Board of Retirement Regular Meeting

Sacramento County Employees' Retirement System

Agenda Item 16

MEETING DATE: **June 21, 2017**

SUBJECT: **Real Estate Program Discussion**

SUBMITTED FOR: ___ **Consent** ___ **Deliberation and Action** _X_ **Receive and File**

RECOMMENDATION - None

PURPOSE

To present and obtain the Board's input on considerations and alternatives in connection with the implementation of the Real Estate asset class within the recently approved strategic asset allocation.

Staff and Townsend will present a review and analysis of structural considerations for SCERS' Real Estate investment program. The input from the Board during this discussion will be incorporated into implementation recommendations for the Real Estate asset class and proposed revisions to the Real Estate Investment Policy Statement, which will be presented at a future meeting for Board action.

Three key implementation considerations for the Real Estate asset class are:

1. Core Real Estate – the mix between separate accounts and commingled funds
2. Non-Core Real Estate – the appropriate categorization of the non-core real estate exposure; should it be within SCERS' Opportunities portfolio or within the Real Estate asset class within the Real Return asset category
3. Benchmarks – potential need for a global benchmark

DISCUSSION

SCERS Real Return Asset Category	Target	Range	Actual
Real Estate	7%	4% to 9%	6.5%
Private Real Assets	7%	4% to 9%	2.0%
Commodities	2%	0% to 3%	2.0%
TIPS	0%	0% to 3%	0.0%
Opportunities	0%	0% to 5%	2.1%

SCERS' allocation to the Real Estate asset class within SCERS' new asset allocation is 7%. The Real Estate allocation lies within SCERS' Real Return asset category, which also includes target allocations of 7% Real

Assets, 2% Commodities, 0% TIPS, and 0% Opportunities. The Opportunities portfolio currently includes SCERS' actual investments in non-core real estate at 2.1% of the total portfolio

The Real Return asset category seeks to achieve multiple investment objectives as outlined below:

- Attractive returns on a real (net of inflation) basis and a hedge against inflation risk;
- Diversification for SCERS' portfolio, including low or negative correlation to equities;
- Moderate income and cash flow generation; and
- Greater consistency in the return distribution and muted downside risk.

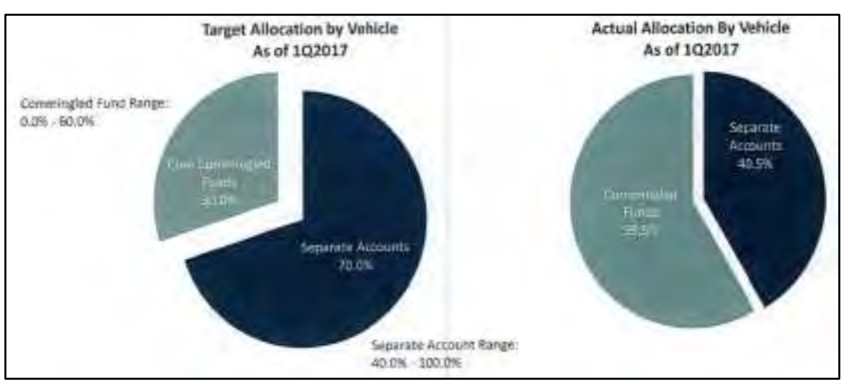
REAL ESTATE STRUCTURE

SCERS' aggregate Real Estate portfolio is comprised of core and non-core real estate (value- add, opportunistic, and non-U.S.) investments, including market participation in commercial office, industrial, retail, and residential real estate property types. These investments may comprise open-end commingled funds, closed-end commingled funds and separate direct ownership accounts. Other permissible investment vehicles include fund-of-funds, co-investments, and secondary purchases. The core real estate portfolio is allocated between separate account portfolios and a series of open-ended commingled funds. The range of real estate investment vehicles reflects the diversity of investment execution available to SCERS. Core real estate currently resides within SCERS' Real Return asset category, and non-core real estate currently resides within SCERS' Opportunities portfolio. SCERS also maintains dedicated exposure to public REITS, which are part of the Domestic and International Equity asset classes, within the Growth asset category.

SCERS Real Estate Program				
	Asset Class	Target	Range	Actual
Core	Real Assets	7%	4% to 9%	6.4%
Non-Core	Opportunities	N/A	0% to 5%	2.1%
Public REITs	Equities	2.25%	N/A	2.4%

CORE REAL ESTATE INVESTMENT VEHICLES

SCERS invests in core real estate through two investment vehicles. These include (1) Separate accounts and (2) Core open-ended funds ('COEF'). The current weighting as of 2Q17 to separate account properties is 41.6% and to core commingled funds is 58.4%. The target weights for these segments within SCERS' Real Estate investment policy statement is 70% separate accounts and 30% commingled funds, but



separate accounts can range between 40% and 100%, and commingled funds can range between 0% and 60%. The core commingled fund exposure has increased over the past few years due to individual property dispositions within the separate accounts, combined with a higher level of allocations to core open-end funds.

The intent of SCERS' core real estate separate account program is to achieve better risk-adjusted returns over COEFs, due to Staff and Consultant's active engagement. The structure allows for greater oversight of the investment manager, while achieving better alignment of interest with SCERS. An advantage of a core separate account program is the ability to exercise greater discretion and control over investment decisions, in particular, asset acquisitions and dispositions, and use of leverage. A separate account can be customized and tailored to the investment objectives of SCERS, and generally, can have a more advantageous fee structure. However, the disadvantage of a separate account is the considerable time and effort necessary to administer the program, specialized skills necessary to make informed decisions, and portfolio concentration risk.

Considering the time and effort required to implement a real estate separate account, Staff and Townsend continue to evaluate alternative ways to leverage resources to implement SCERS' core real estate portfolio. An approach embraced by Staff and Townsend has been greater use of COEFs. In a study prepared by Townsend and presented on page 5 of the Townsend presentation, the differential between top-quartile core managers and bottom-quartile core managers is only 1.25%, which represents a tight dispersion. What can be inferred from this ranking is that within core real estate, there is less differentiation among core real estate managers, compared to other asset classes, and less alpha generation (excess returns over the asset class benchmark) and more exposure to beta-like returns. This is in contrast to non-core real estate performance illustrated on page 4 of the Townsend presentation, where there is a significantly wider dispersion of returns between the top and bottom quartile managers.

Townsend performed an analysis of SCERS' historical separate account performance in comparison to the NFI-ODCE benchmark and COEFs. What Townsend found was SCERS' separate accounts experienced returns in-line with the benchmark, but with greater volatility (due to asset concentration risk), which equates to a lower risk-adjusted return compared to the benchmark.

SCERS Core Separate Accounts (NET)

	1 Year	3 Year	5 Year	7 Year	10 Year
Annual Return	8.6%	9.5%	10.3%	12.4%	5.0%
Information Ratio	0.43	-0.53	-0.32	0.06	0.08
Sharpe Ratio	4.85	3.84	4.41	3.79	0.52
Standard Deviation	1.7%	2.3%	2.2%	3.1%	9.0%
Beta	-8.26	0.14	0.08	0.79	0.99
Alpha	16.9%	7.6%	8.9%	2.6%	0.3%
Rsqr	0.35	0.01	0.00	0.25	0.91

NFI-ODCE (NET)

	1 Year	3 Year	5 Year	7 Year	10 Year
Annual Return	7.8%	11.0%	11.2%	12.3%	4.8%
Sharpe Ratio	61.68	7.68	8.66	5.84	0.52
Standard Deviation	0.1%	1.3%	1.2%	2.0%	8.6%

When comparing SCERS' core separate account performance to its COEF performance, the COEFs have outperformed over the 1, 3 and 5-year period, while the separate accounts have outperformed over the 10-year period. It should be noted that the 10-year COEF underperformance includes the underperformance of two COEFs that were removed from the portfolio in favor of a higher performing COEFs during the 2013 to 2016 period.

COEFs have a diversification advantage over separate accounts. To illustrate, below are two schedules of four highly rated COEFs (Principal US Property Account, MS Prime Property Fund, MetLife Core Property Fund, and Jamestown Premier Property Fund) that SCERS is invested. The schedule compares the diversification of SCERS' COEF portfolio of investments against SCERS' core separate accounts. As can be seen, SCERS' COEF investments represent a diversified portfolio of 543 core properties across geographic regions, representing some $39 billion in value. By having this broad diversification, the separate account concentration risk (property or geography) is greatly mitigated.

	CORE OPEN END COMMINGLED FUNDS (as of 12/31/2016)					
FUND ASSETS	**Principal**	**MS Prime**	**MetLife**	**Jamestown**	**TOTAL FUNDS**	**SCERS Separate Account**
Gross Asset Value	$9,338,000,000	$20,876,000,000	$2,651,000,000	$6,200,000,000	$39,065,000,000	$298,000,000
Net Asset Value	$7,096,000,000	$17,525,000,000	$1,980,000,000	$4,370,000,000	$30,971,000,000	$247,148,000
Number of Properties	141	341	38	23	543	7
Avg. Property Size	$66,226,950	$61,219,941	$69,763,158	$269,565,217	$71,942,910	$42,571,429
Avg. Property Size as a % of Total Portfolio	**0.7%**	**0.3%**	**2.6%**	**4.3%**	**0.2%**	**14.3%**

	CORE OPEN END COMMINGLED FUNDS					
DIVERSIFICATION	**Principal**	**MS Prime**	**MetLife**	**Jamestown**	**TOTAL FUNDS**	**SCERS Separate Account**
Office	43%	34%	38%	70%	**42%**	**18%**
Apartments	20%	25%	32%		**20%**	**64%**
Retail	16%	19%	15%	24%	**19%**	**14%**
Industrial	18%	14%	15%		**13%**	**4%**
Other	3%	9%		6%	**6%**	
	100%	100%	100%	100%	100%	100%
West	63%	36%	41%	23%	**41%**	**96%**
East	24%	29%	11%	77%	**34%**	
Midwest	6%	12%	13%		**9%**	
South	7%	23%	35%		**16%**	**4%**
	100%	100%	100%	100%	100%	100%

The average property size for the SCERS COEFs ranges from $61 million to $269 million, whereas the separate account average property size is $42 million. With the COEFs, SCERS gains access to a range of property sizes, particularly larger core market assets that would otherwise be cost prohibitive. Importantly, the average property sizes of the COEFs represent a minimal percentage of their respective portfolios, ranging from 0.3% to 4.3%, whereas in the separate accounts, the average property size represents a much greater portion at 14.3% of the portfolio. As can be seen, the COEFs have less property concentration risk, where any one asset may have an unfavorable influence on the overall portfolio performance.

An objective of a core real estate separate account program is to have greater oversight of the investment manager, while achieving better alignment of interests. An advantage of a core separate account program is generally the ability to exercise control over investment decisions, in particular, property acquisitions and dispositions, and amount of leverage. A positive feature of a separate account is the ability to customize and tailor the investment objectives and the potential to enter into an advantageous fee structure. However, Townsend research has found that there is no fee advantage for separate accounts when you include the performance fees such as what SCERS' offers its separate account managers. SCERS' average separate account annual fee including the performance fee equals 1.3%, while SCERS' core commingled fund managers earn an average annual fee of 0.75%. SCERS' average core commingled fund fee compares very favorably to the peer group fee average of 0.97%.

Open-End Commingled Fund Asset Mgmt Fee Analysis *Asset Management Fee by Commitment Level*		
LP Commitment Level	**Core Peer Group Median**	**Core Plus/Specialty Peer Group Median**
$0-10 million	110 bps	135 bps
$10-25 million	104 bps	135 bps
$25-50 million	**97 bps**	**135 bps**
$50-100 million	90 bps	135 bps
$100-500 million	83 bps	135 bps

CORE SUMMARY CONSIDERATION

With core real estate prices at or exceeding the prior cycle peak in 2007, there have been few, if any, direct separate account investment opportunities that Staff and Townsend found compelling. Because of the competitive real estate market for core properties, Staff and Townsend have found that exposure through COEFs provides SCERS access to top fund managers and an existing portfolio of core assets diversified across vintage years, property type, and geographic location that would otherwise be impossible for SCERS to replicate through a separate account structure. As the separate account requires considerable Staff time and effort, a COEF has the added benefit of being less taxing on Staff resources.

While core real estate represents only 7% of SCERS' total asset allocation, it represents a disproportionate amount of Staff's time compared to other parts of SCERS' total portfolio. Staff believes that although the time spent on the real estate portfolio has generated value and contributed to better performance, a question to ask is whether dedicating Staff resources toward managing real estate separate accounts is the highest and best use of Staff's time. SCERS' investment portfolio is best served by dedicating a larger percentage of Staff skills and expertise within investment segments where there is a greater dispersion of returns between the top and bottom-quartile investment managers, an example of which is non-core real estate.

SCERS has a rich legacy investing in both core real estate separate accounts and COEFs; however, Staff and Townsend believe that it could be more effective to gain future core real estate exposure by investing in COEFs rather than with a core separate account. COEFs offer the same investment profile as a separate account, such as current yield, liquidity, and diversification, but require less direct Staff engagement. COEFs also provide greater real estate diversification and less return fluctuation compared to SCERS' separate account. The most significant advantage of a COEF is the participation in a large portfolio of core assets diversified across managers, vintage years, property type, and geographic location that would otherwise be cost prohibitive in a separate account.

A recommendation related to SCERS' Core Real Estate portfolio composition will be provided during the overall implementation recommendation for Real Estate at a future Board meeting.

REAL ESTATE FUNCTIONAL ROLE

CORE REAL ESTATE

Core/core plus real estate will typically possess a lower risk and return profile than non-core (value-add or opportunistic investments) due to its higher cash yield and income generation; a lower level of capital appreciation potential; location in a primary metropolitan area (globally); greater occupancy levels; and a low to moderate level of leverage (below 40%).

NON-CORE REAL ESTATE (Value-Add/Opportunistic and Non-U.S.)

Non-core investments offer the opportunity to enhance returns through factors that can include: (1) Investing in assets with greater deficiencies (such as substantial vacancy, the need for substantial renovation, etc.); (2) Accepting different types of risks (such as development risk, redevelopment risk, repositioning, etc.); (3) Focusing more on non-traditional property types that may have greater operating risks (such as hotels); (4) Accepting greater capital market risk (for example, by acquiring assets with complex capital structures that may be difficult to unwind); and (5) Seeking areas of greater market inefficiency.

Value-add and opportunistic real estate will typically possess a higher risk and return profile compared to core real estate due to considerations that can include a lower level of cash yield and income generation; a higher level of capital appreciation potential; lower occupancy levels; and an increased level of leverage. These characteristics can magnify the risk and return of value-add and opportunistic investments throughout the business and real estate cycles.

Currently, value-add and opportunistic real estate is allocated to SCERS' Opportunities portfolio to reflect certain characteristics including: (1) The capability for these investments to perform well during certain points of the real estate cycle, but not all periods; and (2) The capability to help fulfill the role of the Opportunities asset class to enhance risk-adjusted returns.

Investments in global (ex.-U.S.) markets are permitted within SCERS' broader real estate portfolio but are also allocated to the Opportunities portfolio along with non-core real estate. The objective of including non-U.S. investments is to gain additional diversification afforded by countries uncorrelated to the U.S., enhance returns and moderate capital appreciation fluctuations. Global market economies and individual country real estate markets tend to operate independently with different macroeconomic environments, capital market dynamics, and real estate fundamentals, which translate to a more diversified portfolio across countries, economic cycles and property types. Global investments provide an opportunity to capitalize on relative value differences when they arise abroad relative to the U.S. real estate market.

A consideration for implementing the Real Estate asset class is whether to move SCERS' non-core and non-U.S. real estate exposures from the Opportunities portfolio to the Real Return asset category. A question to ask is whether non-core and non-U.S. real estate are appropriately categorized in the Opportunities portfolio and whether all real estate should instead be categorized under the Real Return asset category, regardless of the risk/return or geographic profile of the real estate. Re-categorizing non-core and non-U.S. real estate into the Real Return asset category could assist SCERS with more effectively accounting for real estate exposures, and rebalancing the portfolio with long-term strategic goals and objectives.

A recommendation related to the categorization of non-core and non-U.S. real estate will be provided during the overall implementation recommendations for Real Estate at a future Board meeting.

GLOBAL BENCHMARKING

SCERS Real Estate Program - Allocations	Target	Range	Actual
US Investments	70%	+/- 10%	84%
Non-US Investments	30%	+/- 10%	16%
Core Portfolio			
Separate Account	70%	+/- 30%	42%
Commingled Funds	30%	+/- 30%	58%

As referenced earlier, SCERS may also invest in either U.S. or non-U.S. investment vehicles. The SCERS real estate program (core, core plus and non-core real estate) may target exposure to investments outside the United States, with a permissible range of 0% to 30%. The performance of SCERS' Real Estate portfolio is measured for both core and non-core investments.

Core real estate investments are expected to exceed the NCREIF Fund Index – Open-End Diversified Core Equity ('NFI-ODCE'), while the non-core real estate investments are expected to exceed NFI-ODCE + 1%. The indices only include U.S. investments; however, non-U.S. investments are permissible within SCERS' real estate portfolio. As such, Staff and Townsend are in the process of identifying an appropriate global real estate benchmark for SCERS. The initial consideration is a blend of U.S. and global ex.-U.S. indices based on either SCERS' target or actual non-U.S. weightings.

A recommendation related to an alternative global benchmark for SCERS' Real Estate portfolio will be provided during the overall implementation recommendations for real estate at a future Board meeting.

ATTACHMENT

Townsend's presentation for SCERS Real Estate Program Discussion

Prepared by:

____

JR Pearce
Investment Officer

Reviewed by:

___________________________ ___________________________

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Interim Chief Executive Officer

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Sacramento County Employees' Retirement System
Real Estate Program Discussion

June 21, 2017

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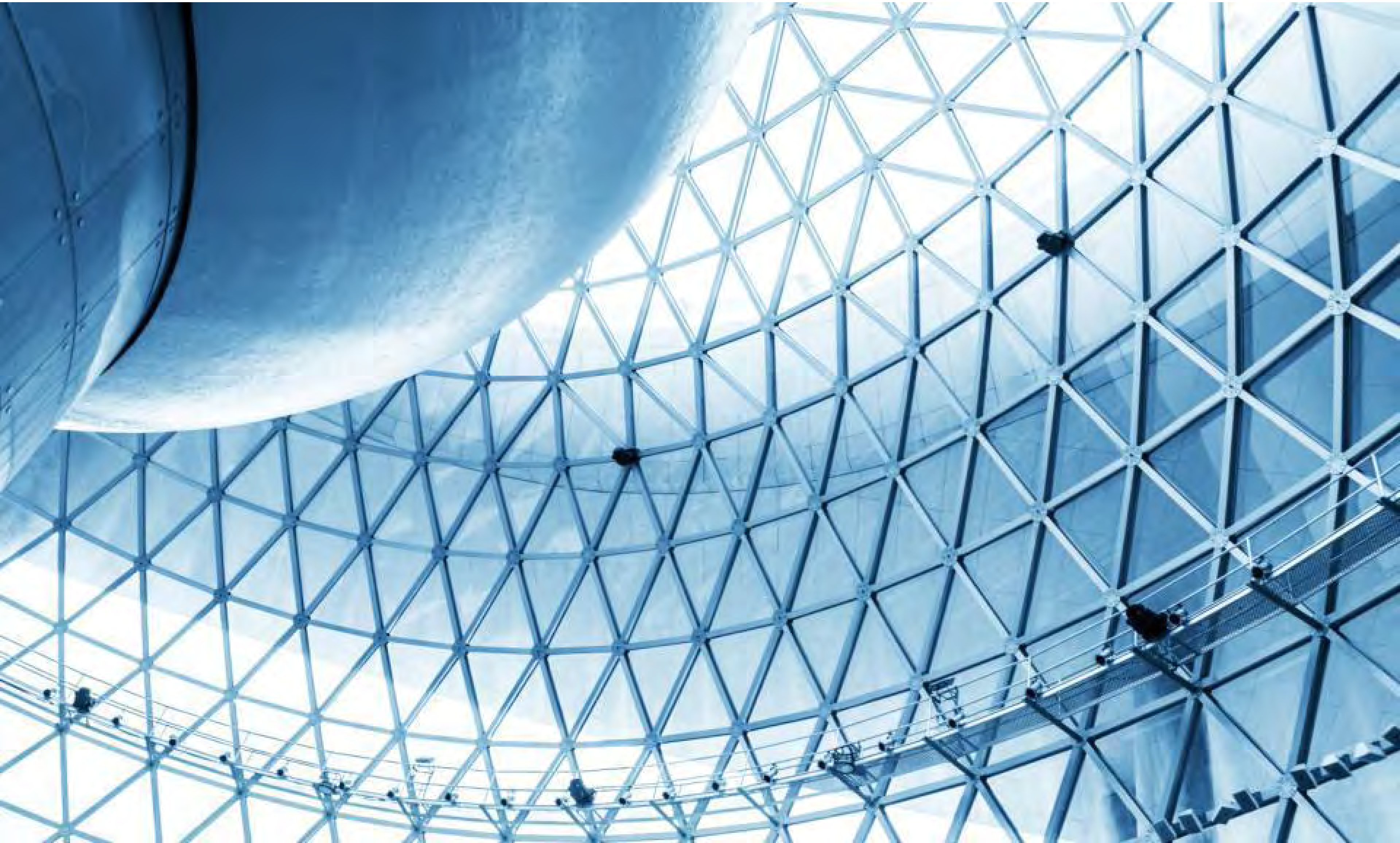
Topics for Discussion

- SCERS Core Portfolio Discussion
- SCERS Non-Core Portfolio Discussion
- SCERS Real Estate Benchmarking Discussion
- Conclusions and Next Steps

SCERS Core Real Estate Program Discussion



SCERS Real Estate Portfolio Composition

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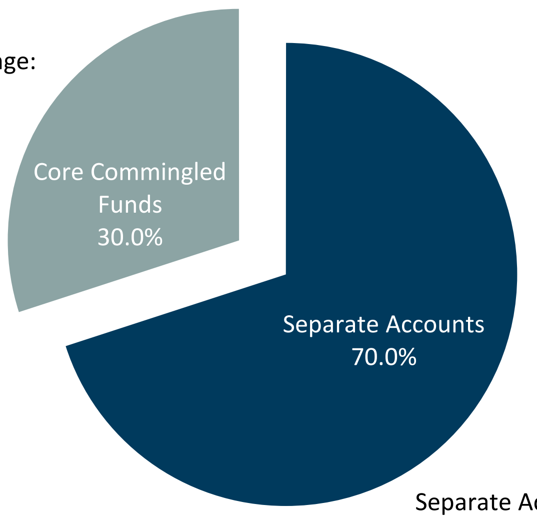
SCERS Core Portfolio Summary (as of 3/31/2017)

- The SCERS Core Portfolio represents 6.4% of the Total Plan which is well within the established range of 4.0% to 9.0%
- Separate Account/Individually Managed Account ("IMA") and Core Open-End Commingled Fund ("COEF") exposure was in-line with established guidelines, as displayed below
  - Core Commingled Fund exposure continues to increase as dispositions occur within the SCERS Separate Account Portfolio

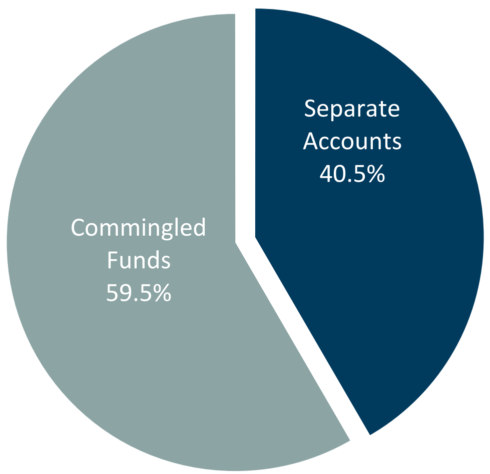
Target Allocation by Vehicle
As of 1Q2017

Commingled Fund Range:
0.0% - 60.0%



Separate Account Range:
40.0% - 100.0%

Actual Allocation By Vehicle
As of 1Q2017



SCERS Core Real Estate Portfolio

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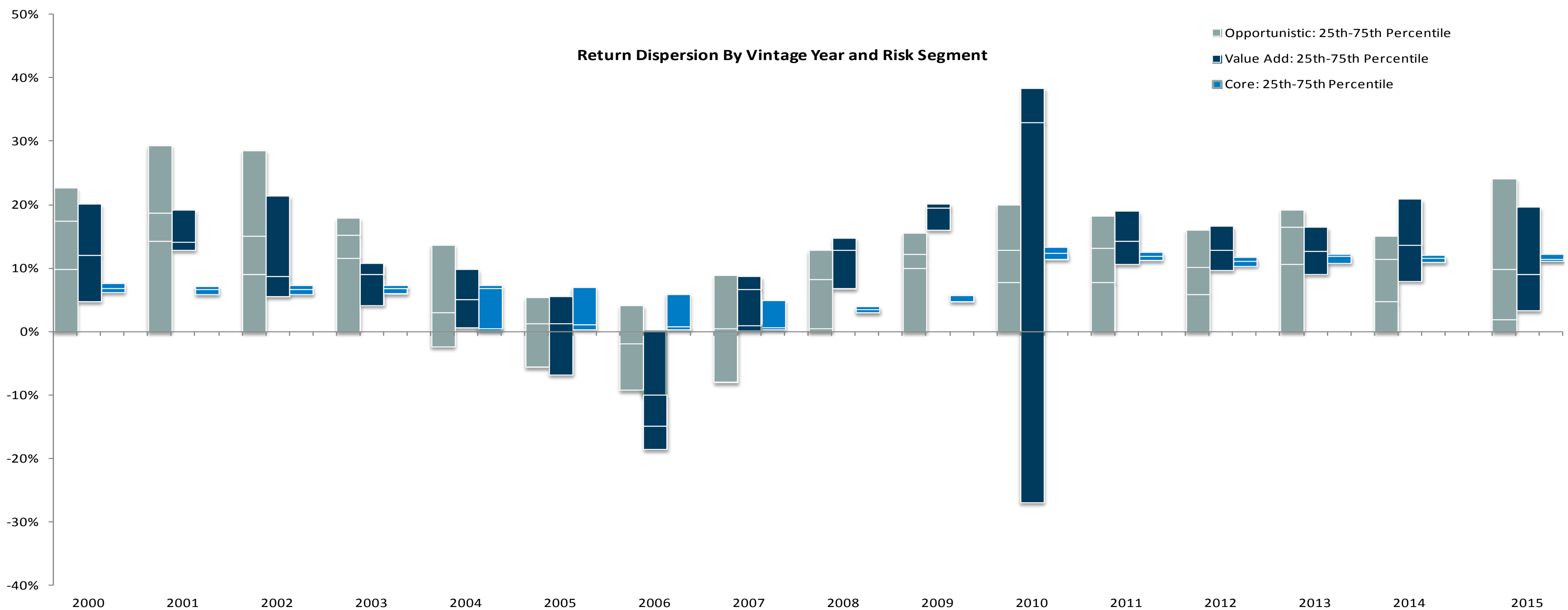
Core v. Non-Core Alpha Generation

- Core is viewed as a "Beta" position in many portfolios. Adding alpha is possible, if the client is positioned to:
  - Acquire assets that are competitive with the benchmark (type, size & location)
  - Remain disciplined buyers and sellers of assets across all market cycles
  - Structure investor friendly terms and negotiate favorable fees
- Focusing Staff time and attention on Non-Core fund selection has a greater chance of creating outsized alpha for SCERS

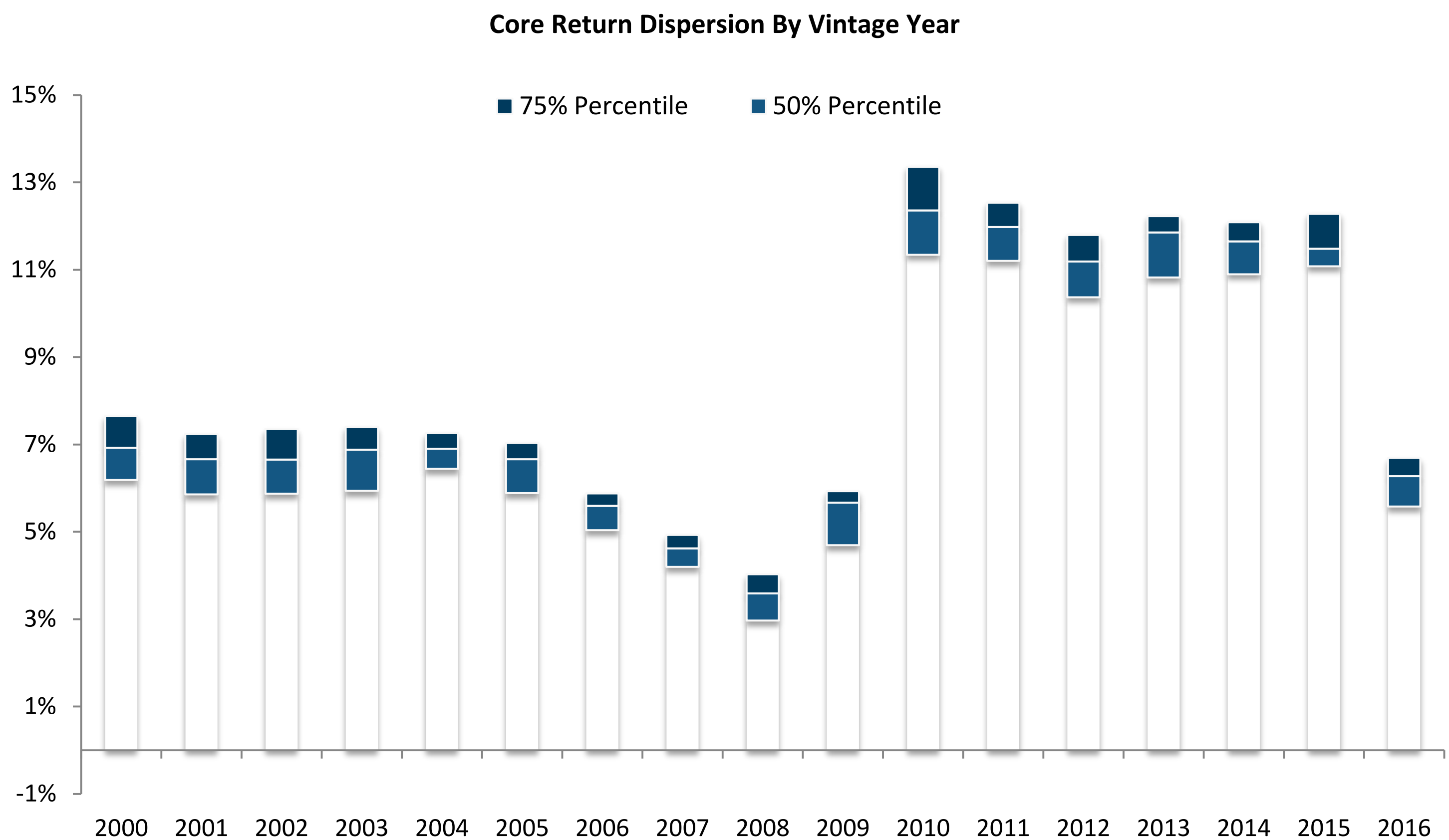


Source: Townsend. Data as of 3Q2016.

SCERS Core Real Estate Portfolio

Tight Dispersion between Top and Bottom Quartile Performance

- The dispersion between top-quartile and bottom-quartile Core Open End Funds is 1.25% on average, which is negligible in comparison to Non-Core dispersion (prior page).

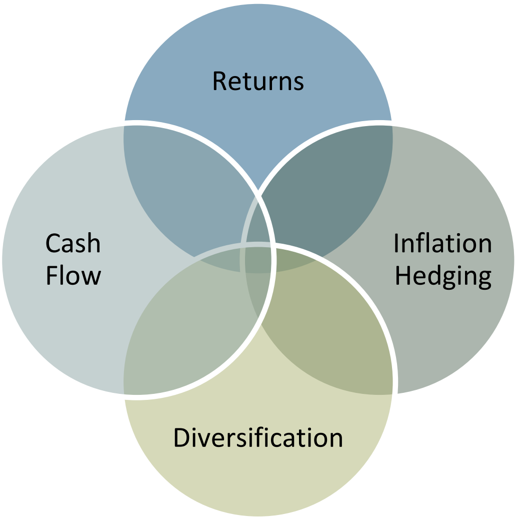


Source: Townsend. Data as of 3Q2016.

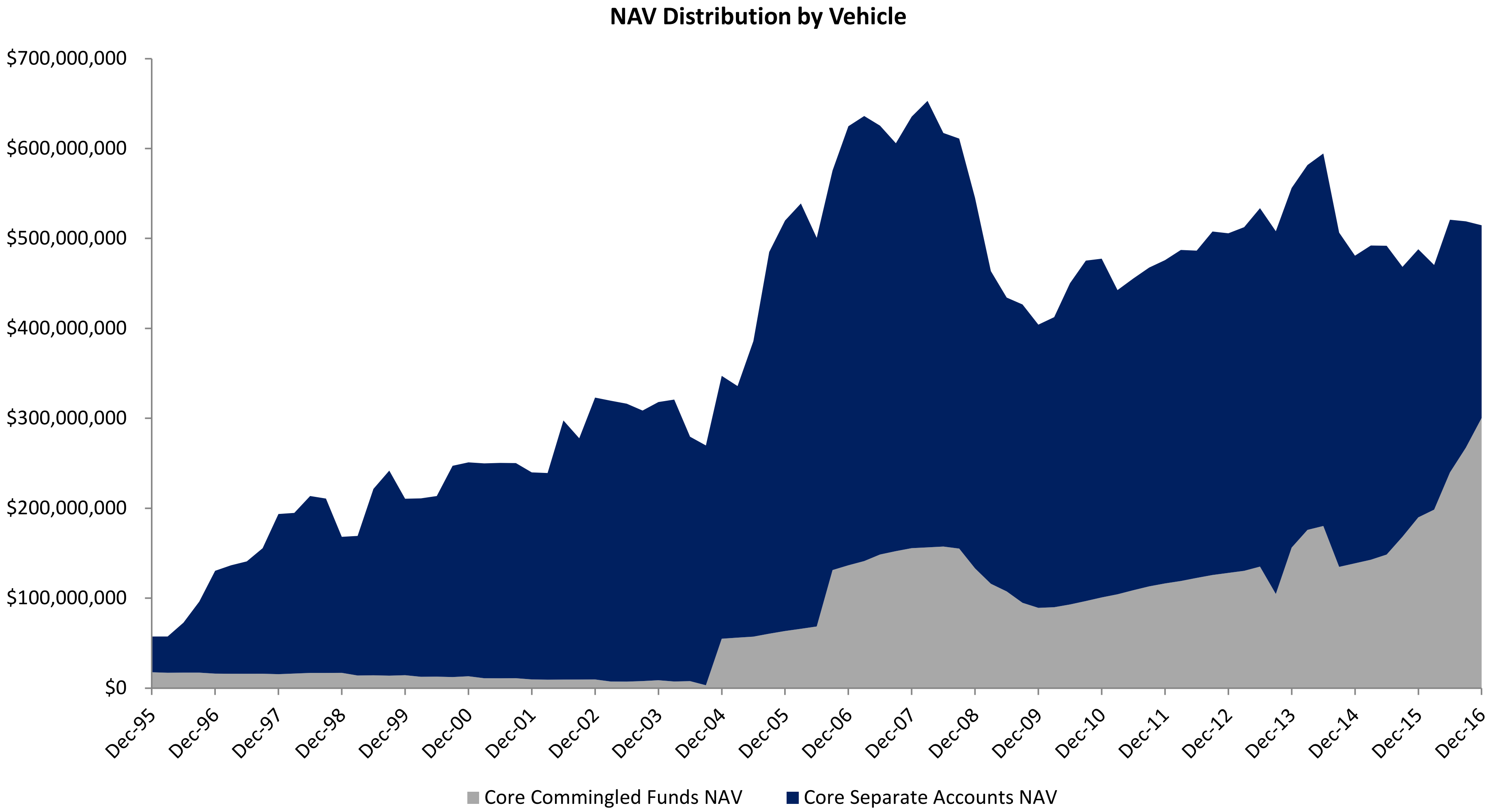
SCERS Core Real Estate Portfolio

SCERS Core Strategy

- Core and Core Plus real estate is the cornerstone of the SCERS real estate program
- The SCERS real estate program seeks to:
  - Serve as a partial hedge against inflation
  - Provide income and cash flow
  - Generate attractive risk-adjusted returns
  - Diversify a portfolio that contains public equities and fixed income
- The SCERS Portfolio currently uses a mix of separate accounts and COEFs to execute in Core real estate, as well as a diversified specialty vehicle (Townsend Real Estate Fund, LP)
- The SCERS Real Assets Policy currently assigns a higher target allocation of 70% to separate accounts, as noted on slide 10.
  - Ranges allow for additional flexibility



SCERS Core Real Estate Portfolio



SCERS Core Real Estate Portfolio

Core Separate Account History

- BlackRock
  - SCERS hired Blackrock in 1996 to manage a $135 million core separate account mandate
  - In the Core Program, 29 assets have been purchased since 1995 and 5 assets were transferred to Blackrock in 2002 from PM Realty
  - Within the BlackRock separate account, 24 assets have been purchased and sold by BlackRock to date generating a competitive 11.0% net IRR and 1.4x equity multiple for SCERS*
  - Five additional takeover assets have been sold, generating an 8.3% net IRR and a 1.4x equity multiple for SCERS*
  - Combined, the BlackRock separate account has sold 29 assets, generating a 10.5% net IRR and a 1.4x equity multiple for SCERS*
  - Six assets remain in the BlackRock separate account

- Cornerstone/Barings
  - SCERS hired Cornerstone in 2004 for a $160 million core separate account mandate
  - Cornerstone Real Estate re-branded as Barings in September 2016
  - Six assets were purchased between 2004 and 2008
  - Five assets have been sold, generating a 5.2% net IRR and 1.3x equity multiple for SCERS (through 12/31/2016)
  - Only one asset remains in the Cornerstone separate account (Crescent Park)

* Figures reflect BlackRock's holding period for the take-over assets.

SCERS Core Real Estate Portfolio

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Core Separate Account Property List

- The Separate Account Portfolio is well-leased and the occupancy compares favorably to the NFI-ODCE benchmark

Asset Name	Location	Units	SF	Cost Basis	Gross Asset Value	Net Asset Value	Debt	LTV Ratio	Occupancy	% of IMA Portfolio
Apartment										
Crescent Park	Playa Vista, CA	214	N/A	$81,810,854	$104,400,000	$65,400,000	$39,000,000	37%	95%	30%
Tower at Hollywood Hills	Los Feliz, CA	80	N/A	$22,955,431	$28,400,000	$17,400,000	$11,000,000	39%	91%	8%
Hillside Village	Berkeley, CA	94	N/A	$47,817,234	$57,600,000	$44,100,000	$13,500,000	23%	94%	20%
Subtotal:		**388**		**$152,583,519**	**$190,400,000**	**$126,900,000**	**$63,500,000**	**33%**	**94%**	**58%**
Office										
Lake Washington Park	Kirkland, WA	N/A	70,019	$36,784,405	$37,200,000	$37,200,000	$0	0%	100%	17%
Industrial										
1811 Brittmoore	Houston, TX	N/A	140,158	$11,048,284	$13,000,000	$13,000,000	$0	0%	100%	6%
Retail										
Harbour Pointe	Mukilteo, WA	N/A	110,607	$30,880,279	$40,100,000	$40,100,000	$0	0%	95%	18%
IMA Portfolio:		**388**	**320,784**	**$231,296,487**	**$280,700,000**	**$217,200,000**	**$63,500,000**	**23%**	**96%**	**100%**

Notes: Data as of 12/31/2016 as reported by BlackRock and Cornerstone.
Liquidated positions and balance in Portfolio Master Account excluded.
Last column may not add up due to rounding.

SCERS Core Real Estate Portfolio

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Risk Metrics

- In aggregate, the SCERS Separate Accounts have experienced more volatility and produced lower risk-adjusted returns compared to the NFI-ODCE
- The BlackRock Core Separate Account (Core assets for which BlackRock was responsible) has outperformed the NFI-ODCE

Core Separate Accounts (NET)

	1 Year	3 Year	5 Year	7 Year	10 Year
Annual Return	8.6%	9.5%	10.3%	12.4%	5.0%
Information Ratio	0.43	-0.53	-0.32	0.06	0.08
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Alpha	16.9%	7.6%	8.9%	2.6%	0.3%
Rsqr	0.35	0.01	0.00	0.25	0.91

NFI-ODCE (NET)

	1 Year	3 Year	5 Year	7 Year	10 Year
Annual Return	7.8%	11.0%	11.2%	12.3%	4.8%
Sharpe Ratio	N/A	7.68	8.66	5.84	0.52
Standard Deviation	0.1%	1.3%	1.2%	2.0%	8.6%

BlackRock Core Separate Account (NET)

	1 Year	3 Year	5 Year	7 Year	10 Year
Annual Return	9.3%	11.9%	11.6%	13.6%	5.6%
Information Ratio	1.21	0.69	0.30	0.47	0.21
Sharpe Ratio	7.18	6.66	6.82	4.34	0.53
Standard Deviation	1.2%	1.6%	1.6%	3.0%	10.0%
Beta	1.47	0.91	0.62	0.77	1.06
Alpha	-0.5%	1.8%	4.5%	3.9%	0.6%
Rsqr	0.02	0.54	0.22	0.27	0.83

BlackRock Core Separate Account (PM Realty Take Over) (NET)

	1 Year	3 Year	5 Year	7 Year	10 Year
Annual Return	-10.2%	-2.9%	1.2%	4.0%	0.4%
Information Ratio	-2.19	-1.09	-0.91	-0.88	-0.50
Sharpe Ratio	-1.30	-0.20	0.16	0.48	0.03
Standard Deviation	8.2%	11.9%	9.9%	8.7%	10.4%
Beta	22.07	1.03	0.70	1.02	0.75
Alpha	-42.6%	-13.2%	-5.8%	-7.7%	-3.0%
Rsqr	0.10	0.01	0.01	0.05	0.39

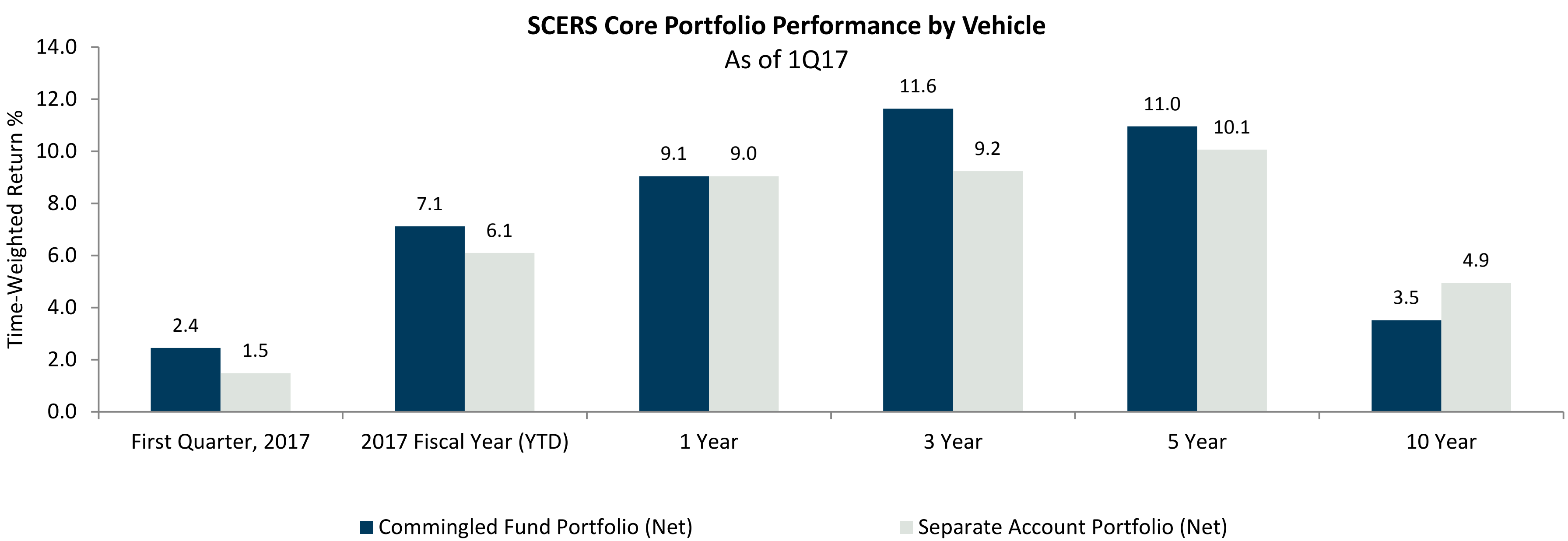
Cornerstone Separate Account (NET)

	1 Year	3 Year	5 Year	7 Year	10 Year
Annual Return	13.3%	9.2%	10.7%	13.8%	5.3%
Information Ratio	0.69	-0.27	-0.07	0.28	0.10
Sharpe Ratio	1.64	1.68	2.31	2.30	0.49
Standard Deviation	7.7%	5.3%	4.5%	5.7%	10.3%
Beta	-29.74	-1.44	-1.00	0.83	1.01
Alpha	56.9%	23.9%	20.8%	3.5%	0.5%
Rsqr	0.21	0.14	0.08	0.08	0.72

SCERS Core Real Estate Portfolio

Separate Account Performance vs. Commingled Funds

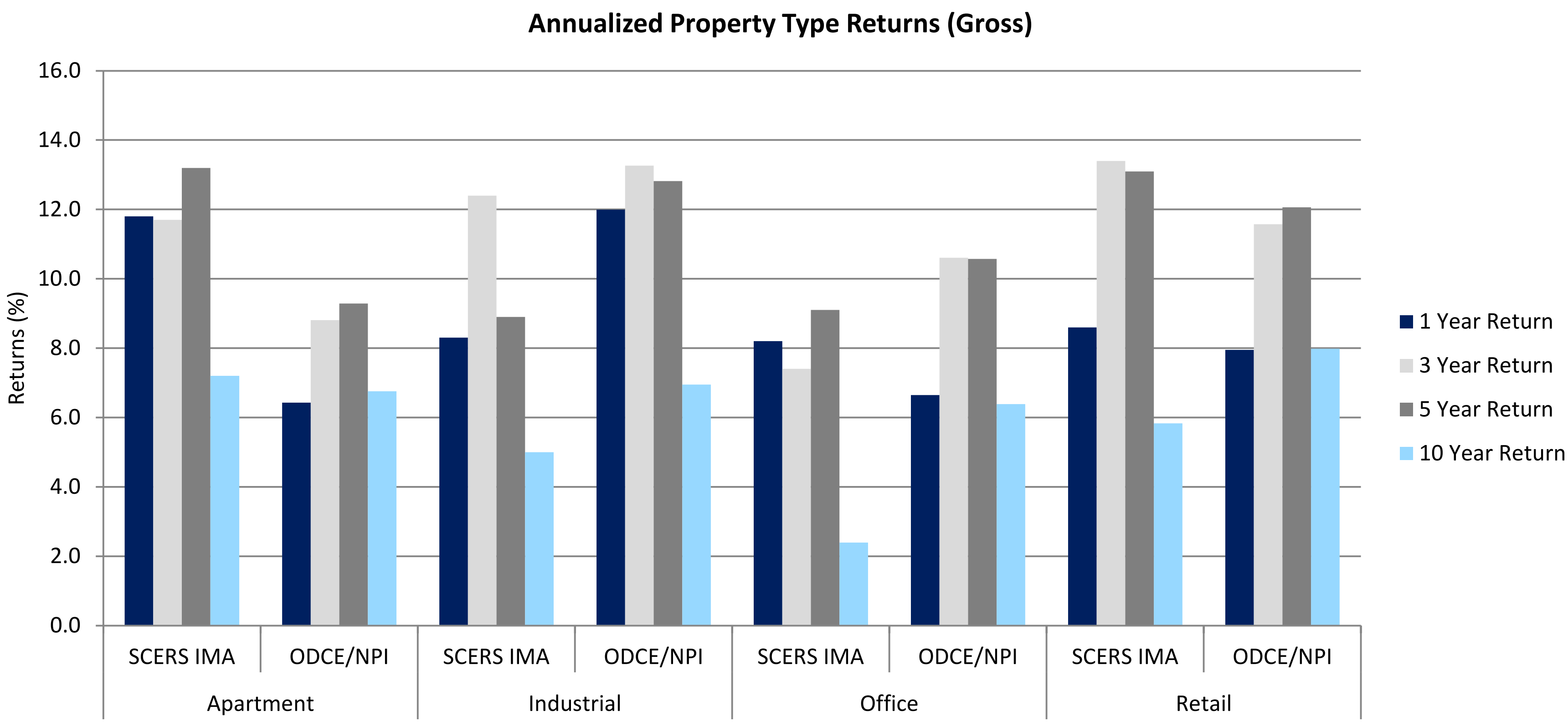
- Over all but the 10 year period, commingled funds have outperformed the SCERS Separate Accounts
- Separate Account performance has suffered as a result of recent sales activity, where prices trailed carrying value on select dispositions
- Longer term (10 year) underperformance in the commingled funds is heavily influenced by the inclusion of underperforming BlackRock Granite Property Fund and Cornerstone Patriot Fund in historical returns
  - SCERS fully redeemed from the funds beginning in the third quarter of 2013 through 2015



SCERS Core Real Estate Portfolio

Separate Account Performance by Property Type

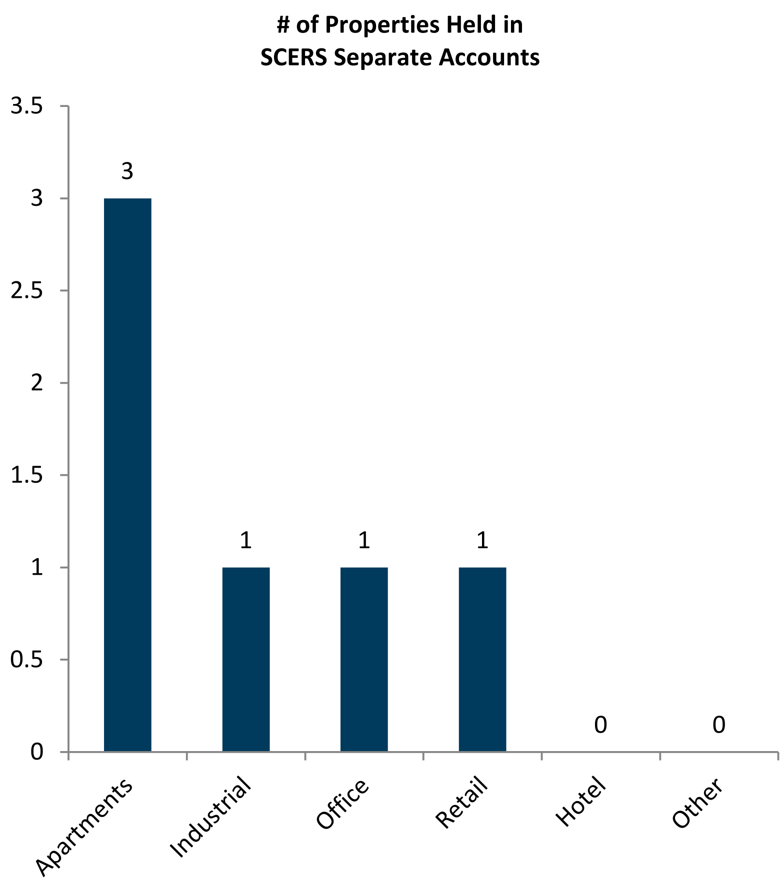
- The SCERS Separate Account Industrial and Office assets have underperformed the NPI subset of properties held in ODCE funds of the same property type across all time periods
- SCERS Retail assets outperformed in the short-term but underperformed in the long-term, and SCERS Apartment assets outperformed over all time periods
- All Index property type returns are reported de-levered vs. the levered SCERS property type returns

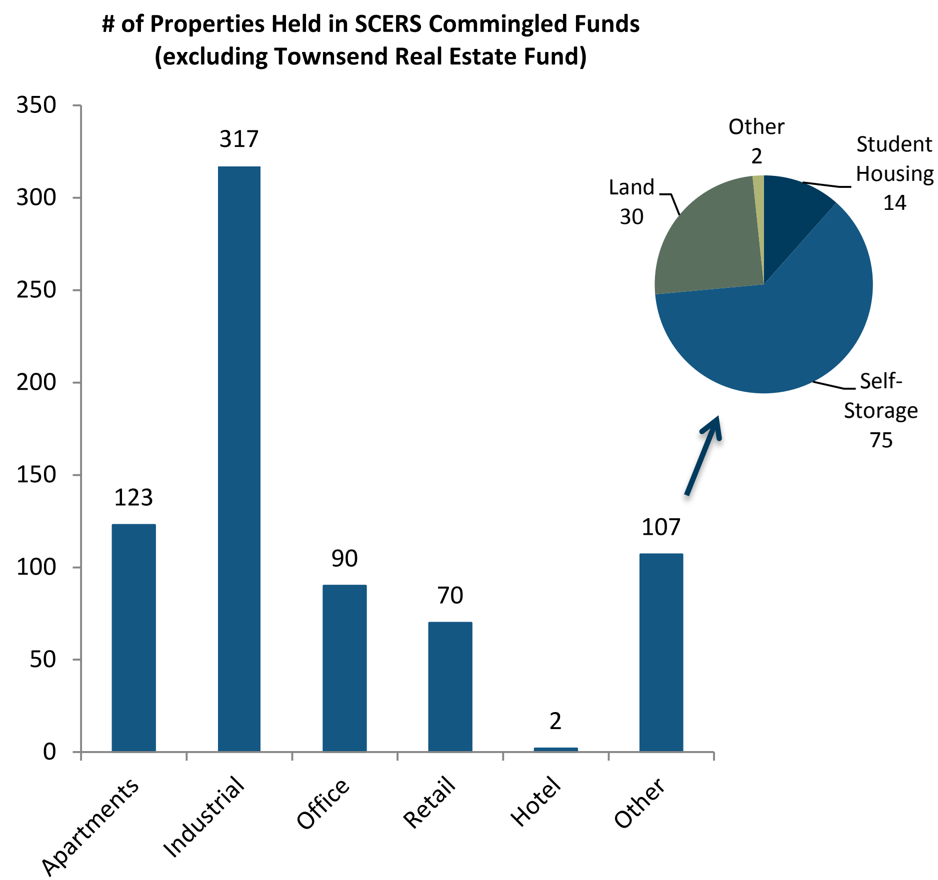


SCERS Core Real Estate Portfolio

Separate Accounts have Concentration Risk

- SCERS Separate Account Asset Count (Excluding Leland James Center in Portland, OR): 6
- SCERS Commingled Fund Asset Count (excluding Townsend Real Estate Fund): 705

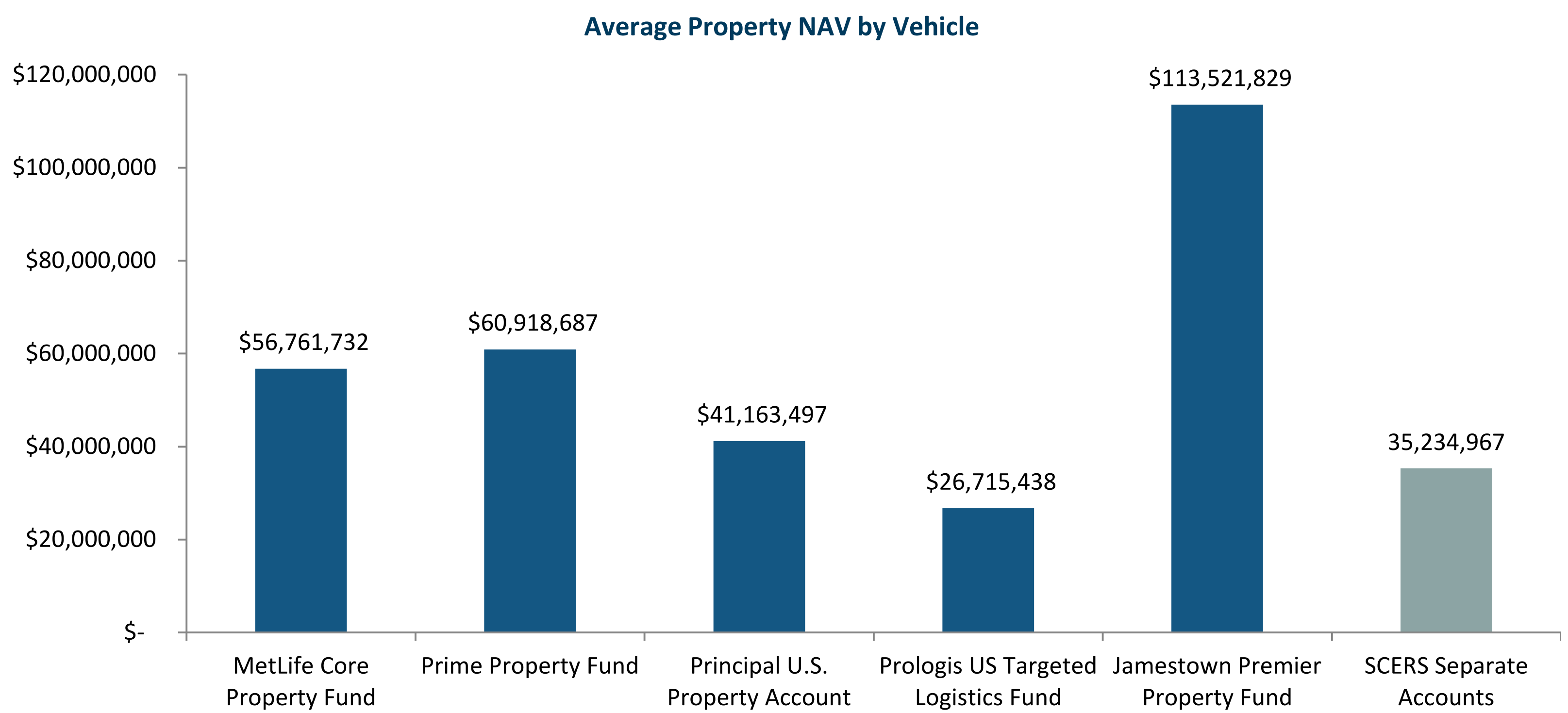




SCERS Core Real Estate Portfolio

Separate Accounts contain Smaller Assets

- As typical for accounts of this size, the historical SCERS separate account was focused on secondary markets and smaller assets
- Recent acquisition/disposition activity has been focused on improving exposure in primary markets
- BlackRock and Cornerstone are limited by the size of the separate accounts and the relatively small size of the SCERS Total Plan



SCERS Core Real Estate Portfolio

TOWNSEND® GROUP

Fee Assessment

- Core fee structures may include asset management fees, incentive fees and indirect fees such as fees for property management or leasing management. In commingled funds, economies of scale help to lower the indirect fees borne by the investor/fund whereas 100% of these indirect expenses are borne by Separate Account investors
- In both Core Commingled Funds and Separate Accounts, fees are typically based on investment level (i.e. higher commitments incur lower fees)
- SCERS' Separate Account managers earn an average of 130 basis points in annual fees*
- SCERS' Core Commingled Fund managers earn an average of 100 basis points in annual fees*
  - Isolating the asset management fee, Core Commingled Fund asset management fees typically range from 83 bps to over 110 basis points for like-sized investors. Core Plus/Specialty strategies have higher fees, with an average of 135 basis points for like-sized investors
  - SCERS' Core Commingled Fund Portfolio contains both traditional Core and Core Plus/Specialty funds. SCERS' asset management fees range from **47 basis points to 100 basis points** on net asset value and average approximately **70 to 80 basis points**, which compares favorably to the universe

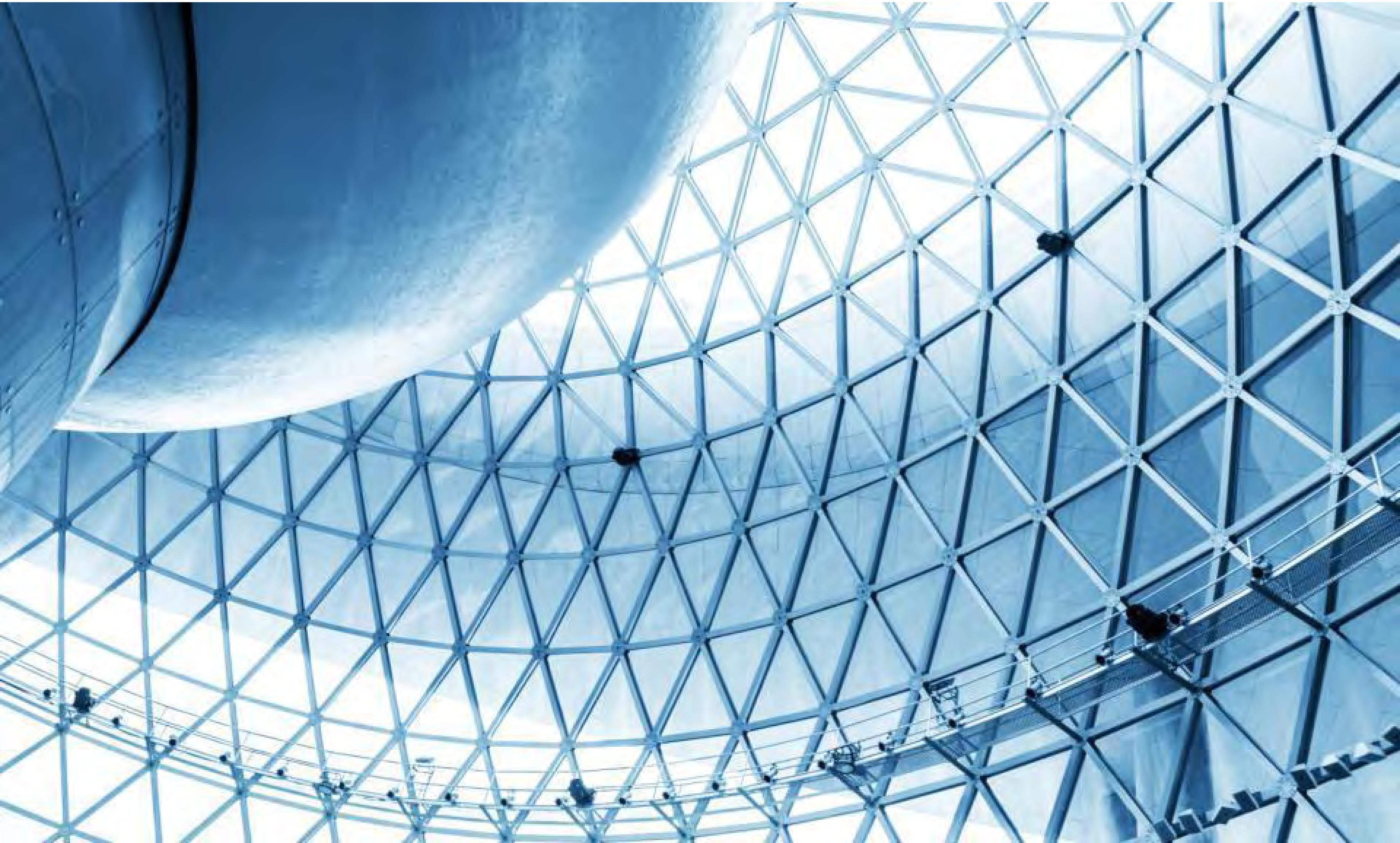
Open-End Commingled Fund Asset Mgmt Fee Analysis
Asset Management Fee by Commitment Level

LP Commitment Level	Core Peer Group Median	Core Plus/Specialty Peer Group Median
$0-10 million	110 bps	135 bps
$10-25 million	104 bps	135 bps
$25-50 million	**97 bps**	**135 bps**
$50-100 million	90 bps	135 bps
$100-500 million	83 bps	135 bps

SCERS average commitment size

*Simple averages calculated using annualized gross to net spread dating back to 1997 (direct fees only). SCERS' separate account contracts were last amended in February 2014 to adjust fees to market.

SCERS Non-Core Portfolio Discussion



SCERS Real Estate Portfolio Composition

SCERS Non-Core Portfolio Composition

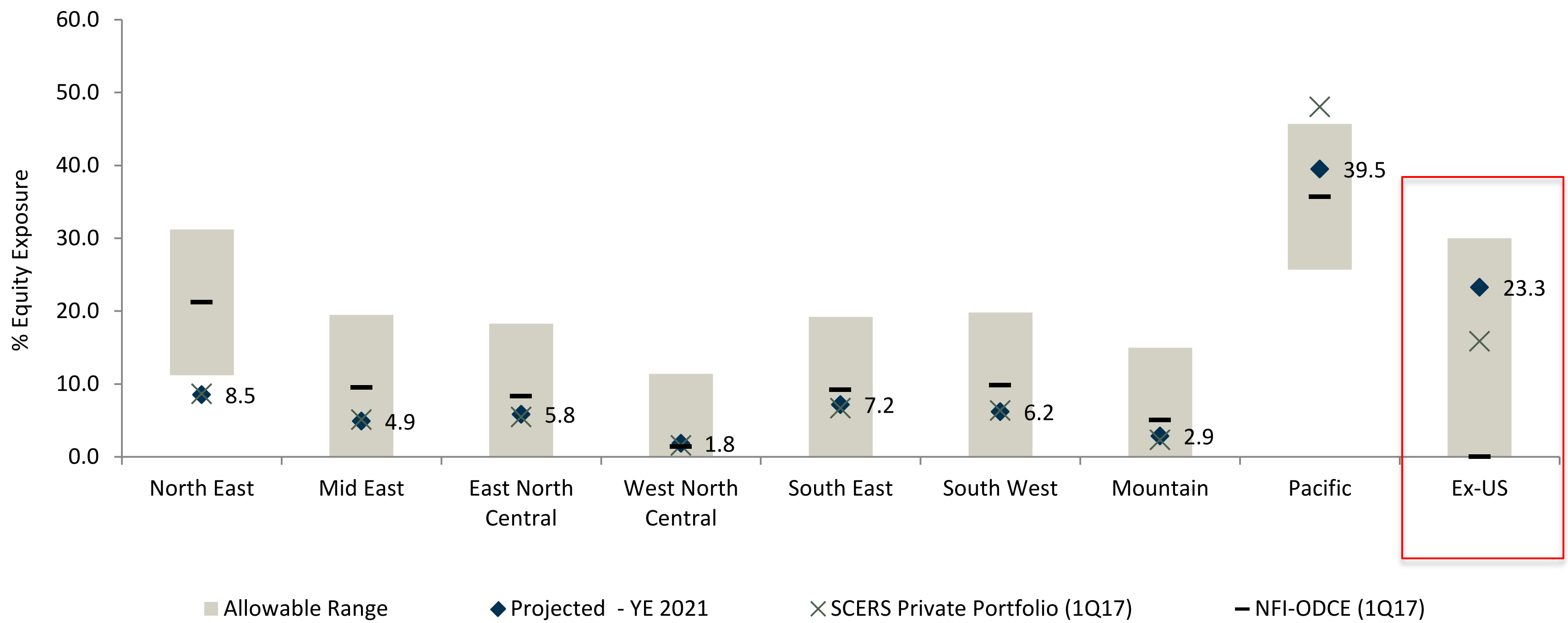
- Non-Core Real Estate includes both Value-Add and Opportunistic Real Estate strategies and is included in the SCERS Opportunities allocation with an allowable range of 0.0% to 5.0%.
- As of the Fourth Quarter, the Non-Core Real Estate Portfolio was well within its established range, representing 2.2% of the Total Plan. Including all approved unfunded commitments through December 31, SCERS has an aggregate exposure of 3.8% to Non-Core opportunities (with 2.2% in Value-Add and 1.6% in Opportunistic exposure).

SCERS Non-Core Portfolio Considerations

- SCERS Staff and its Consultants are currently considering alternative placement for the Non-Core Real Estate Portfolio.
- A natural home for Non-Core Real Estate is the Private Real Estate Portfolio, housed within the SCERS Real Return asset category.
- The objectives of the SCERS Real Return asset category are listed below, and Non-Core Real Estate meets the criteria:
  - Inflation Hedge
  - Diversification
  - Cash Flow Element

SCERS Real Estate Benchmarking Discussion

SCERS Real Estate Portfolio Diversification – Geographic Region

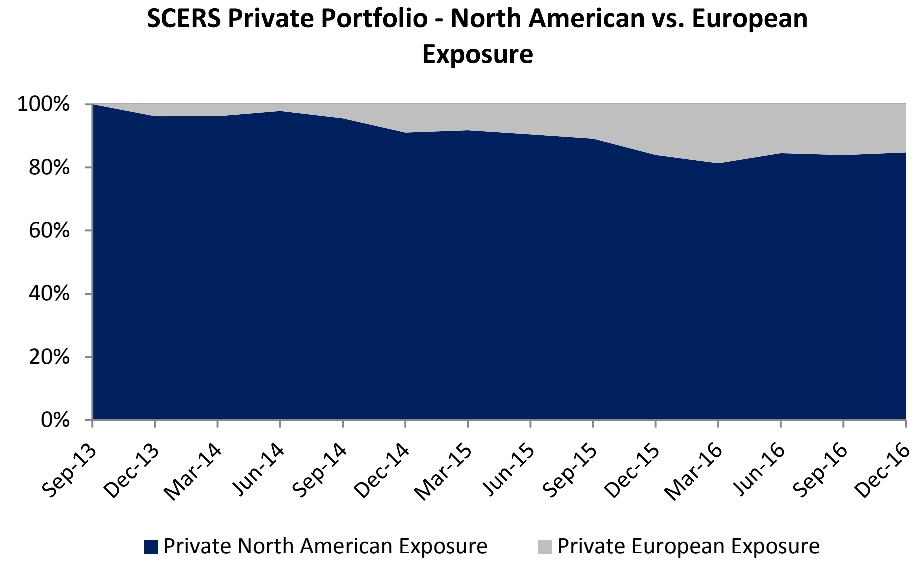


- The diversification of the Private Portfolio is compared to the diversification of the NFI-ODCE, with a permissible deviation of ± 10.0% for each region. Ex-US exposure is limited to 30% of the Total Private Portfolio.
- As of the Fourth Quarter, the Private Portfolio was in in breach of compliance with an overweight exposure to the Pacific region and underweight exposure to the North East.
- Tactical overweight/underweight positions may exist over time.
- The Private Portfolio's international exposure is 15.8%, well within its 30% constraint, but will increase as KKR Real Estate Partners Americas, Och-Ziff Real Estate Fund III, NREP Nordic Strategies Fund I and II, and ECE European Prime Shopping Centre Fund II continue to call capital and purchase assets in Europe. Though well diversified by country, 100% of the SCERS Ex-US exposure lies in European holdings.
- SCERS recently committed to Carlyle China Realty ($10m) and Project Rome co-invest ($20m) which will increase ex-us exposure and diversify international exposure as both investments are 100% China.

SCERS Real Estate Benchmarking

SCERS Benchmarking

- 84.2% of the SCERS Private Real Estate Portfolio is invested within North America (including <1% within Mexico through CIM VIII).
- The current benchmarks for the SCERS Private Real Estate Portfolio are US-based and include:
  - NFI-ODCE (Core),
  - NFI-ODCE + 100 basis points (Non-Core).
- Townsend and Staff have discussed with the SCERS Board the formal adoption of an ancillary benchmark which includes a blend of US and ex-US exposure based on the SCERS weightings:
  - INREV, the European Association for Investors in Non-listed Real Estate Vehicles, publishes a quarterly index called Global Real Estate Fund Index (GREFI), which includes performance of non-listed real estate funds across the globe and is created by ANREV, INREV and NCREIF.
  - The GREFI includes performance of 470 + positions in Asia Pacific, Europe, U.S. and funds with a global strategy.



Considerations and Next Steps

Conclusions

SCERS Board Considerations (to be followed by a formal recommendation at subsequent meeting)

- Consider revising Core Separate Account Structure and Guidelines.
  - Does the current Core Separate Account Program provide SCERS with adequate diversification benefits? Can it be effectively managed over the long-term?
  - Core Real Estate is increasingly being efficiently allocated through commingled fund vehicles (currently 58.4%); would SCERS be better served modifying it's current Core Commingled Fund Target (30.0%) and/or Range (0.0%-60.0%)?
  - If SCERS were to modify its Core Separate Account Guidelines, how should it go about reducing its Separate Account exposure?
    - Portfolio sale
    - Seed investments into Commingled Fund(s)
    - Asset by asset sale
    - Other
- Consider the appropriate categorization for Non-Core Real Estate within the context of the Total Plan.
  - Is Non-Core Real Estate appropriately categorized in the Opportunities bucket?
  - Should all Real Estate, regardless of risk-return profile, be categorized under Real Return asset category?
  - Could re-categorizing assist SCERS with rebalancing its portfolio to align with its long-term goals and objectives?
- Consider adopting an Ancillary Global Benchmarking.
  - With approximately 15% of SCERS real estate invested Ex-US, would it be beneficial to include an ancillary global benchmark?
  - Which global benchmark would be most appropriate for SCERS to consider (INREV or GREFI)?

Next Steps

- Townsend and Staff to work together to determine the best path forward for SCERS, and to develop a formal recommendation to SCERS Board for adopting/implementing any policy changes.
- Townsend and Staff will bring a revised investment policy statement for Real Estate with the formal recommendation.