LACERA

November 23, 2022

TO: Trustees – Board of Investments

FROM: Equity: Public/Private Committee

Christopher J. Wagner
Principal Investment Officer

Esmeralda V. del Bosque
Acting Principal Investment Officer

FOR: December 14, 2022 Board of Investments Meeting

SUBJECT: **GROWTH FUNCTIONAL CATEGORY BIENNIAL STRUCTURE REVIEW**

RECOMMENDATION

Approve the Growth Functional Category Biennial Structure Review.

BACKGROUND

On November 9, 2022, LACERA presented the Growth Functional Category Biennial Structure Review ("Growth Structure Review") (**Attachment**) to the Equity: Public/Private Committee. The Growth Structure Review covered the global equity and private equity asset categories. While opportunistic real estate is also part of the Growth functional category, it is included in the Real Assets and Inflation Hedges Structure Review.

The Growth Structure Review included four recommendations:

1. Committing approximately 4-5% of the Trust's assets annually over the next two years to private equity opportunities
2. Extending the private equity policy target range for co-investments/fund-of-funds/secondaries from 10-25% to 10-30%
3. Consolidating (with no changes) the CIO delegated authority across the private equity program into a sub-section in the Private Equity Investments Guidelines
4. Reaffirming the Global Equity Investment Guidelines

The Committee voted unanimously to advance the Growth Structure Review to the Board of Investments for approval.

OPTIONS AVAILABLE TO THE BOARD

The Growth Structure Review covers the Growth functional category comprised of global equity and private equity, but not opportunistic real estate. If the Board does not approve the Growth Structure Review, staff will consult with the Committee and propose an alternative or include the Board's direction in revised documents.

DELIBERATIONS AND OPINIONS EXPRESSED BY THE COMMITTEE

Some of the opinions expressed by Committee members and Trustees during its discussion include the following:

A Committee member inquired about the global equity target allocation. Staff clarified that the 32% target allocation for global equity (shown on slide 11 of the presentation) is from the latest Strategic Asset Allocation ("SAA") approved in 2021, whereas the 35% pertains to the prior SAA approved in 2018. Additionally, staff was asked to provide the percentage of the global equity portfolio that is passively indexed. Staff shared that the target allocation to passive strategies is approximately 60%.

In response to a question from a Committee member, the Private Equity Advisor ("PEA") stated that despite underperformance in many emerging markets, staff and PEA will continue to evaluate opportunities ex-China. Strong fiscal policies and exports tied to the U.S. dollar in many emerging markets have mitigated currency volatility resulting from the strengthening U.S. dollar. The staff and PEA affirmed that while challenges exist to making fund commitments in the $250-$500 million range, the increase is warranted by the growth of the Fund, ability to negotiate economics, and a desire to manage the number of relationships.

Finally, in response to a question from a Trustee, it was noted that following an RFP approval process, staff has used the MSCI BarraOne risk analysis tool for the total Fund and asset class analysis.

RISKS OF ACTION AND INACTION

Board approval of the Growth Structure Review authorizes LACERA to commit 4-5% of Trust assets annually to private equity investments during the 2023-2024 calendar years.

If the Board does not approve the Growth Structure Review, private equity investments and strategy initiatives could be delayed.

CONCLUSION

LACERA, in consultation with the Meketa Investment Group (LACERA's general consultant) and the StepStone Group (LACERA's private equity consultant), proposed the Growth Structure Review, the primary planning document for the Growth functional category. The Equity: Public/Private Committee reviewed and advanced the document for approval at its November 2022 meeting. Approval of the Growth Functional Category Biennial Structure Review is recommended.

Attachment

Noted and Reviewed:

Jonathan Grabel
Chief Investment Officer

CW:EdB:des:rs:jj:mm

October 28, 2022

TO: Trustees – Equity: Public/Private Committee

FROM: Christopher J. Wagner
Principal Investment Officer

Esmeralda V. del Bosque
Acting Principal Investment Officer

FOR: November 9, 2022 Equity: Public/Private Committee Meeting

SUBJECT: **GROWTH FUNCTIONAL CATEGORY BIENNIAL STRUCTURE REVIEW**

RECOMMENDATION

Advance the Growth Functional Category Biennial Structure Review and the proposed modifications/affirmations as recommended on slide 36 of the attached presentation to the Board of Investments for approval.

BACKGROUND

This Growth structure review combines the global equity and private equity asset categories. While non-core private real estate is also part of Growth, its structure review was included in the Real Estate Structure Review at the December 2021 Real Assets Committee meeting.

The benefit of a consolidated structure review at the functional level is to affirm each functional category's specific role in the Fund. For example, Growth's role is to be the primary driver of long-term total returns for the Fund.

Staff has prepared the Growth Functional Category Biennial Structure Review (**Attachment A**) for evaluation by the Equity: Public/Private Committee and ultimately for approval by the Board of Investments ("Board"). The structure review identifies key themes and outlines upcoming initiatives for LACERA's Growth portfolio for the 2023-2024 calendar years. Additionally, the structure review is a means to establish an appropriate deployment strategy for private equity in the 2023-2024 calendar years and ensure appropriate diversification to private equity investment strategies (i.e., Buyouts, Venture Capital, and Co-Investments/Fund-of-Funds).

GLOBAL EQUITY

Since the last structure review, the Board has approved multiple recommendations to closely align the global equity portfolio with broader global equity and total Fund strategic initiatives. These include an assessment of the manager search process, the implementation of a global equity cash overlay program, the transfer of the non-U.S. currency hedging program to the new Overlay and Hedges functional category, analysis of activist managers, and approval to run a separate account emerging manager program ("EMP" or "Program"). These actions will align the global equity portfolio closer to the benchmark and should reduce portfolio volatility.

As shown in the presentation, the global equity portfolio has exhibited positive risk-adjusted returns relative to the benchmark and noticeably improved annualized performance since the 2020 structure review.

At the October Board meeting, Trustees approved increasing the allocation range to the EMP and hired two separate account managers to build out the Program. Once the two EMP managers are funded, a review of the active manager portfolio will be conducted to evaluate underlying strategies and exposures. Meketa has reviewed the global equity component of the Growth structure review. Their comments are in **Attachment B**.

PRIVATE EQUITY

The primary purpose of this structure review for private equity is to establish an appropriate deployment strategy that maintains the target allocation for the 2023-2024 calendar years, identify key investment themes, outline upcoming initiatives, and ensure appropriate diversification to private equity investment strategies (i.e., Buyouts, Venture Capital, and Co-Investments/Secondaries/Fund-of-Funds).

StepStone calculated a potential annual commitment pace for the 2022-2027 period. Using projections based on StepStone's investment-pacing model, LACERA should commit approximately 4-5% of the Trust's assets to private equity opportunities annually over the next two calendar years. The percentage of assets committed could vary as a result of variability in the economy, the private equity marketplace, fund availability, constraints to allocation access, and fluctuations in the total plan assets denominator. Note that the private equity commitment pace was adjusted from a dollar target to a percentage target based on Trustee feedback at the last structure review.

In calculating the projected commitment pace, StepStone made several assumptions about the rate of contributions and distributions to the Fund, economic growth rates, fund durations, and LACERA's commitments by strategy. As the economy and market are subject to change, staff views the pacing model as a planning tool and the number of commitments during the year will depend on market conditions, the availability of high-quality opportunities, and LACERA's overall exposure to private equity.

The in-house Co-Investment/Secondary program has grown to $1.1 billion in market value (8% of the portfolio). Combined with externally managed programs of a similar strategy, the sub-asset class market value stands at $2.7 billion (21% of the portfolio). The current target allocation range is 10-25% of the portfolio. With up to 30% of annual commitments targeted for the in-house program, and given its mitigated j-curve, the market value is projected to reach 28% of the Fund in 2024. Accordingly, staff proposes extending the target allocation range to 10-30%.

Throughout calendar years 2023-2024, staff and StepStone will look for quality opportunities (both re-ups and new) in each private equity investment strategy. In addition, staff will look to increase fund commitment sizes to the $250-$500 million range to strengthen key relationships. Stepstone's assessment of the private equity component of the Growth structure review is in **Attachment C**.

CONCLUSION

As identified in the structure review, there is one proposed change to the private equity portfolio structure which is extending the target allocation range to Co-Investments/ Secondaries/Fund-of-Funds from 10-25% to 10-30%. Staff also recommends adopting the proposed deployment strategy and incorporating the proposed edits (highlighted in green) to the Private Equity Investment Guidelines. For global equity, staff recommends re-affirming the Global Equity Investment Guidelines including recent Board action to increase the EMP target allocation range from 0-5% to 0-10%. Once the global equity EMP is funded, a review of the active portfolio will be conducted, and any recommendations presented to the Board.

Attachments

Noted and Reviewed:

Jonathan Grabel
Chief Investment Officer

CW:EdB:des:rs:jj:mm

ATTACHMENT A

Growth Functional Category Biennial Structure Review

Equity: **Public**/Private Committee

November 9, 2022

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION

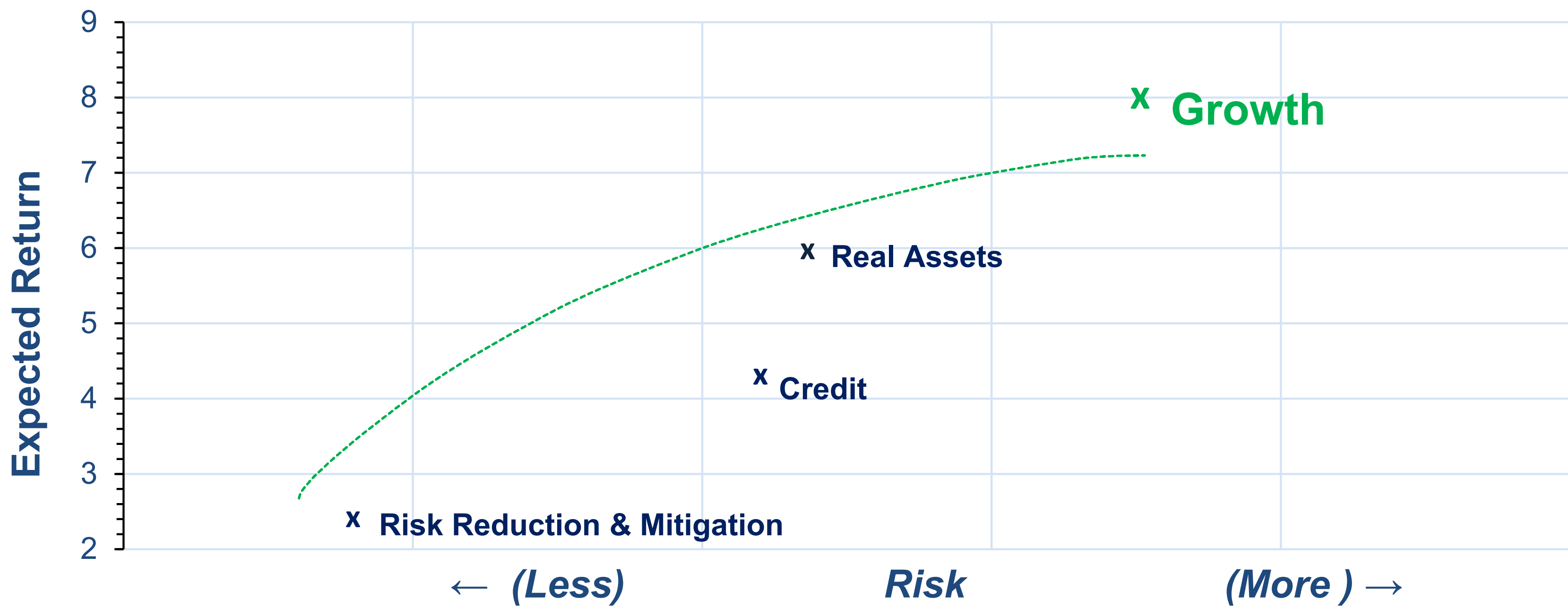
Table of Contents

Title	Slide No.
Role of Growth	3
Structure Review – Background	4
Growth Portfolio Composition	5
Growth Performance	7
Market Environment / Themes	8
Environmental, Social, and Governance Factors	9
Global Equity	
Role and Objectives of Global Equity	11
Portfolio Structure	12
Changes Since 2020 Structure Review	13
Performance and Commentary	14
Global Equity Attribution	17
Risk: Active Managers	18
Global Equity Cash Overlay	19
Fee Savings	20
Evaluation	21
Initiatives – Strategic	22
Private Equity	
Role and Objectives of Private Equity	24
Portfolio Structure	25
Private Equity Periodic Returns	27

Title	Slide No.
Private Equity Co-Investments and Secondary Program	28
BarraOne Private Equity Risk Summary	30
Private Equity: Pacing and Commitment Schedule	31
Evaluation	32
Initiatives - Strategic	33
Growth: Next Steps	
Initiatives – Strategic	35
Advance to Board	36
Appendices	
A. Global Equity Investment Guidelines	38
B. Private Equity Investment Guidelines	40
C. Global Equity Portfolio Liquidity Analysis	46
D. Global Equity Climate Analysis	47
E. Private Equity Allocation Model Assumptions	48
F. Private Equity Investment Process	49
G. Private Equity Commitments	50
H. Glossary of Terms	55

Role of Growth

- Provides global market beta exposure to growth assets
- Seeks risk-adjusted returns to higher performing private capital assets



Growth[1]

Growth investments are the primary driver of long-term total Fund returns.

Global Equities

Within the Growth category, public equity is primarily expected to provide global market beta exposure with alpha (excess returns) as a secondary consideration.

Private Equity

Within the Growth category, private equity is expected to generate the highest performance at an acceptable level of risk.

Data in the chart is from the 2021 Board-approved asset allocation study. Picture is an illustration, not actual experience.

[1] Non-Core Private Real Estate sub-asset category was reviewed as part of the Real Assets and Inflation Hedges Structure Review at the December 2021 committee meeting.

Structure Review – Background

2019 -2020
Structure Review
and Implementation update

Implemented initiatives:
1. Reflect global equity view
2. Increase portfolio efficiency with factors
3. Right-size risk exposures and consolidate strategies
4. Reduce costs in efficient market segments

2021-2022
Biennial Structure Review

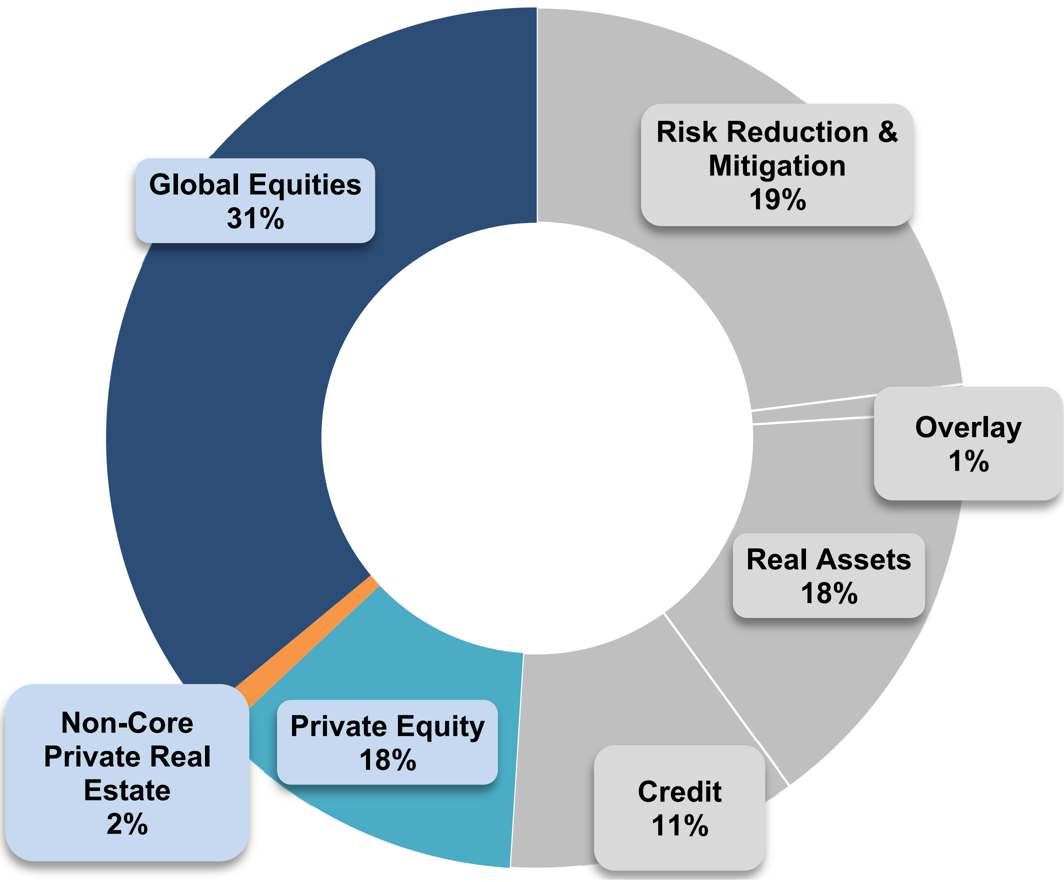
Ongoing initiatives:
1. Continue to reduce fees and maximize returns
2. Enhance risk management across combined portfolios
3. Internal management

2023-2024
Biennial Structure Review

Potential initiatives:
1. Further integrate ESG and DEI data collection and analysis into selection and monitoring procedures
2. Accelerate ODD training and evaluation into manager review procedures
3. Develop feedback loops and higher acuity on manager performance

See Appendix H – Glossary of Terms for definitions for some terms referenced above.

Growth Portfolio Composition



Total Fund Asset Allocation*

as of August 31, 2022 ($ in millions)

	% of Total	Target	Target Ranges	vs Target (%)	vs Target ($)
Total Growth	**50.2%**	**53.0%**	**+/- 7%**	**-2.8%**	**-$1,982**
Global Equity	31.0%	32.0%	+/- 7%	-1.0%	-$742
Private Equity	17.7%	17.0%	+3/-5%	0.7%	$467
Non-Core Private Real Estate	1.6%	4.0%	+/-2%	-2.4%	-$1,707

- Growth allocation increased by 6% since last Strategic Asset Allocation Study
  - Private equity target allocation increased by 7% while global equity decreased by 3%
- Growth is underweight its target by 2.8%, or almost $2 billion
  - Partially driven by recent market sell-off in growth assets

* Private equity valuation reflect latest available and are adjusted for cash flows.

Growth Portfolio Composition - Sector Exposures*

	LACERA Weights				
Sector	Global Equity	Private Equity	Growth Total	Benchmark Weight	Difference
Communication Services	6.9%	5.0%	**6.2%**	7.3%	-1.1%
Consumer Discretionary	10.9%	11.6%	**11.2%**	11.2%	0.0%
Consumer Staples	7.3%	4.4%	**6.2%**	7.3%	-1.1%
Energy	4.6%	0.9%	**3.2%**	4.9%	-1.7%
Financials	14.6%	7.6%	**11.9%**	14.4%	-2.4%
Health Care	12.7%	12.6%	**12.7%**	12.7%	0.0%
Industrials	10.2%	12.4%	**11.0%**	10.4%	0.6%
Information Technology	19.3%	38.2%	**26.5%**	19.8%	6.6%
Materials	4.7%	4.2%	**4.5%**	5.2%	-0.7%
Real Estate	3.2%	0.4%	**2.1%**	3.6%	-1.5%
Utilities	2.7%	0.2%	**1.8%**	3.2%	-1.4%
Others[1]	2.9%	2.5%	**2.8%**	0.0%	2.8%
Total	**100%**	**100%**	**100%**	**100%**	**0%**

Sector Exposure Commentary

- In the private equity portfolio, Information Technology is overweight versus its benchmark by 1840 bps; the sector has driven outperformance in the aggregate equity portfolio
- Private equity staff will continue to decline technology investments deemed not differentiated or accretive to the portfolio

[*] Growth portfolio excluding non-core private real estate. As of June 2022.

[1] "Others" include proxied commingled assets plus cash held.

Growth Performance

Net-of-Fees (%)[1]	3-Month	YTD	1 -Year	3 -Year	Since Inception	Inception Date
GROWTH	**(3.8)**	**(9.5)**	**(6.2)**	**13.4**	**12.5**	**Apr-2019**
Growth Custom BM	(5.0)	(12.8)	(11.4)	10.0	9.9	
Excess Return	**1.2**	**3.3**	**5.2**	**3.4**	**2.6**	
GLOBAL EQUITY	**(5.4)**	**(17.3)**	**(14.9)**	**8.5**	**7.8**	**Apr-2019**
Global Equity Custom BM	(5.6)	(17.8)	(16.2)	8.0	7.3	
Excess Return	**0.2**	**0.5**	**1.3**	**0.5**	**0.5**	
PRIVATE EQUITY - GROWTH	**(1.6)**	**6.1**	**12.3**	**24.2**	**21.9**	**Jan-2019**
Private Equity - Growth Custom BM	(5.5)	(6.4)	(5.7)	13.7	9.8	
Excess Return	**3.9**	**12.5**	**18.0**	**10.5**	**12.1**	
NON-CORE PRIVATE REAL ESTATE	**4.1**	**17.9**	**20.0**	**15.9**	**4.8**	**Jan-1996**
Non-Core Private Real Estate Policy BM	6.0	20.5	30.9	14.3	11.7	
Excess Return	**(1.9)**	**(2.6)**	**(10.9)**	**1.6**	**(6.9)**	

Commentary

- Growth has outperformed its benchmark since adopting the functional framework
    - Strong relative performance provided by private equity
    - Global equity outperformed its benchmark
- Short-term private equity performance measured against a public benchmark is less meaningful

[1] Net-of-fee returns as of August 2022; Private equity and non-core private real estate composite and benchmark returns are reported on a 3-month lag.

Market Environment / Themes

Confluence of Inter-related Economic Factors Signal Ongoing Volatility

- Recessionary signs include contracting GDP, inverted yield curve, declining consumer confidence, leading economic indicators turn negative, rising CPI
- Interest rates – Fed aggressively tightening to combat inflation; mortgage rates near 7%

Increased Geopolitical Risks and Uncertainties

- Fears mount that war in Ukraine will become a broader military conflict
- European economies near recession, vulnerable to energy costs
- Sluggish Chinese economy amid conflicts with U.S. over trade, Taiwan, and human rights
- Potential greater dispersion of social, political, and economic outcomes

Investment Themes

- Cognizant of economic turbulence, adhere to global market diversification objectives
- Evaluate investment opportunities with a lens towards economic resilience
- Further integration of ESG, DEI, and ODD metrics to enhance risk management capabilities

Environmental, Social, and Governance Factors

Environmental, Social, and Governance (ESG) Guiding Framework

- Advance Investment Beliefs by incorporating ESG in investment process
- Advocate practices in line with Corporate Governance and Stewardship Principles
- Pursue a total Fund approach to evaluate ESG risks and opportunities in every asset class

Summary of Current Efforts

- Upfront and ongoing ESG assessment of each mandate
- Use ESG analytics to evaluate investment merits and reporting in public markets where data is available
- Assess climate related exposures and risks in public markets
- Active proxy voting and strategic engagements in public markets on board diversity and climate risks

Upcoming Initiatives

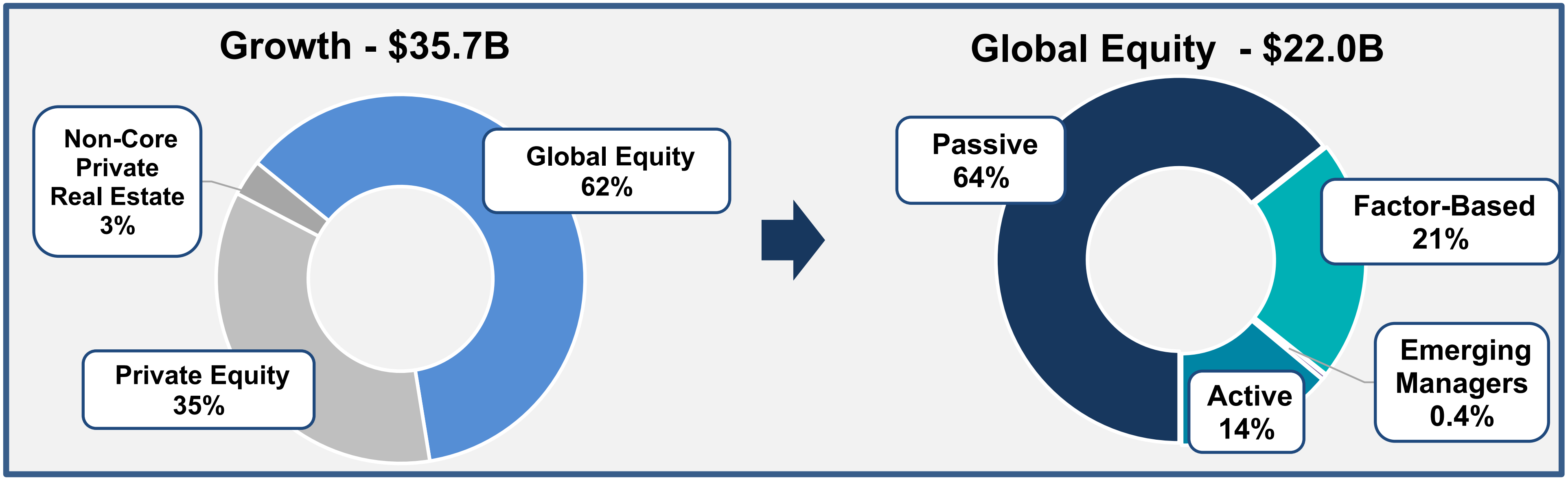
- Build out total fund view of climate risks and opportunities including data gathering and modeling in private equity
- Engage a select number of private equity GPs on board diversity at portfolio companies

Global Equity

Role and Objectives of Global Equity

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Global Equity	$22.0	61.6%	31.0%

Global Equity: To provide global market beta exposure with alpha (excess return) as a secondary consideration



(% of total Fund)	Policy Range	Target Allocation	Actual Allocation
Global Equity	25-39%	32%	31.0%

Breakdown by Strategies (% of Global Equity)

	Policy Range	Target Allocation	Actual Allocation
Passive	40-80%	60%	64.4%
Factor-Based	0-30%	15%	21.3%
Active	10-40%	25%	14.3%
Emerging Managers	0-5%		0.4%

- The most recent Strategic Asset Allocation reduced target allocation to global equity from 35% to 32%
- Actual allocation underweight target (-1%)
- The Board increased the global equity emerging manager program ("EMP") target range from 0-5% to 0-10% at the October 2022 meeting

As of August 2022.

Portfolio Structure: Sub-Asset Strategy

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Global Equity	$22.0	61.6%	31.0%

Sub-strategy exposures are within Board-approved guidelines

Region	Policy Range	LACERA	MSCI ACWI IMI[1]	Difference
U.S.	+/- 5%	60.8%	60.8%	0.0%
Non-U.S. Developed Markets	+/- 5%	29.1%	27.7%	1.4%
Emerging Markets	+/- 5%	10.1%	11.4%	-1.4%

Market Capitalization	Policy Range	LACERA	MSCI ACWI IMI	Difference
Large Cap	+/- 5%	75.4%	78.8%	-3.4%
Mid Cap	+/- 5%	11.0%	10.5%	0.4%
Small Cap	+/- 5%	13.7%	10.6%	3.0%

Emerging Manager Program	Policy Range	Actual Allocation		
Emerging Managers	0-5%	0.4%		

Per investment guidelines, active managers are given a range across region and market capitalization versus their respective benchmarks, which explain the differences circled above.

As of August 2022.
[1] Morgan Stanley Capital International, All Country World Index, Investable Market Index.

Changes Since 2020 Structure Review

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Global Equity	$22.0	61.6%	31.0%

Board approved actions since last Structure Review have made the portfolio more consistent with broader initiatives[1]

Jan 2021

Assessment of Manager Search Process; Review of U.S. Active Portfolio Exposures (Style and Market Capitalization); Evaluation of New Portfolio Management Tools
- **Board approved investment guidelines to clarify tracking error, affirm currency hedge, and establish parameters for global equity cash overlay program**

May 2021

Study of Currency Hedging Program; Emerging Manager Program ("EMP") Request for Proposal
- Currency hedge shown to meet objective of reducing volatility from non-U.S. equities since inception
- **Board approved minimum qualifications and scope of work for direct EMP search**

Oct 2021

2021 Strategic Asset Allocation includes new "Overlays and Hedges" functional category
- **Board approved the transfer of Non-U.S. currency hedge to new functional category**

Jan 2022

Global Alpha graduated from the EMP; results from second EMP search presented to the Board
- 2nd direct EMP search resulted in no manager hires; Staff and Meketa to reevaluate the EMP

Apr 2022

Analysis of Global Equity Activist Managers
- **Board approved changes to activist program**

May 2022

Global Equity EMP Assessment and Request for Proposal Recommendation
- **Board approved separate account manager EMP search minimum qualifications and scope of work**

July 2022

Internal Asset Management Update
- **Board approved to reassess after the next Strategic Asset Allocation**

Oct 2022

Increased size of Global Equity EMP and approved hire of two separate account managers
- **Board approved increasing EMP target range from 0-5% to 0-10% and hired two firms**

2020 - 2022

Global Equity Recommendations to Consolidate Portfolio
- **Board approved manager terminations**

[1] Board approvals highlighted in bold.

Performance Comparison 2020 vs 2022

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Global Equity	$22.0	61.6%	31.0%

Improvement in portfolio relative returns since last structure review

Performance as of September 30, 2020

	Annualized Return (%)		
Global Equity Portfolio	YTD 2020	1-Year	Since April 2019
Global Equity (Net)	-0.1	8.6	8.4
Benchmark[1]	0.5	9.6	8.5
Difference:	**-0.6**	**-1.0**	**-0.1**

Performance as of August 31, 2022

	Annualized Return (%)			
Global Equity Portfolio	YTD 2022	1-Year	2-Year	Since April 2019
Global Equity (Net)	-17.3	-14.9	5.7	7.8
Benchmark[1]	-17.8	-16.2	4.4	7.3
Difference:	**0.5**	**1.3**	**1.3**	**0.5**

Board-approved changes to enhance risk-adjusted returns

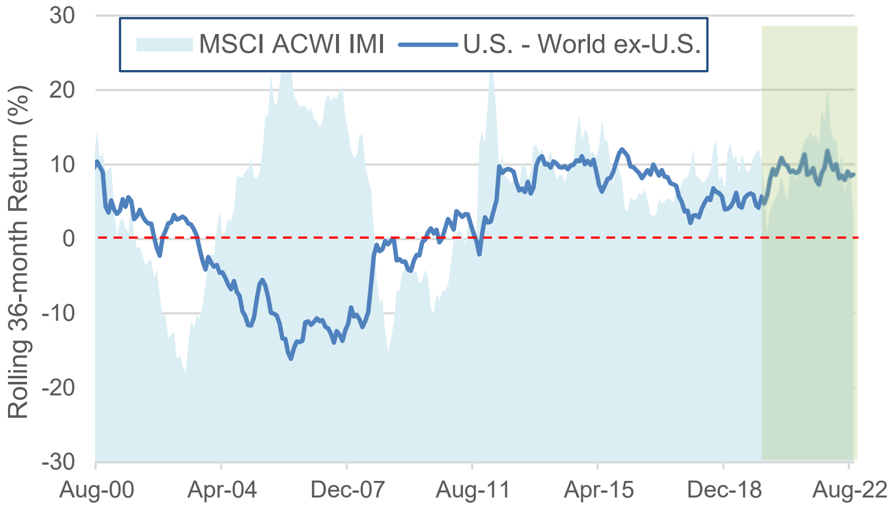
- Manager consolidation
- Implementation of overlay program to reduce tracking error
- EMP graduation and improvement of structure

[1] The benchmark for global equity portfolio since July 2019 is the MSCI ACWI IMI Index. The benchmark from April 2019 to June 2019 was 80% MSCI ACWI IMI and 20% MSCI World ex-U.S. IMI currency hedged. Total Fund transitioned to functional category in April 2019. As a result, global equity portfolio inception date is April 2019.

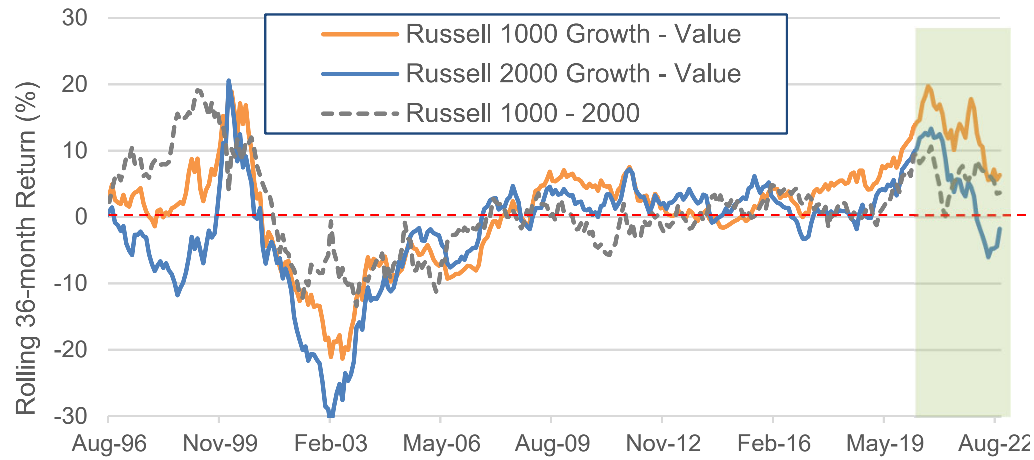
Market Commentary

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Global Equity	$22.0	61.6%	31.0%

Global Market: U.S. vs. Developed Markets



U.S. Market: Large vs. Small and Growth vs. Value[1]



The market environment in the last two years is characterized by:

- U.S. stocks outperformed non-U.S. stocks
- Within the U.S. market:
  - Large cap stocks continue to outperform small cap stocks, with episodic reversals of small cap outperformance
  - A reversal of growth outperformance after historical highs, with value leading recently
- Within the non-U.S. markets:
  - Developed markets are negatively impacted by the war in Ukraine and energy crisis
  - Emerging markets lagged more than developed

[1] Russell 1000 index represents the top 1,000 U.S. stocks by market cap and is a proxy for large cap stocks. Russell 2000 index represents the 2,000 smallest cap U.S. stocks and is a proxy for small cap stocks.

Performance (Net-of-Fees)

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Global Equity	$22.0	61.6%	31.0%

Global equity has outperformed its benchmark since adopting the functional framework

	Returns (%)						Risk Metrics				
Global Equity Portfolio	3-Mo.	YTD 2022	1-Year	2-Year	3-Year	Since April 2019	Tracking Error (%)	Information Ratio	Sharpe Ratio	Up Capture	Down Capture
Global Equity	-5.4	-17.3	-14.9	5.7	8.5	7.8	0.97	0.58	0.39	100.2	98.4
Benchmark[1]	-5.6	-17.8	-16.2	4.4	8.0	7.3	--	--	0.35	--	--
Difference	**0.2**	**0.5**	**1.3**	**1.3**	**0.5**	**0.5**					

As of August 2022.
See Appendix H – Glossary of Terms for definitions

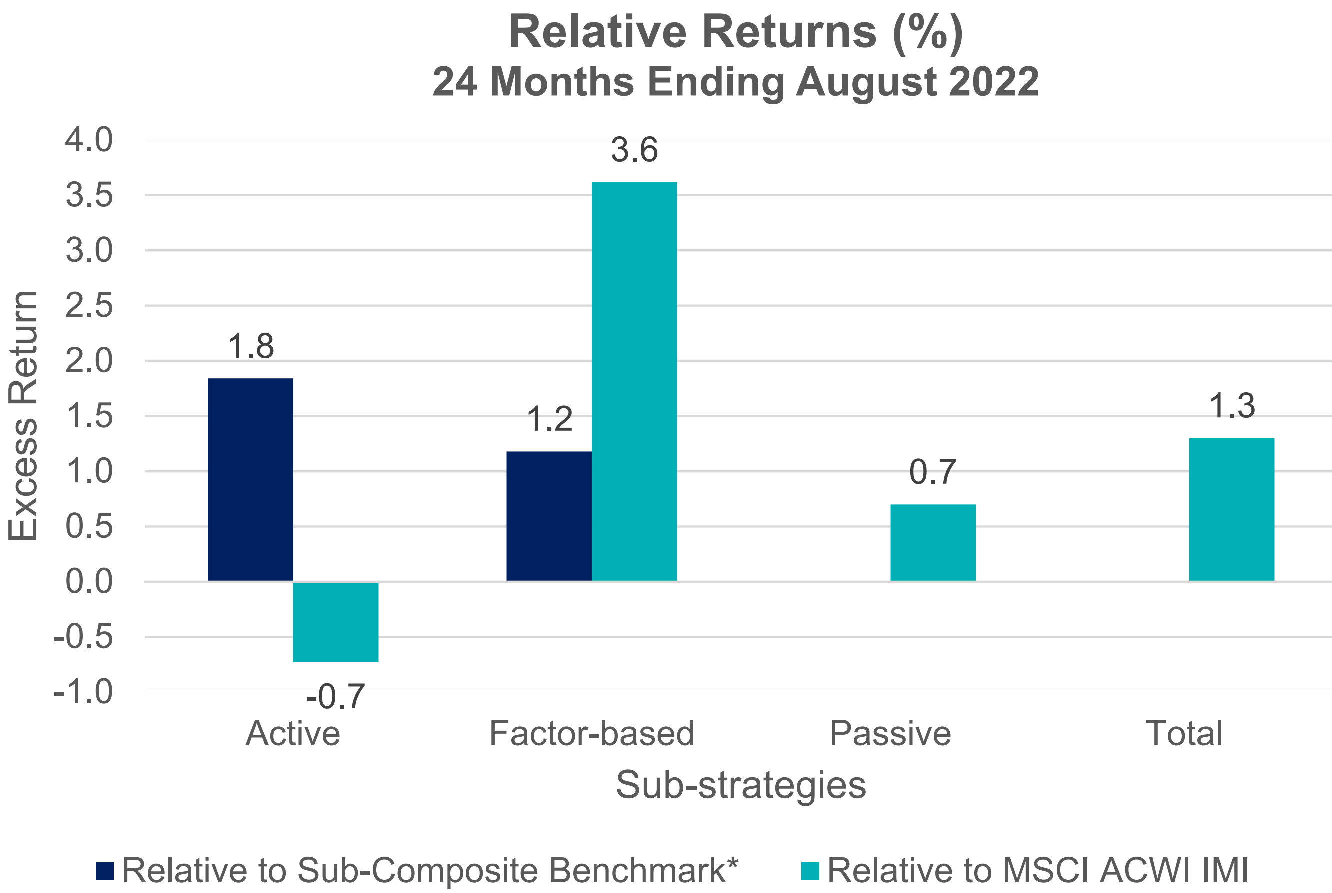
- Despite its short history, the portfolio has exhibited positive risk-adjusted returns as indicated by the information and Sharpe ratios
  - Portfolio benefited from reduced tracking error during significant market volatility
- Most active managers outperformed as tilt to quality and value stocks was rewarded
- Within non-U.S., emerging market managers underperformed mainly due to geopolitical events

[1] The benchmark for global equity portfolio since July 2019 is the MSCI ACWI IMI Index. The benchmark from April 2019 to June 2019 is 80% MSCI ACWI IMI and 20% MSCI World ex-U.S. IMI currency hedged. Total Fund transitioned to functional category in April 2019. As a result, global equity portfolio inception date is April 2019.

Global Equity Attribution

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Global Equity	$22.0	61.6%	31.0%

Sub-strategy return drivers versus benchmarks



Relative Return Commentary

Versus Sub-Composite Benchmark

\+ **Active:** Positive stock selection

\+ **Factor:** Model overweight to value and quality

Versus MSCI ACWI IMI

\- **Active**: Non-U.S. overweight detracted as U.S. outperformed

\+ **Factor**: Model overweight to U.S. stocks

\+ **Passive**: Exposure to India and earned income on tax reclaims

* Sub-composite benchmark computed for Active and Factor-based where the manager index is weighted according to its corresponding portfolio allocation.

Risk: Active Managers

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Global Equity	$22.0	61.6%	31.0%

Each manager's active risk contribution relative to portfolio weight[1]

Active Manager Roster

- **4 U.S. Managers**
  - 1 large cap; 3 small cap
- **7 Non-U.S. Managers**
  - 5 regional; 1 single country; 1 emerging markets

Once EMP is funded, a review of the active manager portfolio will be conducted to evaluate sub-asset class and regional exposures

[1] Refer to Appendix H – Glossary of Terms – for risk definitions.
Source: MSCI BarraOne. As of August 2022. JANA data is on a quarter lag. Cevian data is proxied.

Global Equity Cash Overlay

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Global Equity	$22.0	61.6%	31.0%

Overlay program has been additive since inception

Global Equity Cash Overlay Expsoures
As of August 2022

In Millions ($)

	Year-to-Date Gain/(Loss)	Inception * Gain/(Loss)
Region	$24.7	$27.8
Market Capitalization	-$7.1	$29.2
Total	**$17.6**	**$57.0**

Board-approved overlay implemented in 2021:

Used to rebalance regional and market capitalization weights back to target when +/-1% over/underweight

Aligns portfolio exposures closer to benchmark, reducing tracking error

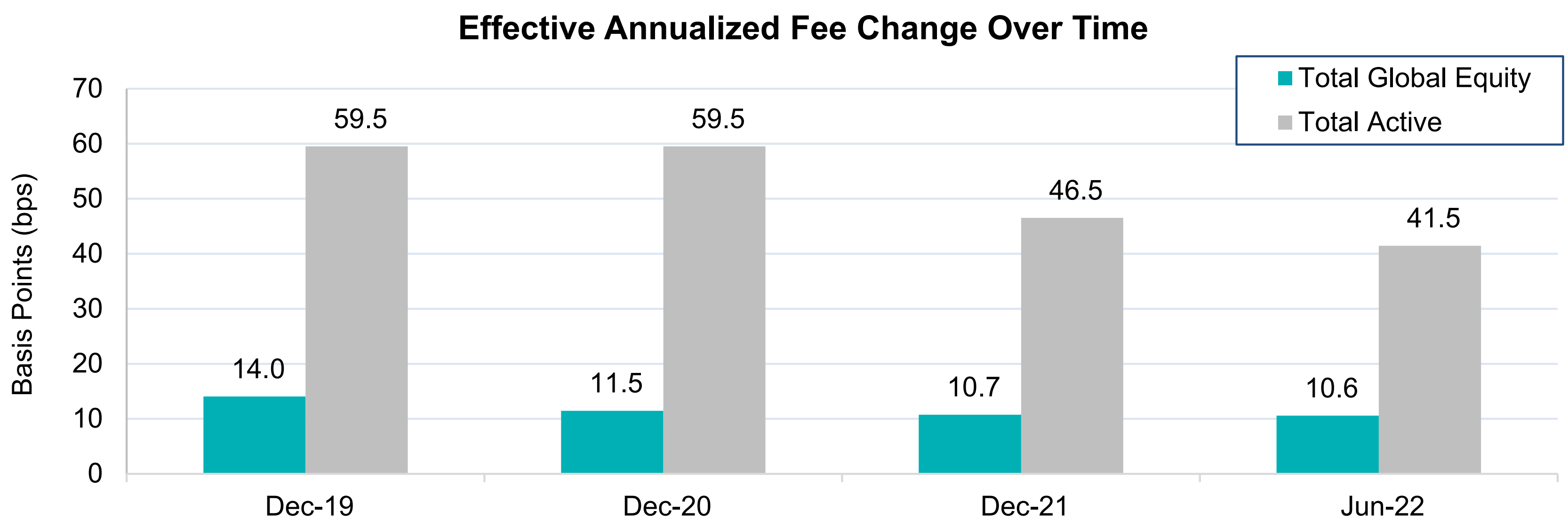
* LACERA total Fund Cash Overlay Program inception date is July 2019.

Fee Savings

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Global Equity	$22.0	61.6%	31.0%

Improved Fee Savings Over Time

- Continuous effort to improve portfolio net-of-fee performance
- As of June 2022, reduced overall annual fees for global equity by **approximately $1.3 million or 0.9 bps annualized** compared to 2020
  - Primarily from fee reductions within active strategies (~ 18 bps annualized)
- Sources of fee savings come from:
  - Investment manager terminations for poor performance and organizational risks
  - Transition of assets away from strategies that are inconsistent with LACERA strategic initiatives
  - Negotiations with managers to reduce investment management fees
- Additional savings expected in the future as terminated managers exit portfolio



Evaluation

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Global Equity	$22.0	61.6%	31.0%

What has Worked:

Changes to Structure

Manager consolidation, implementation of overlay program, adoption of risk tools for portfolio monitoring, and reduced tracking error

Active Management

Broad-based outperformance of active and factor-based managers across the U.S. and non-U.S.

Areas for Refinement:

Review of Active Portfolio

Review of active managers once EMP is ramped up to further improve upon risk-adjusted returns

Portfolio Risk Exposures

Continue to align regional and market capitalization exposures across U.S. and non-U.S. segments

Initiatives - Strategic

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Global Equity	$22.0	61.6%	31.0%

Completed

- Completed initiatives identified from the last structure review
- Assessed global equity emerging manager program ("EMP") and completed searches
- Reviewed internal management
- Implemented overlay program
- Consolidated investment managers

In-Process

- Continued integration of risk analytics into manager oversight
- Annual contract compliance review
- Further integration of DEI and ESG into investment process

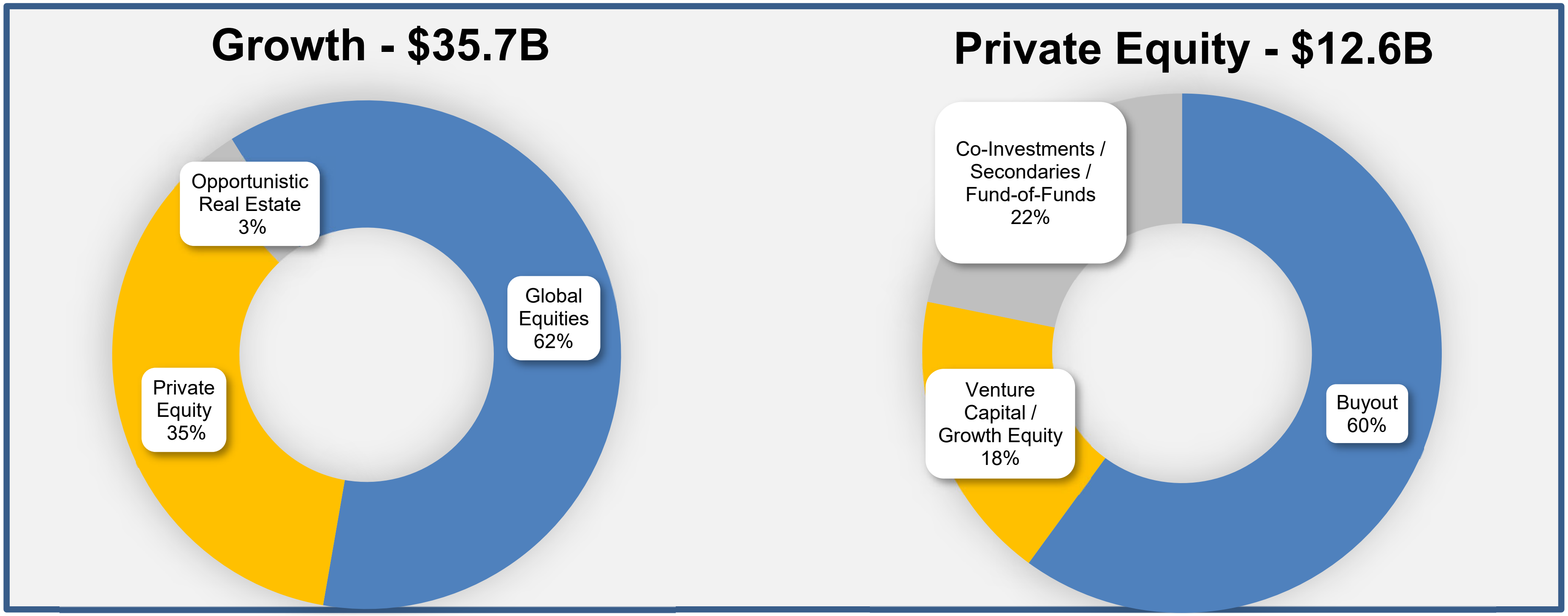
Upcoming

- On-boarding of EMP Separate Account Managers
- Review of active portfolio after EMP is funded
- Portfolio risk analysis study

Private Equity

Role and Objectives of Private Equity[1]

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Private Equity	$12.6	35.2%	17.7%



- Growth investments are the primary driver of long-term total Fund returns
- Within the Growth category, private equity is expected to generate the highest performance at an acceptable level of risk
- The target return for private equity is 200 basis points over the MSCI ACWI IMI[2] Index, net of all fees

[1] Private equity market value data as of June 30, 2022. Global equity value as of August 31, 2022.
[2] Morgan Stanley Capital International, All Country World Index, Investable Market Index.

Portfolio Structure by Investment Strategy

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Private Equity	$12.6	35.2%	17.7%

As of 6/30/2022

Strategy	Active GPs*	Investments	Market Value	Outstanding Commitments	Exposure	% of NAV	Current Range	Proposed Range
Buyouts	49	99	$7,548	$2,851	$10,399	60%	50-85%	50-85%
VC/Growth Equity	20	58	$2,284	$554	$2,838	18%	15-30%	15-30%
Co-Invest / FoF / Secondaries	7	11	$1,676	$296	$1,972	13%	10-25%	10-30%
In-house Co-Investment / Secondary Program	7	10	$1,067	$271	$1,338	8%		
Grand Total	**80**	**178**	**$12,576**	**$3,972**	**$16,547**	**100%**		

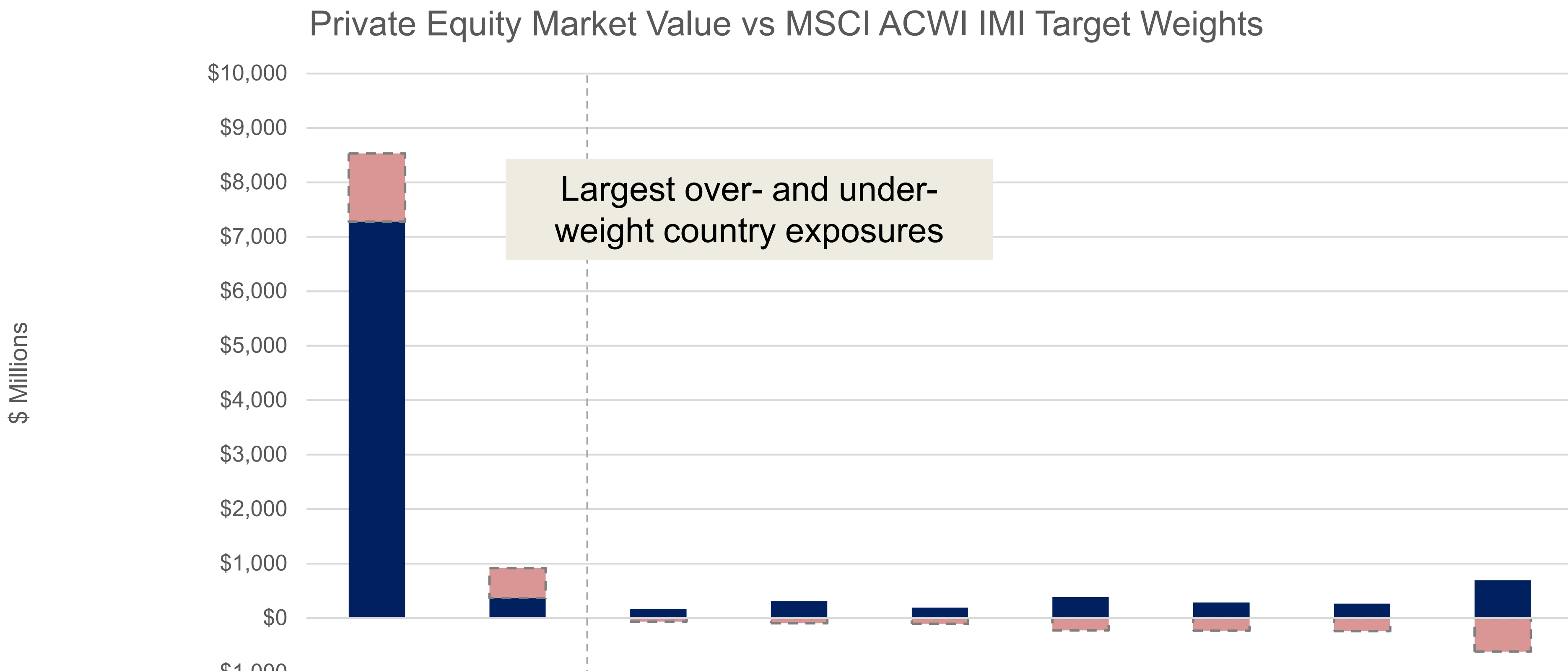
* Four GPs appear in multiple strategies.

Portfolio Structure Commentary

- All investment strategies are within range
- The combined market value of the in-house and externally managed Co-investment/Fund-of-Fund/Secondary strategy totals $2.7 billion or 21% of the portfolio's NAV
  - At approximately 30% of annual commitments, and with no j-curve spacing out the deployment, capital allocated to the strategy is projected to reach 28% of NAV by year-end 2024
  - Staff proposes to extend the target allocation range from 10-25% to 10-30%
- International exposure stands at 29% within target range of 20-45%
  - Emerging Markets exposure stands at 11.4% within the target range of 0-15%, led by China with $916.5 million in market value
- As one of the active components of the Growth portfolio, staff will continue to identify equity exposures that are either unavailable, mispriced, or difficult to find in the public markets

Portfolio Structure – Select Country Exposures Relative to MSCI ACWI IMI Index[1,2,3]

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Private Equity	$12.6	35.2%	17.7%



	United States	China	South Korea	France	India	Canada	Switzerland	Australia	Japan
+/- $MM vs MSCI Weight	$1,253	$550	-$66	-$97	-$105	-$226	-$232	-$243	-$618
Target MSCI Market Value	$7,280	$367	$168	$313	$192	$384	$287	$263	$694

Relative to MSCI ACWI IMI index, the portfolio is overweight a combined $1.8 billion to U.S. and China; increased exposure, especially to Australasian region, could prove beneficial

[1] Based on June 30, 2022, values determined by portfolio company headquarter location.
[2] Morgan Stanley Capital International, All Country World Index, Investable Market Index.
[3] Select countries reflect two largest over-exposures and seven largest under-exposures.

Private Equity Periodic Returns[1,2]

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Private Equity	$12.6	35.2%	17.7%

LACERA private equity has exceeded its performance objectives across 1, 3, 5, and 10-year periods[3]

- Given the j-curve effect[4] in early years of private equity funds, the 5-Year and 10-Year performance numbers carry greater weight
- In the 5-Year period, private equity outperformed its policy benchmark by 1280 bps
- In the 10-Year period, private equity outperformed the benchmark by 740 bps

Year	LACERA IRR	MSCI ACWI + 200 bps
1	12.2%	-14.5%
3	24.8%	8.0%
5	21.5%	8.7%
10	18.1%	10.7%

[1] Based on June 30, 2022 values.
[2] PE IRR is a dollar-weighted return which calculates the rate of return that will set the present values of all cash flows to the value of the initial investment. This methodology differs from global equity's time-weighted return which measures the compound rate of growth in a portfolio.
[3] Performance numbers include Special Situations and Energy funds that are now in Credit and Real Assets.
[4] The j-curve in private equity is a trendline that depicts an initial decrease in value during ownership as the GP invests in the business followed by a substantial improvement.

Private Equity Co-Investment and Secondary Program Performance

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Private Equity	$12.6	35.2%	17.7%

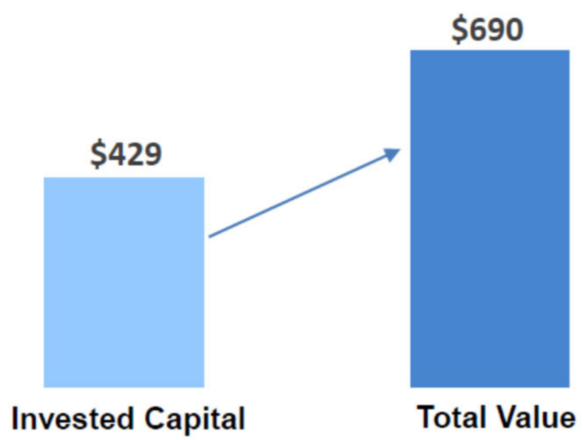
Both strategies have outperformed LACERA's private equity performance (24.8% net IRR) since 2019[2,3]

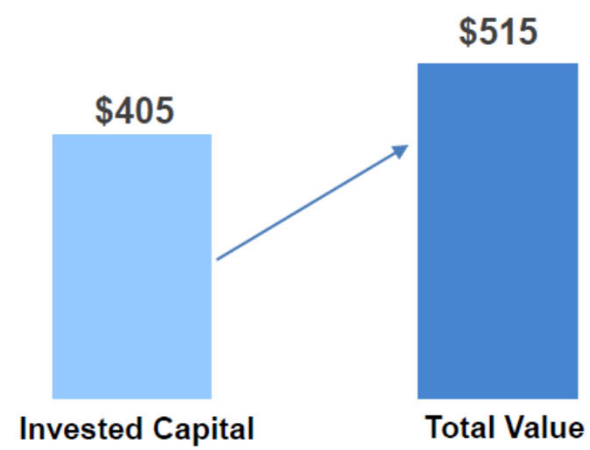
($ in millions) As of June 30, 2022

Performance – All Investments Since Program Inception

Co-Investments		
46.5% Net IRR	1.6x Net TVPI	0.09x[1] Net DPI

Secondaries		
25.7% Net IRR	1.3x Net TVPI	0.28x Net DPI



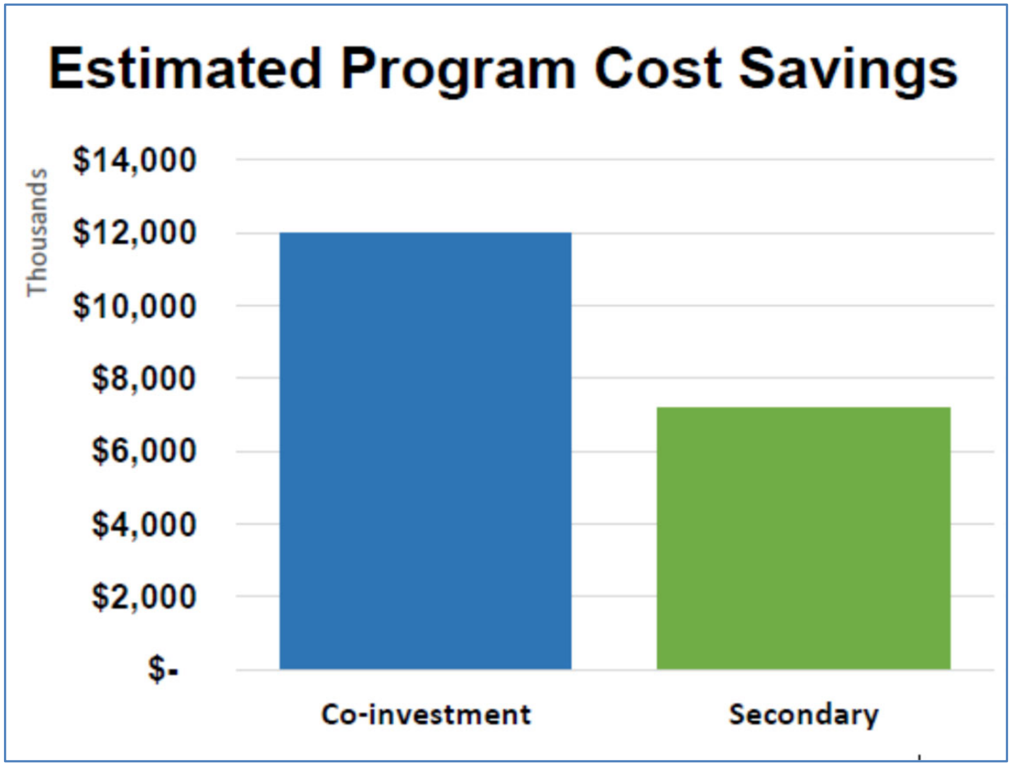


[1] Co-Investment net DPI is pro forma for distributions received in the subsequent quarter.
[2] In-house co-investment and secondary program launched in 2019.
[3] PE Total LACERA PE performance – 1.48x TVPI, 27% net IRR, and 0.13x DPI, inclusive of co-investments and secondaries.

Private Equity Co-Investment and Secondary Program Cost Benefits

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Private Equity	$12.6	35.2%	17.7%

Program has saved ~$20M in management fees compared to traditional 2% management fee structure for primary fund commitments[1]



[1] Co-investments and Secondary investments since inception through June 30, 2022.

BarraOne Private Equity Risk Summary[1]

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Private Equity	$12.6	35.2%	17.7%

Staff has commenced review of BarraOne risk data to understand its potential benefits and limitations

Growth

Risk Summary	
Statistic	Value
Total Risk	20.64
Benchmark Risk	19.35
Active Risk	1.99
Portfolio Beta	1.06

Asset Class Contribution to Risk					
Asset Class	Mkt Value	Weight (%)	Total Risk	Risk Contribution	%CR to TR
Total	**36,182,275,423**	**100.00**	**20.64**	**20.64**	**100.00**
Global Equity	22,712,544,271	62.77	18.27	10.83	52.49
Non-Core Private Real Estate	1,048,318,394	2.90	37.13	0.63	3.06
Private Equity	12,421,412,758	34.33	29.10	9.17	44.45

Private equity comprises 34% of the Growth category market value and 44% of its Total Risk

Private Equity

Risk Summary	
Statistic	Value
Total Risk	29.10
Benchmark Risk	26.87
Active Risk	4.42
Portfolio Beta	1.07

The Benchmark Risk (26.87) comprises the majority of private equity's Total Risk number (29.10); Active Risk factors include Equity, Private Equity, and Selection Risk

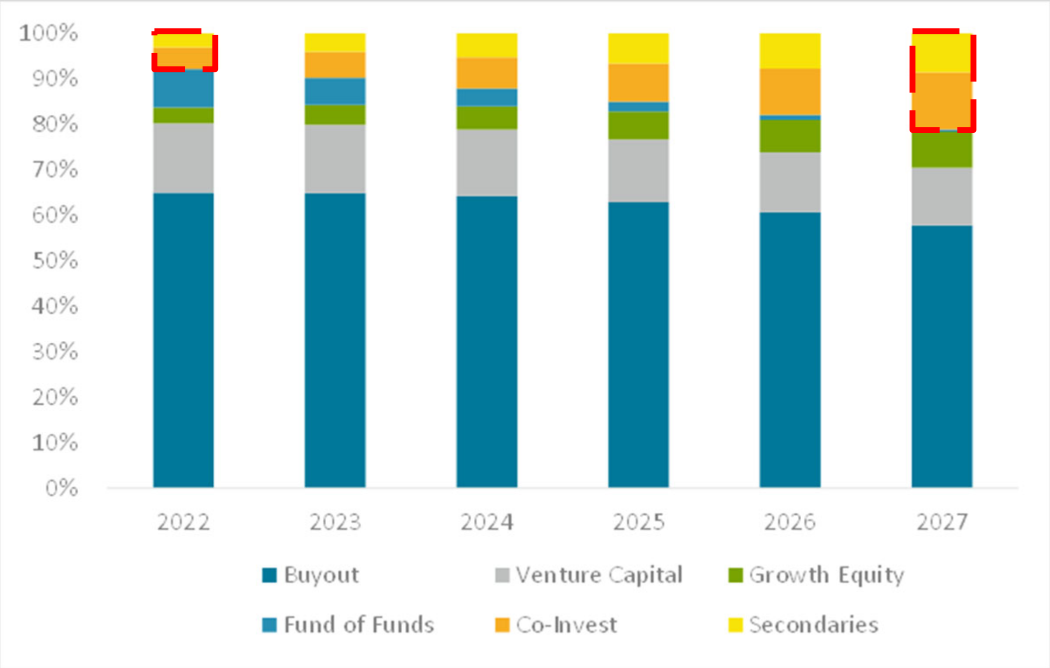
[1] Data as of July 31, 2022.

Private Equity: Pacing and Commitment Schedule

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Private Equity	$12.6	35.2%	17.7%

	Current Allocation	Expected Allocation end of 2024	SAA Target
Allocation Target as % of Total Fund	17.7%	16%	17%

- Implementation: Commit 4-5% of Total Plan assets annually[1]
- Goals: Maintain target allocation with consistent vintage year, strategy, and manager diversification; modulate deployment, as needed, being cognizant of market environment; increase fund size commitments to $250-$500 million range



In-house Co-Investment and Secondary Program Exposure

- Co-Investments and Secondaries currently comprise 8% of the portfolio
- By targeting 30% of annual deployment to these categories, they are projected to grow to 21% of the portfolio by 2027
- This progression will reduce fees, mitigate j-curves, and advance intentionality in investing positively impacting performance

[1] See Appendix E for StepStone's Private Equity Model Assumptions.

Evaluation

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Private Equity	$12.6	35.2%	17.7%

What has Worked:

U.S., Technology, and VC Exposure

U.S. technological innovations have transformed global society, generating exceptional performance

In-house Co-Investment and Secondary

Early performance continues to impress; stronger GP relationships; more insightful GP assessments

Areas for Refinement:

Portfolio Design

Better diversify sector and geography exposure to mitigate expected economic volatility

Strengthen Influence on Fees / Maximize Returns

Continue to explore alternative structures which can lower the cost of investing in private equity and maximize sources of returns

Initiatives – Strategic

as of August 2022	Market Value (in $ billion)	% of Growth	% of total Fund
Private Equity	$12.6	35.2%	17.7%

Completed

- Refined In-House Co-Investment and Secondary Parameters
- Completed RFP for private equity consultant
- Completed RFP for manager of the Emerging Manager Program
- Finalized Manager Scorecards across the private equity portfolio
- Enhanced fund operational due diligence process

In-Process

- Integrating BarraOne risk analytics into due diligence framework
- Refine and codify operational procedures
- Continue to increase capabilities and integrate ODD into processes

Upcoming

- Assess merits of a secondary sale ($500-$1,000 million range)
- Staff Investment Committee process standardization
- Commit larger investments ($250-$500 million per fund) to strengthen key relationships

Growth: Next Steps

Initiatives - Strategic

Completed

- Began utilization of MSCI BarraOne risk management platform for Growth portfolio

In-Process

- Onboarding of private equity and global equity EMPs
- Assessing optimal active management strategy across Growth
- Reducing costs to maximize returns
- Further integration of DEI and ESG into investment process
- Build out total fund climate exposure analysis

Upcoming

- Continued focus on using risk management tools to review sector and country exposures across Growth portfolio
- Staff Investment Committee process standardization

Advance to Board

Staff proposes advancing the Growth Functional Category Biennial Structure Review including the following:

Growth	• Advance recommendation to commit approximately 4-5% of the Trust's assets to private equity opportunities annually over the next two calendar years • Advance proposal to extend the private equity target allocation range for Co-Investments / Fund-of-Funds / Secondaries from 10-25% to 10-30% • Advance consolidation of CIO Authority across the Private Equity Program into a new section in Appendix B – Private Equity Investment Guidelines entitled CIO Delegated Authority • Reaffirm Global Equity Investment Guidelines (Appendix A) including recent Board action to increase EMP target allocation from 0-5% to 0-10%

Appendices

Appendix A – Global Equity Investment Guidelines

	Target
Performance	Meet or exceed the MSCI ACWI IMI Index
Tracking Error	1.0% – 2.5% over 7-year

	Target Allocation	Target Allocation Range
Passive (Index)	60%	40 – 80%
Factor-based	15%	0 – 30%
Active	25%	10 – 40%
Emerging Managers		0 – 10%[1]

Market	Parameter	Target Allocation Range Relative to Benchmark
Capitalization	Large	+/- 5%
	Mid	+/- 5%
	Small	+/- 5%
Region	United States	+/- 5%
	Developed ex U.S.	+/- 5%
	Emerging	+/- 5%

[1] Board approved increasing EMP target allocation range from 0-5% to 0-10% at October 2022 BOI meeting.

Appendix A – Global Equity Investment Guidelines (Cont.)

	Description
Cash Overlay	If market capitalization or regions deviate +/-1% relative to benchmark, the Cash Overlay program may be used to rebalance market exposures back to target. Rebalancing will not be used for tactical allocation or market timing.
Currency Hedge Program[1]	50% passive currency hedge (to U.S. Dollar) on the Non-U.S. developed markets foreign currency exposure in accordance with weights of the MSCI World-ex US IMI Index.

Restricted Investment Type	Description
Tobacco	Investment managers should refrain from purchasing tobacco securities when the same investment goals concerning risk, return, and diversification can be achieved through the purchase of another security.
Sudan	Investment managers should refrain from purchasing securities where the company has been identified as doing business in Sudan or with the government of Sudan, when the same investment goals concerning risk, return, and diversification can be achieved through the purchase of another security.
Iran	Investment managers should refrain from purchasing securities where the company has been identified as doing business in Iran's energy sector or with the government of Iran, when the same investment goals concerning risk, return, and diversification can be achieved through the purchase of another security.

[1] The currency hedge program was transferred to the new "Overlays and Hedges" functional category as per 2021 Strategic Asset Allocation.

Appendix B1 – Private Equity Investment Guidelines: Program Parameters

Limit	Minimum	Maximum	Notes
Investment Size	$5 Million	10% of LACERA's MV plus undrawn commitments	
Single Partnership		50% of total commitments from all LPs	Does not apply to separate accounts
General Partner		10% of LACERA's MV plus undrawn commitments	Applies to aggregate across multiple funds

	Parameter	Target Allocation Ranges[1]
Sub-Asset Class	Buyouts	50–85%
	Venture Capital/Growth Equity	15–30%
	Co-Inv/FoF/Sec[3]	10–30%
Geography	Non-United States	20–45%
	Emerging Markets	0–15%

[1] LACERA allows staff and the PEA(s) some latitude outside of the ranges. In the short term, LACERA does not wish to have staff, or its PEA(s), constrained by the designated ranges; i.e., fulfilling target allocations will not drive the investment recommendation process. LACERA will invest consistently over time to gain the proper exposures.

[2] Reports shall include information on general market environment and expected opportunities, portfolio composition, performance summary, and recent activity

[3] Staff and PEA propose extending range for Co-Investment/FoF/Secondaries from 10-25% to 10-30%.

Appendix B2 – Private Equity Investment Guidelines: Co-Investment and Secondary Program

	Co-Investment Parameters	Secondary Purchase Parameters
Sourcing	• Co-investments offered by Board-approved managers so long as the manager is currently managing capital on behalf of LACERA[1]; or • Co-investments alongside a Board-approved discretionary PE manager, PE consultant, or their approved managers	• A private equity fund in which LACERA is an existing investor; or • A private equity fund or vehicle that is managed by a manager of the same institutional quality as those LACERA has previously committed to
Investment Size	\$130 million maximum	\$130 million maximum[2]
Geography	Global with non-U.S. investments subject to: • Maximum \$130 million investment size • Total PE portfolio international exposure target allocation range of 20-45% applies (includes primary funds, co-investments and secondaries)	
Deal Types	Buyout and growth capital[3] transactions only	
Annual Capital Deployment	Up to 30% of annual private equity target allocation	
Advisory Confirmation	Third party confirms LACERA's due diligence was satisfactorily followed	Third party secondary advisor confirms valuation
Investment Limitations		• 10% of LACERA's PE portfolio market value plus unfunded commitments at the time of purchase

[1] Includes funds approved by the CIO through LACERA's private equity fund re-up procedure.
[2] Excludes amounts rolled over from primary funds in conjunction with a continuation vehicle secondary transaction.
[3] Growth capital includes high growth pre-EBITDA companies with a liquidity event expected in the next two years.

Appendix B2 – Private Equity Investment Guidelines: Co-Investment and Secondary Program (cont'd)

	Secondary Sale Guidelines

Secondary Disposition Guidelines	• All sales must provide strategic, tactical, and/or economic benefits that assist LACERA in meeting its investment goals
	• The program will consider selling undesired holdings that include both mature secondaries and hybrid secondaries
	    ○ Sell determinations will fall under the following criteria:
	        ▪ *Poor Performing*: Poor performing assets that have little to no potential to materially improve the future performance of the private equity program
	        ▪ *Tail Ends*: Mature assets that have provided a significant portion of their potential performance, whether attractive or poor, and the remainder of the assets have little to no potential to materially improve the future performance of the private equity program. These assets will typically have little value remaining in the capital account and/or few holdings remaining in the fund
	        ▪ *Non-strategic*: Assets that have an investment focus that is no longer a strategic part of LACERA's investment objectives and there is little to no potential to materially improve the future performance of the private equity program
	        ▪ *Strategic*: Assets that can help improve the overall purchase prices and returns associated with the secondary sale
	• The secondary sale program will opportunistically consider the sale of single limited partnership interests and portions of partnership interests as well as portfolios of multiple limited partnership interests. Portfolio sales will be considered when the aggregated benefit to the private equity program is more attractive than individual dispositions

Appendix B3 – Private Equity Investment Guidelines: Avoided Transaction Types

<table>
<tr><th>Prohibited Investment Type</th><th>Description</th><th>Notes</th></tr>
<tr><td>Hostile Takeovers</td><td>LACERA avoids investment strategies that primarily involve hostile takeovers, defined as acquisitions opposed by the board of directors of the target company.</td><td></td></tr>
<tr><td>Privatization</td><td>LACERA does not aim to promote privatization of public jobs through its private equity investment program. It is highly unlikely that LACERA would invest in private equity investments that are dependent on privatization strategies.

When performing due diligence prior to making the initial investment in a domestic partnership, staff and/or PEA, as applicable, will use reasonable efforts to ascertain the following:
1. Whether the partnership’s current investment strategy includes the privatization of jobs held by LACERA members, and
2. Whether previous partnerships operated by the general partners, if any, have invested in companies dependent upon privatization of jobs held by LACERA members.</td><td>Staff and/or PEA will seek guidance from the Board before investing in a domestic partnership if the due diligence establishes privatization.</td></tr>
</table>

Appendix B4 – Private Equity Investment Guidelines: Reporting Requirements

	Report[1]	Responsible Parties	Audience	Frequency
1	Portfolio Performance	Staff and Private Equity Advisor ("PEA")	Board	Annually
2	Status of Co-Investments and Secondaries	Staff	Board	Annually
3	Portfolio Performance and Investment Analysis	Custodian Bank and General Partners	Staff	Quarterly

[1] Reports shall include information on general market environment and expected opportunities, portfolio composition, performance summary, and recent activity.

Appendix B5 – Private Equity Investment Guidelines: CIO Delegated Authority

	CIO Delegated Authority[1]
CIO Authority for Follow-on Funds	The CIO is authorized to approve capital commitments in follow-on-funds up to $250 million per fund or up to a 25% fund ownership increase compared to LACERA's ownership percentage in the predecessor fund, provided: i. LACERA's prior investments in each predecessor fund greater than three years old (based on the fund's inception or commencement of operations date) exceeds the benchmark net IRR and net MOIC median returns for the fund's sub-asset class strategy, and ii. There have been no material changes in the investment strategy or key persons, and iii. LACERA's private equity consultant concurs with the investment The Board will receive written notification of all such actions from staff
CIO Authority for Secondary Sales	• The CIO is authorized to approve the secondary sale of limited partnership interests that fall within LACERA's disposition guidelines • The CIO is authorized to approve the disposition of limited partnership interests with aggregate NAV (determined at the time of disposition) of up to $500 million per year
CIO Authority for Secondary Purchases	The CIO has the authority to approve secondary investments in vehicles or funds which are consistent with the criteria set forth in these guidelines, and at valuations deemed attractive by staff and a Board-approved secondary advisor
CIO Authority for Co-Investments	The CIO has the authority to approve co-investments in accordance with the co-investment program investment guidelines

[1] CIO Delegated Authority consolidates language from other sections of the Structure Review into one section.

Appendix C – Global Equity Portfolio Liquidity Analysis

~97% of the global equity portfolio is highly liquid

Liquidity Breakdown

As of August 2022

	Portfolio Weight (%)	Estimated Days to Liquidate
Highly Liquid	**96.9**	**0.5**
Moderately Liquid	0.3	25
Less Liquid	0.3	41
Illiquid	2.5[1]	>60
Total	100.0	**34**

[1] ~70% of the illiquid position is from a manager that will be liquidated.

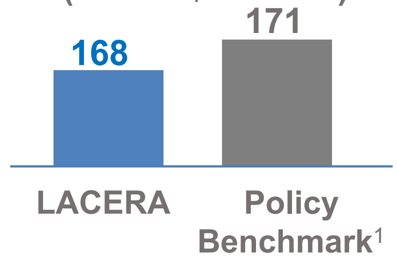
Source: FactSet. Calculation is based on 20% sell threshold and average stock volume, and the estimated number of days to liquidate is theoretical at a point in time.

Appendix D – Global Equity Climate Analysis

LACERA Equities Portfolio Less Carbon Intensive Than Benchmark

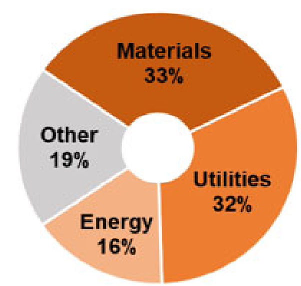
- Active strategies underweight carbon intensive securities
- Higher carbon intensity in LACERA's passive index fund

Weighted Average Carbon Intensity (tCO2e/$M Sales)



Concentrated Exposures: 3 Sectors Represent 81% of Carbon Footprint

- Materials, Utilities, and Energy represent 13% of portfolio weight



Carbon Footprint by Sector Scope 1 & 2 Emissions

Estimated 11.6% of Portfolio Value at Risk from Climate-related Risks

- Scenario analyses model impacts from policies, regulations, and weather-related events[2]

LACERA Engages High Emitters to Reduce Exposures

- Climate Action 100+ initiative engages 166 companies representing 50% of LACERA's equities portfolio Scope 1 & 2 carbon footprint to reduce emissions and climate risks

[1] MSCI All Country World IMI Index (ACWI).
[2] Climate Value at Risk evaluates impact of 2-degree scenario for policy risks and average physical risks.
Source: LACERA analysis of MSCI Data Analytics. As of August 2022.

Appendix E – Private Equity Allocation Model Assumptions

- StepStone pacing model driven by five independent variables[1]:
  - Rate of contributions
  - Rate of distributions
  - Annual growth or return by sub-sector
  - Life of fund in years
  - Annual commitments by sub-sector
- StepStone's preliminary pacing model utilizes the following assumptions for LACERA's portfolio:
  - Total Portfolio Value: ~$70 billion[2]
  - Actuarial Rate of Return (net): 7.0%[3]
  - Target Private Equity (% of Total FMV): 17% (range of 12% - 20%)
- StepStone modeled three scenarios based on the PE Weighted Average Return[4]:
  - Low Case Net IRR of 8.0%
  - Base Case Net IRR of 10.8%
  - High Case Net IRR of 13.6%
- Blended 10-year sub-sector exposures on new commitments[5] :
  - Buyout: 50%
  - Venture Capital: 10%
  - Growth Equity: 10%
  - Co-investments: 15%
  - Secondaries: 15%

(1) Any return contained herein is hypothetical and is not a guarantee of future performance. The returns set forth herein do not constitute a forecast; rather they are indicative of the internal transaction analysis regarding outcome potentials. Any returns set forth herein are based on StepStone's belief about the returns that may be achievable on investments that the Partnership intends to pursue. Such returns are based on current view in relation to future events and financial performance of potential investments and various models, estimations and "base case" assumptions made, including estimations and assumptions about events that have not occurred. Actual events and conditions may differ materially from the assumptions used to establish returns and there is no guarantee that the assumptions will be applicable to the Partnership's investments

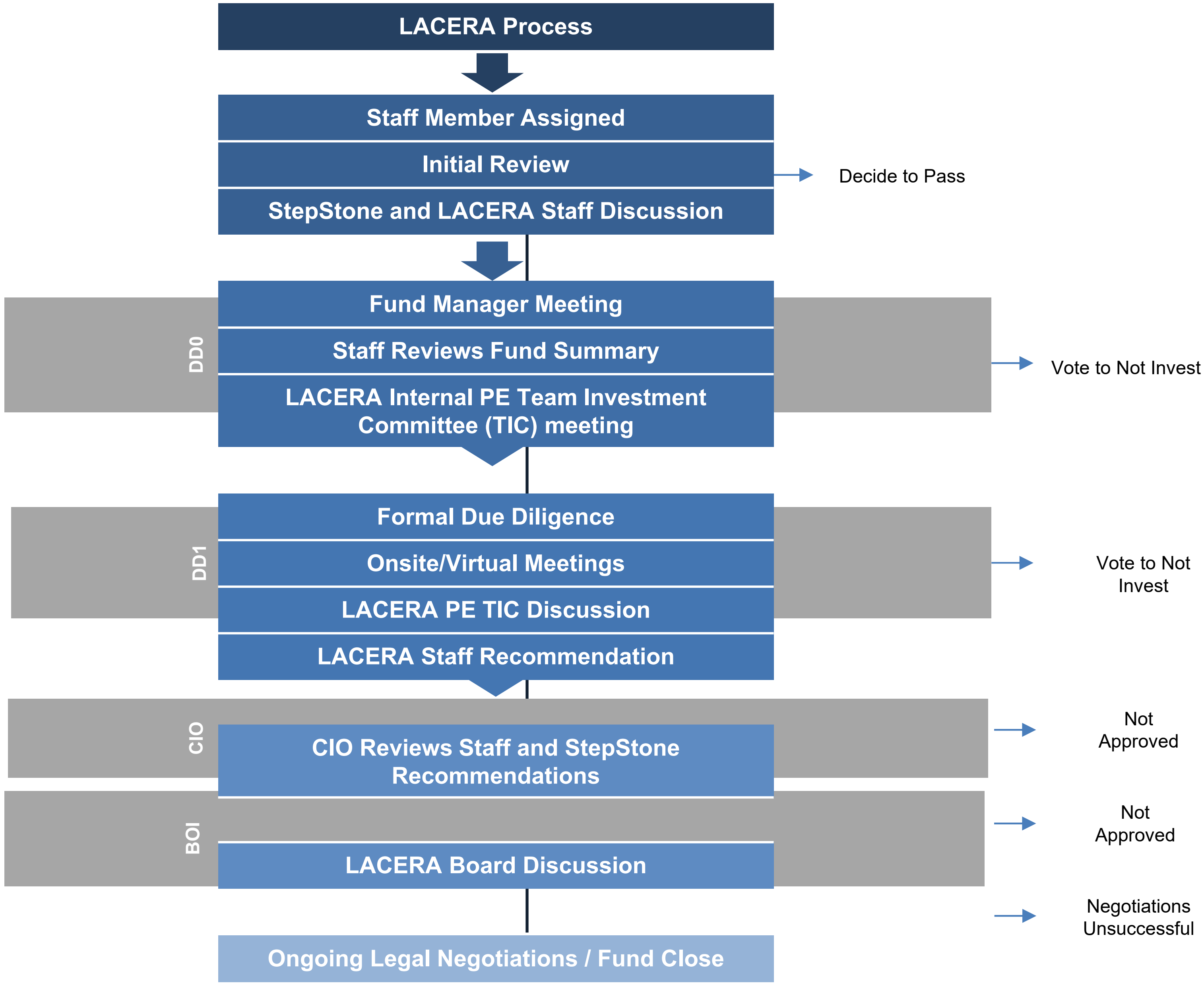
(2) Total Portfolio Value for Q2 2022 of US$70.4 billion as provided by LACERA

(3) The Actuarial Assumed Rate of Return as adopted by the LACERA Board of Investments

(4) Low Case Net IRR reflects Meketa's assumption for 10-Yr Composite PE returns. High Case Net IRR reflects StepStone's blended return assumptions by sub-sector. Base Case Net IRR reflects the Midpoint of Meketa and StepStone.

(5) As provided by LACERA

Appendix F – Private Equity Investment Process



Appendix G1 – Private Equity Commitments: 2021 Commitments

Board Date	Fund Name	Commitment ($MM)
1/13/21	LAV Fund VI, L.P.	$62
1/13/21	LAV Fund VI Opportunities, L.P.	$31
1/13/21	Novacap TMT VI, L.P.	$75
1/13/21	Co-Investment	$20
1/13/21	Co-Investment	$30
2/10/21	Co-Investment	$20
3/10/21	Excellere Capital Fund IV, L.P.	$100
4/14/21	Co-Investment	$15
4/14/21	Co-Investment	$20
4/14/21	Co-Investment	$20
4/14/21	TA Associates XIV	$110
4/14/21	TA Associates Special Opportunities Fund II, L.P.	$30
4/14/21	Lightyear Capital V, L.P.	$100
4/14/21	Hellman & Friedman X, L.P.	$150
4/14/21	Veritas Middle Market Fund	$100
5/19/21	GHO Capital III, L.P.	$100
5/19/21	Secondary	$66
6/9/21	Co-Investment	$36
7/14/21	Webster Equity Partners V, L.P.	$125
8/11/21	Co-Investment	$40
8/11/21	Co-Investment	$15
8/11/21	Summit Partners Growth Equity Fund XI, L.P	$100
9/8/21	STG Allegro, L.P.	$75
9/8/21	Atlantic Street Capital V, L.P.	$150
9/8/21	Co-Investment	$40
10/13/21	Clearlake Capital Partners VII, L.P.	$200
11/17/21	Revelstoke Capital Partners III, L.P.	$100
12/8/21	Co-Investment	$7
1/12/22	Accel-KKR Growth Capital CV Fund IV, L.P.	$100
2/9/22	Secondary	$70
2/9/22	Co-Investment	$40
5/11/22	Secondary	$125
6/8/22	Secondary	$85
Total		**$2,147**

Appendix G2 – Private Equity Commitments: 2022 YTD Commitments

Board Date	Fund Name	Commitment ($MM)
1/12/22	TSG9	$100
1/12/22	Great Hill Partners VIII	$100
2/9/22	Emerging Manager Program	$400
2/9/22	Thoma Bravo XV / Discover IV	$150
2/9/22	Storm Ventures VII	$50
3/9/22	AE Industrial III, L.P.	$100
3/9/22	Green Equity Investors IX, L.P.	$150
3/9/22	Jade Equity Investors II, L.P.	$50
3/9/22	The Veritas Capital Fund VIII, L.P.	$100
4/13/22	Silver Lake VII	$200
4/13/22	Advent GPE X	$130
4/13/22	Co-Investment	$50
4/13/22	Co-Investment	$45
7/13/22	Primary Venture Partners IV / Primary Select III	$50
7/13/22	Co-Investment	$30
11/9/22	Co-Investment	$20
11/9/22	Co-Investment	$75
11/9/22	Secondary	$70
Total YTD		**$1,870**

Appendix G3 – Private Equity Commitments: 2021-2022 Re-Ups Not Done

LACERA did not re-up into the following managers

- Joy Capital
- Sinovation Ventures
- Riverside Capital
- Clarion Capital

Appendix G4 – Private Equity Commitments: Emerging Manager Graduates

The following managers graduated from the Emerging Manager Program managed by JP Morgan into the Core portfolio during 2021-2022

- No graduates

Appendix G5 – Private Equity Commitments: Private Equity 2023-2024 Potential Re-Ups

INVESTMENTS	COMMITMENT DATE	VINTAGE YEAR	STRATEGY	COMMITMENT ($MM)	CUMULATIVE CONTRIBUTIONS ($MM)	PERCENT COMMITTED
BRV Aster Fund III, L.P.	2/1/19	2021	Venture Capital - Early Stage	$50	$21	42%
Canaan XII, L.P.	5/15/20	2021	Venture Capital - Early Stage	$100	$31	31%
CVC Capital Partners VIII, L.P.	6/11/20	2021	Buyout - Global	$227	$44	20%
GGV Capital VIII Plus, L.P.	10/30/20	2021	Venture Capital - Balanced	$18	$7	38%
GGV Capital VIII, L.P.	10/30/20	2021	Venture Capital - Balanced	$72	$26	37%
GGV Discovery III, L.P.	10/30/20	2021	Venture Capital - Balanced	$30	$10	34%
Hellman & Friedman Capital Partners IX, L.P.	9/28/18	2019	Buyout - Global	$150	$139	93%
Juggernaut Capital Partners IV, L.P.	3/27/18	2018	Buyout - Small	$125	$74	59%
LAV Biosciences Fund VI Opportunities, L.P.	1/22/21	2021	Venture Capital - Balanced	$20	$13	66%
LAV Biosciences Fund VI, L.P.	1/22/21	2021	Venture Capital - Balanced	$40	$24	60%
Lightyear Fund V, L.P.	3/20/20	2021	Buyout - Mid	$100	$36	36%
One Rock Capital Partners Fund III, L.P.	4/6/20	2021	Buyout - Mid	$150	$46	30%
Onex Partners V, L.P.	7/11/17	2018	Buyout - Large	$200	$144	72%
PAI Europe VII, L.P.	12/8/17	2019	Buyout - Large	$171	$89	52%
RedBird Capital Partners Series 2019, L.P.	10/4/19	2019	Growth Equity	$150	$167	111%
Siris Partners IV, L.P.	10/25/18	2019	Buyout - Mid	$100	$64	64%
STG VI, L.P.	9/30/20	2021	Buyout - Mid	$85	$28	32%
Summit Partners Europe GE Fund III, S.C.S.P.	3/18/20	2020	Growth Equity	$40	$13	33%
TA XIV, L.P.	5/27/21	2021	Growth Equity	$110	$30	27%
Triton Fund V, L.P.	10/2/18	2019	Buyout - Mid	$171	$88	52%
Vinci Capital Partners III, L.P.	4/15/19	2019	Buyout - Mid	$75	$30	40%

Appendix H – Glossary of Terms

Term	Definition
Active Risk	The expected standard deviation of the differential return between the portfolio and the benchmark. Active total risk arises from active management, and it is the result of active weights (deviations from the benchmark at the asset level) and therefore active exposures; for passively managed portfolios, it is referred to as "total tracking error."
Active Risk Contribution	Percent contribution to active total risk (or tracking error). The percent of active total risk that an individual asset or risk source contributes. For example, a % CR to Active Total Risk of 10% indicates that 10% of the portfolio's active total risk is arising from the active position in that particular asset.
Cap	Abbreviation for capitalization. Market capitalization or market cap refers to the total market value of a company represented in dollar amount.
CPI	The Consumer Price Index (CPI) measures the monthly change in prices paid by U.S. consumers. The Bureau of Labor Statistics (BLS) calculates the CPI as a weighted average of prices for a basket of goods and services representative of aggregate U.S. consumer spending.
Downside Capture	Measure of an investment's performance during down markets, calculated as the strategy's returns divided by the returns of the benchmark index during the down market. A lower down market capture ratio means an investment was less negatively impacted during market downturns.
GDP	Gross domestic product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period.
Information Ratio	The portfolio's excess return over its benchmark divided by its tracking error.
MSCI ACWI IMI	Morgan Stanley Capital International All Country World Investable Market Index is the benchmark for global equity.
ODD	Operational Due Diligence captures the process of assessing a manager's internal operations to protect investors from losses related to operational failures.
Sharpe Ratio	Measures risk-adjusted performance of an investment compared to a risk-free asset.
Standard Deviation	Volatility of monthly returns that measures the average deviation from the mean.
Tracking Error	Tracking error is the volatility of a manager's excess return. It is measured by subtracting the benchmark return from the manager's return and calculating the standard deviation.
Upside Capture	Measure of an investment's performance during up markets, calculated as returns divided by the returns of the benchmark index during the up market. A high up capture ratio means an investment outperformed the index during up markets.

ATTACHMENT B

MEKETA
INVESTMENT GROUP

5796 Armada Drive
Suite 110
Carlsbad, CA 92008

760.795.3450
Meketa.com

MEMORANDUM

TO: Equity: Public/Private Committee
FROM: Tim Filla, Aysun Kilic, Leo Festino, and Imran Zahid
CC: Jon Grabel, CIO - LACERA
DATE: November 9, 2022
RE: Growth Functional Category Structure Review – Global Equity

---

The purpose of this memo is for Meketa Investment Group to formalize its support for staff's recommendations regarding global equity within the growth functional category structure review.

Evaluation of Recommendation

Staff performed a comprehensive review of global equity within the growth functional category structure review. The most notable items contained in the review are the strong relative and risk adjusted performance metrics along with the continuous improvement on additional fee savings in the portfolio. The purpose of the structure review is to also look for opportunities for further enhancements within global equity. While there are no proposed changes to the global equity portfolio structure in this review, staff is seeking affirmation from the Board of Investments of the Global Equity Investment Guidelines including the recently approved range change for the Emerging Manager Program.

At the October Board of Investments meeting, the Board approved two emerging manager separate account managers and increased the range of the Emerging Manager Program from 0-5% to 0-10%. Based on those actions, staff will conduct a future review of the active portion of the global equity portfolio once the separate account managers have built out their portfolios. Meketa agrees with the approach outlined by staff. Once there is sufficient data on holdings and exposures within the emerging manager program, LACERA will have a better view of both the risks and the alpha opportunities within the active portion of global equity and that will provide a better occasion for recommending any further enhancements to the active portfolio.

If you have any questions, please feel free to reach us at 760-795-3450. We look forward to speaking with you soon.

TF/AK/LF/IZ/sf

ATTACHMENT C

StepStone Group
4225 Executive Square, Suite 1600
La Jolla, CA 92037
Phone +1 858.558.9700

October 28, 2022

Board of Investments
Los Angeles County Employees Retirement Association ("LACERA")
300 N Lake Avenue, Suite 850
Pasadena, CA 91101-6130

Re: 2023-2024 Structure Review - Private Equity

Dear Board Members,

Since 2016, StepStone Group ("StepStone") has worked closely with LACERA's Board of Investments and staff to develop and review LACERA's annual private equity investment plans and Biennial Structure Reviews. In 2018 and 2020, StepStone and staff collaborated on LACERA's 2019-2020 and 2021-2022 Biennial Structure Reviews. In 2021, the Trustees approved a new Strategic Asset Allocation ("SAA") which included a target private equity allocation of 17%, up from 10% in the prior SAA.

StepStone updated its pacing model using a 17% target private equity allocation and market values as of June 30, 2022. The target pacing was developed with the goal of maintaining LACERA's target Private Equity allocation range of 12-20% in the long term, recognizing that market conditions can lead to interim deviations from the target. Based on our analysis, StepStone recommends LACERA make annual private equity commitments of approximately 4-5% of the Trust's assets in 2023 and 2024. Further, due to the anticipated growth of the in-house Co-investment/Secondary program, combined with existing exposure to externally managed programs of a similar strategy, StepStone believes it is prudent to extend the target allocation range of the Co-investment/Secondary/Fund-of-Funds sub-sector from 10-25% to 10-30%.

In our prior Structure Review letters, we stressed the importance of maintaining a flexible investment pace to invest more or less according to market conditions and opportunities. While a consistent annual investment pace is important to maintain proper vintage year diversification, LACERA should not feel forced to invest a specific amount every year if not enough high-quality opportunities are available and should have the flexibility to invest more if there are more high-quality opportunities in a given year than could be accommodated with a fixed allocation target. We believe this to be especially true in the current market environment, as highlighted by staff in the 2023-2024 Structure Review.

StepStone will review this recommendation each year, and as necessary when market conditions warrant, to ensure it continues to align with LACERA's overall investment goals.

StepStone Group

To the knowledge of StepStone, (i) this recommendation does not take into account the interest of StepStone or any StepStone Entity (as defined in the Advisory Services Agreement between LACERA and StepStone), (ii) neither StepStone nor any StepStone Entity will receive any benefit from this recommendation other than compensation paid by LACERA to StepStone pursuant to the Advisory Services Agreement, and (iii) there are no conflicts of interest among StepStone and its affiliates in connection with the recommendation herein.