE	SCORE	SCORE	SCORE
	Bain Capital Credit	461.0	0.6%	4	●	S	3	B	1
	Credit Suisse Bank Loans	434.1	0.6%	2	●	S-	3	B	5
	Crescent Capital	476.7	0.7%	4	●	S	3	B	3
	EMERGING MARKET DEBT			SCORE		SCORE	SCORE	SCORE	SCORE
	Aberdeen Asset Management	240.4	0.3%	1	●	S	3	B	3
Ashmore Investment Management	251.3	0.3%	1	●	S	3	B	3	

REAL ASSETS & INFLATION HEDGES	NATURAL RESOURCES & COMMODITIES			SCORE		SCORE	SCORE	SCORE	SCORE
	Credit Suisse Commodity	297.7	0.4%	4	●	S-	1	A	3
	DWS Natural Resources	484.7	0.7%	3	●	S-	2	A	5
	Neuberger Berman/Gresham	355.9	0.5%	4	●	S	1	A	1
	INFRASTRUCTURE			SCORE		SCORE	SCORE	SCORE	SCORE
	DWS Infrastructure	2,076.2	2.9%	2	●	S-	2	A	5
	TIPS			SCORE		SCORE	SCORE	SCORE	SCORE
Blackrock TIPS	1,846.9	2.6%	3	●	S	—	A	5	

PUBLIC MARKETS MANAGER SCORECARD

3rd Quarter 2023

			Performance	Organization & Operations	ESG	Partnership	Fees & Terms
			1 to 5 <i>(with 5 the best)</i>	S+, S, or S- <i>(with S+ the best)</i>	1 to 5 <i>(with 5 the best)</i>	A, B, or C <i>(with A the best)</i>	1 to 5 <i>(with 5 the best)</i>
			SCORE	SCORE	SCORE	SCORE	SCORE
Manager	Market Value (in \$ millions)	% of Total Fund					

RISK REDUCTION & MITIGATION	INVESTMENT GRADE BONDS							
	Allspring/Wells	1,242.6	1.7%	5	S	3	B	5
	BTC US Debt Index Fund	2,804.2	3.9%	4	S	—	B	5
	Pugh Capital Mgmt	826.7	1.1%	3	S	2	A	3
OVERLAYS & HEDGES	LONG-TERM GOVERNMENT BONDS							
	BlackRock	2,791.6	3.9%	* 3	S	—	B	5
	CASH							
SSGA Cash	617.4	0.9%	3	S	—	A	5	
OVERLAYS & HEDGES	OVERLAYS							
	Parametric Cash Overlay	352.6	0.5%	—	S	—	B	5
	HEDGES							
BTC Passive Currency Hedge	128.9	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, ESG, 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 2023

			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	158.4	0.2%	4	S+	3	C	4
Blackstone Management	205.8	0.3%	2	S	4	B	5
CVC Capital Partners	551.3	0.8%	5	S	4	A	4
Green Equity Investors	386.9	0.5%	5	S+	3	A	4
Hellman & Friedman	477.4	0.7%	1	S+	3	B	4
MBK	315.1	0.4%	1	S	4	A	2
Silver Lake Partners	589.0	0.8%	3	S+	3	A	5
Thoma Bravo LLC	245.7	0.3%	*	S+	3	B	3
Vista Equity Partners	846.7	1.2%	3	S-	3	A	2
MID-MARKET BUYOUT							
Accel-KKR Capital Partners	237.6	0.3%	2	S+	4	A	3
Alpine Investors	0.0	0.0%	*	S+	3	B	2
BlackFin Capital Partners	65.0	0.1%	1	S	3	B	3
Carlyle Group	204.8	0.3%	3	S+	4	B	4
Clearlake Capital	536.1	0.7%	5	S	4	A	4
GHO Capital	119.6	0.2%	*	S	3	A	3
Gilde Partners	36.0	0.0%	5	S	2	A	5
Harvest Partners	58.8	0.1%	5	S	1	C	3
Marlin Equity	25.7	0.0%	1	S-	2	C	3
Novacap	24.0	0.0%	*	S	3	B	3
Onex Partners	320.1	0.4%	2	S	4	A	5
PAI	181.1	0.3%	4	S-	2	B	4
Revelstoke	177.5	0.2%	3	S	4	A	2
Riverside Capital	107.8	0.1%	1	S	3	B	3
Siris Capital Group	164.0	0.2%	2	S	3	B	4
Sterling Partners	137.5	0.2%	4	S	3	A	4
STG Partners	82.9	0.1%	*	S	3	A	3
Triton	161.9	0.2%	5	S-	3	C	5
TSG	2.7	0.0%	*	S+	3	C	2
Veritas Capital	81.8	0.1%	*	S+	3	B	3
Vinci Partners	94.5	0.1%	3	S	4	B	5
Webster Equity Partners	93.5	0.1%	*	S	3	B	3
Wynnchurch Capital	63.1	0.1%	*	S+	3	C	3

PRIVATE EQUITY



Los Angeles County Employees Retirement Association

PRIVATE MARKETS MANAGER SCORECARD

3rd Quarter 2023

			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					
SMALL BUYOUT							
AE Industrial Partners	133.8	0.2%	5	S+	4	A	3
Atlantic Street Capital	51.4	0.1%	5	S	3	A	3
Clarion	30.6	0.0%	3	S+	2	B	4
Excellere Partners	137.7	0.2%	1	S-	3	A	3
Incline Equity Partners	41.3	0.1%	5	S	2	C	4
Insignia Capital Partners	143.7	0.2%	5	S	1	B	5
Juggernaut Capital Partners	317.1	0.4%	4	S	3	A	4
Lightyear Capital	260.1	0.4%	3	S	3	A	5
Livingbridge	66.3	0.1%	2	S+	4	A	3
Montefiore Investment	29.7	0.0%	*	S+	4	B	4
One Rock Capital Partners	236.6	0.3%	1	S	3	A	4
Palladium Equity Partners	98.2	0.1%	2	S-	4	C	2
GROWTH EQUITY							
Australis Partners	118.8	0.2%	1	S-	4	B	5
Great Hill Partners	16.4	0.0%	*	S	4	A	4
JMI Equity	4.3	0.0%	2	S	3	C	2
RedBird Capital Partners	192.6	0.3%	4	S	4	A	3
Summit Partners	97.6	0.1%	3	S	4	A	4
TA Associates	178.3	0.2%	5	S	4	B	4
Technology Crossover Ventures	2.2	0.0%	5	S	2	B	3
VENTURE CAPITAL							
BlueRun Ventures	130.7	0.2%	2	S	2	B	2
Canaan Partners	168.0	0.2%	4	S	3	A	4
GGV Capital	435.6	0.6%	2	S	3	A	3
Innovation Endeavors	0.0	0.0%	*	S	3	C	3
Institutional Venture Partners	140.2	0.2%	5	S	1	C	5
Joy Capital	82.9	0.1%	1	S-	2	B	4
Lilly Asia Ventures	155.4	0.2%	4	S	4	B	2
Primary Ventures	0.0	0.0%	*	S	2	C	5
Sinovation Ventures	90.4	0.1%	1	S-	2	C	2
Storm Ventures LLC	230.2	0.3%	4	S	3	A	4
Union Square	94.2	0.1%	5	S-	1	B	5
SPECIAL SITUATIONS							
Alchemy Partners	54.7	0.1%	1	S	3	B	4
Black Diamond	183.2	0.3%	5	S	3	B	4
Centerbridge	215.8	0.3%	3	S	4	A	2
FUND OF FUNDS							
Gateway	646.6	0.9%	5	S	3	C	4
Hamilton Lane	2.7	0.0%	*	S+	3	B	4
MS GTB Capital Partners	336.7	0.5%	1	S	4	A	2
J.P. Morgan	483.4	0.7%	3	S+	3	B	4

PRIVATE EQUITY
(continued)

PRIVATE MARKETS MANAGER SCORECARD

3rd Quarter 2023

			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					
COMMINGLED FUNDS							
AERMONT Real Estate Fund IV	32.2	0.0%	3	S	4	B	3
AEW Value Investors Asia III	28.9	0.0%	1	S	4	B	4
AG Asia Realty Fund IV	73.1	0.1%	4	S	3	B	3
AG Europe Realty Fund II	44.4	0.1%	3	S	3	B	3
Bain Capital Real Estate Fund I	77.6	0.1%	5	S	3	A	3
Bain Capital Real Estate Fund II	52.5	0.1%	*	S	3	A	3
Blackstone Real Estate Partners Fund X	11.3	0.0%	*	S	3	B	3
Brookfield Strategic Real Estate Partners Fund IV	159.5	0.2%	*	S	3	B	3
CapMan Nordic Real Estate Fund II	41.7	0.1%	1	S	4	A	3
CapMan Nordic Real Estate Fund III	36.3	0.1%	*	S	4	A	3
CBRE US Core Partners	99.7	0.1%	*	S+	3	A	5
CityView Bay Area Fund II	71.0	0.1%	1	S-	3	B	3
CityView Western Fund I, L.P.	234.0	0.3%	5	S-	3	B	3
Core Property Index Fund	114.5	0.2%	3	S	2	A	5
Europa Fund IV	11.9	0.0%	1	S-	3	C	2
Heitman Asia-Pacific Property Investors	31.8	0.0%	2	S	3	B	4
Invesco Real Estate Asia Fund	150.2	0.2%	2	S	4	B	5
Prologis European Logistics Fund (PELF)	188.5	0.3%	2	S	4	A	1
RREEF Core Plus Industrial Fund (CPIF)	287.4	0.4%	5	S-	3	B	5
Starwood Capital Hospitality Fund	6.3	0.0%	4	S	3	C	3
TPG Real Estate Partners III	38.2	0.1%	4	S	2	B	3
TPG Real Estate Partners IV	4.1	0.0%	*	S	2	B	3
SEPARATE ACCOUNTS							
Cityview Core I.M.A.	169.1	0.2%	2	S-	3	B	2
Clarion I.M.A.	495.2	0.7%	5	S	3	A	4
Clarion Takeover Core IMA	322.0	0.4%	*	S	3	A	4
Clarion Takeover Value IMA	8.6	0.0%	*	S	3	A	3
Heitman I.M.A.	374.7	0.5%	4	S	3	B	4
RREEF Core/High Return I.M.A. III	1,251.2	1.7%	2	S-	3	C	5
RREEF Takeover I.M.A.	0.1	0.0%	2	S-	3	C	4
Stockbridge I.M.A.	622.3	0.9%	3	S	2	B	4
Stockbridge High I.M.A. Vintage 2014	59.1	0.1%	*	S	2	B	5
Stockbridge Value I.M.A. Vintage 2014	24.6	0.0%	*	S	2	B	3

REAL ESTATE

PRIVATE MARKETS MANAGER SCORECARD

3rd Quarter 2023

			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 REAL ASSETS (ex. Real Estate)	NATURAL RESOURCES & COMMODITIES							
	Appian III	2.2	0.0%	*	S	3	B	3
	Ara III	0.0	0.0%	*	S	4	B	3
	Cibus Enterprise II	4.1	0.0%	*	S	3	B	3
	Cibus Fund II	28.7	0.0%	*	S	3	B	3
	EMG	80.9	0.1%	2	S	3	B	1
	HiTecVision	99.2	0.1%	*	S	3	A	3
	Orion Mine Finance Onshore III	149.6	0.2%	*	S	4	B	4
	Orion Mineral Royalty Fund I	27.9	0.0%	*	S	4	B	4
	Sprott	44.4	0.1%	*	S	3	B	5
	TIAA-CREF Global Agriculture	301.9	0.4%	5	S+	4	A	5
	TIAA-CREF Global Agriculture II	277.2	0.4%	5	S+	4	A	5
	INFRASTRUCTURE							
	Antin Mid Cap	48.9	0.1%	*	S	3	B	2
	Axium Infrastructure Canada II	149.8	0.2%	*	S	4	A	3
	Axium Infrastructure US II	267.8	0.4%	*	S	4	A	3
	DIF CIF III	45.8	0.1%	*	S	3	A	4
	DIF Infrastructure VI	123.0	0.2%	4	S	3	A	2
	Grain Communications Opportunity Fund III	41.1	0.1%	*	S-	3	C	2
	Grain Spectrum Holdings III	70.5	0.1%	3	S-	3	C	2
Guardian Smart Infrastructure	0.0	0.0%	*	S	3	B	4	
KKR Diversified Core Infrastructure Fund	514.6	0.7%	*	S	3	B	4	
Macquarie Global Infrastructure Fund	413.8	0.6%	*	S	3	A	4	
Pan-European Infrastructure Fund III	74.9	0.1%	2	S-	3	B	3	
Partners Group Direct Infrastructure 2020	104.3	0.1%	*	S	3	A	3	

PRIVATE MARKETS MANAGER SCORECARD

3rd Quarter 2023

		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				
DIVERSIFIED HEDGE FUNDS						
AM Asia	230.0	0.3%	3	S	2	A
Brevan Howard	630.9	0.9%	4	S+	2	A
Capula GRV	694.5	1.0%	5	S	2	B
Caxton	283.4	0.4%	4	S	3	B
DK Institutional Partners	506.3	0.7%	4	S	2	B
HBK Multistrategy	604.0	0.8%	4	S	2	B
Hudson Bay	684.4	0.9%	5	S	2	B
Polar	491.3	0.7%	4	S	2	B
Stable	532.1	0.7%	*	S	2	A
ILLIQUID CREDIT						
Barings	37.3	0.1%	4	S-	3	C
Beach Point	442.9	0.6%	3	S	3	B
BlackRock/Tennenbaum	601.8	0.8%	2	S-	3	C
Glendon	0.0	0.0%	5	S	2	B
Magnetar	1,000.2	1.4%	4	S	3	A
Napier Park	981.1	1.4%	2	S	3	A
Oaktree	0.0	0.0%	5	S	2	B
PIMCO Tac Opps	234.3	0.3%	1	S-	1	C
Quadrant	24.6	0.0%	1	S-	2	B
Silver Rock	560.3	0.8%	*	S	2	A
Stable - IC	65.2	0.1%	*	S	2	A
Varde	687.7	1.0%	*	S	3	A
Waterfall	702.3	1.0%	*	S	3	A

DIVERSIFIED HEDGE FUNDS & ILLIQUID CREDIT

For Organization, ESG, 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, 2023

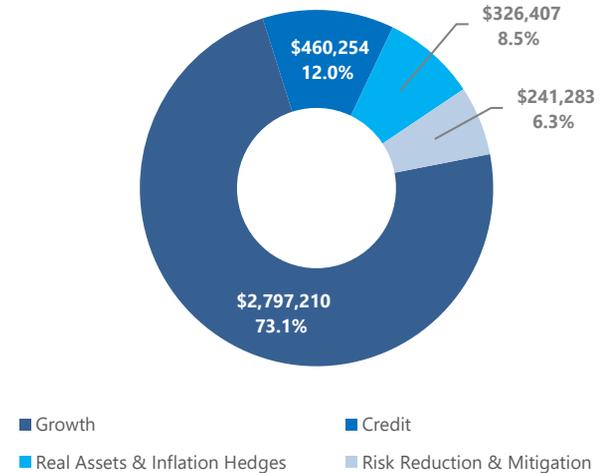


Los Angeles County Employees Retirement Association

Earnings by Quarter



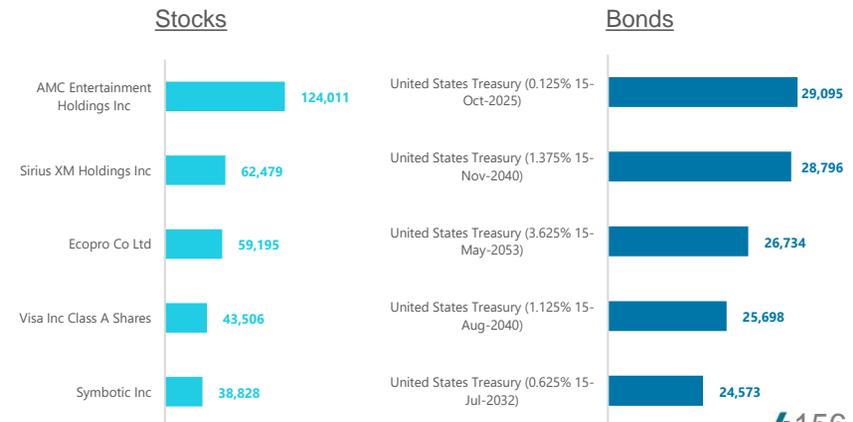
Earnings by Functional Category



Top Earning Funds

Fund	% of Total Fund Earnings	Total Earnings	Cash Earnings	Non-Cash Earnings
SSGA MSCI ACWI IMI	53.3%	2,039,120	1,407,508	631,612
JPMAM Strategic Beta US	10.4%	399,472	333,095	66,377
BlackRock TIPS	7.3%	279,373	51,340	228,033
Blackrock Long Treasury Bonds	6.5%	248,362	57,951	190,411
Frontier US SMID Growth	4.6%	176,723	132,844	43,879

Top Earning Securities



Public Markets Manager Fees

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Growth

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Active			
Acadian Asset Management	\$589.2	\$553,093	37.5
BTC Europe Alpha Tilts	\$584.5	\$515,681	35.3
Capital Guardian	\$403.2	\$349,638	34.7
Cevian Capital	\$460.4	\$1,266,494	110.0
CornerCap	\$84.1	\$110,787	52.7
Frontier Capital Management	\$300.9	\$564,096	75.0
Global Alpha	\$176.4	\$314,206	71.2
Lazard Asset Management	\$385.0	\$615,051	63.9
Parametric GE Market Cap	\$974.5	\$64,833	2.7
Parametric GE Region	\$598.0	\$39,784	2.7
Systematic	\$203.7	\$280,036	55.0
Subtotal:	\$4,759.9	\$4,673,700	39.3
Factor-Based			
JPMAM Strategic Beta Non-US	\$602.2	\$50,859	3.4
JPMAM Strategic Beta US	\$4,690.0	\$396,060	3.4
Subtotal:	\$5,292.2	\$446,919	3.4
Passive			
SSGA MSCI ACWI IMI	\$15,605.1	\$285,032	0.7
Subtotal:	\$15,605.1	\$285,032	0.7

¹ Reflects estimated investment management fees.

Public Markets Manager Fees

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Credit

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Liquid Credit			
Aberdeen Standard Investments	\$276.2	\$275,550	39.9
Ashmore Investment Management	\$251.3	\$322,887	51.4
Bain Capital	\$461.0	\$609,644	52.9
Beach Point Capital	\$303.8	\$341,788	45.0
Brigade Capital Management	\$470.2	\$501,499	42.7
Credit Suisse Bank Loan	\$500.1	\$275,028	22.0
Crescent Capital Group	\$475.2	\$556,485	46.8
Pinebridge	\$456.8	\$376,892	33.0
Subtotal:	\$3,194.7	\$3,259,772	40.8

¹ Reflects estimated investment management fees.

Public Markets Manager Fees

for the quarter ended September 30, 2023



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	\$300.9	\$203,042	27.0
DWS Natural Resources	\$489.2	\$229,108	18.7
Neuberger Berman/Gresham	\$352.7	\$329,312	37.3
Subtotal:	\$1,142.8	\$761,462	26.7
Infrastructure			
DWS Infrastructure	\$2,242.4	\$1,050,103	18.7
Subtotal:	\$2,242.4	\$1,050,103	18.7
Treasury Inflation-Protected Securities			
BlackRock TIPS	\$1,875.9	\$47,283	1.0
Subtotal:	\$1,875.9	\$47,283	1.0

¹ Reflects estimated investment management fees.

Public Markets Manager Fees

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Risk Reduction & Mitigation

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Investment Grade Bonds			
Allspring/Wells	\$1,266.7	\$335,833	10.6
Pugh Capital Management	\$843.0	\$282,352	13.4
Subtotal:²	\$4,968.8	\$679,441	5.5
Long-Term Government Bonds			
BlackRock	\$2,900.9	\$72,483	1.0
Subtotal:	\$2,900.9	\$72,483	1.0
Cash			
SSGA Cash	\$765.4	\$76,542	4.0
Subtotal:	\$765.4	\$76,542	4.0

¹ Reflects estimated investment management fees.

² Includes BTC US Debt Index account.

Public Markets Manager Fees

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Overlays & Hedges

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Overlays			
Parametric Cash Overlay	\$2,132.5	\$141,878	2.7
Subtotal:	\$2,132.5	\$141,878	2.7
Hedges			
BlackRock Developed Markets Currency Hedge	\$7,179.3	\$271,437	1.5
Subtotal:	\$7,179.3	\$271,437	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)

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.