Strategically Structured

Investments Section



Crafting a unique, lasting design takes creativity, skill, and planning. LACERA's investments program is carefully constructed by the Board of Investments to provide balance, strength, and diversity, and it is expertly executed by the Investments Division. As plan participants themselves, LACERA staff members have a personal stake in the future viability of the trusts, reinforcing the long-term focus of the framework.



Dear LACERA members:

It is my privilege to present the Investment Section of LACERA's Annual Comprehensive Financial Report for fiscal year 2021. 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). This section



Jonathan Grabel
Chief Investment Officer

presents the investment performance of the Pension Plan and the OPEB Trust as well as an overview of the investment portfolio.

Despite the challenges presented by an abrupt shift to a remote work environment beginning in March 2020, fiscal year 2021 was an incredibly productive year for LACERA's investment program and its Board of Investments. LACERA continued to implement several significant initiatives during the year, while both the Pension Plan and the OPEB Trust outperformed their policy benchmarks and actuarial returns. LACERA's strategic efforts align with our fiduciary duty to optimize the Funds' risk-adjusted returns while providing sufficient liquidity for benefit payments. As the global economy continues to reopen and the pandemic continues to

evolve, we remain vigilant and committed to our mission to produce, protect, and provide the promised benefits to the employees and retirees of Los Angeles County and their beneficiaries.

Performance Summary

The Pension Plan returned 25.2 percent during the fiscal year, while the OPEB Trust returned 28.4 percent during the same period. 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 met or outperformed its policy benchmark for the past fiscal year and the five-, seven- and 10-year periods and is ahead of its actuarial expected return of 7 percent³ for all periods. The Pension Plan's returns for the fiscal year were coupled with relatively lower volatility compared to the benchmark portfolio's risk profile, demonstrating the benefits of the broad diversification built into LACERA's strategic asset allocation. The OPEB Trust also exceeded its policy benchmark return during the past fiscal year and for the three-, five-, and seven-year periods, and exceeded its actuarial expected return of 6 percent for all periods.⁴

Annualized Total Returns (Net of Fees)

Fiscal Year Ended June 30, 2021

	1 Year	3 Years	5 Years	7 Years	10 Years
Pension Plan	25.2%	10.7%	10.8%	8.3%	8.6%
Policy Benchmark	23.1	10.9	10.3	8.3	8.5
OPEB Trust⁵	28.4	10.6	12.7	8.7	n/a
Policy Benchmark	28.2	10.3	11.0	7.4	n/a

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, 2021.

⁴The OPEB Trust's actuarial expected return for the period ending June 30, 2021.

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.

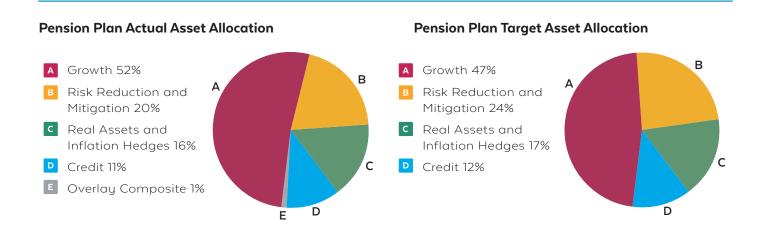
The Pension Plan's and the OPEB Trust's strategic asset allocations apportion investment dollars among functional categories and sub-asset classes based on long-term risk and return objectives and short-term liquidity needs. A table detailing the functional categories, sub-asset classes, and the role 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 Opportunistic Real Estate	Primary driver of long-term total returns
Credit	High Yield Bonds Bank Loans Emerging Market Debt Illiquid Credit	Produce current income and moderate long-term total returns with lower risk than growth assets
Real Assets and Inflation Hedges	Core and Value-Added 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 Cash	Provide current income and a modest level of return while reducing total portfolio risk

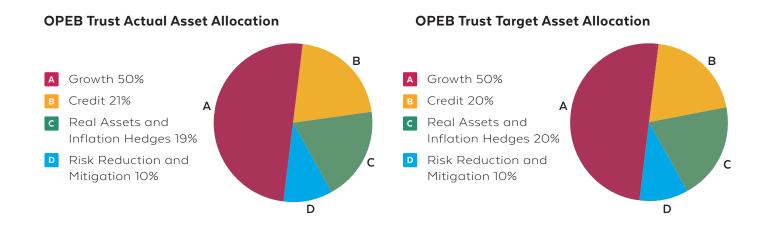
LACERA's Board reviews the strategic asset allocation for each Fund every three to five years, or more often if needed, to ensure that both portfolios are aligned with anticipated risks and opportunities. Asset allocation studies consider a number of factors including, but not limited to: the Funds' 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 functional frameworks of the Pension Plan and the OPEB Trust differ slightly as the OPEB Trust does not currently invest in private assets.

The Pension Plan's June 30, 2021 actual and target asset allocation are shown below.⁷



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.



Both funds were in compliance with their policy target allocation ranges as of fiscal year-end.

Over the last fiscal year, LACERA, alongside its general consultant, performed a full review of its asset allocation for both the Pension Plan and OPEB Trust, and this resulted in LACERA's Board approving new strategic asset allocations for the Funds in May 2021.8 The new strategic asset allocations are designed to be more efficient, enhance the expected compensation relative to risk, and compound durable investment returns for the long-term benefit of LACERA's members.

Beyond strategic asset allocation, LACERA took several steps in recent years to further maximize investment returns while mitigating risks. LACERA's risk analysis capabilities have been enhanced through utilizing data analytics platforms that allow LACERA to better assess the portfolio against its desired risk and return profile. LACERA expanded its focus

⁷The Pension Plan's actual asset allocation includes an overlay 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.

⁸The current OPEB Trust allocation only includes public market assets. The OPEB Trust's newly approved strategic asset allocation includes an 18 percent target allocation to private market assets.

on environmental, social, and governance risk factors and their impact on the portfolios' investment performance. LACERA believes a better understanding of these risks will lead to better long-term investment returns. Additionally, LACERA further elevated its diversity, equity, and inclusion initiatives aimed at increasing investment performance by evaluating and encouraging financial firms managing LACERA's capital and the broader investment industry to access and incorporate wider talent and views that reflect the diversity of human experiences. LACERA diligently pursues these programs as part of our overall approach to achieve the best financial outcomes for LACERA's investment portfolio and members.

Core Performance Drivers

In the past several years, LACERA took proactive steps to build a more resilient, diversified, and risk-mitigating portfolio in preparation for changing economic conditions. Each of LACERA's functional asset classes work together to enhance diversification and provide the portfolio with the ability to succeed in different market conditions. In a dynamic market environment, a risk-aware portfolio is especially important to enable LACERA to continue to achieve its objectives of paying benefits both in the short and long term.

During a tumultuous year, which included global economic fallout from the COVID-19 pandemic, LACERA's portfolio remained resilient and benefited from the diversification built into our strategic asset allocation. The Pension Plan's net asset value reached an all-time high of \$71.6 billion as of the end of the fiscal year, and all functional asset categories contributed to the Pension Plan's positive absolute performance. The growth asset category returned 43 percent for the fiscal year, with each of the global equity, private equity, and opportunistic real estate sub-asset classes contributing to the positive performance. The credit and real assets categories also added to the Pension Plan's total return, while gains in the risk reduction and mitigation category were more modest yet provided the portfolio with important downside protection during periods of market stress.

The accompanying letter from Meketa Investment Group, LACERA's general investment consultant, discusses the market environment that shaped and influenced the Funds' performance during the fiscal year.

Looking Forward

The Funds' outperformance above their respective benchmarks and actuarial expected returns represent pension security for LACERA's beneficiaries, and we remain humbled and focused on our fiduciary role to LACERA members. While we cannot predict the long-term ramifications of the pandemic and the future of the financial markets, LACERA will continue to be steadfast in diligently monitoring and adapting to investment risks, and proactive in the face of challenges and opportunities.

Respectfully submitted,

Jonathan Grabel

Jonathan Grabel

Chief Investment Officer

September 21, 2021

Board of Investments Los Angeles County Employees Retirement Association Gateway Plaza 300 North Lake Avenue, Suite 850 Pasadena, CA 92101



Dear Board Members.

LACERA's stated mission is to produce, protect, and provide the promised benefits. LACERA strives to align the portfolio's asset allocation, investments, and other related decisions with the goals of the overall organization. Meketa Investment Group, LACERA's general investment consultant, works in concert with StepStone Group and Albourne Partners to provide guidance to LACERA's Board of Investments (Board), and assist the Board with performance evaluation, asset allocation, manager selection, and other industry best practices.

This letter reviews the investment performance of LACERA for the fiscal year ending June 30, 2021.

Fiscal Year 2021 Calendar Year in Review

We entered the fiscal year 2021 that ended June 30 with equity markets continuing to appreciate from their March 2020 market lows, aided by extremely accommodative monetary and fiscal policies enacted across the globe aimed at supporting teetering economies in the face of a pandemic. By fiscal year end, global risk assets produced historically strong returns. Robust stimulus across global developed and emerging economies, news of successful vaccine developments, economies reopening, and a focus on successful vaccine rollouts all contributed to the strong performance of risk assets in the 2021 fiscal year. The notable pickup in economic activity, evident in the latter half of the year, drove inflation higher.

While fiscal year 2021 proved to be a strong market year, it should be noted there is still a considerable amount of uncertainties. Among those are: 1) the path of the pandemic, particularly given the rise of the Delta variant—a highly contagious strain of COVID-19, 2) the health and recovery of the labor market, 3) the related implication for inflation and economic growth, and 4) the overall impact of fiscal and monetary measures as they begin to subside.

U.S. equities, as represented by the Russell 3000 Index, finished the fiscal year with a 44.2 percent return. Emerging markets (MSCI Emerging Markets) delivered 40.9 percent for the year, and the MSCI EAFE Index, representing foreign developed markets, returned 32.4 percent for the same time horizon.

With fiscal and monetary support and corresponding improvement in investor risk sentiment, expectations of short-term volatility, as measured by the VIX index, declined relatively quickly throughout the course of the year. At the recent height of the pandemic, the VIX index reached 82.7, declining to 30.4 at the start of the fiscal year. By year-end June 30, 2021 the VIX index had settled at a level of 15.8 as continued vaccine distribution and waning inflationary fears led to the continued decline of volatility expectations. For much of the fiscal year, most markets embraced a "risk on" appetite. Going forward, the rise of the Delta variant and its potential impact could disrupt market calm.

In the wake of positive vaccine news, we saw a rotation away from growth stocks into value stocks at calendar year-end that, for the most part, continued for the remainder of the fiscal year. By June 30, 2021, the Russell 3000 Value Index (+45.4 percent) had outpaced the prior leadership of the Russell 3000 Growth Index (+43 percent). Just a year prior, leadership performance of the Russell 1000 Growth Index (+21.9 percent) versus the Russell 1000 Value Index (-9.4 percent) held a significant wider spread that by FY 2021 had all but diminished. Cyclical sectors like energy and financials saw strong results, as investors rotated out of the stay-at-home focused companies in the technology sector that were so previously favored in 2020.

Similarly, but with a drastically more pronounced divergence, we saw a rotation away from large cap stocks and into small cap stocks. The performance dispersion between the Russell 1000 Index (+43.1 percent) and the Russell 2000 Index (+62 percent) reached nearly 20 percent by fiscal year end as smaller companies benefited from the reopening of economies and its pro-cyclical tailwind.

Within international developed markets, the MSCI EAFE opportunity set, of which Japan, the U.K., and the Eurozone are featured most heavily, underperformed relative to the U.S. and emerging markets, in part due to the weak footing on which they entered the crisis, the robust spread of COVID-19, and prolonged lockdowns in many of these economies. Within emerging markets, we witnessed a widespread divergence between countries that were able to manage the virus' spread by deploying aggressive countermeasures early on (e.g., China) relative to countries facing already challenging economic circumstances (e.g., Brazil, Mexico, and South Africa). More recently, concerns over the spread of the Delta variant and the ability of emerging countries to manage this has weighed on emerging markets results. Specific to China, fear of tighter monetary policies impacting growth, in addition to the more recent Chinese regulatory crackdown on ADR-listed companies, has been a headwind to the region's performance.

The U.S. Treasury yield curve had declined materially at the onset of COVID-19 (March of 2020) as investors flocked to this safe-haven asset, and aggressive Federal Reserve policies were enacted through policy rate cuts and the quantitative easing program. For context, at the end of June 30, 2020 the 10-year yield was at 0.66 percent with yields remaining below 1 percent through December; by March 2021, the yield nearly doubled to 1.7 percent on prospects of stronger than expected growth driving negative bond index returns. By the end of the fiscal year, the 10-year yield retreated to 1.4 percent as concerns about the economic impact of the Delta variant trimmed investor risk appetite.

Within fixed income markets, the Bloomberg Barclays U.S. Aggregate produced essentially flat returns delivering -0.33 percent for the year ending June 30, 2021; the Bloomberg Barclays TIPS returned 6.5 percent as inflationary concerns proved to be a tailwind; and the Barclays High Yield Index posted the strongest returns at 15.4 percent as investors searched for yield given the current historically low levels being offered elsewhere. Lastly, long maturity treasuries were the worst performers, with the Barclays Long U.S. Government returning -10.4 percent to end the fiscal year 2021. Rising inflation and U.S. economic growth conditions in the second half of the year negatively impacted longer dated fixed income instruments; though we witnessed some recovery as inflation concerns somewhat abated by the end of the fiscal year.

Outside of equity and fixed income markets, we saw strong results from many other asset classes, as they benefited from the recovery and economic expansion. Energy prices saw a dramatic increase, with WTI crude oil trading at \$75.23 by June 30, 2021 and returning to pre-COVID levels versus \$39.88 just one year ago. At their trough in 2020, the Bloomberg Commodity Index and the S&P Global Natural Resources Indices were both down -23.1 percent and -44.6 percent, respectively. At the end of the fiscal year, the Bloomberg Commodities Index and the S&P Global Natural Resources Index recovered with healthy returns and printed 45.6 percent and 49.4 percent one-year returns respectively. Particularly in the second half of the fiscal year, as economies re-opened, an imbalance in supply (low) and demand (high), caused many raw materials to rise sharply (e.g., steel, copper, corn, and lumber). The increased demand, made worse by port-container shipping congestion, drove transportation costs to rise, inciting inflationary fears.

One of the hardest hit asset classes in markets in 2020 had been real estate, where fears regarding utilization rates in commercial real estate prevented the asset class from participating in the recovery in the early months. Since then, REITS have handsomely recovered from their 2020 steep losses such that one-year returns ending June 30, 2021 were 38.1 percent as proxied by the MSCI U.S. REIT Index. U.S. market volatility as measured by the VIX index was approximately 30 percent at the beginning of the fiscal year and has nearly halved to just below 16 percent by the end of the fiscal year.

In April 2021, the advent of vaccines and the rise in economic activity led the IMF to materially upgrade its World Economic Outlook for 2021 with advanced economies projected to rise by 5.1 percent. In June, the Federal Reserve upgraded U.S. 2021 growth forecast to 7 percent. Growth projections have also been revised higher for emerging markets, with 2021 at 6.7 percent. China is expected to see significant growth of 8.4 percent in 2021 and then resume its potential growth level of 5.7 percent in 2022. Near term, inflation expectations for advanced economies have been revised upwards and are projected to be higher than their 10-year averages.

2021 Outlook

Looking ahead beyond 2021, we see a variety of issues of primary concern impacting the path and speed of a recovering economy:

- 1. Economies may not achieve herd (vaccination) immunity, resulting in weaker growth and potentially a need to re-deploy lockdown policies or booster shot programs. Meanwhile, developing countries continue to struggle to gain access to vaccines to help mitigate COVID infections. While authorities indicate that vaccination can prevent hospitalization for Delta variant infections, the Delta variant may pose significant public health problems due to its more virulent characteristics. Additionally, supply dynamics and logistical challenges with the vaccine are driving a slower pace of inoculation than expected, in addition to vaccine hesitancy, particularly here in the US. This confluence of challenges could cause governments to reimpose distancing measures, which would likely depress employment and economic growth. Given some considerable uncertainty on the trajectory of COVID preventative measures, several economic themes flow from this larger global health uncertainty.
- 2. Consumers may change economic behavior for an extended period. Changing consumer spending and work-environment preferences could limit demand for participation in large events including concerts and sporting events, dining out, travel, and leisure activities. Added concerns here in the U.S. are the eviction moratoriums and the student loan repayment freeze set to expire, with federal unemployment benefits also ending.
- 3. Persistently high unemployment due to a significant number of companies not surviving the economic downturn. U.S. unemployment levels stand at 5.9 percent and have certainly come down from peak rates reached at the height of the pandemic, but these still remain well above pre-pandemic levels.
- 4. Virus-related fears and outbreaks could continue to exacerbate supply chain disruptions as port, transport, and intermodal workers observe lockdown measures. Global bottlenecks may continue to persist, resulting in shortages and higher prices.
- 5. The potential of a short-term overheating of the U.S. economy. In May and June, the U.S. CPI exceeded 4 percent year over year, and stoked investor concerns that the U.S. economy may overheat, as strong consumer demand and the economic recovery could potentially create an inflationary spiral. The Biden administration announced its intentions to expand government spending while the U.S. economy is in a robust recovery, and this may exacerbate inflationary pressures.
- 6. As of June 2021, the Federal Reserve was still engaged in its quantitative easing program, purchasing \$120 billion in U.S. treasuries and mortgage-backed securities a month. As the U.S. economy recovers the Federal Reserve may begin to taper their asset purchases, resulting in policy tightening.
- 7. China's recent political interventions in the technology and education sectors could have further repercussions for Chinese U.S.-listed ADRs as well as Chinese company H and A shares. Regulatory tensions between the U.S. and China could force further divestment from listed Chinese companies in the U.S. and in mainland China.

LACERA Investment Results¹

Los Angeles County Employees Retirement Association (LACERA) provides defined retirement plan benefits and other post-employment benefits for employees of the County of Los Angeles (County), the Los Angeles Superior

Court (Court), and various outside districts. LACERA is responsible for the administration and investment of two separate funds (Funds): the LACERA defined benefit retirement plan (Pension Plan or Plan), whose assets provide retirement benefits for employees of the County and outside districts, and the LACERA Other Post-Employment Benefit Master Trust Fund (OPEB Master Trust), whose assets provide other post-employment benefits such as retiree healthcare for employees of the County, LACERA, and the Court.

LACERA's Pension Plan had approximately \$71.6 billion in assets at the end of the 2021 fiscal year. For the fiscal year, LACERA returned 25.2 percent net of fees, outperforming both the Total Fund Policy Benchmark return of 23.1 percent and assumed actuarial rate of return of 7 percent, respectively. All of the functional categories within the LACERA portfolio contributed positively to the overall return during the fiscal year. Over the trailing three- and five-year periods, the LACERA Pension Plan portfolio returned 10.7 percent and 10.8 percent, per year, on average, respectively.

The OPEB Master Trust stood at \$2.3 billion at the end of June 2021. For the fiscal year, the OPEB Master Trust returned 28.4 percent, outperforming the Custom OPEB Master Trust Policy Index by 20 basis points. Most functional categories in the OPEB Trust also contributed positively to the overall return during the fiscal year. Over the trailing three- and five-year periods, the OPEB Master Trust returned 10.6 percent and 12.7 percent, per year, on average, respectively.

During fiscal year 2021, LACERA conducted a full asset allocation study for the Pension Plan and OPEB Master Trust, which resulted in Board approval of the new asset mixes. We continue to believe that the Funds are well diversified and invested, and look forward to collaborating with the Board and Staff to meet its mission of producing, protecting, and providing the promised benefits.

If you have any questions, please contact us at (760) 795-3450.

Sincerely,

Leandro Festino, CFA, CAIA

Managing Principal

Stephen P. McCourt, CFA Managing Principal

Stehn West

SPM/LAF/TF/IZ/sf

Investment Summary — Pension Plan¹

For the Fiscal Year Ended June 30, 2021 (Dollars in Thousands)

Type of Investment	Fair Value	Percent of Total Fair Value		
Growth	\$36,931,746			
Global Equity	26,447,258	37.0%		
Private Equity	9,866,335	13.8%		
Opportunistic Real Estate	618,153	0.9%		
Credit	\$7,700,407			
High Yield	2,249,962	3.1%		
Bank Loans	2,639,439	3.7%		
Emerging Market Debt	891,931	1.2%		
Illiquid Credit	1,919,075	2.7%		
Real Assets and Inflation Hedges	\$11,676,622			
Core and Value-Added Real Estate	4,467,021	6.2%		
Natural Resources & Commodities	2,998,170	4.2%		
Infrastructure	2,182,927	3.1%		
Treasury Inflation-Protected Securities	2,028,504	2.8%		
Risk Reduction and Mitigation	\$14,743,023			
Investment Grade Bonds	11,301,065	15.8%		
Diversified Hedge Funds	2,526,387	3.5%		
Cash	915,571	1.3%		
Total Overlay	\$515,586	0.7%		
Total Investments — Pension Plan	\$71,567,384	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 Summary — OPEB Master Trust¹

For the Fiscal Year Ended June 30, 2021 (Dollars in Thousands)

Type of Investment	Fair Value	Percent of Total Fair Value	
Growth	\$1,145,138		
Global Equity	1,145,138	49.6%	
Credit	\$472,826		
Bank Loans	237,869	10.3%	
High Yield	142,169	6.2%	
EM Local Currency Bonds	92,788	4.0%	
Real Assets and Inflation Hedges	\$449,379		
Real Estate (REITs)	219,157	9.5%	
Commodities	90,130	3.9%	
Treasury Inflation-Protected Securities (TIPS)	140,092	6.1%	
Risk Reduction & Mitigation	\$238,071		
Investment Grade Bonds	191,064	8.3%	
Cash Equivalents	47,007	2.0%	
Uninvested Cash	\$1,404	0.1%	
Total Investments — OPEB Master Trust	\$2,306,818	100.0%	

Investment Summary — OPEB Custodial Fund¹

For the Fiscal Year Ended June 30, 2021 (Dollars in Thousands)

Type of Investment	Fair Value	Percent of Total Fair Value
Cash and Cash Equivalents	\$26,047	15.6%
Fixed Income	140,531	84.4%
Total Investments — OPEB Custodial Fund	\$166,578	100.0%1

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, 2021

	Annualized (Net-of-Fees)				
	Quarter End				
	June 30, 2021	One-Year	Three-year	Five-year	10-year
Growth	8.7%	42.8%			
Growth Custom BM	6.7%	43.6%			
Global Equity	7.0%	40.8%			
Global Equity Custom BM	7.2%	40.9%			
Private Equity - Growth	13.9%	50.6%			
Private Equity - Growth Custom BM	5.6%	60.6%			
Opportunistic Real Estate	5.1%	11.4%	9.2%	10.6%	8.9%
Opportunistic Real Estate Custom BM	2.6%	4.5%	7.1%	8.4%	11.9%
Credit	2.9%	17.9%			
Credit Custom BM	1.9%	9.4%			
High Yield	3.1%	17.9%			
High Yield Custom BM	2.7%	15.4%			
Bank Loans	1.9%	12.6%			
Credit Suisse Leveraged Loans	1.4%	11.7%			
Emerging Market Debt	4.6%	11.6%	5.2%		
EMD Custom BM	3.4%	7.6%	6.3%		
Illiquid Credit	3.2%	31.2%			
Illiquid Credit Custom BM	0.5%	2.1%			
Real Assets & Inflation Hedges	4.4%	15.2%			
Real Assets & Inflation Hedges Custom BM	4.9%	15.6%			
Core & Value-Added Real Estate	0.5%	0.3%	2.8%	4.5%	7.1%
Core & Value-Added Real Estate Custom BM	2.0%	2.0%	4.5%	5.8%	9.2%
Natural Resources & Commodities	9.6%	48.5%	4.1%	3.5%	(3.4)%
Natural Resources & Commodities Custom BM	9.4%	46.8%	5.1%	3.1%	(4.1)%
Infrastructure	6.9%	22.3%			
DJ Brookfield Global Infrastructure	7.1%	19.8%			
TIPS	3.5%	6.4%			
Bloomberg U.S. Treasury U.S. TIPS	3.2%	6.5%			
Risk Reduction & Mitigation	1.6%	2.5%			
Risk Reduction & Mitigation Custom BM	1.6%	0.2%			
Investment Grade Bonds	1.9%	0.5%	5.7%	3.8%	4.0%
Bloomberg Barclays U.S. Aggregate	1.8%	(0.3)%	5.3%	3.0%	3.4%
Diversified Hedge Funds	0.8%	16.6%			
Diversified Hedge Funds Custom BM	0.6%	2.6%			
Cash	0.1%	0.7%	1.7%	1.5%	1.0%
Cash Custom BM	0.0%	0.1%	1.3%	1.2%	0.7%
Total Fund	5.7%	25.2%	10.7%	10.8%	8.6%
Total Fund Custom Policy Benchmark	4.5%	23.1%	10.9%	10.3%	8.5%

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 continued Investment Section

Investment Results Based on Fair Value¹ — OPEB Master Trust^{*}

As of June 30, 2021

Annualized (Net-of-Fees) **Quarter End** June 30, 2021 One-Year Three-year Five-year 7.2% 41.2% Growth 14.5% 14.9% 14.9% Global Equity 7.2% 41.2% 14.5% MSCI ACWI IMI Net 7.2% 40.9% 14.2% 14.6% Credit 2.2% 10.7% OPEB Master Trust Credit Custom BM 2.3% 11.8% Bank Loans 1.4% 10.0% S&P/LSTA Leveraged Loan Index 1.5% 11.7% High Yield 2.8% 15.2% BC High Yield Index 2.7% 15.4% 3.4% 6.0% **EM Local Currency Bonds** JPM GBI-EM Global Diversified Index 3.5% 6.6% Real Assets & Inflation Hedges 30.4% 9.5% OPEB Master Trust Real Asset & Inflation Hedges 9.5% 30.4% Custom BM Real Estate (REITs) 11.8% 39.9% DJ US Select Real Estate Sec Index 11.8% 40.0% Commodities 13.3% 45.5% Bloomberg Commodity Index (Total Return) 13.3% 45.6% Treasury Inflation-Protected Securities (TIPS) 3.3% 6.6% Bloomberg Barclays U.S. TIPS Index 3.3% 6.5% **Risk Reduction & Mitigation** 1.5% (0.2)%4.7% OPEB Master Trust Risk Reduction & Mitigation 1.5% (0.2)%4.6% Custom BM 1.8% (0.3)%Investment Grade Bonds Bloomberg Barclays U.S. Aggregate 1.8% (0.3)%**Enhanced Cash** 0.0% 0.0% 1.9% 1.6% FTSE 6 M T-Bill Index 0.0% 0.2% 1.4% 1.2% **Total OPEB Master Trust** 6.2% 28.4% 10.6% 12.7% **Total OPEB Master Trust Policy Benchmark** 6.1% 28.2% 10.3% 11.0%

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 Ratio⁵
2012	\$38,627,163	0.0%	-%	1.8%	7.60%	76.8%
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	57,976,436	6.4%	5.5%	6.5%	7.00%	77.2%
2020	56,574,410	1.8%	1.4%	5.8%	7.00%	76.3%
20216	\$70,297,718	25.2%	25.2%			

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.

Largest Equity Holdings — Pension Plan¹

As of June 30, 2021 (Dollars in Thousands)

5,188,074 Apple Inc. \$710,559 2,218,733 Microsoft Corporation 601,055 186,915 Alphabet Inc. 462,212 131,274 Amazon.com, Inc. 451,602 752,693 Facebook, Inc. 261,719 691,563 American Tower Corporation 186,819 892,538 Crown Castle International Corporation 174,134 7,206,797 Taiwan Semiconductor Manufacturing Company Ltd. 158,204
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892,538 Crown Castle International Corporation 174,134
7,206,797 Taiwan Semiconductor Manufacturing Company Ltd. 158,204
231,342 Tesla Inc. 157,243
194,253 NVIDIA Corporation 155,422

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

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.

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 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 2020-2021, interest crediting and operating tables applied the 7 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.

⁶**Actuarial Valuation report** for June 30, 2021 is not yet available at publication.

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

Fixed Income Holdings **Investment Section**

Largest Fixed Income Holdings — Pension Plan¹

As of June 30, 2021 (Dollars in Thousands)

Par	Description	Fair Value
425,300,000	United States Treasury Repurchase Agreement	\$425,300
246,925,870	Federal National Mortgage Association 2.000% 20501001	250,019
169,533,541	Federal National Mortgage Association 2.500% 20500801	175,754
132,734,550	United States Treasury 0.125% 20251015	144,477
112,199,094	United States Treasury 0.375% 20230715	119,590
105,092,544	Federal National Mortgage Association 2.000% 20510501	106,408
79,831,690	United States Treasury 0.125% 20240715	85,886
79,500,000	Federal National Mortgage Association TBA 07/2021 15Y 2.000%	82,100
72,370,350	United States Treasury 0.125% 20300715	79,933
69,663,820	United States Treasury 0.625% 20260115	77,586

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, 2021 and 2020 (Dollars in Thousands)

	Pension Plan		OPEB Trust		OPEB Custodial Fund	
	2021	2020	2021	2020	2021	2020
Cash and Short-Term						
Managers	\$447	\$818	\$12	\$12	\$25	\$22
Commodity Managers	4,029	3,813	111	77	_	_
Global Equity Managers	38,304	48,077	229	133	_	_
Fixed Income Managers	89,294	27,687	1,468	1,014	82	74
Hedge Fund Managers	83,130	49,768	_	_	_	_
Private Equity Managers	207,193	165,842	_	_	_	_
Real Estate Managers	39,195	54,571	107	71	_	_
Total Investment						
Management Fees ¹	\$461,592	\$350,576	\$1,927	\$1,307	\$107	\$96

¹Difference in expenses from investing activities in the Statement of Changes in Fiduciary Net Position is due to the inclusion of incentive fees, carry allocations, and operating expenses in the above schedule. These incentive fees, carry allocations, and operating expenses are deducted from investment income in the Statement of Changes in Fiduciary Net Position.

Investment Managers Investment Section

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 Quantitative Management Associates, LLC State Street Global Advisors Symphony Financial Partners Systematic Financial Management, LP

Opportunistic Real Estate

Aermont Capital Management, S.a.r.l Angelo, Gordon & Company, LP Capri Capital Advisors, LLC CityView Management Services, LLC Europa Capital, LLP Invesco Advisers, Inc. Realty Associates Advisors, LLC (TA) RREEF America, LLC Starwood Capital Group Stockbridge Capital Group The Carlyle Group TPG Capital

Private Equity

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

Bank Loans

Bain Capital Credit, LP Credit Suisses Asset Management, LLC Crescent Capital Group, LP Tennenbaum Capital Partners, LLC

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

REAL ASSETS and INFLATION HEDGES Core and Value-Added Real Estate

AEW Capital Management, LP Avison Young - Southern California, LTD Bain Capital, LP CapMan, PLC

Capri Capital Advisors, LLC

CB Richard Ellis Global Investors, LLC CityView Management Services, LLC Clarion Partners, LLC Heitman Capital Management, LLC Hunt Investment Management, LLC IDR Investment Management, LLC Invesco Advisers, Inc. Prologis Management II, S.a.r.I Realty Associates Advisors, LLC (TA) RREEF America, LLC Stockbridge Capital Group

IDR Investment Management, LLC

Natural Resources & Commodities

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

Infrastructure

RREEF America, LLC

Treasury Inflation-Protected Securities

BlackRock Institutional Trust Company, N.A.

RISK REDUCTION and MITIGATION **Investment Grade Bonds**

BlackRock Institutional Trust Company, N.A. Dodge & Cox, Inc. Pacific Investment Management Company, LLC (PIMCO) Pugh Capital Management, Inc. Wells 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

Cash

State Street Global Advisors (SSGA)

Mortgage Loan Servicer

Ocwen Loan Servicing, LLC

Securities Lending Program

Goldman Sachs Agency Lending (GSAL) State Street Bank & Trust Company State Street Global Advisors

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)

Overlay Program

Parametric Portfolio Associates, LLC

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