



Los Angeles County Employees Retirement Association

Investments Division

OPEB MASTER TRUST

PERFORMANCE REPORT

For the quarter ended
March 31, 2023

An aerial photograph of Los Angeles at sunset. The city skyline is visible in the background, with the sun setting behind the mountains, creating a warm orange and pink glow in the sky. The foreground shows residential buildings, palm trees, and a river or canal.

review

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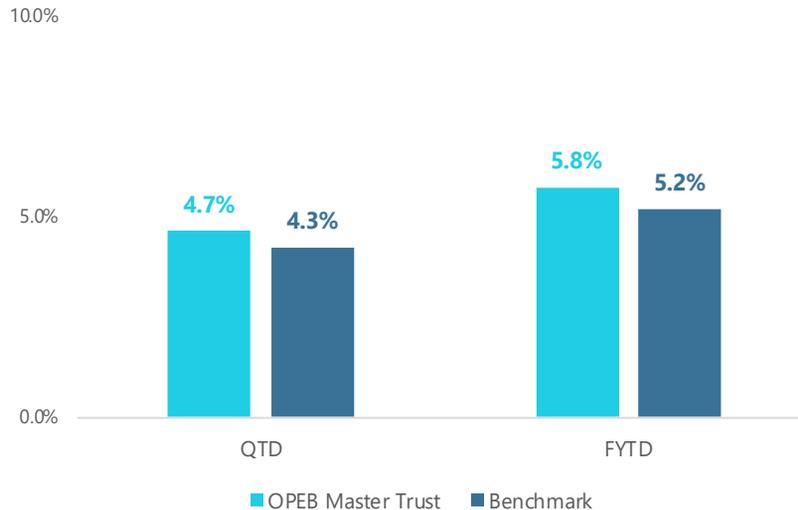
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opeb trust

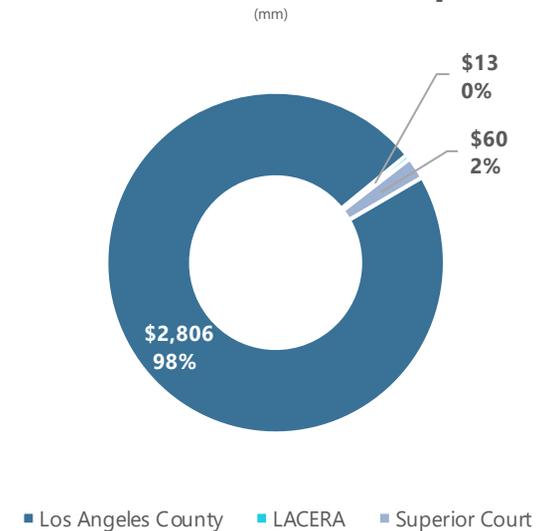
Quarterly Snapshot

for the quarter ended March 31, 2023

Performance (net)



Sub-Trust Ownership



Ending Market Value

2,879

↑ **9%**
from prior quarter

Sharpe Ratio¹

0.8

↑ **295%**
from prior quarter

Batting Average²

46%

↓ **-17%**
from prior quarter

Standard Deviation¹

13.0

↓ **-13%**
from prior quarter

Tracking Error¹

1.3

↑ **15%**
from prior quarter

¹ 3-year annualized.

² Percentage of managers that outperformed the benchmark for the quarter.

Summary

for the quarter ended March 31, 2023

Performance (net)



	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
OPEB Master Trust	4.7%	4.7%	-7.2%	11.1%	5.2%	6.1%	6.0%
Benchmark	4.3%	4.3%	-7.6%	10.8%	4.8%	5.2%	5.1%
Excess	0.4%	0.4%	0.4%	0.3%	0.4%	0.9%	0.9%
Sub-Trusts							
Los Angeles County	4.7%	4.7%	-7.2%	11.1%	5.2%	5.6%	5.5%
LACERA	4.7%	4.7%	-7.3%	11.1%	5.2%	5.6%	5.5%
Superior Court	4.8%	4.8%	-7.2%	11.0%	5.1%	--	6.7%

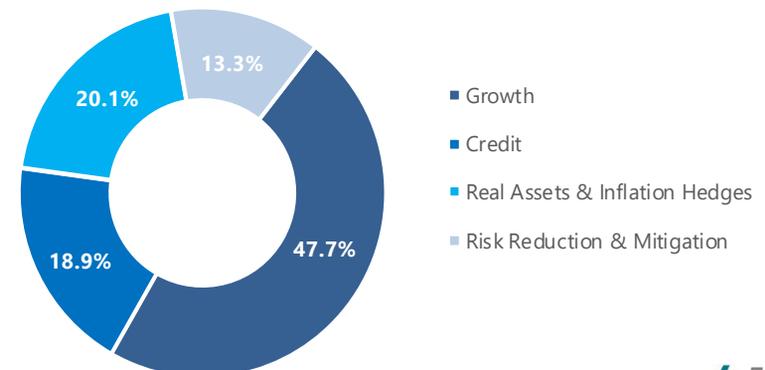
Cumulative Return



Functional Category

	QTD	FYTD	1 Year	3 Year	5 Year
OPEB Growth	6.9%	9.8%	-7.5%	15.9%	6.8%
OPEB Growth Policy Benchmark	7.2%	8.5%	-8.6%	15.2%	6.4%
Excess	-0.2%	1.2%	1.1%	0.6%	0.5%
OPEB Credit	3.7%	8.0%	0.3%	5.5%	--
OPEB Credit Policy Benchmark	3.2%	6.4%	-1.3%	5.7%	--
Excess	0.4%	1.7%	1.5%	-0.1%	--
OPEB Real Assets & Inflation Hedges	1.6%	-3.1%	-14.7%	10.7%	--
OPEB RA & IH Policy Benchmark	-1.0%	-0.6%	-12.6%	11.6%	--
Excess	2.6%	-2.5%	-2.1%	-0.8%	--
OPEB Risk Reduction & Mitigation	3.4%	1.1%	-2.7%	-1.7%	1.4%
OPEB RR & M Policy Benchmark	3.3%	-0.5%	-4.2%	-2.3%	1.0%
Excess	0.1%	1.5%	1.5%	0.6%	0.5%

Exposure



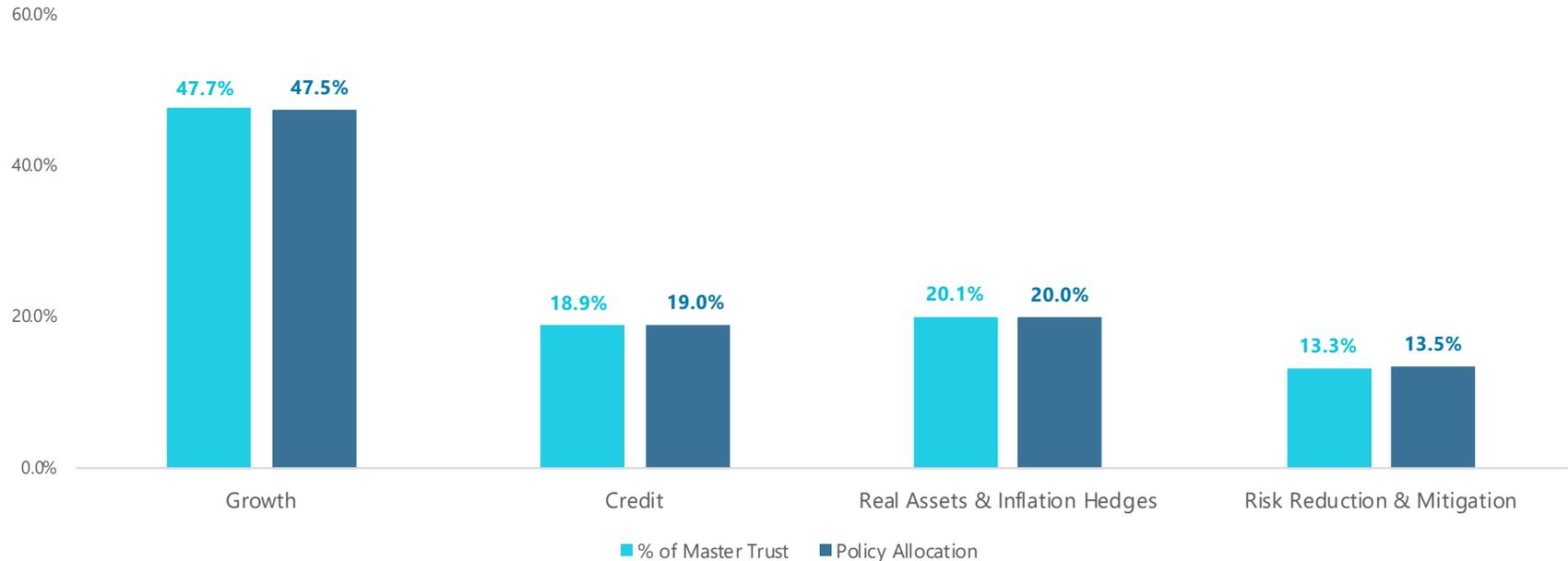
Asset Allocation

for the quarter ended March 31, 2023



Los Angeles County Employees Retirement Association

Actual vs. Policy¹



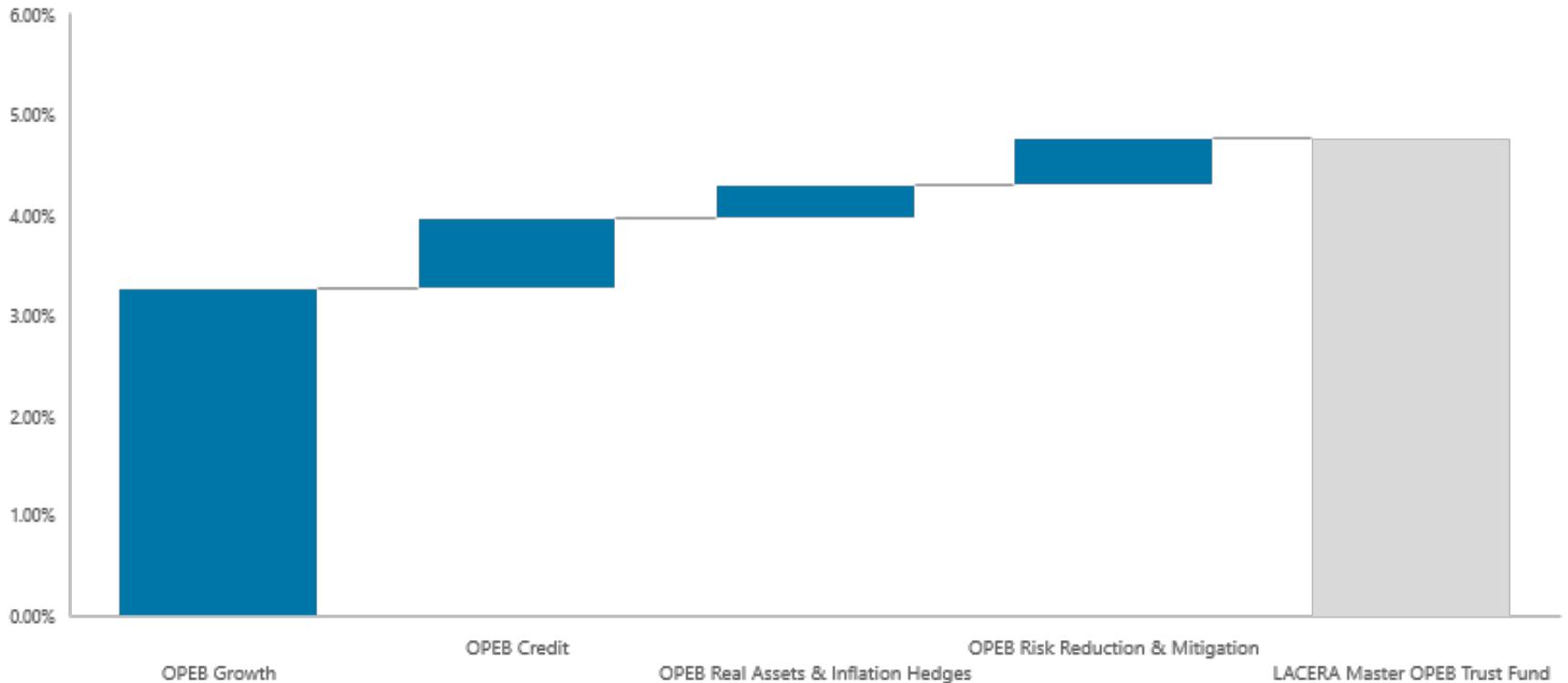
	Ending Market Value (mm)	% of Master Trust	Policy Allocation	Over / Under (%)	Over / Under (mm)
LACERA Master OPEB Trust Fund	2,877	100.0%	100.0%		
Growth	1,372	47.7%	47.5%	0.2%	6
Credit	544	18.9%	19.0%	-0.1%	-3
Real Assets & Inflation Hedges	578	20.1%	20.0%	0.1%	3
Risk Reduction & Mitigation	383	13.3%	13.5%	-0.2%	-6

¹ Total market value excludes cash balances held in ownership funds.

Contribution to Return

for the quarter ended March 31, 2023

QTD Contribution to Return



Functional Category	Contributors	Detractors
OPEB Growth	3.27%	OPEB BTC Commodities -0.21%
OPEB Credit	0.70%	
OPEB Real Assets & Inflation Hedge	0.33%	
OPEB Risk Reduction & Mitigation	0.47%	
LACERA Master OPEB Trust Fund	4.77%	

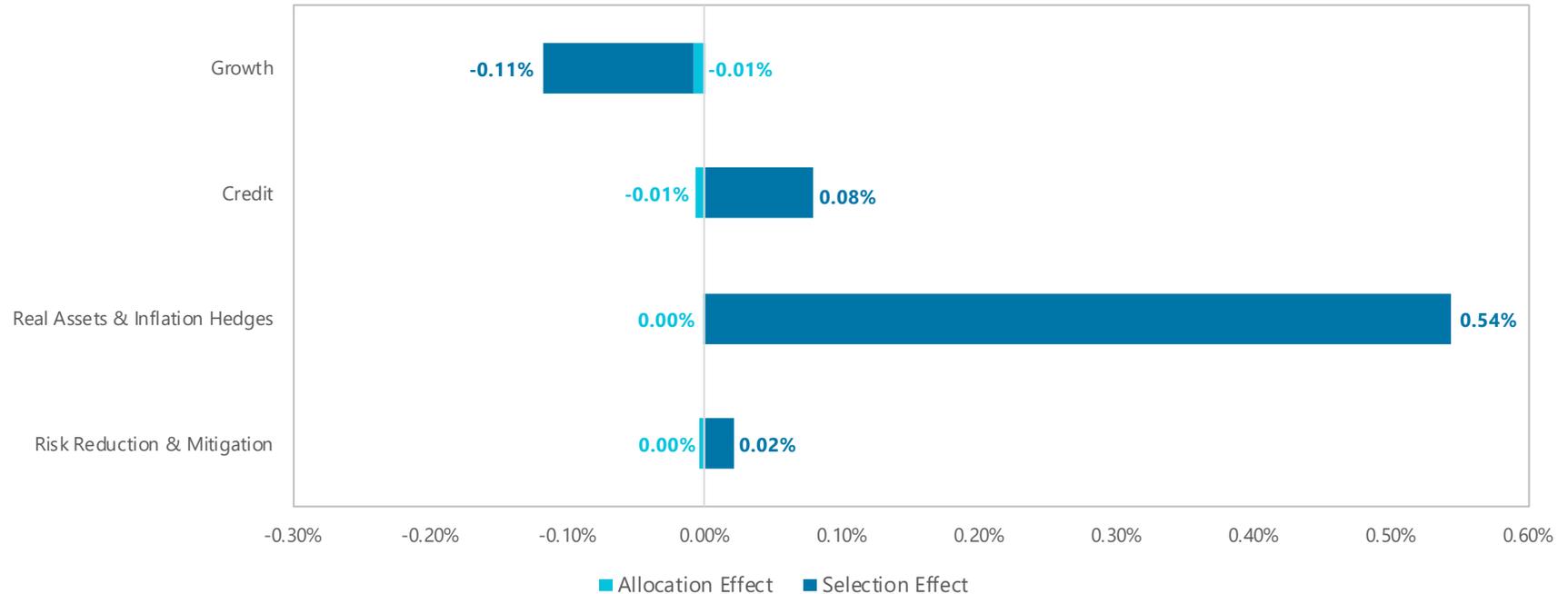
Return Attribution

for the quarter ended March 31, 2023



Los Angeles County Employees Retirement Association

QTD Performance Attribution^{1,2}



	Ending Market Value (mm)	% of Master Trust	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
LACERA Master OPEB Trust Fund	2,877	100.0%	100.0%	4.8%	4.3%	-0.02%	0.53%	0.51%
Growth	1,372	47.7%	47.5%	6.9%	7.2%	-0.01%	-0.11%	-0.12%
Credit	544	18.9%	19.0%	3.7%	3.2%	-0.01%	0.08%	0.07%
Real Assets & Inflation Hedges	578	20.1%	20.0%	1.6%	-1.0%	0.00%	0.54%	0.54%
Risk Reduction & Mitigation	383	13.3%	13.5%	3.4%	3.3%	0.00%	0.02%	0.02%

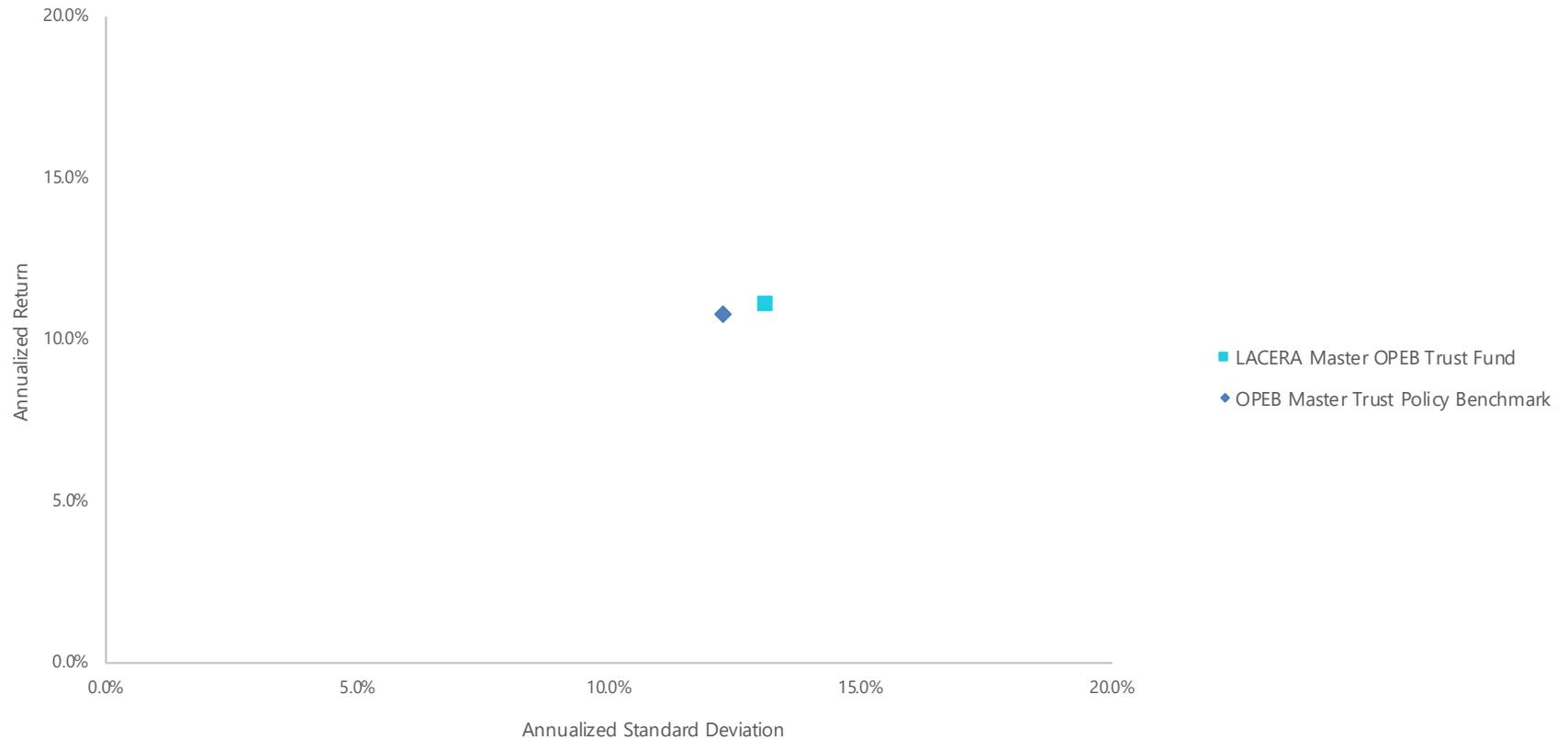
¹ Total market value excludes cash balances held in ownership funds.

² Total Value Add column includes Interaction Effect.

Risk vs. Return

for the quarter ended March 31, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
LACERA Master OPEB Trust Fund	11.1%	13.1%				
OPEB Master Trust Policy Benchmark	10.8%	12.3%	0.81	0.22	1.06	1.4%

Performance Detail

for the quarter ended March 31, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns

	% of Total Fund	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
OPEB Master Trust	100.0%	2,879	2,641	4.7%	4.7%	-7.2%	11.1%	5.2%	6.1%	6.0%	Feb-2013
OPEB Master Trust Policy Benchmark				4.3%	4.3%	-7.6%	10.8%	4.8%	5.2%	5.1%	
Sub-Trusts											
Los Angeles County	97.5%	2,806	2,572	4.7%	4.7%	-7.2%	11.1%	5.2%	5.6%	5.5%	Feb-2013
LACERA	0.4%	13	12	4.7%	4.7%	-7.3%	11.1%	5.2%	5.6%	5.5%	Feb-2013
Superior Court	2.1%	60	56	4.8%	4.8%	-7.2%	11.0%	5.1%	--	6.7%	Jul-2016
LACERA Master OPEB Trust Fund	100.0%	2,877	2,529	4.8%	4.8%	-7.3%	11.1%	5.3%	5.6%	5.6%	Feb-2013
OPEB Master Trust Policy Benchmark				4.3%	4.3%	-7.6%	10.8%	4.8%	5.2%	5.1%	
OPEB Growth	47.7%	1,372	1,199	6.9%	6.9%	-7.5%	15.9%	6.8%	--	9.4%	Jul-2016
OPEB Growth Policy Benchmark				7.2%	7.2%	-8.6%	15.2%	6.4%	--	9.0%	
OPEB Global Equities	47.7%	1,372	1,199	6.9%	6.9%	-7.5%	15.9%	6.9%	--	7.3%	Mar-2014
MSCI ACWI IMI Net				6.9%	6.9%	-7.7%	15.6%	6.6%	--	6.9%	
OPEB Credit	18.9%	544	484	3.7%	3.7%	0.3%	5.5%	--	--	2.4%	Jul-2018
OPEB Credit Policy Benchmark				3.2%	3.2%	-1.3%	5.7%	--	--	2.4%	
OPEB Liquid Credit	18.9%	544	484	3.7%	3.7%	0.2%	--	--	--	-1.8%	Oct-2021
OPEB Liquid Credit Policy Benchmark				3.2%	3.2%	-0.8%	--	--	--	-2.5%	
OPEB BlackRock Bank Loans	9.4%	271	243	3.1%	3.1%	3.6%	7.7%	--	--	3.5%	Jul-2018
S&P/LSTA Leverage Loan				3.2%	3.2%	2.5%	8.5%	--	--	3.7%	
OPEB BTC EM Debt LC	3.8%	110	99	5.0%	5.0%	-1.1%	0.5%	--	--	-0.7%	Jul-2018
JPM GBI-EM Global Diversified				5.2%	5.2%	-0.7%	0.9%	--	--	-0.2%	
OPEB BTC High Yield Bonds	5.6%	162	143	3.6%	3.6%	-3.9%	5.4%	--	--	2.8%	Jul-2018
BBG BC US Corporate HY Index				3.6%	3.6%	-3.3%	5.9%	--	--	3.2%	
OPEB Real Assets & Inflation Hedges	20.1%	578	504	1.6%	1.6%	-14.7%	10.7%	--	--	4.0%	Jul-2018
OPEB RA & IH Policy Benchmark				-1.0%	-1.0%	-12.6%	11.6%	--	--	4.5%	
OPEB BTC Commodities	4.0%	114	96	-5.4%	-5.4%	-12.8%	20.9%	--	--	5.6%	Jul-2018
Bloomberg Commodity Index Total Return				-5.4%	-5.4%	-12.5%	20.8%	--	--	5.6%	
OPEB BTC REITS	10.2%	292	256	3.0%	3.0%	-20.8%	11.4%	--	--	2.8%	Jul-2018
DJ US Select Real Estate Securities				2.8%	2.8%	-21.1%	11.3%	--	--	2.8%	
OPEB BTC TIPS	6.0%	172	151	3.6%	3.6%	-6.0%	1.9%	--	--	3.0%	Jul-2018
Bloomberg U.S. Treasury: U.S. TIPS				3.3%	3.3%	-6.1%	1.8%	--	--	2.9%	
OPEB Risk Reduction & Mitigation	13.3%	383	342	3.4%	3.4%	-2.7%	-1.7%	1.4%	--	1.3%	Jul-2016
OPEB RR & M Policy Benchmark				3.3%	3.3%	-4.2%	-2.3%	1.0%	--	0.9%	
OPEB BTC Investment Grade Bonds	8.9%	255	227	3.2%	3.2%	-4.8%	-2.7%	--	--	1.0%	Jul-2018
BBG BARC Aggregate Bond Index				3.0%	3.0%	-4.8%	-2.8%	--	--	1.0%	
OPEB Cash	1.9%	55	51	1.3%	1.3%	3.2%	1.4%	1.9%	1.3%	13.4%	Feb-2013
OPEB Cash Policy Benchmark				1.1%	1.1%	2.6%	1.0%	1.5%	0.9%	9.7%	
OPEB LTG Bonds	2.5%	72	64	6.1%	6.1%	--	--	--	--	6.3%	Dec-2022
Bloomberg U.S. Treasury: Long				6.2%	6.2%	--	--	--	--	5.8%	

risk reports

Summary

for the quarter ended March 31, 2023

Risk Summary

	Value
Total Risk	12.17
Benchmark Risk	11.99
Active Risk	1.28
Portfolio Beta	1.01
Effective Duration	1.76

Contribution to Risk

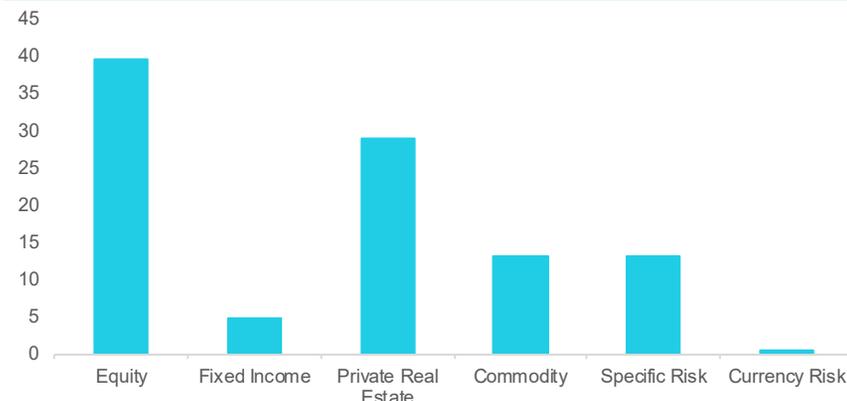


	Mkt Value (mm)	Weight%	Total Risk	Risk Contribution	%CR to TR
Total Fund	2,877	100.0%	12.17	12.17	100.00
Growth	1,373	47.7%	18.68	8.78	72.14
Credit	544	18.9%	5.01	0.76	6.26
Real Assets & Inflation Hedges	578	20.1%	13.15	2.45	20.13
Risk Reduction & Mitigation	382	13.3%	6.79	0.18	1.46

Risk Decomposition

Risk Source	Portfolio			Active		
	Risk Contribution	%Risk	Correlation	Risk Contribution	%Risk	Correlation
Total Risk	12.17	100.00	1.00	1.27	100.00	1.00
Local Market Risk	11.39	93.57	1.00	1.27	99.45	1.00
Common Factor Risk	11.35	93.19	0.99	1.10	86.34	0.93
Equity	10.39	85.37	0.98	0.50	39.60	0.31
Fixed Income	0.95	7.81	0.57	0.06	4.67	0.15
Private Real Estate	0.00	0.00	0.00	0.37	29.04	0.29
Commodity	0.00	0.00	0.00	0.17	13.02	0.30
Specific Risk	0.05	0.37	0.06	0.17	13.11	0.36
Currency Risk	0.78	6.43	0.61	0.01	0.55	0.06

Active Risk from Risk Factors



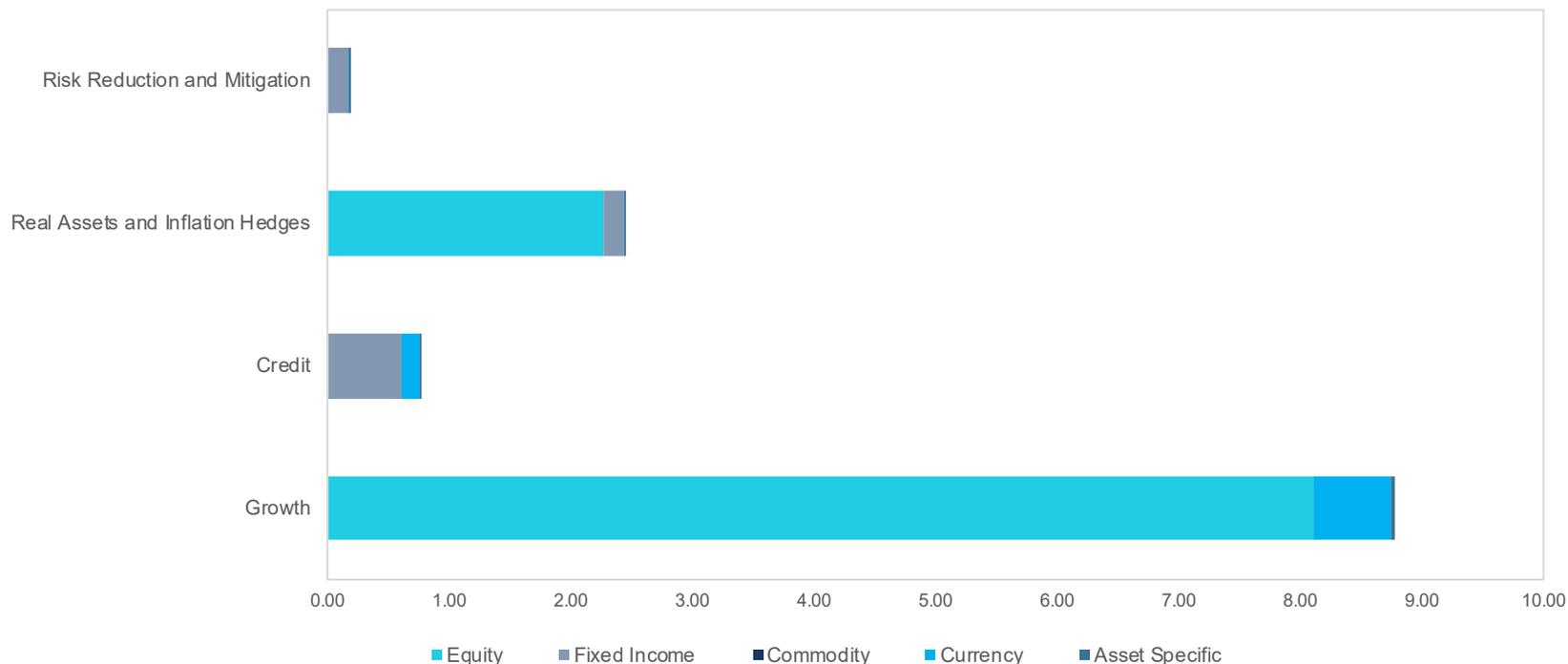
Risk Contribution Breakdown

for the quarter ended March 31, 2023



Los Angeles County Employees Retirement Association

By Risk Type

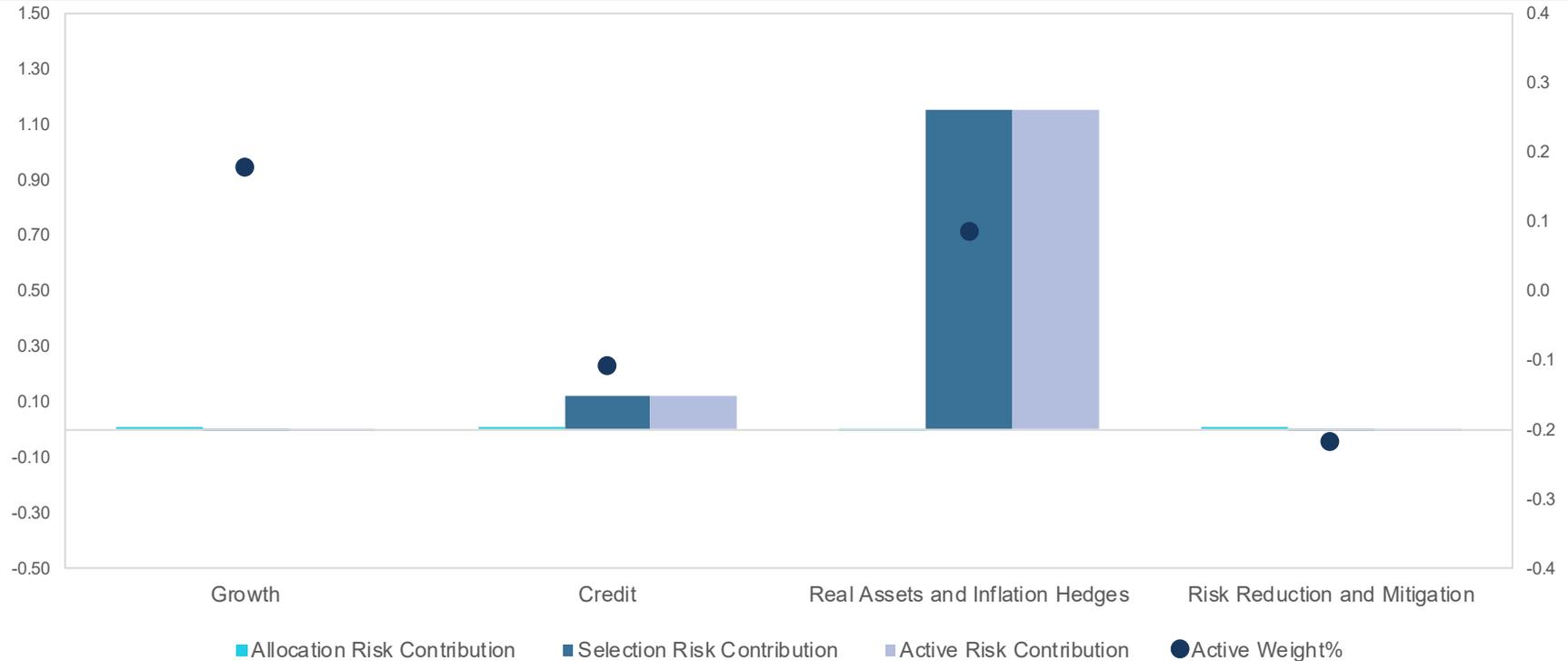


Functional Category	Mkt Value	Weight%	Total Risk	%CR to Total Risk	Port Risk Contribution	Equity	Fixed Income	Currency	Asset Specific
Total Fund	2,877	100.0%	12.17	100.00	12.17	10.39	0.95	0.78	0.05
Growth	1,373	47.7%	18.68	72.14	8.78	8.12	0.00	0.63	0.03
Credit	544	18.9%	5.01	6.26	0.76	0.00	0.60	0.15	0.01
Real Assets & Inflation Hedges	578	20.1%	13.15	20.13	2.45	2.27	0.17	0.00	0.01
Risk Reduction & Mitigation	382	13.3%	6.79	1.46	0.18	0.00	0.18	0.00	0.00

Allocation Selection

for the quarter ended March 31, 2023

Active Total Risk



Functional Category	Active Weight%	Allocation			Selection			Active Risk Contribution
		Volatility	Correlation	Risk Contribution	Volatility	Correlation	Risk Contribution	
Active Total Risk				0.00			1.27	1.28
Growth	0.21	7.30	0.28	0.00	0.11	-0.07	0.00	0.00
Credit	-0.10	8.14	-0.15	0.00	2.37	0.27	0.12	0.12
Real Assets & Inflation Hedges	0.10	5.86	-0.55	0.00	6.14	0.94	1.16	1.15
Risk Reduction & Mitigation	-0.21	12.66	-0.06	0.00	0.27	-0.05	0.00	0.00

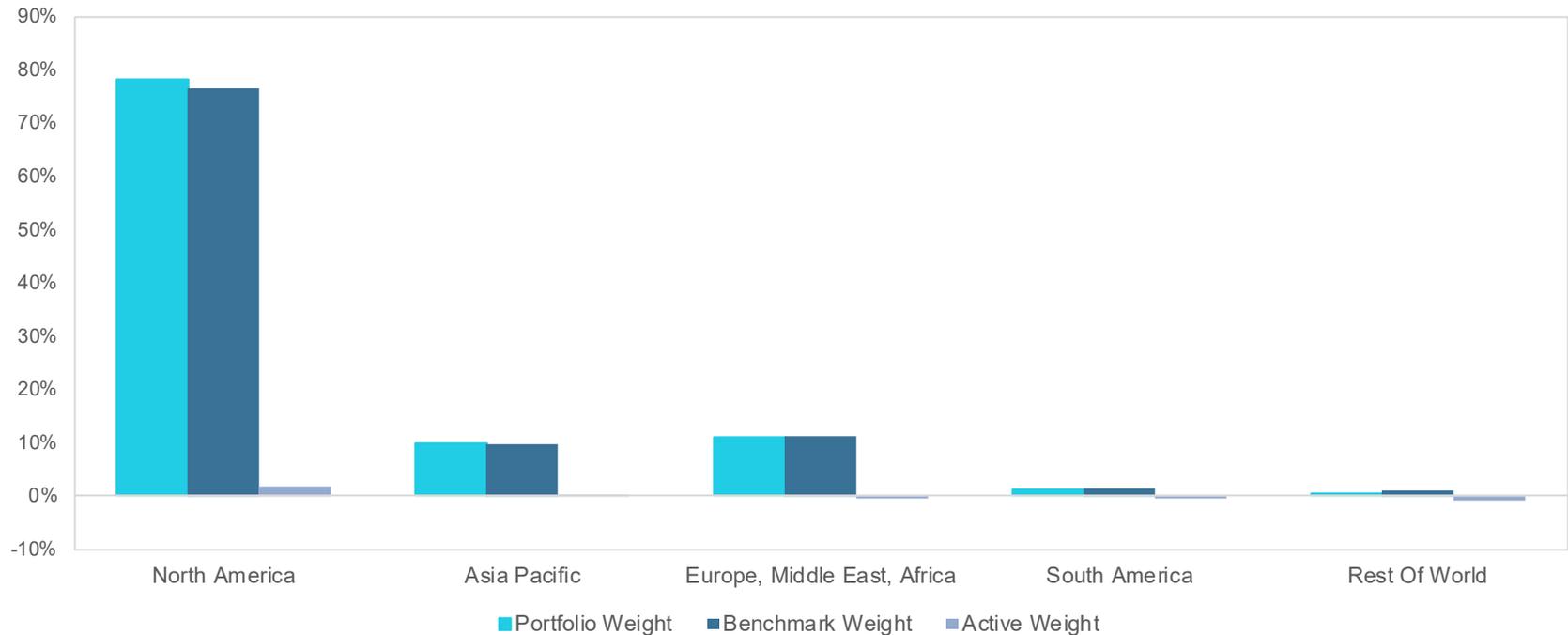
Portfolio Allocation

for the quarter ended March 31, 2023



Los Angeles County Employees Retirement Association

By Region

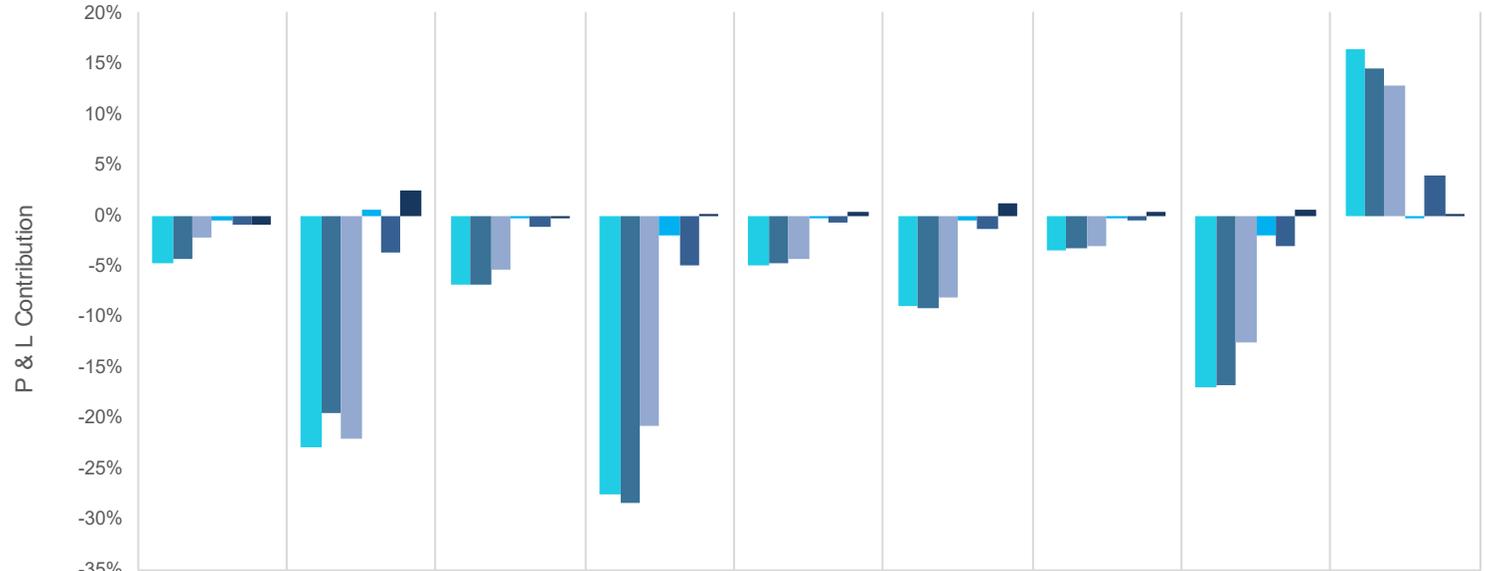


Region	Weight%			Total Risk	Active Risk Contribution	% of Active TR	MC to Total Tracking Error
	Portfolio	Benchmark	Active				
Total Fund	100.00%	100.00%	0.00%	12.17	1.28	100.00	0.01
North America	78.06%	76.50%	1.56%	11.76	1.18	92.75	-0.01
Asia Pacific	9.73%	9.70%	0.03%	14.56	0.00	0.23	0.00
Europe, Middle East, Africa	10.83%	11.36%	-0.52%	17.79	0.07	5.71	-0.02
South America	1.02%	1.37%	-0.35%	18.26	0.01	0.97	-0.01
Rest Of World	0.35%	1.08%	-0.72%	7.49	0.00	0.39	-0.01

Stress Tests

for the quarter ended March 31, 2023

■ Total Fund ■ Policy Benchmark ■ Growth ■ Credit ■ Real Assets & Inflation Hedges ■ Risk Reduction & Mitigation



	1994 US Rate Hike	2000-2003 Tech Crash & Recession	2001 Sept 11th	2008-2009 Global Financial Crisis	2010 Peripheral European Bond Crisis	2011 US Debt Ceiling Act	2016 Brexit	2020 COVID March Selloff	2020 COVID Volatility Spike
■ Total Fund	-4.66%	-23.01%	-6.88%	-27.60%	-4.86%	-9.01%	-3.46%	-17.00%	16.46%
■ Policy Benchmark	-4.43%	-19.58%	-6.86%	-28.48%	-4.65%	-9.10%	-3.24%	-16.80%	14.46%
■ Growth	-2.18%	-22.13%	-5.45%	-20.82%	-4.36%	-8.07%	-3.01%	-12.62%	12.82%
■ Credit	-0.48%	0.46%	-0.20%	-2.11%	-0.17%	-0.60%	-0.15%	-1.91%	-0.40%
■ Real Assets & Inflation Hedges	-1.03%	-3.77%	-1.12%	-4.87%	-0.74%	-1.46%	-0.54%	-3.00%	3.87%
■ Risk Reduction & Mitigation	-0.98%	2.43%	-0.10%	0.19%	0.41%	1.12%	0.25%	0.52%	0.17%

Stress Tests

for the quarter ended March 31, 2023

Scenario Descriptions

Historical Scenario	Description	Stock Market	Interest Rates	Bond Market	Commodity Market
1994 US Rate Hike	In combating inflation, the US Federal Reserve raised rates from 3.25% in February to 5.5% in November 1994.				
2000-2003 Tech Crash & Recession	Period of crisis and slow down for technological firms due to a rapid jump in stock prices when tech bubble began to burst.				
2001 September 11th	The US stock market was closed for a week upon a series of coordinated suicide attacks upon the US on September 11, 2001.				
2008-2009 Global Financial Crisis	Major financial crisis starting with the failure of several US-based financial firms. Extended into 2009, when stock markets reached their lowest.				
2010 European Bond Crisis	During crisis, the liquidity access for peripheral countries was affected by budget deficits, high borrowing costs, and failing banking systems.				
2011 US Debt Ceiling Act	Political deadlock on appropriate level of US government spending and its impacts. Debt and equity markets experienced significant volatility.				
2016 Brexit	The referendum by British voters to exit the European Union roiled global markets causing the pound to fall to its lowest level in decades.				
2020 COVID March Selloff	Peak and Valley of the MSCI ACWI index when Covid became a Global Pandemic.				
2020 COVID Volatility Spike	Period it took for the Cboe Volatility Index (VIX) to revert to pre-pandemic levels.				

Market Trend Signals



appendix

Benchmark Definitions

Current Composition

	Weight	Component
Master Trust		
OPEB Master Trust Policy Benchmark		
	48%	OPEB Growth Policy Benchmark
	19%	OPEB Credit Policy Benchmark
	20%	OPEB RA & IH Policy Benchmark
	14%	OPEB RR & M Policy Benchmark
Growth		
OPEB Growth Policy Benchmark		
	95%	MSCI ACWI IMI Net
	5%	OPEB Private Equity Custom Benchmark
Credit		
OPEB Credit Policy Benchmark		
	87%	OPEB Liquid Credit Policy Benchmark
	13%	OPEB Illiquid Credit Policy Benchmark
OPEB Liquid Credit Policy Benchmark		
	38%	Bloomberg U.S. Corporate High Yield
	46%	CS Leveraged Loan Index
	8%	JPMorgan EMBI Global Diversified Index
	4%	JPM GBI-EM Global Diversified Index
	4%	JPM CEMBI Broad Diversified
Real Assets & Inflation Hedges		
OPEB RA & IH Policy Benchmark		
	45%	OPEB Real Estate Custom Benchmark
	5%	S&P Global Natural Resources Index
	15%	Bloomberg Commodity Index Total Return
	5%	DJ Brookfield Global Infra Comp
	30%	Bloomberg U.S. Treasury: U.S. TIPS
Risk Reduction & Mitigation		
OPEB RR & M Policy Benchmark		
	67%	Bloomberg U.S. Aggregate
	19%	Bloomberg U.S. Treasury: Long
	15%	OPEB Cash Policy Benchmark
OPEB Cash Policy Benchmark		
	100%	FTSE 3-Month US Treasury Bill

A

ANNUAL RETURN

The total return of a security over a specified period, expressed as an annual rate of interest.

ACTIVE RISK

The expected standard deviation of the differential return between the portfolio and the benchmark. Active total risk arises from active management, and it is the result of active weights (deviations from the benchmark at the asset level) and therefore active exposures; for passively managed portfolios, it is referred to as “total tracking error.”

ACTIVE RISK CONTRIBUTION

Percent contribution to active total risk (or tracking error). The percent of active total risk that an individual asset or risk source contributes. For example, a % CR to Active Total Risk of 10% indicates that 10% of the portfolio’s active total risk is arising from the active position in that particular asset.

B

BASIS POINTS (BPS)

One one-hundredth of one percent. One hundred basis points equal one percent.

BETA

A measure of the volatility of a stock relative to the overall market. A beta of less than one indicates lower risk than the market; a beta of more than one indicates higher risk than the market.

D

DURATION

A measure of the price sensitivity of a bond portfolio to changes in interest rates.

F

FUTURES CONTRACT

Agreement to buy or sell a specific amount of a commodity or financial instrument at a particular price and a stipulated future date.

H

HIGH YIELD BOND

A bond with a low investment quality and credit worthiness, usually with a rating of BB or less.

I

INFORMATION RATIO

The excess return (alpha) per unit of active risk (tracking error).

INTERNAL RATE OF RETURN (IRR)

A total rate of return that gives full weight to the size and timing of cash flows over the period measured and fully reflects unrealized gains and losses in addition to realized gains and losses, interest and dividend income.

M

MC TO TOTAL TRACKING ERROR

This value represents the change in the active risk of an asset's portfolio or group that would result from a one percent increase in the asset's effective position plus an equal short position in the benchmark.

S

SHARPE RATIO

Average return earned in excess of the risk-free rate per unit of total risk.

STANDARD DEVIATION

Statistical measure of the degree to which an individual value in a probability distribution tends to vary from the mean of the distribution. The greater the degree of dispersion, the greater the risk.

T

TIME-WEIGHTED RETURN (TWR)

A measure of the compound rate of growth in a portfolio. Often used to compare the returns of investment managers because it eliminates the distorting effects on growth rates created by inflows and outflows of money.

TOTAL RISK

The total (gross) risk to an asset (or portfolio), which is the standard deviation of the asset's total return distribution, expressed in percent. Total risk is forecasted using MSCI Barra's multiple factor models. The total risk for an asset depends on the asset's exposures to the risk factors, the factor variance/covariance matrix, and the forecast selection risk of the asset.

TOTAL RISK CONTRIBUTION

The percent of total risk that an individual asset or risk source contributes. For example, a % CR to Total Risk of 10% indicates that 10% of the portfolio's total risk is arising from the portfolio's position in that particular asset.

Y

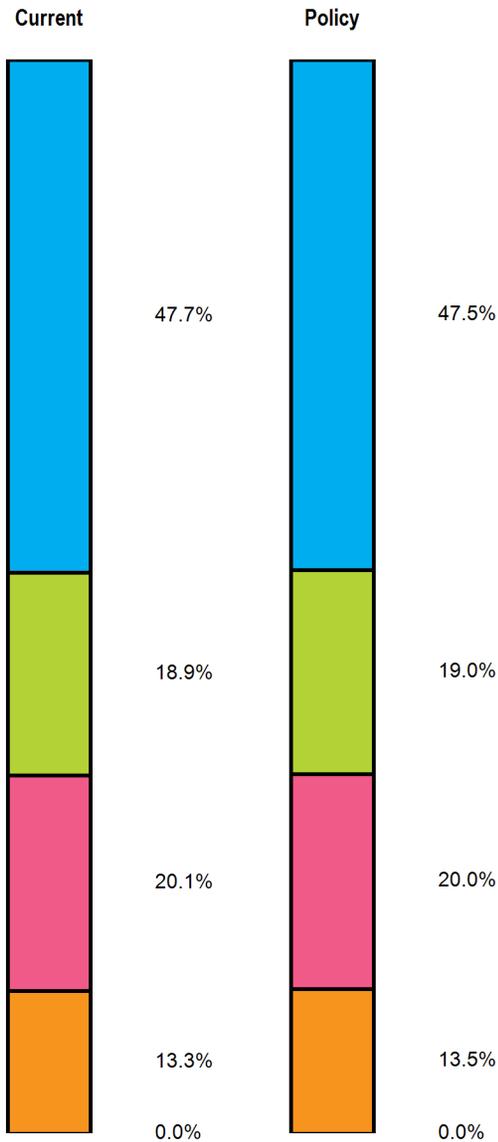
YIELD TO MATURITY

The return a bond earns on the price at which it was purchased if it were held to maturity. It assumes that coupon payments can be reinvested at the yield to maturity.

LACERA: OPEB Master Trust

March 31, 2023

Fund Evaluation Report

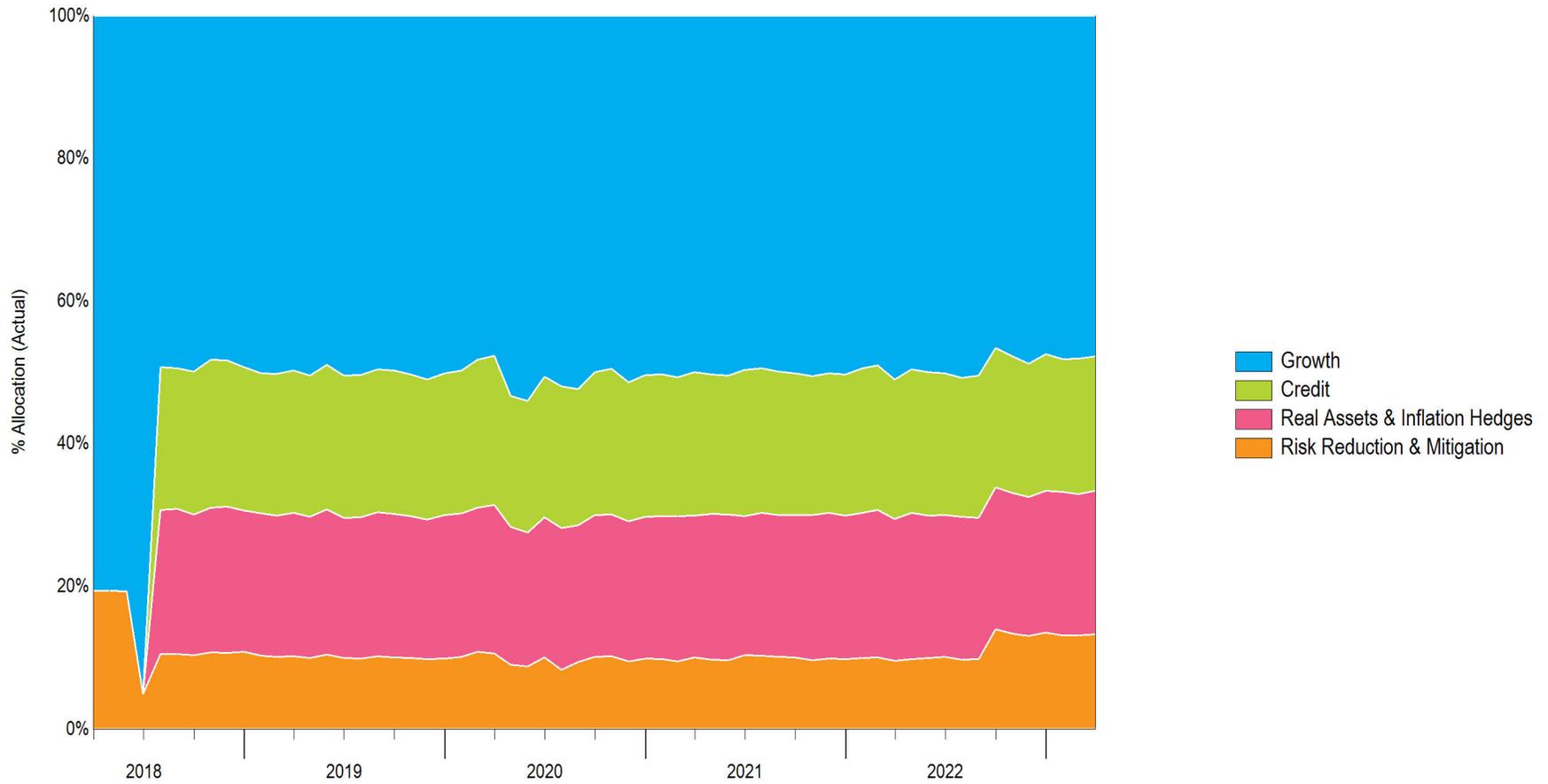


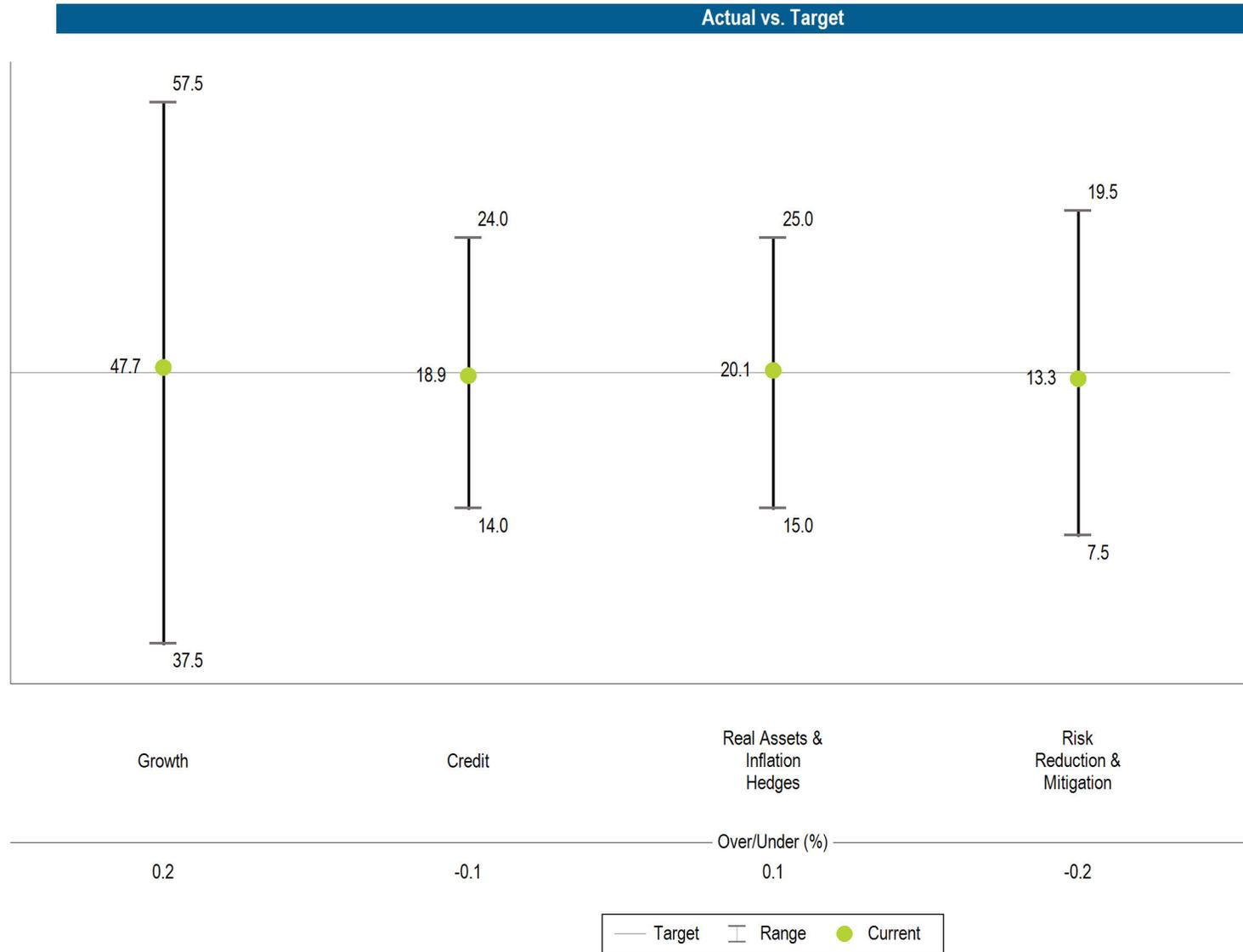
		Allocation vs. Target				
		Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
■	Growth	\$1,372,430,170	47.7%	47.5%	37.5% - 57.5%	Yes
	Global Equity	\$1,372,430,170	47.7%	45.0%	35.0% - 55.0%	Yes
	Private Equity	\$0	0.0%	2.5%	0.0% - 7.5%	Yes
■	Credit	\$543,747,869	18.9%	19.0%	14.0% - 24.0%	Yes
	Liquid Credit	\$543,747,869	18.9%	16.5%	11.5% - 21.5%	Yes
	Illiquid Credit	\$0	0.0%	2.5%	0.0% - 7.5%	Yes
■	Real Assets & Inflation Hedges	\$578,169,709	20.1%	20.0%	15.0% - 25.0%	Yes
	Real Estate	\$292,057,738	10.2%	9.0%	5.0% - 13.0%	Yes
	Natural Resources	\$0	0.0%	1.0%	0.0% - 3.0%	Yes
	Commodities	\$114,428,223	4.0%	3.0%	1.0% - 5.0%	Yes
	Infrastructure	\$0	0.0%	1.0%	0.0% - 3.0%	Yes
	TIPS	\$171,683,748	6.0%	6.0%	2.0% - 10.0%	Yes
■	Risk Reduction & Mitigation	\$382,611,404	13.3%	13.5%	7.5% - 19.5%	Yes
	Investment Grade Bonds	\$254,959,539	8.9%	9.0%	5.0% - 13.0%	Yes
	Long-Term Government Bonds	\$72,321,209	2.5%	2.5%	0.0% - 7.5%	Yes
	Cash	\$55,121,164	1.9%	2.0%	0.0% - 4.0%	Yes
	Operational Cash²	\$10	0.0%	0.0%	0.0% - 0.0%	Yes
	Total¹	\$2,878,702,217	100.0%	100.0%		

¹Total market value includes cash held at the participant level.

² includes unsettled trade activity.

Asset Allocation History
5 Years Ending March 31, 2023





Trailing Net Performance

	Market Value ¹ (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
OPEB Master Trust (Net)	2,878,702,217	100.0	4.7	5.8	-7.2	11.1	5.2
OPEB Master Trust (Gross)			4.7	5.8	-7.2	11.2	5.3
<i>Custom OPEB Master Trust BM</i>			<u>4.3</u>	<u>4.7</u>	<u>-7.5</u>	<u>10.7</u>	<u>4.8</u>
Excess Return (vs. Net)			0.4	1.1	0.3	0.4	0.4
LACERA Master OPEB Trust Fund (Net)	2,876,959,152	99.9	4.8	5.6	-7.3	11.1	5.3
LACERA Master OPEB Trust Fund (Gross)			4.8	5.6	-7.3	11.2	5.3
<i>Custom OPEB Master Trust BM</i>			<u>4.3</u>	<u>4.9</u>	<u>-7.5</u>	<u>10.8</u>	<u>4.8</u>
Excess Return (vs. Net)			0.5	0.7	0.2	0.3	0.5
Growth (Net)	1,372,430,170	47.7	6.9	9.8	-7.5	15.9	6.9
Growth (Gross)			6.9	9.8	-7.5	15.9	6.9
OPEB Global Equity (Net)	1,372,430,170	47.7	6.9	9.8	-7.5	15.9	6.8
OPEB Global Equity (Gross)			6.9	9.8	-7.5	15.9	6.9
<i>MSCI ACWI IMI Net (DAILY)</i>			<u>6.9</u>	<u>9.7</u>	<u>-7.7</u>	<u>15.6</u>	<u>6.6</u>
Excess Return (vs. Net)			0.0	0.1	0.2	0.2	0.2

Fiscal Year begins July 1.

¹Total market value includes cash held at the participant level.

The OPEB Master Trust started in February 2013



Los Angeles County OPEB Master Trust

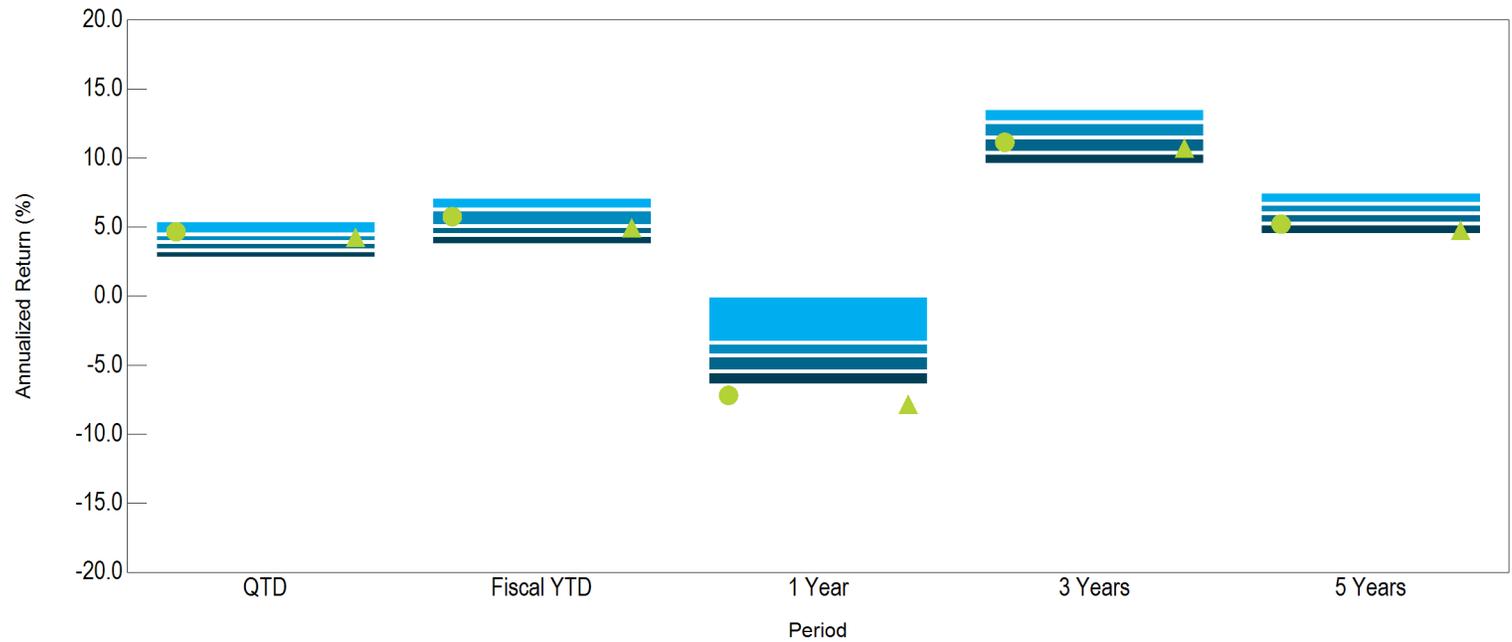
LACERA Master OPEB Trust Fund | As of March 31, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Credit (Net)	543,747,869	18.9	3.7	8.0	0.3	5.5	--
Credit (Gross)			3.7	8.1	0.3	5.6	--
Liquid Credit (Net)	543,747,869	18.9	3.7	8.0	0.2	--	--
Liquid Credit (Gross)			3.7	8.0	0.3	--	--
<i>OPEB Liquid Credit BM</i>			<u>3.2</u>	<u>6.9</u>	<u>-0.8</u>	--	--
Excess Return (vs. Net)			0.5	1.1	1.0		
OPEB BTC Bank Loans (Net)	271,123,915	9.4	3.1	8.5	3.6	7.7	--
OPEB BTC Bank Loans (Gross)			3.1	8.5	3.2	7.5	--
<i>S&P/LSTA Leveraged Loan TR</i>			<u>3.2</u>	<u>7.4</u>	<u>2.5</u>	<u>8.5</u>	--
Excess Return (vs. Net)			-0.1	1.1	1.1	-0.8	
OPEB BTC EM Debt LC (Net)	110,217,480	3.8	5.0	8.3	-1.1	0.5	--
OPEB BTC EM Debt LC (Gross)			5.1	8.4	-1.0	0.6	--
<i>JPM GBI-EM Global Diversified Index</i>			<u>5.2</u>	<u>8.7</u>	<u>-0.7</u>	<u>0.9</u>	--
Excess Return (vs. Net)			-0.2	-0.4	-0.4	-0.4	
OPEB BTC High Yield Bonds (Net)	162,406,474	5.6	3.6	6.8	-3.9	5.4	--
OPEB BTC High Yield Bonds (Gross)			3.6	6.9	-3.8	5.5	--
<i>BBgBarc US High Yield TR</i>			<u>3.6</u>	<u>7.2</u>	<u>-3.3</u>	<u>5.9</u>	--
Excess Return (vs. Net)			0.0	-0.4	-0.6	-0.5	

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Real Assets & Inflation Hedges (Net)	578,169,709	20.1	1.6	-3.1	-14.7	10.8	--
Real Assets & Inflation Hedges (Gross)			1.6	-3.0	-14.7	10.8	--
OPEB BTC Commodities (Net)	114,428,223	4.0	-5.4	-7.5	-12.8	20.9	--
OPEB BTC Commodities (Gross)			-5.4	-7.4	-12.7	20.8	--
<i>Bloomberg Commodity Index TR USD</i>			<u>-5.4</u>	<u>-7.2</u>	<u>-12.5</u>	<u>20.8</u>	--
Excess Return (vs. Net)			0.0	-0.3	-0.3	0.1	
OPEB BTC REITs (Net)	292,057,738	10.1	3.0	-3.3	-20.8	11.4	--
OPEB BTC REITs (Gross)			3.1	-3.2	-20.7	11.5	--
<i>DJ US Select REIT TR USD</i>			<u>2.8</u>	<u>-3.6</u>	<u>-21.1</u>	<u>11.3</u>	--
Excess Return (vs. Net)			0.2	0.3	0.3	0.1	
OPEB BTC TIPS (Net)	171,683,748	6.0	3.6	0.1	-6.0	1.9	--
OPEB BTC TIPS (Gross)			3.6	0.1	-6.0	1.9	--
<i>BBgBarc US TIPS TR</i>			<u>3.3</u>	<u>0.0</u>	<u>-6.1</u>	<u>1.8</u>	--
Excess Return (vs. Net)			0.3	0.1	0.1	0.1	

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Risk Reduction & Mitigation (Net)	382,611,404	13.3	3.4	1.1	-2.6	-1.7	1.4
Risk Reduction & Mitigation (Gross)			3.4	1.1	-2.6	-1.7	1.4
OPEB BTC Investment Grade Bonds (Net)	254,959,539	8.9	3.2	-0.1	-4.8	-2.7	--
OPEB BTC Investment Grade Bonds (Gross)			3.2	-0.1	-4.8	-2.7	--
<i>BBgBarc US Aggregate TR</i>			<u>3.0</u>	<u>-0.1</u>	<u>-4.8</u>	<u>-2.8</u>	--
Excess Return (vs. Net)			0.2	0.0	0.0	0.1	
OPEB LTG Bonds (Net)	72,321,209	2.5	6.1	--	--	--	--
OPEB LTG Bonds (Gross)			6.1	--	--	--	--
<i>Bloomberg US Treasury Long TR</i>			<u>6.2</u>	--	--	--	--
Excess Return (vs. Net)			-0.1				
OPEB Cash (Net)	55,121,164	1.9	1.1	2.6	2.8	1.2	1.8
OPEB Cash (Gross)			1.1	2.6	2.8	1.3	1.8
<i>Custom Cash BM</i>			<u>1.1</u>	<u>2.5</u>	<u>2.6</u>	<u>1.0</u>	<u>1.5</u>
Excess Return (vs. Net)			0.0	0.1	0.2	0.2	0.3
Operational Cash (Net)	10	0.0					
Operational Cash (Gross)							

InvMetrics Public DB \$1B - \$5B Gross Return Comparison



	Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)	
5th Percentile	5.5		7.2		0.0		13.6		7.5	
25th Percentile	4.5		6.3		-3.4		12.6		6.7	
Median	3.9		5.1		-4.3		11.5		6.0	
75th Percentile	3.4		4.5		-5.4		10.4		5.3	
95th Percentile	2.8		3.7		-6.5		9.6		4.5	
# of Portfolios	39		39		39		39		39	
● OPEB Master Trust	4.7	(20)	5.8	(34)	-7.2	(99)	11.1	(52)	5.2	(78)
▲ Custom OPEB Master Trust BM	4.3	(35)	4.9	(62)	-7.8	(99)	10.7	(63)	4.8	(88)

Benchmark History
As of March 31, 2023

LACERA Master OPEB Trust Fund

2/1/2013 Present Custom OPEB Master Trust BM

Custom OPEB Total Fund:50% Custom OBEP MT Growth, 20% Custom OBEP MT Credit Pool, 10% Custom OBEP MT RR & M Pool, 20% Custom OBEP MT RA & IH Pool.

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