

# **Board of Retirement Regular Meeting**

# **Sacramento County Employees' Retirement System**

Agenda Item 8

**MEETING DATE:** February 19, 2025

SUBJECT: Portfolio Allocation and Rebalancing Report—Fourth

Quarter 2024

SUBMITTED FOR: \_\_\_ Action \_\_X Information

#### **RECOMMENDATION**

Receive and file the Portfolio Allocation and Rebalancing Report for the quarter ended December 31, 2024.

## **PURPOSE**

This item complies with the SCERS Master Investment Policy Statement reporting requirements related to the review of SCERS' current asset allocation as it compares to established targets and ranges, and physical and Overlay Program rebalancing activity that occurred during the quarter.

## **SUMMARY**

SCERS employs an Overlay Program, which is managed by State Street Global Advisors (SSGA), to rebalance the asset allocation to policy targets and also invest available cash, in a manner which replicates SCERS' policy target strategic asset allocation.

Below is a summary of SCERS' asset category and asset class positioning relative to the target allocations as of December 31, 2024 (based on State Street market values, which can differ from those of SCERS' investment consultants). The comparisons to the benchmark allocations below, and throughout the memo, are made in two formats: (1) the difference between the actual and target allocation, and (2) the percentage amount of the actual allocation relative to the target allocation.

Asset Category	Asset Class	Current Allocation	<u>Target</u> <u>Allocation</u>	Difference	% Relative to Target
GROWTH*		57.7%	58.0%	-0.3%	99%
	Global Equity	40.4%	40.0%	0.4%	101%
	Private Equity	12.1%	11.0%	1.1%	110%
	Public Credit	1.8%	2.0%	-0.2%	84%
	Private Credit	3.4%	5.0%	-1.6%	67%
	Growth Absolute Return	0.0%	0.0%	0.0%	N/A
DIVERSIFYING*		22.4%	25.0%	-2.6%	90%
	Fixed Income	13.8%	16.0%	-2.2%	86%
	Absolute Return	6.7%	7.0%	-0.3%	95%
	Dedicated Cash	1.9%	2.0%	-0.1%	97%
REAL RETURN**		17.3%	17.0%	0.3%	102%
	Real Estate	6.4%	9.0%	-2.6%	71%
	Real Assets	8.6%	7.0%	1.6%	122%
	Liquid Real Return	2.3%	1.0%	1.3%	226%
OTHER CASH/OVERLAY	Υ	2.3%	0.0%	2.3%	N/A

<sup>\*</sup> Growth and Diversifying allocation weights do not include overlay proxy exposures, which are included in the Overlay allocation

## During the fourth quarter of 2024, the following Overlay Program rebalancing occurred:

- Quarter-end rebalance:
  - Purchased \$5 million in Growth proxy
  - Purchased \$4 million in Diversifying proxy
  - No change to the Real Return proxy
  - Reduced the cash allocation by \$9 million

# Key current portfolio allocations relative to targets, and physical rebalancing considerations include:

- **Global Equity** has a 40.4% allocation as of December 31, 2024, significantly down from a 41.6% allocation as of September 30, 2024, and slightly above the 40% target allocation, but still within range. Staff implemented physical rebalancing during the fourth quarter to reduce the overweight allocation to Global Equity.
  - Domestic Equity has a 21.5% allocation as of December 31, 2024, slightly down from the 21.9% allocation as of September 30, 2024. The 21.5% allocation is higher than the 20% target allocation, but below the 22% top of the range.
  - International Equity has a 15.9% allocation as of December 31, 2024, slightly down from the 16.7% allocation as of September 30, 2024. The 15.9% allocation is below the 16% target allocation, but within range.
  - Global/Unconstrained has a 3.1% allocation as of December 31, 2024, just above the 3% allocation as of September 30, 2024. The 3.1% allocation is below the 4% target allocation.
    - This is a newer sub-asset class, and the remaining allocation will be implemented over time.

<sup>\*\*</sup> Real Return allocation includes overlay proxy exposures

- **Fixed Income** has a 13.8% allocation as of December 31, 2024, down from a 14.2% allocation as of September 30, 2024. The 13.8% allocation is below the 16% target allocation, but within range.
  - Staff is evaluating physical rebalancing in the first half of 2025.
- Alternative Asset Class weights vs. target include:
  - **Absolute Return** 6.7% vs. 7.0% target; within range
  - o Private Equity 12.1% vs. 11.0% target; within range
  - o **Private Credit** 3.4% vs. 5.0% target; within range
  - o **Real Assets** 8.6% vs. 7.0% target; within range
  - Real Estate 6.4% vs. 9.0% target; below range

#### BACKGROUND

The Overlay Program rebalances the asset allocation to policy targets and minimizes the risk that SCERS falls short of achieving its targeted return due to the asset allocation straying from policy target ranges. The Overlay Program also invests available cash, including: (1) unallocated cash; (2) the cash balances in manager portfolios; and (3) cash held for previously committed to, but un-invested private market investments, in a manner which replicates SCERS' policy target strategic asset allocation. The Overlay Program does not invest the 2% dedicated cash allocation.

While SCERS' Overlay Program reduces the need for physical rebalancing, it does not eliminate it, as there are circumstances whereby physical rebalancing would be a better solution compared to the Overlay Program, including when there is a persistently large difference between physical assets and the target allocation.

While physical rebalancing typically costs more to execute compared to the Overlay Program, it remains important to assess whether SCERS' portfolio is at a point where physical rebalancing warrants greater consideration.

The Overlay Program structure replicates SCERS' asset category targets (Growth; Diversifying; Real Return), with bands around these targets (see below). The rebalancing methodology that SSGA utilizes is quarterly rebalancing with bands, where rebalancing occurs on a quarterly basis (at the end of a quarter), unless the bands are breached on an intra-quarter basis, in which case rebalancing occurs upon the breach of a band.

Asset Category	Minimum Allocation (%)	Target Allocation (%)	Maximum Allocation (%)
Growth	53	58	63
Diversifying	22	25	28
Cash	0	2	3
Real Return	15	17	19

Each asset category has a separate overlay proxy, which contains a mixture of investments that attempt to replicate the objectives and exposures of the asset category and the underlying asset classes within the asset category, in order to minimize tracking error and costs.

The underlying components of each asset category overlay proxy are shown within Appendix B of this report.

Because SCERS' Overlay Program rebalances SCERS' total fund, it is important to note that **Tables 1-15** in Appendix A refer only to physical holdings compared to policy targets, and not the exposures provided through the Overlay Program. The exception is Table 11 (Real Return asset category exposure), which includes the SSGA Real Return Strategy within the Liquid Real Return asset class, which is the Overlay proxy for this asset category, and is implemented through physical exposures (commingled funds).

SCERS' investment staff and general investment consultant Verus monitor the asset allocation on a quarterly basis and update the Board if the asset allocation moves outside of policy ranges and conditions warrant physical rebalancing.

## **FULL PORTFOLIO REVIEW**

#### **GROWTH ASSET CATEGORY:**

The Growth asset category is comprised of the Global Equity, Private Equity, Public Credit, and Private Credit segments of the portfolio. The Growth Absolute Return segment was eliminated from the SAA and is close to being wound down. As outlined in **Table 1 of Appendix A**, the Growth asset category currently has an allocation of 57.7%, which is below the strategic asset allocation's target of 58%, and the allocation is 99% relative to the target allocation. At a more granular level, the Global Equity and Private Equity exposures are above target while the remaining asset classes are below target.

The Overlay Program rebalances the Growth asset category to the 58% target allocation by purchasing or selling global equity futures to bring the Global Equity asset class to its target allocation and then adjusts the remainder of the asset category by using a combination of 88% global equity futures and 12% U.S. Treasury futures.

At the end of the quarter, SCERS' overlay manager, SSGA, purchased approximately \$5 million of overlay growth proxy exposure to rebalance the Growth asset category to its target allocation.

## Global Equities:

As outlined in **Table 2**, SCERS' Global Equity asset class, which includes the sub-asset classes of Domestic Equity, International Equity, and Global/Unconstrained Equity, has an actual weighting of 40.4%, which is above SCERS' policy target allocation of 40% but within range, and the allocation is 101% relative to the target allocation. Staff implemented physical rebalancing during the fourth quarter to reduce the overweight allocation to Global Equity.

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At the sub-asset class level, Domestic Equity has an actual allocation of 21.5%, which is above its target allocation of 20% (107% relative to the target).

International Equity has an actual allocation of 15.9%, which is below the target allocation of 16% (99% relative to the target).

The Global/Unconstrained segment has a 3.1% allocation, which is below the 4% target allocation (77% relative to target). This is a newer sub-asset class, and the remaining allocation will be implemented over time.

SSGA buys and sells a basket of global equity index futures to rebalance the Global Equity asset class toward the policy target allocation.

## Private Equity:

As outlined in **Table 3**, SCERS' Private Equity allocation of 12.1% remains above the target allocation of 11%, but within range. The allocation is 110% relative to the target allocation.

SSGA utilizes a basket of 88% global equities and 12% U.S. Treasuries to replicate Private Equity, as part of a broader non-public equity proxy within the Growth asset category.

#### Public Credit:

As outlined in **Table 4**, SCERS' Public Credit allocation of 1.8% is slightly below the policy target allocation of 2%, and the allocation is 84% relative to the target allocation. SSGA utilizes a basket of 88% global equities and 12% U.S. Treasuries to replicate Public Credit, as part of a broader non-public equity proxy within the Growth asset category.

#### **Private Credit:**

As outlined in **Table 5**, SCERS' Private Credit allocation of 3.4% is below the policy target allocation of 5%, and the allocation is 67% relative to the target allocation. Private credit valuations are lagged a quarter. The commitment schedule and cash flow forecast of Private Credit investments projects SCERS achieving and maintaining the policy target in 2026.

SSGA utilizes a basket of 88% global equities and 12% U.S. Treasuries to replicate Private Credit, as part of a broader non-public equity proxy within the Growth asset category.

#### **Growth Absolute Return:**

As outlined in **Table 6**, SCERS' Growth Absolute Return portfolio has a current allocation of 0.04%. The Growth Absolute Return Portfolio was eliminated from the revised SAA, and SCERS has nearly unwound the exposures within this portfolio. The small remaining allocation is expected to be unwound in 2025

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#### **DIVERSIFYING ASSET CATEGORY:**

The Diversifying asset category is comprised of the Fixed Income and Absolute Return segments of the portfolio, as well as the dedicated cash allocation. As outlined in **Table 7**, the Diversifying asset category currently has an allocation of 22.4%, which is below the strategic asset allocation's target of 25%, and the allocation is 90% relative to the target allocation.

The Overlay Program rebalances the Diversifying asset category to the target allocation by purchasing or selling U.S. government bond futures.

At the end of the quarter, SCERS' overlay manager, SSGA, purchased approximately \$4 million of Diversifying asset category proxy exposure to rebalance the Diversifying asset category to its target allocation.

#### Fixed Income:

As outlined in **Table 8**, SCERS' Fixed Income allocation of 13.8% is below SCERS' policy target allocation of 16%, and the allocation is 86% relative to the target allocation. Staff is evaluating physical rebalancing in the first half of 2025.

The Overlay Program utilizes a combination of U.S. Treasury futures and Mortgage TBAs to rebalance this segment of the portfolio to its policy target allocation, as part of a broader Diversifying asset category proxy.

#### Absolute Return:

As outlined in **Table 9**, SCERS' Absolute Return allocation of 6.7% is below the policy target allocation of 7%, and the allocation is 95% relative to the target allocation.

SSGA utilizes a combination of U.S. Treasury futures and Mortgage TBAs to rebalance this segment of the portfolio to its policy target allocation, as part of a broader Diversifying asset category proxy.

#### REAL RETURN ASSET CATEGORY:

The Real Return asset category is comprised of the Real Estate, Real Assets, and Liquid Real Return segments of the portfolio. As outlined below in **Table 11**, the Real Return asset category currently has an allocation of 17.3%, which is above the strategic asset allocation's target of 17%, and the allocation is 102% relative to the target allocation.

The Overlay Program rebalances the Real Return asset category to the 17% target allocation through the SSGA real return overlay proxy, by purchasing or selling a series of commingled funds across global REITs, global infrastructure stocks, global natural resource stocks, commodities, U.S. TIPS, and floating rate notes.

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At the end of the quarter, SCERS' overlay manager, SSGA, did not make any trades within the Real Return asset category proxy.

#### Real Estate:

As outlined in **Table 12**, SCERS' Real Estate allocation of 6.4% is below the policy target allocation of 9%, and below the bottom of the range of 7%. The allocation is 71% relative to the target allocation. SCERS has recently committed to several non-core real estate funds, which should bring the allocation up a bit, and the 2025 budget for Real Estate reflects the underweight.

SSGA utilizes a series of listed commingled funds described above to replicate Real Estate, as part of the broader Real Return asset category proxy.

#### Real Assets:

As outlined in **Table 13**, SCERS' Real Assets allocation of 8.6% is above the policy target allocation of 7%, and the allocation is 122% relative to the target allocation. Private real asset valuations are lagged a quarter.

SSGA utilizes a series of listed commingled funds described above to replicate Real Assets, as part of the broader Real Return asset category proxy.

## Liquid Real Return:

As outlined in **Table 14**, SCERS' Liquid Real Return allocation of 2.3% is above the policy target allocation of 1%, and the allocation is 226% relative to the target allocation. The Liquid Real Return allocation is managed by State Street Global Advisors (SSGA), and functions as part strategic mandate and part overlay program proxy for the Real Return asset category. The latter is used to adjust broad Real Return asset category exposures during quarterly overlay rebalancing, and accounts for the slight overweight to the segment.

#### CASH:

As outlined in **Tables 10 and 15**, SCERS' total cash balance is approximately 3.9% (as of December 31, 2024), which includes a combination of the 1.9% dedicated cash allocation and 2.0% in other cash. The dedicated cash allocation of 1.9% is 97% relative to the 2% target allocation.

The dedicated cash allocation is intended to close the gap between benefit payments and total contributions in an environment where investment earnings fall short of the targeted assumed rate of return, and also serves as a liquidity buffer.

Most of the 2.0% other cash allocation incorporates the 2024/2025 pre-funded annual employer contribution, which was received in July of 2024. The other cash allocation is also used to fund drawdowns within the private market segments of the portfolio, and other implementation and rebalancing activity. SCERS' Overlay Program rebalances the portfolio by eliminating cash drag

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by investing the non-dedicated cash allocation (2.0%) into positions that replicate SCERS' target portfolio.

# **ATTACHMENTS**

- Board Order
- Appendix A: Quarterly Portfolio Allocation and Rebalancing Detail
- Appendix B: SCERS Overlay Proxies

Prepared by:	Reviewed by:
/S/	/S/
Steve Davis Chief Investment Officer	Eric Stern Chief Executive Officer



James Diepenbrock

Board President

# Retirement Board Order Sacramento County Employees' Retirement System

# Before the Board of Retirement February 19, 2025

AGENDA ITEM: Portfolio Allocation and Rebalancing Report—Fourth Quarter 2024
THE BOARD OF RETIREMENT hereby approves Staff's recommendation to receive and file the Portfolio Allocation and Rebalancing Report for the quarter ended December 31, 2024.
I HEREBY CERTIFY that the above order was passed and adopted on February 19, 2025 by the following vote of the Board of Retirement, to wit:
AYES:
NOES:
ABSENT:
ABSTAIN:
ALTERNATES: (Present but not voting)

Eric Stern

**Board Secretary** 

Chief Executive Officer and

Table 1: GROWTH ASSET CATEGORY	Fund Name		Market Value	Actual	Target	Delta	Target \$	% Relative to Target
Table 1: GROWTH ASSET CATEGORY				Hotau	rungot	Boild	ruigot v	to ranget
Market Value	Table 4: CROWTH ACCET CATECORY		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
CROWTH ASSET CATEGORY:   10   10   10   10   10   10   10   1	Table 1: GROWTH ASSET CATEGORY							% Relative
Table 2: Global Equity Asset Class			Market Value	Actual	Target	Delta		
Sub-Asset Class	GROWTH ASSET CATEGORY:		\$7,960,141,168	57.7%		-0.3%	\$ 8,008,219,562	
Sub-Asset Class								
Sub-Asset Class	Table 2: Global Equity Asset Class	1	Allowable Range: 36-44%	%				
S5,576,914,912   40.4%   40.0%   0.4%   \$ 5,522,910,043   101%								% Relative
Domestic Equity   Supplement   Equity   Supplement   Su	Global Equity	Sub-Asset Class						
Domestic Equity   \$2,965,177,839   \$21,5%   \$2,00%   1.5%   \$2,761,455,021   107%			\$5,576,914,912	40.4%	40.0%	0.4%	\$ 5,522,910,043	101%
Domestic Equity   \$2,965,177,839   \$21,5%   \$2,00%   1.5%   \$2,761,455,021   107%			Market Value	Actual	Target	Dolta		to Target
AllianceBernstein		Domostic Equity					\$ 2.761.455.021	
JP Morgan 130/30	AllianceBernstein		, , , ,		20.0 /6	1.5/0	\$ 2,701,433,021	107 /0
DE Shaw Broad Market Core Alpha Extension   Equity Core Active Short Extension (130/30)   \$224, 142,796   1,7%   Eaglic Cap Core   \$415,165,971   3,0%   4,0%   18,0%   1,4%   18,0%   1								
Eagle Capital Management								
Regulty Systematic Multi-Factor Core   \$424,831,651   3,1%   18.0%   1.4%								
Equity Large Cap								
Snyder Capital Management	AQR US Ennanced Equity		\$424,831,651				_	
Weatherbile & Co.         Equity Small Cap         \$142,784,869         1.0%           Equity Small Cap         2.1%         2.0%         0.1%           Weatherbile & Co.         Equity Small Cap         2.1%         2.0%         0.1%           Weatherbile & Co.         Market Value         Actual         Target         Delta         % Relative to Target           Lazard Asset Management         ACW Ex-US         \$319,667,609         2.3%         15.9%         16.0%         -0.1%         \$ 2,209,164,017         99%           Lazard Asset Management         ACW Ex-US         \$319,667,609         2.3%         2.3%         2.3%         2.3%         2.209,164,017         99%           Waller Scott         International Equity Large Cap Value         \$529,669,349         3.8%         3.8%         3.4%         4.0%         -0.1%         \$2,209,164,017         99%           Walliar Scott         International Equity Large Cap Growth         \$463,945,052         3.4%         3.8%         4.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%         -0.0%		Equity Large Cap		19.4%	18.0%	1.4%		
Equity Small Cap   2.1%   2.0%   0.1%   2.0%   0.1%   2.0%   0.1%   2.0%   0.1%   2.0%   0.1%   2.0%   0.1%   2.0%   0.1%   2.0%   0.1%   0.								
Market Value	Weatherbie & Co.		\$142,784,869				_	
Market Value		Equity Small Cap		2.1%	2.0%	0.1%		
Lazard Asset Management   ACWI Ex-US   \$319,667,609   2.3%   L3248,976,337   15.9%   16.0%   -0.1%   \$2,209,164,017   99%								% Relative
Lazard Asset Management								
LSV Large Cap International Value  Walter Scott Walter Scott International Equity Large Cap Growth Walter Scott William Blair & Co. International Equity Small Cap Growth International Equity Small Cap Walue International Equity Small Cap Value International Equity Small Cap Walue International Equity Small Cap Walue International Developed International Equity Small Cap International Developed International Equity Small Cap International Cap Value International Cap Value International Cap Value International Equity Small Cap Value International Cap Value International Equity International Cap Value International Equity Small Cap Value International Cap Value International Cap Value International Equity International Cap Value			. , , ,		16.0%	-0.1%	\$ 2,209,164,017	99%
Walter Scott         International Equity Large Cap Growth William Blair & Co.         \$463,945,052   3.4%   10.6710,410   0.8%   10.6710,410   0.8%   10.6710,410   0.8%   10.6710,410   0.8%   10.6710,410   0.8%   10.6710,410   0.8%   10.6710,410   0.8%   10.6%	Lazard Asset Management	ACWI Ex-US	\$319,667,609	2.3%				
William Blair & Co. Acadian Asset Management         International Equity Small Cap Growth International Equity Small Cap Value         \$106,710,410 \$ 0.8% \$ 0.9% \$ 0.9% \$ 0.0%           Baillie Gifford         Emerging Markets Equity - All Cap ARGA Emerging Markets Equity Fund Oaktree Emerging Markets Equity - All Cap Emerging Markets Equity - All Cap \$215,274,750 \$ 1.6% \$ 0.0%         \$1.6% \$ 0.0% \$ 0.0% \$ 0.0%         \$1.6% \$ 0.0% \$ 0.0% \$ 0.0% \$ 0.0% \$ 0.0% \$ 0.0%	LSV Large Cap International Value		\$529,669,349	3.8%				
Acadian Asset Management	Walter Scott		\$463,945,052	3.4%				
International Developed	William Blair & Co.	International Equity Small Cap Growth	\$106,710,410	0.8%				
Baillie Gifford	Acadian Asset Management	International Equity Small Cap Value	\$122,243,618	0.9%				
ARGA Emerging Markets Equity Fund		International Developed		11.2%	11.2%	0.0%		
ARGA Emerging Markets Equity Fund	Baillie Gifford	Emerging Markets Equity - All Cap	\$225.943.379	1.6%				
Oaktree Emerging Markets Equity Fund         Emerging Markets Equity - All Cap Emerging Markets         \$205,522,170         1.5%         4.7%         4.8%         -0.1%         % Relative to Target t								
Emerging Markets   4.7%   4.8%   -0.1%								
Market Value         Actual         Target         Delta         to Target           Global/Unconstrained Equity         \$422,760,736         3.1%         4.0%         -0.9%         \$52,291,004         77%           Nikko Asset Management CIT         Global Equity         \$162,960,000         1.2%           Artisan Partners Global Opportunities         Global Equity         \$156,998,430         1.1%           Allspring Global Investments         Global Equity         \$98,577,166         0.7%	Caktree Emerging Markets Equity Fund		ΨΕΟΟ,ΘΕΕ, 17 Ο		4.8%	-0.1%	_	
Market Value         Actual         Target         Delta         to Target           Global/Unconstrained Equity         \$422,760,736         3.1%         4.0%         -0.9%         \$52,291,004         77%           Nikko Asset Management CIT         Global Equity         \$162,960,000         1.2%           Artisan Partners Global Opportunities         Global Equity         \$156,998,430         1.1%           Allspring Global Investments         Global Equity         \$98,577,166         0.7%								% Relative
Global/Unconstrained Equity         \$422,760,736         3.1%         4.0%         -0.9%         \$552,291,004         77%           Nikko Asset Management CIT         Global Equity         \$162,960,000         1.2%           Artisan Partners Global Opportunities         Global Equity         \$156,998,430         1.1%           Allspring Global Investments         Global Equity         \$98,577,166         0.7%			Market Value	Actual	Target	Delta		
Artisan Partners Global Opportunities Global Equity \$156,998,430 1.1% Allspring Global Investments Global Equity \$98,577,166 0.7%		Global/Unconstrained Equity	\$422,760,736	3.1%	4.0%	-0.9%	\$ 552,291,004	
Artisan Partners Global Opportunities Global Equity \$156,998,430 1.1% Allspring Global Investments Global Equity \$98,577,166 0.7%	Nikko Asset Management CIT	Global Equity	\$162,960,000	1.2%				
Allspring Global Investments Global Equity \$98,577,166 0.7%		' '						
	Third Point Partners Qualified, LP	Event Driven	\$4,225,140	0.0%				

Table 3: Private Equity Asset Class

Allowable Range: 8-14%

Table 3: Private Equity Asset Class		Allowable Range: 8-14%	0				
Bit of Factor	0.1.00	Madadata	A 1	T	D - 14 -		% Relative
Private Equity	Sub-Strategy	Market Value	Actual	Target	Delta	A 4 540 000 000	to Target
A 11/1/D 0 1/1 D 1 1/1 D	D	\$1,666,518,389	12.1%	11.0%	1.1%	\$ 1,518,800,262	110%
Accel-KKR Capital Partners V, LP	Buyout	\$29,572,748	0.2%				
Accel-KKR Capital Partners VI, LP	Buyout	\$27,004,684	0.2%				
Accel-KKR Capital Partners VII, LP	Buyout	\$0	0.0%				
Accel-KKR Growth Capital Partners II, LP	Buyout	\$8,490,365	0.1%				
Accel-KKR Growth Capital Partners III, LP	Buyout	\$37,329,835	0.3%				
Accel-KKR Growth Capital Partners IV, LP	Buyout	\$15,054,682	0.1%				
Cortec Group Fund VII, LP	Buyout	\$27,547,538	0.0%				
Cortec Group Fund VIII, LP	Buyout	\$9,068,183	0.0%				
Gridiron Capital Fund IV, LP	Buyout	\$43,478,726	0.3%				
H.I.G. Capital Partners V, LP	Buyout	\$5,581,949	0.0%				
JFL Equity Investors VI, LP	Buyout	\$10,765,094	0.1%				
Linden Capital Partners III, LP	Buyout	\$19,659,217	0.1%				
Linden Capital Partners IV, LP	Buyout	\$46,453,227	0.3%				
Linden Capital Partners V, LP	Buyout	\$21,638,184	0.2%				
Linden Capital Partners VI, L.P.	Buyout	\$0	0.0%				
Marlin Equity Partners IV, LP	Buyout	\$8,352,001	0.1%				
Marlin Equity Partners V, LP	Buyout	\$32,415,584	0.2%				
Marlin Heritage Europe, LP	Buyout	\$14,318,188	0.1%				
Marlin Heritage, LP	Buyout	\$3,600,749	0.0%				
Marlin Heritage II, LP	Buyout	\$9,719,079	0.1%				
Marlin Heritage III, L.P.	Buyout	\$9,848,081	0.1%				
Oaktree Power Opportunities Fund VI, LP	Buyout	\$27,355,295	0.1%				
Oaktree Power Opportunities Fund VII, L.P.	Buyout	\$0	0.2%				
Resurgens Technology Partners III, LP	Buyout	\$184,204	0.0%				
Shamrock Capital Growth Fund V, LP	Buyout	\$13,749,178	0.0%				
		\$13,749,176 \$0	0.1%				
Shamrock Capital Growth Fund VI	Buyout	•					
Thoma Bravo Fund XI, LP	Buyout	\$24,868,485	0.2%				
Thoma Bravo Fund XII, LP	Buyout	\$34,672,822	0.3%				
Thoma Bravo Fund XIII, LP	Buyout	\$54,676,903	0.4%				
TSG 7 A, LP	Buyout	\$9,709,384	0.1%				
TSG 7 B, LP	Buyout	\$3,138,200	0.0%				
TSG 8, LP	Buyout	\$36,473,718	0.3%				
TSG, LP	Buyout	\$9,672,146	0.1%				
Wynnchurch Capital Partners V, LP	Buyout	\$22,308,973	0.2%				
Wynnchurch Capital Partners VI, LP	Buyout	\$4,652,715	0.0%				
CVC Capital Partners IX, LP	Buyout	\$4,842,854	0.0%				
H.I.G. Europe Capital Partners II, LP	European Buyout	\$8,131,339	0.1%				
Waterland Private Equity Fund V, CV	European Buyout	\$540,058	0.0%				
Waterland Private Equity Fund VI, CV	European Buyout	\$10,060,956	0.1%				
RRJ Capital Master Fund II, LP	Asian Buyout/Special Situations	\$3,605,429	0.0%				
RRJ Capital Master Fund III, LP	Asian Buyout/Special Situations	\$8,244,899	0.1%				
Shamrock Capital Content Fund II, L.P.	Growth Equity	\$13,749,178	0.1%				
Shamrock Capital Content Fund III, L.P.	Growth Equity	\$8,236,326	0.1%				
Spectrum Equity Investors VII, LP	Growth Equity	\$27,631,160	0.1%				
Spectrum Equity Fund VIII, LP	Growth Equity	\$19,524,652	0.2 %				
	, ,						
Spectrum Equity Fund IX, L.P.	Growth Equity	\$18,637,802 \$4,409,907	0.1% 0.0%				
Spectrum Equity X, L.P.	Growth Equity	\$4,498,807	0.0%				

Table 3: Private Equity Asset Class (continued)

Allowable Range: 8-14%

Table 3: Private Equity Asset Class (continued)		Allowable Range: 8-14%	)				
				_			% Relative
Private Equity	Sub-Strategy	Market Value	Actual	Target	Delta		to Target
		\$1,666,518,389	12.1%	11.0%	1.1%	\$ 1,518,800,262	110%
Summit Partners VC Fund III, LP	Growth Equity	\$3,989,757	0.0%				
Summit Partners Venture Capital Fund IV, LP	Growth Equity	\$63,122,764	0.5%				
Summit Partners Venture Capital V, L.P.	Growth Equity	\$14,702,697	0.1%				
Summit Partners Europe Growth Equity Fund II, LP	European Growth Equity	\$48,223,752	0.3%				
Summit Partners Europe Growth Equity Fund III, L.P.	European Growth Equity	\$20,300,086	0.1%				
Canvas 3, L.P.	Venture Capital	\$14,360,062	0.1%				
CRV XVIII, L.P.	Venture Capital	\$18,307,984	0.1%				
CRV XIX, LP	Venture Capital	\$10,988,103	0.1%				
CRV Select II, LP	Venture Capital	\$7,937,612	0.1%				
Khosla Ventures IV, LP	Venture Capital	\$11,716,995	0.1%				
Khosla Ventures V, L.P.	Venture Capital	\$25,343,321	0.2%				
Khosla Ventures VI, L.P.	Venture Capital	\$72,441,590	0.5%				
Khosla Ventures VII, L.P.	Venture Capital	\$18,526,668	0.1%				
Khosla Ventures VIII, L.P.	Venture Capital	\$11,592,146	0.1%				
New Enterprise Associates 14, LP	Venture Capital	\$35,620,599	0.3%				
New Enterprise Associates 15, LP	Venture Capital	\$23,514,881	0.2%				
New Enterprise Associates 16, LP	Venture Capital	\$36,832,154	0.3%				
New Enterprise Associates 17, LP	Venture Capital	\$21,229,424	0.2%				
OrbiMed Private Investments VIII, L.P.	Venture Capital	\$11,190,592	0.1%				
OrbiMed Private Investments IX, L.P.	Venture Capital	\$6,571,454	0.0%				
Threshold Ventures III. LP	Venture Capital	\$23,315,355	0.2%				
Threshold Ventures IV, LP	Venture Capital	\$12,629,429	0.1%				
Trinity Ventures XI, LP	Venture Capital	\$11,656,140	0.1%				
Trinity Ventures XII, LP	Venture Capital	\$32,855,143	0.2%				
Alchemy Special Opportonities Fund V, L.P.	Distressed Debt	\$1,656,260	0.0%				
Atalaya Special Opportunities Fund V, LP	Distressed Debt	\$0	0.0%				
Atalaya Special Opportunities Fund VI, LP	Distressed Debt	\$935,734	0.0%				
Davidson Kempner Distressed Opportunities Fund III, LP	Distressed Debt	\$18,689,628	0.1%				
Davidson Kempner Distressed Opportunities Fund IV, LP	Distressed Debt	\$34,950,940	0.1%				
Garrison Opportunity Fund III, LP	Distressed Debt	\$530,133	0.0%				
H.I.G. Bayside Loan Opportunity III (Europe), LP	Distressed Debt	\$3,343,905	0.0%				
Strategic Value Special Situations Fund V, L.P.	Distressed Debt	\$28,321,871	0.2%				
TPG Opportunities Partners III, LP	Distressed Debt	\$5,822,080	0.0%				
TSSP Opportunities Partners IV, LP	Distressed Debt	\$23,295,592	0.0%				
Sixth Street Opportunities Partners V, L.P.	Distressed Debt	\$24,365,324	0.2%				
Wayzata Opportunities Fund III, LP	Distressed Debt	\$750,566	0.2 %				
Golden Capital Co-Investments, LP	Co-Investments	\$50,416,542	0.0%				
Dyal Capital Partners II, LP	Other	\$35,683,120	0.4%				
Dyal Capital Partners III, LP	Other	\$30,216,628	0.3%				
Abbott Capital ACE VI	Fund of Funds	\$30,210,626 \$18,217,324	0.2%				
HarbourVest Partners VIII	Fund of Funds Fund of Funds	\$1,876,907	0.1%				
RCP Multi-Fund Feeder (SCERS), L.P.	Fund of Funds Fund of Funds		0.6%				
NOF WILLIE WILL FEEDER (SOENS), L.F.	runa oi runas	\$81,413,532	0.070				

Table 4: Public Credit Asset Class		Allowable Range: 1-3%					
							% Relative
Public Credit	Sub-Strategy	Market Value	Actual	Target	Delta		to Target
		\$246,325,855	1.8%	2.0%	-0.2%	\$ 276,145,502	89%
Brigade Capital SC Opportunities Mandate	Public Credit	\$246,325,855	1.8%	2.0%			
Table 5: Private Credit Asset Class		Allowable Range: 3-7%					
							% Relative
Private Credit	Sub-Strategy	Market Value	Actual	Target	Delta		to Target
		\$464,840,828	3.4%	5.0%	-1.6%	\$ 690,363,755	67%
Ares Capital Europe Fund V, LP	Direct Lending	\$30,567,925	0.2%				
Ares Capital Europe VI (D) Levered, L.P.	Direct Lending	\$15,079,026	0.1%				
Ares Senior Direct Lending Fund III, LP	Direct Lending	\$8,602,986	0.1%				
Benefit Street Partners Senior Opportunities Fund, LP	Direct Lending	\$11,266,947	0.1%				
Benefit Street Partners Senior Opportunities Fund II, LP	Direct Lending	\$45,709,252	0.3%				
Brookfield Infrastructure Debt Fund III, LP	Direct Lending	\$24,026,744	0.2%				
IFM U.S. Infrastructure Debt Fund, LP	Direct Lending	\$65,546,778	0.5%				
Shamrock Capital Debt Opportunities Fund I, LP	Direct Lending	\$3,714,932	0.0%				
Summit Partners Credit Fund II, LP	Direct Lending	\$6,629,357	0.0%				
Summit Partners Credit Fund III, LP	Direct Lending	\$7,063,174	0.1%				
Summit Partners Credit Fund IV, LP	Direct Lending	\$7,504,965	0.1%				
Tennenbaum Capital Partners Direct Lending Fund VIII (S), LLC	Direct Lending	\$109,634,673	0.8%				
Athyrium Opportunities Fund II, LP	Healthcare Opportunistic Lending	\$4,029,975	0.0%				
Athyrium Opportunities Fund III, LP	Healthcare Opportunistic Lending	\$8,257,664	0.1%				
OrbiMed Royalty and Credit Opportunities Fund III, LP	Healthcare Opportunistic Lending	\$12,138,624	0.1%				
OrbiMed Royalty & Credit Opportunities IV, LP	Healthcare Opportunistic Lending	\$16,405,829	0.1%				
OrbiMed Royalty & Credit Opportunities V, L.P.	Healthcare Opportunistic Lending	\$0	0.0%				
MCP Private Capital Fund IV, SCSp	Opportunistic Lending	\$25,518,481	0.2%				
Silver Point Specialty Credit Fund II, L.P.	Opportunistic Lending	\$31,691,880	0.2%				
Silver Point Specialty Credit Fund III, L.P.	Opportunistic Lending	\$13,293,615	0.1%				
Sky Leasing Fund VI, L.P.	Opportunistic Lending	\$18,158,001	0.1%				
Table 6: Growth Absolute Return Asset Class		Allowable Range: 0%					
							% Relative
Growth Absolute Return	Sub-Strategy	Market Value	Actual	Target	Delta		to Target
		\$5,541,185	0.04%	0.0%	0.04%	\$ -	N/A
Grosvenor SCARF - Growth Series	Diversified Separate Account	\$5,541,185	0.04%				

		Market Value	Actual	Target	Delta		% Relative to Target
DIVERSIFYING ASSET CATEGORY:		\$3,092,717,126	22.4%	25.0%	-2.6%	\$ 3,451,818,777	90%
Table 8: Fixed Income Asset Class		Allowable Range: 12-20%					
							% Relative
Fixed Income	Sub-Strategy	Market Value	Actual	Target	Delta		to Target
		\$1,907,586,568	13.8%	16.0%	-2.2%	\$ 2,209,164,017	86%
Prudential Investment Management	Core Plus Active Fixed Income	\$377,102,193	2.7%	3.0%			
TCW	Core Plus Active Fixed Income	\$369,506,711	2.7%	3.0%			
Brandywine U.S. Fixed Income	Core Plus Active Fixed Income	\$367,760,191	2.7%	3.0%			
Reams	Core Plus Active Fixed Income	\$386,173,873	2.8%	3.0%			
	Core Plus		10.9%	12.0%	-1.1%		
Neuberger Berman	US Treasuries	\$407,043,600	2.9%	4.0%	-1.1%		
Table 9: Absolute Return Asset Class		Allowable Range: 5-9%					
							% Relative
Absolute Return	Sub-Strategy	Market Value	Actual	Target	Delta		to Target
		\$918,441,095	6.7%	7.0%	-0.3%	\$ 966,509,257	95%
Grosvenor SCARF - Diversifying Series	Diversified Separate Account	\$269,782,538	2.0%				
Tudor BVI Global Fund Ltd	Discretionary Global Macro	\$54,396,300	0.4%				
Marshall Wace Global Opportunities Fund	Equity Long/Short	\$62,517,420	0.5%				
Junto Capital Partners LP	Equity Long/Short	\$54,461,200	0.4%				
BlackRock Event Driven Equity Fund	Event Driven	\$57,852,792	0.4%				
		1/11./_11					

Table 10: Dedicated Cash	Allowable Range: 0-2%					
Dedicated Cash	Market Value	Actual	Target	Delta		% Relative to Target
	\$266,689,463	1.9%	2.0%	-0.1%	\$ 276,145,502	97%
Dedicated Cash Account	\$266,689,463	1.9%	2.0%	-0.1%		

\$90,964,733

\$4,595,840

\$53,870,650

\$54,785,295

\$40,639,800

\$20,256,799

\$50,730,600

\$57,641,063

\$45,946,066

0.7%

0.0%

0.4%

0.4%

0.3%

0.1%

0.4%

0.4%

0.3%

**Event Driven** 

**Event Driven** 

**Event Driven** 

Fixed Income Relative Value

Fixed Income Relative Value

Volatility Arbitrage

Multi-Strategy

Volatility Arbitrage

Systematic Global Macro

Elliott Associates LP

Aristeia Partners, L.P.

Hudson Bay Fund L.P.

Davidson Kempner Institutional Partners, LP

Capula Volatility Opportunities Fund Limited

PSquared Event Opportunity Fund, L.P.

Capula Global Relative Value Fund L.P.

Laurion Capital Management, LP

Graham Tactical Trend Fund, L.P.

**Table 11: REAL RETURN ASSET CATEGORY** 

Seven Seas Japan Opportunity Fund, GK

						% Relative
	Market Value	Actual	Target	Delta		to Target
REAL RETURN ASSET CATEGORY:	\$2,383,957,902	17.3%	17.0%	0.3%	\$ 2,347,236,768	102%

**Table 12: Real Estate Asset Class** Allowable Range: 7-11% % Relative **Real Estate** Sub-Strategy Market Value Actual Target Delta to Target \$888,168,609 6.4% 9.0% -2.6% 71% \$ 1,242,654,760 \$92,129,017 0.7% Brookfield Premier Real Estate Partners. LP Core Real Estate Clarion Lion Properties Fund, LP \$101,350,041 0.7% Core Real Estate MetLife Core Property Fund, LP 0.5% Core Real Estate \$69,194,612 Principal US Property Account Core Real Estate \$54.414.290 0.4% Prologis Targeted Europe Logistics Fund, LP Core Real Estate \$55,906,827 0.4% Prologis Targeted US Logistics Fund, LP Core Real Estate \$74,517,516 0.5% Townsend Real Estate Fund, LP Core Real Estate \$128,211,991 0.9% Carlyle China Realty, L.P. Non-Core Real Estate - Opportunistic 0.0% \$4,344,276 Carlyle China Rome Logistics, L.P. Non-Core Real Estate - Opportunistic \$19,456,761 0.1% KKR Real Estate Partners Americas, LP Non-Core Real Estate - Opportunistic \$310.951 0.0% LaSalle China Logistics Venture, LP Non-Core Real Estate - Opportunistic \$11,147,485 0.1% Sculptor Real Estate Fund III, LP Non-Core Real Estate - Opportunistic 0.0% \$2,589,312 Sculptor Real Estate Fund IV, L.P. Non-Core Real Estate - Opportunistic \$17,684,587 0.1% Sculptor Real Estate Fund V, L.P. Non-Core Real Estate - Opportunistic \$0 0.0% WCP NewCold III. L.P. Non-Core Real Estate - Opportunistic \$30,450,180 0.2% Asana Partners Fund II. L.P. Non-Core Real Estate - Value-Added \$34,496,586 0.2% Asana Partners Fund III, L.P. Non-Core Real Estate - Value-Added \$20,079,557 0.1% CIM Opportunity Fund VIII, LP Non-Core Real Estate - Value-Added \$11,754,969 0.1% DRC European Real Estate Debt Fund II, LP Non-Core Real Estate - Value-Added \$275,305 0.0% ECE European Prime Shopping Centre Fund II, SCS-SIF Non-Core Real Estate - Value-Added \$33,052,866 0.2% Hammes Partners II. LP Non-Core Real Estate - Value-Added \$2,994,846 0.0% Hammes Partners III. LP Non-Core Real Estate - Value-Added \$21,399,956 0.2% Hammes Partners IV, LP Non-Core Real Estate - Value-Added \$4,226,259 0.0% NREP Nordic Strategies Fund, FCP-FIS Non-Core Real Estate - Value-Added \$69 0.0% NREP Nordic Strategies Fund II, FCP-FIS Non-Core Real Estate - Value-Added \$14,452,364 0.1% NREP Nordic Strategies Fund III. FCP-FIS Non-Core Real Estate - Value-Added \$28.838.513 0.2% NREP Nordic Strategies Fund IV, FCP-FIS Non-Core Real Estate - Value-Added \$22,740,396 0.2% NREP Nordic Strategies Fund V, SCSp Non-Core Real Estate - Value-Added \$17,299,696 0.1%

Non-Core Real Estate - Value-Added

0.1%

\$14,849,379

Table 13: Real Assets Asset Class		Allowable Range: 5-9%						
Real Assets	Sub-Strategy	Market Value	Actual	Target	Delta			% Relative to Targe
		\$1,183,531,939	8.6%	7.0%	1.6%	\$	966,509,257	122%
CM Fund II. LP	Agriculture	\$12,763,221	0.1%				, ,	
aine Schwartz Food Chain Fund V, L.P.	Agriculture	\$36,110,241	0.3%					
nCap Energy Capital Fund IX, LP	Energy	\$7,180,935	0.1%					
nCap Energy Capital Fund X, LP	Energy	\$20,088,944	0.1%					
IGP Royalty Partners, L.P.	Energy	\$21,482,349	0.2%					
IGP Royalty Partners II, L.P.	Energy	\$61,827,423	0.4%					
ailwater Energy Fund III, LP	Energy	\$22,267,658	0.2%					
ailwater Energy Fund IV, LP	Energy	\$32,347,186	0.2%					
Quantum Energy Partners VI, LP	Energy	\$8,269,273	0.1%					
Quantum Energy Partners VII, LP	Energy	\$33,317,946	0.1%					
Quantum Energy Partners VIII, LP	Energy	\$21,051,714	0.2%					
Quantum Energy Partners VIII Co - Investment Fund, LP	Energy	\$3,239,924	0.2 %					
Ara Partners Fund II, L.P.	Infrastructure	\$7,766,750	0.0%					
	Infrastructure		0.1%					
ArcLight Energy Partners Fund VI, LP		\$12,773,409						
Brookfield Infrastructure Fund III, LP	Infrastructure	\$41,616,052	0.3%					
Brookfield Infrastructure Fund IV, LP	Infrastructure	\$42,017,410	0.3%					
Brookfield Super-Core Infrastructure Partners	Infrastructure	\$110,549,321	0.8%					
Digital Colony Partners II, L.P.	Infrastructure	\$38,478,317	0.0%					
nCap Flatrock Midstream Fund III, LP	Infrastructure	\$10,077,073	0.1%					
nCap Flatrock Midstream Fund IV, LP	Infrastructure	\$15,143,934	0.1%					
QT Infrastructure IV, SCSp	Infrastructure	\$42,238,191	0.3%					
irst Reserve Energy Infrastructure Fund II, LP	Infrastructure	\$8,718,062	0.1%					
Harrison Street Social Infrastructure Fund LP	Infrastructure	\$111,403,567	0.8%					
FM Global Infrastructure Fund	Infrastructure	\$173,183,096	1.3%					
SQ Global Infrastructure Fund II, LP	Infrastructure	\$59,338,147	0.4%					
SQ Global Infrastructure Fund III, L.P.	Infrastructure	\$32,221,378	0.2%					
KR Asia Pacific Infrastructure Fund II SCSp	Infrastructure	\$18,373,537	0.1%					
Meridiam Infrastructure North America III, LP	Infrastructure	\$51,496,123	0.4%					
Meridiam Infrastructure North America IV, LP	Infrastructure	\$10,412,645	0.1%					
Meridiam Sustainable Infrastructure Europe IV, SLP	Infrastructure	\$17,020,932	0.1%					
Pantheon SCERS SIRF, LLC	Infrastructure	\$32,918,705	0.2%					
Ridgewood Water & Strategic Infrastructure Fund II, LP	Infrastructure	\$19,320,390	0.1%					
Stonepeak Opportunities Fund, LP	Infrastructure	\$13,383,897	0.1%					
Vastewater Opportunity Fund, LLC	Infrastructure	\$977,131	0.0%					
Carlyle Power Partners II, LP	Power Generation	\$34,157,056	0.2%					
Fable 14: Liquid Real Return Asset Class		Allowable Range: 0-3%						
invid Deal Deturn	Cult Chrote m.	Market Value	Antuci	Towns	D-14-			% Relativ
iquid Real Return	Sub-Strategy	Market Value \$312,257,354	Actual 2.3%	Target 1.0%	Delta 1.3%	\$	138.072.751	to Targe
SSGA Real Return Overlay Strategy	Passive Liquid Real Return Proxy	\$312,183,991	2.3%	1.0 /6	1.3 /0	Ψ	130,072,731	220 /0
Brookfield Liquid Real Return	Active Liquid Real Return	\$312,163,991 \$73,363	0.0%					
Table 15: Other Cash/Overlay	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ψ. σ,σσσ	0.070					
and to outer outsing terrary								% Relati
Other Cash/Overlay		Market Value	Actual	Target	Delta			to Targ
		\$320,311,645	2.3%	-	-			N/A
Other Cash		\$269,745,471	2.0%	-				
SSgA Overlay Account		\$50,566,174	0.4%					

# Appendix B: Overlay Proxies

Growth Asset Category Proxy		
	Policy Allocation	Overlay Implementation
Domestic Equities	20%	Basket of S&P 500, S&P 400, and Russell 2000 Futures
International Equities	20%	Basket of Local Index, EAFE, EM Futures plus currency
Private Equity	11%	Basket of 85% Global Equity and 15% US TSY
Public Credit	2%	Basket of 85% Global Equity and 15% US TSY
Private Credit	5%	Basket of 85% Global Equity and 15% US TSY

Diversifying Asset Category	Proxy	
	Policy Allocation	Overlay Implementation
Fixed Income	16%	Basket of Treasury Futures and Mortgage TBAs (forwards)
Absolute Return	7%	Basket of Treasury Futures and Mortgage TBAs (forwards)
Cash	1%	+/- 15 bps of 1% cash target

Real Return Asset Category Proxy				
	Policy Allocation*	Overlay Implementation		
Global Real Estate (REITs)	15%	FTSE EPRA/NAREIT Developed Liquid Index		
Global Infrastructure Equity	25%	S&P Global Infrastructure Index		
Global Natural Resources Equity	10%	S&P Global Large Mid Cap Commodity and Resources Index		
Commodities	10%	Bloomberg Roll Select Commodity Index		
US Intermediate TIPS	30%	Bloomberg Barclays 1-10 Year US TIPS Index		
Floating Rate Notes	10%	Bloomberg Barclays US Dollar Floating Rate Note < 5 Years Index		

<sup>\*</sup>Relative to Real Return Asset Category