

Investment Section

Design functions as a problem-solving tool, addressing practical needs and improving functionality in products, architecture, and systems.

Mid-1940s to Late 1960s

Post-war design underwent a significant transformation, driven by reconstruction efforts, technological advancements, and a growing middle class. Mid-century modern design prioritized sleek, streamlined aesthetics, functionality, organic shapes, and futuristic styles inspired by the space age. Architecture embraced open spaces and a strong connection to nature, emphasizing harmony with the environment. This era also saw transformative social movements: the Civil Rights Movement championed racial equality, the countercultural revolution embraced personal freedom, feminism redefined societal norms, and the emergence of rock 'n' roll amplified youthful rebellion and cultural change.

LACERA Milestones

1960: LACERA moves to the newly constructed Hall of Administration, located at 500 West Temple in Downtown Los Angeles.

1966: Cost-of-living provision added to CERL.

1967: LACERA grants the first cost-of-living adjustment to retirees.

Annual Report Figures

- 1948: Total assets of \$26.58 million
\$659,423 paid in retirement allowances
13,500 members; 896 retirees
- 1958: Total assets of \$212.99 million
\$7.73 million paid in retirement allowances
31,974 active members; 4,154 retirees
- 1968: Total assets of \$753.91 million
\$29.2 million paid in retirement allowances
57,188 active members; 9,868 retirees



Dear LACERA Members:

I am pleased to present the Investment Section of LACERA's Annual Comprehensive Financial Report for Fiscal Year 2023. LACERA oversees two funds (the Funds) for the County of Los Angeles, the defined benefit retirement plan (the Pension Plan) and the LACERA Other Post-Employment Benefit Master Trust (the OPEB Trust).¹ This section provides an overview of the investment performance of the Pension Plan and the OPEB Trust, along with a summary of the investment portfolio.



Jonathan Grabel
Chief Investment Officer

Fiscal year 2023 has been marked by wide swings in capital markets amidst a backdrop of continued economic and geopolitical uncertainty. Global equity markets rebounded in the second half of the fiscal year from the recent low experienced in September 2022. The global economy is still confronting a variety of headwinds, including rising interest rates and high inflation in the U.S. and much of Europe, the continuing humanitarian and economic toll of the war in Ukraine, and trade tensions that appear to be reversing globalization trends. Notwithstanding these challenges, both the Pension Plan and the OPEB Trust outperformed their benchmark returns for the fiscal year. This is in large part due to the

well-diversified portfolio constructed by LACERA's Board of Investments (the Board) which is designed to be resilient and responsive in a variety of market conditions. During the fiscal year, LACERA also continued to implement several significant initiatives in our efforts to maximize risk-adjusted returns while maintaining sufficient liquidity to pay monthly benefits to our members now and into the future.

Performance Summary

The Pension Plan returned 6.4 percent during the fiscal year, while the OPEB Trust returned 9.3 percent during the same period.² The OPEB Trust's higher return during the fiscal year is primarily attributable to its larger allocation to public market investments. However, that also means that the OPEB Trust's portfolio is more sensitive to public market movements relative to the Pension Plan. The OPEB Trust began investing in private assets during this fiscal year, after the Board approved an 18 percent allocation to private assets for the OPEB Trust in June 2021. As the OPEB Trust increases its allocation in private assets, it is expected that the OPEB Trust's performance return profile will closer align with the Pension Plan's. LACERA aims to meet or exceed the Funds' respective benchmarks over a full market cycle and their respective actuarial expected return assumptions over the long term. As illustrated below, both the Pension Plan's and the OPEB Trust's returns outperformed their respective policy benchmarks for all periods. The Pension Plan's return is ahead of its actuarial expected return of 7.0 percent³ for all periods except the one-year period and the OPEB Trust's return is ahead of its actuarial expected return of 6.0 percent for all periods except the five-year period.⁴

¹LACERA is responsible for the administration and investment of two separate funds: the County of Los Angeles (the County) defined benefit retirement plan, whose assets provide retirement benefits for employees of the County and outside districts, and the LACERA Other Post-Employment Benefit Master Trust, whose assets are held in trust to provide post-employment healthcare benefits for retirees of the County, LACERA, and the Superior Court of California, County of Los Angeles. LACERA also oversees two custodial fund accounts used to fund the OPEB Program's operations and related healthcare premiums.

²The Pension Plan and OPEB Trust returns are calculated based on a time-weighted rate of return. All returns are net of fees unless otherwise noted.

³The Pension Plan's actuarial expected return for the period ending June 30, 2023.

⁴The OPEB Trust's actuarial expected return for the period ending June 30, 2023.

Annualized Total Returns (Net of Fees)

Fiscal Year Ended June 30, 2023

	1 Year	3 Years	5 Years	7 Years	10 Years
Pension Plan	6.4%	10.1%	7.6%	8.5%	8.1%
Policy Benchmark	5.0	7.2	6.4	7.3	7.3
OPEB Trust ¹	9.3	7.6	5.6	8.4	6.5
Policy Benchmark	8.2	7.3	5.2	7.2	5.5

¹Performance inception for the OPEB Trust is February 1, 2013.

Asset Allocation

The Board adopts separate Investment Policy Statements to guide the Pension Plan's and the OPEB Trust's investments. Each Investment Policy Statement defines a strategic asset allocation that aims to maximize long-term growth while ensuring that LACERA meets its current and future obligations. To that end, LACERA expects the Funds' strategic asset allocations to be the core driver of risk-adjusted returns over the long term.

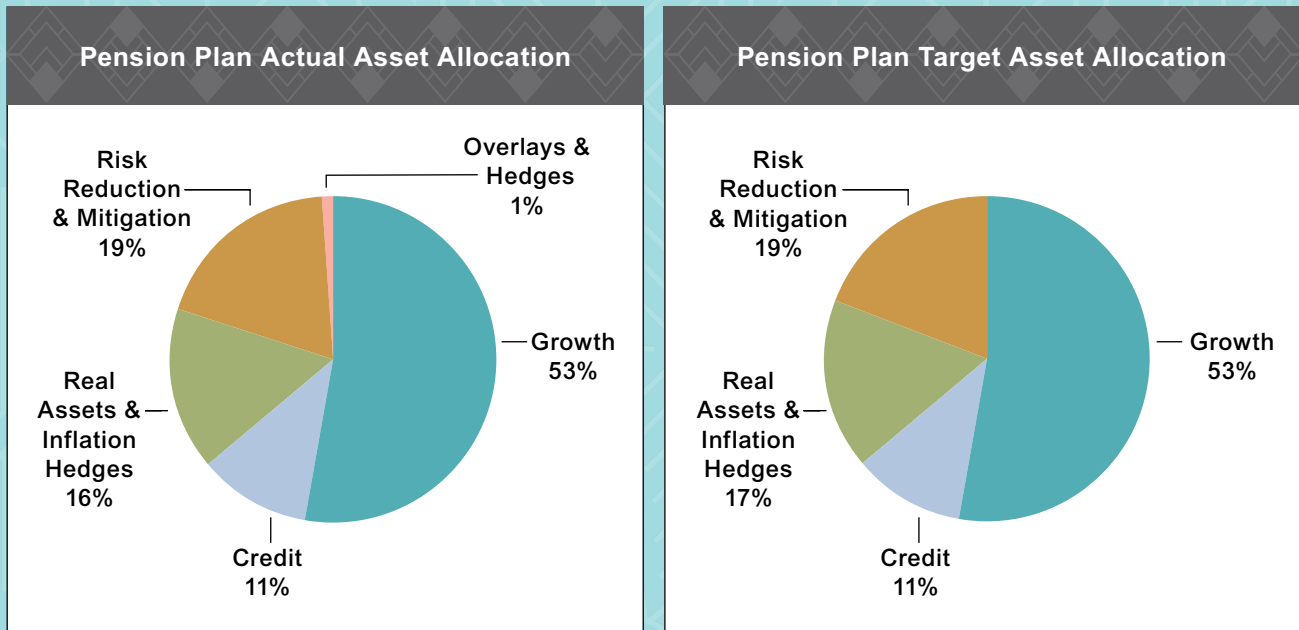
The Pension Plan's and the OPEB Trust's strategic asset allocations apportion investment dollars among functional categories and sub-asset classes based on long-term risk and return objectives and short-term liquidity needs. A table detailing the functional categories, sub-asset classes, and the role each is expected to fulfill in LACERA's investment portfolios is presented below.⁵

Functional Category	Sub-Asset Classes	Role in Portfolio
Growth	Global Equity Private Equity Non-Core Real Estate	Primary driver of long-term total returns
Credit	Liquid Credit Illiquid Credit	Produce current income and moderate long-term total returns with lower risk than growth assets
Real Assets and Inflation Hedges	Core Real Estate Natural Resources/Commodities Infrastructure Treasury Inflation Protected Securities	Provide income and hedge against inflation
Risk Reduction and Mitigation	Investment Grade Bonds Diversified Hedge Funds Long-term Government Bonds Cash	Provide current income and a modest level of return while reducing total portfolio risk
Overlay and Hedges	Cash Overlay Currency Hedge	Assist the Pension Plan's adherence to policy allocation targets and manage risks

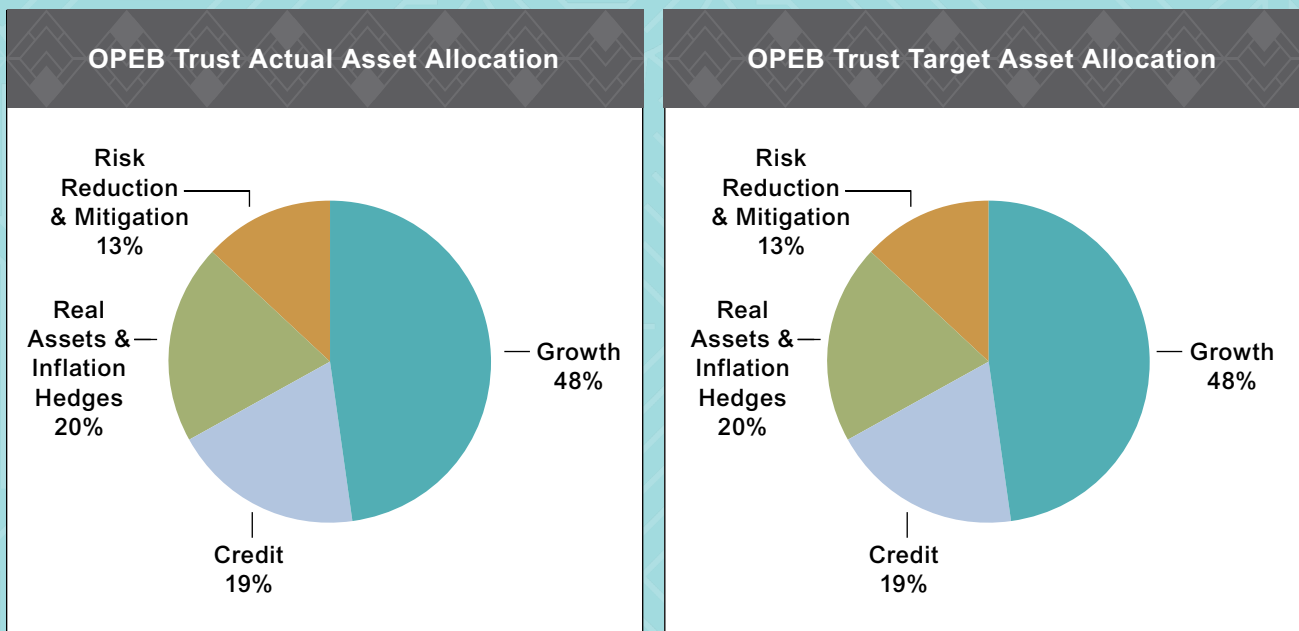
The Board reviews the strategic asset allocation for each Fund every three to five years to ensure that both portfolios are aligned with anticipated risks and opportunities. A new strategic asset allocation study for each Fund is planned for completion in the upcoming fiscal year and will consider a number of factors including, but not limited to: the Funds' current and projected funded status, liabilities, and liquidity requirements; the long-term risk, return, and correlation expectations for individual asset categories; and an assessment of future economic conditions.

⁵The overlay and hedges functional category only applies to the Pension Plan.

The Pension Plan's June 30, 2023 actual and target asset allocations are shown below.⁶



Based on its own liquidity needs and funding status, the OPEB Trust's strategic asset allocation differs from that of the Pension Plan. The OPEB Trust's fiscal year-end and target allocations are illustrated below.



During the fiscal year, both portfolios were in compliance with their functional policy target allocation ranges as of fiscal year-end.

⁶The Pension Plan's actual asset allocation includes an overlay and hedges composite that invests LACERA's excess cash (cash in excess of the target allocation of 1 percent of the Pension Plan's total assets) in synthetic securities that provide similar investment exposure to the Pension Plan and hedges 50 percent of the non-U.S.-developed market currency exposure in the Pension Plan's global equities portfolio. The Pension Plan's overlay and hedges composite has a 0 percent policy target weight.

Beyond strategic asset allocation, LACERA continues executing on its strategic initiatives across every portfolio decision, furthering its evolution from allocator to a best-in-class investor. The five distinct strategic initiatives enumerated in LACERA's strategic plan include: 1) enhance operational effectiveness, 2) optimize investment model, 3) maximize stewardship and ownership rights, 4) strengthen influence on fees and cost of capital, and 5) execute LACERA's T.I.D.E. (Towards Inclusion, Diversity, and Equity) initiative. Taken together, these initiatives are designed to maximize investment returns while mitigating risks. For example, LACERA continues to leverage technology and has integrated several tools to bolster its risk analytics and performance reporting platform, which allow LACERA to operate more efficiently and better manage investment risks. LACERA also expanded its internally managed co-investment program to include co-investments in real assets and credit, which should lead to excess returns relative to the respective asset categories' core programs while providing significant cost savings. LACERA also continues to negotiate tailored fee terms and structural rights with some of our largest alternative asset managers, which enables LACERA to retain a larger share of the profits while mitigating operational risks. In addition, LACERA has established revenue-sharing deals with smaller, early-stage asset managers that allow LACERA to participate in the potential success of the manager's business, which can provide an additional and diversifying return stream. Consistent with these initiatives, LACERA has undertaken innovative solutions to improve expected outcomes, all of which inure to the benefit of our members.

Core Performance Drivers

We continue to see the benefits of LACERA implementing a more resilient and diversified portfolio consistent with the strategic asset allocation adopted by the Board in May 2021. During the fiscal year, the Funds benefited from their exposure to growth and credit investments, which delivered the majority of the Funds' returns. This is in contrast to the previous fiscal year, where the Funds' investments in real assets and inflation hedges provided strong performance that helped offset the negative returns experienced in other asset classes. The cash overlay and hedges composite continued to add value, contributing \$374 million in gains during the fiscal year after contributing \$588 million in gains during the prior fiscal year. Three of the four functional asset classes of the Pension Plan and the OPEB Trust outperformed their individual benchmarks.

Looking Forward

LACERA's continued implementation of its strategic asset allocation, combined with the execution of its strategic initiatives, has enabled the Funds to weather the challenges and outperform the benchmark portfolio during this period of global economic and geopolitical uncertainty. As always, we remain committed to generating long-term durable returns so that LACERA can deliver on its mission to produce, protect, and provide the promised benefit to its members.

Respectfully submitted,

Jonathan Grabel

Jonathan Grabel
Chief Investment Officer

Investment Summary — Pension Plan¹

For the Fiscal Year Ended June 30, 2023

(Dollars in Thousands)

Type of Investment	Fair Value	Percent of Total Fair Value
Growth	\$39,155,425	
Global Equity	24,582,852	33.4%
Private Equity	13,427,683	18.3%
Non-Core Private Real Estate	1,144,890	1.5%
Credit	\$8,297,113	
Liquid Credit	3,457,935	4.7%
Illiquid Credit	4,839,178	6.6%
Real Assets and Inflation Hedges	\$12,050,482	
Core Private Real Estate	4,070,885	5.5%
Natural Resources & Commodities	2,109,659	2.9%
Infrastructure	3,974,017	5.4%
Treasury Inflation-Protected Securities (TIPS)	1,895,921	2.6%
Risk Reduction and Mitigation	\$13,658,819	
Investment Grade Bonds	5,044,284	6.9%
Diversified Hedge Funds	4,570,232	6.2%
Long-Term Government Bonds	2,961,794	4.0%
Cash	1,082,509	1.5%
Overlay & Hedges	\$407,382	
Cash Overlay	364,339	0.5%
Currency Hedge	43,043	0.0%
Total Investments — Pension Plan	\$73,569,221	100.0%

¹Fair values presented in this schedule are based on the Investment Book of Record and differ from information presented in the Statement of Fiduciary Net Position, which is based on the Accounting Book of Record.

Investment Summary — OPEB Master Trust¹

For the Fiscal Year Ended June 30, 2023

(Dollars in Thousands)

Type of Investment	Fair Value	Percent of Total Fair Value
Growth	\$1,468,745	
Global Equity	1,468,745	47.6%
Credit	\$587,079	
Liquid Credit	587,079	19.0%
Real Assets and Inflation Hedges	\$615,781	
Real Estate (REITs)	311,953	10.1%
Commodities	121,270	4.0%
Treasury Inflation-Protected Securities (TIPS)	182,558	5.9%
Risk Reduction & Mitigation	\$412,681	
Investment Grade Bonds	274,929	8.9%
Long-Term Government Bonds	76,138	2.5%
Cash	61,614	2.0%
Operational Cash ²	\$7,730	
Total Investments — OPEB Master Trust	\$3,092,017	100.0%

¹Fair values presented in this schedule are based on the Investment Book of Record and differ from information presented in the Statement of Fiduciary Net Position, which is based on the Accounting Book of Record.

²Not part of the asset allocation.

Investment Summary — OPEB Custodial Fund¹

For the Fiscal Year Ended June 30, 2023

(Dollars in Thousands)

Type of Investment	Fair Value	Percent of Total Fair Value
Cash and Cash Equivalents	\$14,552	7.4%
Fixed Income	182,609	92.6%
Total Investments — OPEB Custodial Fund	\$197,161	100.0%

¹Fair values presented in this schedule are based on the Investment Book of Record and differ from information presented in the Statement of Fiduciary Net Position, which is based on the Accounting Book of Record.

Investment Results Based on Fair Value^{1,2} — Pension Plan*

As of June 30, 2023

	Annualized (Net-of-Fees)				
	Quarter-End June 30, 2023	One-Year	Three-year	Five-year	Ten-year
Growth	4.2%	10.2%	15.5%		
<i>Growth Policy Benchmark</i>	5.8%	8.0%	12.5%		
Global Equity	5.8%	16.6%	11.7%		
<i>Global Equity Policy Benchmark</i>	5.9%	16.1%	11.0%		
Private Equity - Growth	1.7%	0.1%	25.2%		
<i>Private Equity - Growth Policy Benchmark</i>	7.5%	(5.8)%	17.9%		
Non-Core Private Real Estate	(0.5)%	4.0%	12.7%	10.8%	10.7%
<i>Non-Core Real Estate Policy Benchmark</i>	(2.8)%	(1.7)%	10.2%	9.5%	11.6%
Credit	2.4%	7.7%	6.8%		
<i>Credit Policy Benchmark</i>	1.8%	6.0%	2.4%		
Liquid Credit	2.9%	9.0%			
<i>Liquid Credit Policy Benchmark</i>	2.4%	9.3%			
Illiquid Credit	2.0%	5.6%	13.9%		
<i>Illiquid Credit Policy Benchmark</i>	1.5%	3.8%	0.8%		
Real Assets & Inflation Hedges	(1.2)%	0.1%	9.6%		
<i>Real Assets & Inflation Hedges Policy Benchmark</i>	(2.1)%	(0.6)%	8.9%		
Core Private Real Estate	(3.6)%	(1.7)%	8.0%	6.4%	7.9%
<i>Core Private Real Estate Policy Benchmark</i>	(3.4)%	(3.9)%	7.7%	6.9%	8.9%
Natural Resources & Commodities	0.2%	1.1%	21.2%	6.2%	0.4%
<i>Natural Resources & Commodities Policy Benchmark</i>	(3.4)%	1.8%	18.8%	5.8%	(0.5)%
Infrastructure	0.7%	1.6%	9.0%		
<i>DJ Brookfield Global Infrastructure Comp</i>	(0.4)%	0.8%	7.4%		
TIPS	(1.4)%	(1.8)%	(0.2)%		
<i>Bloomberg U.S. Treasury U.S. TIPS</i>	(1.4)%	(1.4)%	(0.1)%		
Risk Reduction & Mitigation	(1.2)%	(0.2)%	(1.7)%		
<i>Risk Reduction & Mitigation Policy Benchmark</i>	(0.3)%	0.0%	(2.6)%		
Investment Grade Bonds	(0.7)%	(0.7)%	(3.7)%	0.9%	1.9%
<i>Bloomberg Barclays Aggregate Bond Index</i>	(0.8)%	(0.9)%	(4.0)%	0.8%	1.5%
Diversified Hedge Funds	(1.4)%	4.6%	8.3%		
<i>Diversified Hedge Funds Policy Benchmark</i>	1.9%	6.0%	3.7%		
Long-Term Government Bonds	(2.3)%	(7.5)%			
<i>Bloomberg U.S. Treasury Long</i>	(2.3)%	(6.8)%			
Cash	1.7%	5.5%	2.5%	2.4%	1.6%
<i>Cash Policy Benchmark</i>	1.3%	3.7%	1.3%	1.6%	1.0%
Overlays & Hedges	31.1%	51.6%			
Cash Overlay	15.4%	41.8%	29.0%		
<i>Total Overlay Custom Benchmark</i>	3.4%	9.4%	5.9%		
Currency Hedge	0.8%	0.7%			
<i>50% FX Hedge Custom Benchmark</i>	0.8%	0.7%			
Total Fund	2.2%	6.4%	10.1%	7.6%	8.1%
Total Fund Custom Policy Benchmark	2.8%	5.0%	7.2%	6.4%	7.3%

¹Functional asset category returns are calculated based on time-weighted rates of return, net of manager fees; Total Fund performance is calculated based on the weighted average returns of the functional asset categories, net of manager fees.

²Some asset categories and their benchmarks are reported with a one- or three-month lag.

*A complete list of custom benchmark definitions is available upon request.

Investment Results Based on Fair Value¹ — OPEB Master Trust*

As of June 30, 2023

	Annualized (Net-of-Fees)			
	Quarter-End June 30, 2023	One-Year	Three-year	Five-year
Growth	6.0%	16.3%	11.2%	7.9%
<i>OPEB Master Trust Growth Policy Benchmark</i>	6.0%	15.0%	10.6%	7.4%
Global Equity	6.0%	16.3%	11.2%	7.9%
<i>MSCI ACWI IMI Net</i>	5.9%	16.1%	11.0%	7.6%
Credit	2.4%	10.7%	3.4%	2.8%
<i>OPEB Master Trust Credit Policy Benchmark</i>	2.3%	8.8%	3.2%	2.8%
Liquid Credit	2.4%	10.6%		
<i>Liquid Credit Policy Benchmark</i>	2.4%	9.5%		
Bank Loans	3.0%	11.7%	5.9%	3.9%
<i>S&P/LSTA Leverage Loan</i>	3.1%	10.7%	6.3%	4.1%
EM Debt LC	2.3%	10.8%	(1.8)%	(0.2)%
<i>JPM GBI-EM Global Diversified</i>	2.5%	11.4%	(1.4)%	0.3%
High Yield Bonds	1.6%	8.5%	2.9%	2.9%
<i>Bloomberg Barclays U.S. Corporate HY Index</i>	1.7%	9.1%	3.1%	3.4%
Real Assets & Inflation Hedges	0.5%	(2.5)%	8.5%	3.9%
<i>OPEB Master Trust Real Asset & Inflation Hedges Policy Benchmark</i>	(1.8)%	(2.3)%	8.5%	3.9%
Commodities	(2.6)%	(9.9)%	17.8%	4.7%
<i>Bloomberg Commodity Index Total Return</i>	(2.6)%	(9.6)%	17.8%	4.7%
Real Estate (REITs)	3.0%	(0.4)%	9.2%	3.2%
<i>DJ US Select Real Estate Securities</i>	3.0%	(0.8)%	9.1%	3.3%
Treasury Inflation-Protected Securities (TIPS)	(1.4)%	(1.3)%	(0.1)%	2.6%
<i>Bloomberg U.S. Treasury: U.S. TIPS</i>	(1.4)%	(1.4)%	(0.1)%	2.5%
Risk Reduction & Mitigation	(0.8)%	0.3%	(2.8)%	1.1%
<i>OPEB Master Trust Risk Reduction & Mitigation Policy Benchmark</i>	(0.8)%	(1.3)%	(3.3)%	0.7%
Investment Grade Bonds	(0.8)%	(0.9)%	(3.9)%	0.8%
<i>Bloomberg Barclays U.S. Aggregate Bond Index</i>	(0.8)%	(0.9)%	(4.0)%	0.8%
Cash	1.3%	4.4%	1.5%	2.0%
<i>Cash Policy Benchmark</i>	1.3%	3.7%	1.4%	1.6%
Long-Term Government Bonds	(2.4)%			
<i>Bloomberg U.S. Treasury: Long</i>	(2.3)%			
Total OPEB Master Trust	3.3%	9.3%	7.6%	5.6%
Total OPEB Master Trust Policy Benchmark	2.8%	8.2%	7.3%	5.2%

¹Functional asset category returns are calculated based on time-weighted rates of return, net of manager fees; Total OPEB Master Trust performance is calculated based on the weighted average returns of the asset classes, net of manager fees.

*A complete list of custom benchmark definitions is available upon request.

Total Investment Rates of Return — Pension Plan

For the Last 10 Fiscal Years Ended June 30

(Dollars in Thousands)

Fiscal Year End	Total Investment Portfolio Fair Value	Total Fund Time-Weighted Return (net of fees) ¹	Total Fund Money-Weighted Return (net of fees) ²	Return on Smoothed Valuation Assets (net of fees) ³	Actuarial Assumed Rate of Return ⁴	Actuarial Funded Ratio ⁵
2014	\$49,033,365	16.5%	17.5%	11.8%	7.50%	79.5%
2015	47,990,447	4.1%	4.1%	10.5%	7.50%	83.3%
2016	47,898,667	0.8%	.7%	6.5%	7.25%	79.4%
2017	52,225,457	12.7%	12.7%	8.2%	7.25%	79.9%
2018	55,443,060	9.0%	9.0%	8.1%	7.25%	80.6%
2019	57,976,437	6.4%	5.5%	6.5%	7.00%	77.2%
2020	56,574,410	1.8%	1.4%	5.8%	7.00%	76.3%
2021	70,297,718	25.2%	25.2%	10.4%	7.00%	79.3%
2022	67,467,013	0.1%	0.6%	8.5%	7.00%	79.6%
2023⁶	\$71,460,617	6.4%	6.4%	N/A	N/A	N/A

¹Total Fund — Time-Weighted Rate of Return is the aggregate increase or decrease in the value of the portfolio resulting from the net appreciation or depreciation of the principal of the fund, plus or minus the net income or loss experienced by the fund during the period. The returns are presented net of investment management fees.

²Total Fund — Money-Weighted Rate of Return is a measurement of investment performance, net of investment expenses, adjusted for the changing amounts actually invested. The returns are presented net of investment management fees.

³Return on Smoothed Valuation Assets consists of annual investment income in excess or shortfall of the expected rate of return on a valuation (actuarial) basis, smoothed over a specified period with a portion of the year's asset gains or losses being recognized each year beginning with the current year.

⁴Actuarial Assumed Rate of Return is the future investment earnings of the assets, which are assumed to accrue at an annual rate, compounded annually, net of both investment and administrative expenses. The actuarial assumed rate of return is 7.0 percent as adopted by the Board of Investments based on the results of the actuarial investigation of experience completed in December 2022. For fiscal year 2022-2023, interest crediting and operating tables applied the 7.0 percent actuarial assumed rate of return.

⁵Actuarial Funded Ratio is a measurement of the funded status of the fund calculated by dividing the valuation assets by the actuarial accrued liability.

⁶Actuarial Valuation report for June 30, 2023 is not yet available at financial statement publication.

Largest Equity Holdings — Pension Plan¹

As of June 30, 2023

(Dollars in Thousands)

Shares	Description	Fair Value
5,653,570	Apple Inc.	\$1,096,623
2,549,793	Microsoft Corporation	868,306
4,076,715	Alphabet Inc.	490,488
3,287,448	Amazon.com Inc.	428,552
889,539	NVIDIA Corporation	376,293
1,009,675	Tesla Inc.	264,303
800,683	Meta Platforms Inc.	229,780
1,958,004	Exxon Mobil Corporation	209,996
5,050,604	Enbridge Inc.	187,940
1,117,824	Chevron Corporation	175,890

Note: A complete list of portfolio holdings is available upon request by contacting LACERA.

¹Reflects the global equity exposure of assets held in custody.

Largest Fixed Income Holdings — Pension Plan¹

As of June 30, 2023

(Dollars in Thousands)

Par	Description	Fair Value
110,270,619	United States Treasury 3.625% 20530215	\$107,306
157,319,469	United States Treasury 1.375% 20401115	105,517
115,747,553	United States Treasury 2.875% 20520515	96,336
125,541,971	United States Treasury 2.375% 20510515	93,701
135,065,077	United States Treasury 2.000% 20510815	93,068
122,743,489	United States Treasury 2.000% 20411115	90,143
125,997,538	United States Treasury 1.875% 20510215	84,304
86,503,780	United States Treasury 0.125% 20251015	82,032
110,381,917	United States Treasury 2.250% 20520215	80,688
124,553,549	United States Treasury 1.125% 20400815	80,598

Note: A complete list of portfolio holdings is available upon request by contacting LACERA.

¹Reflects fixed income exposure of assets held in custody.

Schedule of Investment Management Fees

For the Fiscal Years Ended June 30, 2023 and 2022

(Dollars in Thousands)

Investment Managers	Pension Plan		OPEB Trust		OPEB Custodial Fund	
	2023	2022	2023	2022	2023	2022
Cash and Short-Term	\$269	\$307	\$22	\$20	\$8	\$25
Commodity	2,409	5,203	154	161	—	—
Global Equity	26,190	44,895	244	295	—	—
Fixed Income	46,816	77,576	1,768	1,857	104	90
Hedge Fund	139,506	99,075	—	—	—	—
Private Equity	210,556	260,426	—	—	—	—
Real Asset	26,282	22,565	—	—	—	—
Real Estate	61,942	50,674	130	148	—	—
Total Investment Management Fees¹	\$513,970	\$560,721	\$2,318	\$2,481	\$112	\$115

¹Differences in expenses from investing activities reported in the Statement of Changes in Fiduciary Net Position are due to incentive fees, carry allocations, and operating expenses included in the above schedule. In the Statement of Changes in Fiduciary Net Position, these incentive fees, carry allocations, and operating expenses are deducted from investment income.

GROWTH

Global Equity

Acadian Asset Management, LLC
BlackRock Institutional Trust Company, N.A.
Capital International, Inc.
Cevian Capital, LTD
CornerCap Investment Counsel
Frontier Capital Management Company, LLC
Genesis Investment Management, LLP
Global Alpha Capital Management, LTD
JANA Partners, LLC
J.P. Morgan Investment Management, Inc.
Lazard Asset Management, LLC
Parametric Portfolio Associates, LLC
State Street Global Advisors (SSGA)
Symphony Financial Partners
Systematic Financial Management, LP

Non-Core Private Real Estate

Aermont Capital Management, S.a.r.l
AEW Capital Management, LP
Angelo, Gordon & Company, LP
Bain Capital, LP
Blackstone, Inc.
Brookfield Asset Management, Inc.
CapMan, PLC
Capri Capital Advisors, LLC
CB Richard Ellis Global Investors, LLC
CityView Management Services, LLC
Hunt Investment Management, LLC
Europa Capital, LLP
RREEF America, LLC
Starwood Capital Group
Stockbridge Capital Group
The Carlyle Group
TPG Capital

Private Equity¹

Hamilton Lane Advisors, LLC
J.P. Morgan Investment Management, Inc.
Morgan Stanley Alternative Investments, LLC
Pathway Capital Management, LP

CREDIT

High Yield

Beach Point Capital Management, LP
BlackRock Institutional Trust Company, N.A.
Brigade Capital Management, LLC
PineBridge Investment, LLC

Bank Loans

Bain Capital Credit, LP
Credit Suisse Asset Management, LLC
Crescent Capital Group, LP

Emerging Market Debt

Aberdeen Standard Investments
Ashmore Investment Management, LTD

Illiquid Credit

Barings, LLC
Beach Point Capital Management, LP
Grosvenor Capital Management, LP
Magnetar Capital, LLC
Napier Park Global Capital
Pacific Investment Management Company, LLC (PIMCO)
Quadrant Real Estate Advisors, LLC
Silver Rock Capital Management
Stable Asset Management
Tennenbaum Capital Partners, LLC
Värde Partners
Waterfall Asset Management

REAL ASSETS and INFLATION HEDGES

Core Real Estate

Avison Young - Southern California, LTD
CityView Management Services, LLC
Clarion Partners, LLC
Heitman Capital Management, LLC
IDR Investment Management, LLC
Invesco Advisers, Inc.
Prologis Management II, S.a.r.l
RREEF America, LLC
Stockbridge Capital Group

Infrastructure

RREEF America, LLC

Infrastructure (Private)

Antin Mid Cap Fund I
Axium (CAD)
Axium North America (USD)
DIF CIF III
DIF VI Infrastructure
DWS Pan-European Infrastructure Fund III
Grain GCOF III
Grain Spectrum Holdings III
Guardian Smart Infrastructure Partners
KKR DCIF
Macquarie Global Infrastructure Fund
Partners Group Direct Infrastructure 2020

¹A complete list of Private Equity Investment Managers by functional category is available upon request.

Natural Resources and Commodities

Credit Suisse Asset Management, LLC
 Gresham Investment Management, LLC
 Neuberger Berman Fixed Income, LLC
 Pacific Investment Management Company, LLC (PIMCO)
 RREEF America, LLC

Natural Resources and Commodities (Private)

Appian Natural Resources Fund II LP
 Ara Fund III
 Cibus Fund II
 Cibus Enterprise II
 Energy and Minerals Group III
 Hitec Vision New Energy Fund SCSP
 Orion Mine Finance Fund III
 Orion Mineral Royalty Funds I
 Sprott Private Resource Streaming and Royalty Annex Fund
 TIAA CREF Global Agriculture
 TIAA CREF Global Agriculture II

Treasury Inflation-Protected Securities

BlackRock Institutional Trust Company, N.A.

RISK REDUCTION and MITIGATION**Investment Grade Bonds**

Allspring Global Investments
 BlackRock Institutional Trust Company, N.A.
 Pugh Capital Management, Inc.
 Western Asset Management Company

Diversified Hedge Funds

AM Squared General Partner, LTD
 Brevan Howard Capital Management
 Capula Investment Management
 Caxton Associates, LP
 Davidson Kempner Institutional Partners, LP
 Grosvenor Capital Management, LP
 HBK Capital Management
 Hudson Bay Capital Management
 Polar Asset Management Partners
 Stable Asset Management

Cash

State Street Global Advisors (SSGA)

Mortgage Loan Servicer

Ocwen Loan Servicing, LLC

Securities Lending Program

State Street Bank & Trust Company
 State Street Global Advisors (SSGA)

Health Reserve Program

Standish Mellon Asset Management Company, LLC

Other Post-Employment Benefits Trust

BlackRock Institutional Trust Company, N.A.
 Hamilton Lane Advisors, LLC
 State Street Global Advisors (SSGA)

OVERLAYS and HEDGES

BlackRock Institutional Trust Company, N.A.
 Parametric Portfolio Associates, LLC