

Planning

Preparing for the journey requires the proper equipment and supplies, and a trustworthy, accurate map.

In 1138, geographer Muhammad al-Idrisi was commissioned by King Roger II of Sicily to create a detailed map of the world. Fifteen years later, the Tabula Rogeriana (Map of Roger) was published—a comprehensive compilation of maps, climatic zones, descriptions of geographic areas and cultures, and illustrations that served as the most advanced guide of the world for the next 300 years.



Dear LACERA Members:

I am pleased to present the Investment Section of LACERA's Annual Comprehensive Financial Report for Fiscal Year 2022. 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 for retiree healthcare benefits (the OPEB



Jonathan Grabel
Chief Investment Officer

Trust).¹ This section presents the investment performance of the Pension Plan and the OPEB Trust as well as an overview of the investment portfolios.

During fiscal year 2022, a multitude of factors weighed down on growth and continued to exacerbate economic uncertainty, including high inflation, a persistent and evolving pandemic, the effects of the Russian/Ukraine war, and global food and energy supply constraints. LACERA invests over a long-time horizon, and there will be times of strong market returns as well as times of market turmoil. With this in mind, LACERA's Board of Investments proactively adopted a new strategic asset allocation and a strategic plan in recent years with the intent to build a portfolio that can meet LACERA's future benefit obligations while being resilient in times of market volatility. Consistent

with these Board-approved frameworks, LACERA's portfolio is designed 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 a modest 0.1 percent during the fiscal year, while the OPEB Trust posted a loss of 11.2 percent during the same period.² The different return profiles can primarily be attributed to the different asset allocation for the OPEB Trust relative to the Pension Plan and also that the OPEB Trust did not invest in private assets during the fiscal year. 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, the Pension Plan's return outperformed its policy benchmark for all periods and is ahead of its actuarial expected return of 7.0 percent³ for all periods except the one-year period. The Pension Plan's outperformance for the fiscal year relative to its policy benchmark demonstrates the benefits of the broad diversification built into LACERA's strategic asset allocation during this time of market uncertainty. The OPEB Trust exceeded its policy benchmark return for the three-, five-, and seven-year periods, but did not meet its actuarial expected return of 6.0 percent for any time period other than the seven-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.

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, 2022.

⁴The OPEB Trust's actuarial expected return for the period ending June 30, 2022.

Annualized Total Returns (Net of Fees)

Fiscal Year Ended June 30, 2022

	1 Year	3 Years	5 Years	7 Years	10 Years
Pension Plan	0.1%	8.5%	8.1%	7.7%	8.6%
<i>Policy Benchmark</i>	-4.6	6.2	7.0	6.9	7.9
OPEB Trust ⁵	-11.2	4.4	5.8	6.7	n/a
<i>Policy Benchmark</i>	-11.0	4.2	5.4	5.5	n/a

⁵Performance inception for the OPEB Trust is February 1, 2013.

Asset Allocation

LACERA's Board of Investments (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.

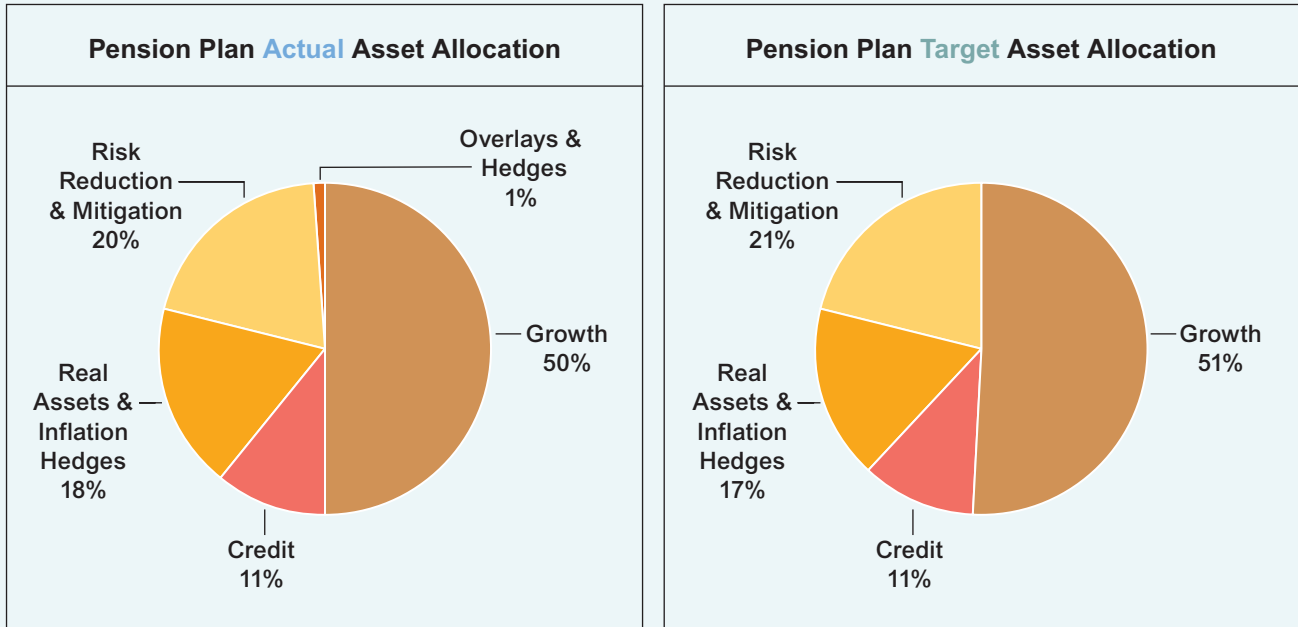
The Pension Plan's and the OPEB Trust's strategic asset allocations apportion investment dollars among functional categories and sub-asset classes based on long-term risk and return objectives and short-term liquidity needs. A table detailing the functional categories, sub-asset classes, and the role each is expected to fulfill in LACERA's investment portfolios is presented below.⁶

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

LACERA's Board reviews the strategic asset allocation for each Fund every three to five years or more often if needed to ensure that both portfolios are aligned with anticipated risks and opportunities. Asset allocation studies 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.

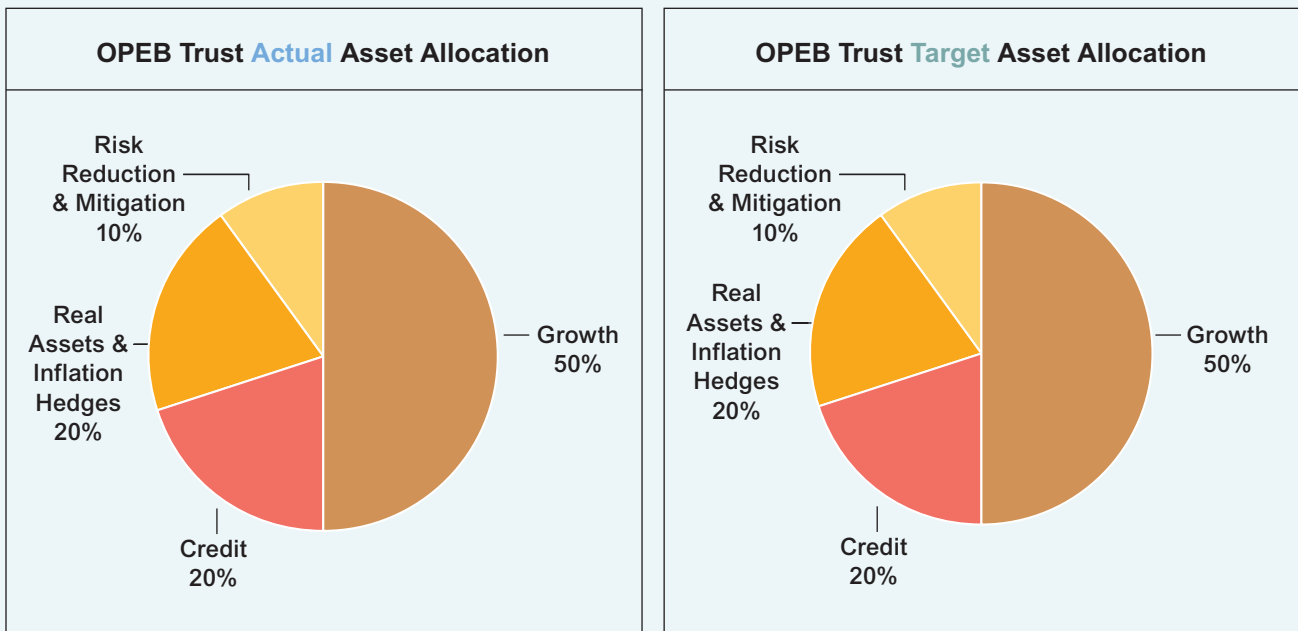
⁶The current functional frameworks of the Pension Plan and the OPEB Trust differ slightly as the OPEB Trust did not invest in private assets. In June 2021, the Board of Investments approved an 18 percent allocation to private assets for the OPEB Trust as part of the strategic asset allocation review. During the 2022–23 fiscal year, the OPEB Trust will begin investing in private assets.

The Pension Plan's June 30, 2022 actual and target asset allocation are shown below.⁷



⁷The Pension Plan's actual asset allocation includes an overlay and hedges composite, which 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 Pension Plan's global equities portfolio.

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, LACERA transitioned the assets of the Pension Plan and OPEB Trust toward the strategic asset allocation targets approved by LACERA's Board of Investments in May 2021. Both portfolios were in compliance with their policy target allocation ranges as of fiscal year end.

Beyond strategic asset allocation, LACERA has done significant work in recent years to execute on the five distinct strategic initiatives enumerated in LACERA's strategic plan: 1) enhance operational effectiveness, 2) optimize the investment model, 3) maximize stewardship and ownership rights, 4) strengthen influence on fees and cost of capital, and 5) execute LACERA's TIDE (Towards Inclusion, Diversity, and Equity) initiative. Taken together, these initiatives are designed to maximize investment returns while mitigating risks. Consistent with these initiatives, LACERA has undertaken innovative solutions to improve expected outcomes, all of which inure to the benefit of our members. For example, LACERA established an internally managed private equity co-investment program, which has resulted in excess returns relative to the core private equity program and benchmarks while providing significant cost savings. We continue to negotiate novel fee terms and structuring rights with some of our largest alternative asset managers, resulting in LACERA retaining a higher share of the profits while enhancing our control and visibility into the underlying investments and operational costs.

Core Performance Drivers

In last year's letter, I mentioned that LACERA took proactive steps to build a more resilient, diversified, and risk-mitigating portfolio in preparation for changing economic conditions. Today we see the benefits of our efforts as the economy is facing an environment with high inflation, rising interest rates, and unexpected geopolitical events. The returns of many institutional portfolios have been adversely impacted. Despite these challenges, the Pension Plan delivered a slightly positive return during the fiscal year and outperformed its benchmark by 470 basis points. The Pension Plan's real assets and inflation hedges asset class provided strong performance, returning 14 percent for the fiscal year, while the cash overlay and hedges composite contributed a gain of \$558 million in the same period. Positive returns from these two areas helped offset the negative returns experienced in the growth, credit, and risk reduction and mitigation asset classes. Additionally, all functional asset classes of the Pension Plan outperformed their individual benchmarks. LACERA's execution of its strategic asset allocation has enhanced portfolio diversification and, when combined with the execution of our strategic initiatives, have led to the Pension Plan's strong performance relative to its benchmark and peers during the fiscal year and over recent periods.

Looking Forward

The global economy and geopolitical environment experienced a remarkable amount of uncertainty during the last fiscal year. While we are pleased that the Pension Plan was able to weather the challenges and outperform the benchmark portfolio for the fiscal year, we understand that the uncertainty in the market is likely to continue for some time. We remain humbled and focused on our role as stewards of capital for our members' retirement futures. LACERA's mission is to produce, protect, and provide the promised benefit to its members, and we are as committed as ever to delivering long-term durable returns so that LACERA can deliver on its promise.

Respectfully submitted,

Jonathan Grabel

Jonathan Grabel
Chief Investment Officer

Investment Summary — Pension Plan¹

For the Fiscal Year Ended June 30, 2022

(Dollars in Thousands)

Type of Investment	Fair Value	Percent of Total Fair Value
Growth	\$35,330,986	
Global Equity	21,342,825	30.3%
Private Equity	12,901,178	18.3%
Non-Core Private Real Estate	1,086,983	1.6%
Credit	\$7,823,988	
Liquid Credit	4,581,147	6.5%
Illiquid Credit	3,242,841	4.6%
Real Assets and Inflation Hedges	\$12,538,843	
Core Private Real Estate	4,323,249	6.1%
Natural Resources & Commodities	2,957,771	4.2%
Infrastructure	3,327,236	4.7%
Treasury Inflation-Protected Securities (TIPS)	1,930,587	2.7%
Risk Reduction and Mitigation²	\$14,020,495	2.8% ³
Investment Grade Bonds	5,556,007	7.9%
Diversified Hedge Funds	4,195,895	6.0%
Long-Term Government Bonds	1,209,945	1.7%
Cash	1,066,914	1.5%
Overlay & Hedges	\$692,470	
Cash Overlay	525,028	0.8%
Currency Hedge	167,442	0.3%
Total Investments — Pension Plan	\$70,406,782	100.0%

¹Differences between fair values in the Statement of Fiduciary Net Position and this schedule are due to the differences between the Investment Book of Record and the Accounting Book of Record.

²Includes \$2 billion in Long Treasury Bonds Transition.

³Percent of total fair value corresponding to the \$2 billion in Long Treasury Bonds Transition.

Investment Summary — OPEB Master Trust¹

For the Fiscal Year Ended June 30, 2022

(Dollars in Thousands)

Type of Investment	Fair Value	Percent of Total Fair Value
Growth	\$1,199,699	
Global Equity	1,199,699	50.1%
Credit	\$476,248	
Liquid Credit	476,248	19.9%
Real Assets and Inflation Hedges	\$475,333	
Real Estate (REITs)	241,131	10.1%
Commodities	92,737	3.9%
Treasury Inflation-Protected Securities (TIPS)	141,465	5.9%
Risk Reduction & Mitigation²	\$241,956	
Investment Grade Bonds	193,282	8.1%
Cash	48,627	2.0%
Operational Cash	\$844	0.0%
Total Investments — OPEB Master Trust	\$2,394,080	100.0%

¹Differences between fair values in the Statement of Fiduciary Net Position and this schedule are due to the differences between Investment Book of Record and Accounting Book of Record.

²Includes \$46,457 in interest receivable that is not included in the Investment Grade Bonds or Cash.

Investment Summary — OPEB Custodial Fund¹

For the Fiscal Year Ended June 30, 2022

(Dollars in Thousands)

Type of Investment	Fair Value	Percent of Total Fair Value
Cash and Cash Equivalents	\$206	0.1%
Fixed Income	172,001	99.9%
Total Investments — OPEB Custodial Fund	\$172,207	100.0%

¹Differences between fair values in the Statement of Fiduciary Net Position and this schedule are due to the differences between Investment Book of Record and Accounting Book of Record.

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

As of June 30, 2022

	Annualized (Net-of-Fees)				
	Quarter End June 30, 2022	One-Year	Three-year	Five-year	Ten-year
Growth	(9.4)%	(2.0)%	12.6%		
<i>Growth Custom Benchmark</i>	(11.6)%	(8.1)%	9.5%		
Global Equity	(15.1)%	(15.1)%	6.6%		
<i>Global Equity Custom Benchmark</i>	(15.8)%	(16.5)%	6.0%		
Private Equity - Growth	0.8%	30.2%	26.6%		
<i>Private Equity - Growth Custom Benchmark</i>	(5.0)%	8.4%	15.7%		
Non-Core Private Real Estate	4.7%	23.5%	14.2%	13.2%	12.0%
<i>Non-Core Real Estate Policy Benchmark</i>	7.7%	30.3%	13.4%	12.0%	13.1%
Credit	(5.2)%	(4.2)%	3.1%		
<i>Credit Custom Benchmark</i>	(5.7)%	(7.5)%	1.2%		
Liquid Credit	(7.9)%				
<i>Liquid Credit Custom Benchmark</i>	(7.6)%				
Illiquid Credit	(1.0)%	6.7%	11.2%		
<i>Illiquid Credit Custom Benchmark</i>	(3.5)%	(3.4)%	3.4%		
Real Assets & Inflation Hedges	(1.6)%	14.3%	7.9%		
<i>Real Assets & Inflation Hedges Custom Benchmark</i>	(3.2)%	12.4%	8.7%		
Core Private Real Estate	8.4%	27.9%	8.4%	8.3%	8.8%
<i>Core Private Real Estate Custom Benchmark</i>	7.1%	27.4%	10.7%	9.4%	10.4%
Natural Resources & Commodities	(6.1)%	18.6%	12.5%	8.0%	(0.3)%
<i>Natural Resources & Commodities Custom Benchmark</i>	(12.4)%	12.2%	11.2%	7.0%	(1.5)%
Infrastructure	(6.5)%	4.1%	7.6%		
<i>DJ Brookfield Global Infrastructure</i>	(6.9)%	2.8%	4.5%		
TIPS	(6.3)%	(4.8)%	3.1%		
<i>Bloomberg Barclays U.S. Treasury U.S. TIPS</i>	(6.1)%	(5.1)%	3.0%		
Risk Reduction & Mitigation	(3.4)%	(7.1)%	0.8%		
<i>Risk Reduction & Mitigation Custom Benchmark</i>	(3.9)%	(7.7)%	(0.1)%		
Investment Grade Bonds	(4.8)%	(10.6)%	(0.7)%	1.1%	2.1%
<i>Bloomberg Barclays U.S. Aggregate</i>	(4.7)%	(10.3)%	(0.9)%	0.9%	1.5%
Diversified Hedge Funds	1.5%	4.0%	7.1%		
<i>Diversified Hedge Funds Custom Benchmark</i>	0.7%	2.6%	3.2%		
Long-Term Government Bonds	(11.4)%				
<i>Bloomberg U.S. Treasury Long</i>	(11.9)%				
Cash	0.7%	1.5%	1.3%	1.6%	1.1%
<i>Cash Custom Benchmark</i>	0.1%	0.2%	0.6%	1.1%	0.7%
Overlays & Hedges	73.9%				
Cash Overlay	17.2%	64.7%			
<i>Total Overlay Custom Benchmark</i>	(11.5)%	(11.9)%			
Currency Hedge	3.6%				
<i>50% FX Hedge Custom Benchmark</i>	3.6%				
Total Fund	(5.9)%	0.1%	8.5%	8.1%	8.6%
Total Fund Custom Policy Benchmark	(7.9)%	(4.6)%	6.2%	7.0%	7.9%

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, 2022

	Annualized (Net-of-Fees)			
	Quarter End June 30, 2022	One-Year	Three-year	Five-year
Growth	(15.7)%	(16.3)%	6.2%	7.0%
<i>OPEB Master Trust Growth Custom Benchmark</i>	(15.8)%	(16.5)%	6.0%	6.7%
Global Equity	(15.7)%	(16.3)%	6.2%	7.0%
<i>MSCI ACWI IMI Net</i>	(15.8)%	(16.5)%	6.0%	6.7%
Credit	(7.2)%	(9.8)%	(0.6)%	
<i>OPEB Master Trust Credit Custom Benchmark</i>	(7.2)%	(9.7)%	(0.2)%	
Bank Loans	(4.5)%	(3.4)%	1.6%	
<i>S&P/LSTA Leverage Loan</i>	(4.5)%	(2.8)%	2.1%	
EM Debt	(8.6)%	(19.3)%	(6.2)%	
<i>JPM GBI-EM Global Diversified</i>	(8.6)%	(19.3)%	(5.8)%	
High Yield	(10.0)%	(12.9)%	(0.3)%	
<i>Bloomberg Barclays U.S. Corporate HY</i>	(9.8)%	(12.8)%	0.2%	
Real Assets & Inflation Hedges	(12.0)%	0.5%	5.9%	
<i>OPEB Master Trust Real Asset & Inflation Hedges Custom Benchmark</i>	(12.1)%	0.2%	5.6%	
Real Estate (REITs)	(18.1)%	(6.5)%	2.3%	
<i>DJ US Select Real Estate Sec Index</i>	(18.1)%	(6.4)%	2.5%	
Commodities	(5.8)%	24.8%	14.5%	
<i>Bloomberg Commodity Index (Total Return)</i>	(5.7)%	24.3%	14.3%	
Treasury Inflation-Protected Securities (TIPS)	(6.1)%	(5.2)%	3.1%	
<i>Bloomberg Barclays U.S. TIPS Index</i>	(6.1)%	(5.1)%	3.0%	
Risk Reduction & Mitigation	(3.7)%	(8.2)%	(0.5)%	1.4%
<i>OPEB Master Trust Risk Reduction & Mitigation Custom Benchmark</i>	(3.7)%	(8.3)%	(0.6)%	1.2%
Investment Grade Bonds	(4.7)%	(10.2)%	(0.9)%	
<i>Bloomberg Barclays U.S. Aggregate</i>	(4.7)%	(10.3)%	(0.9)%	
Enhanced Cash	0.2%	0.2%	0.9%	1.5%
<i>Cash Policy Custom Benchmark</i>	0.1%	0.2%	0.7%	1.2%
Total OPEB Master Trust	(12.2)%	(11.2)%	4.4%	5.8%
Total OPEB Master Trust Policy Benchmark	(12.2)%	(11.0)%	4.2%	5.4%

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
2013	\$42,285,906	11.9%	—%	5.4%	7.50%	75.0%
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%	0.7%	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%
2022⁶	\$67,467,013	0.1%	0.6%	N/A	N/A	N/A

¹**Total 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.

²**Total 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.

³**Return 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.

⁴**Actuarial 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 percent as adopted by the Board of Investments based on the results of the actuarial investigation of experience completed in January 2020. For Fiscal Year 2021–2022, interest crediting and operating tables applied the 7 percent actuarial assumed rate of return.

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

⁶**Actuarial Valuation** report for June 30, 2022 is not yet available at financial statement publication.

Largest Equity Holdings — Pension Plan¹

As of June 30, 2022

(Dollars in Thousands)

Shares	Description	Fair Value
5,386,524	Apple Inc.	\$736,446
2,367,663	Microsoft Corporation	608,087
193,729	Alphabet Inc.	422,955
3,012,959	Amazon.com Inc.	320,006
1,490,180	Crown Castle Inc.	250,917
974,519	American Tower Corporation	249,077
2,657,030	Exxon Mobil Corporation	227,548
4,868,728	Enbridge Inc.	205,174
283,435	Tesla Inc.	190,871
1,151,325	Sempra Energy	173,010

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

¹Reflects the global equity exposure of assets held in custody as well as certain commingled funds.

Largest Fixed Income Holdings — Pension Plan¹

As of June 30, 2022

(Dollars in Thousands)

Par	Description	Fair Value
110,326,581	Federal National Mortgage Association 2.000% 20510701	\$96,135
82,560,523	United States Treasury 0.125% 20320115	78,672
83,271,069	Federal National Mortgage Association 2.500% 20510801	75,246
93,265,725	United States Treasury 1.750% 20410815	71,966
69,992,552	United States Treasury 0.125% 20310715	66,837
83,905,865	United States Treasury 2.000% 2051085	66,039
60,295,170	United States Treasury 0.125% 20261015	59,860
55,010,484	United States Treasury 2.875% 20520515	52,584
49,000,000	Federal National Mortgage Association TBA 09/2022 30Y 5.000%	49,868
64,080,575	United States Treasury 1.875% 20511115	48,646

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

¹Reflects fixed income exposure of assets held in custody as well as certain commingled funds.

Schedule of Investment Management Fees

For the Fiscal Years Ended June 30, 2022 and 2021

(Dollars in Thousands)

Investment Managers	Pension Plan		OPEB Trust		OPEB Custodial Fund	
	2022	2021	2022	2021	2022	2021
Cash and Short-Term	\$307	\$447	\$20	\$12	\$25	\$25
Commodity	5,203	4,029	161	111	—	—
Global Equity	44,895	38,304	295	229	—	—
Fixed Income	81,465	89,294	1,857	1,468	90	82
Hedge Fund	99,075	83,130	—	—	—	—
Private Equity	260,426	201,234	—	—	—	—
Real Asset	22,565	5,959	—	—	—	—
Real Estate	50,674	39,195	148	107	—	—
Total Investment Management Fees¹	\$564,610	\$461,592	\$2,481	\$1,927	\$115	\$107

¹Difference in expenses from investing activities in the Statement of Changes in Fiduciary Net Position is 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
Quantitative Management 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
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

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
Tennenbaum Capital Partners, LLC

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
Partners Group Direct Infrastructure 2020

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

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

Natural Resources and Commodities

(Private)

Cibus Fund II

Cibus Enterprise II

Hitec Vision New Energy Fund SCSP

Orion Mine Finance Fund III

Orion Mineral Royalty Funds I

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 Limited

Brevan Howard Capital Management

Capula Investment Management

Caxton Associates, LP

Davidson Kempner Institutional Partners, LP

Goldman Sachs Hedge Fund Strategies, LLC

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.

State Street Global Advisors (SSGA)

OVERLAYS and HEDGES

BlackRock Institutional Trust Company, N.A.

Parametric Portfolio Associates, LLC