

Chief Investment Officer Monthly Report

Board of Investments
November 9, 2022



Jonathan Grabel 
Chief Investment Officer

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION

Table of Contents

1. Market Environment
2. Portfolio Performance and Risk Updates
3. Portfolio Structural Updates
4. Key Initiatives and Operational Updates
5. Commentary
6. Appendix
 1. Compliance Report



Market Environment

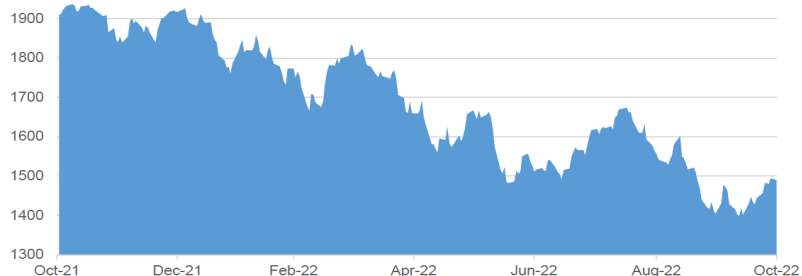


Global Market Performance as of October 31, 2022

MSCI ACWI Index (Global Equity Market)*

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
6.2	-7.5	-21.1	-20.2	4.8	5.0	8.0

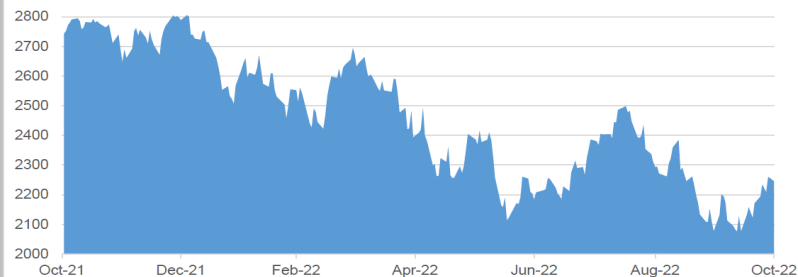
MSCI ACWI IMI Index 1-Year Performance



Russell 3000 Index (U.S. Equity Market)

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
8.2	-5.5	-18.4	-16.5	9.8	9.9	12.5

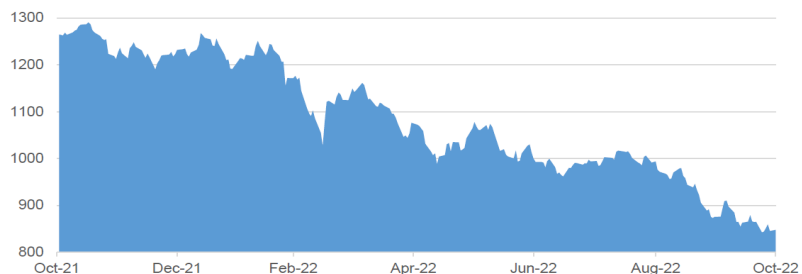
Russell 3000 1-Year Performance



MSCI Emerging Market Index

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
-3.1	-14.1	-29.4	-31.0	-4.4	-3.1	0.8

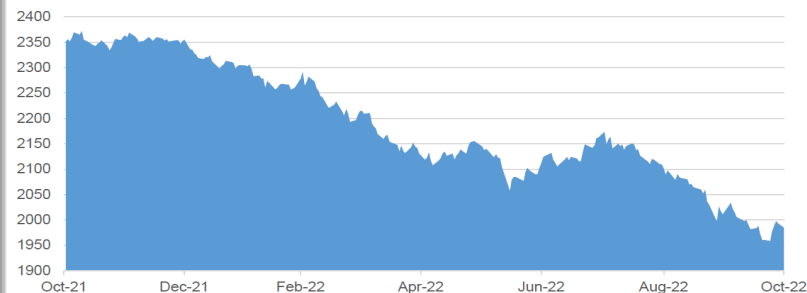
MSCI Emerging Markets 1-Year Performance



Barclays U.S. Aggregate Bond Index**

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
-1.3	-8.2	-15.7	-15.7	-3.8	-0.5	0.7

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



*Global Equity Policy Benchmark - MSCI ACWI IMI Index

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

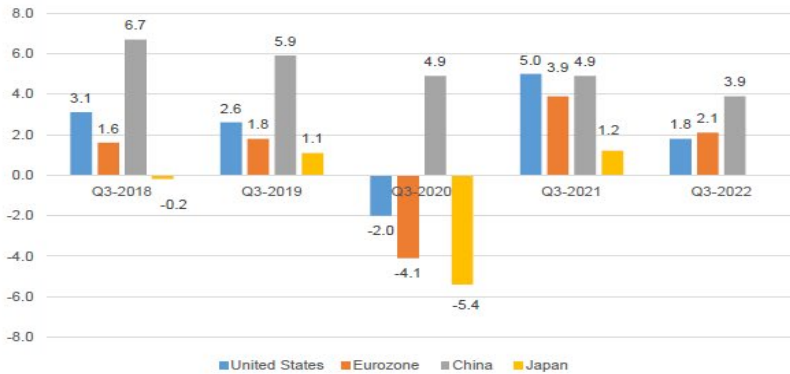
Source: Bloomberg



Key Macro Indicators*

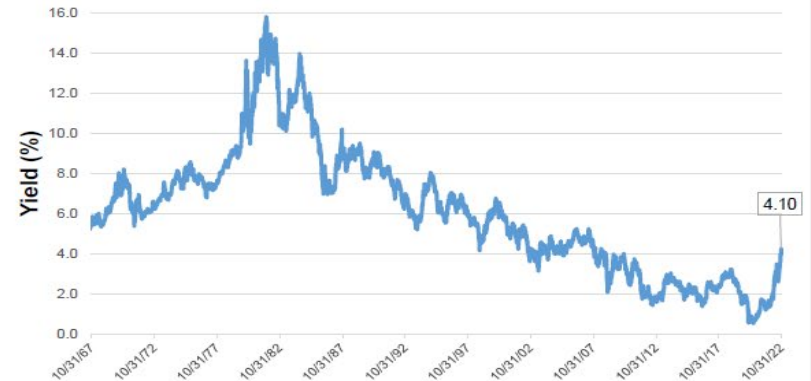
GDP Growth of Major Economies¹

Real GDP Growth YoY (%) - Last Five Years



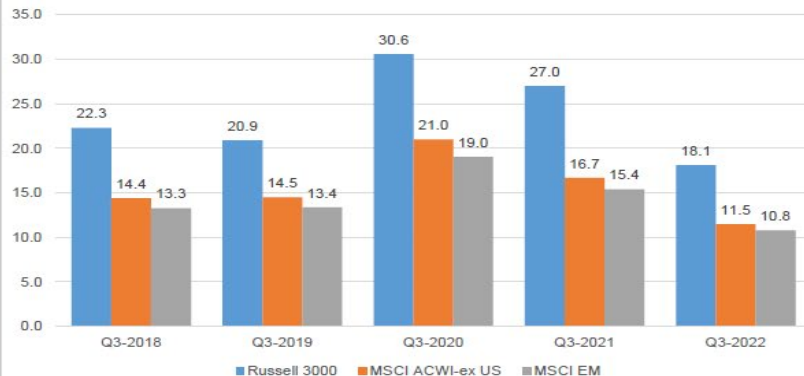
10-Year Treasury Yield²

Historical 10-Year Treasury Yield



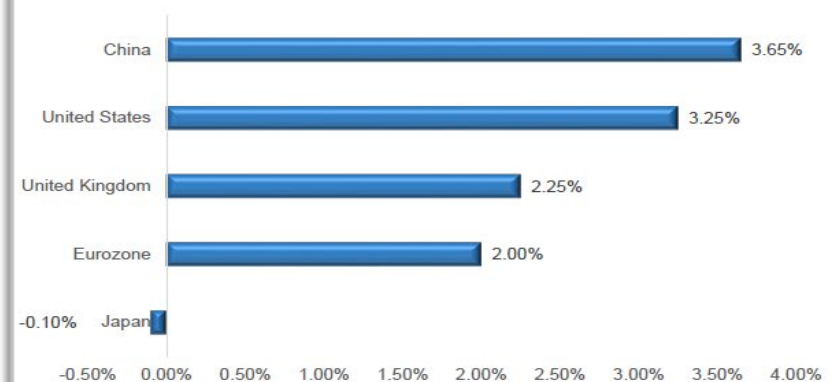
World Equity Valuation³

Price-to-Earnings - Last Five Years



Central Bank Rates⁴ (as of 10/31/2022)

Central Bank Rates



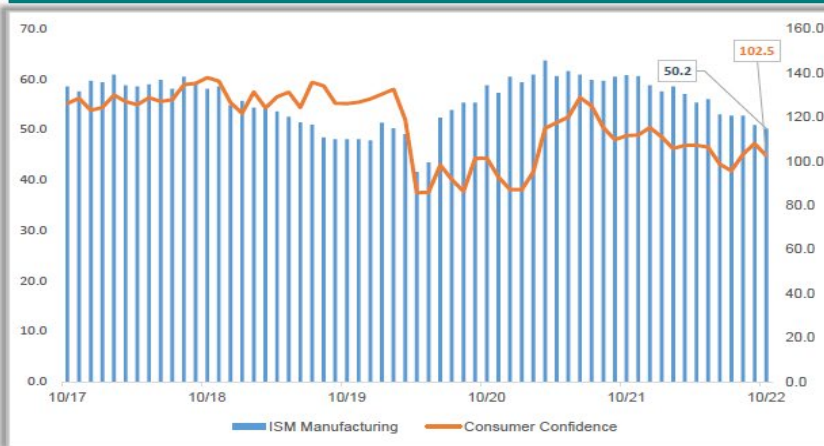
*The information on the "Key Macro Indicators" charts is the best available data as of 10/31/22 and may not reflect the current market and economic environment.

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

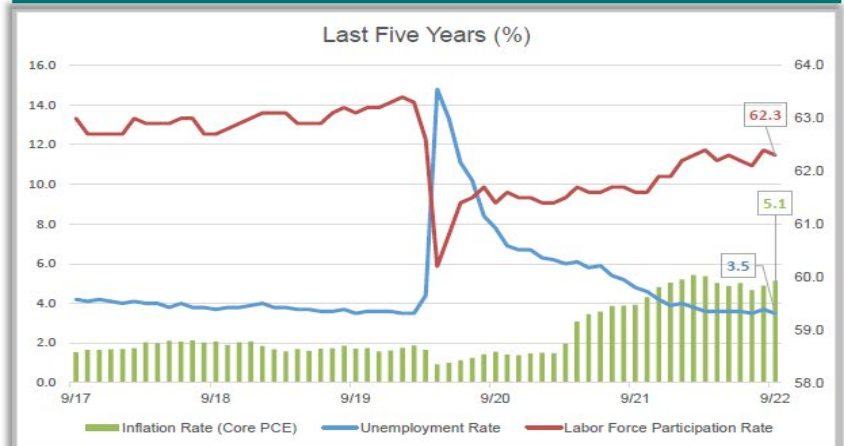


Key Macro Indicators*

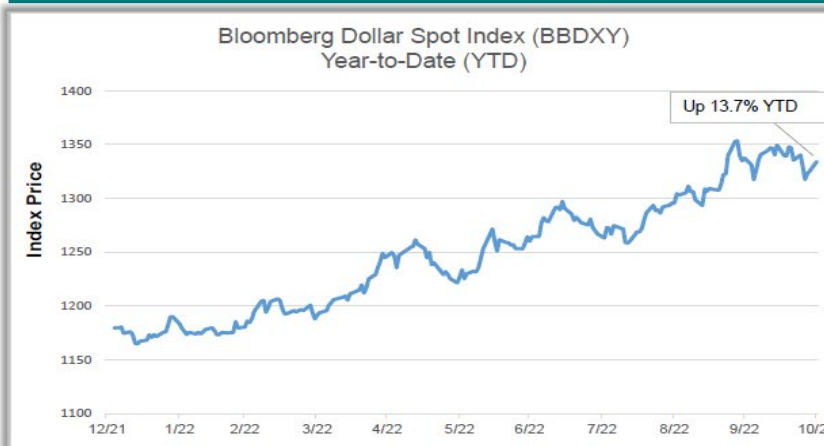
Consumer Confidence & ISM Manufacturing¹



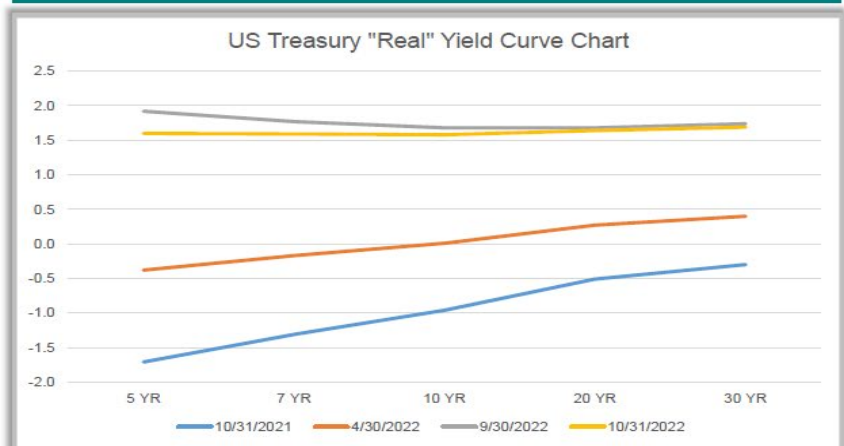
U.S. Inflation, Unemployment, & Labor Force Participation²



Performance of US Dollar vs. Leading Global Currencies³



U.S. Treasury "Real" Yield Curve⁴



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

*The information on the "Key Macro Indicators" charts is the best available data as of 10/31/22 and may not reflect the current market and economic environment.



Market Themes and Notable Items to Watch

Recent Themes

- Inflation remains a focus for consumers, central bankers, and investors
 - The Consumer Price Index increased 8.2% for the year ended September 2022, following a rise of 8.3% for the year ended August 2022
- The International Monetary Fund downgraded its 2023 outlook for the global economy while saying that “for many people 2023 will feel like a recession”
- The U.S. 10-year Treasury yield ended October at 4.10%, up from 1.52% at the end of 2021 and 0.93% at the end of 2020
 - 30-year fixed consumer mortgage rates were above 7% in October
- Global equities (MSCI All Country World Investable Market Index) gained 6.2% in October and are now down 21.1% in 2022

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
 - SEC approves 2010 Dodd-Frank Act clawback rule requiring executive pay to be recovered if based on erroneous financial reports
 - Council of Institutional Investors new policy suggests more limits to multiple board service
- Covid-19
 - Covid variants, cases, transmission, vaccines
 - Economic and consumer behavior implications



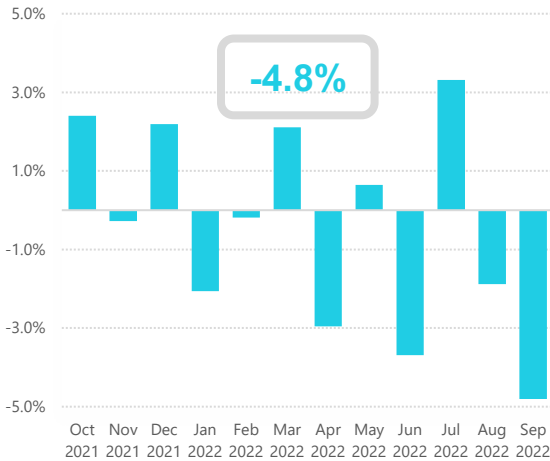
Portfolio Performance & Risk Updates



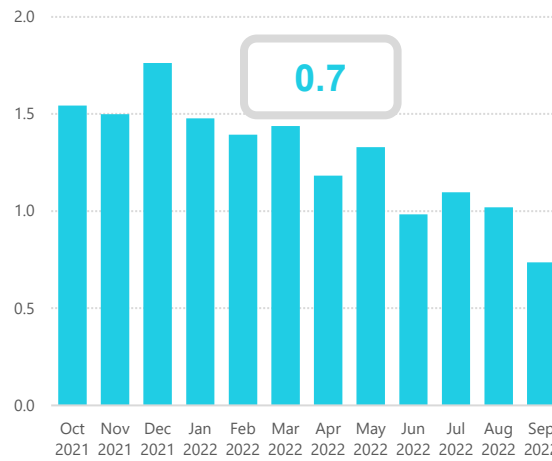
Total Fund Summary

as of September 2022

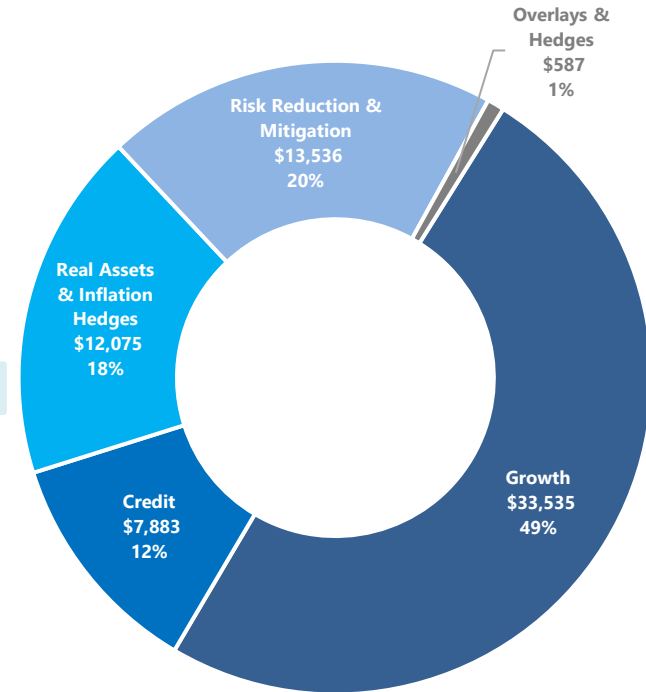
Monthly Return (net)



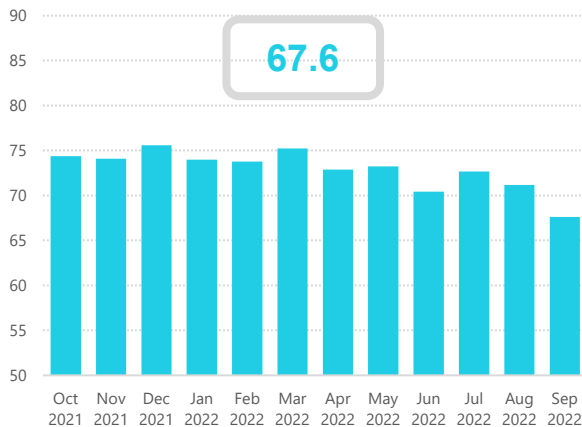
Sharpe Ratio (3-year annualized)



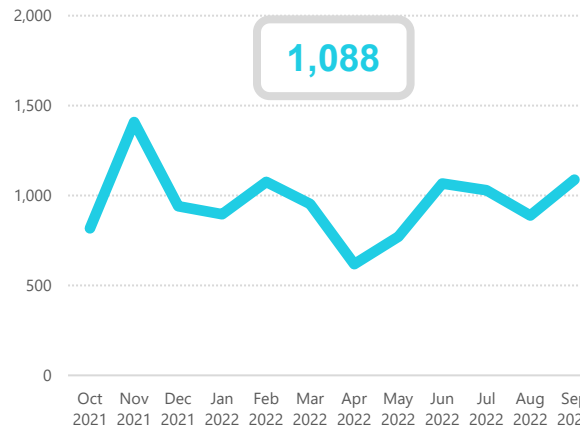
Asset Allocation (\$ millions)



Total Market Value (\$ billions)



Cash (\$ millions)

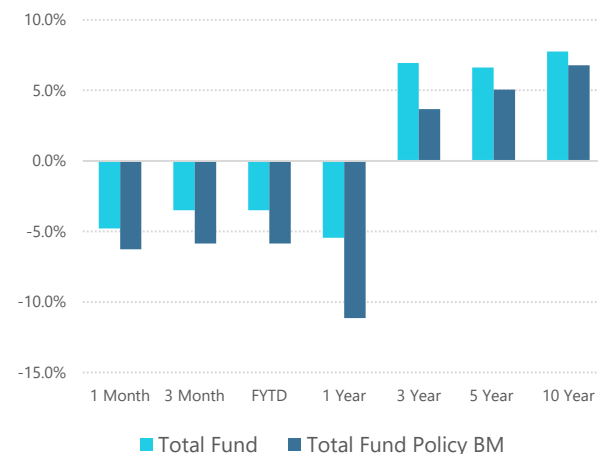


Historical Net Performance

as of September 2022

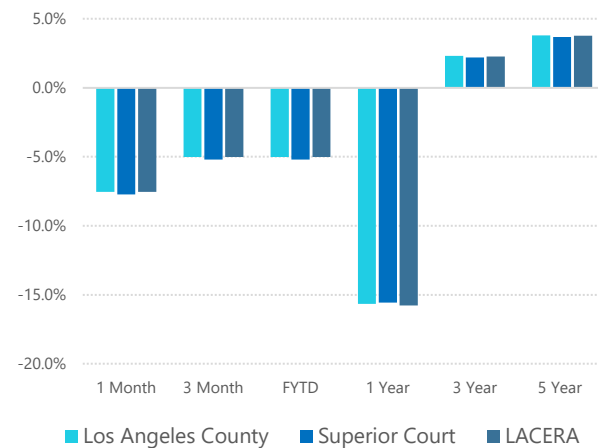
LACERA Pension Fund

	Market Value (\$ millions)	% of Total Fund	Interim Target	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	10 Year
Total Fund	67,616	100.0%	100.0%	-4.8%	-3.5%	-3.5%	-5.5%	6.9%	6.6%	7.7%
Total Fund Policy BM				-6.3%	-5.9%	-5.9%	-11.1%	3.7%	5.0%	6.8%
7% Annual Hurdle Rate				0.6%	1.7%	1.7%	7.0%	7.0%	7.0%	7.0%
Growth	33,535	49.6%	53.0%	-5.9%	-4.9%	-4.9%	-9.5%	10.4%		
Growth Policy BM				-8.4%	-8.5%	-8.5%	-16.7%	6.1%		
Credit	7,883	11.7%	11.0%	-1.9%	-0.6%	-0.6%	-5.9%	2.7%		
Credit Policy BM				-1.5%	-0.9%	-0.9%	-9.2%	0.3%		
Real Assets & Inflation Hedges	12,075	17.9%	17.0%	-5.2%	-2.1%	-2.1%	9.2%	7.6%		
Real Assets & Inflation Hedges Policy BM				-5.7%	-3.1%	-3.1%	6.4%	7.4%		
Risk Reduction & Mitigation	13,536	20.0%	19.0%	-3.1%	-3.7%	-3.7%	-10.7%	-1.2%		
Risk Reduction & Mitigation Policy BM				-3.5%	-4.0%	-4.0%	-11.5%	-2.2%		
Overlays & Hedges	587	0.9%		-6.2%	13.5%					



OPEB Master Trust¹

	Market Value (\$ millions)	% of Master Trust	Interim Target	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year
OPEB MASTER TRUST	2,378			-7.5%	-5.0%	-5.0%	-15.7%	2.3%	3.8%
Los Angeles County	2,315	97.3%	—	-7.5%	-5.0%	-5.0%	-15.7%	2.3%	3.8%
Superior Court	53	2.2%	—	-7.7%	-5.2%	-5.2%	-15.6%	2.2%	3.7%
LACERA	11	0.4%	—	-7.5%	-5.0%	-5.0%	-15.8%	2.3%	3.8%
OPEB Growth	1,107	46.6%	47.5%	-9.6%	-6.6%	-6.6%	-21.0%	3.9%	4.4%
OPEB MT Growth Policy BM				-9.6%	-7.1%	-7.1%	-21.5%	3.5%	4.1%
OPEB Credit	465	19.6%	19.0%	-3.3%	-0.3%	-0.3%	-10.1%	-1.0%	--
OPEB MT Credit Policy BM				-2.9%	-0.4%	-0.4%	-10.2%	-0.6%	--
OPEB Real Assets & Inflation Hedges	472	19.8%	20.0%	-9.8%	-7.7%	-7.7%	-9.5%	1.9%	--
OPEB MT RA & IH Policy BM				-4.1%	-2.4%	-2.4%	-4.7%	3.6%	--
OPEB Risk Reduction & Mitigation	333	14.0%	13.5%	-3.4%	-3.7%	-3.7%	-11.7%	-2.4%	0.6%
OPEB MT RR & M Policy BM				-4.3%	-4.9%	-4.9%	-12.8%	-2.9%	0.2%
Operational Cash	0	0.0%							

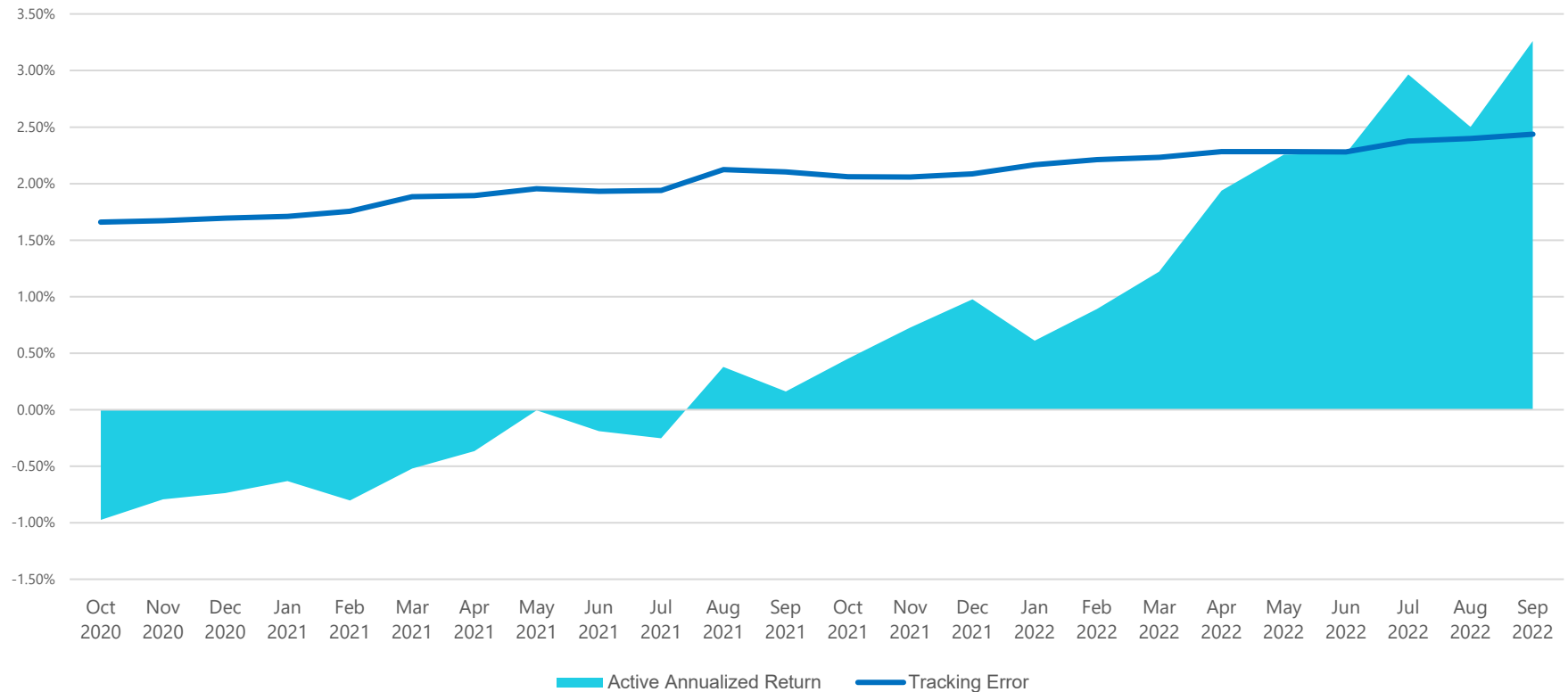


1. Market value differences between the sub-trusts and functional composites are due to operational cash.

Performance Based Risk

as of September 2022

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



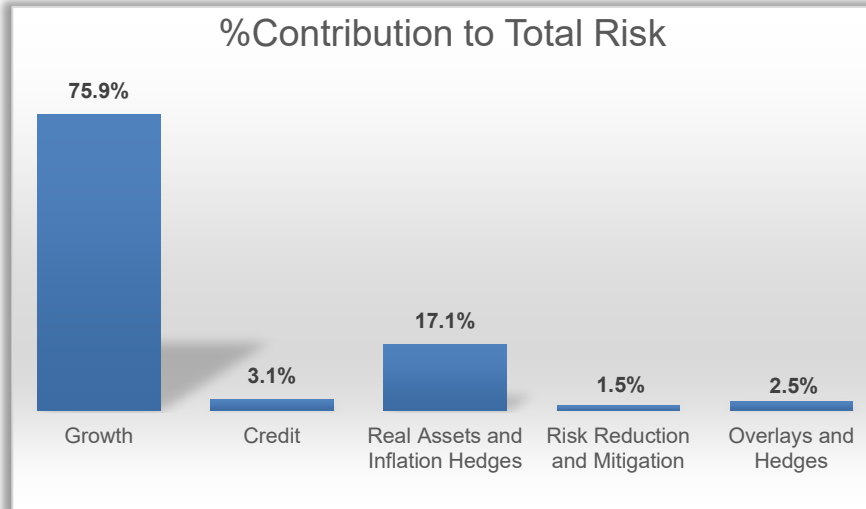
Period Ending	Annualized Return	Annualized Benchmark Return	Annualized Active Return	Tracking Error
Sep 2022	6.9%	3.7%	3.3%	2.4%

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 September 2022 (Preliminary)



	%Weight	% Cont. to Total Risk	Standalone Total Risk	Standalone BMK Risk**
Total Fund			13.8	13.3
Growth	49.3%	75.9%	21.5	20.1
Global Equity	29.9%	38.8%	18.9	19.1
Private Equity	17.8%	34.1%	29.8	27.9
Non-Core Private Real Estate	1.6%	3.0%	38.9	19.7
Credit	11.7%	3.1%	4.7	5.7
Liquid Credit	6.6%	2.2%	6.0	5.7
Illiquid Credit	5.1%	0.9%	4.3	5.7
Real Assets & Inflation Hedges	18.1%	17.1%	14.7	14.4
Core Private Real Estate	6.7%	7.6%	22.0	19.7
Natural Resources & Commodities	3.8%	3.2%	16.4	21.8
Infrastructure	4.9%	5.8%	18.2	18.4
TIPS	2.7%	0.6%	6.5	6.5
Risk Reduction and Mitigation	19.8%	1.5%	5.5	5.4
Investment Grade Bonds	7.8%	0.6%	6.1	6.0
Diversified Hedge Funds	6.1%	0.6%	4.0	0.2
Long-Term Government Bonds	4.3%	0.2%	12.5	12.5
Cash	1.6%	0.0%	-	-
Overlays and Hedges	1.2%	2.5%	-	-

*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 3/31/2022

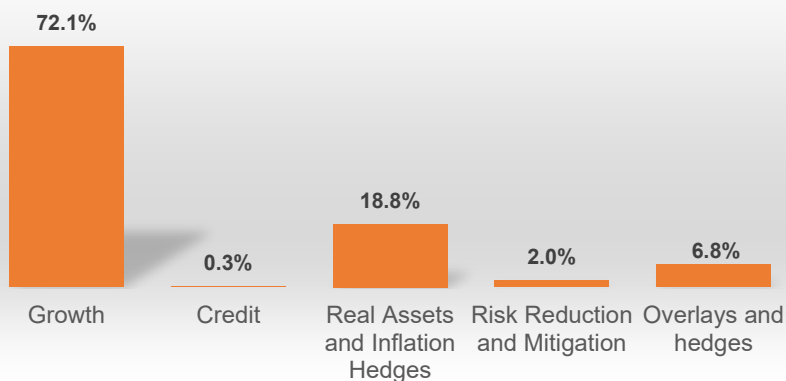
**BMK Risk stands for Benchmark Risk



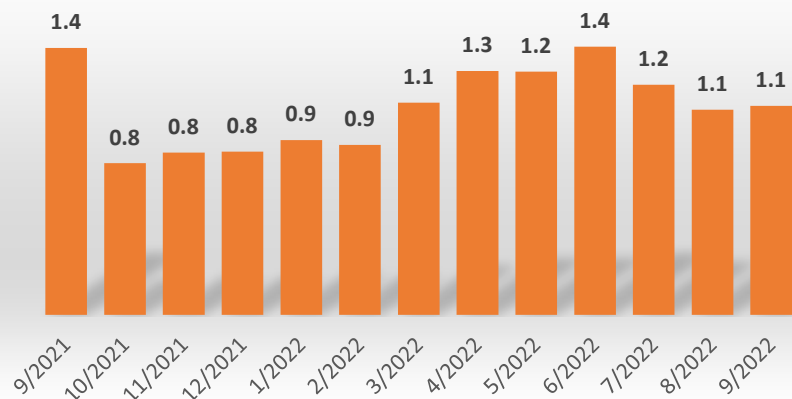
Total Fund Forecast Active Risk*

as of September 2022 (Preliminary)

Active Risk Contribution



Active Risk



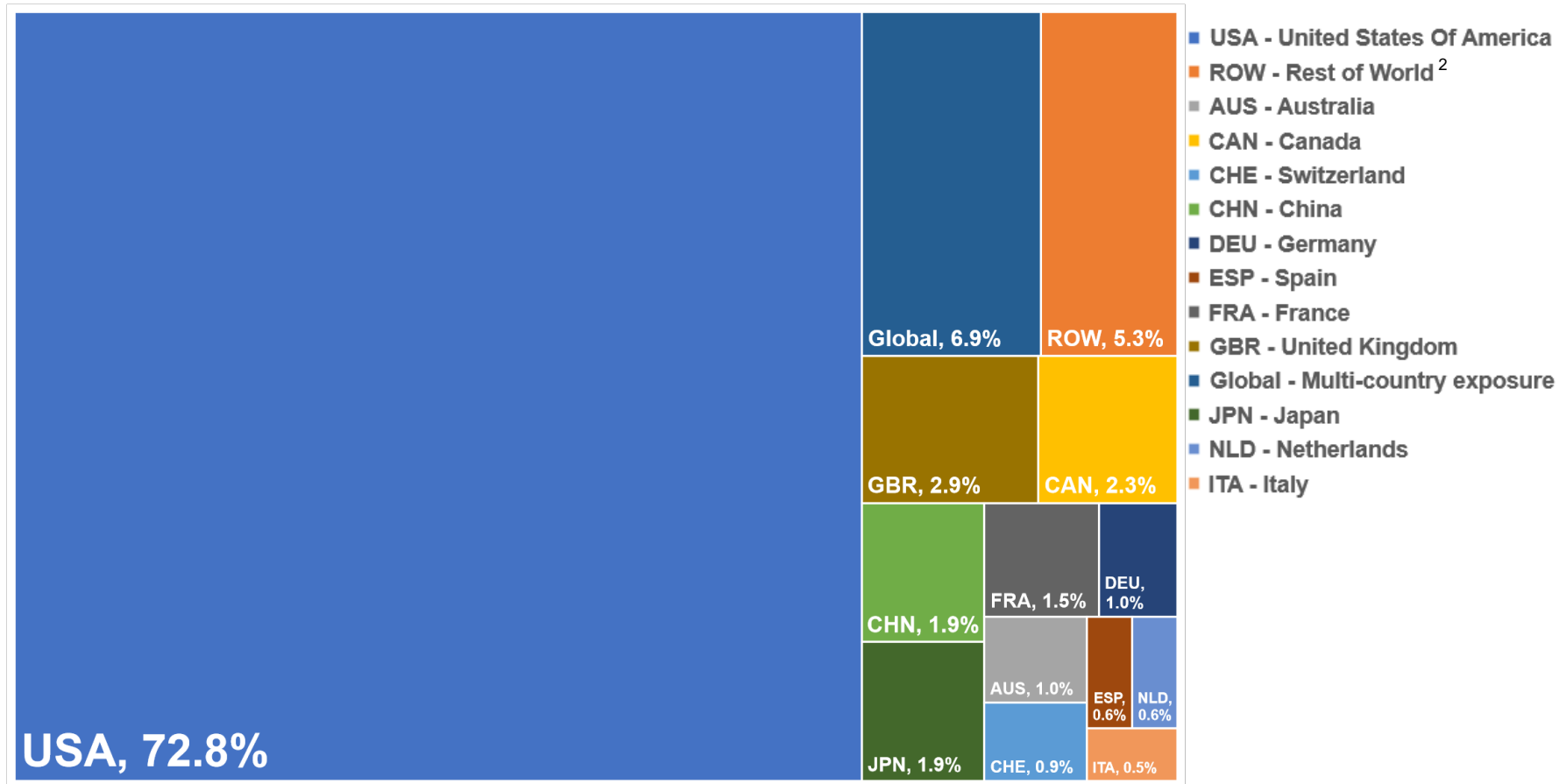
	%Weight	Active Weight%	Active Risk	Active Risk Allocation	Active Risk Selection
Total Fund			1.07	-0.15	1.23
Growth	49.3%	-3.74%	0.77	-0.13	0.90
Global Equity	29.9%				
Private Equity	17.8%				
Non-Core Private Real Estate	1.6%				
Credit	11.7%	0.66%	0.00	-0.03	0.03
Liquid Credit	6.6%				
Illiquid Credit	5.1%				
Real Assets & Inflation Hedges	18.1%	1.10%	0.20	-0.03	0.23
Core Private Real Estate	6.7%				
Natural Resources & Commodities	3.8%				
Infrastructure	4.9%				
TIPS	2.7%				
Risk Reduction and Mitigation	19.8%	0.82%	0.02	-0.04	0.06
Investment Grade Bonds	7.8%				
Diversified Hedge Funds	6.1%				
Long-Term Government Bonds	4.3%				
Cash	1.6%				
Overlays and Hedges	1.2%	1.17%	0.07	0.07	-

*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 3/31/2022



Geographic Exposures by AUM* - Total Fund

as of September 2022 (Preliminary) ex-overlays and 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 3/31/2022

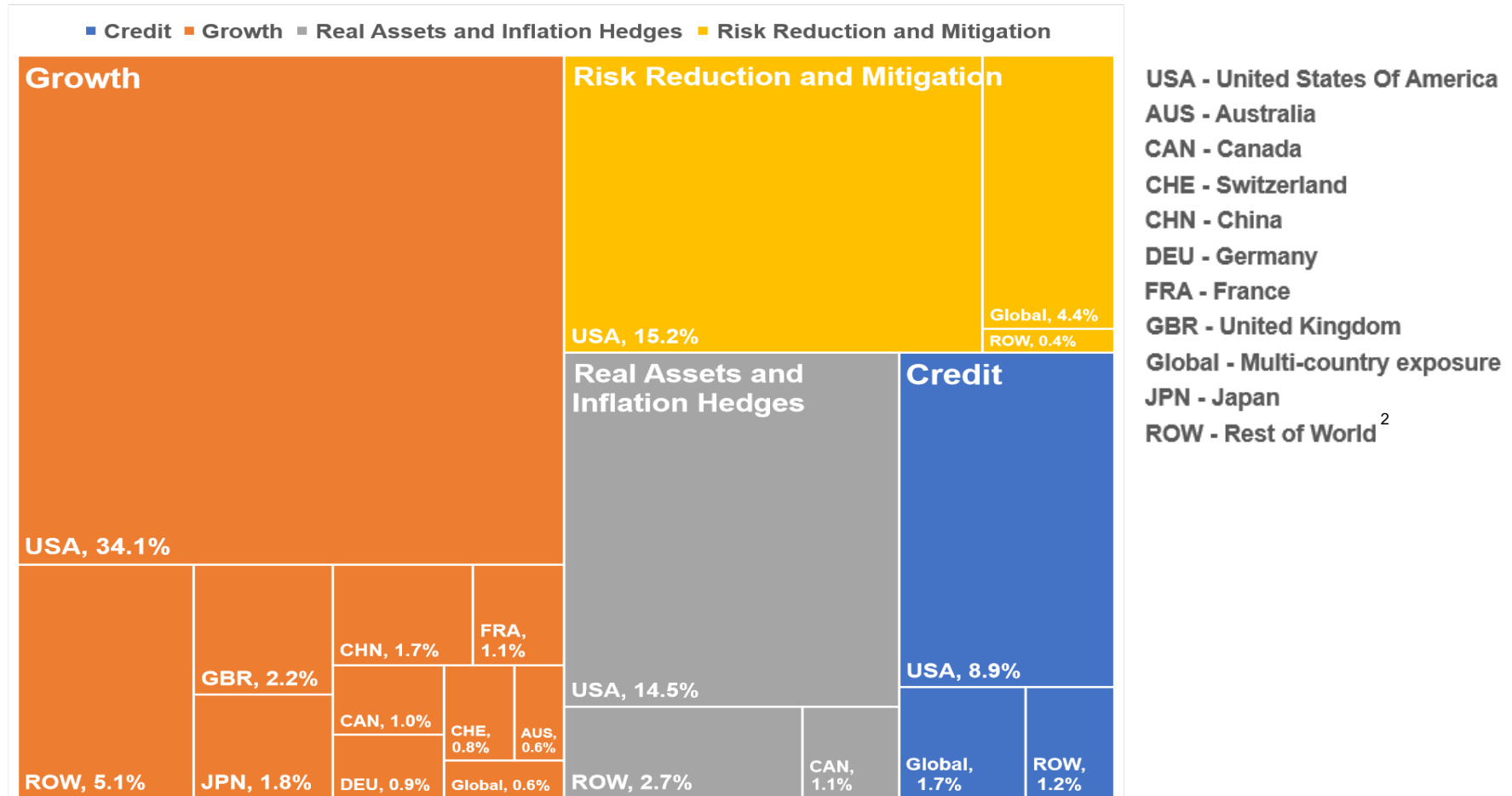
² "ROW - Rest of World" is sum of countries with weight below 0.5%

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



Geographic Exposures by AUM* - Asset Categories

as of September 2022 (Preliminary) ex-overlays and hedges



*AUM = assets under management

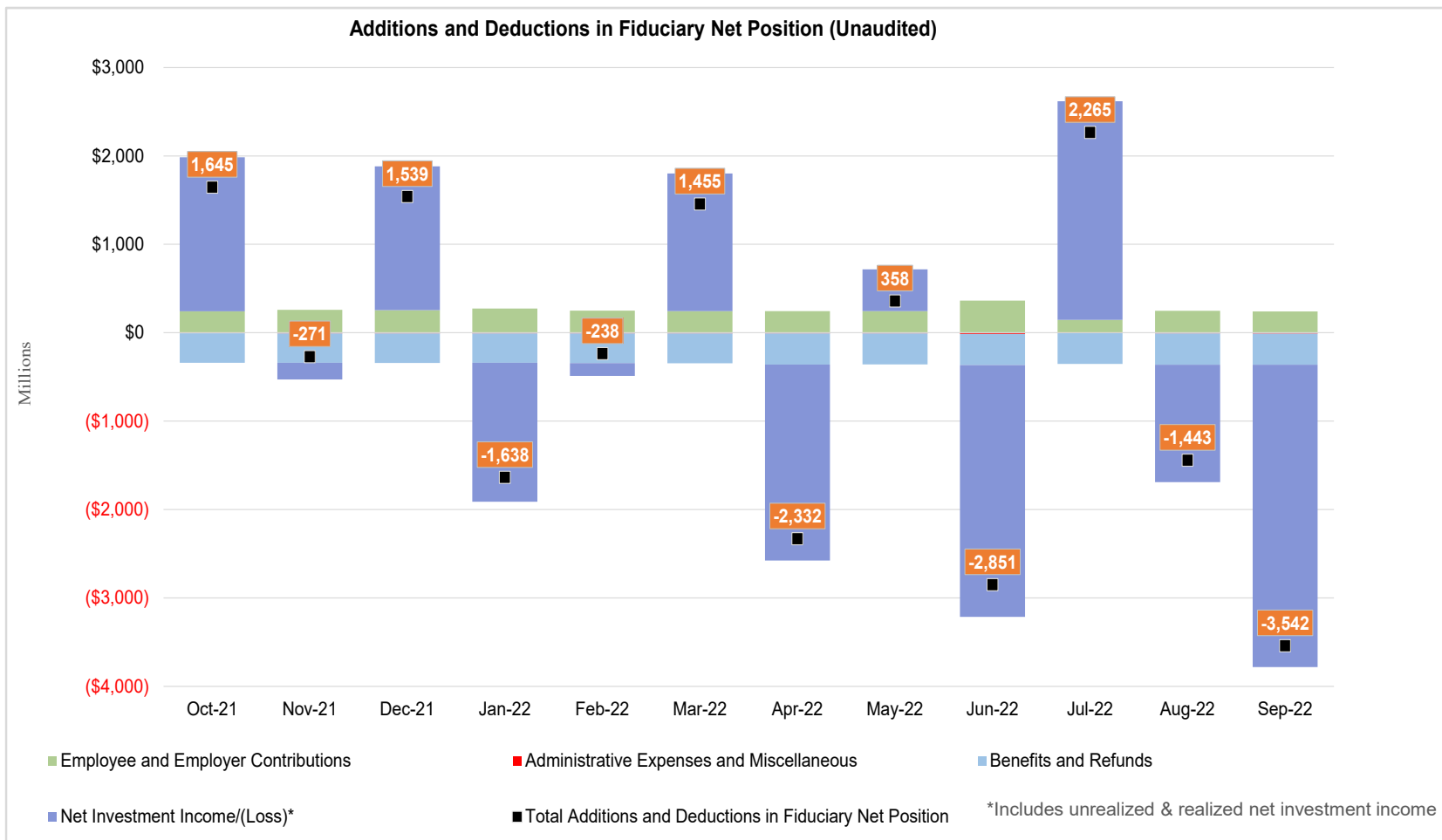
¹ *Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change. Real estate and private equity data used is as of 3/31/2022

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



Change In Fiduciary Net Position



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	2	1	(\$2.7 billion)



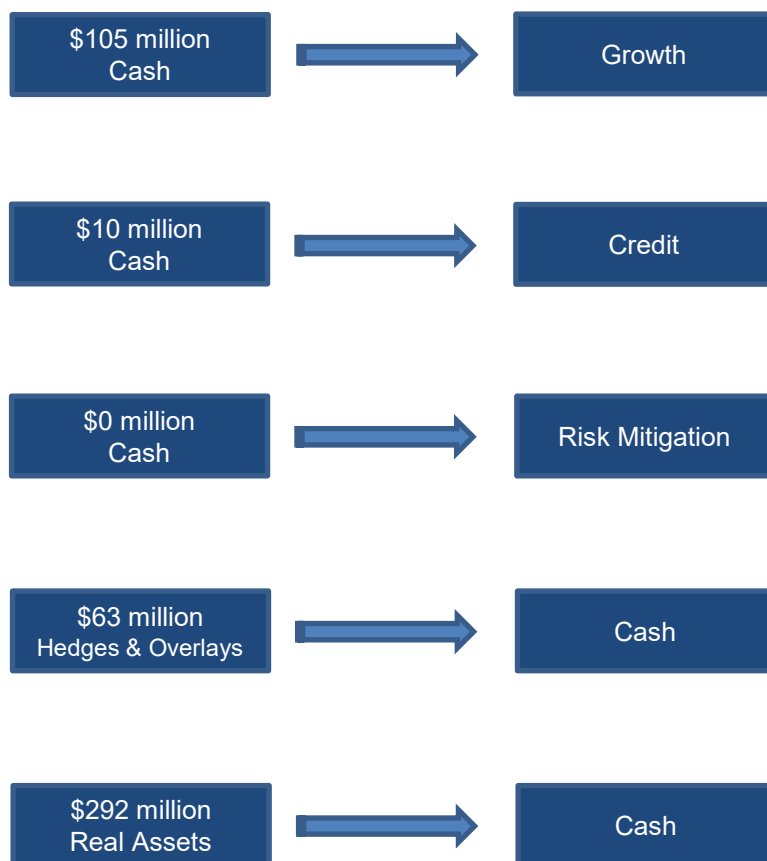
Portfolio Structural Updates



Portfolio Structural Updates

Portfolio Movements

Rebalancing Activity



Hedges & Overlays

Monthly Activity

Program	Sep Return	Sep Gain/(Loss)	Inception* Gain/(Loss)
Currency Hedge**	1.9%	\$63.3 Million	\$1.4 Billion
Cash/Rebalance Overlay***	-4.7%	(\$153.1 Million)	\$56.2 Million

Current Search Activity

There are no active public searches at this time

The quiet period list will be updated when the next public search is released

*Currency and overlay program inception dates are 9/2010 & 7/2019, respectively.

** 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.

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



Key Initiatives and Operational Updates



Notable Initiatives and Operational Updates

Key Initiative Updates

- Implementation is ongoing for the new strategic asset allocation final policy targets and benchmarks
- Annual Work Plan development is underway

Operational Updates

- Annual contract compliance review underway
- Annual DEI diligence of all investment partners is underway

Manager/Consultant Updates

State Street Institutional Services (SSB) – Total Fund – Eric Lim, Vice President in Client Service, will be taking a new role within State Street at the beginning of November. A successor to Mr. Lim will be identified at a later date.

Team Searches and Open Positions

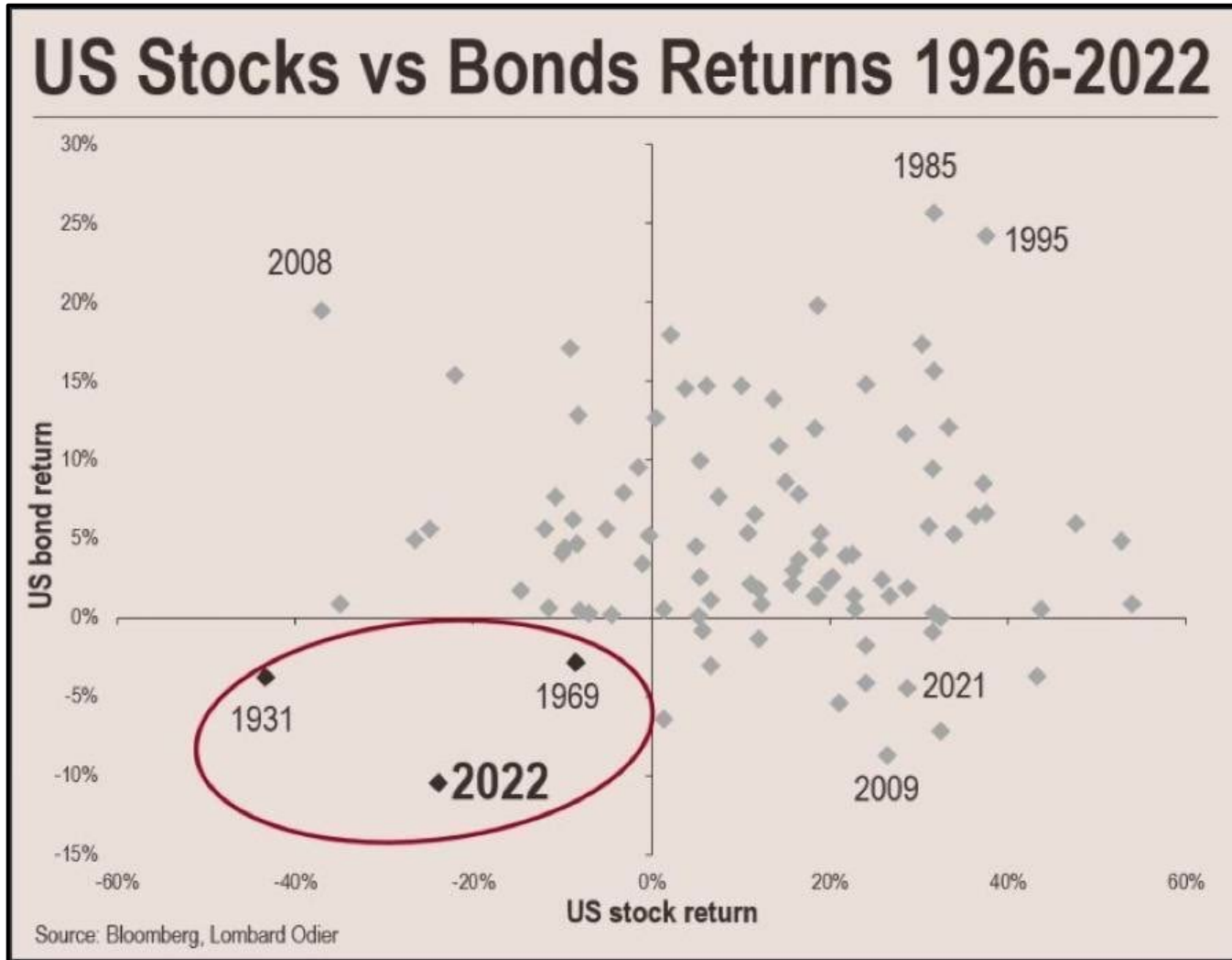
- Working on launching new searches
 - 1 – Deputy Chief Investment Officer
 - 1 – Principal Investment Officer
 - 2 – Senior Investment Officer
 - 1 search in progress
 - 3 – Financial Analyst-III
 - 3 searches in progress
 - 3 – Financial Analyst-II

Commentary



Staff Chart of the Month

US Stocks vs Bonds Returns (1926-2022)

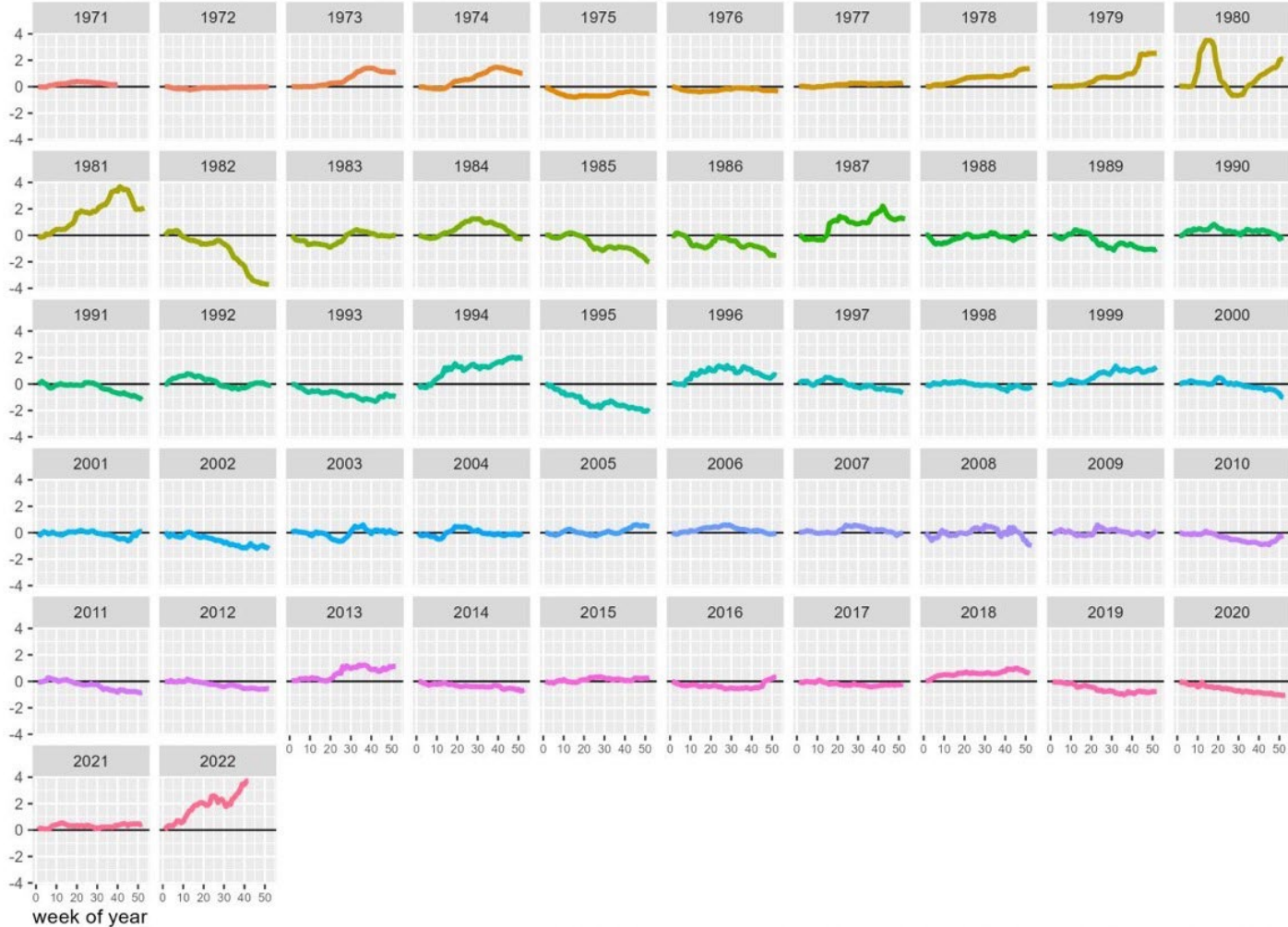


Staff Chart of the Month

2022 Experienced One of the Steepest Paths of U.S. Mortgage Rates Since 1971

The path of U.S. mortgage rates by year

percentage point change in U.S. weekly average 30-year fixed mortgage rate from first week of the year



@lenkiefier | Data source: Freddie Mac Primary Mortgage Market Survey (PMMS) through 2022-10-20
Week 1 of 1971 was the week of April 2, when the PMMS began



Appendix



Compliance Monitor

This report highlights operational and compliance metrics monitored by the Investment Division
As of September 2022*

LACERA PENSION FUND

8

GROWTH

Total # of Advisory

GROWTH

Global Equity

- Asset Allocation Policy Compliance
- Investment Guideline Compliance
- Emerging Manager Program
- # of Sudan/Iran Holdings Held by Managers

Quarterly Review Status	# of Advisory	Notes
✓		
✓		
✓		
✓	8	8 issuers held, totaling \$24.0 mm in market value

Private Equity - Growth**

- Asset Allocation Policy Compliance
- Guideline Compliance by Strategy
- Guideline Compliance by Geographic Location
- Investment Exposure Limit

Quarterly Review Status	# of Advisory	Notes
✓		
✓		
✓		
✓		

Non-Core Private Real Estate**

(See Real Assets & Inflation Hedges - Core Private Real Estate section)

Quarterly Review Status	# of Advisory	Notes

2

CREDIT

Total # of Advisory

CREDIT

Liquid Credit, Illiquid Credit**

- Asset Allocation Policy Compliance
- Investment Guideline Compliance
- Emerging Manager Program
- # of Sudan/Iran Holdings Held by Managers

Quarterly Review Status	# of Advisory	Notes
✓		
✓		
✓		
✓	2	2 issuers held, totaling \$4.8 mm in market value

Compliance Monitor

This report highlights operational and compliance metrics monitored by the Investment Division
As of September 2022*

LACERA PENSION FUND

1

REAL ASSETS & INFLATION HEDGES

Total # of Advisory

REAL ASSETS & INFLATION HEDGES****

Core Private Real Estate**

Asset Allocation Policy Compliance

✓

Guideline Compliance by Strategy (Core/Non-Core)

✓

Guideline Compliance by Manager

✓

Guideline Compliance by Property Type

✓

Guideline Compliance by Geographic Location

✓

Guideline Compliance by Leverage

✓

Quarterly Review Status

of Advisory

Notes

1

One manager is 40% of the core risk category which exceeds the 35% limit. The actual allocations of the portfolio may fall outside of the ranges as the portfolio makes its Board approved strategic transition.

Natural Resources & Commodities***

Asset Allocation Policy Compliance

✓

Investment Guideline Compliance

✓

of Sudan/Iran Holdings Held by Managers

✓

Infrastructure

Asset Allocation Policy Compliance

✓

Investment Guideline Compliance

✓

of Sudan/Iran Holdings Held by Managers

✓

TIPS

Asset Allocation Policy Compliance

✓

Investment Guideline Compliance

✓

of Sudan/Iran Holdings Held by Managers

✓

Compliance Monitor

This report highlights operational and compliance metrics monitored by the Investment Division
As of September 2022*

LACERA PENSION FUND

2

RISK REDUCTION & MITIGATION

Total # of Advisory

RISK REDUCTION & MITIGATION	Quarterly Review Status	# of Advisory	Notes
Investment Grade Bonds			
Asset Allocation Policy Compliance	✓		
Investment Guideline Compliance	✓		
Emerging Manager Program	✓		
# of Sudan/Iran Holdings Held by Managers	✓	2	2 issuers held, totaling \$0.7 mm in market value
Diversified Hedge Funds**			
Asset Allocation Policy Compliance	✓		
Portfolio Level Compliance	✓		
Direct Portfolio Manager Guideline Compliance	✓		
Long-term Government Bonds			
Asset Allocation Policy Compliance	✓		
Investment Guideline Compliance	✓		
Emerging Manager Program	✓		
# of Sudan/Iran Holdings Held by Managers	✓		
Cash			
Asset Allocation Policy Compliance	✓		
Investment Guideline Compliance	✓		
# of Sudan/Iran Holdings Held by Managers	✓		

Compliance Monitor

This report highlights operational and compliance metrics monitored by the Investment Division
As of September 2022*

INVESTMENT OPERATIONS

6
INVESTMENT OPERATIONS
Total # of Advisory

INVESTMENT OPERATIONS	Quarterly Review Status	# Advisory	Notes
Securities Lending			
Investment Guideline Compliance	✓		
\$ Value on Loan	✓	1	State Street \$3,219.4 mm
\$ Value of Cash/Non-Cash Collaterals	✓	1	State Street \$3,439.9 mm
Total Income - Calendar YTD	✓	1	State Street \$9.5 mm
Total Fund Overlays and Hedges			
Investment Guideline Compliance	✓		
Proxy Voting			
Number of Meetings Voted	✓	1	712 meetings voted
Tax Reclaims			
Total Paid Reclaims - Calendar YTD	✓	1	\$12.9 mm
Total Pending Reclaims	✓	1	\$25.5 mm in process; timing of recovery is unique to each country
Fee Validation			
Fee Reconciliation Project	✓		
AB 2833	✓		
Investment Manager Meetings*****			
Manager Meeting Requests	✓		

Compliance Monitor

This report highlights operational and compliance metrics monitored by the Investment Division
As of September 2022*

OPEB MASTER TRUST

Functional Asset Categories	Quarterly Review Status	# Advisory	Notes
(Growth, Credit, Inflation Hedges, Risk Reduction & Mitigation)			
Asset Allocation Policy Compliance	✓		
Investment Guideline Compliance	✓		
# of Sudan/Iran Holdings Held by Managers	✓		

* This list is not exhaustive as various compliance processes are completed throughout the year. Each quarter, different items may appear on the compliance monitor.

** Represents the comprehensive Private Equity (3-month lag), Real Estate (3-month lag), Illiquid Credit (1- and 3-month lags), and Hedge Funds (1-month lag) programs across the total plan.

*** Investment guideline compliance based on public market exposure.

**** Reflects the most recent data available.

***** Advisory noted if the CEO or a Board member recommends staff to meet with a specific manager three or more times in a year. The purpose of notifying the activity is to promote transparency and governance best practices designed to preserve the integrity of the decision-making process.