

Chief Investment Officer Monthly Report

Board of Investments

June 8, 2022



Jonathan Grabel 
Chief Investment Officer

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION

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Market Environment



Global Market Performance as of May 31, 2022

MSCI ACWI Index (Global Equity Market)*

| Trailing Returns (%) | | | Annualized Returns (%) | | | |
|----------------------|---------|-------|------------------------|------|-----|------|
| 1-month | 3-month | YTD | 1Y | 3Y | 5Y | 10Y |
| 0.1 | -6.0 | -12.9 | -7.5 | 11.5 | 8.8 | 10.2 |

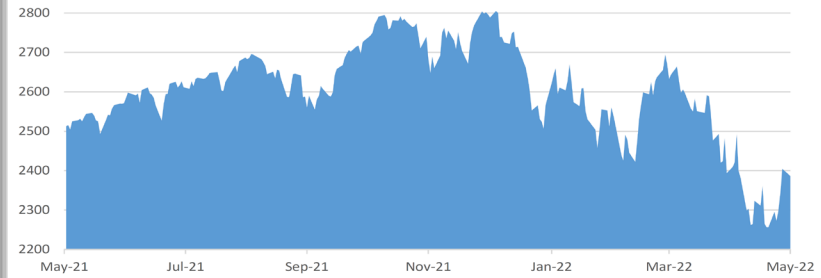
Russell 3000 Index (U.S. Equity Market)

| Trailing Returns (%) | | | Annualized Returns (%) | | | |
|----------------------|---------|-------|------------------------|------|------|------|
| 1-month | 3-month | YTD | 1Y | 3Y | 5Y | 10Y |
| -0.1 | -6.2 | -13.9 | -3.7 | 15.6 | 12.8 | 14.0 |

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 | -7.3 | -11.8 | -19.8 | 5.0 | 3.8 | 4.2 |

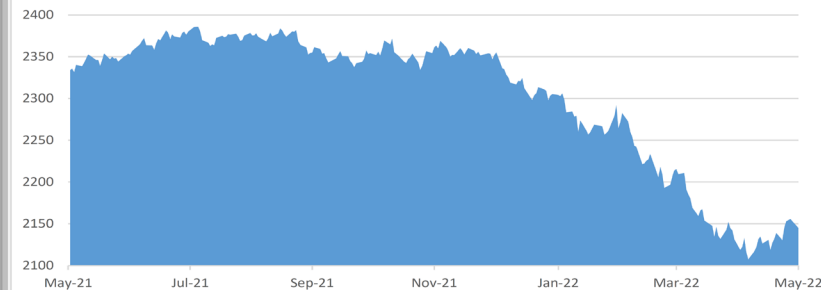
Barclays U.S. Aggregate Bond Index**

| Trailing Returns (%) | | | Annualized Returns (%) | | | |
|----------------------|---------|------|------------------------|-----|-----|-----|
| 1-month | 3-month | YTD | 1Y | 3Y | 5Y | 10Y |
| 0.6 | -5.9 | -8.9 | -8.2 | 0.0 | 1.1 | 1.7 |

MSCI Emerging Markets 1-Year Performance



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



*Global Equity Policy Benchmark - MSCI ACWI IMI Index

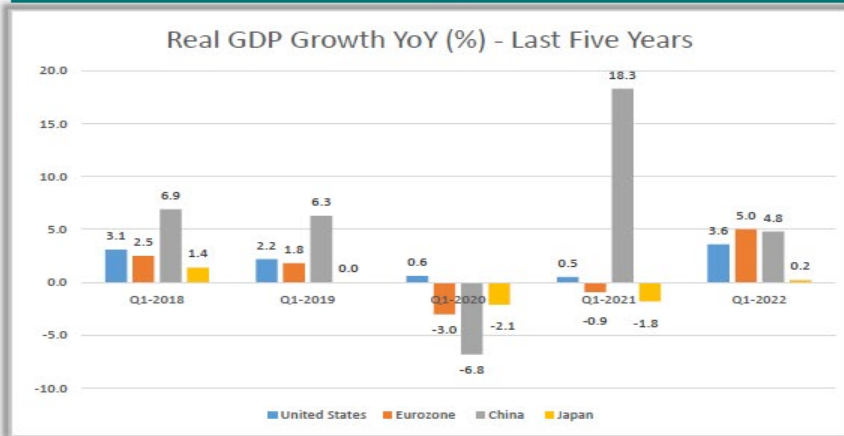
**Investment Grade Bonds Policy Benchmark - Barclays U.S. Aggregate Bond Index

Source: Bloomberg

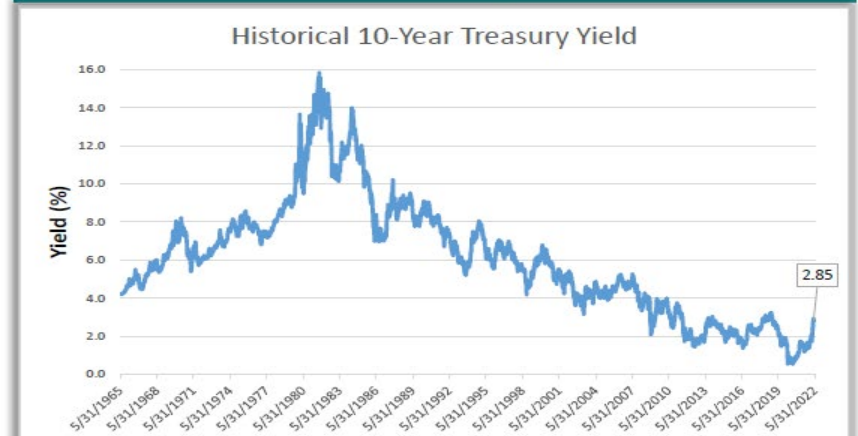


Key Macro Indicators*

GDP Growth of Major Economies¹



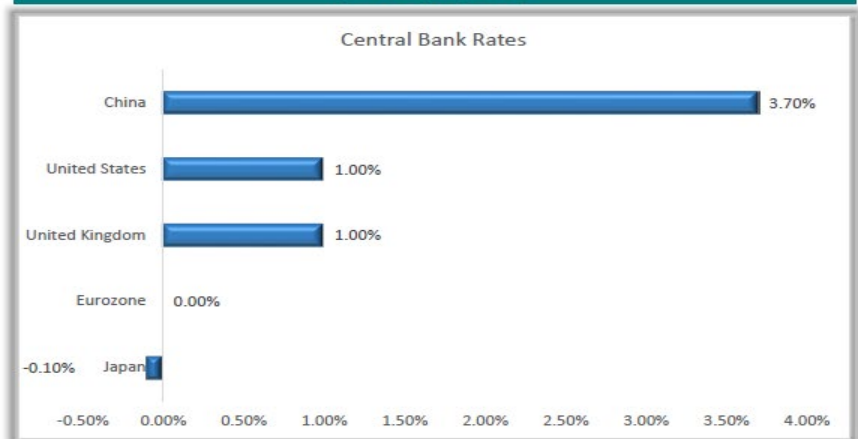
10-Year Treasury Yield²



World Equity Valuation³



Central Bank Rates⁴ (as of 5/31/2022)



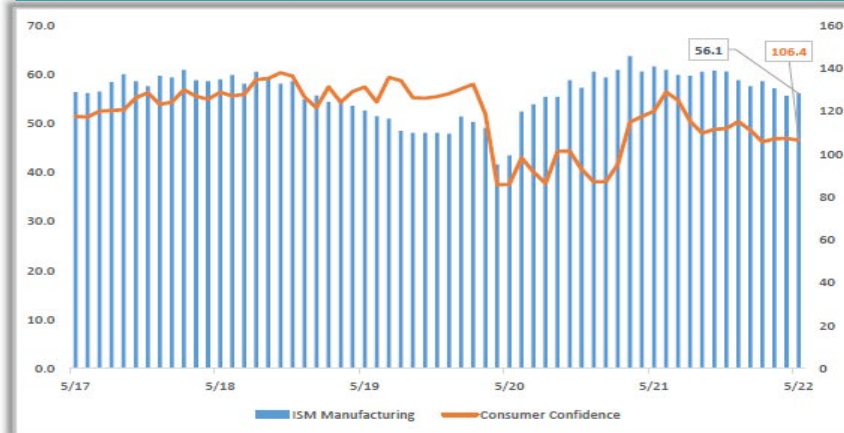
*The information on the "Key Macro Indicators" charts is the best available data as of 5/31/22 and may not reflect the current market and economic environment.

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

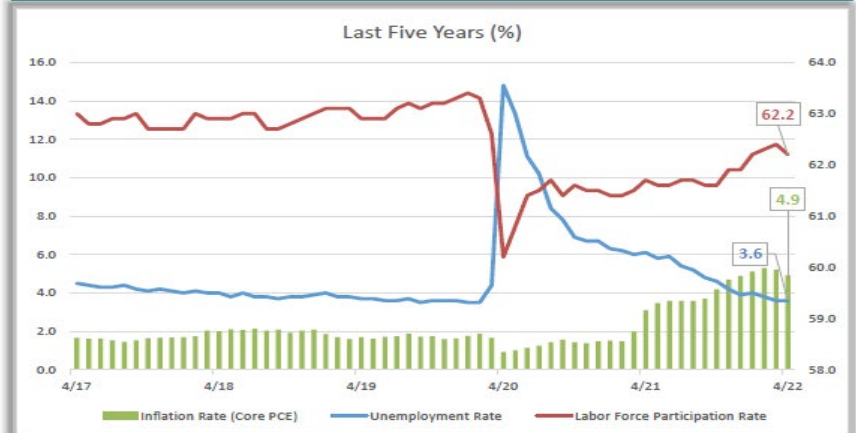


Key Macro Indicators*

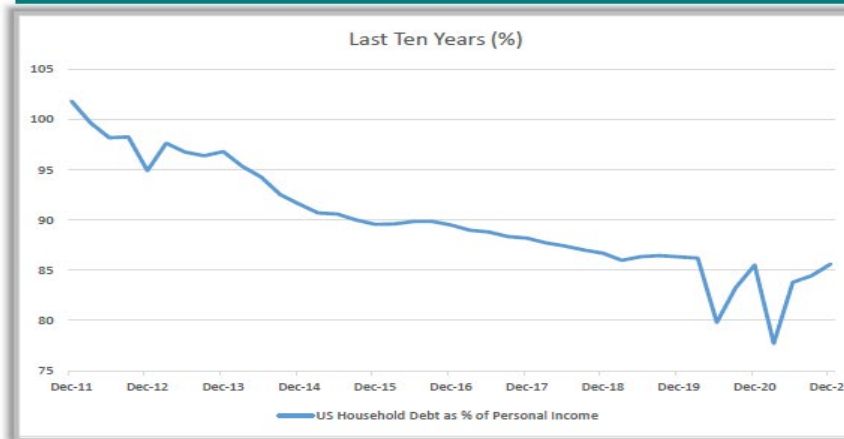
Consumer Confidence & ISM Manufacturing¹



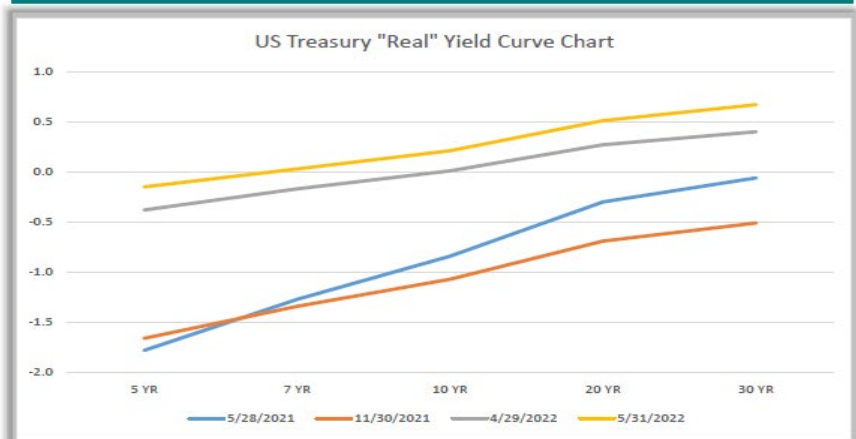
U.S. Inflation, Unemployment, & Labor Force Participation²



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 5/31/22 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 0.50% in early May while citing urgency to combat rising inflation
 - Additional rate hikes are expected this year
- 40-year highs in inflation continue to be a headwind for consumer sentiment
- The U.S. 10-year treasury yield ended May at 2.85%, 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) rose 0.1% in May
- Covid-19
 - More than 529 million cases, 6.2 million deaths, and 11.5 billion vaccine doses

What to Watch

- Interest rates and consumer mortgage rates
- Economic data and trends
 - Inflation, supply chains, and labor developments
- Changing macro conditions
 - Central bank actions and geopolitical risks
- Environmental, social, governance
 - SEC proposes disclosure guidance on ESG funds
- Russia-Ukraine war
 - Continued geopolitical, global commerce, commodities, energy markets/transition impacts
- Covid-19
 - Economic and consumer behavior implications
 - Covid variants, transmission, vaccines



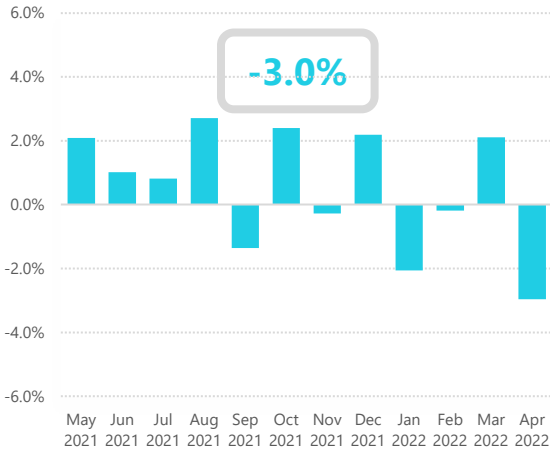
Portfolio Performance & Risk Updates



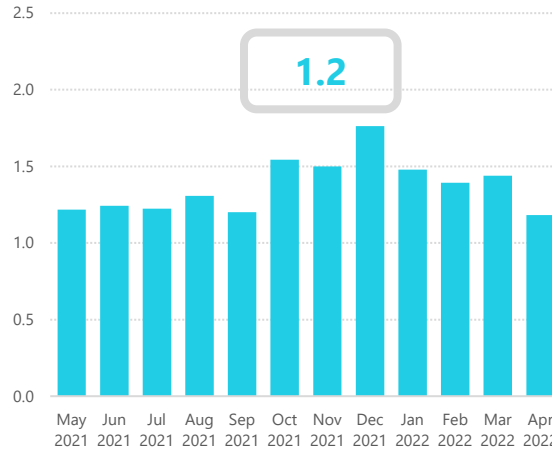
Total Fund Summary

as of April 2022

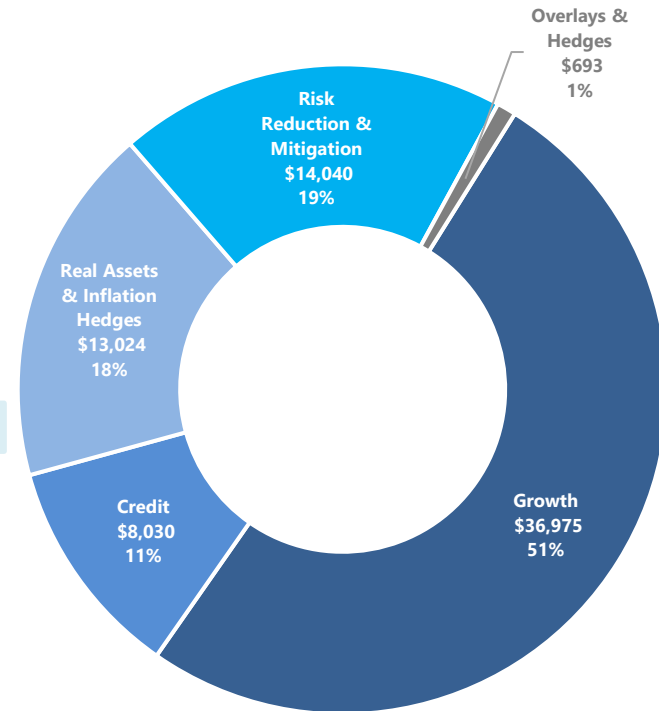
Monthly Return (net)



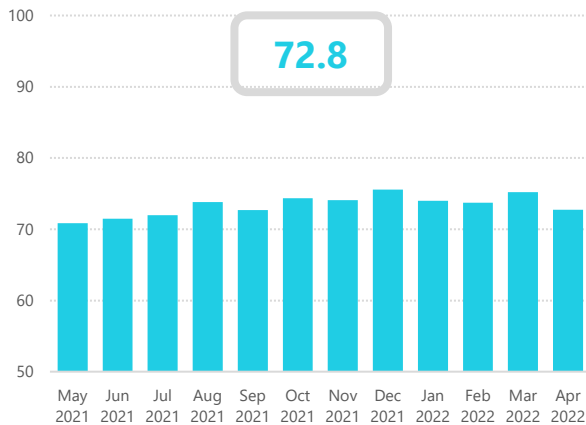
Sharpe Ratio (3-year annualized)



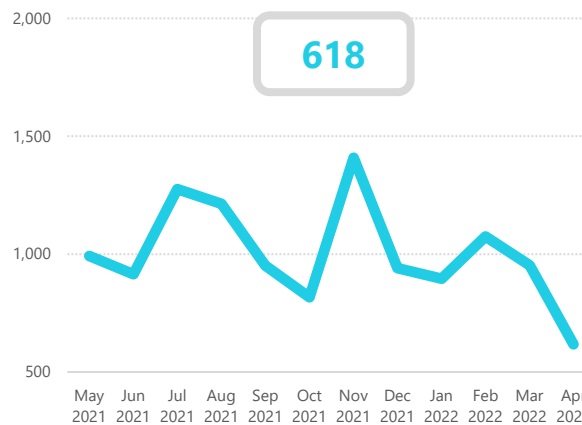
Asset Allocation (\$ millions)



Total Market Value (\$ billions)



Cash (\$ millions)

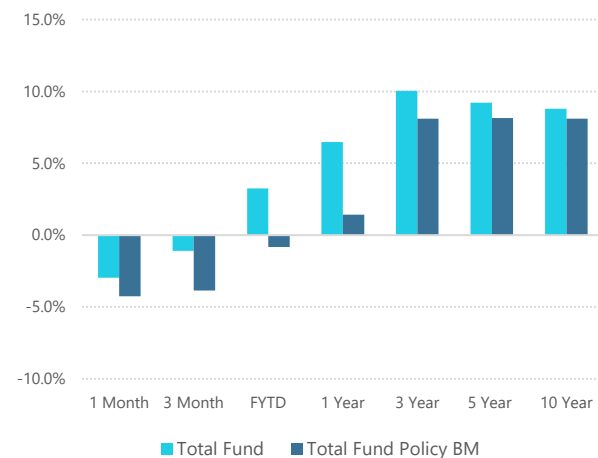


Historical Net Performance

as of April 2022

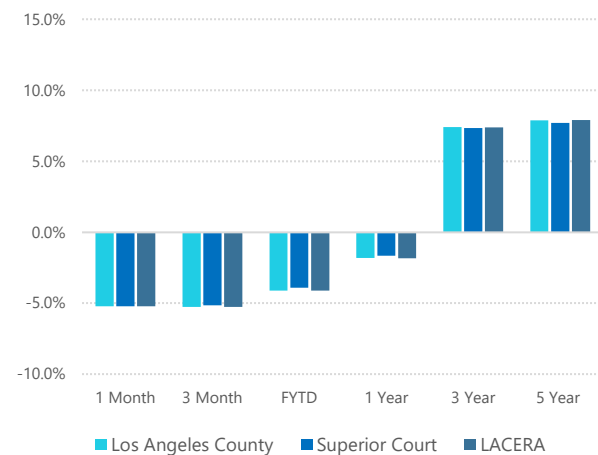
LACERA Pension Fund

| | Market Value (\$ millions) | % of Total Fund | Interim Target | 1 Month | 3 Month | FYTD | 1 Year | 3 Year | 5 Year | 10 Year |
|---|----------------------------|-----------------|----------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|
| Total Fund | 72,761 | 100.0% | 100.0% | -3.0% | -1.1% | 3.2% | 6.5% | 10.0% | 9.2% | 8.8% |
| Total Fund Policy BM | | | | -4.2% | -3.8% | -0.8% | 1.4% | 8.1% | 8.1% | 8.1% |
| 7% Annual Hurdle Rate | | | | 0.6% | 1.7% | 5.8% | 7.0% | 7.0% | 7.0% | 7.0% |
| Growth | 36,975 | 50.8% | 51.0% | -4.8% | -2.5% | 3.0% | 7.9% | 14.7% | | |
| Growth Policy BM | | | | -6.5% | -6.0% | -2.9% | 0.3% | 11.9% | | |
| Credit | 8,030 | 11.0% | 11.0% | -1.3% | -2.5% | -0.2% | 1.6% | 5.0% | | |
| Credit Policy BM | | | | -1.6% | -4.1% | -3.4% | -2.1% | 3.1% | | |
| Real Assets & Inflation Hedges | 13,024 | 17.9% | 17.0% | -0.5% | 6.9% | 15.6% | 17.6% | 8.9% | | |
| Real Assets & Inflation Hedges Policy BM | | | | -0.5% | 5.7% | 15.5% | 17.9% | 10.2% | | |
| Risk Reduction & Mitigation | 14,040 | 19.3% | 21.0% | -2.8% | -5.3% | -6.5% | -5.6% | 1.8% | | |
| Risk Reduction & Mitigation Policy BM | | | | -3.1% | -6.0% | -7.0% | -6.2% | 1.0% | | |
| Overlays & Hedges | 693 | 1.0% | | 42.9% | 85.0% | | | | | |



OPEB Master Trust¹

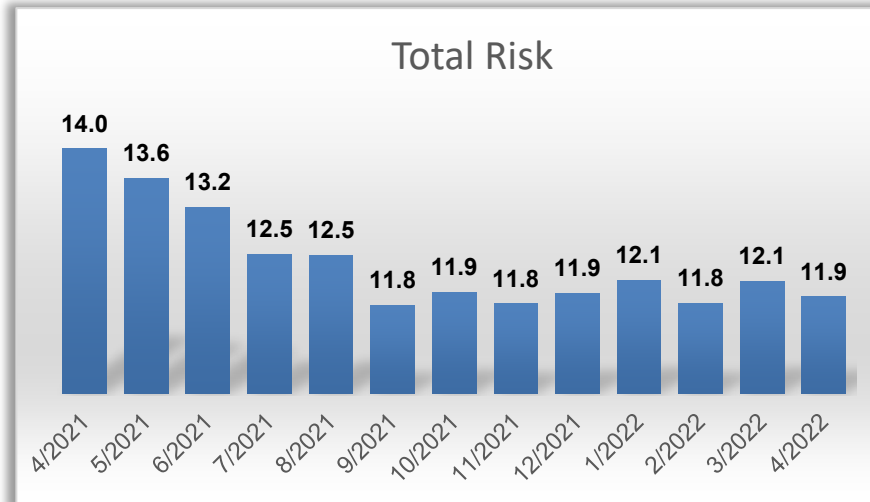
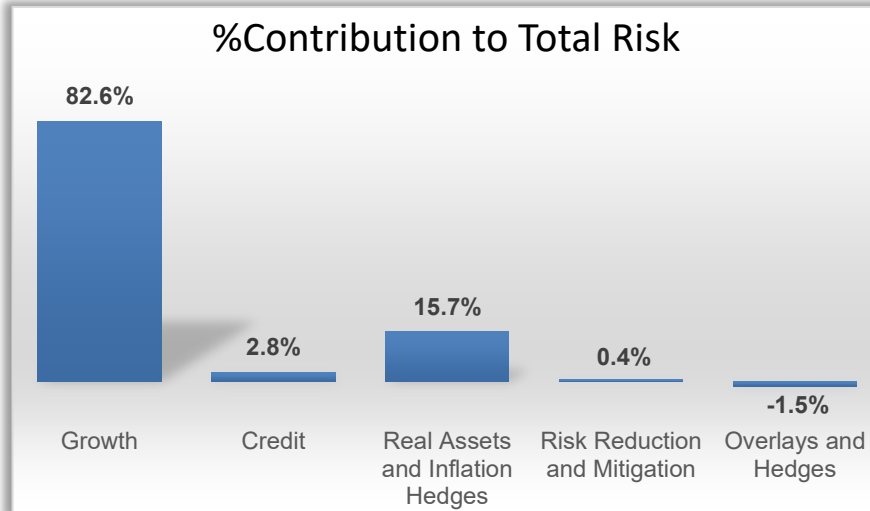
| | Market Value (\$ millions) | % of Master Trust | Interim Target | 1 Month | 3 Month | FYTD | 1 Year | 3 Year | 5 Year |
|--|----------------------------|-------------------|----------------|--------------|--------------|--------------|--------------|--------------|-------------|
| OPEB MASTER TRUST | 2,481 | | | -5.2% | -5.3% | -4.1% | -1.8% | 7.4% | 7.9% |
| Los Angeles County | 2,412 | 97.2% | — | -5.2% | -5.3% | -4.1% | -1.8% | 7.4% | 7.9% |
| Superior Court | 59 | 2.4% | — | -5.2% | -5.1% | -3.9% | -1.7% | 7.3% | 7.7% |
| LACERA | 10 | 0.4% | — | -5.2% | -5.3% | -4.1% | -1.8% | 7.4% | 7.9% |
| OPEB Growth | 1,229 | 49.5% | 50.0% | -7.9% | -8.2% | -8.6% | -6.1% | 9.5% | 9.5% |
| OPEB MT Growth Policy BM | | | | -7.9% | -8.2% | -8.7% | -6.2% | 9.2% | 9.2% |
| OPEB Credit | 500 | 20.1% | 20.0% | -2.0% | -4.0% | -4.7% | -3.5% | 1.7% | -- |
| OPEB MT Credit Policy BM | | | | -2.1% | -4.2% | -4.7% | -3.6% | 2.1% | -- |
| OPEB Real Assets & Inflation Hedges | 508 | 20.5% | 20.0% | -2.1% | 2.5% | 11.8% | 15.3% | 10.1% | -- |
| OPEB MT RA & IH Policy BM | | | | -2.1% | 2.1% | 11.6% | 15.0% | 9.9% | -- |
| OPEB Risk Reduction & Mitigation | 244 | 9.8% | 10.0% | -3.0% | -6.0% | -7.5% | -6.8% | 0.6% | 1.6% |
| OPEB MT RR & M Policy BM | | | | -3.0% | -6.0% | -7.6% | -6.8% | 0.5% | 1.4% |
| Operational Cash | 0 | 0.0% | | | | | | | |



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

Total Fund Forecast Risk*

as of April 2022



| | %Weight | % Cont. to Total Risk | Standalone Total Risk | Standalone BMK Risk** |
|---|--------------|-----------------------|-----------------------|-----------------------|
| Total Fund | | | 11.9 | 11.4 |
| Growth | 50.8% | 82.6% | 19.5 | 18.1 |
| Global Equity | 32.4% | 45.0% | 17.4 | 17.5 |
| Private Equity | 17.0% | 34.6% | 27.5 | 25.0 |
| Non-Core Private Real Estate | 1.4% | 3.0% | 36.8 | 17.9 |
| Credit | 11.1% | 2.8% | 4.0 | 4.8 |
| Liquid Credit | 6.6% | 2.1% | 5.0 | 4.8 |
| Illiquid Credit | 4.5% | 0.7% | 4.1 | 4.8 |
| Real Assets & Inflation Hedges | 17.8% | 15.7% | 12.2 | 12.6 |
| Core Private Real Estate | 5.7% | 6.1% | 18.6 | 17.9 |
| Natural Resources & Commodities | 5.0% | 4.7% | 15.2 | 19.3 |
| Infrastructure | 4.4% | 4.6% | 15.2 | 16.0 |
| TIPS | 2.8% | 0.4% | 5.5 | 5.4 |
| Risk Reduction and Mitigation | 19.3% | 0.4% | 4.5 | 4.3 |
| Investment Grade Bonds | 11.2% | 0.2% | 5.2 | 5.1 |
| Diversified Hedge Funds | 5.5% | 0.4% | 3.9 | 0.1 |
| Long-Term Government Bonds | 1.7% | -0.2% | 12.6 | 12.6 |
| Cash | 0.9% | 0.0% | - | - |
| Overlays and Hedges | 1.0% | -1.5% | - | - |

*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 12/31/2021

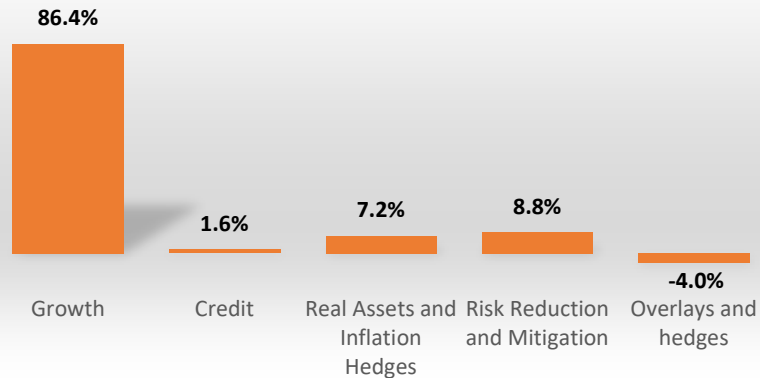
**BMK Risk stands for Benchmark Risk



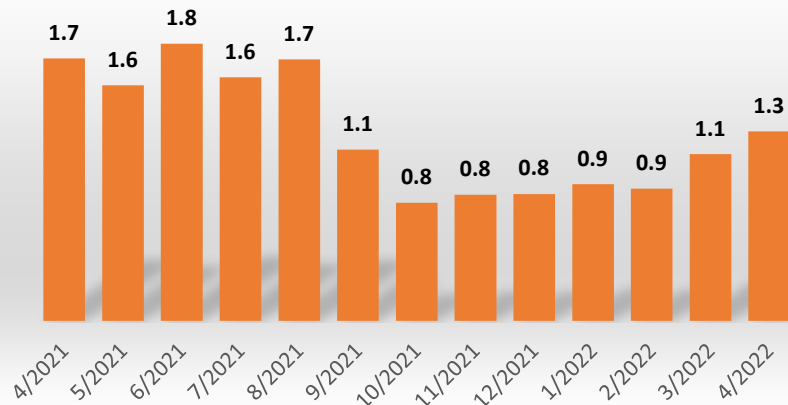
Total Fund Forecast Active Risk*

as of April 2022

Active Risk Contribution



Active Risk



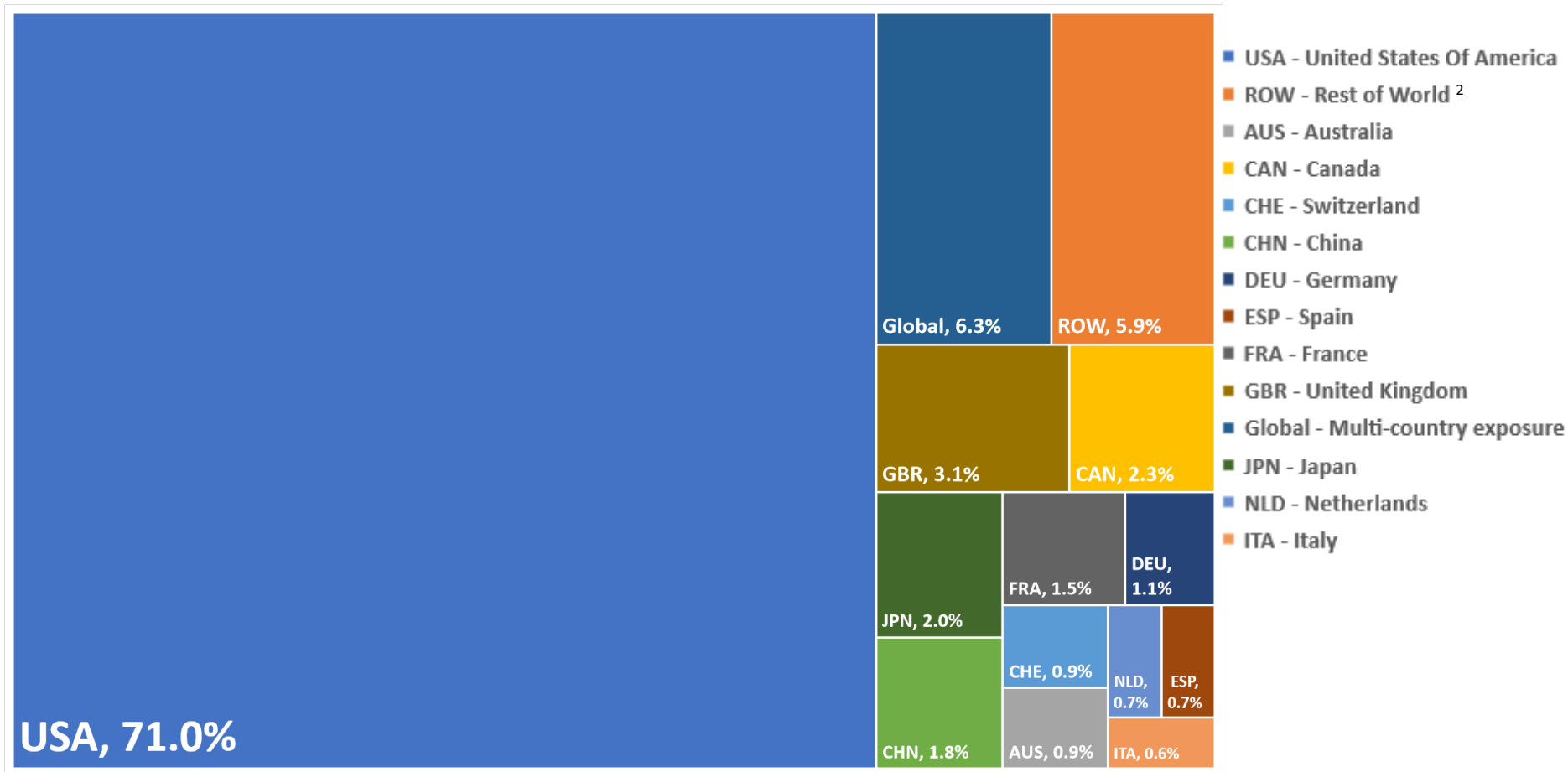
| | %Weight | Active Weight% | Active Risk | Active Risk Allocation | Active Risk Selection |
|---|--------------|----------------|--------------|------------------------|-----------------------|
| Total Fund | | | 1.25 | -0.02 | 1.28 |
| Growth | 50.8% | -0.21% | 1.08 | -0.01 | 1.09 |
| Global Equity | 32.4% | | | | |
| Private Equity | 17.0% | | | | |
| Non-Core Private Real Estate | 1.4% | | | | |
| Credit | 11.1% | 0.14% | 0.02 | -0.01 | 0.03 |
| Liquid Credit | 6.6% | | | | |
| Illiquid Credit | 4.5% | | | | |
| Real Assets & Inflation Hedges | 17.8% | 0.82% | 0.09 | -0.03 | 0.12 |
| Core Private Real Estate | 5.7% | | | | |
| Natural Resources & Commodities | 5.0% | | | | |
| Infrastructure | 4.4% | | | | |
| TIPS | 2.8% | | | | |
| Risk Reduction and Mitigation | 19.3% | -1.69% | 0.11 | 0.07 | 0.04 |
| Investment Grade Bonds | 11.2% | | | | |
| Diversified Hedge Funds | 5.5% | | | | |
| Long-Term Government Bonds | 1.7% | | | | |
| Cash | 0.9% | | | | |
| Overlays and Hedges | 1.0% | 0.95% | -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 12/31/2021



Geographic Exposures by AUM* - Total Fund

as of April 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

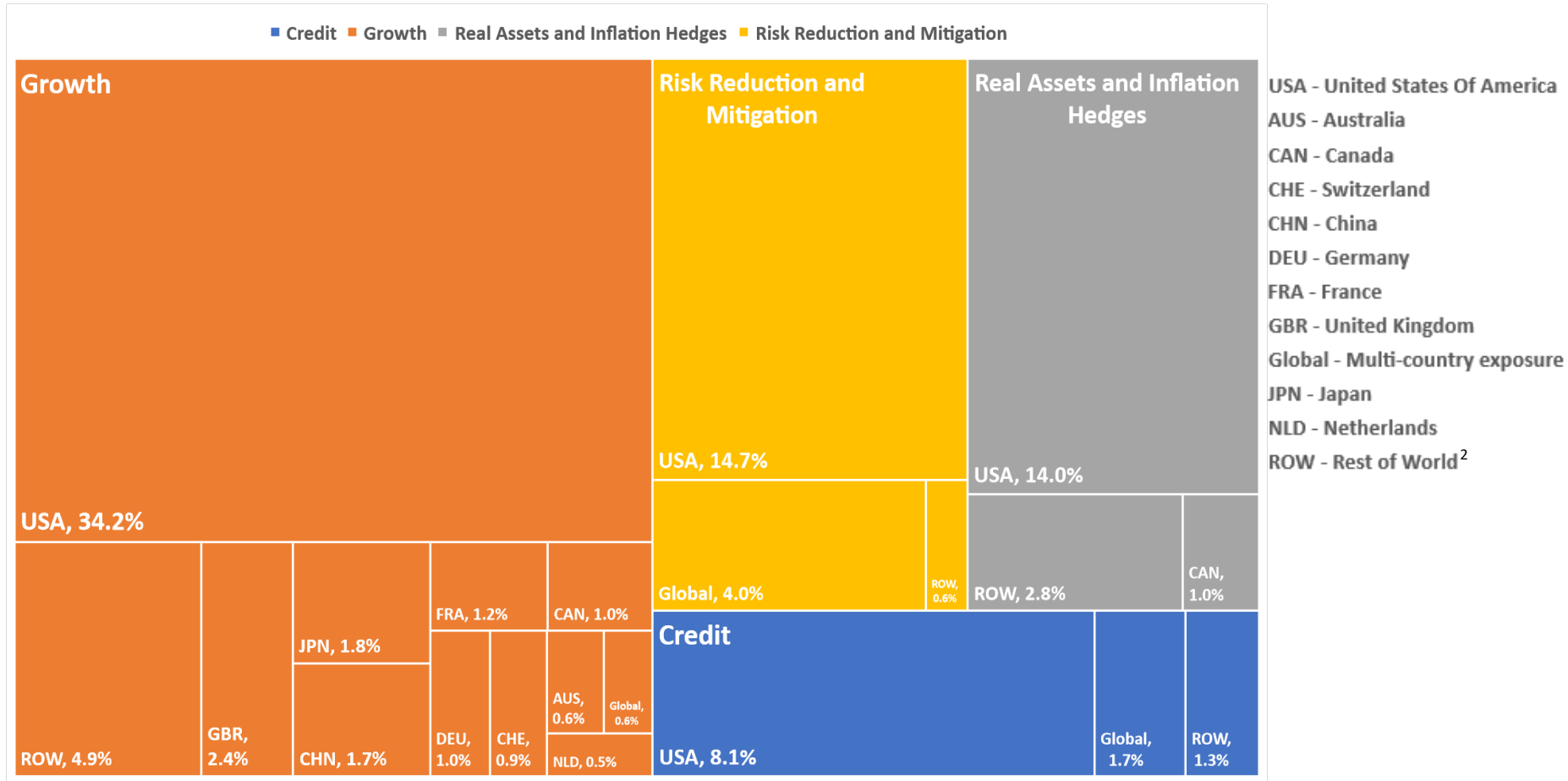
² "ROW - Rest of World" is sum of countries with weight below 0.5%

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



Geographic Exposures by AUM* - Asset Categories

as of April 2022 ex-overlays and hedges



*AUM = assets under management

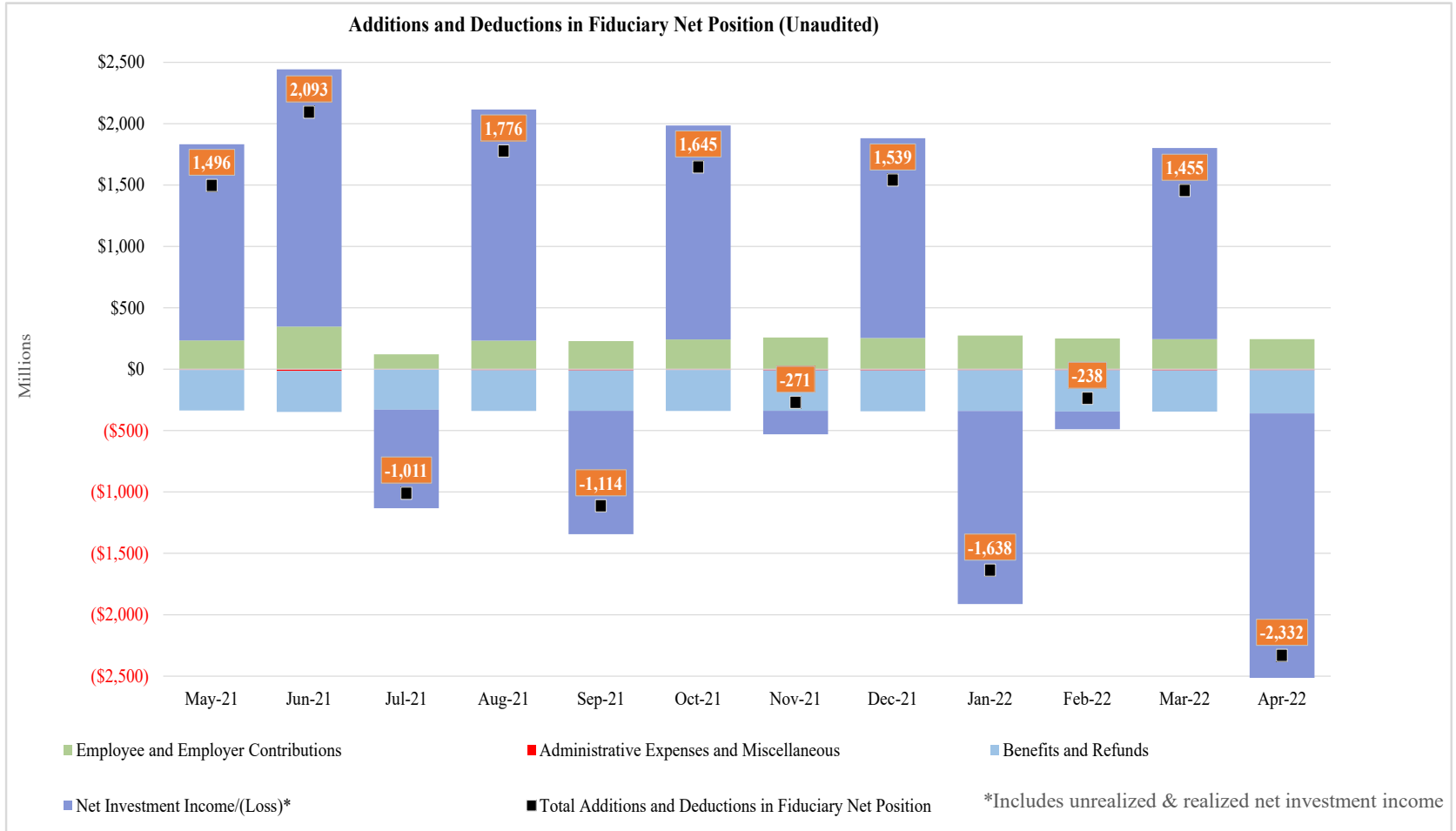
¹ *Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change. Real estate and private equity data used is as of 12/31/2021

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



| Fiscal Year | Negative Months | Positive Months | Total Net Position Change \$ |
|-------------|-----------------|-----------------|------------------------------|
| FY-20 | 5 | 7 | - |
| FY-21 | 2 | 10 | \$13.8 billion |
| FY-22 | 6 | 4 | (\$190 thousand) |



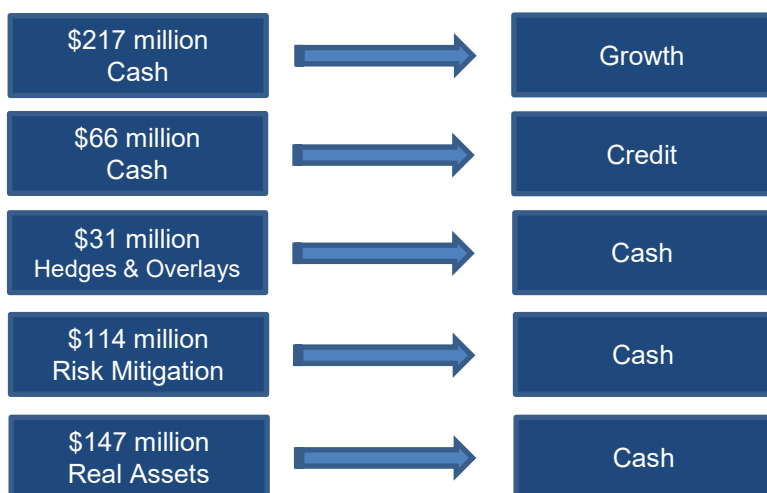
Portfolio Structural Updates



Portfolio Structural Updates

Portfolio Movements

Rebalancing Activity



Hedges and Overlays

| Program | April Return | April Gain/(Loss) | Inception* Gain/(Loss) |
|---------------------------|--------------|-------------------|------------------------|
| Currency Hedge** | 2.5% | \$30.6 Million | \$1.1 Billion |
| Cash/Rebalance Overlay*** | 2.3% | \$36.5 Million | \$116.4 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 Late 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 policy targets and benchmarks
- Preparations for the BOI Offsite in September are underway

Operational Updates

- Annual contract compliance review underway

Manager/Consultant Updates

Credit Suisse – Real Assets – John Calvaruso, Director at Credit Suisse Asset Management (“CSAM”), and Co-Portfolio Manager and Trader for the Commodities Team, will be leaving the firm in June. He had recently joined the team in October 2021. CSAM intends to hire an experienced portfolio manager to replace Mr. Calvaruso.

Deutsche Bank DWS – Real Assets – Asoka Woehrmann, Chief Executive Officer, resigned from the firm in June. He will be succeeded by Stefan Hoops, the current head Of Deutsche Bank’s corporate bank. The firm was raided by German authorities for allegations of greenwashing, the practice of firms and funds giving misleading claims about their products or ESG credentials.

Completed Actions

- Onboarded LACERA’s first dedicated managed account

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



Commentary



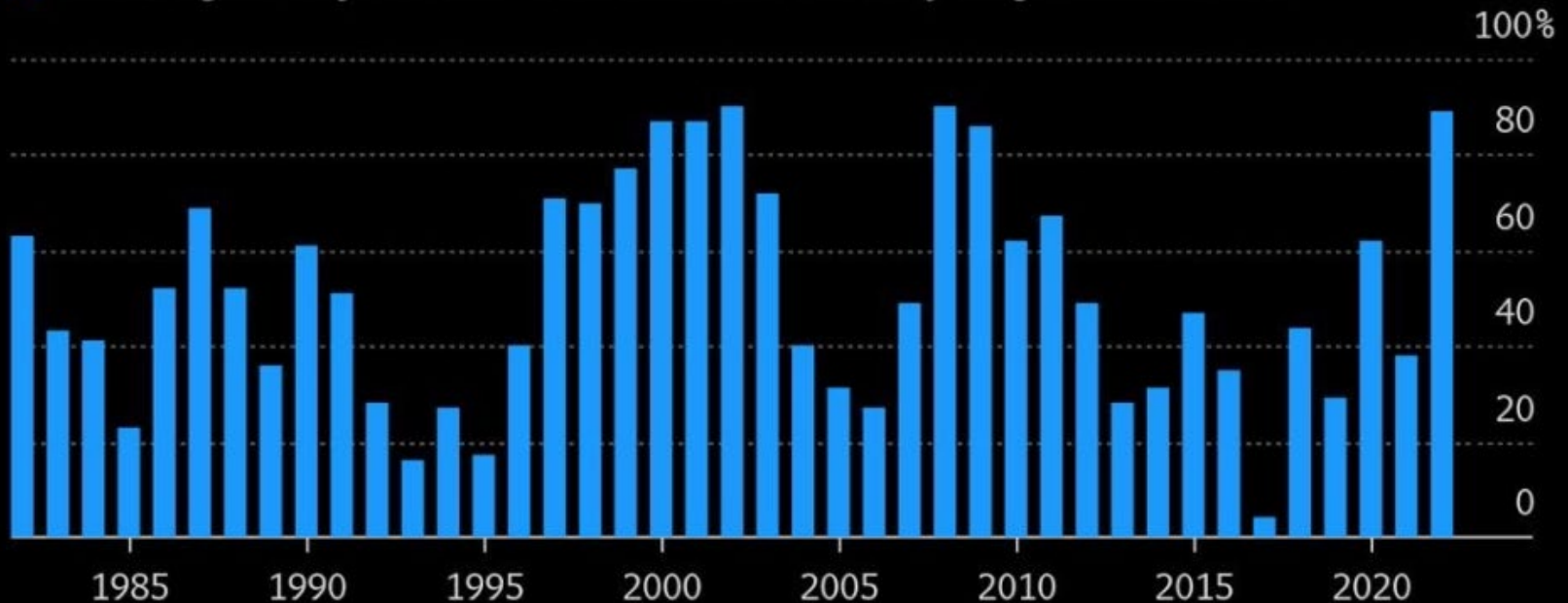
Staff Chart of the Month*

Rockiest Start to U.S. Equity Market since 2008

Buckle Up

S&P 500 is off to its wildest start to a year since 2008

■ Percentage of days the S&P 500 has traded in a daily range of at least 1%



Source: Strategas Securities, LLC

Bloomberg

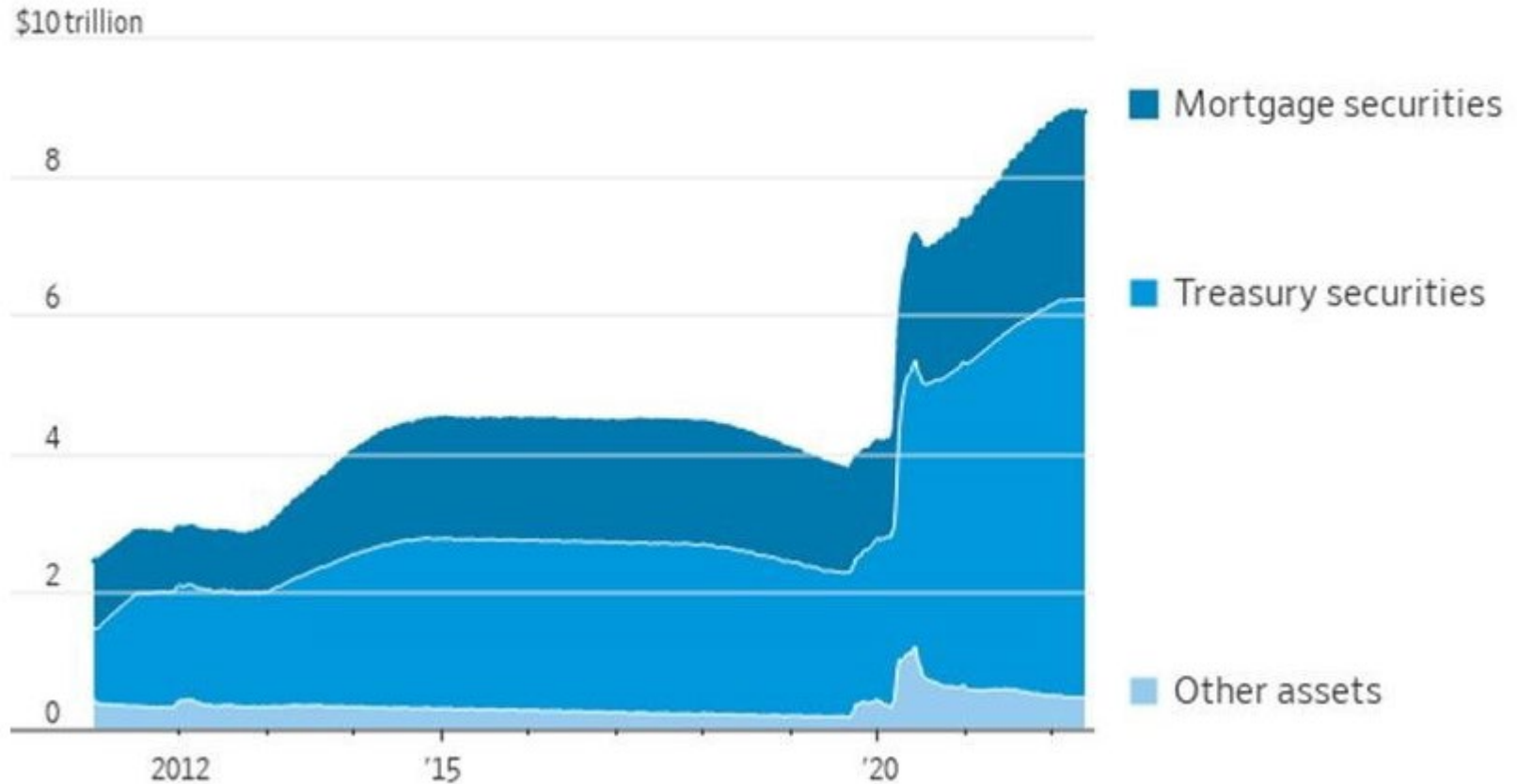


Staff Chart of the Month*

Still A Large Amount of Liquidity in the System

Bond Balances

The Federal Reserve's asset holdings have doubled since March 2020



Source: Federal Reserve



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