



Chief Investment Officer Monthly Report

Jonathan Grabel – Chief Investment Officer

Board of Investments Meeting
June 14, 2023

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01 Market Environment

Global Market Performance as of May 31, 2023



MSCI ACWI IMI Index (Global Equity Market)*

Trailing Returns (%)				Annualized Returns (%)			
1-Month	3-Month	FYTD	YTD	1Y	3Y	5Y	10Y
-1.2	2.5	9.7	7.0	0.3	10.0	6.3	7.7

MSCI ACWI IMI Index 1-Year Performance



*Global Equity Policy Benchmark - MSCI ACWI IMI Index

Bloomberg U.S. Aggregate Bond Index**

Trailing Returns (%)				Annualized Returns (%)			
1-Month	3-Month	FYTD	YTD	1Y	3Y	5Y	10Y
-1.1	2.0	-0.6	2.5	-2.1	-3.6	0.8	1.4

Bloomberg U.S. Aggregate Bond Index 1-Year Performance



**Investment Grade Bonds Policy Benchmark - Barclays U.S. Aggregate Bond Index

Market	Sub-Category	Index Name	1-Month	3-Month	FYTD	YTD	1 Y	3 Y	5 Y	10 Y
Equity	Global All Cap	MSCI ACWI IMI Total Return	-1.2	2.5	9.7	7.0	0.3	10.0	6.3	7.7
	U.S. All Cap	Russell 3000 Total Return	0.4	4.2	11.4	8.7	2.0	12.2	10.1	11.4
	U.S. Large Cap	S&P 500 Total Return	0.4	5.7	12.2	9.6	2.9	12.9	11.0	12.0
	U.S. Small Cap	Russell 2000 Total Return	-0.9	-7.4	3.9	0.0	-4.7	9.2	2.7	7.4
	Non-U.S. All Cap	MSCI ACWI-ex U.S. IMI Total Return	-3.5	0.2	7.8	4.6	-1.9	7.3	2.1	3.9
	Emerging Markets	MSCI Emerging Markets Total Return	-1.7	0.2	-2.0	1.1	-8.5	3.5	-0.7	1.9
Private Equity	Private Equity Buyout	Thomson Reuters PE Buyout Index	-10.2	-8.8	-5.0	-13.9	-16.1	4.0	3.5	9.5
Fixed Income	U.S. Investment Grade Bonds	Bloomberg U.S. Aggregate Index	-1.1	2.0	-0.6	2.5	-2.1	-3.6	0.8	1.4
	U.S. Corporate High Yield Bonds	Bloomberg U.S. Corporate High Yield Total Return	-0.9	1.1	7.3	3.6	0.0	2.9	3.1	4.0
	Developed Markets Leveraged Loans	Credit Suisse Leveraged Loan Total Return	-0.1	0.8	7.7	4.0	5.5	5.9	3.6	3.8
	U.S. Treasury Inflation Protected Securities	Bloomberg U.S. Treasury TIPS Total Return Index	-1.2	1.8	-1.1	2.2	-4.2	0.4	2.6	1.7
	U.S. 3 Month Treasury Bill	FTSE 3 Month Treasury Bill	0.4	1.2	3.3	2.0	3.4	1.2	1.5	0.9
Commodity	Commodity Prices Index	Bloomberg Commodity Index Total Return	-5.6	-6.5	-13.1	-11.4	-22.5	17.2	3.2	-1.9
	Natural Resources	S&P Global LargeMidCap Commodity & Resources Index	-10.0	-9.6	0.7	-10.4	-14.8	18.7	6.7	4.3
Infrastructure	Global Infrastructure	Dow Jones Brookfield Global Infrastructure Composite Index	-6.0	-1.5	-2.3	-0.5	-9.9	5.7	4.2	4.9
Real Estate	U.S. REITs	MSCI U.S. REIT Index	-3.1	-4.7	-4.9	0.4	-11.9	8.2	4.5	5.7

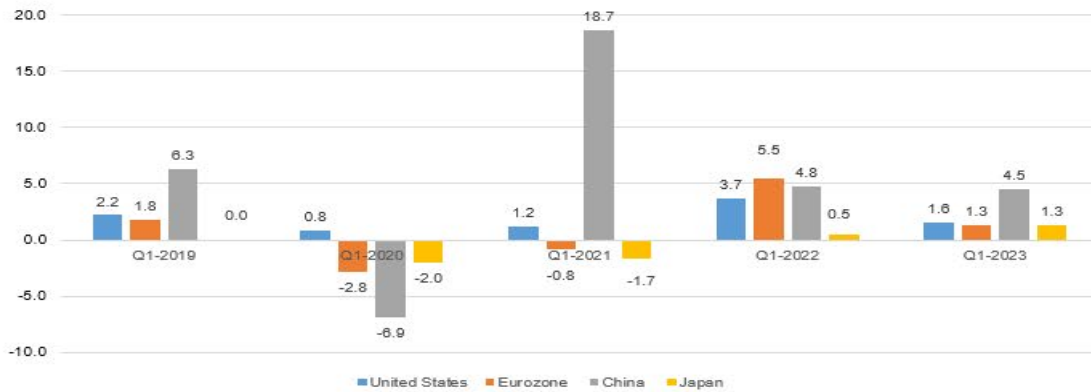
Source: Bloomberg

Key Macro Indicators*



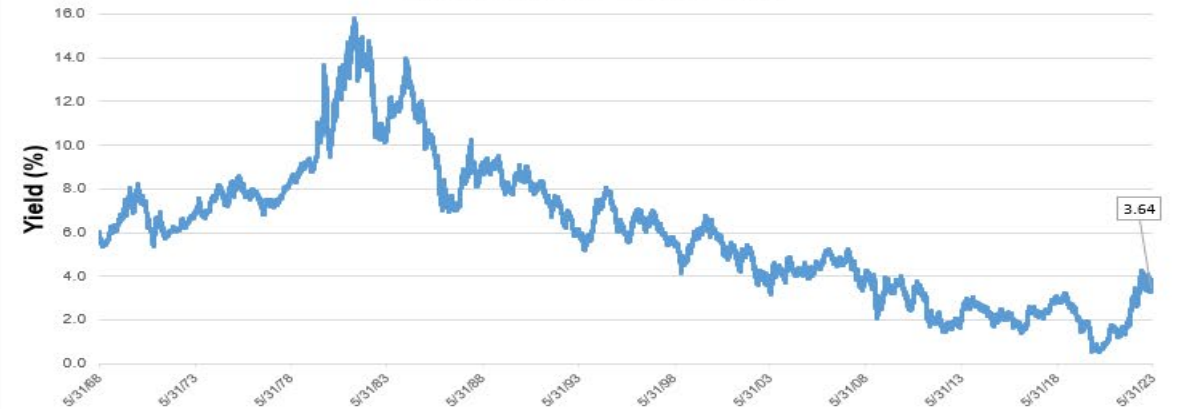
GDP Growth of Major Economies¹

Real GDP Growth YoY (%) - Last Five Years



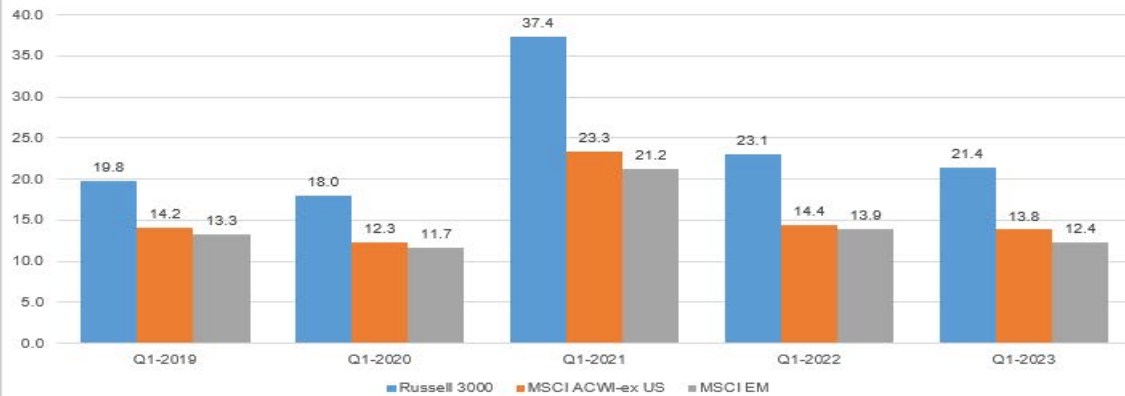
10-Year Treasury Yield²

Historical 10-Year Treasury Yield



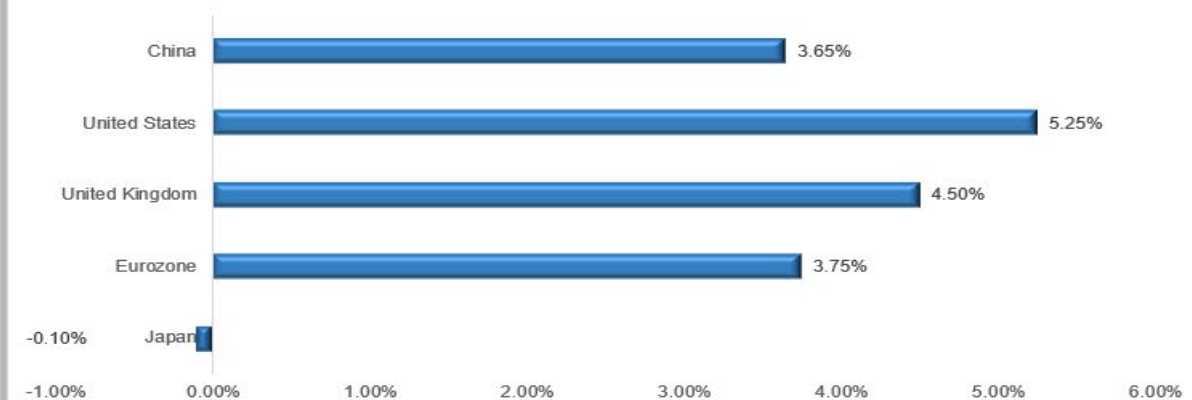
World Equity Valuation³

Price-to-Earnings - Last Five Years



Central Bank Rates⁴ (as of 5/31/2023)

Central Bank Rates



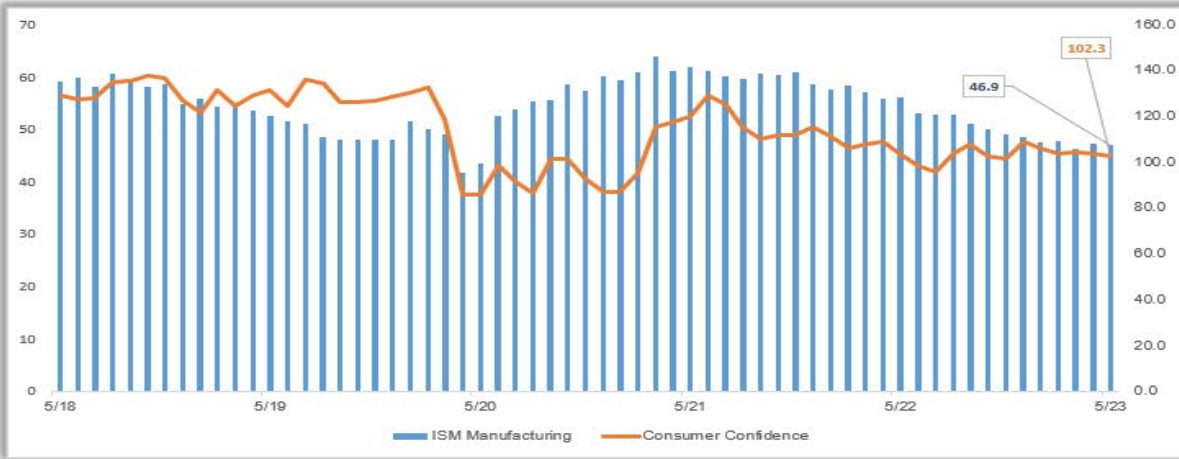
*The information on the "Key Macro Indicators" charts is the best available data as of 5/31/23 and may not reflect the current market and economic environment

Sources: 1. Bloomberg 3. FactSet
2. St. Louis Federal Reserve 4. FactSet

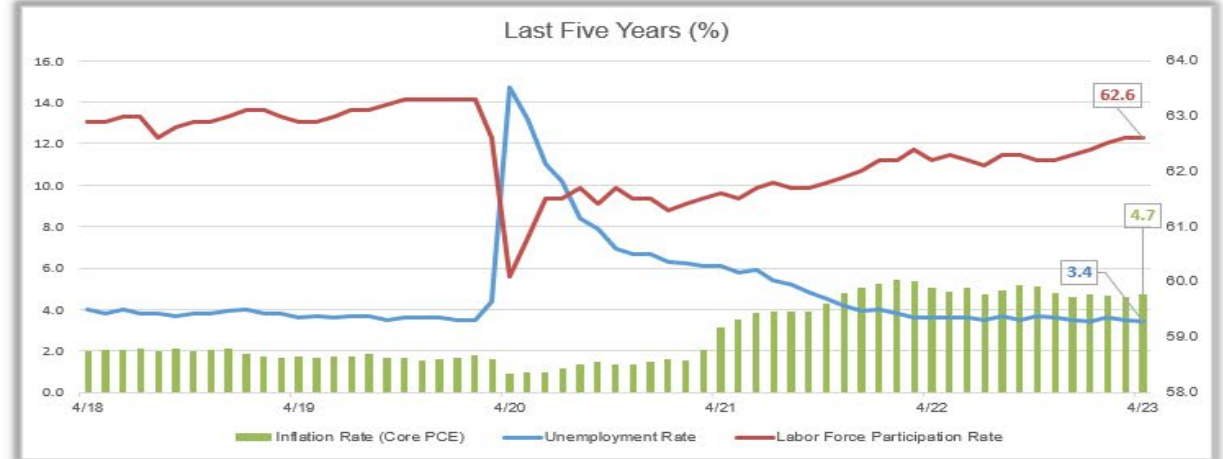
Key Macro Indicators*



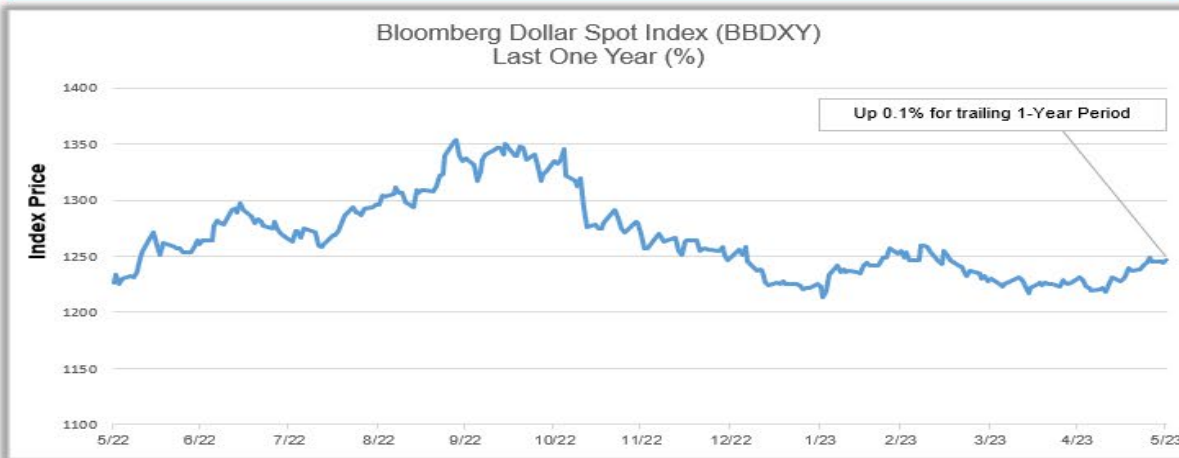
Consumer Confidence & ISM Manufacturing¹



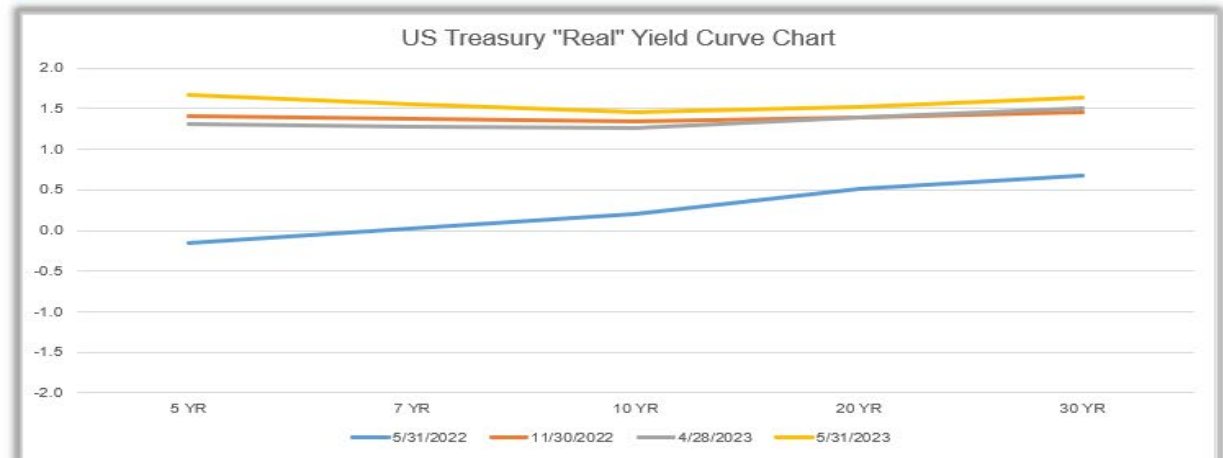
U.S. Inflation, Unemployment, & Labor Force Participation²



Performance of US Dollar vs. Leading Global Currencies³



U.S. Treasury "Real" Yield Curve⁴



*The information on the "Key Macro Indicators" charts is the best available data as of 5/31/23 and may not reflect the current market and economic environment

Sources: 1. Bloomberg 3. Bloomberg
2. Bloomberg 4. U.S. Treasury

Market Themes and Notable Items to Watch



Recent Themes

- In early May, the Federal Reserve approved its 10th interest rate increase in just a little over a year
- The federal funds target range established by the Federal Reserve is now 5% - 5.25%
- In its statement, the Federal Reserve omitted a previously-included sentence that “the Committee anticipates that some additional policy firming may be appropriate” thereby hinting that the current tightening cycle may be reaching an end
- The U.S. 10-year Treasury yield ended May at 3.64%, after being 3.88% at the end of 2022, 1.52% at the end of 2021 and 0.93% at the end of 2020
- Global equities (MSCI All Country World Investable Market Index) declined 1.2% in May

What to Watch

- Interest rates and central bank actions
- Economic data and trends
 - Inflation, supply chains, and labor developments
- Macro conditions and geopolitical risks
- Environmental, social, and governance
 - Securities and Exchange Commission (SEC) increases transparency and more frequent reporting of share buyback programs and insider trading risks, requiring public companies to disclose daily share buyback volume, rationale, and whether insiders concurrently traded shares
 - SEC increases disclosure of private markets, revising “Form PF” rule to require private equity and hedge funds to report events that may pose systemic financial risks “as soon as practicable,” versus previous quarterly or annual basis

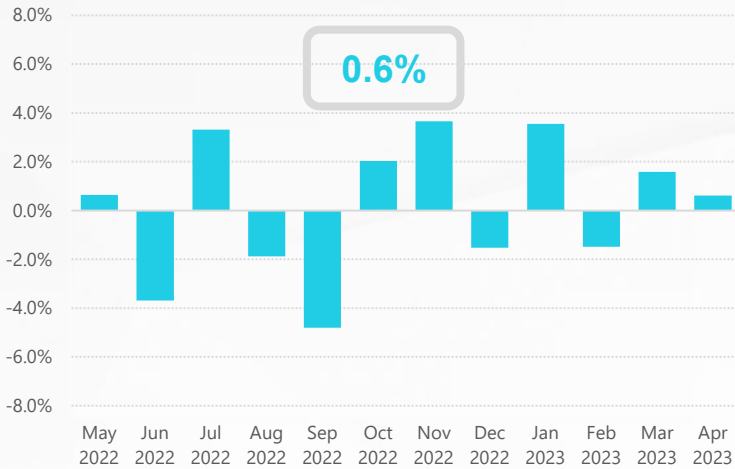


02 Portfolio Performance & Risk Updates

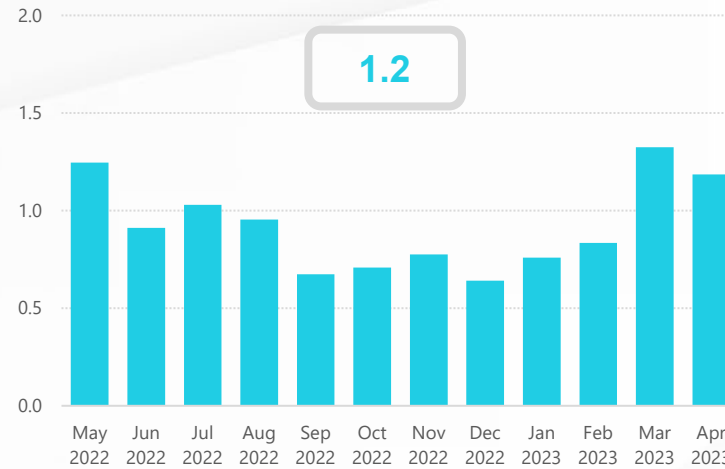
Total Fund Summary as of April 2023



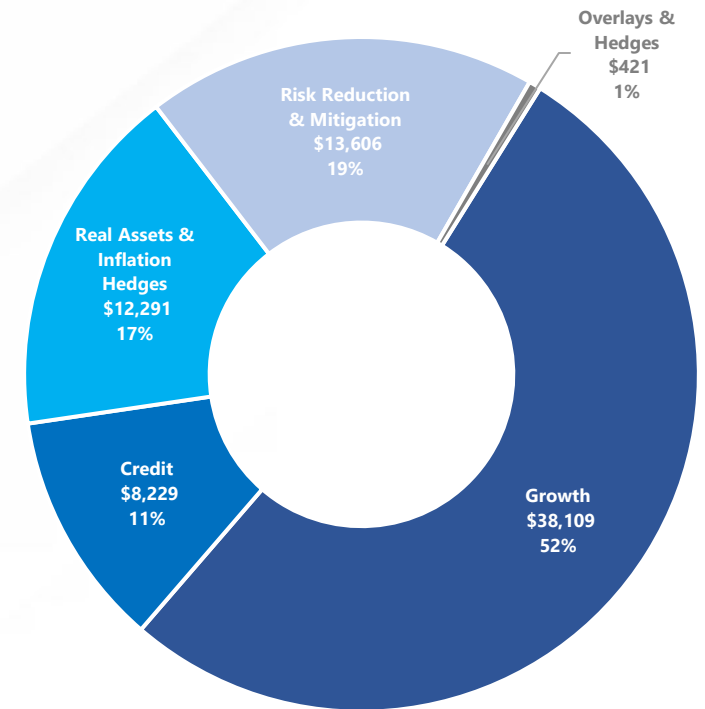
Monthly Return (net)



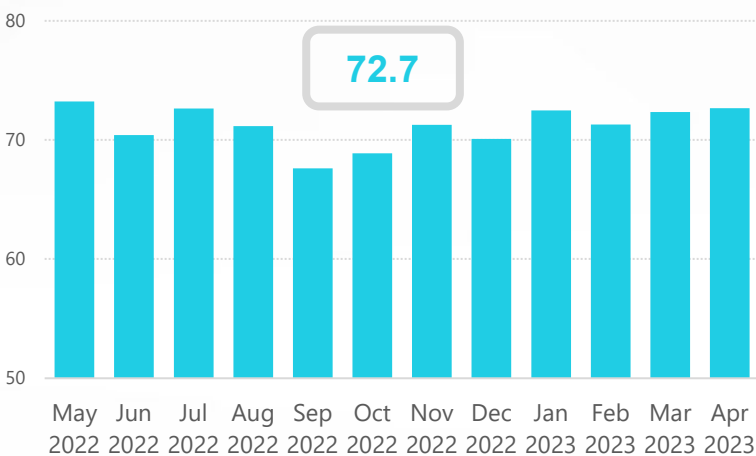
Sharpe Ratio (3-year annualized)



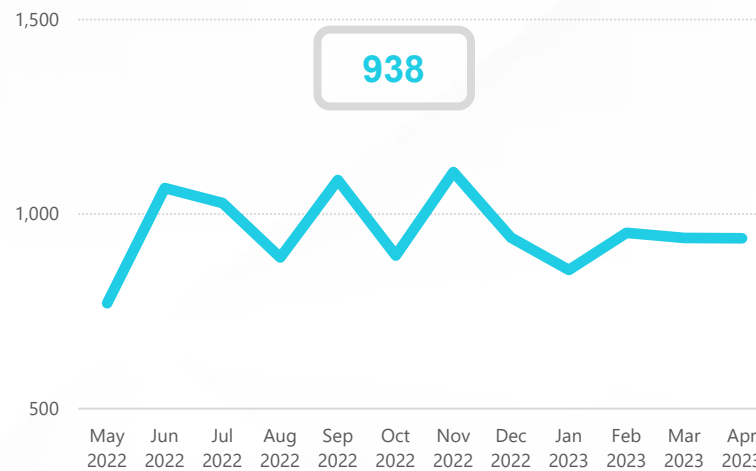
Asset Allocation (\$ millions)



Total Market Value (\$ billions)



Cash (\$ millions)

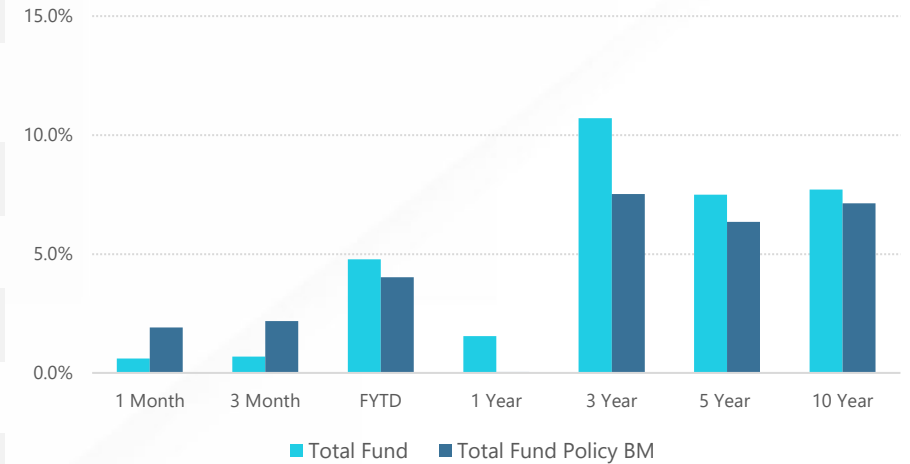


Historical Net Performance as of April 2023



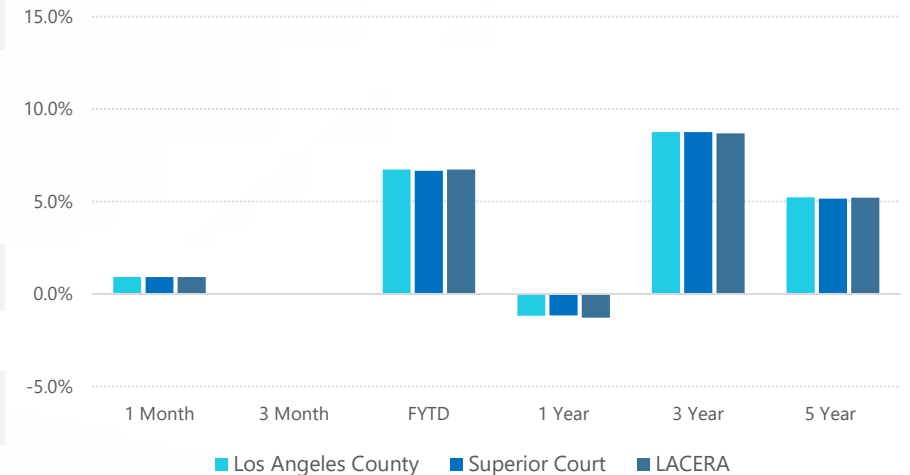
LACERA Pension Fund

	Market Value (\$ millions)	% of Total Fund	Interim Target	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	10 Year
Total Fund	72,656	100.0%	100.0%	0.6%	0.7%	4.8%	1.6%	10.7%	7.5%	7.7%
Total Fund Policy BM				1.9%	2.2%	4.0%	0.0%	7.5%	6.4%	7.1%
7% Annual Hurdle Rate				0.6%	1.7%	5.8%	7.0%	7.0%	7.0%	7.0%
Growth	38,109	52.5%	53.0%	0.8%	1.1%	6.6%	1.4%	15.9%		
Growth Policy BM				3.1%	4.0%	5.3%	-0.4%	12.0%		
Credit	8,229	11.3%	11.0%	0.6%	1.7%	5.8%	1.5%	8.0%		
Credit Policy BM				0.9%	2.7%	5.0%	0.6%	3.8%		
Real Assets & Inflation Hedges	12,291	16.9%	17.0%	0.7%	-1.3%	1.9%	0.8%	10.8%		
Real Assets & Inflation Hedges Policy BM				0.3%	-2.5%	1.8%	-0.9%	10.7%		
Risk Reduction & Mitigation	13,606	18.7%	19.0%	0.1%	0.7%	1.0%	0.4%	-0.7%		
Risk Reduction & Mitigation Policy BM				0.6%	0.9%	0.9%	0.1%	-2.0%		
Overlays & Hedges	421	0.6%		0.6%	5.0%	16.4%	41.5%			



OPEB Master Trust

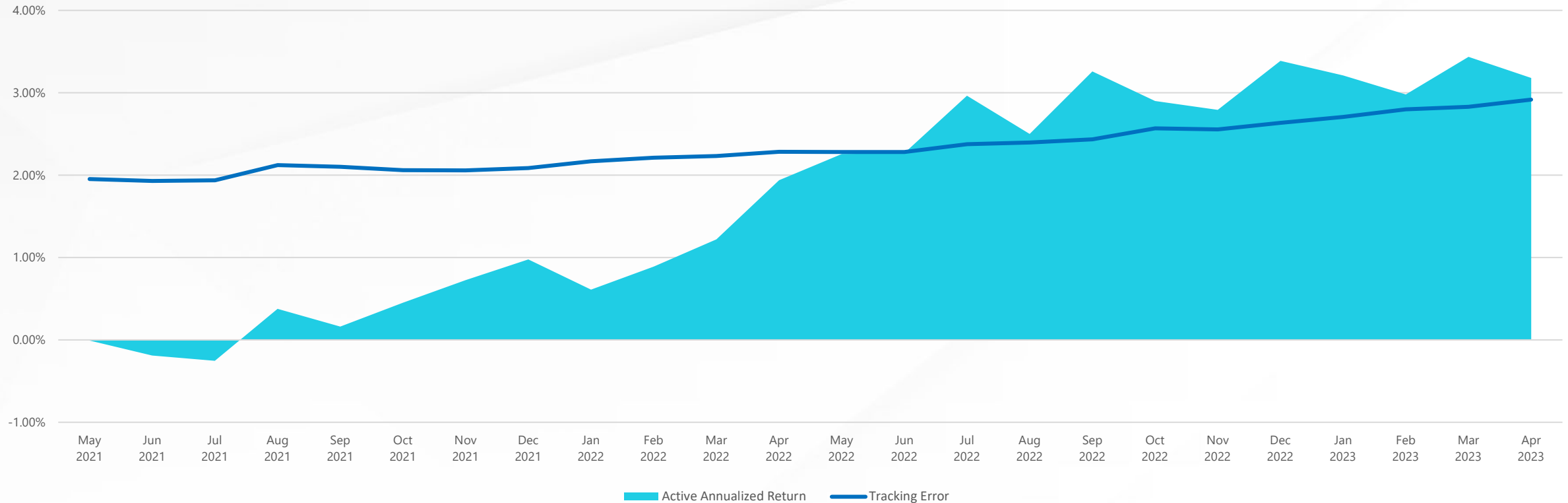
	Market Value (\$ millions)	% of Master Trust	Interim Target	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year
OPEB Master Trust	2,905			0.9%	-0.1%	6.7%	-1.2%	8.7%	5.2%
Los Angeles County	2,832	97.5%	—	0.9%	-0.1%	6.7%	-1.2%	8.7%	5.2%
Superior Court	61	2.1%	—	0.9%	0.0%	6.7%	-1.2%	8.7%	5.1%
LACERA	13	0.4%	—	0.9%	0.0%	6.7%	-1.3%	8.7%	5.2%
LACERA Master OPEB Trust Fund	2,904		100.0%	0.9%	0.0%	6.6%	-1.2%	8.7%	5.3%
OPEB Master Trust Policy Benchmark				1.0%	0.4%	6.3%	-1.6%	8.6%	4.9%
OPEB Growth	1,390	47.9%	47.5%	1.3%	1.0%	11.2%	1.8%	12.4%	6.9%
OPEB Growth Policy Benchmark				1.6%	1.5%	10.3%	0.8%	11.9%	6.5%
OPEB Credit	549	18.9%	19.0%	1.0%	1.4%	9.1%	3.7%	4.5%	--
OPEB Credit Policy Benchmark				0.9%	1.3%	7.4%	1.7%	4.5%	--
OPEB Real Assets & Inflation Hedges	580	20.0%	20.0%	0.2%	-4.0%	-2.8%	-12.7%	9.2%	--
OPEB RA & IH Policy Benchmark				0.1%	-3.2%	-0.5%	-10.6%	10.0%	--
OPEB Risk Reduction & Mitigation	385	13.2%	13.5%	0.6%	0.6%	1.7%	1.0%	-2.0%	1.5%
OPEB RR & M Policy Benchmark				0.6%	0.6%	0.1%	-0.6%	-2.6%	1.0%



Performance Based Risk as of April 2023



Active Return vs. Tracking Error^{1,2,3}



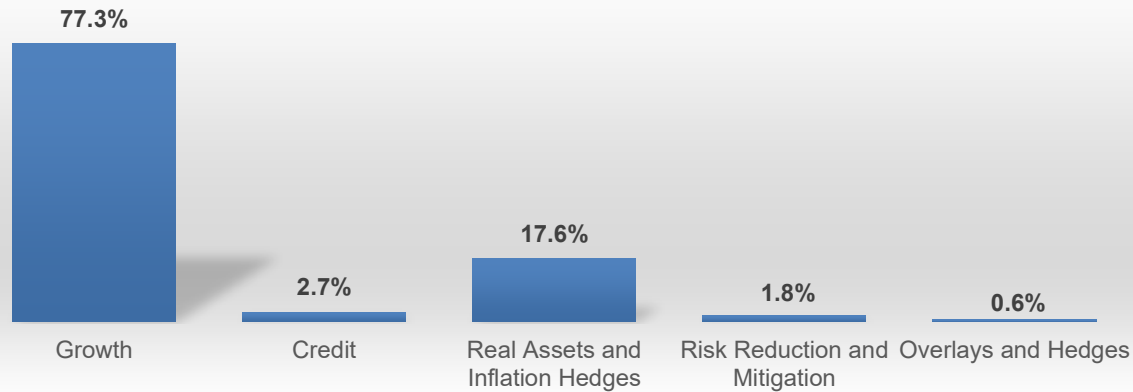
Period Ending	Annualized Return	Annualized Benchmark Return	Annualized Active Return	Tracking Error
Apr 2023	10.7%	7.5%	3.2%	2.9%

¹ Rolling 36 months.
² Active return equals the difference in return between a portfolio and its benchmark.
³ Tracking error (or active risk) measures the volatility of active returns.

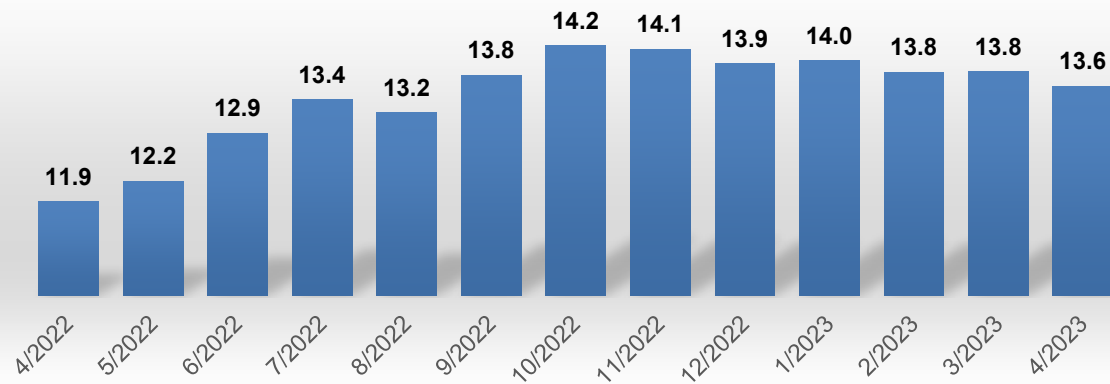
Total Fund Forecast Risk* as of April 2023



%Contribution to Total Risk



Total Risk



	%Weight	% Cont. to Total Risk	Standalone Total Risk	Standalone Benchmark Risk
Total Fund			13.6	12.9
Growth	52.7%	77.3%	20.1	19.2
Global Equity	33.4%	42.7%	18.3	18.3
Private Equity	17.7%	31.4%	27.1	26.2
Non-Core Private Real Estate	1.6%	3.2%	39.3	19.1
Credit	10.9%	2.7%	4.4	5.7
Liquid Credit	5.3%	1.9%	6.4	5.7
Illiquid Credit	5.7%	0.8%	3.6	5.7
Real Assets & Inflation Hedges	17.2%	17.6%	15.0	14.0
Core Private Real Estate	5.8%	6.3%	21.2	19.1
Natural Resources & Commodities	3.1%	3.4%	18.5	20.2
Infrastructure	5.5%	7.2%	19.2	18.0
TIPS	2.7%	0.6%	6.9	6.9
Risk Reduction and Mitigation	18.6%	1.8%	6.3	6.2
Investment Grade Bonds	7.0%	0.8%	6.7	6.6
Diversified Hedge Funds	6.0%	0.5%	3.7	0.3
Long-Term Government Bonds	4.3%	0.5%	14.6	14.6
Cash	1.3%	0.0%	-	-
Overlays and Hedges	0.5%	0.6%	-	-

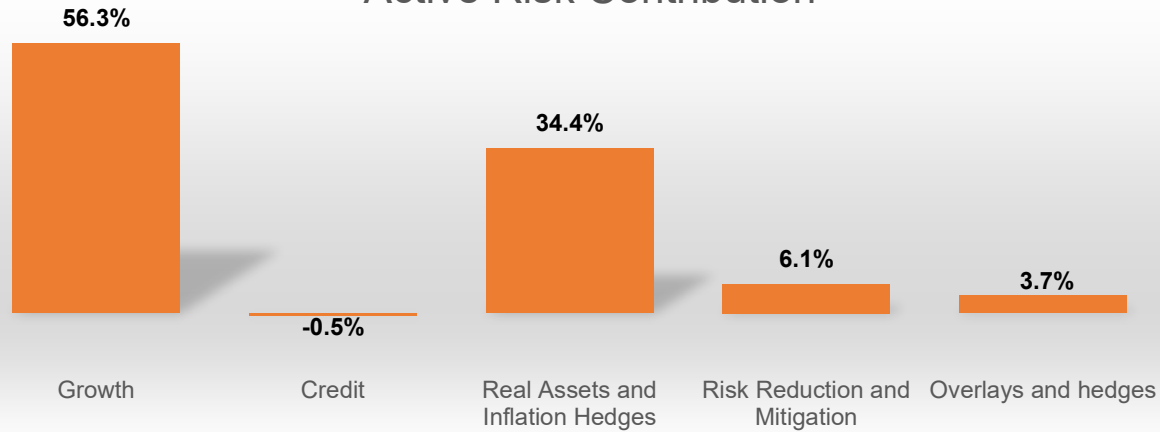
*Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change. Real estate and private equity data used is as of 12/31/2022

SOURCE: MSCI BarraOne

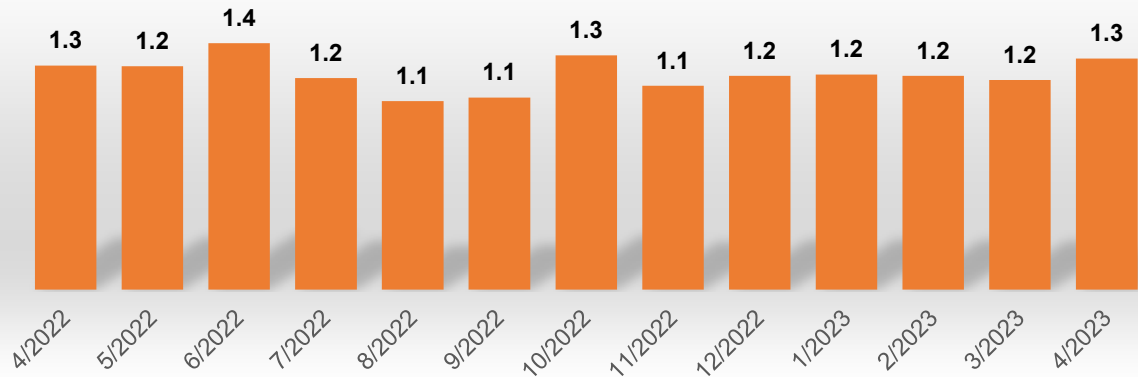
Total Fund Forecast Active Risk* as of April 2023



Active Risk Contribution



Active Risk



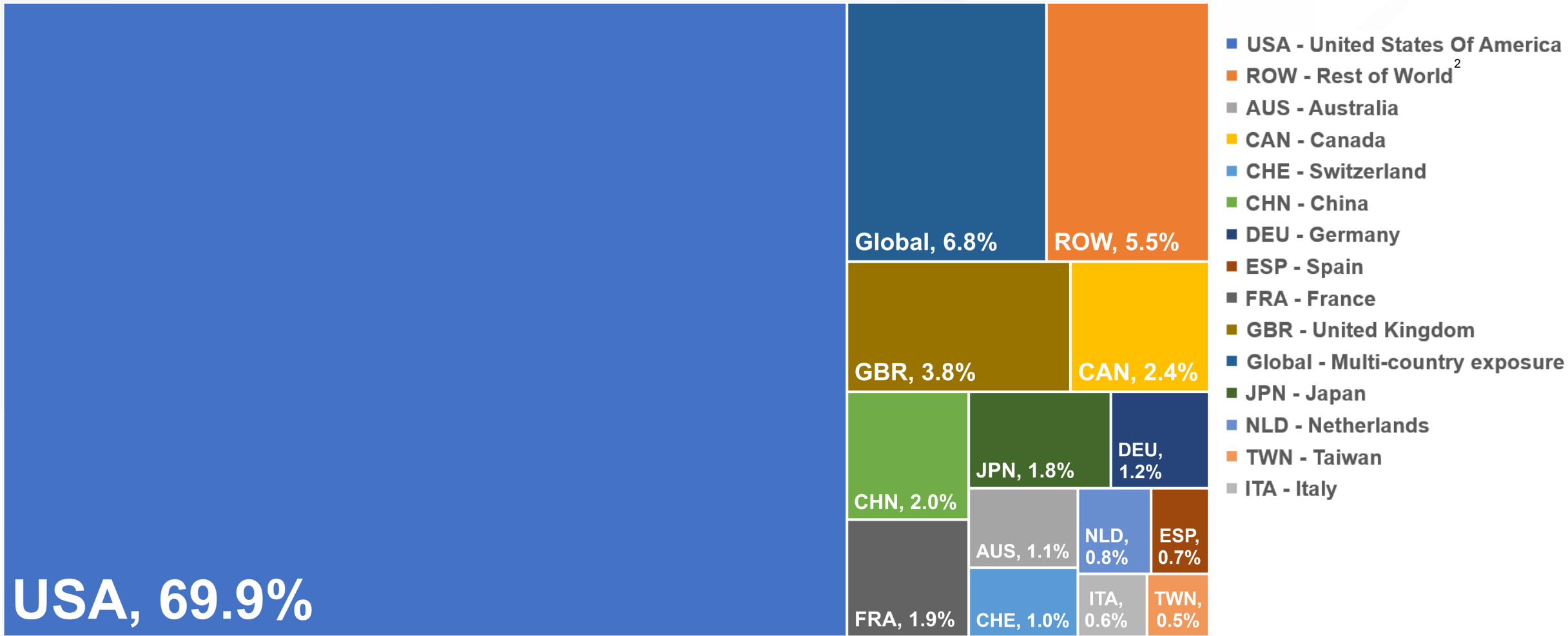
	%Weight	Active Weight%	Active Risk	Active Risk Allocation	Active Risk Selection
Total Fund			1.29	0.06	1.23
Growth	52.7%	-0.28%	0.73	-0.01	0.74
Global Equity	33.4%				
Private Equity	17.7%				
Non-Core Private Real Estate	1.6%				
Credit	10.9%	-0.05%	-0.01	0.00	-0.01
Liquid Credit	5.3%				
Illiquid Credit	5.7%				
Real Assets & Inflation Hedges	17.2%	0.18%	0.44	-0.01	0.45
Core Private Real Estate	5.8%				
Natural Resources & Commodities	3.1%				
Infrastructure	5.5%				
TIPS	2.7%				
Risk Reduction and Mitigation	18.6%	-0.37%	0.08	0.03	0.05
Investment Grade Bonds	7.0%				
Diversified Hedge Funds	6.0%				
Long-Term Government Bonds	4.3%				
Cash	1.3%				
Overlays and Hedges	0.5%	0.53%	0.05	0.05	-

*Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change. Real estate and private equity data used is as of 12/31/2022

SOURCE: MSCI BarraOne

Geographic Exposures by AUM* - Total Fund

as of April 2023 ex-overlays & hedges



*AUM = assets under management

¹ Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change. Real estate and private equity data used is as of 12/31/2022

² "ROW - Rest of World" is sum of countries with weight below 0.5%

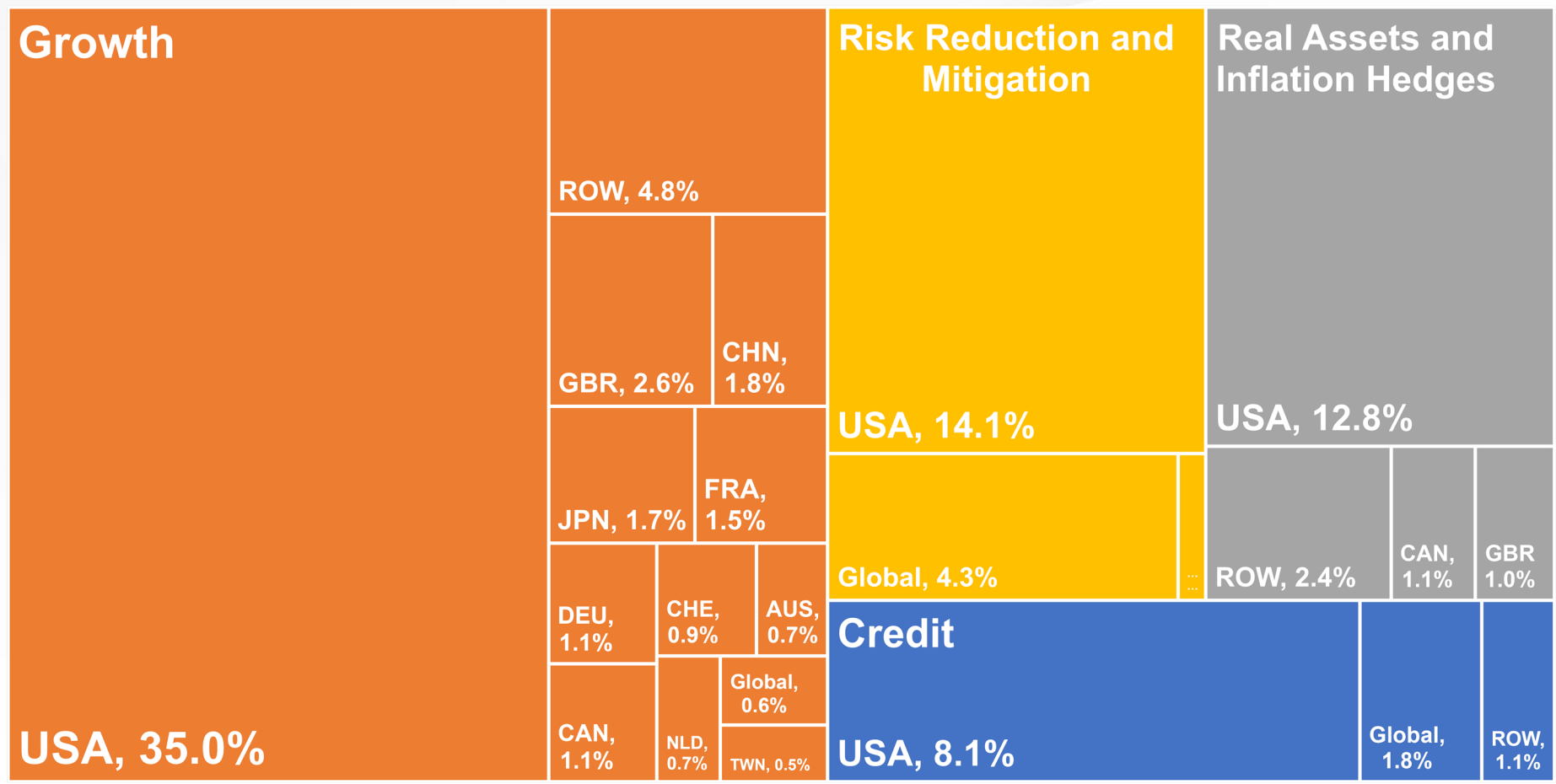
³ Geographic exposure is based on the domicile country of a given security/asset

SOURCE: MSCI BarraOne

Geographic Exposures by AUM* - Asset Categories as of April 2023 ex-overlays & hedges



■ Credit
 ■ Growth
 ■ Real Assets and Inflation Hedges
 ■ Risk Reduction and Mitigation



- USA - United States Of America
- AUS - Australia
- CAN - Canada
- CHE - Switzerland
- CHN - China
- DEU - Germany
- FRA - France
- GBR - United Kingdom
- Global - Multi-country exposure
- JPN - Japan
- NLD - Netherlands
- ROW - Rest of World ²
- TWN - Taiwan

*AUM = assets under management

¹ *Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change. Real estate and private equity data used is as of 12/31/2022

² "ROW - Rest of World" is sum of countries with weight below 0.5%

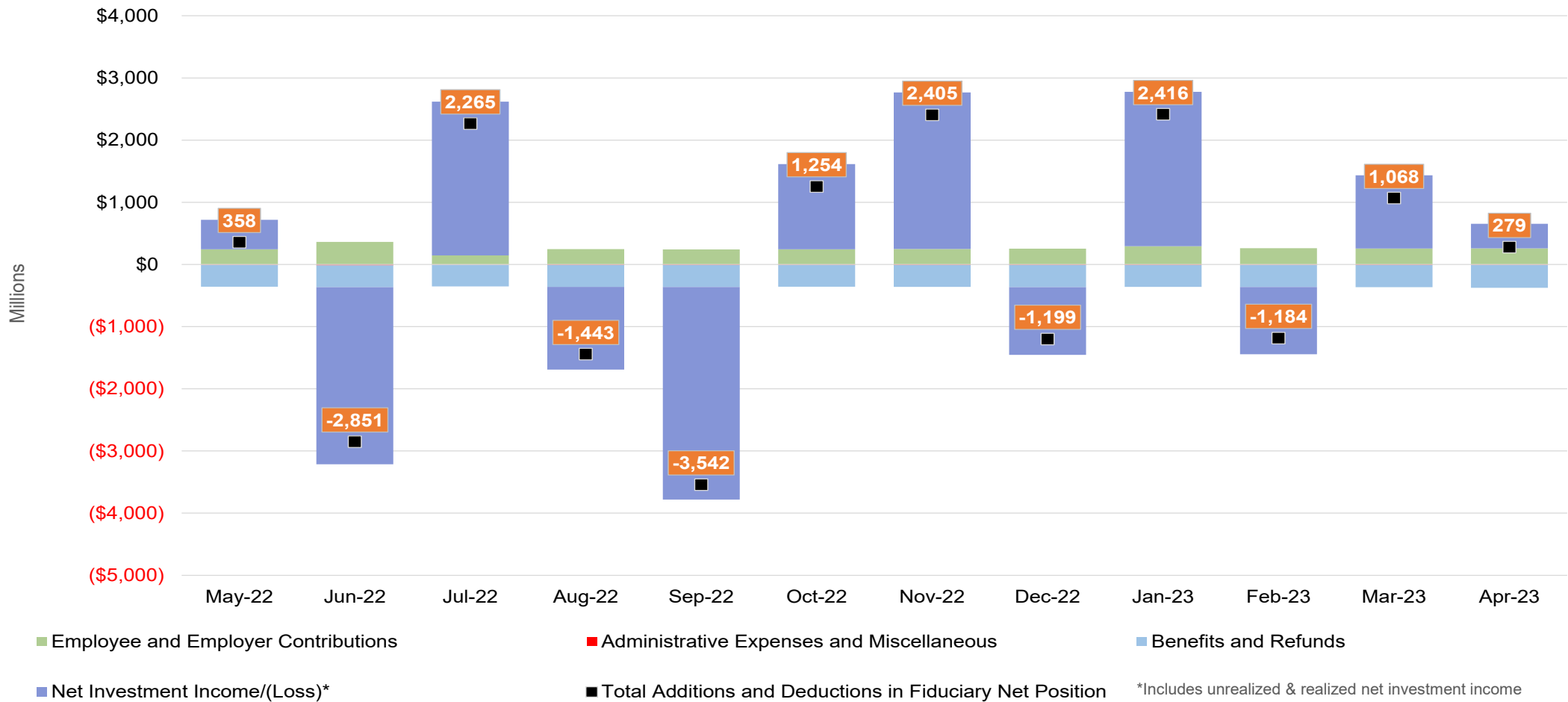
³ Geographic exposure is based on the domicile country of a given security/asset

SOURCE: MSCI BarraOne

Change In Fiduciary Net Position



Additions and Deductions in Fiduciary Net Position (Unaudited)



Fiscal Year	Negative Months	Positive Months	Total Net Position Change \$
FY-21	2	10	\$13.8 billion
FY-22	7	5	(\$2.5 billion)
FY-23	4	6	\$2.3 billion



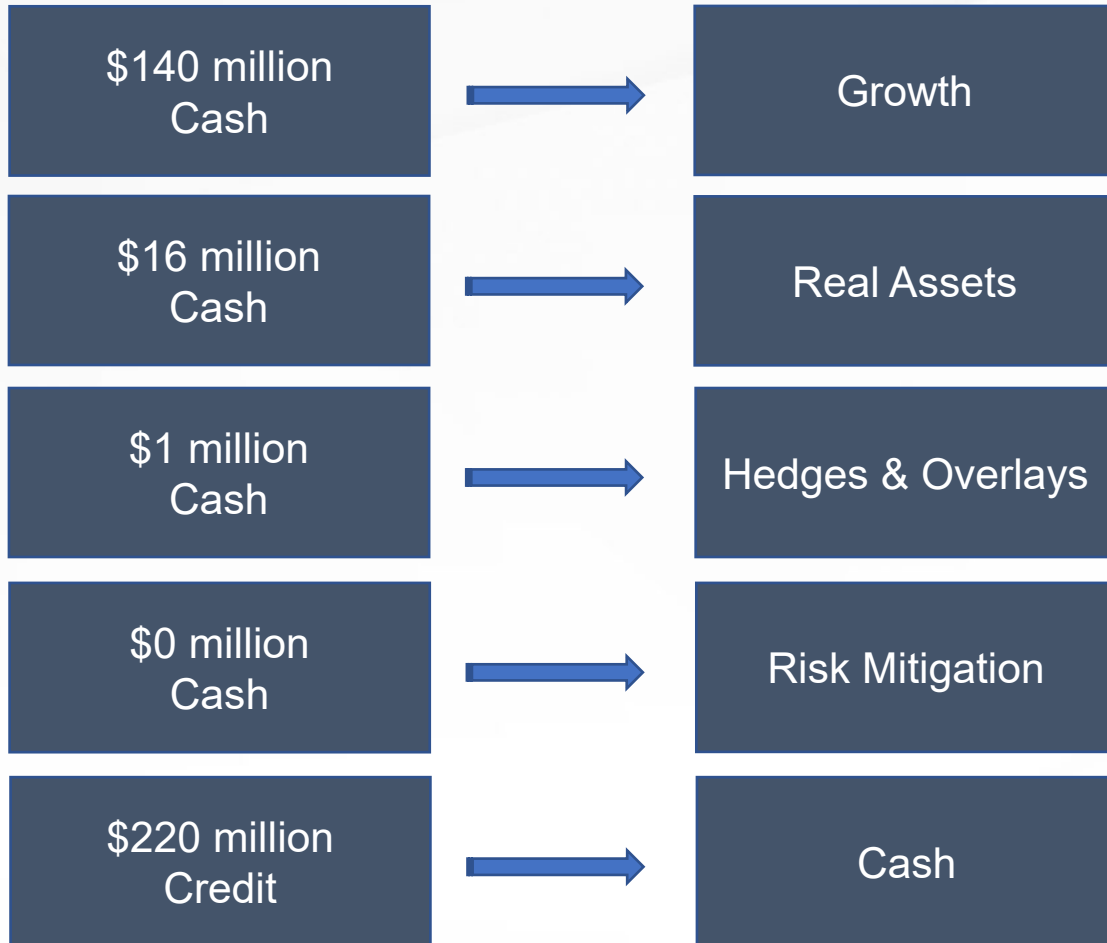
03 Portfolio Structural Updates

Portfolio Structural Updates



Portfolio Movements

Rebalancing Activity



Hedges & Overlays

Monthly Activity

Program	April Return	April Gain/(Loss)	Inception ¹ Gain/(Loss)
Currency Hedge ²	-0.1%	(\$1.0 Million)	\$1.3 Billion
Cash/Rebalance Overlay ³	0.7%	\$8.9 Million	\$303.3 Million

¹ Currency and overlay program inception dates are 8/2010 & 7/2019, respectively.

² LACERA's currency hedge program's 1-month return is calculated monthly whereas the monthly gain/loss amount for the same period is the net realized dollar amount at contract settlement over three monthly tranches.

³ LACERA's overlay program's 1-month return includes interest earned on the cash that supports the futures contracts.

Current Search Activity

Status of Active Searches – Subject to Change

Name	RFP Issued	Due Diligence	BOI Review
Real Assets Emerging Manager Program Search	✓	✓	Anticipated Q3 2023
OPEB Public Markets Passive Investment Management Search	✓	✓	June 14, 2023
Commercial Real Estate Brokers Search	✓		Anticipated Q3 2023



04 Key Initiatives & Operational Updates

Notable Initiatives and Operational Updates



Key Initiative Updates

- Jonathan Grabel was named to the Council of Institutional Investors U.S. Asset Owner Advisory Council
- The 2024 Strategic asset allocation study will begin in Q3 of this year
- The Investment Division is adhering to the 2023 Work Plan and Strategic Initiatives approved at the January 2023 BOI

Operational Updates

- Operational due diligence review in progress

Manager/Consultant Updates

Angelo Gordon – Real Estate – Will be acquired by TPG, a global alternative asset management firm. The transaction is expected to be completed by the fourth quarter of 2023. LACERA has 2 active relationships with Angelo Gordon - AG Europe Fund II and AG Asia Fund IV.

Lazard – Global Equity – Announced that Ken Jobs, CEO of Lazard Ltd. will retire effective October 1st, 2023. Peter Orszag, currently CEO of Financial Advisory will become the new CEO. Evan Russo continues to serve as CEO of Asset Management.

Team Searches and Vacancies

- Working on launching new searches
 - Deputy Chief Investment Officer
 - 1 - Search in progress
 - 1 – Principal Investment Officer
 - 2 – Senior Investment Officer
 - 2 – Financial Analyst-III
 - Financial Analyst-II
 - 3 searches in progress
 - 2 completed

Manager/Consultant Updates Continued



Manager/Consultant Updates

Parametric – Total Fund – In May, the CEO, Brian Langstraat decided to transition into a Senior Advisor role effective January 1st, 2024. Mr. Langstraat's CEO responsibilities will be transitioned through the remainder of 2023 to Tom Lee and Ranjit Kapila, who will lead Parametric as Co-Presidents.

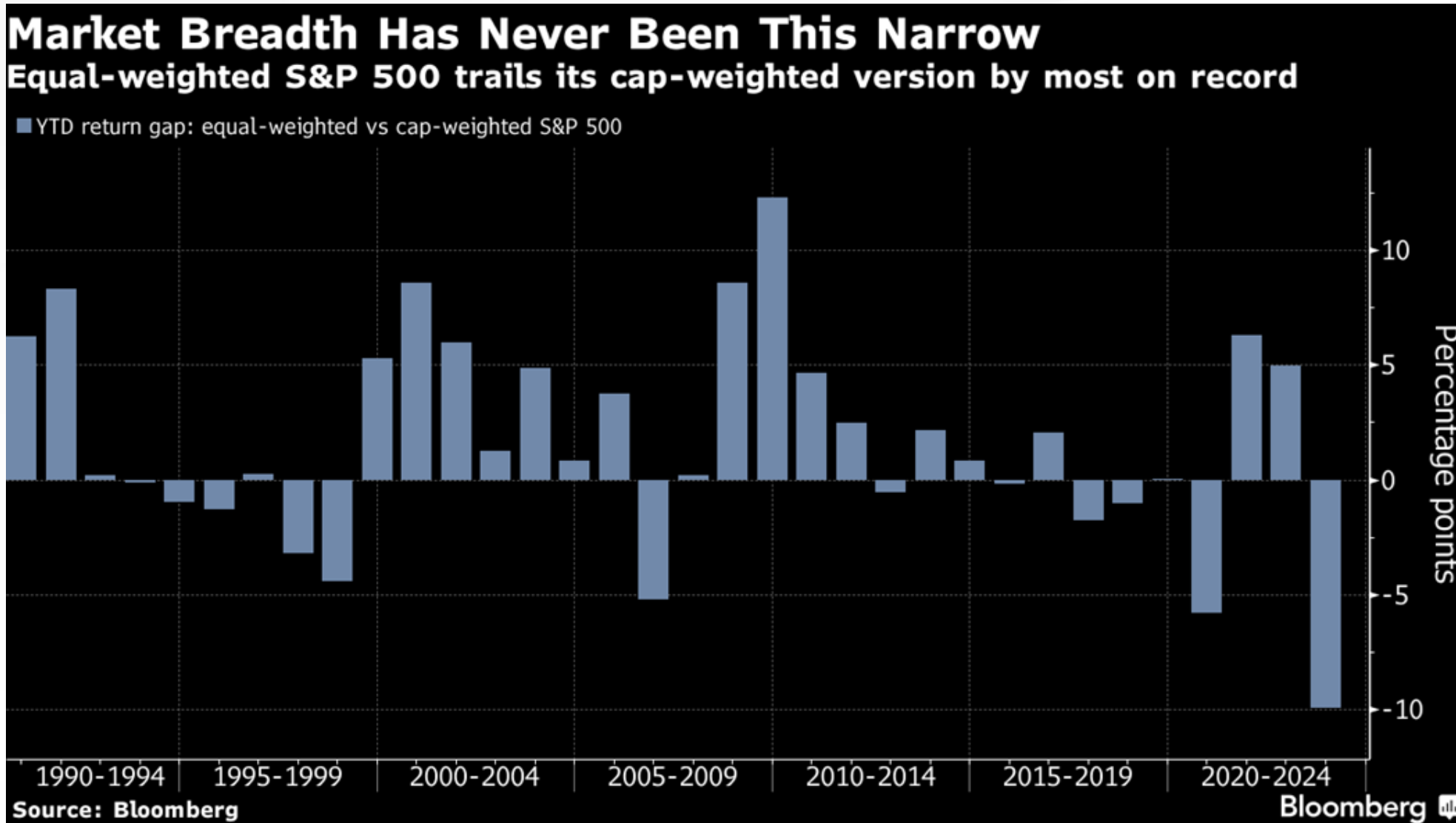
StepStone – Private Equity and Real Estate - has decided to close its Brazil office and wind down operations within that office over the next few months. Local team members may choose to relocate to other StepStone offices. The Firm still has a presence in Latin America as reflected in its offices in Mexico City and Santiago.



05 **Commentary**

Staff Chart of the Month

Narrow Equity Market Leadership at Historic Levels





06 Appendix

Quiet Period for Search Respondents



Real Assets Emerging Manager Program Discretionary Separate Account Manager Search

- ✓ BlackRock Investments, LLC
- ✓ ACRES Capital
- ✓ Aether Investment Partners
- ✓ Cloverlay
- ✓ ORG Portfolio Management
- ✓ Barings
- ✓ Belay Investment Group
- ✓ Encore Enterprises, Inc.
- ✓ Stable
- ✓ Cambridge Associates
- ✓ GCM Grosvenor
- ✓ The Townsend Group
- ✓ Cypress Creek Partners
- ✓ Hamilton Lane Advisors
- ✓ Neuberger Berman Group
- ✓ Wafra Inc.
- ✓ Artemis Real Estate Partners
- ✓ Hawkeye Partners, LP
- ✓ BlackRock
- ✓ Astarte Capital Partners
- ✓ Bentall Green Oak
- ✓ Clear Sky Advisers
- ✓ Clear Investment Group
- ✓ Poverni Sheikh Group
- ✓ Trilogy
- ✓ Stepstone
- ✓ Oak Street
- ✓ White Deer

OPEB Public Markets Passive Investment Management Search

- ✓ BlackRock Investments, LLC
- ✓ Northern Trust Investments, Inc
- ✓ RhumbLine Advisers
- ✓ State Street Global Advisors