



ITEM 8

Executive Staff

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Chief Executive Officer

Steve Davis
Chief Investment Officer

Robert L. Gaumer
General Counsel

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Chief Operations Officer

John W. Gobel, Sr.
Chief Benefits Officer

For Agenda of:
May 11, 2017

May 5, 2017

TO: President and Members
Board of Retirement

FROM: Steve Davis
Chief Investment Officer

SUBJECT: Asset Allocation and Rebalancing Report for the Quarter Ended
March 31, 2017

Recommendation:

It is recommended that your Board receive and file the quarterly asset allocation and rebalancing report, and approve any rebalancing recommendations made therein.

BACKGROUND:

SCERS employs an Overlay Program, which is managed by State Street Global Advisors ('SSGA'), to rebalance the asset allocation to policy targets and minimize the risk that SCERS falls short of achieving its targeted return due to the asset allocation straying from policy target ranges. SCERS' overlay proxies and rebalancing ranges are attached in **Appendix 1**. The rebalancing methodology utilized by SSGA is quarterly rebalancing with 10% bands on traditional asset classes (equities and fixed income), and 20% bands on alternative asset classes (absolute return, private equity and real assets). With this method, rebalancing occurs on a quarterly basis, unless the bands are breached on an intra-quarter basis, in which case rebalancing occurs upon the breach of a band.

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: (1) When there is low correlation between the overlay proxies designed to replicate the underlying asset classes and

managers, as is the case with many alternative assets; (2) When there are strong benefits to active management; and (3) 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.

It should be noted that this rebalancing report is based off of SCERS' prior asset allocation. SCERS approved a new asset allocation during the first quarter of 2017; however, the rebalancing report will not be converted to the new asset allocation until the Overlay Program is switched to the new asset allocation, which is anticipated to occur during the 2017 calendar year.

DISCUSSION:

Since SCERS' Overlay Program rebalances SCERS' total fund, it is important to bear in mind that **Tables 1-7** reported below refer only to physical holdings compared to policy targets, and not the exposures provided through the overlay program, except for Table 6 (Real Assets), which includes the SSGA Real Assets Strategy, which is the proxy for this asset class.

As noted, SCERS rebalances the fund via both the Overlay Program and physically purchasing or selling assets. The Overlay Program is particularly effective in rebalancing public market assets due to the low tracking error of the underlying proxies compared to public market managers and the higher expenses of purchasing and liquidating interests held by investment managers. On the other hand, the Overlay Program is not as effective in tracking alternative assets because it is limited to the use of public market proxies. Public market proxies will not, for example, be able to replicate the 'liquidity premium' or higher returns achieved historically by private equity and private real assets, or the 'absolute' return characteristics of SCERS' Absolute Return portfolio, including their historic ability to outperform equity markets in times of distress. Accordingly, it is beneficial for SCERS to continue to physically purchase alternative assets in achieving its asset allocation targets rather than to overly rely on the Overlay Program to rebalance these assets to the target allocations.

SCERS' investment staff ('Staff') and general investment consultant Verus Advisory ('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.

Domestic Equities:

As depicted in **Table 1** below, SCERS' Domestic Equity asset class actual weighting of 24.0% is above the policy target of 22.5%, but within range. You will recall that SCERS physically rebalanced this asset class during the fourth quarter of 2016 by reducing exposure to SCERS' U.S. large cap investment managers and U.S. REIT manager. As a reminder SCERS' Domestic Equity exposure had become significantly overweight due to

continuing outperformance of U.S. equities over international equities and fixed income. The rebalance brought SCERS' Domestic Equity exposure to approximately 23.0%. The rebalance didn't include SCERS' U.S. small cap managers, as the overweight within this segment was less significant. Since the rebalance, U.S. equities have continued to perform well, which is the reason for the overweight within the asset class.

At the sub-asset class level, domestic large cap, at a 19.0% allocation is above the target allocation of 18.2%, but within range. Domestic small cap, at a 3.8% allocation is above the target allocation of 3.2%, but within range. Domestic REITs, at a 1.1% allocation is in-line with the target allocation of 1.1%.

SCERS' overlay manager, State Street, at the direction of Staff, buys and sells Russell 1000 and 2000 Index futures to rebalance the Domestic Equity asset class to the policy target allocation, when physical rebalancing is not required. As mentioned previously, these proxies are very effective in rebalancing domestic equities due to the low tracking error of the underlying proxies compared to public market investment managers. Staff does not recommend physical rebalancing of this asset class at this time.

Table 1: Domestic Equity Asset Allocation

Domestic Equity	Market Value	Actual	Target	Delta %	Target Low	Target High
	\$1,991,405,939	24.0%	22.5%	1.5%	20.3%	24.8%
AllianceBernstein	Equity Core Index	\$1,040,567,744	12.5%	12.2%	0.4%	
JP Morgan 130/30	Equity Core Active Short Extension (130/30)	\$106,667,904	1.3%	1.1%	0.2%	
Eagle Capital Management	Equity Large Cap Core	\$217,648,676	2.6%	2.5%	0.1%	
Brown Advisory	Equity Large Cap Growth	\$106,543,173	1.3%	1.2%	0.0%	
Huber Capital Management	Equity Large Cap Value	\$107,628,671	1.3%	1.2%	0.1%	
	Equity Large Cap		19.0%	18.2%	0.8%	14.6% 21.8%
Dalton, Greiner, Hartman, Maher & Co.	Equity Small Cap Value	\$78,212,915	0.9%	0.8%	0.2%	
Wedge Capital Management	Equity Small Cap Value	\$87,385,905	1.1%	0.8%	0.3%	
M.A. Weatherbie & Co.	Equity Small Cap Growth	\$87,563,292	1.1%	0.8%	0.3%	
UBS Global Asset Management	Equity Small Cap Growth	\$64,820,483	0.8%	0.8%	0.0%	
	Equity Small Cap		3.8%	3.2%	0.7%	2.6% 3.8%
CenterSquare Investments (formerly Urdang)	Domestic REIT	\$94,367,176	1.1%	1.1%	0.0%	0.9% 1.4%

International Equities:

As depicted in **Table 2** below, SCERS' International Equity allocation is 23.1%, which is above the 22.5% target allocation, but within range. The overweight is due to the strong performance of international equities over the past couple of quarters, as well as the funding of recently hired international developed large cap growth manager, Walter Scott.

At the sub-asset class level, international large cap, at a 15.6% allocation is above the target allocation of 14.9%, but within range. International small cap, at a 2.4% allocation is slightly above the target allocation of 2.3%, but within range. Emerging markets equity, at a 4.1% allocation is under the policy target allocation of 4.3%, but within range. International REITs, at a 1.0% allocation is slightly below its target allocation of 1.1%, but within range. Staff does not recommend physical rebalancing of this asset class at this time.

SCERS' overlay manager, State Street, at the direction of Staff, buys and sells MSCI World Ex-US and MSCI Emerging Markets Index futures to rebalance this asset class to the policy target allocation, when physical rebalancing is not required. As mentioned previously, these proxies are very effective in rebalancing international equities due to the low tracking error of the underlying proxies compared to public market investment managers. Staff does not recommend physical rebalancing of this asset class at this time.

Table 2: International Equity Asset Allocation

International Equity	Asset Class / Sub Asset Class	Market Value	Actual	Target	Delta %	Target Low	Target High
		\$1,916,714,658	23.1%	22.5%	0.6%	20.3%	24.8%
Lazard Asset Management	ACWI Ex-US	\$416,312,089	5.0%	4.5%	0.5%		
LSV Large Cap International Value	International Equity Large Cap Value	\$467,036,267	5.6%	5.2%	0.4%		
Walter Scott	International Equity Large Cap Growth	\$413,113,122	5.0%	5.2%	-0.2%		
	International Equity Large Cap		15.6%	14.9%	0.7%	11.9%	17.9%
William Blair & Co.	International Equity Small Cap Growth	\$108,012,022	1.3%	1.1%	0.2%		
Mondrian Investment Partners	International Equity Small Cap Value	\$94,238,264	1.1%	1.1%	0.0%		
	International Equity Small Cap		2.4%	2.3%	0.2%	1.8%	2.7%
Baillie Gifford	Emerging Markets Equity - All Cap	\$149,289,820	1.8%	1.8%	0.0%		
Mondrian Emerging Markets Equity Fund, LP	Emerging Markets Equity - All Cap	\$139,444,191	1.7%	1.8%	-0.2%		
William Blair Emerging Markets Small Cap Growth Fund	Emerging Markets Small Cap	\$25,007,205	0.3%	0.3%	0.0%		
Mondrian Emerging Markets Small Cap Equity Fund, LP	Emerging Markets Small Cap	\$24,972,310	0.3%	0.3%	0.0%		
	Emerging Markets		4.1%	4.3%	-0.2%	3.4%	5.2%
CBRE Clarion	International REIT	\$79,289,368	1.0%	1.1%	-0.2%	0.9%	1.3%

Fixed Income:

As depicted in **Table 3** below, SCERS' Fixed Income allocation of 18.3% is below the target allocation of 20.0%, but within the allowed range for the asset class. SCERS' overlay manager, State Street, at the direction of Staff, utilizes a combination of U.S. Treasury futures, Mortgage TBAs, investment grade credit ETFs and Barclays Capital Aggregate total return swaps (when appropriate) to rebalance this asset class to its policy target allocation. Staff does not recommend physical rebalancing for this asset class at this time.

Table 3: Fixed Income Asset Allocation

Fixed Income	Asset Class / Sub Asset Class	Market Value	Actual	Target	Delta %	Target Low	Target High
		\$1,523,798,196	18.3%	20.0%	-1.7%	18.0%	22.0%
Neuberger Berman	Fixed Inc Enhanced Index	\$351,742,475	4.2%	5.0%	-0.8%		
Prudential Investment Management	Fixed Inc Active Core Plus	\$420,230,528	5.1%	5.0%	0.1%		
TCW/MetWest	Fixed Inc Active Core Plus	\$371,067,599	4.5%	5.0%	-0.5%		
	Core/Core Plus		13.8%	15.0%	-1.2%		
Brandywine Global	Global Opportunistic Fixed Income	\$212,602,076	2.6%	3.0%	-0.4%		
Brigade Capital SC Opportunities Mandate	Strategic Credit	\$168,155,518	2.0%	2.0%	0.0%		

Absolute Return:

As shown in **Table 4** below, SCERS' Absolute Return allocation is 9.2%, which is below the target allocation of 10%. As you will recall, SCERS fills in a portion of its Absolute Return allocation through its investment with the Grosvenor SC Absolute Return Fund,

Series B ('SCARF B'), a more liquid version of the Grosvenor SC Absolute Return Fund, Series A ('SCARF') SCERS is invested in. SCARF B serves as an interim absolute return component for SCERS as the direct absolute return portfolio is built out. During the first quarter, SCERS added two new direct absolute return investments. These included a \$35 million investment in the Winton Diversified Futures Fund, L.P. and a \$35 million investment in the Graham Tactical Trend Fund, L.P. In addition SCERS added an additional \$20 million investment to SCERS' current investment in AQR Delta Fund II, L.P. SSGA, at the direction of Staff, utilizes a custom basket of equity and fixed income futures to fill in any gap between the target and actual allocation within the Absolute Return portfolio.

Table 4: Absolute Return

Absolute Return	Asset Class / Sub Asset Class	Market Value	Actual	Target	Delta %	Target Low	Target High
		\$764,736,673	9.2%	10.0%	-0.8%	8.0%	12.0%
Grosvenor	Equity Long/Short	\$432,213	0.0%				
Grosvenor SC Absolute Return Fund, Series A	Diversified Separate Account	\$255,487,220	3.1%				
Grosvenor SC Absolute Return Fund, Series B	Diversified Separate Account	\$69,052,045	0.8%				
OZ Domestic Partners II, LP	Multi Strategy	\$43,139,430	0.5%				
Elliott Associates LP	Event Driven	\$48,816,523	0.6%				
Third Point Partners Qualified, LP	Event Driven	\$43,921,312	0.5%				
Claren Road Credit Partners, LP	Credit	\$2,494,415	0.0%				
AQR Delta Fund II, LP	Bottom Up Replication	\$70,320,480	0.8%				
Lakewood Capital Partners, LP	Equity Long/Short	\$43,102,752	0.5%				
Jana Partners Qualified, LP	Equity Activist & Long/Short	\$40,306,175	0.5%				
Laurion Capital Management, LP	Volatility Arbitrage	\$41,720,719	0.5%				
Brevan Howard Master Fund, LP	Discretionary Global Macro	\$36,004,010	0.4%				
Winton Diversified Futures Fund, L.P.	Systematic Global Macro	\$35,324,520	0.4%				
Graham Tactical Trend Fund, L.P.	Systematic Global Macro	\$34,614,860	0.4%				

Private Equity:

As outlined in **Table 5** below, SCERS' Private Equity allocation is 7.5%, which is 2.5% below the policy target of SCERS' prior asset allocation of 10%, and below the lower bound of 8.0% (as you will recall, the new SCERS asset allocation has a Private Equity target of 9.0%). SSGA, at the direction of Staff, utilizes Russell 2000 index futures to rebalance SCERS' Private Equity allocation. As previously mentioned, this proxy is less than optimal in replicating private equity, and it would be better to invest capital into physical private equity holdings. As you will recall; however, the commitment schedule and cash flow forecast of Private Equity investments do not project SCERS achieving and maintaining the 10% policy target until 2019 (this also holds true for the 9.0% new target allocation). During the quarter, SCERS made a \$25 million commitment to Marlin Equity Partners V, L.P., a \$10 million commitment to Marlin Heritage II, L.P. and a \$35 million commitment to New Enterprise Associates 16, L.P.

Please note that there is one investment within the Opportunities portfolio (Atalaya Special Opportunities Fund V, LP) which draws capital from the Private Equity asset class, as this is the asset class with the closest risk and return profile of the opportunity being invested in by this fund. The market value of this investment is \$15.0 million, which equates to a 0.2% allocation, and brings SCERS' total allocation in Private Equity to 7.7%.

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Table 5: Private Equity

Private Equity	Asset Class / Sub Asset Class	Market Value	Actual	Target	Delta %	Target Low	Target High
		\$621,543,135	7.5%	10.0%	-2.5%	8.0%	12.0%
HarbourVest Partners VIII	Private Equity - FoF	\$25,489,948	0.3%				
Abbott Capital ACE VI	Private Equity - FoF	\$60,422,697	0.7%				
Goldman Sachs PEP X	Private Equity - FoF	\$49,497,670	0.6%				
Harbourvest Partners Intl VI	Private Equity - FoF	\$31,814,282	0.4%				
Khosla Ventures IV, LP	Private Equity - Venture Capital	\$14,952,565	0.2%				
Waterland Private Equity Fund V, CV	Private Equity - European Buyout	\$13,259,488	0.2%				
Summit Partners VC Fund II, LP	Private Equity - Growth Equity	\$23,055,409	0.3%				
Summit Partners Credit Fund, LP	Private Equity - Credit	\$5,893,577	0.1%				
Garrison Opportunity Fund III, LP	Private Equity - Distressed	\$13,821,164	0.2%				
Accel-KKR Capital Partners IV, LP	Private Equity - Buyout	\$10,992,169	0.1%				
New Enterprise Associates 14, LP	Private Equity - Venture Capital	\$33,339,268	0.4%				
H.I.G. Bayside Loan Opportunity III (Europe), LP	Private Equity - Distressed	\$17,089,532	0.2%				
Trinity Ventures XI, LP	Private Equity - Venture Capital	\$20,163,322	0.2%				
Wayzata Opportunities Fund III, LP	Private Equity - Distressed	\$9,882,928	0.1%				
H.I.G. Capital Partners V, LP	Private Equity - Buyout	\$2,834,621	0.0%				
RRJ Capital Master Fund II, LP	Private Equity - Asian Buyout/Special Situations	\$25,694,998	0.3%				
Marlin Equity Partners IV, LP	Private Equity - Buyout	\$12,036,895	0.1%				
H.I.G. Europe Capital Partners II, LP	Private Equity - European Buyout	-\$437,712	0.0%				
Dyal Capital Partners II, LP	Private Equity - Other	\$7,217,043	0.1%				
Summit Partners Credit Fund II, LP	Private Equity - Credit	\$20,960,840	0.3%				
TPG Opportunities Partners II, LP	Private Equity - Distressed	\$20,244,017	0.2%				
Marlin Heritage, LP	Private Equity - Buyout	\$8,071,362	0.1%				
Accel-KKR Structure Capital II, LP	Private Equity - Buyout	\$3,964,012	0.0%				
Thoma Bravo Fund XI, LP	Private Equity - Buyout	\$35,221,856	0.4%				
Spectrum Equity Investors VII, LP	Private Equity - Venture Capital	\$14,885,022	0.2%				
Khosla Ventures V, L.P.	Private Equity - Venture Capital	\$9,974,454	0.1%				
Linden Capital Partners III, LP	Private Equity - Buyout	\$15,200,743	0.2%				
New Enterprise Associates 15, LP	Private Equity - Venture Capital	\$20,764,021	0.2%				
Waterland Private Equity Fund VI, CV	Private Equity - European Buyout	\$5,859,275	0.1%				
Waterland Private Equity Fund VI Overflow, CV	Private Equity - European Buyout	\$1,159	0.0%				
Athyrium Opportunities Fund II, LP	Private Equity - healthcare direct lending	\$24,147,007	0.3%				
RRJ Capital Master Fund III, LP	Private Equity - Asian Buyout/Special Situations	\$10,933,167	0.1%				
Accel-KKR Capital Partners V, LP	Private Equity - Buyout	\$1,262,787	0.0%				
Summit Partners Venture Capital Fund IV, LP	Private Equity - Growth Equity	\$8,860,102	0.1%				
Trinity Ventures XII, LP	Private Equity - Venture Capital	\$3,770,413	0.0%				
TSG7 A, LP	Private Equity - Buyout	\$2,418,872	0.0%				
TSG7 B, LP	Private Equity - Buyout	\$298,138	0.0%				
Atalaya Special Opportunities Fund VI, LP	Private Equity - Distressed	\$18,410,271	0.2%				
Thoma Bravo Fund XII, LP	Private Equity - Buyout	\$10,553,108	0.1%				
Marlin Heritage Europe, LP	Private Equity - Buyout	\$0	0.0%				
Dyal Capital Partners III, LP	Private Equity - Other	\$8,722,642	0.1%				
Marlin Equity Partners V, LP	Private Equity - Buyout	\$0	0.0%				
Marlin Heritage II, LP	Private Equity - Buyout	\$0	0.0%				
New Enterprise Associates 16, LP	Private Equity - Venture Capital	\$0	0.0%				

Real Assets:

As depicted in **Table 6** below, SCERS' Real Assets allocation is 13.1%, which is below the prior policy target of 15.0%, but well within the allowable range (as you will recall, the new SCERS asset allocation has a Private Equity target of 16.0%). However, this figure includes a 3.9% allocation to the SSGA Real Assets Strategy, which is the overlay proxy used by SSGA. SCERS' actual Real Assets allocation (not including the overlay proxy) is 9.2%, which is well below the prior 15.0% target allocation (as well as the new 16.0% target allocation), and is primarily due to the shortfall in the private real assets segment of the asset class.

SSGA utilizes the SSGA Real Assets Strategy to rebalance SCERS' Real Assets allocation close to the 15% target. This is a series of commingled funds and separate accounts that provides diversified exposure to a blend of global listed infrastructure stocks, commodities, global natural resource equities, REITs, TIPS (Treasury Inflation Protected Securities) and midstream energy companies. While not a perfect proxy, this blend does provide SCERS with inflation protection, diversified returns and moderate levels of yield. Given that this proxy represents physical exposure through a mix of commingled funds and separate accounts rather than derivatives exposure, it is represented within the asset allocation for SCERS. This fund will be drawn down as SCERS continues to build exposure to the private real assets component of the asset class.

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Among the Real Assets sub asset classes, the core real estate private market allocation is at 6.5%, which is slightly below the 7.0% target allocation, but within the allowable range. The private real assets allocation is at 2.0%, which is well below the 6.0% target, and similar to the Private Equity asset class, will continue to be built out over the next few years. SCERS' commodities allocation is 0.8%, which is below the target allocation of 2.0%, but within the range of 0.0% to 3.0%. During the quarter, SCERS did not make any new Real Assets commitments. However, during the first quarter, the IFM Global Infrastructure Fund, an open-ended core infrastructure fund SCERS committed to in 2016 (but which SCERS has been in an entry queue), drew down \$75 million of SCERS' commitment.

Please note that there are several investments within the Opportunities portfolio which draw capital from the Real Assets asset class, as this is the asset class with the closest risk and return profile of the opportunity being invested in by these funds. These include the following non-core private market real estate funds: DRC European Real Estate Debt Fund II; KKR Real Estate Partners Americas; Och-Ziff Real Estate Fund III; UBS (Allegis Value Trust); A.E.W. Value Investors II; Hines US Office Value Added Fund II; NREP Nordic Strategies Fund; CIM Opportunity Fund VIII; ECE European Prime Shopping Centre Fund II; Hammes Partners II; and NREP Nordic Strategies Fund II. The aggregate market value of these investments is \$147.4 million, which equates to a 1.8% allocation, and brings SCERS' total allocation in Real Assets (not including the overlay proxy) to 11.0%.

Table 6: Real Assets

Real Assets	Asset Class / Sub Asset Class	Market Value	Actual	Target	Delta %	Target Low	Target High
		\$1,091,396,395	13.1%	15.0%	-1.9%	12.0%	18.0%
Blackrock Realty Advisors Portfolio I	Real Estate Private Market Core	\$163,115,260	2.0%				
Blackrock Realty Advisors, Portfolio II	Real Estate Private Market Core	\$1,514,250	0.0%				
Cornerstone Realty Advisors	Real Estate Private Market Core	\$64,890,819	0.8%				
Morgan Stanley Prime Property Fund	Real Estate Private Market Core	\$51,332,439	0.6%				
MetLife Core Property Fund, LP	Real Estate Private Market Core	\$50,169,133	0.6%				
Jamestown Premier Property Fund LP	Real Estate Private Market Core	\$18,881,625	0.2%				
Prologis Targeted Europe Logistics Fund, LP	Real Estate Private Market Core	\$30,092,996	0.4%				
Prologis Targeted US Logistics Fund, LP	Real Estate Private Market Core	\$36,435,259	0.4%				
Principal US Property Account	Real Estate Private Market Core	\$39,212,530	0.5%				
Townsend Real Estate Fund, LP	Real Estate Private Market Core	\$81,968,575	1.0%				
	Real Estate Private Market Core		6.5%	7.0%	-0.5%	4.0%	9.0%
EnCap Energy Capital Fund IX, LP	Private Real Assets	\$18,792,418	0.2%				
First Reserve Energy Infrastructure Fund II, LP	Private Real Assets	\$12,532,150	0.2%				
EnCap Flatrock Midstream Fund III, LP	Private Real Assets	\$6,815,867	0.1%				
Quantum Energy Partners VI, LP	Private Real Assets	\$15,455,651	0.2%				
Pantheon SCERS SIRF, LLC	Private Real Assets	\$39,652,686	0.5%				
Atalaya SCERS SMA, LLC	Private Real Assets	\$13,294,400	0.2%				
EnCap Energy Capital Fund X, LP	Private Real Assets	\$9,586,782	0.1%				
ArcLight Energy Partners Fund VI, LP	Private Real Assets	\$22,155,576	0.3%				
Carlyle Power Partners II, LP	Private Real Assets	\$13,530,876	0.2%				
IFM Global Infrastructure Fund	Private Real Assets	\$0	0.0%				
Wastewater Opportunity Fund, LLC	Private Real Assets	\$2,863,549	0.0%				
ACM Fund II, LP	Private Real Assets	\$4,062,650	0.0%				
Brookfield Infrastructure Fund III, LP	Private Real Assets	\$7,172,040	0.1%				
	Private Real Assets		2.0%	6.0%	-4.0%	3.0%	8.0%
Blackstone Resources Select	Commodities	\$41,313,982	0.5%				
Gresham Strategic Commodities Fund	Commodities	\$25,474,304	0.3%				
	Commodities		0.8%	2.0%	-1.2%	0.0%	3.0%
SSGA Real Asset Strategy	Real Assets Proxy	\$321,080,578	3.9%				

Opportunities:

The allocation for SCERS' Opportunities portfolio, outlined in **Table 7** below, is 2.0% compared to the 0% target allocation, and within the policy range of 0% to 5%. During the quarter, SCERS did not make any new commitments to the segment. As you will recall, any investments made within the Opportunities portfolio draw capital from the asset class with the closest risk and return profile as the opportunity being invested in. The asset class where capital is drawn from is listed in the chart below for each investment. Since the target allocation is 0%, the Overlay Program does not utilize a proxy allocation for the Opportunities portfolio, like it does for the other major asset classes.

Table 7: Opportunities

Opportunities	Asset Class / Sub Asset Class	Market Value	Actual	Target	Delta %	Target Low	Target High	Asset Class Where Capital Is Drawn From
		\$162,373,266	2.0%	0.0%	2.0%	0.0%	5.0%	
Atalaya Special Opportunities Fund V, LP	Opportunities - Credit	\$15,008,095	0.2%					Private Equity
DRC European Real Estate Debt Fund II, LP	Opportunities - Credit	\$23,658,401	0.3%					Real Assets
KKR Real Estate Partners Americas, LP	Real Estate Private Market Opportunistic	\$16,343,708	0.2%					Real Assets
Och-Ziff Real Estate Fund III, LP	Real Estate Private Market Opportunistic	\$12,323,257	0.1%					Real Assets
UBS (Allegis Value Trust)	Real Estate Private Market Value Added	\$15,844,969	0.2%					Real Assets
A.E.W Value Investors II, LP	Real Estate Private Market Value Added	\$464,274	0.0%					Real Assets
Hines US Office Value Added Fund II, LP	Real Estate Private Market Value Added	\$488,977	0.0%					Real Assets
NREP Nordic Strategies Fund, FCP-FIS	Real Estate Private Market Value Added	\$21,040,351	0.3%					Real Assets
CIM Opportunity Fund VIII, LP	Real Estate Private Market Value Added	\$25,227,804	0.3%					Real Assets
ECE European Prime Shopping Centre Fund II, SCS-SIF	Real Estate Private Market Value Added	\$7,981,433	0.1%					Real Assets
Hammes Partners II, LP	Real Estate Private Market Value Added	\$14,151,967	0.2%					Real Assets
NREP Nordic Strategies Fund II, FCP-FIS	Real Estate Private Market Value Added	\$9,840,029	0.1%					Real Assets

Cash:

SCERS' cash balance is approximately 1.7% (as of 05/05/17), which is above SCERS' policy target of 0%. An excess cash balance is necessary to fund future drawdowns within the private markets segments of the portfolio. SCERS' Overlay Program will rebalance the portfolio by eliminating any 'cash drag' and investing the cash into positions that replicate SCERS' target portfolio according to the allocation policy and proxies in **Appendix 1** below.

In sum, Staff does not recommend any additional physical rebalancing of any components of SCERS' portfolio at this time.

We would be happy to address any questions.

Respectfully submitted,

Concur:

Steve Davis
 Chief Investment Officer

Richard Stensrud
 Chief Executive Officer

Appendix 1: Overlay Proxies and Rebalancing Ranges

Asset Class	Benchmark for Overlay	Target Allocation	Minimum Allocation	Maximum Allocation
Domestic Equity & Proxies		22.5%	20.3%	24.8%
US Large Cap Equity	Russell 1000 Index	18.2%	14.6%	21.8%
US Small Cap Equity	Russell 2000 Index	3.2%	2.6%	3.8%
REITs US	Russell 1000 Index	1.1%	0.9%	1.4%
International Equity & Proxies		22.5%	20.3%	24.8%
Non-US Developed Markets Large/ Mid	MSCI World ex US	13.8%	11.0%	16.5%
Non-US Developed Markets Small Cap Equity	MSCI World ex US	2.25%	1.8%	2.7%
Non-US Emerging Markets Equity	MSCI Emerging Markets Index	5.35%	4.3%	6.4%
REITs International	MSCI World ex US	1.1%	0.9%	1.3%
Fixed Income	Barclays Capital U.S. Aggregate Bond Index	20.0%	18.0%	22.0%
Private Equity	Russell 2000 Index	10.0%	8.0%	12.0%
Hedge Funds	35% R3000, 35% MSCI ACWI ex US, 30% Barclays Capital US Aggregate Index	10.0%	8.0%	12.0%
Real Assets	Custom Real Assets Blend (INT TIPS /TIPS/REIT/GNR/COMM/MLPS/INFR)*	15.0%	12.0%	18.0%
Cash	90 Day T-Bill Rate	0.0%		2.0%