

Chief Investment Officer Monthly Report

Board of Investments

July 13, 2022



Jonathan Grabel 
Chief Investment Officer

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION

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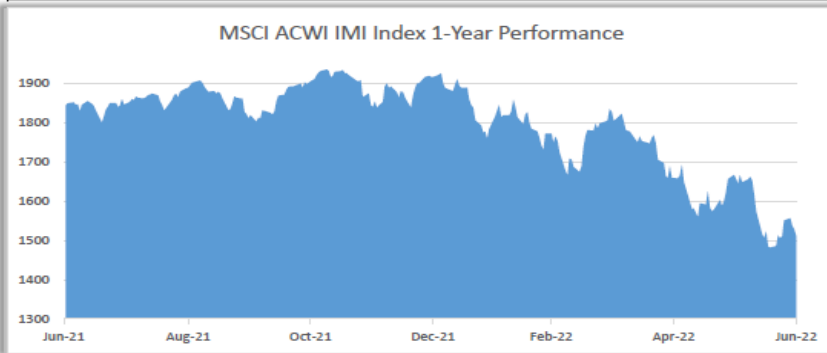
Market Environment



Global Market Performance as of June 30, 2022

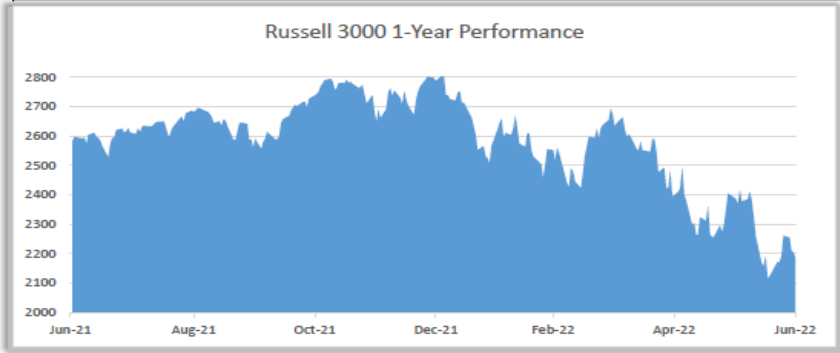
MSCI ACWI Index (Global Equity Market)*

| Trailing Returns (%) | | | Annualized Returns (%) | | | |
|----------------------|---------|-------|------------------------|-----|-----|-----|
| 1-month | 3-month | YTD | 1Y | 3Y | 5Y | 10Y |
| -8.6 | -15.8 | -20.4 | -16.5 | 6.0 | 6.7 | 8.7 |



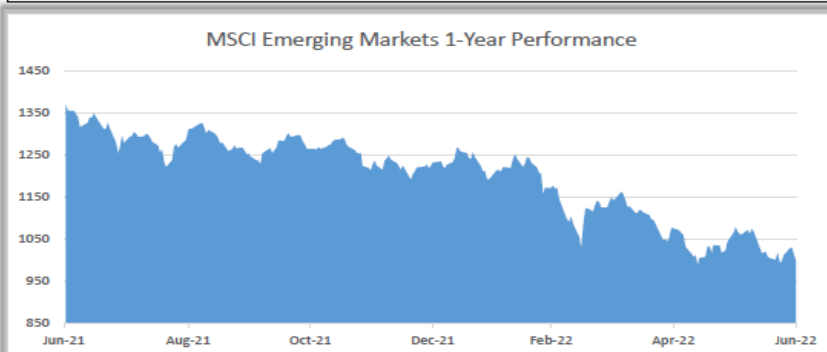
Russell 3000 Index (U.S. Equity Market)

| Trailing Returns (%) | | | Annualized Returns (%) | | | |
|----------------------|---------|-------|------------------------|-----|------|------|
| 1-month | 3-month | YTD | 1Y | 3Y | 5Y | 10Y |
| -8.4 | -16.7 | -21.1 | -13.9 | 9.8 | 10.6 | 12.6 |



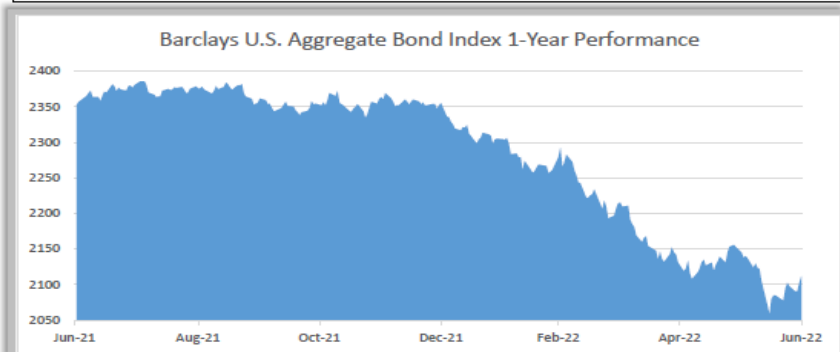
MSCI Emerging Market Index

| Trailing Returns (%) | | | Annualized Returns (%) | | | |
|----------------------|---------|-------|------------------------|-----|-----|-----|
| 1-month | 3-month | YTD | 1Y | 3Y | 5Y | 10Y |
| -6.6 | -11.5 | -17.6 | -25.3 | 0.6 | 2.2 | 3.1 |



Barclays U.S. Aggregate Bond Index**

| Trailing Returns (%) | | | Annualized Returns (%) | | | |
|----------------------|---------|-------|------------------------|------|-----|-----|
| 1-month | 3-month | YTD | 1Y | 3Y | 5Y | 10Y |
| -1.6 | -4.7 | -10.3 | -10.3 | -0.9 | 0.9 | 1.5 |



*Global Equity Policy Benchmark - MSCI ACWI IMI Index

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

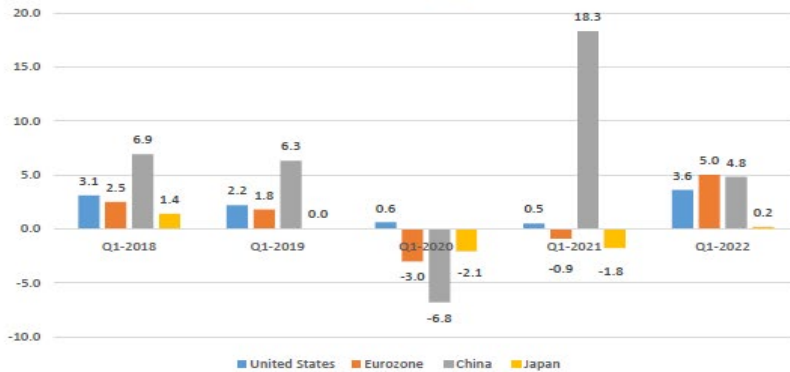
Source: Bloomberg



Key Macro Indicators*

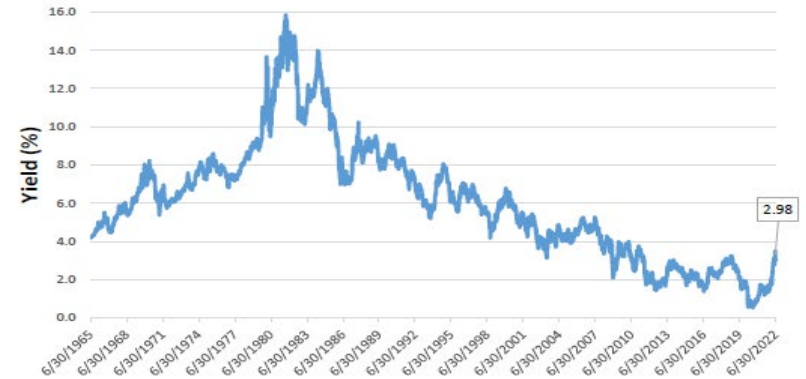
GDP Growth of Major Economies¹

Real GDP Growth YoY (%) - Last Five Years



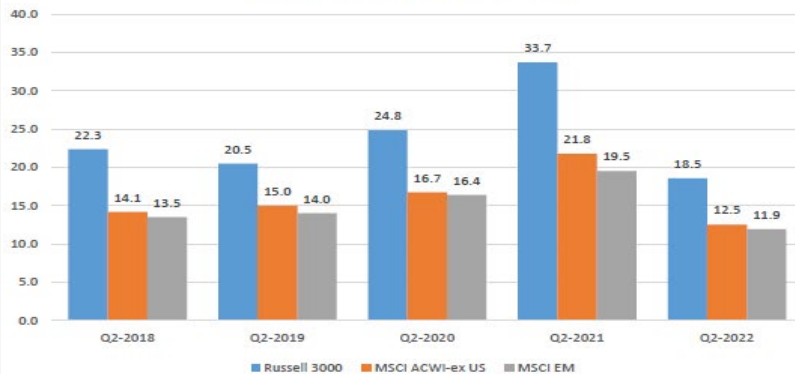
10-Year Treasury Yield²

Historical 10-Year Treasury Yield



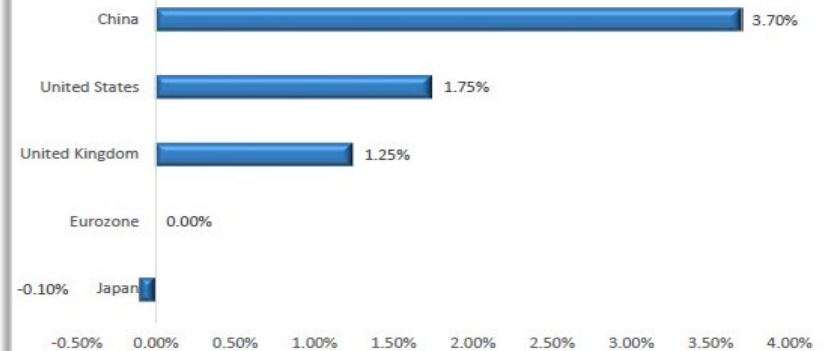
World Equity Valuation³

Price-to-Earnings - Last Five Years



Central Bank Rates⁴ (as of 6/30/2022)

Central Bank Rates



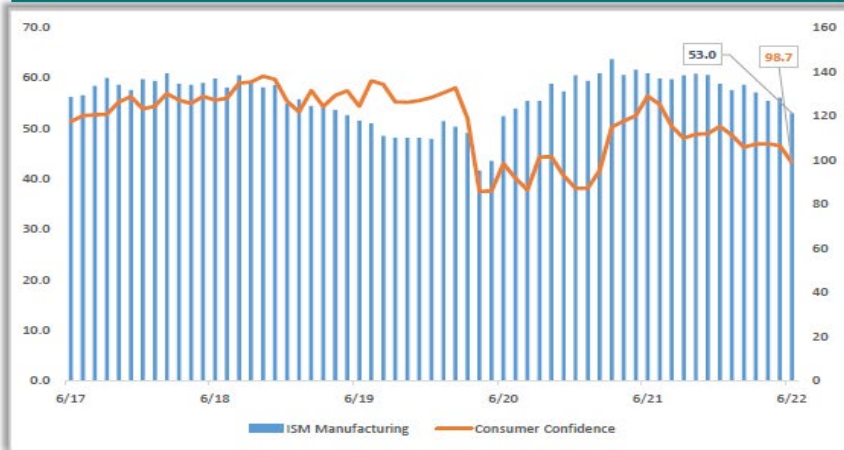
*The information on the "Key Macro Indicators" charts is the best available data as of 6/30/22 and may not reflect the current market and economic environment.

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



Key Macro Indicators*

Consumer Confidence & ISM Manufacturing¹



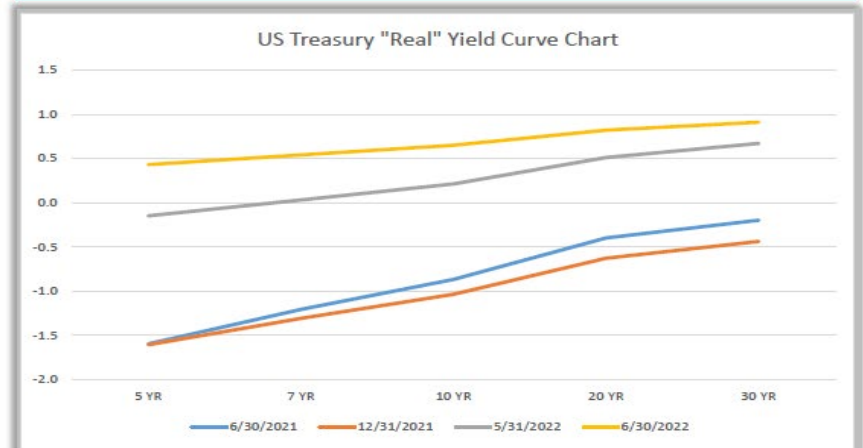
U.S. Inflation, Unemployment, & Labor Force Participation²



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 6/30/22 and may not reflect the current market and economic environment.



Market Themes and Notable Items to Watch

Recent Themes

- The U.S. Federal Reserve raised its primary borrowing rate by 0.75% in June, the sharpest hike since 1994, in an attempt to combat inflation
 - Additional rate hikes are expected this year
- The worst first half of a year in the stock market since 1970
- 40-year highs in inflation continue to be the greatest concern for central banks and a headwind to markets
- The U.S. 10-year Treasury yield ended June at 2.98%, 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 8.6% in June and is now down 20.4% this calendar year

What to Watch

- Interest rates and central bank actions
- Economic data and trends
 - Inflation, supply chains, and labor developments
- Changing macro conditions and geopolitical risks
- Environmental, social, governance
 - ESG reporting framework convergence, as SASB becomes part of IFRS
 - 25% increased volume of E&S shareholder proposals in U.S.
 - Regulatory focus on manager ESG window dressing
- Russia-Ukraine war
 - Continued geopolitical, global commerce, commodities, energy markets/transition impacts
- Covid-19
 - Covid variants, cases, transmission, vaccines
 - Economic and consumer behavior implications



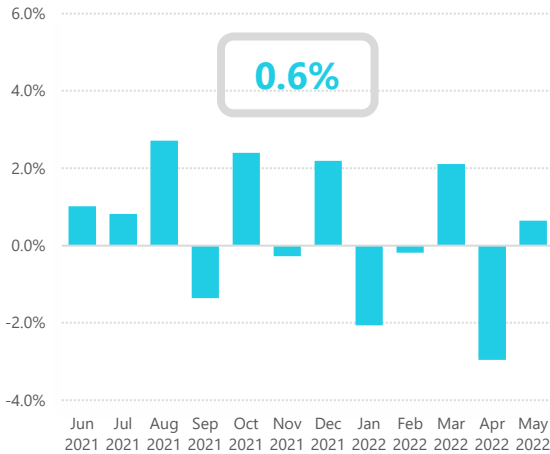
Portfolio Performance & Risk Updates



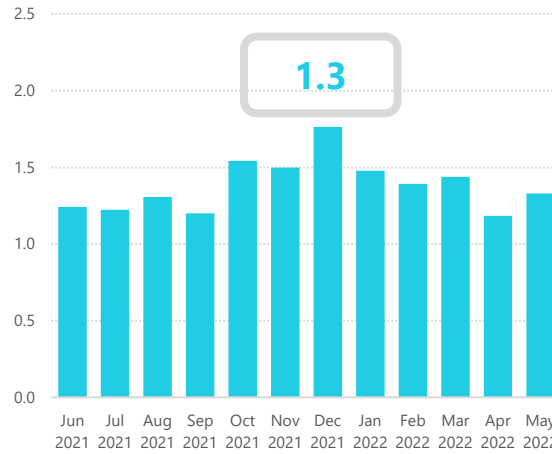
Total Fund Summary

as of May 2022

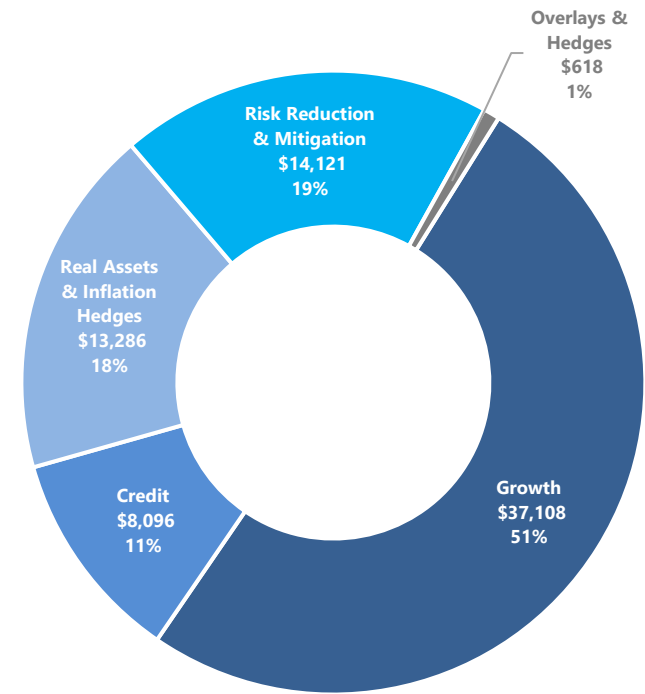
Monthly Return (net)



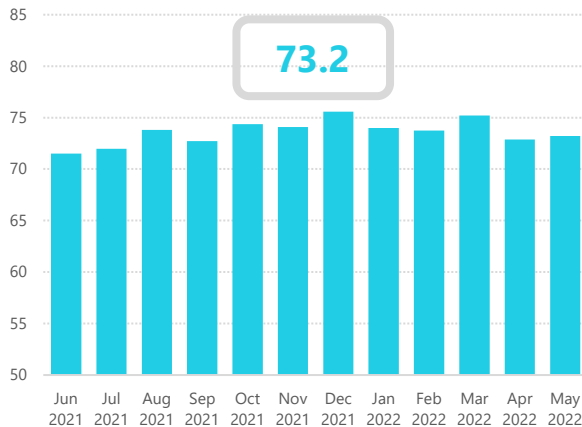
Sharpe Ratio (3-year annualized)



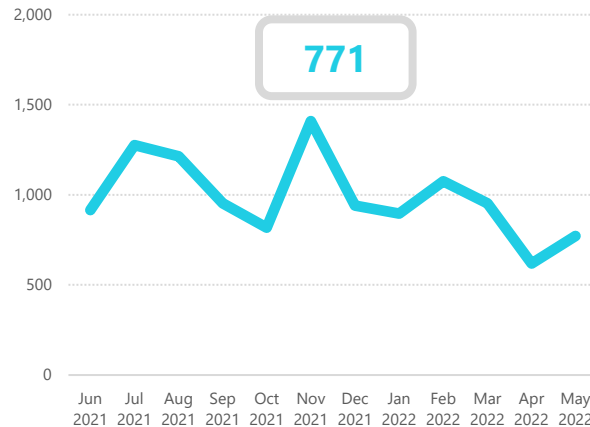
Asset Allocation (\$ millions)



Total Market Value (\$ billions)



Cash (\$ millions)

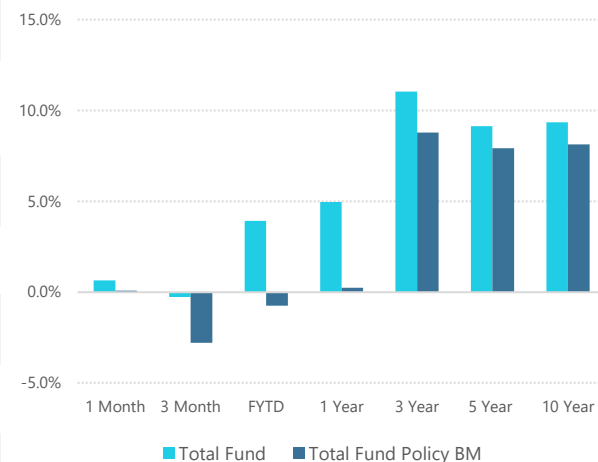


Historical Net Performance

as of May 2022

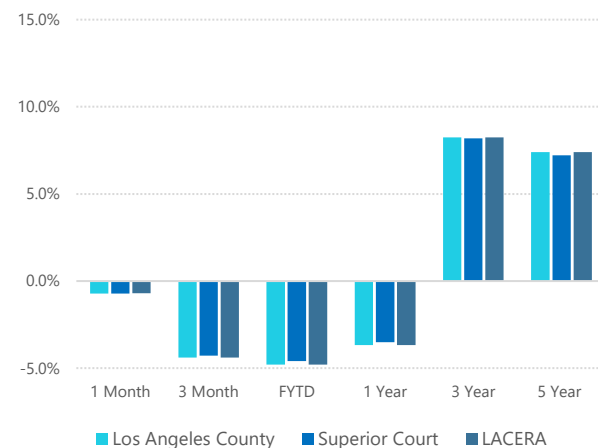
LACERA Pension Fund

| | Market Value (\$ millions) | % of Total Fund | Interim Target | 1 Month | 3 Month | FYTD | 1 Year | 3 Year | 5 Year | 10 Year |
|---|-------------------------------|--------------------|-------------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|
| Total Fund | 73,228 | 100.0% | 100.0% | 0.6% | -0.3% | 3.9% | 5.0% | 11.0% | 9.1% | 9.3% |
| Total Fund Policy BM | | | | 0.1% | -2.8% | -0.8% | 0.2% | 8.8% | 7.9% | 8.1% |
| 7% Annual Hurdle Rate | | | | 0.6% | 1.7% | 6.4% | 7.0% | 7.0% | 7.0% | 7.0% |
| Growth | 37,108 | 50.7% | 51.0% | 0.0% | -1.4% | 3.0% | 4.7% | 16.4% | | |
| Growth Policy BM | | | | -0.4% | -4.4% | -3.2% | -1.8% | 13.2% | | |
| Credit | 8,096 | 11.1% | 11.0% | -0.8% | -2.4% | -1.0% | -0.3% | 4.7% | | |
| Credit Policy BM | | | | -1.5% | -4.1% | -4.8% | -4.2% | 2.8% | | |
| Real Assets & Inflation Hedges | 13,286 | 18.1% | 17.0% | 3.9% | 7.1% | 20.1% | 19.9% | 10.5% | | |
| Real Assets & Inflation Hedges Policy BM | | | | 2.3% | 5.7% | 18.2% | 18.6% | 11.3% | | |
| Risk Reduction & Mitigation | 14,121 | 19.3% | 21.0% | 0.4% | -4.2% | -6.1% | -5.5% | 1.5% | | |
| Risk Reduction & Mitigation Policy BM | | | | 0.3% | -5.0% | -6.8% | -6.2% | 0.6% | | |
| Overlays & Hedges | 618 | 0.8% | | -6.1% | 70.9% | | | | | |



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 | 2,463 | | | -0.7% | -4.4% | -4.8% | -3.7% | 8.3% | 7.4% |
| Los Angeles County | 2,395 | 97.2% | — | -0.7% | -4.4% | -4.8% | -3.7% | 8.3% | 7.4% |
| Superior Court | 59 | 2.4% | — | -0.7% | -4.3% | -4.6% | -3.5% | 8.2% | 7.2% |
| LACERA | 9 | 0.4% | — | -0.7% | -4.4% | -4.8% | -3.7% | 8.2% | 7.4% |
| OPEB Growth | 1,231 | 50.0% | 50.0% | 0.1% | -5.8% | -8.4% | -7.3% | 11.8% | 9.1% |
| OPEB MT Growth Policy BM | | | | 0.1% | -6.0% | -8.6% | -7.5% | 11.5% | 8.8% |
| OPEB Credit | 496 | 20.1% | 20.0% | -0.7% | -3.1% | -5.4% | -5.0% | 1.7% | -- |
| OPEB MT Credit Policy BM | | | | -1.0% | -3.7% | -5.7% | -5.4% | 1.9% | -- |
| OPEB Real Assets & Inflation Hedges | 491 | 19.9% | 20.0% | -3.4% | -0.8% | 8.1% | 10.0% | 9.0% | -- |
| OPEB MT RA & IH Policy BM | | | | -3.4% | -1.2% | 7.7% | 9.6% | 8.7% | -- |
| OPEB Risk Reduction & Mitigation | 245 | 9.9% | 10.0% | 0.5% | -4.6% | -7.1% | -6.5% | 0.3% | 1.7% |
| OPEB MT RR & M Policy BM | | | | 0.5% | -4.7% | -7.1% | -6.6% | 0.2% | 1.5% |
| Operational Cash | 0 | 0.0% | | | | | | | |

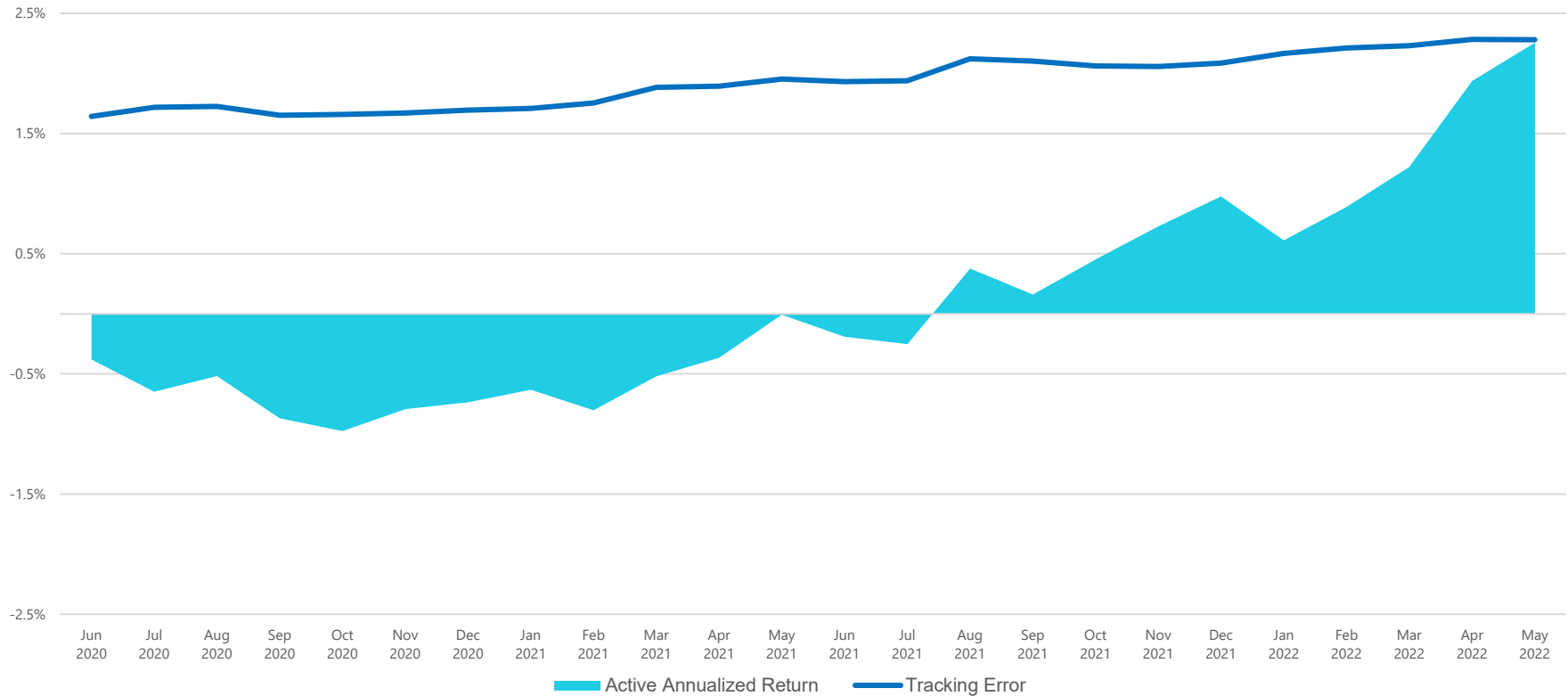


1. Market value differences between the sub-trusts and functional composites are due to operational cash.

Performance Based Risk

as of May 2022

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



| Period Ending | Annualized Return | Annualized Benchmark Return | Annualized Active Return | Tracking Error |
|---------------|-------------------|-----------------------------|--------------------------|----------------|
| May 2022 | 11.0% | 8.8% | 2.3% | 2.3% |

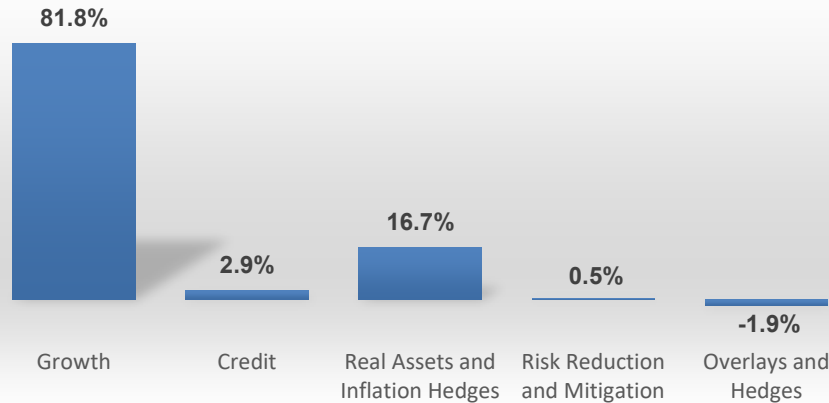
1. Rolling 36 months.
 2. Active return equals the difference in return between a portfolio and its benchmark.
 3. Tracking error (or active risk) measures the volatility of active returns.



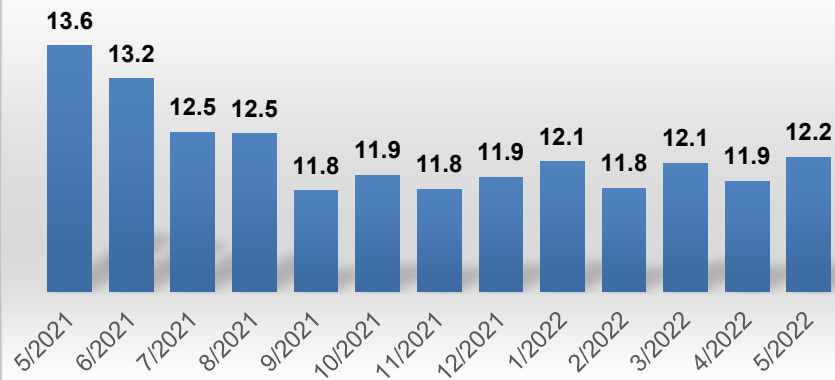
Total Fund Forecast Risk*

as of May 2022

%Contribution to Total Risk



Total Risk



| | %Weight | % Cont. to Total Risk | Standalone Total Risk | Standalone BMK Risk** |
|---|--------------|-----------------------|-----------------------|-----------------------|
| Total Fund | | | 12.2 | 11.6 |
| Growth | 50.8% | 81.8% | 19.8 | 18.3 |
| Global Equity | 32.4% | 44.4% | 17.6 | 17.7 |
| Private Equity | 16.9% | 33.9% | 27.7 | 25.3 |
| Non-Core Private Real Estate | 1.5% | 3.4% | 41.1 | 18.5 |
| Credit | 11.0% | 2.9% | 4.3 | 4.9 |
| Liquid Credit | 6.5% | 2.2% | 5.3 | 4.9 |
| Illiquid Credit | 4.4% | 0.8% | 4.2 | 4.9 |
| Real Assets & Inflation Hedges | 18.2% | 16.7% | 12.7 | 12.9 |
| Core Private Real Estate | 6.1% | 6.7% | 19.4 | 18.5 |
| Natural Resources & Commodities | 5.2% | 4.9% | 15.6 | 19.7 |
| Infrastructure | 4.2% | 4.6% | 15.8 | 16.1 |
| TIPS | 2.8% | 0.4% | 5.6 | 5.7 |
| Risk Reduction and Mitigation | 19.2% | 0.5% | 4.6 | 4.4 |
| Investment Grade Bonds | 11.0% | 0.3% | 5.3 | 5.2 |
| Diversified Hedge Funds | 5.4% | 0.4% | 4.0 | 0.1 |
| Long-Term Government Bonds | 1.7% | -0.1% | 13.0 | 13.0 |
| Cash | 1.1% | 0.0% | - | - |
| Overlays and Hedges | 0.9% | -1.9% | - | - |

*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 12/31/2021

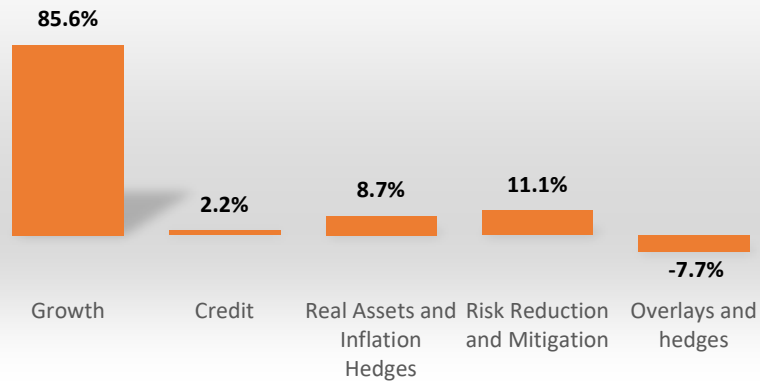
**BMK Risk stands for Benchmark Risk



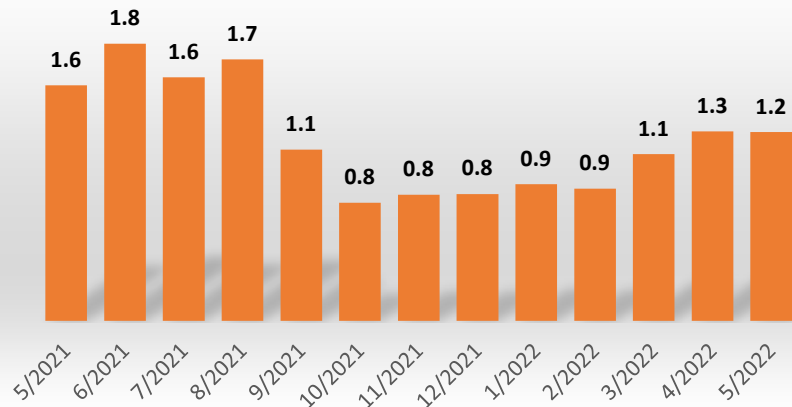
Total Fund Forecast Active Risk*

as of May 2022

Active Risk Contribution



Active Risk



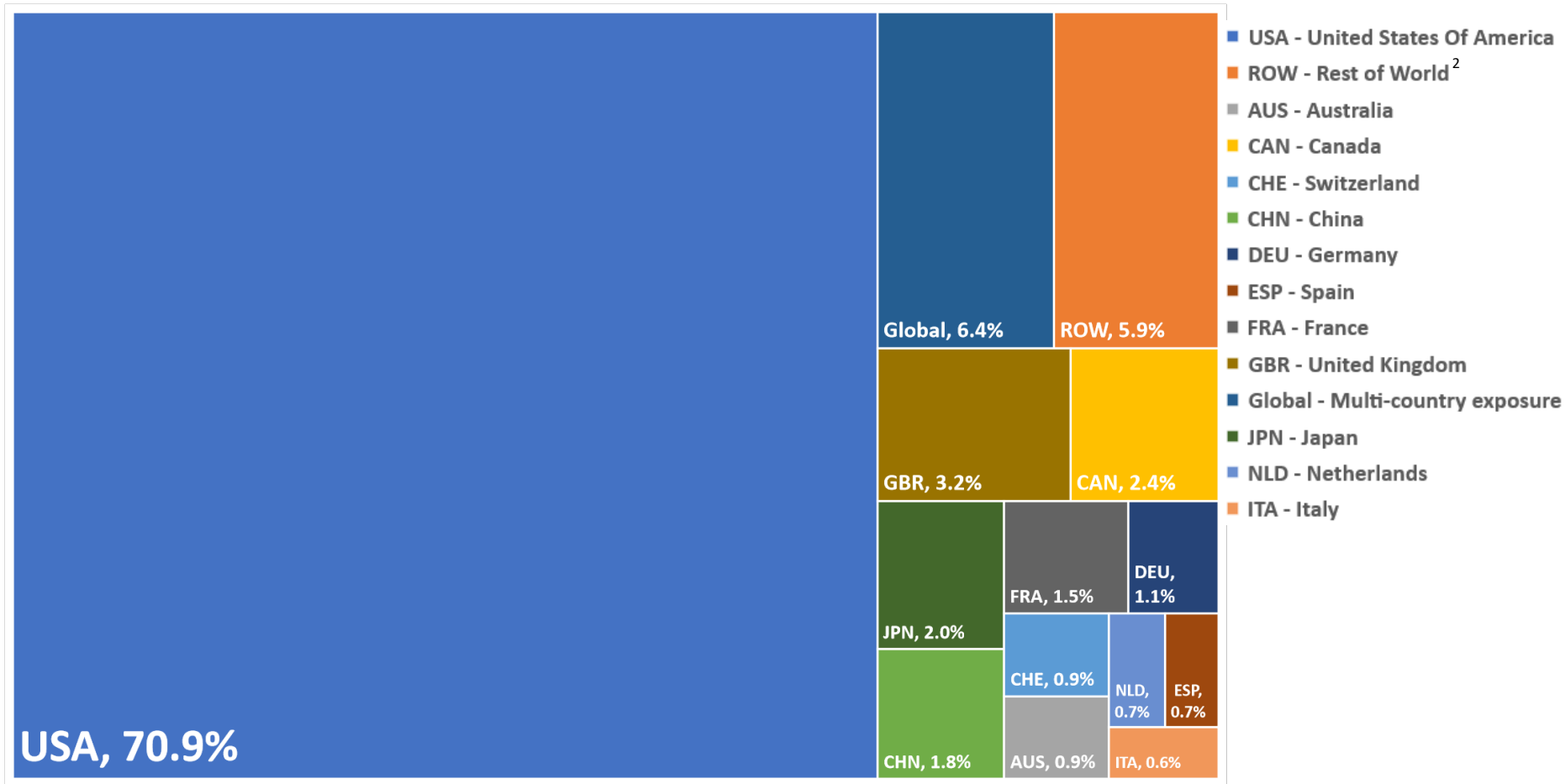
| | %Weight | Active Weight% | Active Risk | Active Risk Allocation | Active Risk Selection |
|---|--------------|----------------|--------------|------------------------|-----------------------|
| Total Fund | | | 1.25 | -0.04 | 1.29 |
| Growth | 50.8% | -0.21% | 1.07 | -0.01 | 1.08 |
| Global Equity | 32.4% | | | | |
| Private Equity | 16.9% | | | | |
| Non-Core Private Real Estate | 1.5% | | | | |
| Credit | 11.0% | -0.02% | 0.03 | 0.00 | 0.03 |
| Liquid Credit | 6.5% | | | | |
| Illiquid Credit | 4.4% | | | | |
| Real Assets & Inflation Hedges | 18.2% | 1.21% | 0.11 | -0.03 | 0.14 |
| Core Private Real Estate | 6.1% | | | | |
| Natural Resources & Commodities | 5.2% | | | | |
| Infrastructure | 4.2% | | | | |
| TIPS | 2.8% | | | | |
| Risk Reduction and Mitigation | 19.2% | -1.84% | 0.14 | 0.09 | 0.05 |
| Investment Grade Bonds | 11.0% | | | | |
| Diversified Hedge Funds | 5.4% | | | | |
| Long-Term Government Bonds | 1.7% | | | | |
| Cash | 1.1% | | | | |
| Overlays and Hedges | 0.9% | 0.87% | -0.10 | -0.10 | - |

*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 12/31/2021



Geographic Exposures by AUM* - Total Fund

as of May 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 12/31/2021

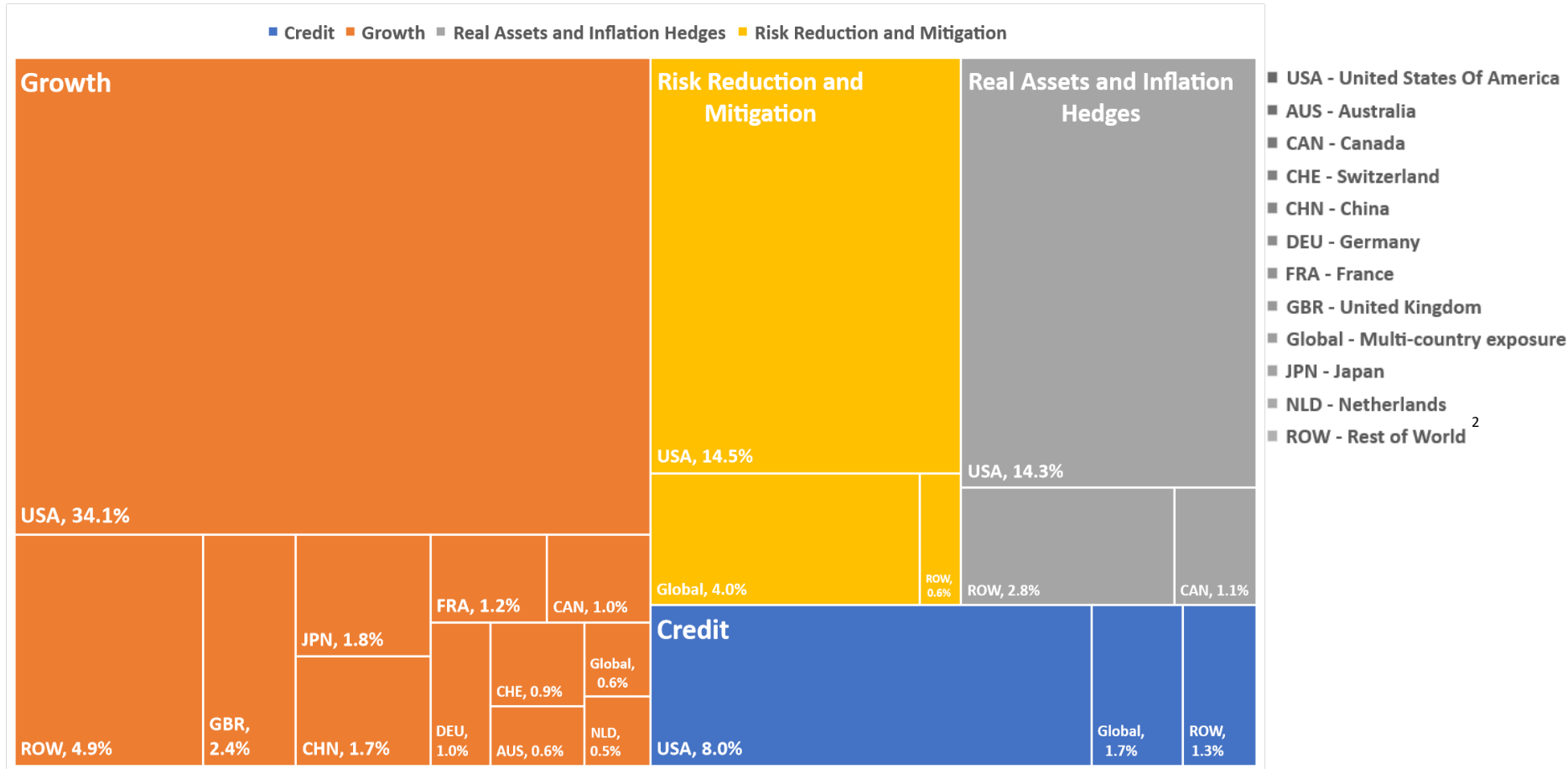
² "ROW - Rest of World" is sum of countries with weight below 0.5%

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



Geographic Exposures by AUM* - Asset Categories

as of May 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 12/31/2021

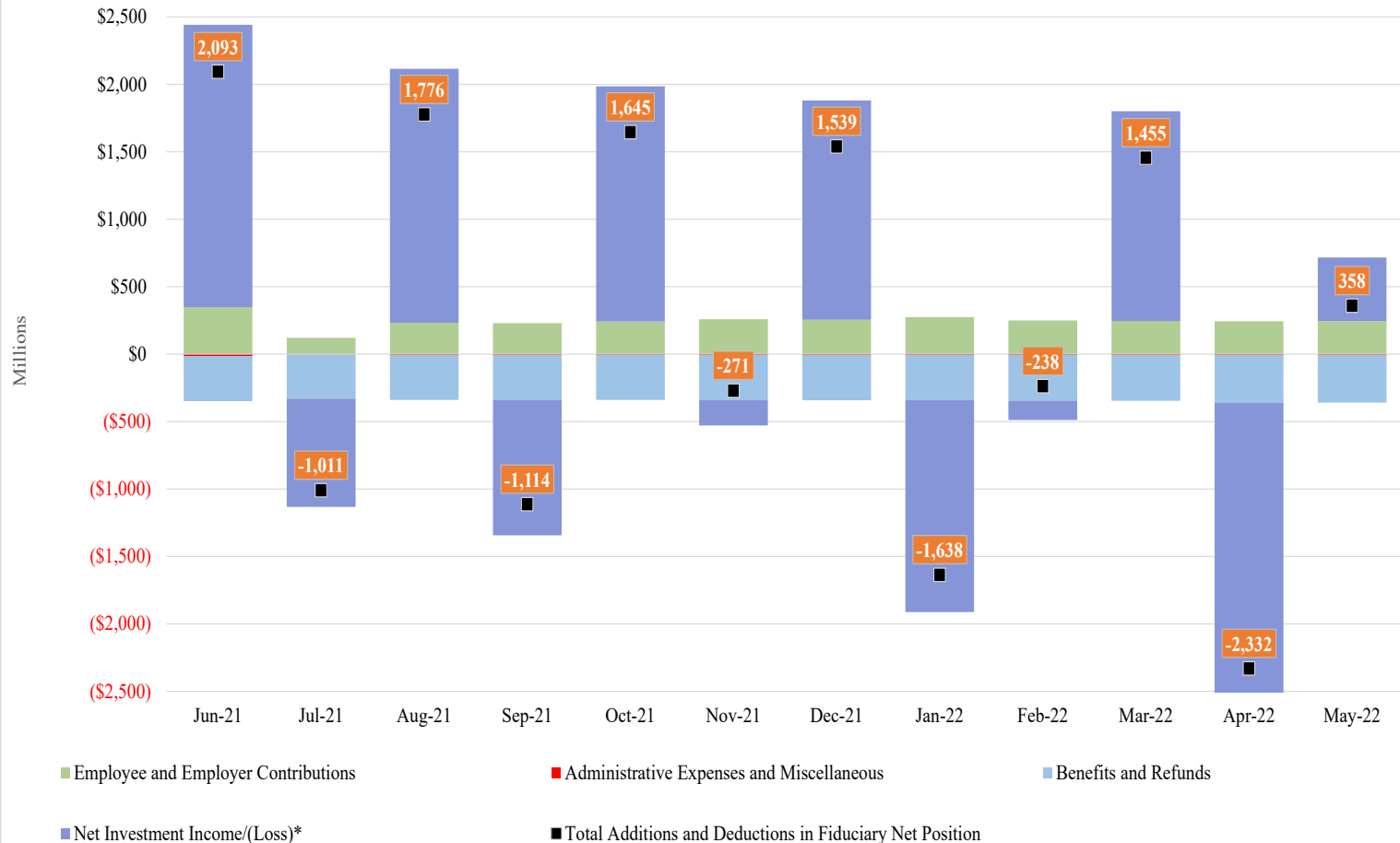
² "ROW - Rest of World" is sum of countries with weight below 0.5%

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



Change In Fiduciary Net Position

Additions and Deductions in Fiduciary Net Position (Unaudited)



| Fiscal Year | Negative Months | Positive Months | Total Net Position Change \$ |
|-------------|-----------------|-----------------|------------------------------|
| FY-20 | 5 | 7 | - |
| FY-21 | 2 | 10 | \$13.8 billion |
| FY-22 | 6 | 5 | \$170 thousand |



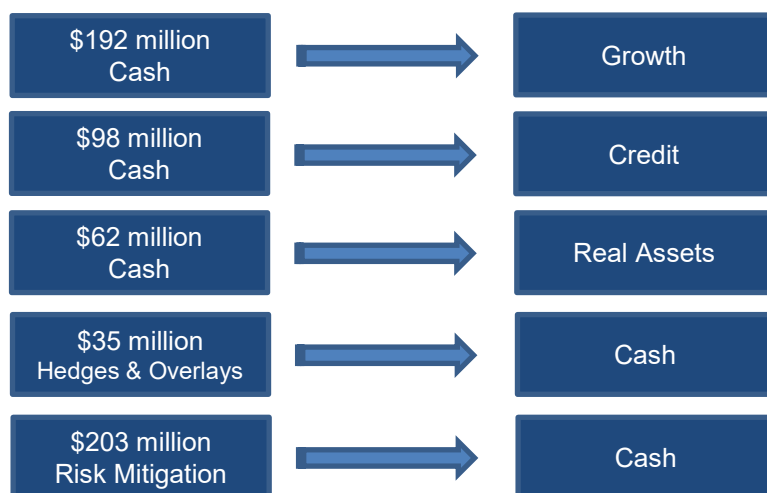
Portfolio Structural Updates



Portfolio Structural Updates

Portfolio Movements

Rebalancing Activity



Hedges and Overlays

| Program | May Return | May Gain/(Loss) | Inception* Gain/(Loss) |
|---------------------------|------------|------------------|------------------------|
| Currency Hedge** | -0.4% | \$34.6 Million | \$1.1 Billion |
| Cash/Rebalance Overlay*** | -0.5% | (\$10.9 Million) | \$105.5 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 |
|--|------------|---------------|-------------------------|
| Illiquid Credit Emerging Manager Program Search | ● | ● | Anticipated Mid 2022 |
| Custody Bank Search | ● | ● | Anticipated August 2022 |
| OPEB Private Markets Investments Search | ● | ● | Anticipated August 2022 |
| Global Equity Emerging Separate Account Manager Search | ● | ● | Anticipated Late 2022 |

Quiet Period for Search Respondents

Please see the Appendix for this month's list of respondents to active searches



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
- Preparations for the BOI Offsite in September are underway

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
 - 4 – Financial Analyst-III
 - 4 searches in progress
 - 2 – Financial Analyst-II

Manager/Consultant Updates

Parametric – Total Fund – Tom Lee, Chief Investment Officer, and Ranjit Kapila, Chief Operations Officer, will become Co-Presidents of Parametric, in addition to their current titles and responsibilities, effective January 1st, 2023. As Co-Presidents, Mr. Lee and Mr. Kapila will work closely with Brian Langstraat, Parametric’s CEO, to implement the firm’s strategy as well as expand their day-to-day leadership roles.

Genesis - Growth –Yiyong Yang and Rufus Frazier, both Partners and Portfolio Managers at Genesis will be leaving the firm. Mr. Yang will be leaving the firm at the end of the year following a transition period. Mr. Rufus is leaving to pursue other interests. The transition of Mr. Yang and Mr. Frazier’s responsibilities to the rest of the portfolio management team is underway.



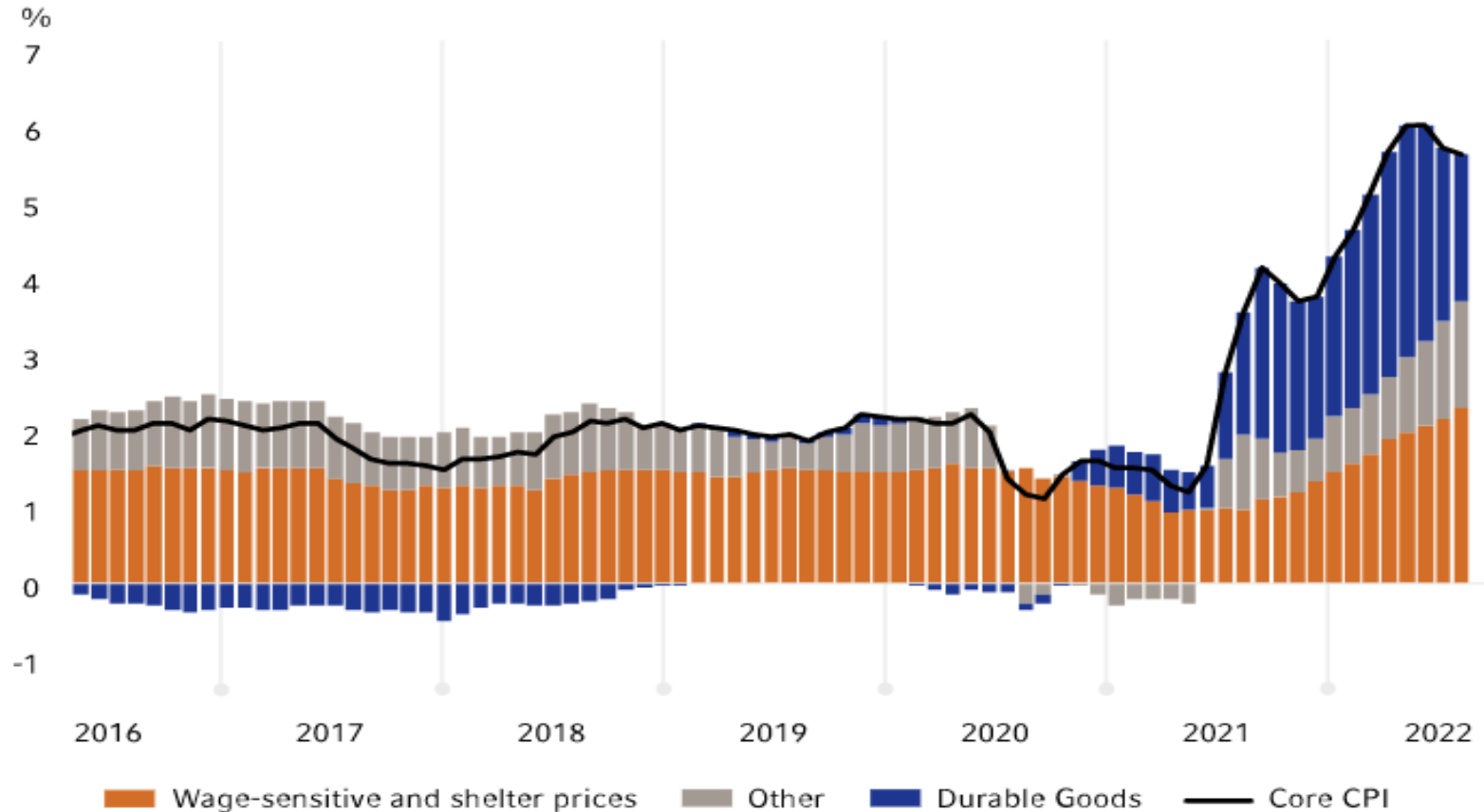
Commentary



Staff Chart of the Month*

Durable Goods Impact on U.S. Core Inflation

DURABLE GOODS HAVE BEEN THE BIGGEST CAUSE OF RISING U.S. CORE INFLATION



Source: Refinitiv® DataStream®, as of May 15, 2022. CPI is consumer price index. Chart shows year-over-year % change.



Appendix



Quiet Period for Search Respondents

Custody Bank Search

- ✓ State Street Bank and Trust Co.

Illiquid Credit Emerging Manager Program Search

- ✓ BlackRock Alternative Advisors
- ✓ Blackstone Alternative Asset Management
- ✓ Cambridge Associates
- ✓ GCM Grosvenor
- ✓ Stable Asset Management

OPEB Private Markets Investments Search

- ✓ BlackRock Financial Management Inc.
- ✓ Cambridge Associates LLC
- ✓ Goldman Sachs Asset Management, L.P.
- ✓ Hamilton Lane Advisors, LLC
- ✓ HarbourVest Partners, LLC
- ✓ J.P. Morgan Asset Management
- ✓ Morgan Stanley Investment Management
- ✓ Neuberger Berman Alternatives Advisers, LLC
- ✓ Pathway Capital Management, LP
- ✓ StepStone Group Holdings, LLC

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.