

Chief Investment Officer Monthly Report

Board of Investments
September 14, 2022



Jonathan Grabel 
Chief Investment Officer

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION

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Market Environment



Global Market Performance as of August 31, 2022

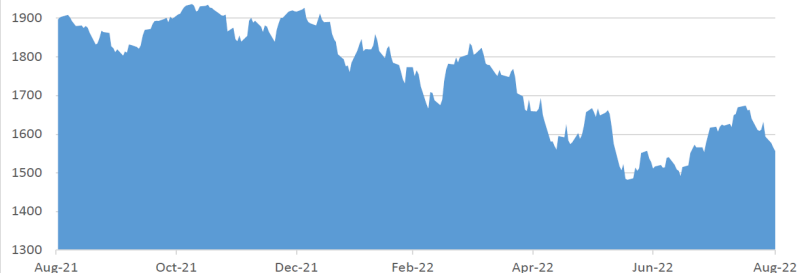
MSCI ACWI Index (Global Equity Market)*

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
-3.6	-5.6	-17.8	-16.2	8.0	6.8	8.7

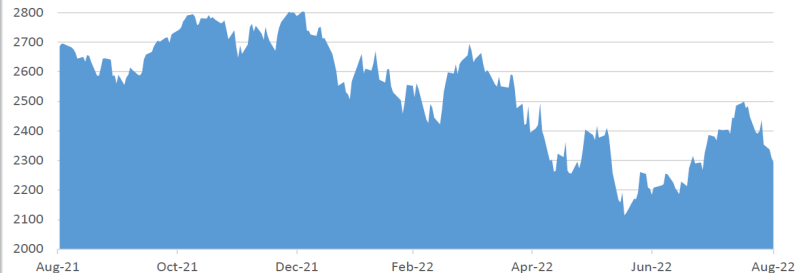
Russell 3000 Index (U.S. Equity Market)

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
-3.7	-3.5	-16.9	-13.3	11.9	11.3	12.8

MSCI ACWI IMI Index 1-Year Performance



Russell 3000 1-Year Performance



MSCI Emerging Market Index

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
0.4	-6.5	-17.5	-21.8	2.7	0.6	2.9

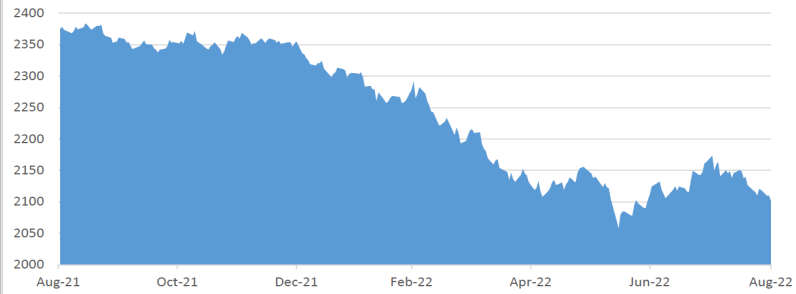
Barclays U.S. Aggregate Bond Index**

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
-2.8	-2.0	-10.8	-11.5	-2.0	0.5	1.4

MSCI Emerging Markets 1-Year Performance



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

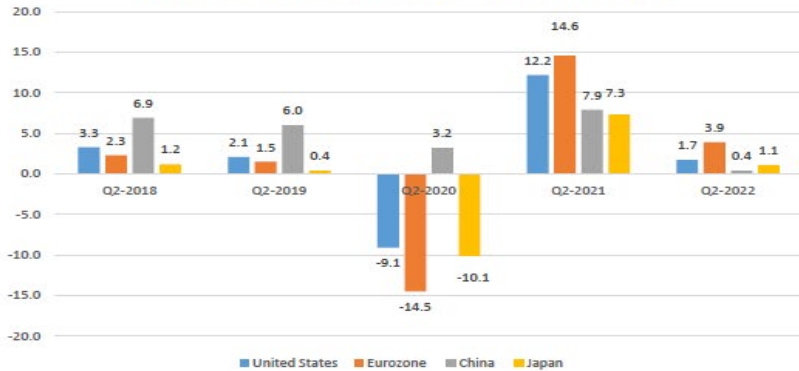
Source: Bloomberg



Key Macro Indicators*

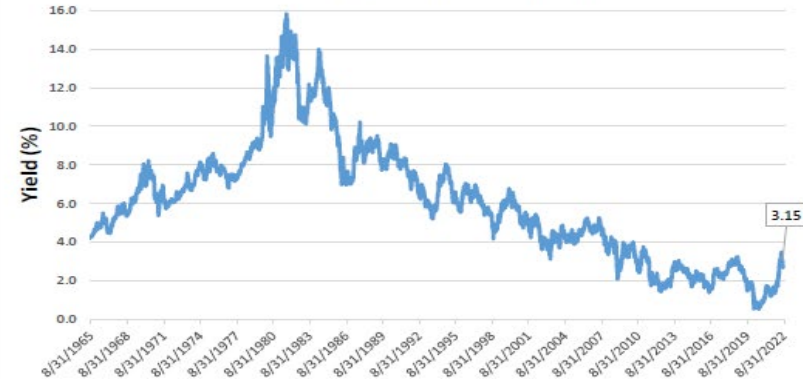
GDP Growth of Major Economies¹

Real GDP Growth YoY (%) - Last Five Years



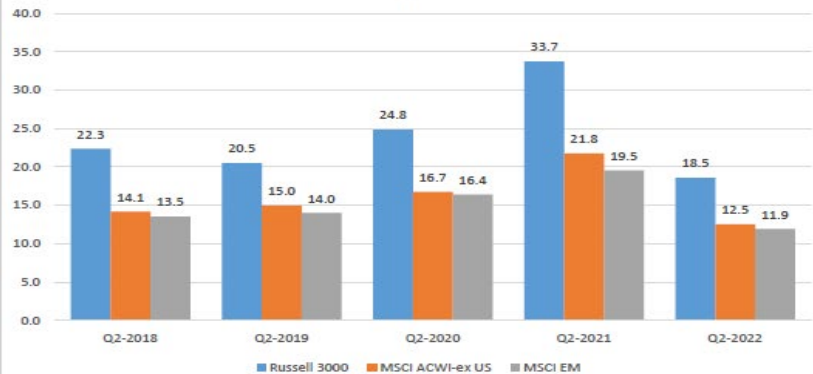
10-Year Treasury Yield²

Historical 10-Year Treasury Yield



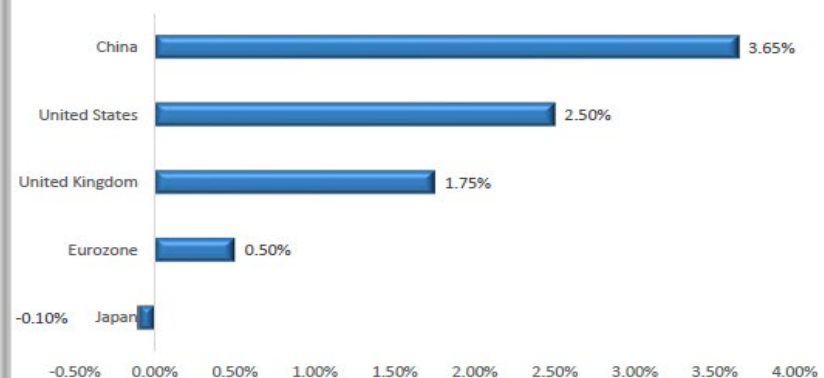
World Equity Valuation³

Price-to-Earnings - Last Five Years



Central Bank Rates⁴ (as of 8/31/2022)

Central Bank Rates



*The information on the "Key Macro Indicators" charts is the best available data as of 8/31/22 and may not reflect the current market and economic environment.

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

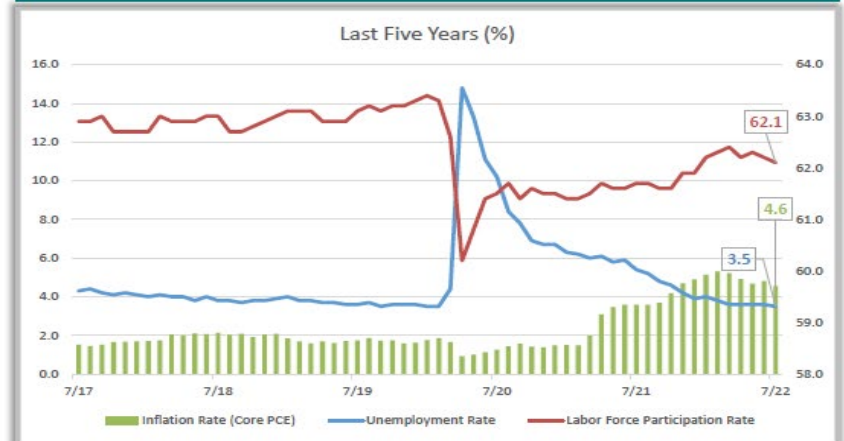


Key Macro Indicators*

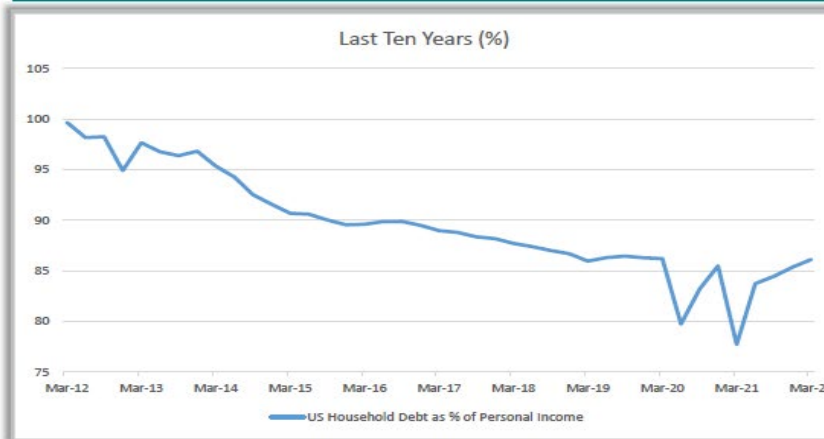
Consumer Confidence & ISM Manufacturing¹



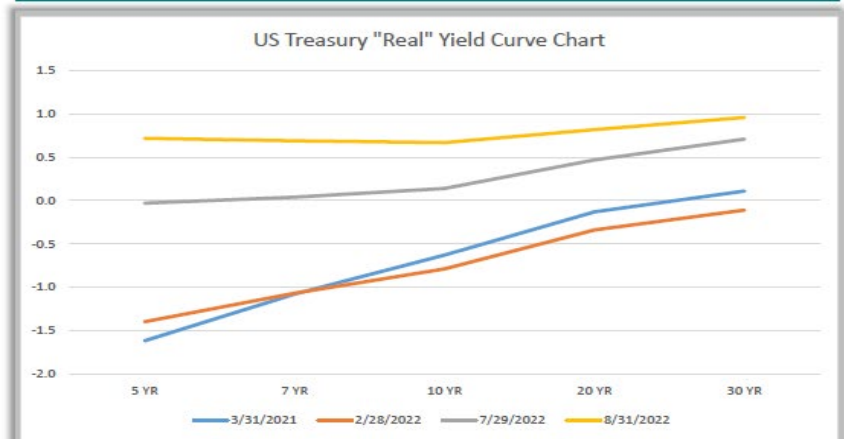
U.S. Inflation, Unemployment, & Labor Force Participation²



U.S. Household Debt as % of Personal Income³



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 8/31/22 and may not reflect the current market and economic environment.



Market Themes and Notable Items to Watch

Recent Themes

- Euro zone inflation hit a record high in August at 9.1% (year over year), according to estimates from Europe's statistics office Eurostat with energy having the highest annual inflation rate at 38.3%
- The value of the U.S. dollar as measured against a basket of six other major currencies hit a 20-year high in late August as Federal Reserve Chairman Jerome Powell made comments signaling further interest rate hikes
- The U.S. 10-year Treasury yield ended August at 3.15%, up from 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 3.6% in August and is now down 17.8% 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, governance
 - SEC finalizes CEO pay-for-performance reporting guidance from 2010 Dodd-Frank bill
 - 73% of global GDP in countries pledging to meet net-zero emissions by 2050
 - State-level inquiries and legislative bills scrutinize ESG integration in investments
- Covid-19
 - Covid variants, cases, transmission, vaccines
 - Economic and consumer behavior implications



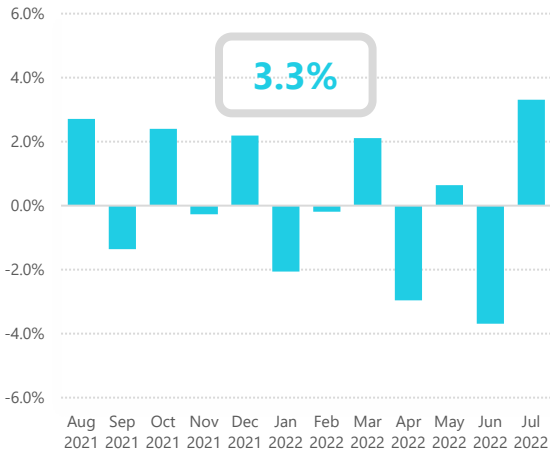
Portfolio Performance & Risk Updates



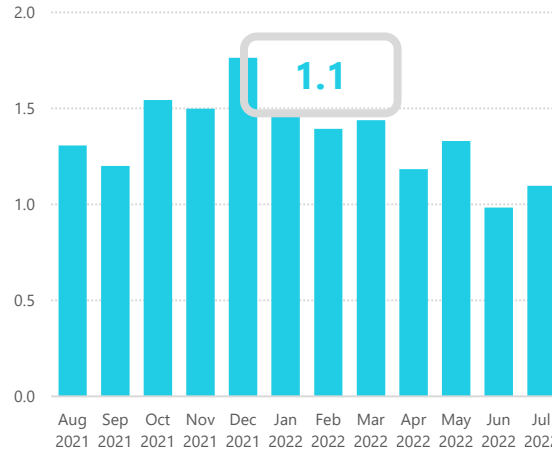
Total Fund Summary

as of July 2022

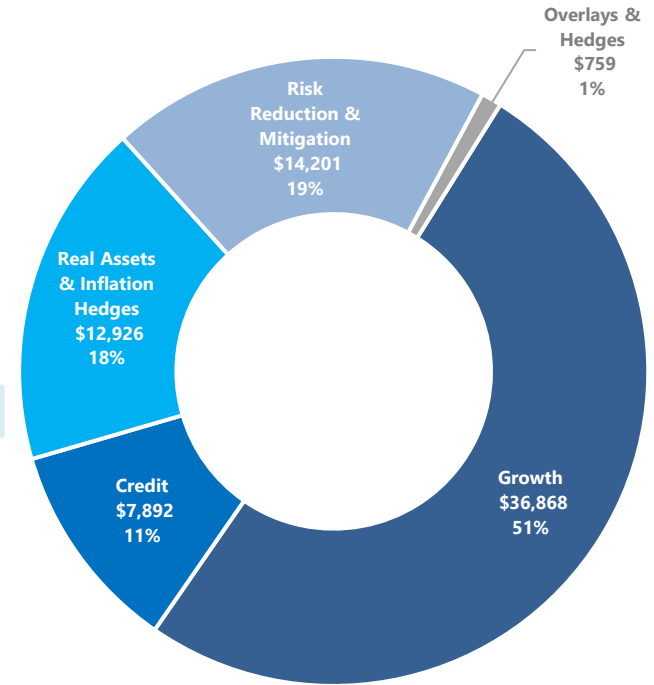
Monthly Return (net)



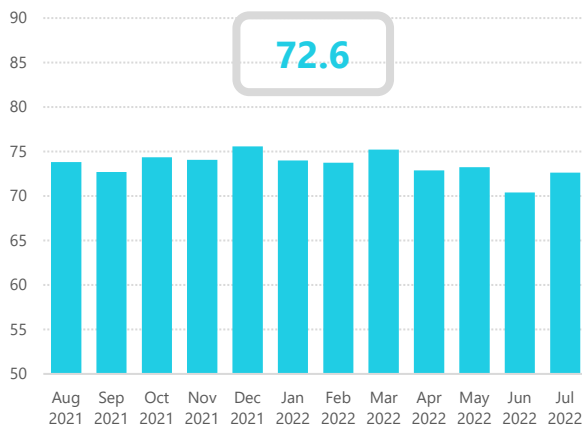
Sharpe Ratio (3-year annualized)



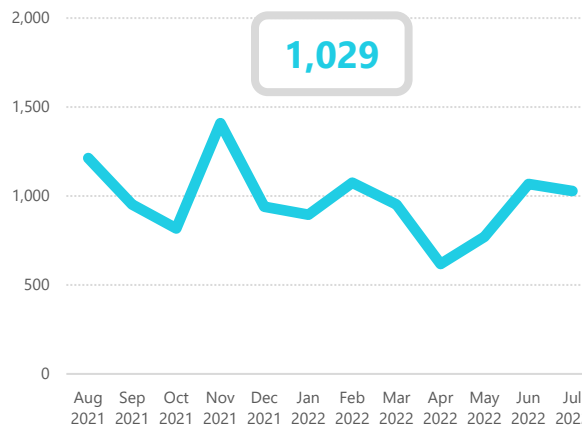
Asset Allocation (\$ millions)



Total Market Value (\$ billions)



Cash (\$ millions)

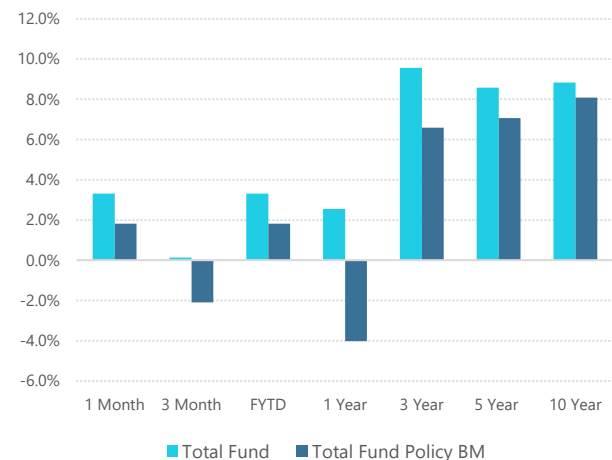


Historical Net Performance

as of July 2022

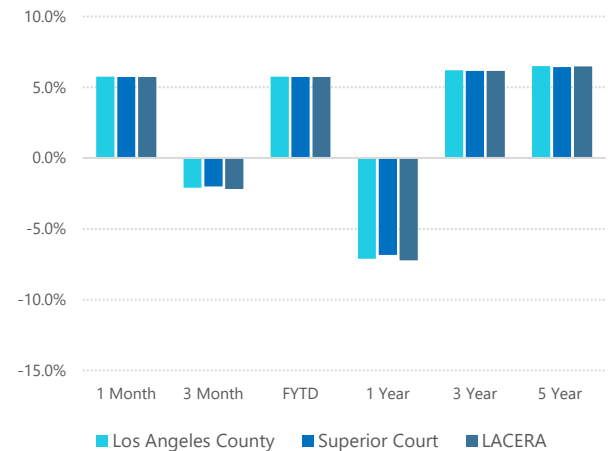
LACERA Pension Fund

	Market Value (\$ millions)	% of Total Fund	Interim Target	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	10 Year
Total Fund	72,646	100.0%	100.0%	3.3%	0.1%	3.3%	2.6%	9.6%	8.6%	8.8%
Total Fund Policy BM				1.8%	-2.1%	1.8%	-4.0%	6.6%	7.1%	8.1%
7% Annual Hurdle Rate				0.6%	1.7%	0.6%	7.0%	7.0%	7.0%	7.0%
Growth	36,868	50.8%	53.0%	4.3%	-0.8%	4.3%	1.5%	14.0%		
Growth Policy BM				1.9%	-3.5%	1.9%	-7.6%	9.9%		
Credit	7,892	10.9%	11.0%	0.9%	-3.1%	0.9%	-3.9%	3.3%		
Credit Policy BM				-1.5%	-5.7%	-1.5%	-9.2%	0.4%		
Real Assets & Inflation Hedges	12,926	17.8%	17.0%	2.9%	1.8%	2.9%	16.4%	9.0%		
Real Assets & Inflation Hedges Policy BM				3.7%	0.9%	3.7%	15.0%	10.0%		
Risk Reduction & Mitigation	14,201	19.5%	19.0%	1.6%	0.9%	1.6%	-6.4%	1.2%		
Risk Reduction & Mitigation Policy BM				1.7%	0.9%	1.7%	-7.0%	0.3%		
Overlays & Hedges	759	1.0%		23.6%	50.4%					



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	2,531			5.7%	-2.1%	5.7%	-7.1%	6.2%	6.5%
Los Angeles County	2,461	97.2%	—	5.7%	-2.1%	5.7%	-7.1%	6.2%	6.5%
Superior Court	59	2.3%	—	5.7%	-2.0%	5.7%	-6.8%	6.2%	6.4%
LACERA	11	0.5%	—	5.7%	-2.2%	5.7%	-7.2%	6.2%	6.5%
OPEB Growth	1,285	50.8%	47.5%	7.2%	-1.9%	7.2%	-10.8%	8.6%	7.9%
OPEB MT Growth Policy BM				6.4%	-2.8%	6.4%	-11.7%	8.1%	7.4%
OPEB Credit	491	19.4%	19.0%	3.2%	-1.9%	3.2%	-6.4%	0.3%	--
OPEB MT Credit Policy BM				2.4%	-3.0%	2.4%	-7.6%	0.3%	--
OPEB Real Assets & Inflation Hedges	507	20.0%	20.0%	6.7%	-4.2%	6.7%	3.2%	7.9%	--
OPEB MT RA & IH Policy BM				3.4%	-7.1%	3.4%	-0.2%	6.5%	--
OPEB Risk Reduction & Mitigation	247	9.7%	13.5%	2.0%	1.3%	2.0%	-7.2%	0.1%	1.8%
OPEB MT RR & M Policy BM				2.1%	1.4%	2.1%	-7.1%	0.0%	1.6%
Operational Cash	0	0.0%							

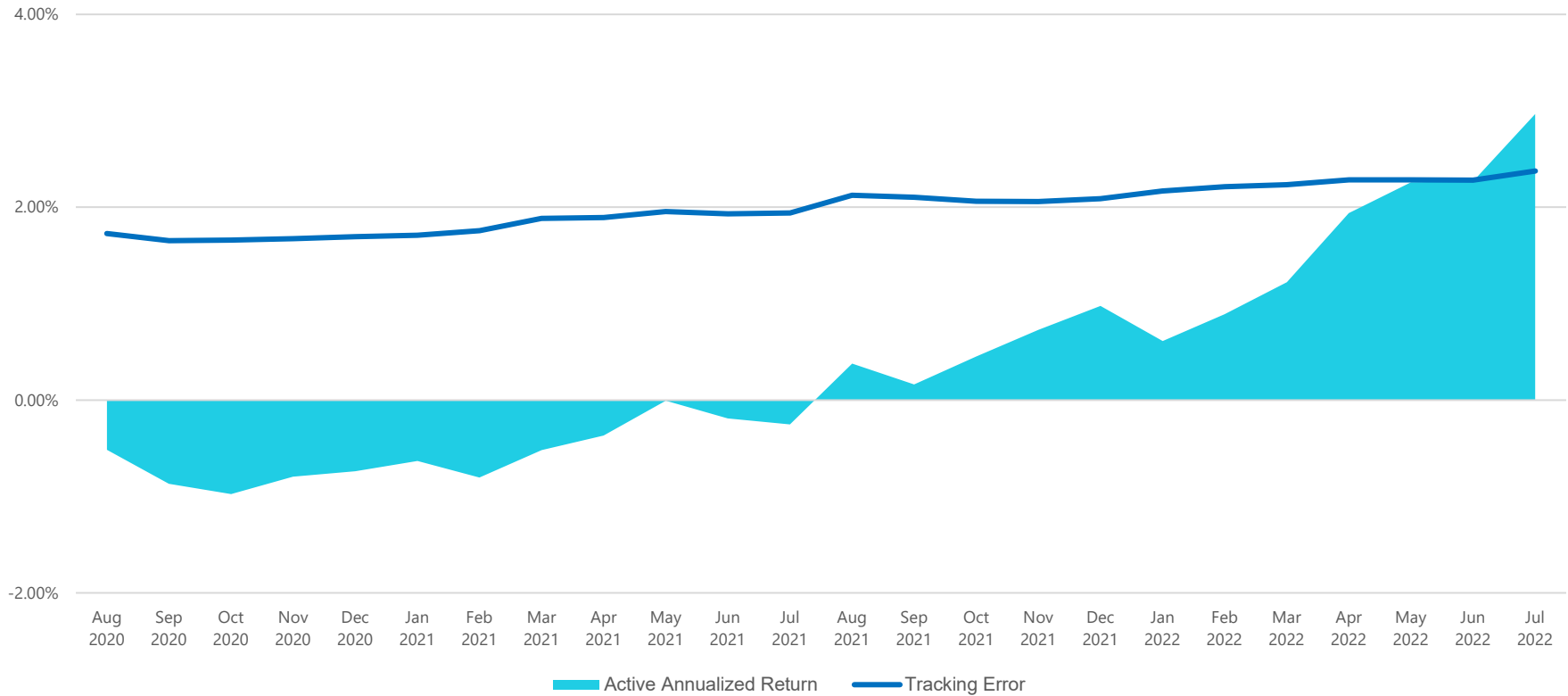


1. Market value differences between the sub-trusts and functional composites are due to operational cash.

Performance Based Risk

as of July 2022

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



Period Ending	Annualized Return	Annualized Benchmark Return	Annualized Active Return	Tracking Error
July 2022	9.6%	6.6%	3.0%	2.4%

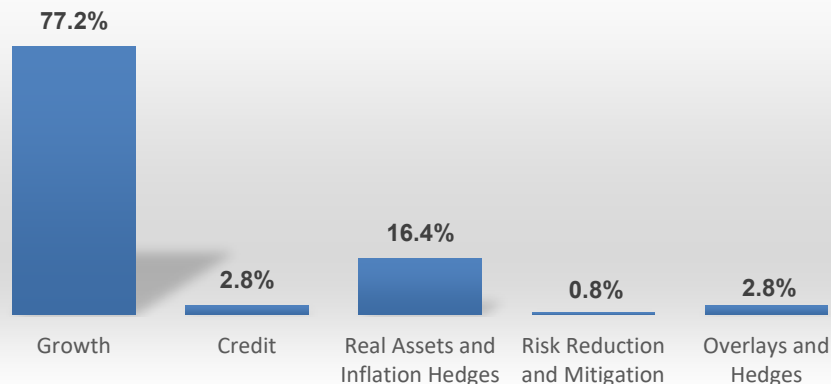
1. Rolling 36 months.
 2. Active return equals the difference in return between a portfolio and its benchmark.
 3. Tracking error (or active risk) measures the volatility of active returns.



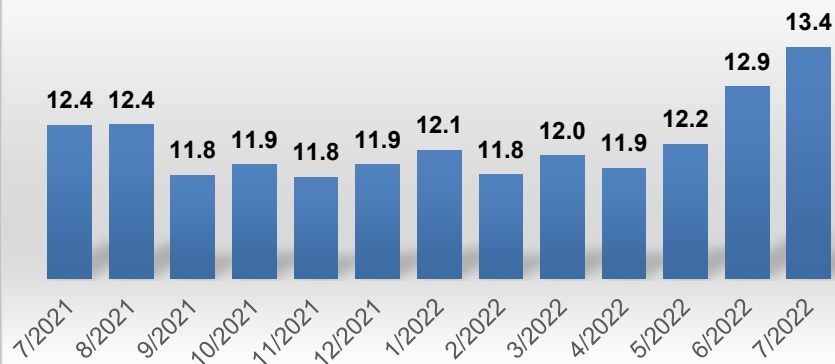
Total Fund Forecast Risk*

as of July 2022

%Contribution to Total Risk



Total Risk



	%Weight	% Cont. to Total Risk	Standalone Total Risk	Standalone BMK Risk**
Total Fund			13.4	12.7
Growth	50.7%	77.2%	20.6	19.3
Global Equity	31.8%	41.3%	18.3	18.4
Private Equity	17.4%	33.2%	29.1	26.9
Non-Core Private Real Estate	1.5%	2.7%	37.1	19.6
Credit	10.9%	2.8%	4.6	5.3
Liquid Credit	6.4%	2.1%	5.8	5.3
Illiquid Credit	4.5%	0.7%	4.3	5.3
Real Assets & Inflation Hedges	18.1%	16.4%	14.0	13.8
Core Private Real Estate	6.1%	6.8%	21.8	19.6
Natural Resources & Commodities	4.1%	3.6%	16.7	21.6
Infrastructure	5.1%	5.6%	17.0	17.2
TIPS	2.8%	0.5%	6.2	6.1
Risk Reduction and Mitigation	19.4%	0.8%	5.6	5.4
Investment Grade Bonds	7.8%	0.4%	5.6	5.5
Diversified Hedge Funds	5.6%	0.5%	3.9	0.2
Long-Term Government Bonds	4.6%	-0.1%	13.2	13.2
Cash	1.4%	0.0%	-	-
Overlays and Hedges	0.9%	2.8%	-	-

*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

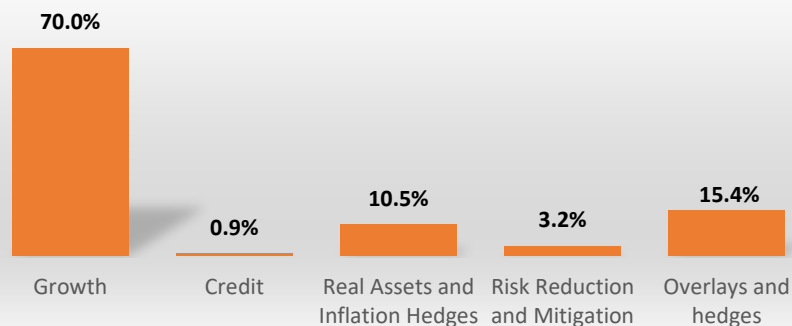
**BMK Risk stands for Benchmark Risk



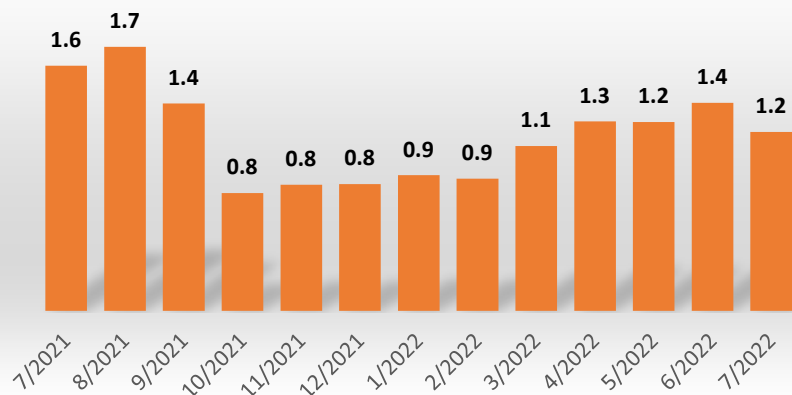
Total Fund Forecast Active Risk*

as of July 2022

Active Risk Contribution



Active Risk



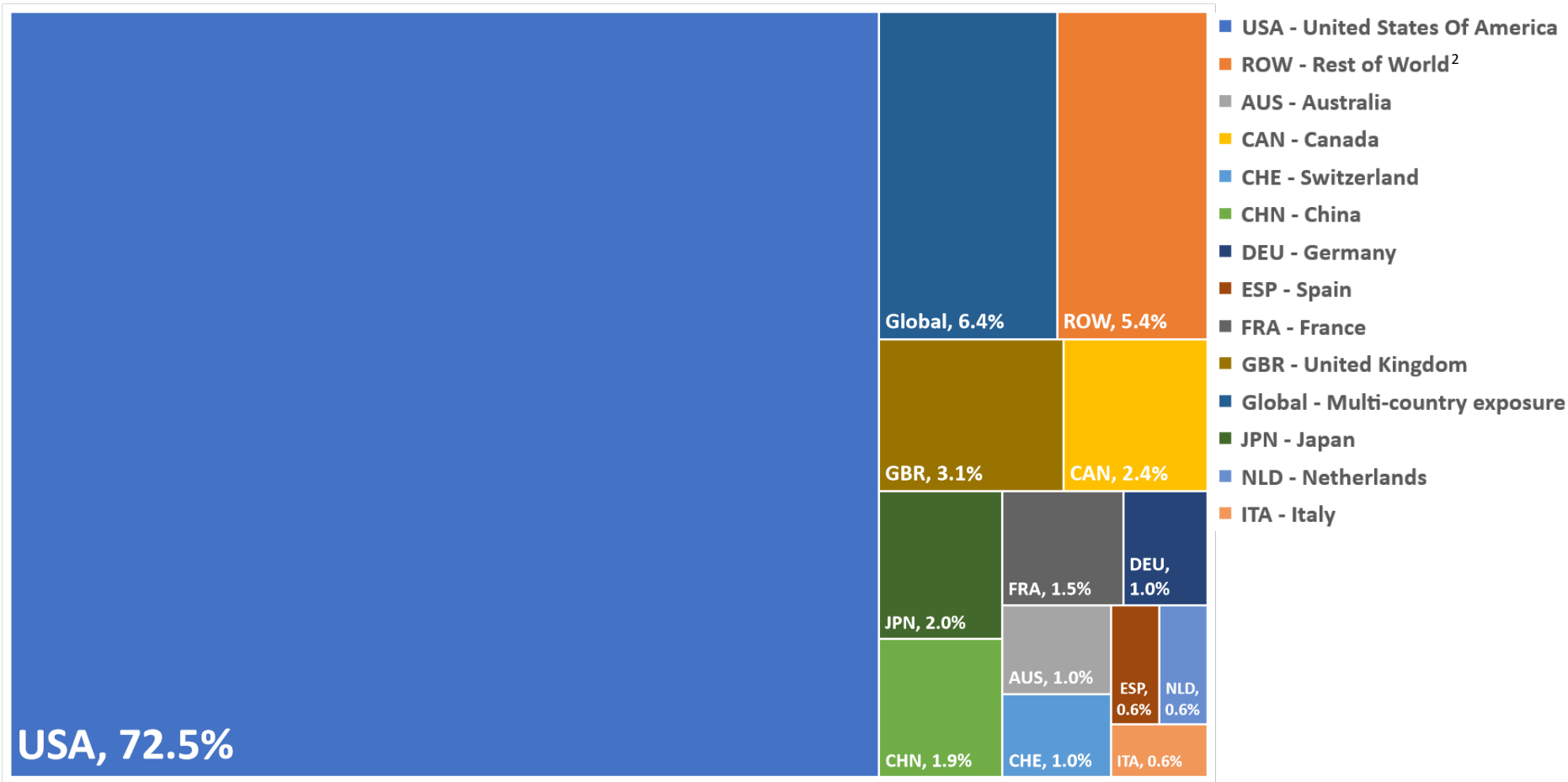
	%Weight	Active Weight%	Active Risk	Active Risk Allocation	Active Risk Selection
Total Fund			1.18	0.02	1.17
Growth	50.7%	-2.29%	0.83	-0.11	0.94
Global Equity	31.8%				
Private Equity	17.4%				
Non-Core Private Real Estate	1.5%				
Credit	10.9%	-0.08%	0.01	0.00	0.01
Liquid Credit	6.4%				
Illiquid Credit	4.5%				
Real Assets & Inflation Hedges	18.1%	1.07%	0.12	-0.03	0.16
Core Private Real Estate	6.1%				
Natural Resources & Commodities	4.1%				
Infrastructure	5.1%				
TIPS	2.8%				
Risk Reduction and Mitigation	19.4%	0.43%	0.04	-0.03	0.07
Investment Grade Bonds	7.8%				
Diversified Hedge Funds	5.6%				
Long-Term Government Bonds	4.6%				
Cash	1.4%				
Overlays and Hedges	0.9%	0.87%	0.18	0.18	-

*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 July 2022 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

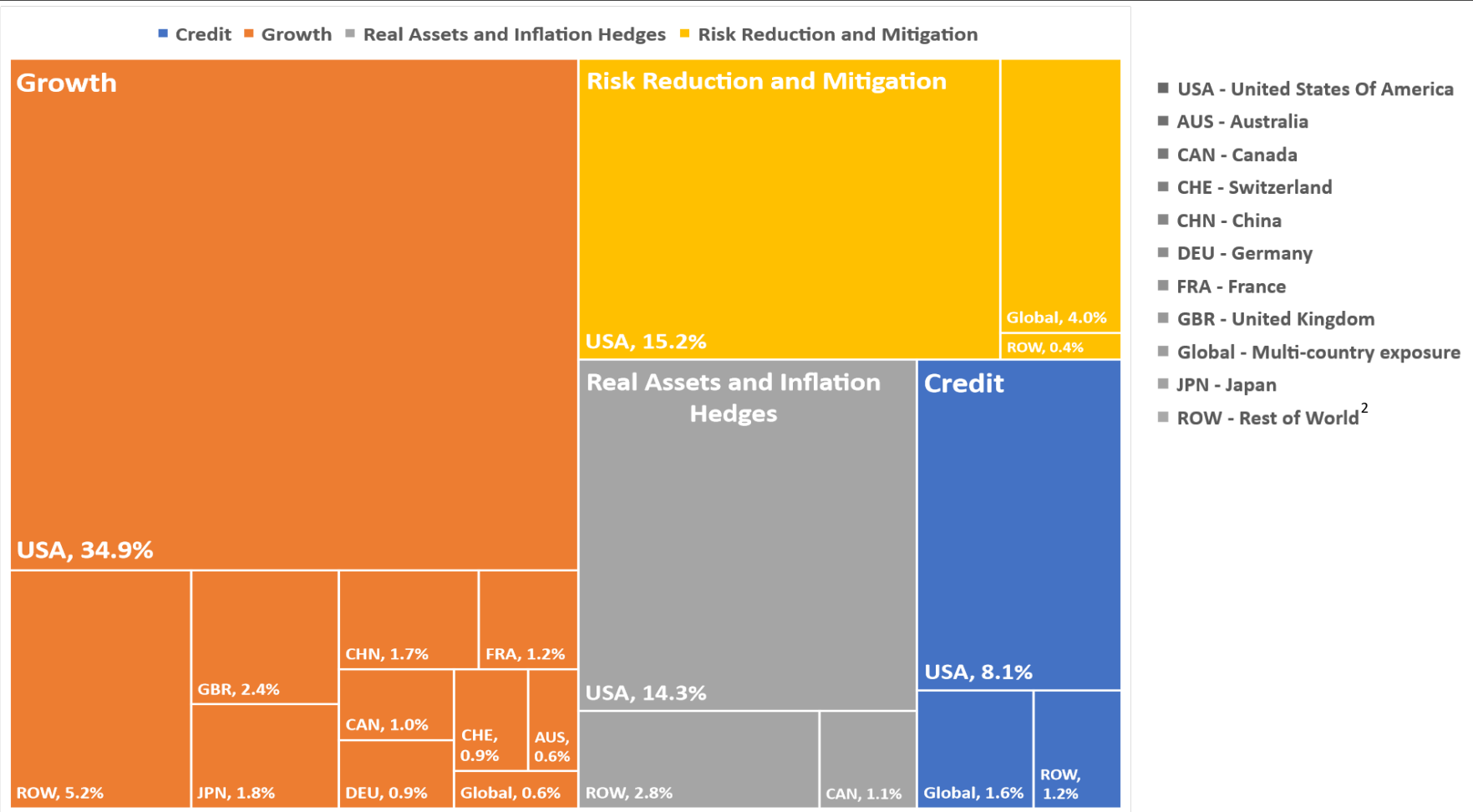
² "ROW - Rest of World" is sum of countries with weight below 0.5%

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



Geographic Exposures by AUM* - Asset Categories

as of June 2022 ex-overlays and hedges



- 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
- ROW - Rest of World²

*AUM = assets under management

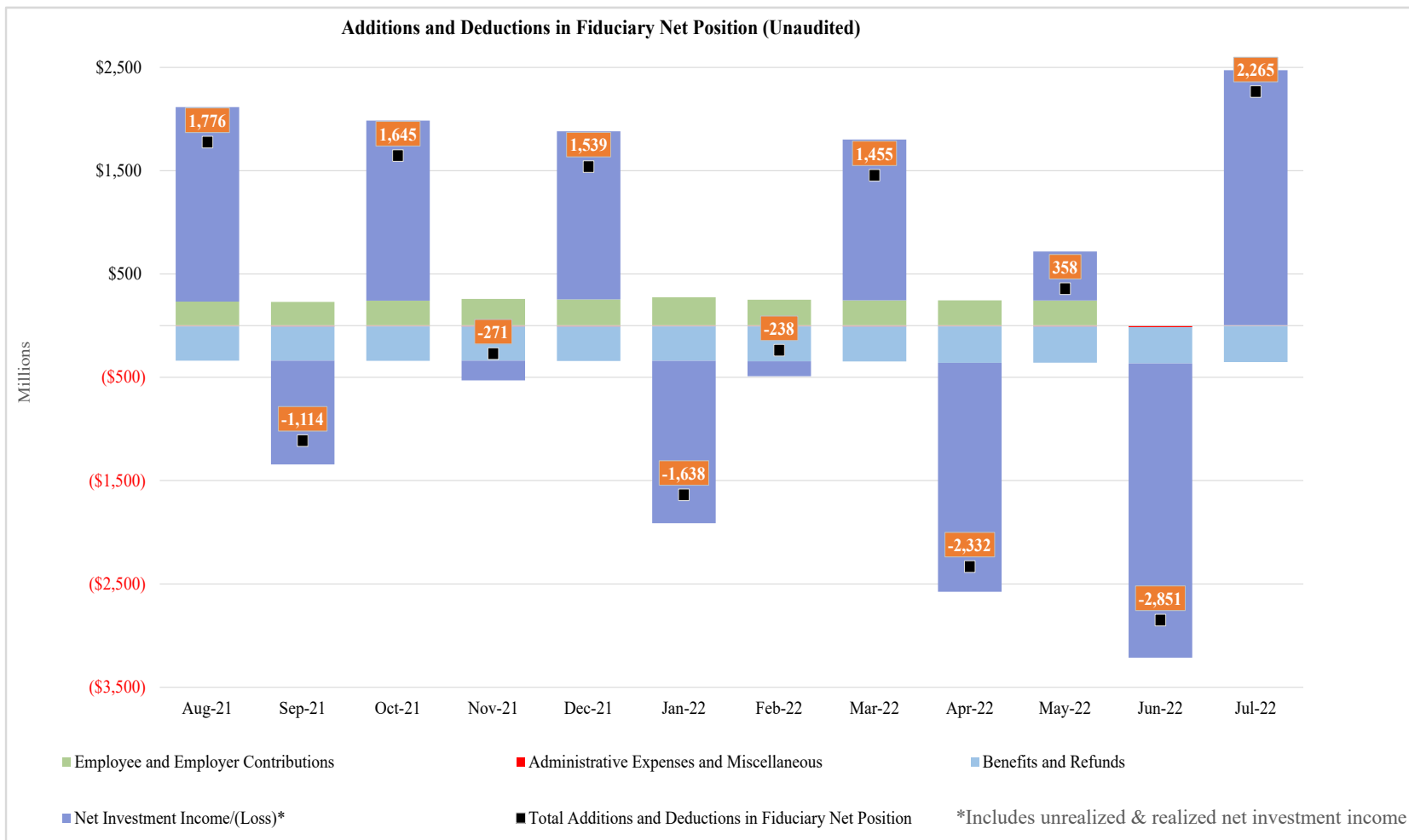
¹ *Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change. Real estate and private equity data used is as of 3/31/2022

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	0	1	\$2.3 billion



Portfolio Structural Updates



Portfolio Structural Updates

Portfolio Movements

Rebalancing Activity



Hedges and Overlays

Program	July Return	July Gain/(Loss)	Inception* Gain/(Loss)
Currency Hedge**	0.1%	\$88.0 Million	\$1.3 Billion
Cash/Rebalance Overlay***	5.2%	\$147.7 Million	\$304.8 Million

*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.

Current Search Activity

Status of Active Searches – Subject to Change

Name	RFP Issued	Due Diligence	BOI Review
Global Equity Emerging Separate Account Manager Search	●	●	Anticipated Late 2022

Quiet Period for Search Respondents

Global Equity Emerging Separate Account Manager Search

- ✓ Attucks Asset Management, LLC
- ✓ Bivium Capital Partners, LLC
- ✓ Leading Edge Investment Advisors, LLC
- ✓ New Alpha Asset Management
- ✓ Stable Asset Management
- ✓ Xponance, Inc.



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

Operational Updates

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

Manager/Consultant Updates

No material updates for this month's report.

Team Searches and Open Positions

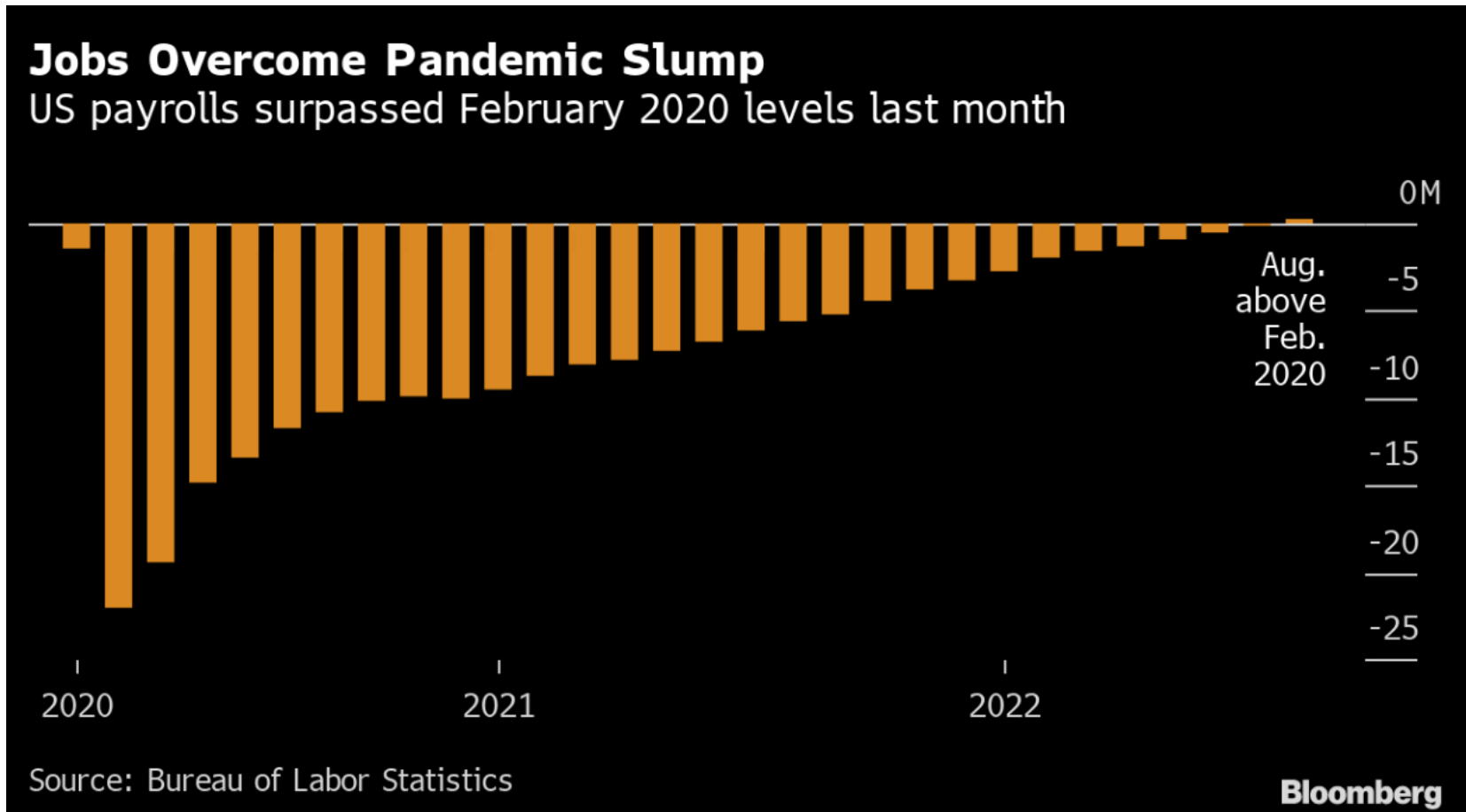
- Working on launching new searches
 - 1 – Deputy Chief Investment Officer
 - 1 – Principal Investment Officer
 - 2 – Senior Investment Officer
 - 1 search in progress
 - 3 – Financial Analyst-III
 - 3 searches in progress
 - 3 – Financial Analyst-II

Commentary



Staff Chart of the Month*

US Employment Exceeded Its Pre-Pandemic Level



Source: Bloomberg



* Submitted by the Global Equity team