

Chief Investment Officer Monthly Report

Board of Investments
October 12, 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



Market Environment



Global Market Performance as of September 30, 2022

MSCI ACWI Index (Global Equity Market)*

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
-9.7	-6.6	-25.7	-21.2	3.6	4.2	7.2

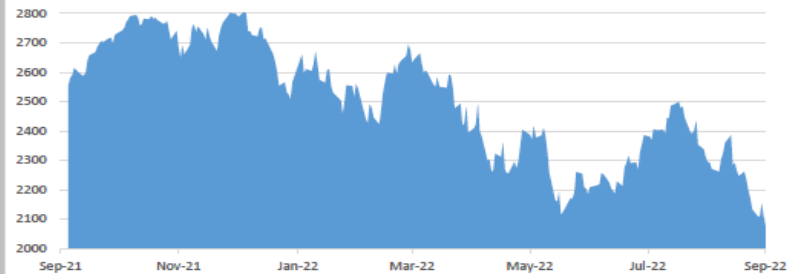
MSCI ACWI IMI Index 1-Year Performance



Russell 3000 Index (U.S. Equity Market)

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
-9.3	-4.5	-24.6	-17.6	7.7	8.6	11.4

Russell 3000 1-Year Performance



MSCI Emerging Market Index

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
-11.7	-11.6	-27.2	-28.1	-2.1	-1.8	1.0

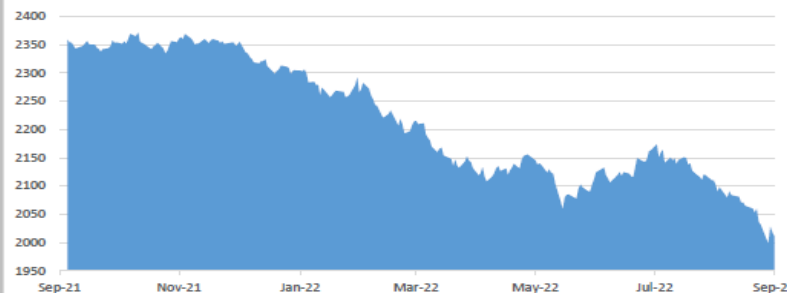
MSCI Emerging Markets 1-Year Performance



Barclays U.S. Aggregate Bond Index**

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
-4.3	-4.8	-14.6	-14.6	-3.3	-0.3	0.9

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

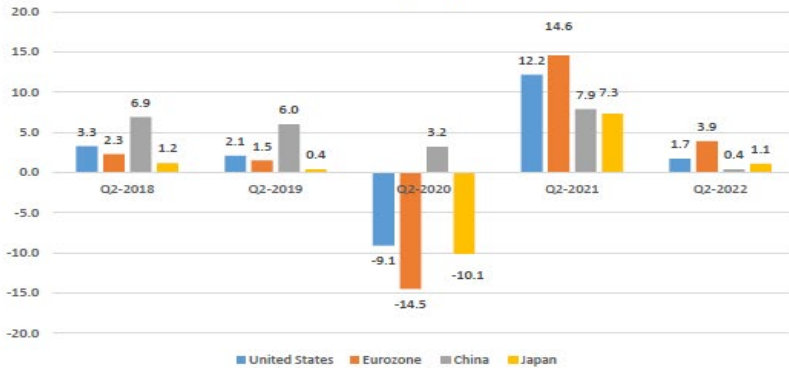
Source: Bloomberg



Key Macro Indicators*

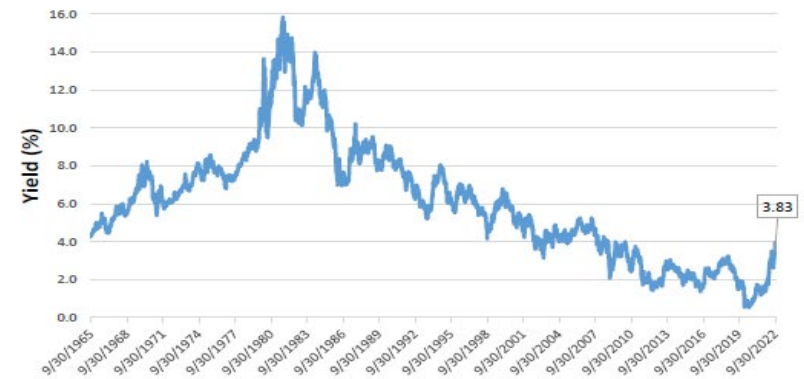
GDP Growth of Major Economies¹

Real GDP Growth YoY (%) - Last Five Years



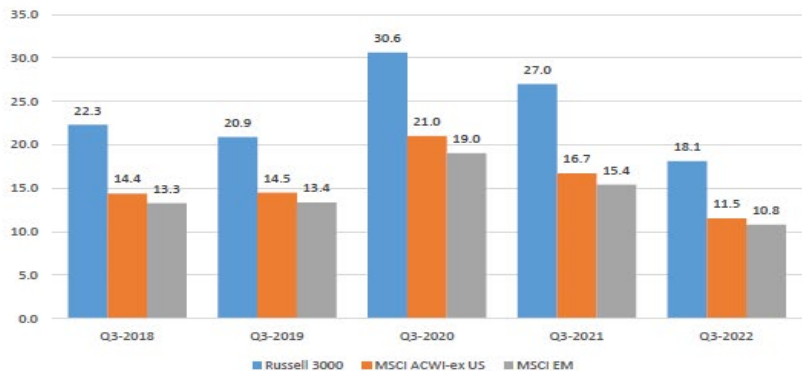
10-Year Treasury Yield²

Historical 10-Year Treasury Yield



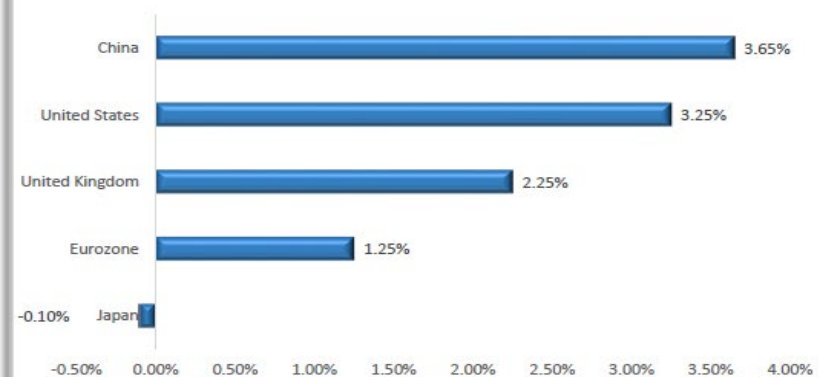
World Equity Valuation³

Price-to-Earnings - Last Five Years



Central Bank Rates⁴ (as of 9/30/2022)

Central Bank Rates



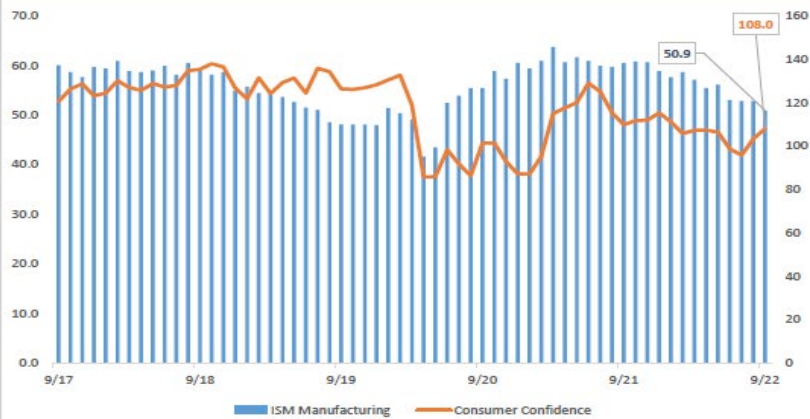
*The information on the "Key Macro Indicators" charts is the best available data as of 9/30/22 and may not reflect the current market and economic environment.

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

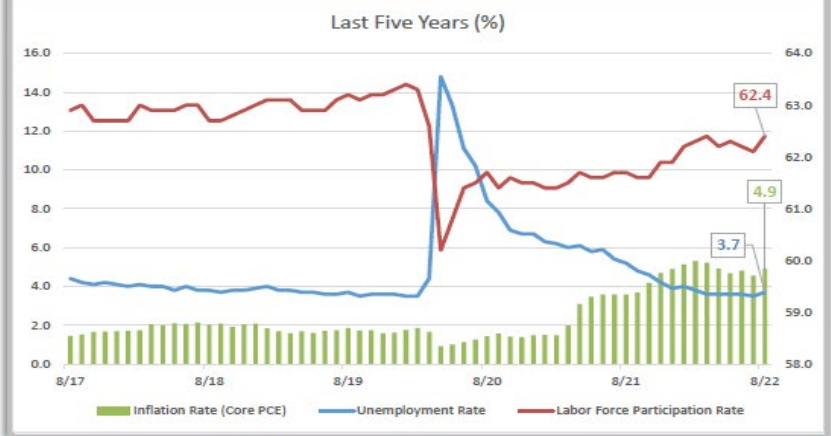


Key Macro Indicators*

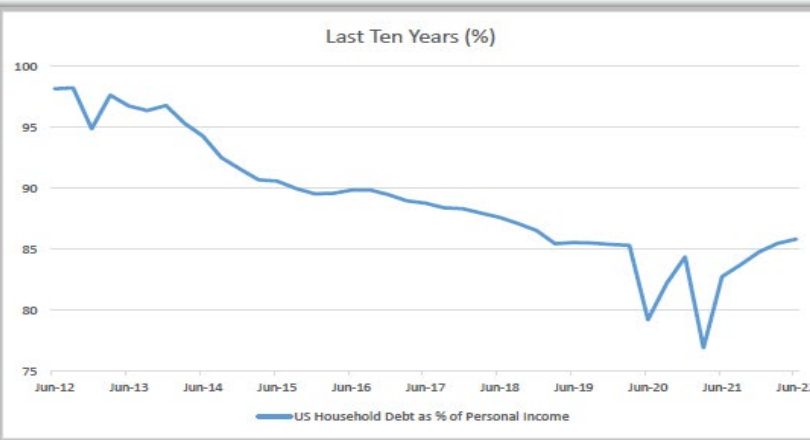
Consumer Confidence & ISM Manufacturing¹



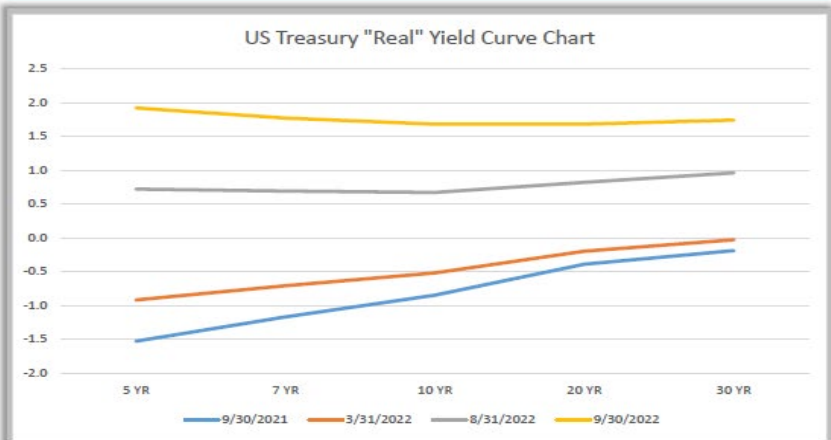
U.S. Inflation, Unemployment, & Labor Force Participation²



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 9/30/22 and may not reflect the current market and economic environment.



Market Themes and Notable Items to Watch

Recent Themes

- The Federal Reserve raised its benchmark interest rate by 0.75% and indicated it will keep hiking beyond the current level
 - Combating inflation remains a top priority for the Federal Reserve
- Eurostat, the European Union's statistics agency, estimated that annual inflation in the 19-country euro area reached 10.0% in September with energy prices rising 40.8%
- The U.S. 10-year Treasury yield ended September at 3.83%, up from 1.52% at the end of 2021 and 0.93% at the end of 2020
 - 30-year fixed consumer mortgage rates approached 7% at the end of September
- Global equities (MSCI All Country World Investable Market Index) declined 9.7% in September and are now down 25.7% 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
 - Public Company Accounting Oversight Board and China reach agreement enabling inspection access to audit firms of US-listed companies per 2010 Dodd-Frank law
- Covid-19
 - Covid variants, cases, transmission, vaccines
 - Economic and consumer behavior implications



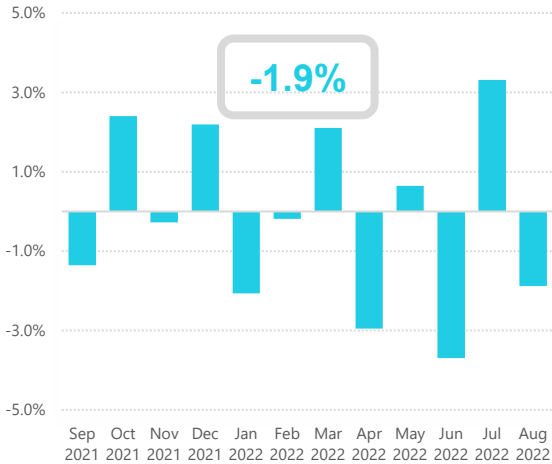
Portfolio Performance & Risk Updates



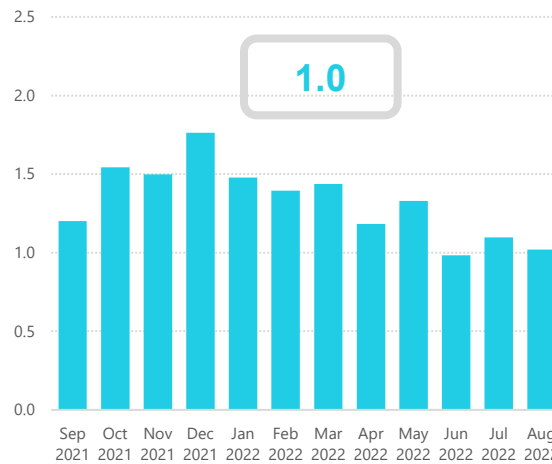
Total Fund Summary

as of August 2022

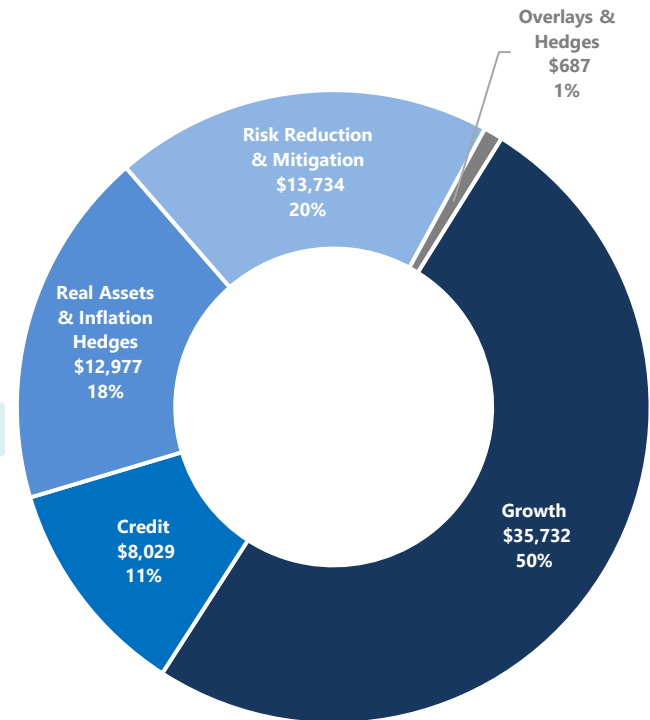
Monthly Return (net)



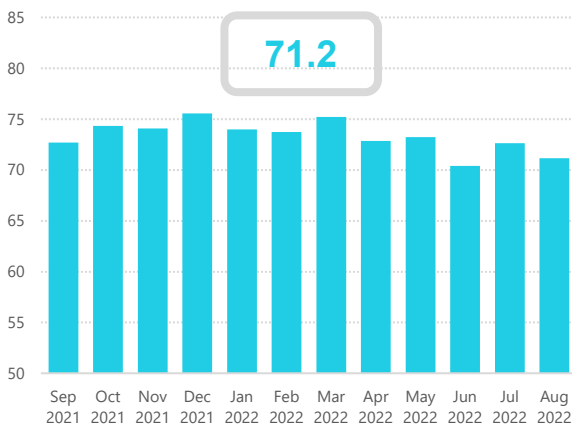
Sharpe Ratio (3-year annualized)



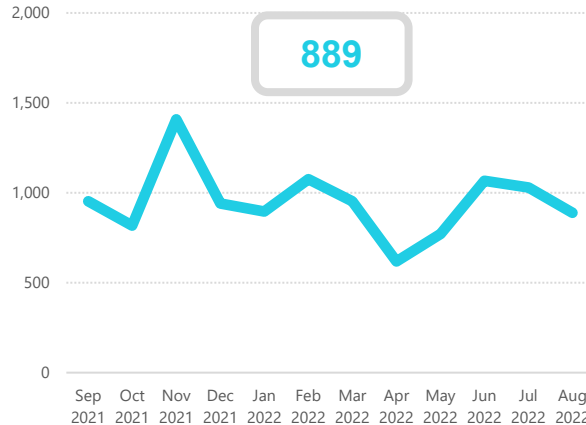
Asset Allocation (\$ millions)



Total Market Value (\$ billions)



Cash (\$ millions)

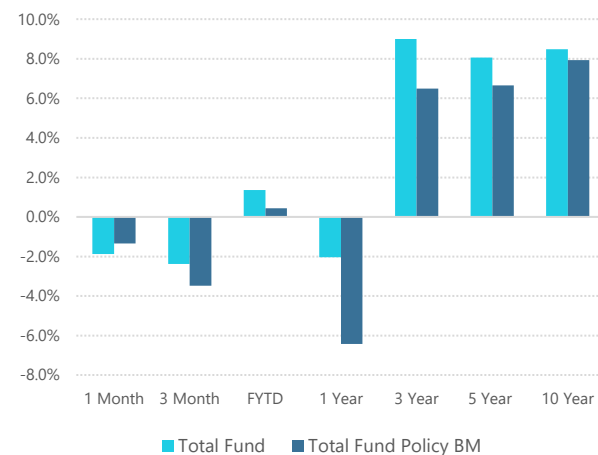


Historical Net Performance

as of August 2022

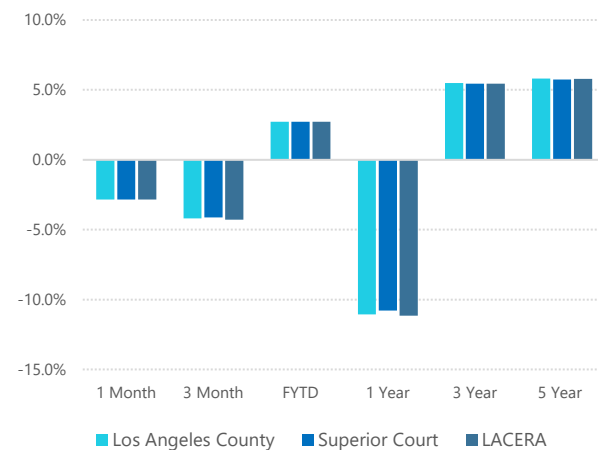
LACERA Pension Fund

	Market Value (\$ millions)	% of Total Fund	Interim Target	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	10 Year
Total Fund	71,158	100.0%	100.0%	-1.9%	-2.4%	1.4%	-2.0%	9.0%	8.1%	8.5%
Total Fund Policy BM				-1.3%	-3.5%	0.4%	-6.4%	6.5%	6.6%	7.9%
7% Annual Hurdle Rate				0.6%	1.7%	1.1%	7.0%	7.0%	7.0%	7.0%
Growth	35,732	50.2%	53.0%	-3.1%	-3.8%	1.1%	-6.2%	13.4%		
Growth Policy BM				-1.9%	-5.0%	0.0%	-11.4%	10.4%		
Credit	8,029	11.3%	11.0%	0.5%	-1.9%	1.4%	-4.0%	3.4%		
Credit Policy BM				2.1%	-2.3%	0.5%	-8.0%	1.1%		
Real Assets & Inflation Hedges	12,977	18.2%	17.0%	0.3%	-1.8%	3.3%	15.0%	9.3%		
Real Assets & Inflation Hedges Policy BM				-0.9%	-2.2%	2.8%	13.5%	9.7%		
Risk Reduction & Mitigation	13,734	19.3%	19.0%	-2.2%	-1.7%	-0.6%	-8.2%	-0.2%		
Risk Reduction & Mitigation Policy BM				-2.1%	-1.5%	-0.4%	-8.9%	-1.1%		
Overlays & Hedges	687	1.0%		-2.1%	56.8%					



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	2,459			-2.8%	-4.2%	2.7%	-11.1%	5.5%	5.8%
Los Angeles County	2,391	97.2%	—	-2.8%	-4.2%	2.7%	-11.1%	5.5%	5.8%
Superior Court	57	2.3%	—	-2.8%	-4.1%	2.7%	-10.8%	5.4%	5.7%
LACERA	11	0.5%	—	-2.8%	-4.3%	2.7%	-11.2%	5.4%	5.8%
OPEB Growth	1,240	50.4%	47.5%	-3.6%	-5.5%	3.3%	-16.1%	8.2%	7.0%
OPEB MT Growth Policy BM				-3.4%	-6.1%	2.8%	-16.7%	7.8%	6.6%
OPEB Credit	491	20.0%	19.0%	-0.1%	-1.3%	3.1%	-7.4%	0.3%	--
OPEB MT Credit Policy BM				0.3%	-1.8%	2.6%	-7.9%	0.6%	--
OPEB Real Assets & Inflation Hedges	487	19.8%	20.0%	-4.0%	-4.8%	2.4%	-1.6%	5.9%	--
OPEB MT RA & IH Policy BM				-1.6%	-5.4%	1.7%	-2.6%	5.5%	--
OPEB Risk Reduction & Mitigation	241	9.8%	13.5%	-2.2%	-1.5%	-0.3%	-9.2%	-1.4%	1.3%
OPEB MT RR & M Policy BM				-2.7%	-1.8%	-0.6%	-9.5%	-1.6%	1.1%
Operational Cash	0	0.0%							

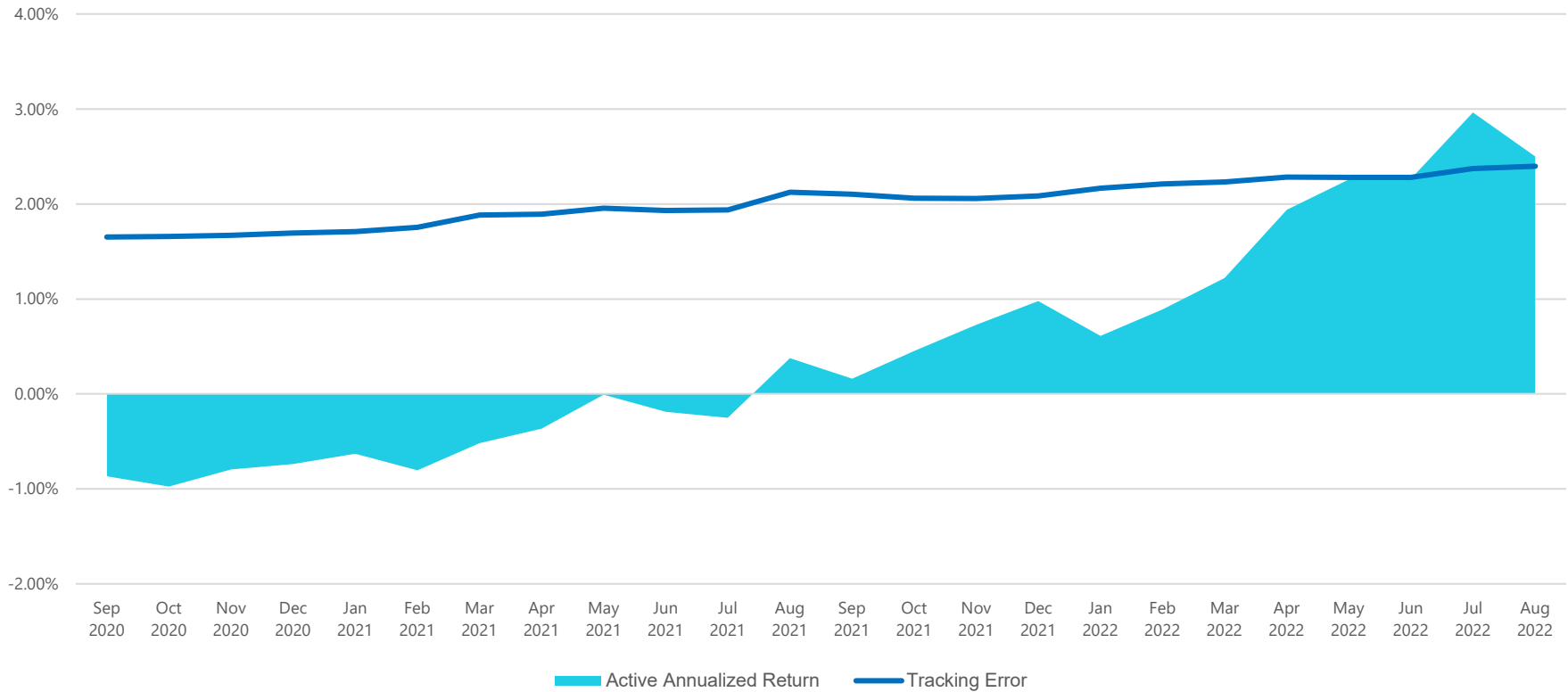


1. Market value differences between the sub-trusts and functional composites are due to operational cash.

Performance Based Risk

as of August 2022

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



Period Ending	Annualized Return	Annualized Benchmark Return	Annualized Active Return	Tracking Error
Aug 2022	9.0%	6.5%	2.5%	2.4%

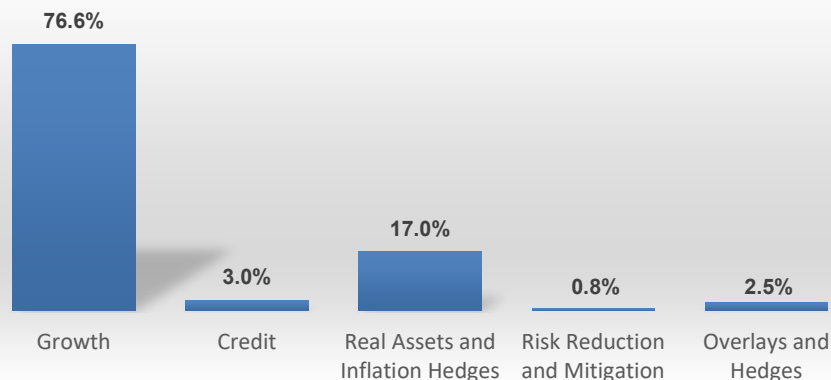
1. Rolling 36 months.
 2. Active return equals the difference in return between a portfolio and its benchmark.
 3. Tracking error (or active risk) measures the volatility of active returns.



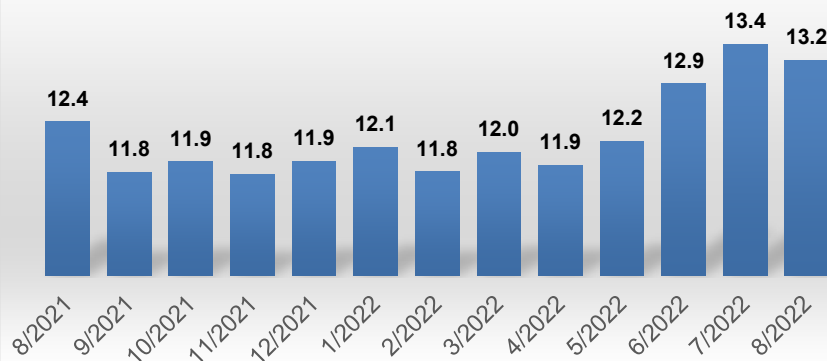
Total Fund Forecast Risk*

as of August 2022

%Contribution to Total Risk



Total Risk



	%Weight	% Cont. to Total Risk	Standalone Total Risk	Standalone BMK Risk**
Total Fund			13.2	12.6
Growth	50.1%	76.6%	20.4	19.3
Global Equity	31.4%	40.9%	18.1	18.3
Private Equity	17.1%	32.8%	28.9	26.9
Non-Core Private Real Estate	1.6%	3.0%	37.2	19.5
Credit	11.2%	3.0%	4.7	5.7
Liquid Credit	6.4%	2.3%	6.1	5.7
Illiquid Credit	4.8%	0.8%	4.1	5.7
Real Assets & Inflation Hedges	18.5%	17.0%	13.9	13.6
Core Private Real Estate	6.5%	7.4%	21.8	19.5
Natural Resources & Commodities	4.1%	3.5%	16.3	21.1
Infrastructure	5.1%	5.7%	16.8	17.0
TIPS	2.8%	0.5%	6.0	6.0
Risk Reduction and Mitigation	19.2%	0.8%	5.5	5.3
Investment Grade Bonds	7.7%	0.4%	5.6	5.5
Diversified Hedge Funds	5.7%	0.5%	3.9	0.2
Long-Term Government Bonds	4.5%	-0.1%	12.7	12.7
Cash	1.3%	0.0%	-	-
Overlays and Hedges	1.0%	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

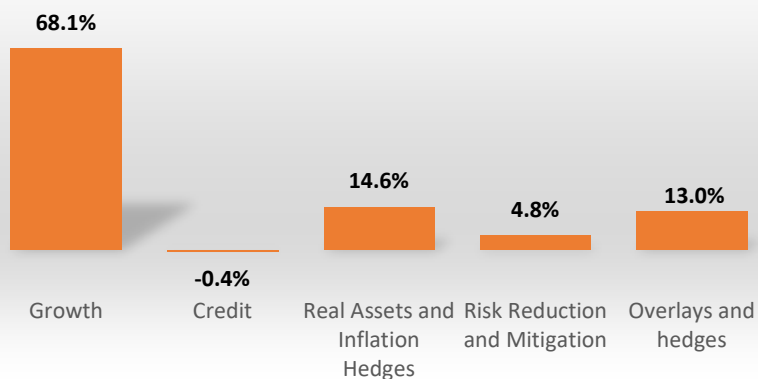
**BMK Risk stands for Benchmark Risk



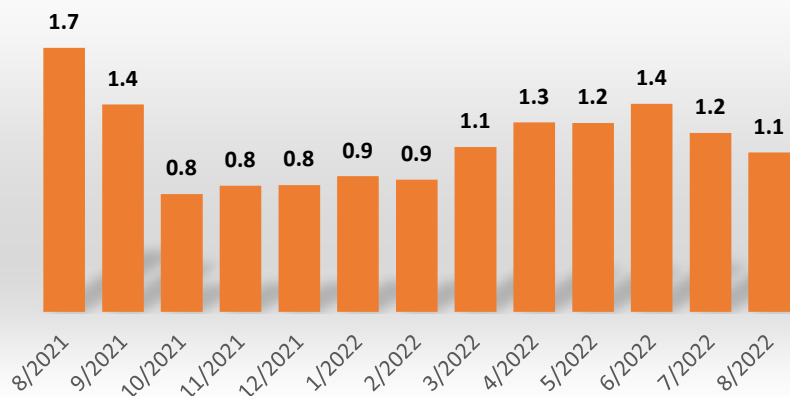
Total Fund Forecast Active Risk*

as of August 2022

Active Risk Contribution



Active Risk



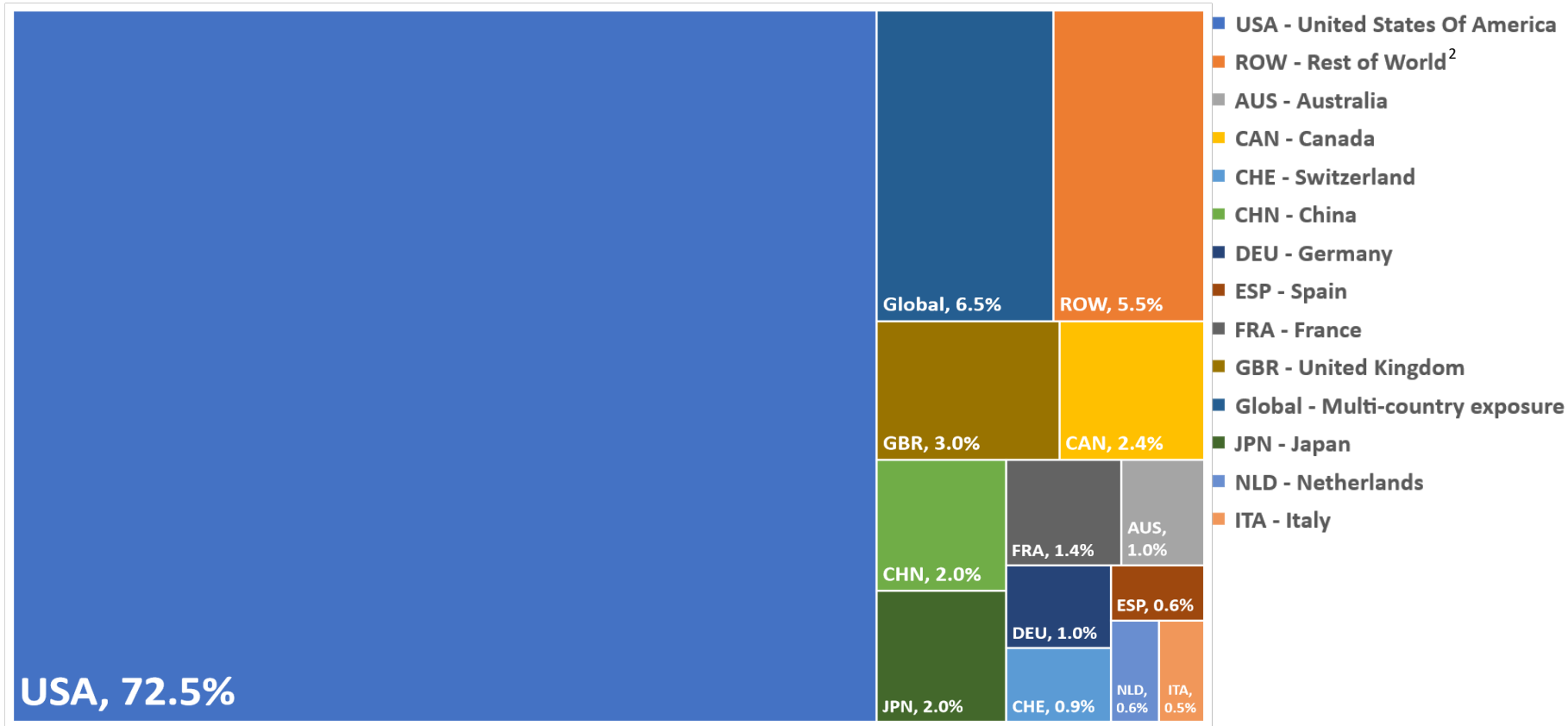
	%Weight	Active Weight%	Active Risk	Active Risk Allocation	Active Risk Selection
Total Fund			1.05	-0.04	1.10
Growth	50.1%	-2.89%	0.72	-0.12	0.84
Global Equity	31.4%				
Private Equity	17.1%				
Non-Core Private Real Estate	1.6%				
Credit	11.2%	0.20%	0.00	-0.01	0.01
Liquid Credit	6.4%				
Illiquid Credit	4.8%				
Real Assets & Inflation Hedges	18.5%	1.50%	0.15	-0.04	0.19
Core Private Real Estate	6.5%				
Natural Resources & Commodities	4.1%				
Infrastructure	5.1%				
TIPS	2.8%				
Risk Reduction and Mitigation	19.2%	0.20%	0.05	-0.01	0.06
Investment Grade Bonds	7.7%				
Diversified Hedge Funds	5.7%				
Long-Term Government Bonds	4.5%				
Cash	1.3%				
Overlays and Hedges	1.0%	1.00%	0.14	0.14	-

*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 August 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

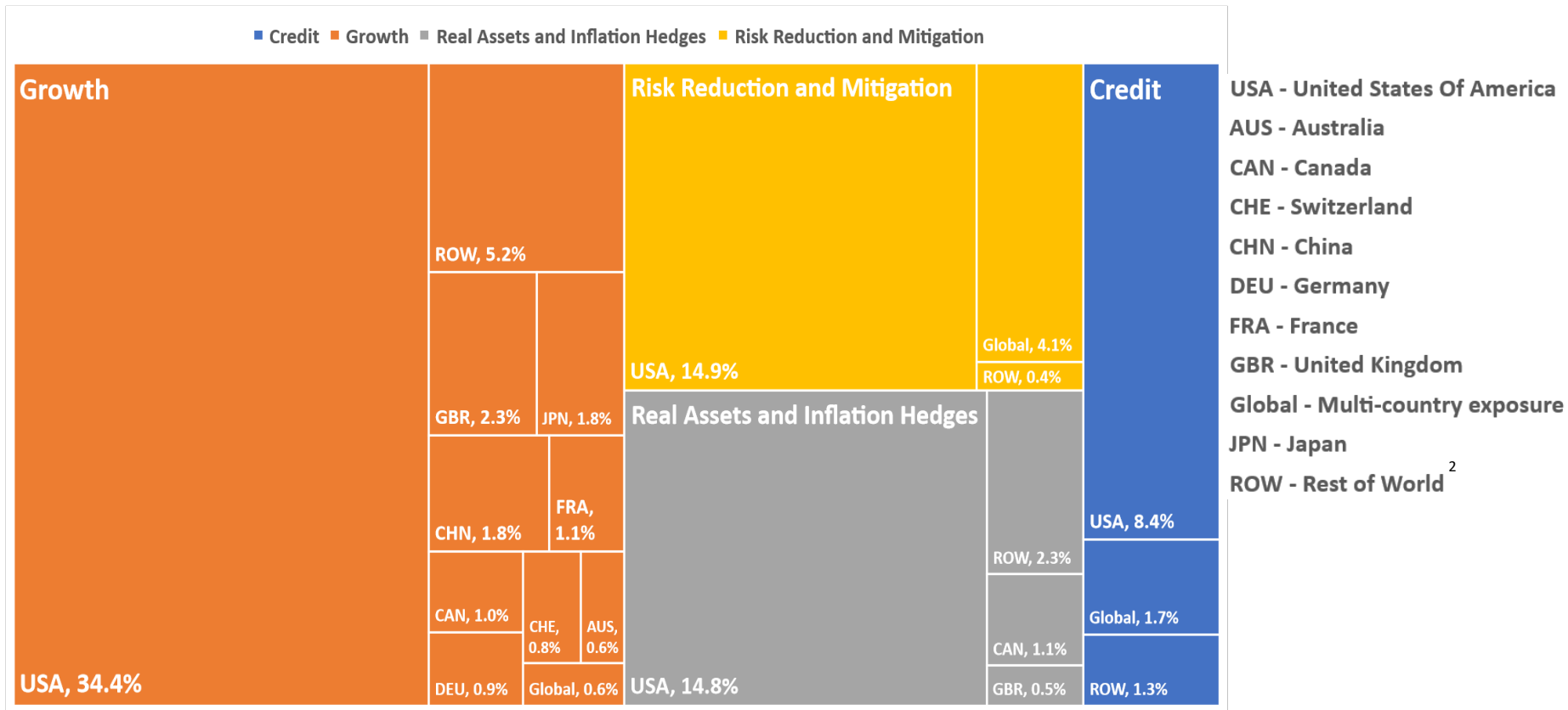
² "ROW - Rest of World" is sum of countries with weight below 0.5%

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



Geographic Exposures by AUM* - Asset Categories

as of August 2022 ex-overlays and hedges



*AUM = assets under management

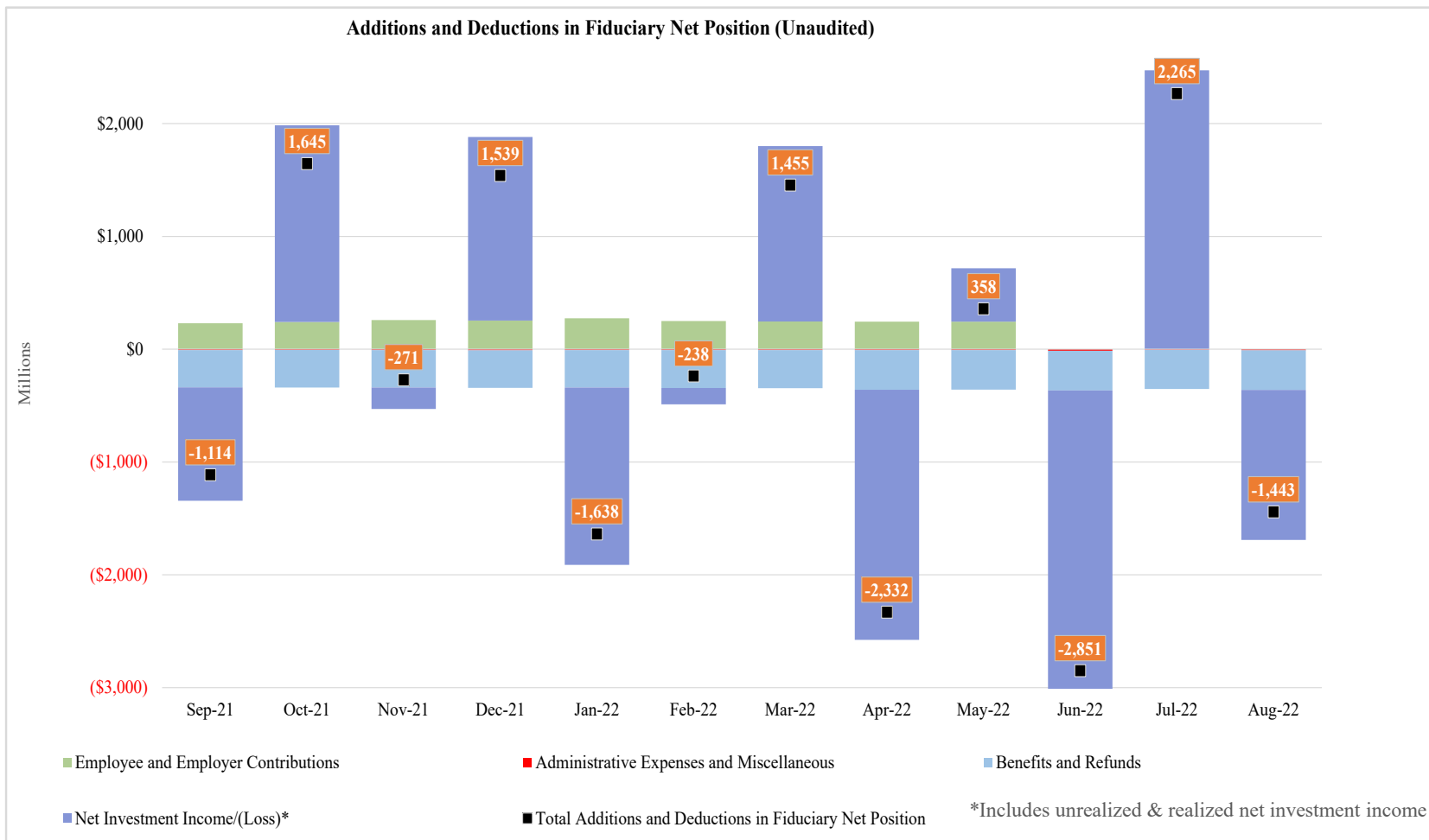
¹ *Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change. Real estate and private equity data used is as of 3/31/2022

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



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	1	1	\$822.5 million



Portfolio Structural Updates



Portfolio Structural Updates

Portfolio Movements

Rebalancing Activity



Hedges and Overlays

Program	Aug Return	Aug Gain/(Loss)	Inception* Gain/(Loss)
Currency Hedge**	1.3%	\$60.4 Million	\$1.3 Billion
Cash/Rebalance Overlay***	-2.7%	(\$95.6 Million)	\$209.3 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 October 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
- 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 Global Advisors (SSGA) – Growth – Has named Yie-Hsin Hung as the next head of its asset management business. Yie-Hsin Hung was the CEO of New York Life Investment Management and will begin her new role at SSGA in December. Hung will report to State Street president and CEO Ron O’Hanley and will be part of State Street’s executive committee.

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

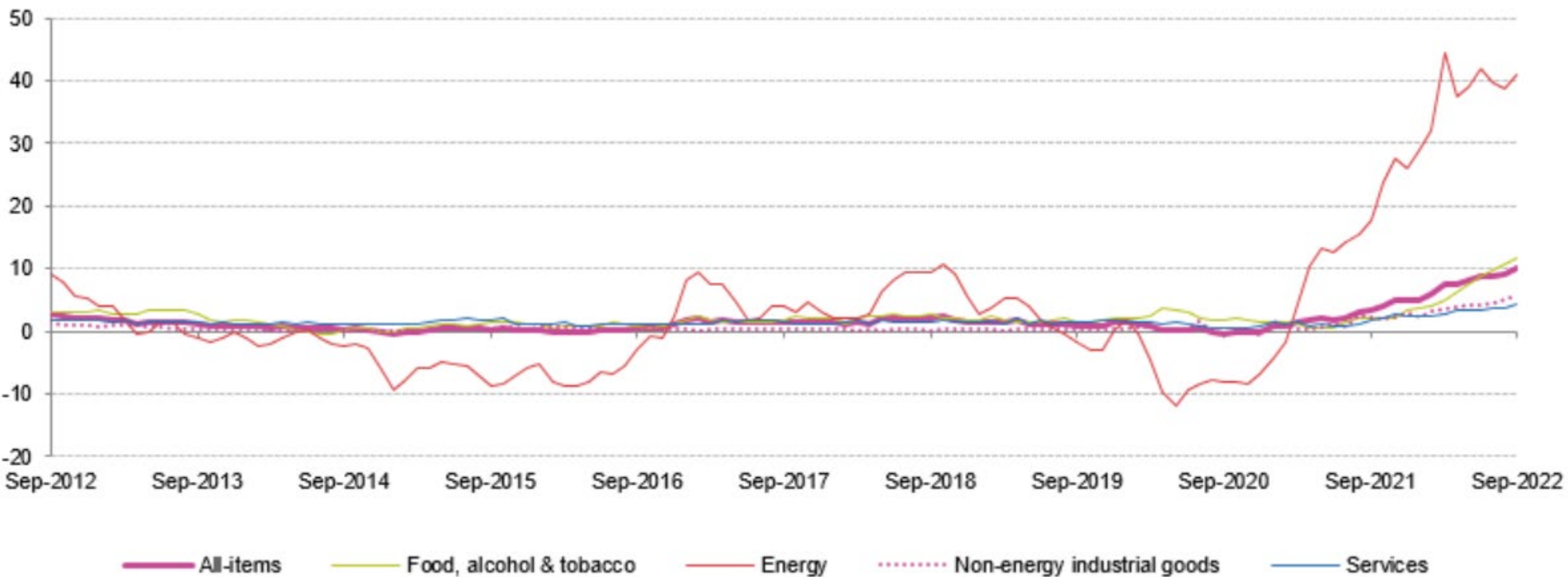


Staff Chart of the Month

Euro Area Annual Inflation and Main Components

Euro area annual inflation and its main components, September 2012 - September 2022 (estimated)

(%)



Source: Eurostat (online data code: prc_hicp_manr)

eurostat 

Staff Chart of the Month*

Most Consecutive Quarterly Declines for US Equities Since Global Financial Crisis

US stocks decline for three consecutive quarters

Quarterly performance, %, for the S&P 500



Sources: @_PeterWells, Refinitiv
© FT

Staff Chart of the Month*

U.S. Dollar Performance Against The Euro, Pound, and Yen

Performance of select currencies against U.S. dollar

■ Euro ■ British pound ■ Japanese yen



Source: Tullett Prebon