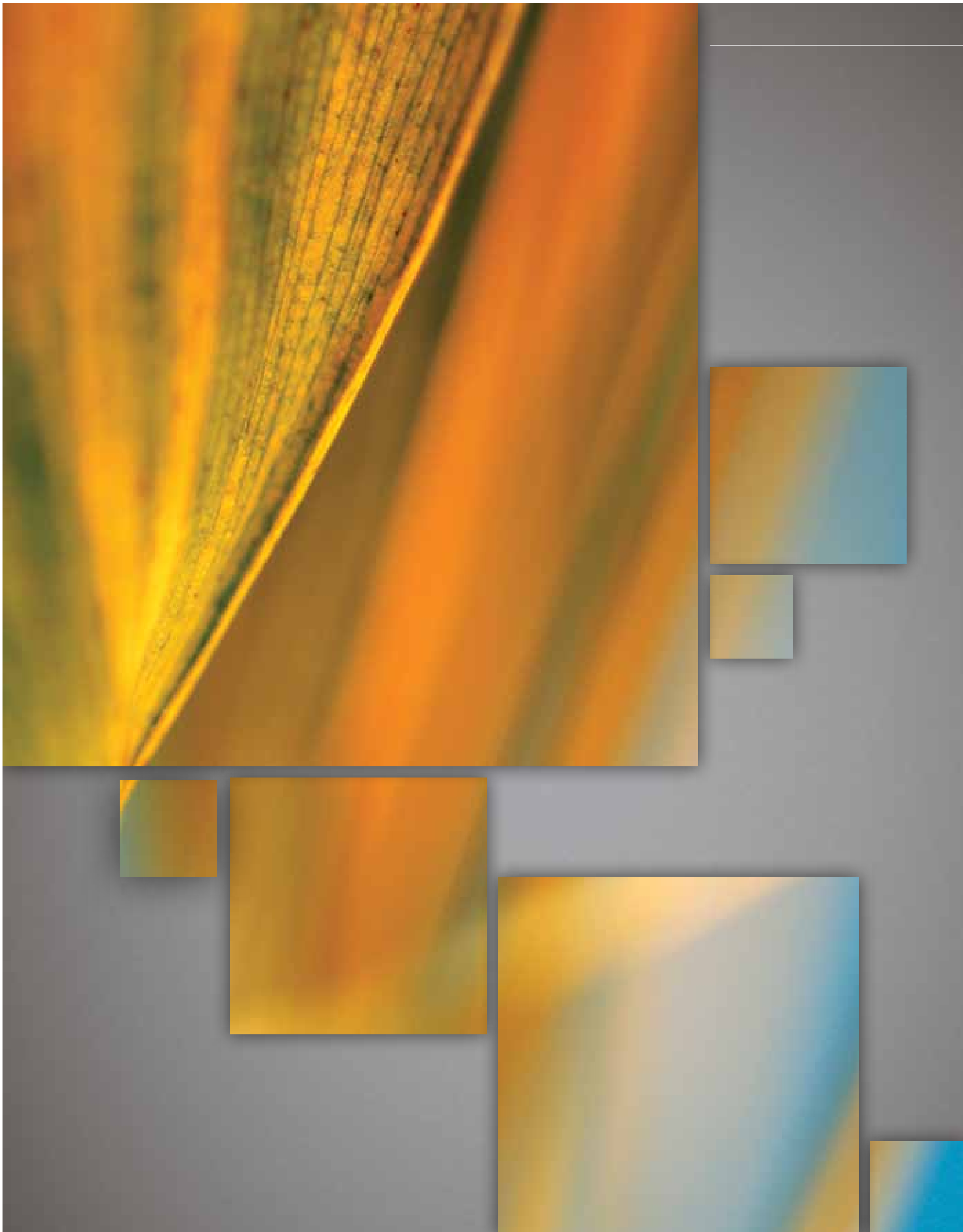

2017 Investment Year in Review and 2018 Annual Investment Plan

2017 Investment Year in Review
and
2018 Annual Investment Plan

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Table of Contents

Introduction

As Chief Executive Officer of the Sacramento County Employees' Retirement System (SCERS), I am pleased to present the 2017 SCERS Investment Year in Review and 2018 Annual Investment Plan.

The purpose of this report is to summarize the major events and developments in the investment program in the past year and preview the investment program's projects and objectives for the year to come.

Overall, this annual report on SCERS' investment program helps track our progress toward achieving near-term and long-term investment objectives, and in particular, meeting the fundamental goal of providing funding for the benefits paid to our members.

A combination of global economic growth, low inflation, strong employment, and corporate tax cuts led to a tremendous investment year in 2017. The SCERS portfolio returned 16.9%—our highest return since the rebound from the global financial crisis in 2009 (which generated 18.3%).

As a long-term investor, we know the good times will not last forever. To that end, SCERS worked with its internal investment staff, investment consultants, and key investment partners to implement a new strategic asset allocation structure adopted in January 2017 that is designed to reduce risk, increase diversification, and improve investment performance across economic environments. These adjustments will produce a more risk-balanced portfolio and less susceptibility to negative markets.

SCERS also concluded a triennial review of market assumptions and took additional steps to reduce year-to-year volatility by lowering our long-term investment assumption from 7.5% to 7%.

These are prudent, strategic steps that better position SCERS to deal with challenging investment environments in the future, even as SCERS beat our long-term target over the last 3 years (7.8%), 5 years (9%), and 30 years (8.5%).

We remain optimistic, but cautious going into 2018 as the economy posted the third longest recovery in the post-World War II era, at nearly 9 years. The markets in early 2018 have been jumpy, political uncertainty continues to make headlines, and a changing interest rate environment is on the horizon.

The primary focus of SCERS' investment team in 2018 will be on the ongoing refinement and implementation of the strategic asset allocation, including asset class structuring. Going forward, SCERS will remain focused on identifying ways in which risk can be reduced and value can be added to the investment program to ensure the sustainability of our members' benefits for generations to come.

Respectfully Submitted,

Eric Stern
Chief Executive Officer

Staff, Consultants, and Strategic Partners

Under the California Constitution, the SCERS Board has the exclusive authority and fiduciary responsibility for the management of SCERS' investment program. In carrying out this duty, the SCERS Board establishes the strategic direction, asset allocation, return and risk parameters, and investment policies for the retirement system. The SCERS Board receives guidance in making these decisions from its internal staff of investment professionals (Staff) and from expert investment consultants, all of whom also serve as fiduciaries with respect to the fund. SCERS' general investment consulting services are provided by Verus Advisory Services (Verus). Cliffwater LLC (Cliffwater) serves as lead consultant for the alternative asset classes, and The Townsend Group (Townsend) serves as lead consultant for the real estate asset class.

Given the complexities of managing a large, multi-asset class investment program, the SCERS Board has delegated substantial responsibility for the day-to-day oversight and management of the assets of the retirement system to the internal investment Staff, who in turn, utilize and draw upon the investment expertise and resources of SCERS' investment consultants and key investment partners. SCERS believes that a strong, collaborative partnership between Staff, consultants, and investment service providers not only assures the prudent oversight of the fund, but produces significant investment value over time in the form of higher returns, lower risk, and lower costs.

The collaborative partnership between Staff, consultants, and investment partners is grounded in the following principles:

- Staff focuses on and directly engages in those areas where it can add investment value;
- Consultants serve as an 'extension of staff' in those areas where they have greater expertise, capabilities and/or resources; however, Staff continues to be actively involved in any decisions involving such areas;
- Both Staff and consultants are responsible for monitoring and overseeing the investment portfolio;
- Both Staff and consultants are charged with developing ways to improve investment performance and manage risk;
- Strategic partnerships may be established with investment providers if they will (a) allow SCERS to develop an efficient, customized solution to an investment need; (b) allow SCERS to gain access to specialized investment knowledge or expertise; or (c) improve access to niche investment markets or strategies that will add value to the portfolio; and
- Overlapping expertise and capabilities of Staff, consultants, and strategic partners is beneficial because it brings multiple perspectives to the investment decision-making process.

Implicit in this approach is SCERS' belief that a strong internal investment Staff is central to the successful execution of the investment program, in that Staff: (1) serves as the 'hub' and coordinator of the activities of consultants and strategic partners; (2) provides a source of analysis independent from those partners; (3) allows SCERS to be a generator of investment ideas and not simply a passive recipient of investment ideas; (4) facilitates investment solutions specific to SCERS' needs; and (5) enables SCERS to capture and institutionalize knowledge and expertise.

The effectiveness of the collaborative partnership between SCERS' Staff, consultants, and strategic partners can be seen in the significant level of asset class structuring and implementation that occurred in 2017 to align with SCERS' new strategic asset allocation, as well as other investment program undertakings. The new strategic asset allocation is designed to produce a more risk-balanced portfolio with a similar expected return profile as the prior asset allocation, but with lower volatility and less susceptibility to drawdowns in poorly performing markets.

Implementation of the new strategic asset allocation will continue in 2018, as SCERS' investment team seeks to:

- Create competition for investment allocations by comparing the relative value and risk/return profiles of assets and investment strategies;
- Assess the status of the investment market cycle and position the portfolio accordingly;
- Identify opportunities to expand the reach, scope, and resources of the investment program through strategic investment partnerships;
- Assure that the interests of investment managers are properly aligned with the interests of SCERS; and
- Assure that SCERS has ample portfolio liquidity and cash flows to meet its benefit payment obligations.

Given the central role that SCERS' investment Staff plays in the investment program, and the central role that the investment program plays in funding the benefits SCERS provides, another important goal in 2018 will be to fully build out and maintain a high quality internal investment Staff. To do so, SCERS must be able to attract and retain the highly qualified investment professionals needed to run SCERS' sophisticated investment program. This investment in SCERS' continued success will pay huge dividends to SCERS' stakeholders in the form of lower pension cost and greater retirement security.

Commentary on the ongoing development of SCERS' investment program from consultants Verus, Cliffwater, and Townsend can be found in the Appendix of this Report.

Portfolio Overview

Summary Overview

For the calendar year ended December 31, 2017, the Sacramento County Employees' Retirement System (SCERS) achieved a 16.9% gross return, and plan assets ended the year at $9.3 billion. As explained in more detail below, SCERS' return was well above the Policy Index return of 14.2%. Over the 3-year and 5-year periods, SCERS has returned 7.8% and 9.0% respectively, versus the Policy Index return of 7.5% and 8.6%.

Market Overview

2017 marked a year of synchronized global growth, with most major global economies experiencing accelerating growth in unison for the first time since before the Global Financial Crisis (GFC). With the anticipation of more robust earnings growth going forward, global financial markets produced very strong returns in 2017, particularly across equities. The anticipation of a comprehensive tax reform bill, which was signed into law in December, and the substantial cut in the corporate tax rate within the bill, also served as a stimulus for the markets.

Economic activity and data within the U.S. was strong in 2017. GDP gained momentum throughout the year, with the year-over-year growth rate coming in at 2.3%, up from 1.8% in 2016. Employment in the U.S. is in good shape, with unemployment ending the year at 4.1%, down from 4.7% a year earlier, and an average of 175,000 jobs were added per month during the year. Consumer sentiment, as measured by the University of Michigan's consumer sentiment for the U.S., ended the year at 95.5, which is above the long-term average of 86.3. Even with the pickup in economic activity, core inflation of 1.8% remained below the Federal Reserve's (the Fed) 2% target.

With the stronger economic backdrop, the Fed raised interest rates three times in 2017, bringing the target for the Federal Funds rate to between 1.25% and 1.5%. In prior years the Fed had been hesitant to raise rates until economic growth and the labor markets were on more of a solid footing, which played out in late 2017 and into 2018. Therefore, future rate increases could be fueled less by growth and employment, but more so to protect against the potential for rising inflation. This could lead the Fed to raise interest rates at a faster pace than planned, which has already been reflected in the long end of the yield curve during the first quarter of 2018, where 10-Year Treasury yields have increased toward 2.9% from 2017 year ending levels of 2.4%.

Outside of the U.S., while the euro zone economy is considered to be earlier in the business cycle than the U.S., it is growing at 2.7%. The European Central Bank (ECB) has been receiving mounting pressure to tighten its monetary policy, and will reduce its quantitative easing monthly bond purchasing target in half in 2018. Japan is growing at 2.1%, but the Bank of Japan (BOJ) has left its low interest rates and quantitative easing programs in place, given that low inflation remains a concern. China grew at 6.8% in 2017 thanks to continued credit expansion, public investment, and investments in technology, including e-commerce, mobile, and artificial intelligence.

The strong global economy helped drive global equity returns; however, there were some meaningful divergences, both geographically and across styles. On the geographic front, international equities, including developed and emerging markets, outperformed U.S. equities, with the MSCI EAFE and MSCI Emerging Markets Indexes returning 37.3% and 25.0%, respectively, versus the Russell 3000 Index return of 21.1%. Within styles, growth stocks significantly outperformed value stocks, and large capitalization stocks outperformed small capitalization stocks. Fixed income returns were strong during the year, but trailed equities. The Barclays Capital Aggregate Index returned

3.5%, and the Barclays U.S. Treasury Index returned 2.3%. Credit led fixed income, with the Barclays U.S. Corporate High Yield Index returning 7.5%, and the Barclays U.S. Credit Index returning 6.2%. Credit benefited from the strong growth tailwinds that also fueled equity returns. Commodity prices, as represented by the Bloomberg Commodity Index, returned 1.7% during the year.

Though markets generated robust returns during 2017, the year ended with many investors concerned about market complacency in an environment where equity markets sit near historic highs, and credit spreads and market volatility sit near historic lows. Investor concerns continue to mount around rising asset valuations, the potential for inflation, rising interest rates, and geopolitical risks. Given that the markets have consistently generated strong returns since the end of the GFC in 2009, investor concerns appear to be increasing, which has resulted in a changing market dynamic to start 2018, where there has been a significant pickup in market volatility. While equity markets got off to a strong start in 2018, markets sold off suddenly in early February, and market volatility spiked. The VIX index increased from lows of under 10 in January to upwards of 30 in early February, which is high relative to the low levels of the past several years. The market has become more concerned about potentially higher inflation off of better than expected growth expectations, which has led to an increase in interest rates. SCERS' strategic asset allocation is structured to provide greater levels of diversification across economic environments and risk factors, which should serve SCERS well if the early experience of 2018 persists going forward.

Portfolio Review and Considerations

During the year, SCERS completed an asset liability modeling (ALM) study that resulted in the approval of a new strategic asset allocation. A significant component of the new strategic asset allocation was to view risk exposures through multiple lenses, including functional and common factor exposures. This multiple lens approach re-grouped and re-classified segments of SCERS' prior asset allocation in order to link segments of the SCERS portfolio that are exposed to similar economic environments and risk factors, and which would be expected to have similar roles and outcomes in a portfolio. The functional regrouping took a simplified approach at the asset category level, by breaking the portfolio into three asset categories, with greater complexity reserved at the asset and sub-asset class level. The asset categories include: (1) Growth; (2) Diversifying; and (3) Real Return.

The Growth asset category includes those segments of the portfolio that tend to perform best in a high growth and low/moderate inflationary environment, including most equity and credit investments. In contrast, they tend to perform poorly during recessionary periods, when GDP growth is contracting, or during certain periods when unexpected inflation arises. Growth assets tend to comprise the dominant allocation within most institutional investment portfolios, including that of SCERS. The Diversifying asset category includes those segments of the portfolio which are expected to protect capital and perform better than the Growth asset category during dislocated and stressed market environments, including traditional fixed income and diversifying absolute return strategies. The Real Return asset category includes those segments of the portfolio that protect against inflation, generate cash flow, and provide further portfolio diversification, including real estate, infrastructure, energy, agriculture, and commodities investments.

The changes to SCERS' strategic asset allocation are summarized in **Table 1** below:

Table 1 – Changes to SCERS' Asset Allocation

Asset Category/Asset Class	Prior Target Allocation	New Target Allocation	Change
Growth	**63.0%**	**59.0%**	**(4.0%)**
Domestic Equity	22.5	21.0	(1.5)
International Equity	22.5	20.0	(2.5)
Private Equity	10.0	9.0	(1.0)
Public Credit	2.0	2.0	0.0
Private Credit	0.0	4.0	4.0
Growth Absolute Return	6.0	3.0	(3.0)
Diversifying	**22.0**	**25.0**	**3.0**
Core/Core Plus Fixed Income	15.0	10.0	(5.0)
US Treasury	0.0	5.0	5.0
Global Fixed Income	3.0	3.0	0.0
Diversifying Absolute Return	4.0	7.0	3.0
Real Return	**15.0**	**16.0**	**1.0**
Real Estate	7.0	7.0	0.0
Real Assets	6.0	7.0	1.0
Commodities	2.0	2.0	0.0
Opportunities	**0.0**	**0.0**	**0.0**
	100.0%	**100.0%**	

The key changes between the new strategic asset allocation and the prior are:

- A reduction in Growth assets, including public equities.
- An increase in Diversifying assets, including principal protecting fixed income investments (Treasuries) and diversifying absolute return strategies.
- An increase to cash-flowing investments, including private credit and real assets.

The new strategic asset allocation is a more risk balanced portfolio than the prior policy portfolio with a similar expected return profile, but with lower expected volatility (standard deviation), and a narrower range of potential outcomes, making it less susceptible to negative returns during down markets. It also increases diversification, especially to investment strategies with low and negative correlation to equity markets, and is expected to generate a greater level of cash flow for SCERS' plan.

The process of transitioning SCERS' portfolio to the new strategic asset allocation targets began during the calendar year, including making structural modifications to underlying asset classes to align with the new strategic asset allocation, and adjusting policy benchmarks. However, the majority of the implementation toward the new asset allocation targets will likely occur over the next few years. Bringing the actual allocations toward their targets is a multi-year process to fully execute, especially within the private market asset classes, such as Private Equity, Private Credit, and Real Assets, given the unique cash flow characteristics of these segments and the importance of maintaining vintage year diversification. While significant progress has been made, it is anticipated that full implementation will require a few more years to reach the target allocation levels.

Table 2 below compares SCERS' actual physical allocations as of the end of 2017 to the new target allocations.

Table 2 – SCERS' Actual Allocations versus Target Allocations

Asset Category/Asset Class	Actual Allocation	Target Allocation	Variance
Growth	**63.2%**	**59.0%**	**4.2%**
Domestic Equity	24.5	21.0	3.5
International Equity	24.9	20.0	4.9
Private Equity	7.1	9.0	(1.9)
Public Credit	1.9	2.0	(0.1)
Private Credit	0.6	4.0	(3.4)
Growth Absolute Return	4.2	3.0	1.2
Diversifying	**19.5**	**25.0**	**(5.5)**
Core/Core Plus Fixed Income	12.6	10.0	2.6
US Treasury	0.0	5.0	(5.0)
Global Fixed Income	2.5	3.0	(0.5)
Diversifying Absolute Return	4.4	7.0	(2.6)
Real Return	**12.7**	**16.0**	**(3.3)**
Real Estate	8.6	7.0	1.6
Real Assets	3.8	7.0	(3.2)
Commodities	0.3	2.0	(1.7)
Opportunities	**0.1**	**0.0**	**0.1**
Overlay Program	3.4	0.0	3.4
Cash	1.1	0.0	1.1
	100.0%	**100.0%**	

Successful implementation of the asset allocation is contingent on selecting and maintaining allocations to investment strategies and managers that will outperform their respective benchmarks. Staff and SCERS' investment consultants, Verus Advisory, Cliffwater, and The Townsend Group (Consultants) believe that SCERS is on the right path to accomplishing this in aggregate with the investments that SCERS has made over the past several years, including those made in 2017.

Please note that while the strategic asset allocation is being implemented, SCERS utilizes the Overlay Program managed by State Street Global Advisors (SSGA) in order to bring SCERS' portfolio in line with its target asset allocation, and to invest excess portfolio cash. The Overlay Program uses proxies to replicate exposures within each asset class, and is particularly effective in rebalancing public market assets due to the low tracking error of the underlying proxies compared to public market managers. On the other hand, the Overlay Program is not as effective in replicating alternative asset exposure because it is limited to the use of public market proxies, which can create basis risk to the return and risk characteristics of the underlying asset class. The Overlay Program was restructured to align with the new strategic asset allocation toward the end of 2017 (approved in January of 2018), and will use overlay proxies at the asset category level to replicate SCERS' strategic asset allocation. Implementation of the new Overlay structure will take place during the first quarter of 2018.

Portfolio Performance and Attribution

For 2017, SCERS generated a total gross fund return of 16.9%, which significantly outperformed the Policy Index return of 14.2%, by 2.7%. SCERS' total gross fund return ex-Overlay was also 16.9%, so the impact of the Overlay Program was neutral during the year.

SCERS' asset category returns (Growth, Diversifying, Real Return) are not calculated in this report because they do not have a year's worth of returns, given that their composite returns did not begin calculation by Verus until the quarter ending June 30, 2017. Future Investment Year in Review reports will reference asset category returns going forward.

SCERS' asset classes, which underlie each asset category, generated strong results relative to their respective benchmarks during the year. Asset classes that exceeded their benchmarks included Domestic Equity by 0.3%, International Equity by 2.9%, Fixed Income by 1.7%, Private Equity by 2.6%, Real Estate by 5.1%, and Real Assets by 12.2%. Asset classes that underperformed their benchmarks included Absolute Return by 1.5% and Commodities by 7.0%. The Private Credit asset class, which was created in 2017, did not have a full year of returns by Verus to calculate. Please note that the returns calculated by Verus are time-weighted returns, and the performance of the Private Equity, Private Credit, and Real Assets asset classes are better reflected through an internal rate of return (IRR) calculation, which accounts for asset inflows and outflows. The performance results of these segments in the asset class sections of this report utilize an IRR calculation, as calculated by Cliffwater.

Over the longer 3-year and 5-year periods, SCERS has generated gross returns of 7.8% and 9.0%, respectively. Both the 3-year and 5-year figures exceed the Policy Index return of 7.5% and 8.6%, respectively, as well as SCERS' actuarial return assumption of 7.0% (the actuarial return assumption was recently reduced from 7.5%). Since inception (as of June 1986), SCERS' portfolio has generated a gross return of 8.5%, which trails the Policy Index return of 8.7%; however, it exceeds SCERS' actuarial return assumption of 7.0%.

SCERS' investment results (as calculated by Verus) are summarized in **Table 3**.

Table 3 - Investment Results

	For the Period Ended December 31, 2017		
		Annualized	
	1 Year	3 Years	5 Years
Domestic Equity	21.4%	11.0%	15.2%
Policy Benchmark: Russell 3000 Index	21.1	11.1	15.6
InvestorForce All DB U.S. Eq Gross Median	20.8	11.0	15.3
International Equity	30.7	9.7	8.1
Policy Benchmark: MSCI ACWI ex-U.S. Index	27.8	8.3	7.3
InvestorForce All DB ex-U.S. Eq Gross Median	28.5	8.9	7.9
Fixed Income	6.2	3.5	3.0
Policy Benchmark: Custom*	4.6	2.5	2.0
InvestorForce All DB Total Fix Inc Gross Median	3.5	2.2	2.1
Growth-Oriented Absolute Return**	11.4	4.5	6.7
Policy Benchmark: HFRI Fund of Funds Composite Index + 1%	8.7	3.6	5.0
Diversifying Absolute Return**	1.6	1.7	2.6
Policy Benchmark: HFRI Fund of Funds Conservative Index	4.1	2.1	3.4
Private Equity***	18.0	11.1	13.8
Policy Benchmark: Thomson Reuters C/A All PE 1 Quarter Lag	15.4	11.5	16.0
L/T Benchmark: Russell 3000 + 3% 1 Quarter Lag	21.7	13.7	17.2
InvestorForce All DB Private Eq Net Median	13.2	10.0	11.3
Private Credit** ***	8.9	8.6	9.3
Policy Benchmark: Credit Suisse Leveraged Loan + 2%	7.4	6.0	6.4
Real Estate	11.7	10.8	11.7
Policy Benchmark: 65% NFI-ODCE / 35% NFI-ODCE + 1%	6.6	9.3	10.1
InvestorForce All DB Real Estate Net Median	6.4	9.1	10.6
Real Assets***	20.2	10.1	3.4
Policy Benchmark: Custom****	8.0	6.6	-
L/T Benchmark: CPI-U Headline + 5%	7.1	6.3	6.1
Commodities	-5.3	-7.8	-8.9
Policy Benchmark: Bloomberg Commodity Index	1.7	-5.0	-8.5
Opportunities** ***	5.8	8.7	11.4
Policy Benchmark: Actuarial Rate of Return	7.5	7.5	7.5
Total Fund			
SCERS Total Fund - Gross	16.9	7.8	9.0
SCERS Total Fund - Net	16.6	7.5	8.7
Policy Benchmark Index*****	14.2%	7.5%	8.6%
InvestorForce Public DB > $1B Gross Median	16.2	7.9	9.3

Notes: Unless noted, returns were prepared by Verus Advisory, Inc., and shown on a gross of fee basis (except for absolute return, private equity, private credit, real assets, real estate, and opportunities), and included the overlay effect. Return calculations were prepared using a time-weighted rate of return.

*The fixed income benchmark consists of 50% Barclays Aggregate, 25% Barclays US Treasury, 12% Citigroup WGBI ex U.S. Unhedged, 5% BofA ML High Yield II, 5% Credit Suisse Leveraged Loans, and 3% JPMorgan GBI EM Diversified.

** Verus composite returns did not start until June 30, 2017. Cliffwater returns are used in its place using an internal rate of return (IRR).

*** Investment return and index return are one quarter in arrears.

****The real assets benchmark consists of 45% Cambridge Associates Private Infrastructure Index, 35% Cambridge Associates Private Energy Index, 10% NCREIF Agriculture Index, and 10% NCREIF Timber Index.

*****The policy index benchmark consists of (Domestic Equity - 21% Russell 3000); (International Equity - 20% MSCI ACWI ex U.S.); (Fixed Income - 10% Barclays Aggregate, 5% Barclays US Treasury, 2.4% Citigroup WGBI ex U.S. Unhedged, 0.6% JPM GBI EM Diversified, 1% BofA ML High Yield II, 1% Credit Suisse Leveraged Loans); (Private Equity - 9% Thomson Reuters C/A All PE 1 Qrt Lag); (Private Credit - 4% Credit Suisse Leveraged Loans + 2%); (Absolute Return - Growth-Oriented 3% HRFI FoF Composite + 1%, Diversifying 7% HFRI FoF Conservative); (Real Estate - 4.5% NFI-ODCE, 2.5% NFI-ODCE +1%); (Real Return - 3.1% Cambridge Assoc Private Infrastructure 1 Qtr Lag, 2.5% Cambridge Assoc Private Energy 1 Qtr Lag, 0.7% NCREIF Farmland 1 Qtr Lag, 0.7% NCREIF Timberland Index Lagged); (Commodities - 2.0% Bloomberg Commodity Index).

Asset Classes

Domestic Equity

U.S. Equity Market Overview

The U.S. equity markets produced strong results during 2017, continuing a rally that began in the fourth quarter of 2016 following the presidential election. The positive returns from the U.S. equity markets in 2017 marks the ninth consecutive year of positive returns following the GFC in 2008. The U.S. economy, as measured by Gross Domestic Product (GDP), has been strong throughout 2017 and accelerated over the course of the year, driven by a strong labor market that helped spur the U.S. consumer, driving retail sales to record levels in 2017 and corporate profits up greater than 10%.

For the year, the S&P 500 returned 21.8%, placing it in the top quartile of equity market returns all-time and the second best performing asset class in 2017 behind only international equities. In addition to the strong returns, the U.S. equity markets experienced the lowest annualized volatility on record, with a peak-to-trough decline during 2017 of just 2.8%, the smallest of any past calendar year. The S&P 500 posted a positive return in every month during 2017, the first time this has ever happened. Given the strong market returns, valuations have extended into the 10th decile, indicating that the S&P 500 has been historically cheaper at least 90% of the time.

Within the U.S. equity markets, there were significant performance differences between investment styles and market capitalizations. Large capitalization stocks significantly outperformed smaller companies, with the Russell 1000 Index returning 21.7% compared to the Russell 2000 Index up 14.7%. With respect to investment style, growth stocks outperformed value stocks across all market capitalization ranges. The Russell 1000 Growth Index returned 30.2% compared to the Russell 1000 Value Index up 13.7%. The performance of high growth companies within the technology sector helped make it the clear standout during the year, finishing up 38.3%. Defensive sectors, telecom, and utilities continued to trail the market as they did in 2016, as the Fed raised interest rates three times during the course of the year, limiting the benefit of higher yields offered by many companies in these sectors.

Domestic Equity Portfolio

During 2017, SCERS reviewed the Domestic Equity asset class structure within the context of the new strategic asset allocation. An objective of the structural review was to maintain diversification across market capitalization and investment styles while also simplifying the structure and eliminating overlap and redundancies. Following the review, SCERS proposed a revision to the structure, which was presented and approved in January 2018. The approved Domestic Equity structure is below:

	Policy	Benchmark	Allocation	Manager
Russell 3000	**100.0%**			
LC Passive (R1000)		54.0%	54.0%	
Passive Managers				54.0%
LC Active (R1000)		36.0%	36.0%	
Active Managers				36.0%
SCV (R2000V)		5.0%	5.0%	
Active Managers				5.0%
SCG (R2000G)		5.0%	5.0%	
Active Managers				5.0%

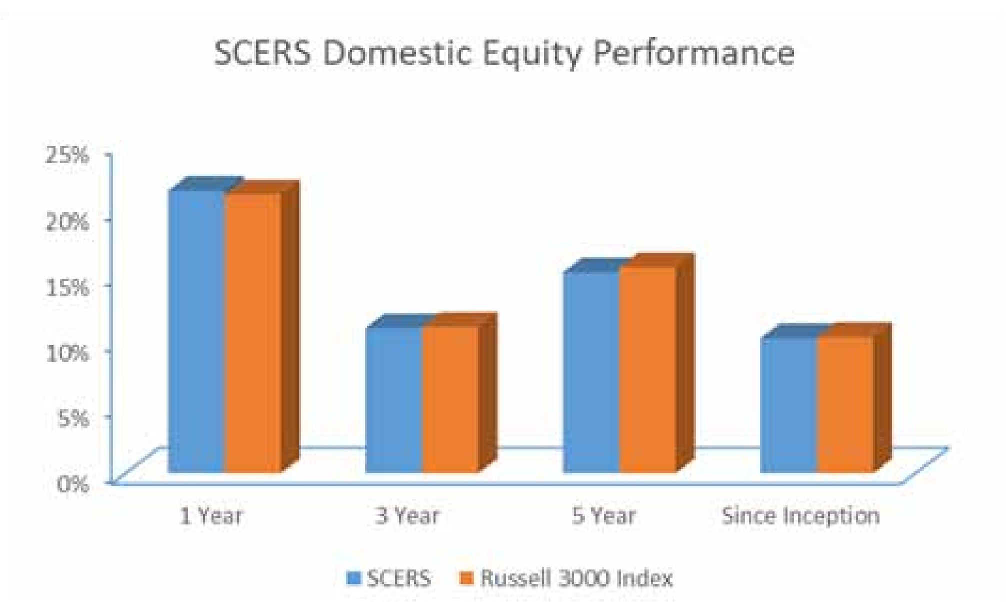
SCERS' Domestic Equity portfolio is structured with a combination of large cap and small cap exposure, as well as active and passive mandates. The large cap passive allocation makes up over 50% of the Domestic Equity portfolio, which is complemented by the large cap active allocation. The current managers within the large cap active segment run concentrated, high conviction, benchmark agnostic, and higher tracking error mandates. Going forward, the large cap active segment will also include an allocation to a systematic factor-based strategy, with a manager search set to take place in 2018. The Domestic Equity small cap portfolio is comprised entirely of active mandates. SCERS' Domestic Equity portfolio maintains neutral style risk, with roughly equal allocations between growth and value.

The objective of the structure is to allocate on an active basis to those sub-asset classes that are less efficient, and to managers that SCERS believes are better capable of earning excess returns, while incorporating a passive allocation to those segments that are more efficient, and where active returns are more difficult to generate. Market efficiency is the degree to which stock prices reflect all available, relevant information. Utilizing a passive equity component also reduces aggregate management fees and tracking error risk.

2017 ACTIVITY

- Revised the Domestic Equity asset class structure to align with SCERS' strategic asset allocation
  - The revised structure was approved in January 2018
  - Eliminated/reduced allocations to strategies that created benchmark and allocation risk
  - Maintained balanced exposure to passive and active strategies
- Oversaw, monitored, and met with SCERS' existing Domestic Equity managers

PERFORMANCE AND ATTRIBUTION



SCERS' Domestic Equity portfolio produced strong returns of 21.4% during 2017, outperforming the Russell 3000 Index, which was up 21.1%. Over longer time periods, the Domestic Equity portfolio has slightly underperformed the benchmark, with SCERS' portfolio up 10.2% since inception compared to the Russell 3000 Index up 10.3%.

Within SCERS' Domestic Equity portfolio returns, SCERS' U.S. large cap portfolio returned 22.7% and outperformed the Russell 1000 Index benchmark return of 21.7%. SCERS' U.S. small cap portfolio returned 19.6% and significantly outperformed the Russell 2000 Index benchmark return of 14.6%. SCERS' domestic REIT exposure, which is not part of SCERS' broad Domestic Equity benchmark, produced positive returns of 6.9% and outperformed its benchmark, which returned 5.2%.

Overall, 2017 was a good year for active management, with seven out of nine domestic equity active managers outperforming their respective benchmarks. The outperformance was balanced across market capitalization and styles, despite value stocks and small capitalization companies underperforming growth and large capitalization stocks on an absolute basis.

2018 Annual Plan

- Implement the new Domestic Equity asset class structure
    - Evaluate SCERS' existing managers and their role in the new structure
    - Physically rebalance investment mandates to their new allocation targets
    - Conduct a manager search for a systematic factor-based strategy, and any other manager searches as needed
- Oversee, monitor, and meet with SCERS' existing Domestic Equity managers

International Equity

Market Overview

Global equity markets experienced a number of positive tailwinds during the course of 2017, which helped the International Equity asset class rank as the top returning asset class across SCERS' portfolio. Global GDP growth accelerated over the course of 2017, with expectations increasing for the past six months, led by the Eurozone and emerging market economies. Low and stable inflation has allowed Central Banks to maintain easy monetary policies providing a favorable environment to support growth. This was evident last year, as the modest pickup in global growth generated the highest level of EAFE (Europe, Australasia, Far East) earnings since the GFC. Strong economic growth and improving corporate earnings are expected to continue, with the IMF forecasting 2018 will have the fewest countries in recession ever.

Against expectations at the beginning of the year, and despite the Fed raising interest rates three times during 2017, the U.S. dollar weakened over the course of 2017 versus foreign currencies. This helped enhance the unhedged, total return for international equities, as measured in U.S. dollars. Therefore, despite the U.S. equity market outperforming most developed equity markets on a local currency basis, international equity markets outperformed all other asset classes in U.S. dollar terms.

Within developed markets, the MSCI EAFE Index returned 25.7% in U.S. dollars, compared to 16.8% in local currency returns, benefiting from a weak U.S. dollar. The Asia-Pacific region was the strongest across the globe, with the MSCI AC Asia-Pacific Index up 31.7%. The Eurozone was also strong, up 25.3% during 2017, with the U.K. only slightly trailing at 22.6%.

Emerging markets produced the strongest equity returns, both in U.S. dollars and on a local currency basis. The MSCI Emerging Markets Index returned 37.3% in U.S. dollars and 28.6% in local currency, exceeding both U.S. and international developed market returns. The information technology (IT) sector was the leading sector across emerging markets, with IT stocks up 61% in 2017. Technology companies are the top five largest stocks in the MSCI EM Index and the sector now represents 28% of the total market capitalization of the index, double the weight from just four years ago.

International Equity Portfolio

SCERS' International Equity portfolio comprises a mix of developed and emerging markets, with a balance between large capitalization and small capitalization equity strategies. Large cap developed markets represent the majority of SCERS' international equity portfolio. Similar to SCERS' Domestic Equity portfolio, the International Equity portfolio is neutral to investment style risk, with an equal weight to growth and value investment strategies.

During 2017, SCERS reviewed the International Equity asset class structure within the context of the new strategic asset allocation. An objective of the structural review, similar to the Domestic Equity structure, was to maintain diversification across market capitalization and investment styles while also simplifying the structure and eliminating overlap and redundancies. Following the review, SCERS proposed a revision to the structure, which was presented and approved in January 2018.

The approved International Equity structure is below:

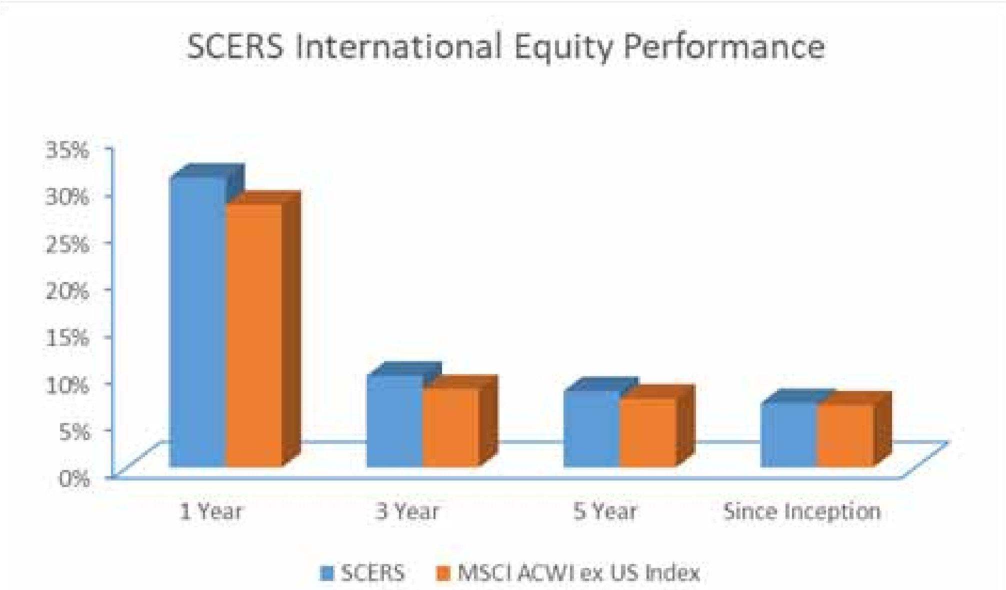
	Policy	Benchmark	Allocation	Manager
ACWI ex US IMI	100.0%	20.0%	20.0%	
Active Managers				20.0%
Dev Growth (EAFE G)		25.0%	25.0%	
Active Managers				25.0%
Dev Value (EAFE V)		25.0%	25.0%	
Active Managers				25.0%
Dev SC Growth (EAFE SC G)		5.0%	5.0%	
Active Managers				5.0%
Dev SC Value (EAFE SC V)		5.0%	5.0%	
Active Managers				5.0%
EM (MSCI EM)		20.0%	20.0%	
Active Managers				20.0%

In contrast to the Domestic Equity portfolio, the International Equity portfolio is allocated entirely to active managers. Stock selection inefficiencies within international and emerging markets, as well as varying exposures geographically, can create greater opportunities for active managers to outperform their respective benchmarks. Investing in global equity markets introduces greater complexities when factoring in regions, countries, and currencies, so incorporating a greater degree of flexibility into investment manager mandates is an important component of SCERS' International Equity portfolio.

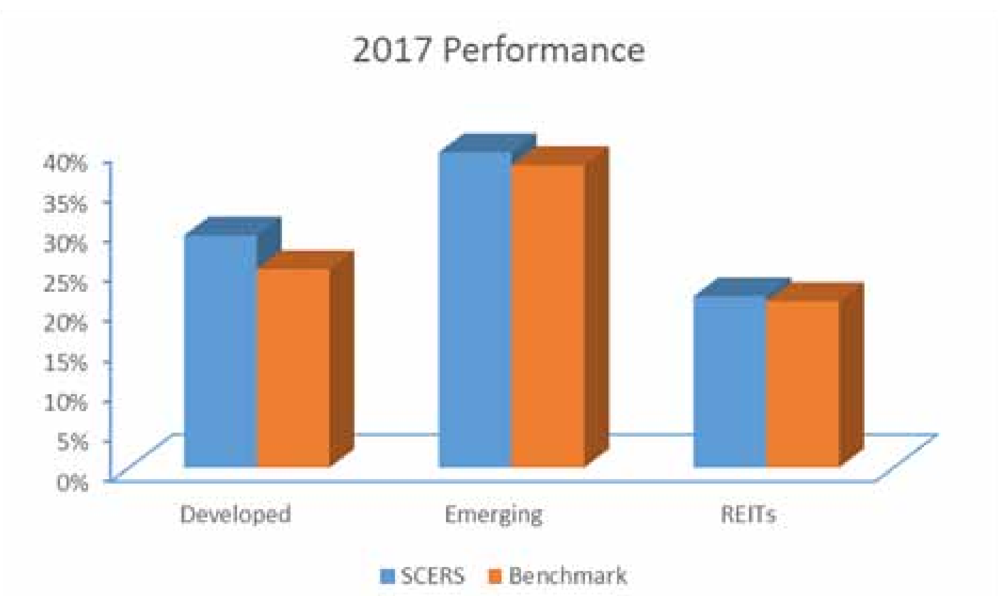
2017 ACTIVITY

- Hired a new international developed large cap manager, Walter Scott & Partners
- Revised the International Equity asset class structure to align with SCERS' strategic asset allocation
    - The revised structure was approved in January 2018
    - Eliminated/reduced allocations to strategies that created benchmark and allocation risk
    - Maintained exposure to active strategies
- Oversaw, monitored, and met with SCERS' existing International Equity managers

PERFORMANCE AND ATTRIBUTION



SCERS' International Equity portfolio produced exceptional returns of 30.7% during 2017, outperforming the benchmark MSCI ACWI ex U.S. Index, which was up 27.8%. Across longer time periods, the International Equity portfolio has outperformed the benchmark, with SCERS' portfolio up 6.8% since inception compared to the benchmark up 6.6%.



Despite index benchmarks posting strong absolute returns, SCERS' international developed active managers were able to generate excess returns and outperform their respective benchmarks. Each of SCERS' large cap international developed market managers outperformed their respective benchmarks in 2017. In aggregate, SCERS' international developed managers returned 29.0% compared to the MSCI World ex U.S. benchmark return of 24.8%. The performance was balanced across investment styles and market capitalization, with SCERS' developed small cap managers generating returns in excess of 30%.

SCERS' emerging markets managers returned 39.4% in 2017, outperforming the MSCI Emerging Markets Index return of 37.8%. SCERS' emerging markets managers provided a good balance that was able to exceed the benchmark overall, with growth managers significantly outperforming while the value oriented managers trailed the benchmark.

SCERS' International REIT manager slightly outperformed its benchmark, returning 21.4% versus 20.8%.

2018 Annual Plan

- Implement the new International Equity asset class structure
  - Evaluate SCERS' existing managers and their role in the new structure
  - Physically rebalance investment mandates to their new allocation targets
  - Conduct manager searches as needed
- Oversee, monitor, and meet with SCERS' existing International Equity managers

Fixed Income

Market Overview

The fixed income markets delivered solid returns in 2017, as risk appetites remained strong with investors reaching for yield and gravitating toward corporate credit. High yield bonds were one of the best performing sectors during the year, returning 7.5%, followed by investment grade credit at 6.2%. Credit spreads continued to tighten, and ended 2017 at levels last seen before the GFC. Demand for corporate credit is being supported by strong corporate earnings and expected benefits from the recently passed tax reform bill.

Economic data within the U.S. was strong in 2017. GDP gained momentum throughout the year, with the year-over-year growth rate coming in at 2.3%, up from 1.8% at the end of 2016. Employment in the U.S. is on solid footing, with unemployment ending the year at 4.1%, down from 4.7% a year earlier, and an average of 175,000 jobs were added per month during the year. Even with the pickup in economic activity, core inflation of 1.7% remained below the Fed's 2% target.

With the robust economic data and employment figures, the Fed raised interest rates three times in 2017, bringing the target for the Federal Funds rate to between 1.25% and 1.5%. While the front end of the yield curve rose during the year with these rate increases, the long-end of the curve actually fell, resulting in a significantly flatter yield curve by year end. 30-year Treasury yields ended 2017 at 2.7%, down from 3.1% the year prior, and 10-year yields were flat on the year, ending 2017 at 2.4%. Overall, U.S. Treasuries returned 2.3% in 2017, while the broad-based Barclays Aggregate Index returned 3.5%. Outside of the U.S., the European Central Bank has left its policy interest rate unchanged while reducing its quantitative easing target, while the Bank of Japan has left its low interest rates and quantitative easing programs in place.

Looking ahead, the Fed expects to raise interest rates three times in 2018. However, the fixed income markets have experienced meaningful volatility to start 2018, with long-term rates rising significantly during the first quarter amid concerns over faster than expected economic growth and potential inflation ramifications.

Fixed Income Portfolio

SCERS' Fixed Income portfolio structure was revised in 2017 as part of the new strategic asset allocation. The overall allocation to fixed income remains at 20%; however, the dedicated public credit mandate was moved to the Growth asset category to reflect its higher risk and return profile, and the traditional fixed income exposures were moved to the Diversifying asset category. Within the traditional fixed income allocation, a dedicated U.S. Treasury mandate was added to complement the existing core plus and global fixed income mandates, and SCERS' existing core fixed income manager was retained to manage the U.S. Treasury allocation.

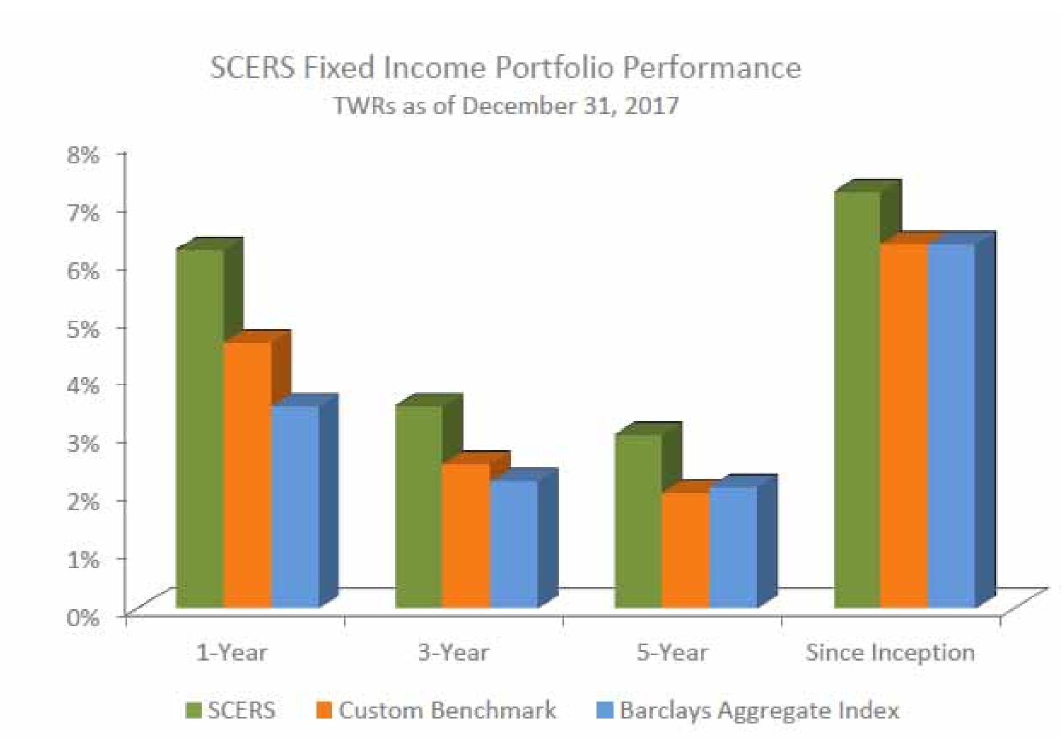
SCERS' targeted fixed income exposures are shown below:

SCERS Fixed Income Portfolio Construction					
	Asset Category	Minimum	Target	Maximum	Policy Index Benchmark
Total Fixed Income Portfolio		**14%**	**20%**	**26%**	**Custom blend of benchmarks below:**
U.S. Treasuries	Diversifying	3%	**5%***	7%	Bloomberg Barclays United States Treasury Index
Core Plus Fixed Income	Diversifying	8%	**10%***	12%	Bloomberg Barclays Aggregate Index
Global Fixed Income	Diversifying	2%	**3%***	4%	80% Citi WGBI/20% JPM GBI-EM Global
Public Credit (high yield/bank loans)	Growth	1%	**2%***	3%	50% BofA High Yield/50% CS Leveraged Loan
* Percentage of total portfolio					

2017 ACTIVITY

- Revised the Fixed Income asset class to align with SCERS' strategic asset allocation
  - Retained core fixed income manager Neuberger Berman to implement and manage the newly approved U.S. Treasury allocation
- Oversaw, monitored, and met with SCERS' Fixed Income managers

PERFORMANCE AND ATTRIBUTION



During 2017, SCERS' fixed income portfolio performed well on an absolute basis and outperformed on a relative basis. The fixed income portfolio returned 6.2% for the year compared to SCERS' policy index custom benchmark return of 4.6%, and against the Barclays Aggregate Index of 3.5%.

Leading the way was SCERS' global fixed income strategy, which generated a 13.3% return for the year compared to its benchmark return of 9.0%. SCERS' public credit, core, and core plus managers also outperformed their respective benchmarks.

2018 Annual Plan

- Implementation of the U.S. Treasury mandate occurred in February 2018
- Perform a physical rebalance of SCERS' fixed income managers, which are underweight to their target allocations
  - The underweights are currently being rebalanced by SCERS' Overlay Program
- Oversee, monitor, and meet with SCERS' Fixed Income managers

Market Overview

Absolute return performance was positive in 2017, and the segment in aggregate produced its best returns since 2013. The synchronized global growth environment and strong global equity market returns helped produce positive returns across a number of strategies, with a lower level of dispersion among strategies than in recent years. The HFRI Fund Weighted Index was up 8.7% for the year and the HFRI Fund of Fund Composite Index was up 7.7%. The positive returns in 2017 were spread among a wide array of managers, with over 80% of funds tracked by eVestment delivering positive returns, and 60% of funds posting improved performance compared to 2016. The positive returns helped stem the tide against the hedge fund industry, with $10 billion of capital inflows in 2017 compared to $70 billion in outflows the prior year.

At the strategy level, Equity-oriented strategies, which benefited from exposure to rising equity markets, produced the best returns within the segment. The HFRI Equity Hedge Index was up 13.5% in 2017 with every sector generating a positive spread between long and short investments, with the exception being energy. Event-driven funds produced broadly positive results, with the HFRI Event-Driven Index up 7.7% for the year, despite a high degree of dispersion with solid gains in equity special situations offset by weaker performance in merger arbitrage and credit positions. Corporate Credit and Distressed/Restructuring managers posted decent returns in 2017, up 7.6% and 6.8% respectively. Long-biased and distressed managers generally outperformed long/short managers as short positions and hedges detracted from performance. High-level themes that drove performance within these strategies included long equity exposure, lower-rated credit (Bs/CCCs), energy-related exposure, and idiosyncratic distressed situations. Multi-strategy funds, which employ several hedge fund strategies and opportunistically move capital between strategies, returned 6.8%. Multi-strategy funds were helped by exposure to equity strategies, which were their largest exposure. Convertible Arbitrage and Relative Value strategies, which primarily trade in credit markets, produced modest gains, up 5.8% and 5.1%, respectively. Low overall volatility across asset classes during the year limited returns. Discretionary and Systematic Global Macro strategies underperformed for the year. Discretionary Global Macro underperformed for the second consecutive year, down 0.3%. The strategy was hurt by a flattening global yield curve and mistimed currency trades, specifically being long the U.S. dollar as it weakened throughout the year. Systematic Global Macro was up 2.3%, and was helped by long equity and base metals exposure, but was also negatively impacted by currency trades and the flattening yield curve.

Absolute Return Portfolio

SCERS' Absolute Return portfolio was historically structured as a broadly diversified program of multiple absolute return strategies. The asset allocation structure included two primary segments, a direct absolute return portfolio and a diversified fund of funds separate account managed by Grosvenor Capital Management (GCM). The direct portfolio is a diversified portfolio of 10 to 20 investments in absolute return/hedge funds. The separate account is called SC Absolute Return Fund (SCARF), and is a multi-strategy absolute return fund of funds separate account portfolio managed by GCM. GCM also manages SCARF–B, an interim absolute return component consisting of a more liquid version of SCARF, which is intended to provide diversified exposure to a multi-strategy absolute return portfolio and be drawn down to fund direct absolute return investments.

In conjunction with SCERS' new strategic asset allocation, the Absolute Return portfolio was split into two segments, Growth Oriented Absolute Return and Diversifying Absolute Return. While the underlying funds and overall target allocation (10%) for the Absolute Return portfolio did not change, the Growth Oriented Absolute Return strategies were moved to SCERS' Growth asset category with a target allocation of 3%; and the Diversifying Absolute Return strategies were moved to SCERS' Diversifying asset category with a target allocation of 7%. The change was made to align the Absolute Return portfolio, which plays multiple roles within a portfolio, with SCERS' asset categories. The distinction was to separate those strategies that typically do well during a more favorable economic environment, and have higher correlations and betas to equity and credit markets, from those strategies that have low to negative correlation to equity markets and serve as a diversifier to the more growth oriented segments of SCERS' portfolio.

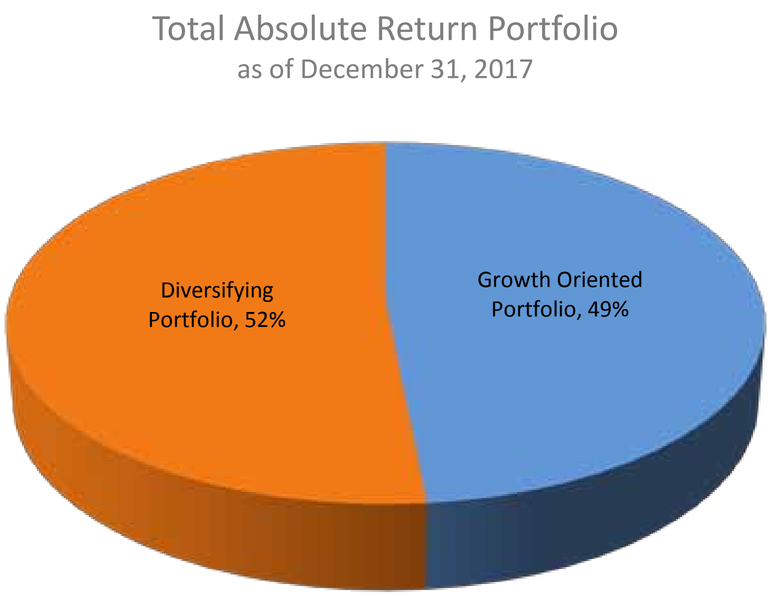
The structural changes separating the Growth and Diversifying Absolute Return strategies also applies to the GCM fund of funds separate accounts, with the underlying funds identified as growth or diversifying depending on the funds' risk and return characteristics. For each segment, Growth and Diversifying, SCERS established specific parameters to guide the portfolios, including the portfolio objective, benchmark, and risk targets. These parameters are detailed in the table below:

	New Absolute Return Portfolio Category	
	Growth Oriented Strategies	Diversifying Strategies
Portfolio Objective	Equity and credit like returns over long-term with lower volatility than equities and credit markets	Positive absolute return profile over time with limited sensitivity to broad market performance
Benchmark	Policy: HFRI FoF Composite Index +1% Long term objective: T-bills +5%	Policy: HFRI FoF Conservative Index Long term objective: T-bills +2%
Risk Target	Standard Deviation < 50% of global equities	Standard Deviation < 25% of global equities
Market Sensitivity	Target an equity beta < 0.5 Target an equity correlation < 0.8	Target an equity beta < 0.1 Target an equity correlation < 0.1
Market Exposure	Total notional gross exposure < 250%	Total notional gross exposure < 750%

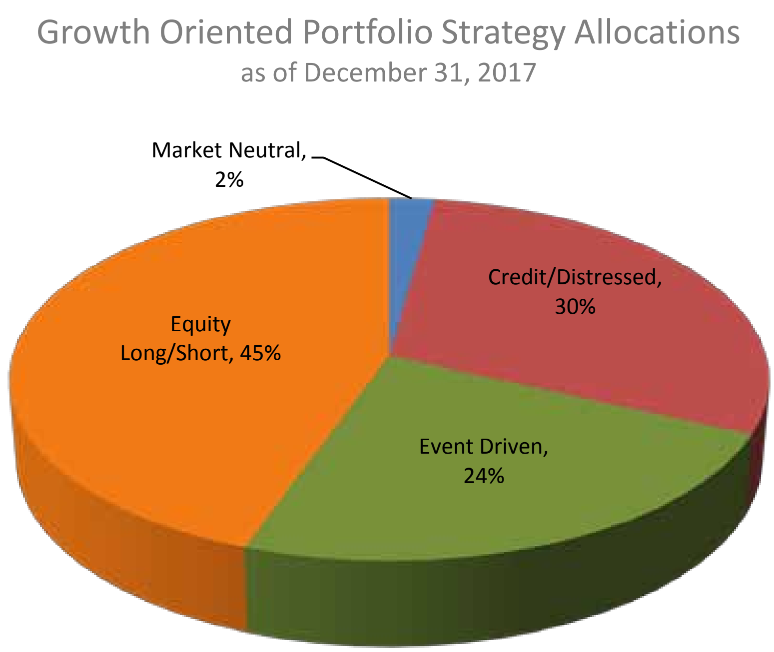
SCERS also established recommended Absolute Return diversification guidelines, including the target allocation and range, but also including the number of funds and non-U.S. exposure. These recommended guidelines include:

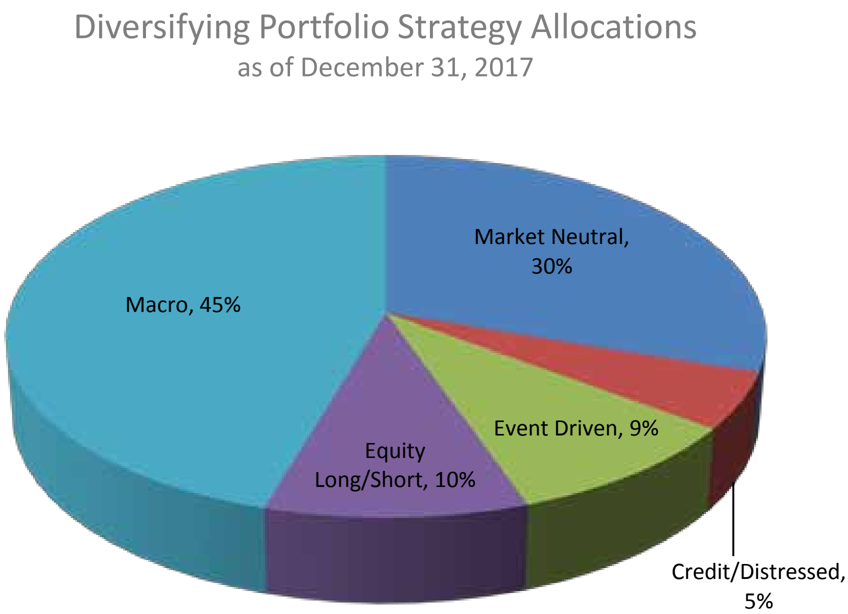
	New Absolute Return Portfolio Category	
	Growth Oriented Strategies	Diversifying Strategies
Target Allocation	3% of Total Assets	7% of Total Assets
Allocation Range	1% to 5% of Total Assets	5% to 9% of Total Assets
Primary Strategies	Credit/Distressed Event Driven Equity Long/Short	Market Neutral Global Macro Multi-Strategy
Number of Funds	Target 5 funds with a range of 2 to 8	Target 10 funds with a range of 6 to 13
Non-U.S. Exposure	Expect 20% to 40% non-U.S. exposure	Expect 20% to 50% non-U.S. exposure

At year-end, SCERS' Absolute Return portfolio is roughly split between Growth and Diversifying as detailed in the chart below.



Within each segment, SCERS' portfolio is diversified across strategies and managers, including the GCM separate accounts. The allocation to each segment, Growth and Diversifying, is detailed in the following charts.

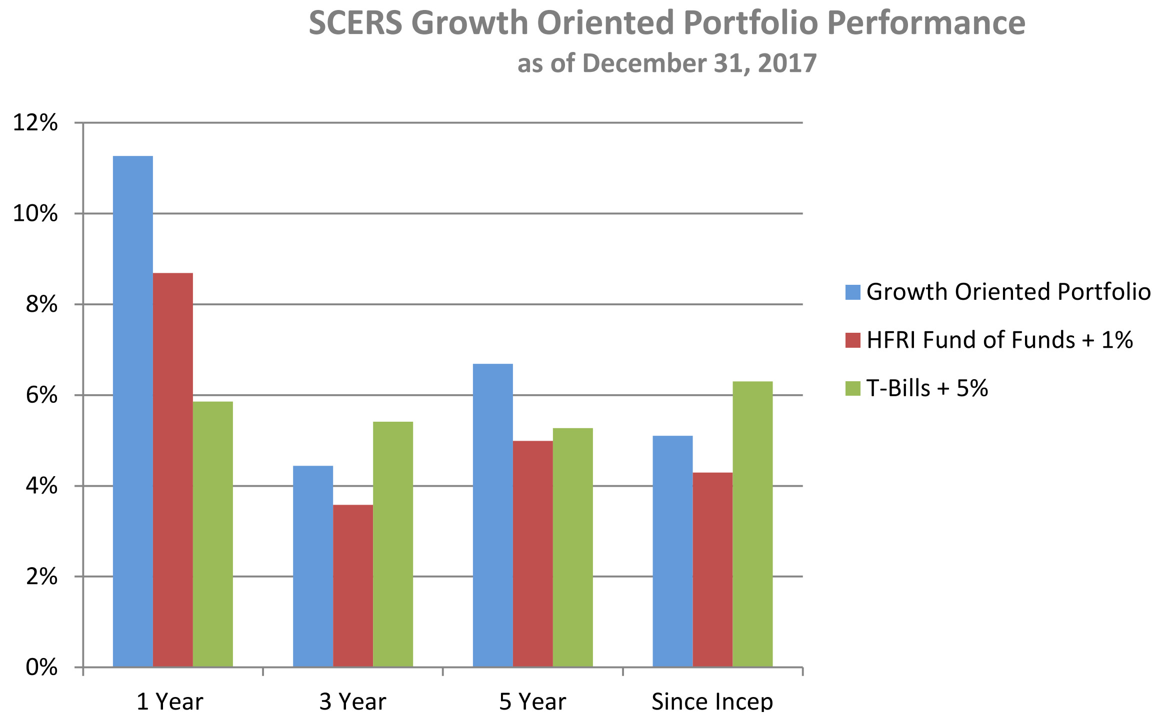




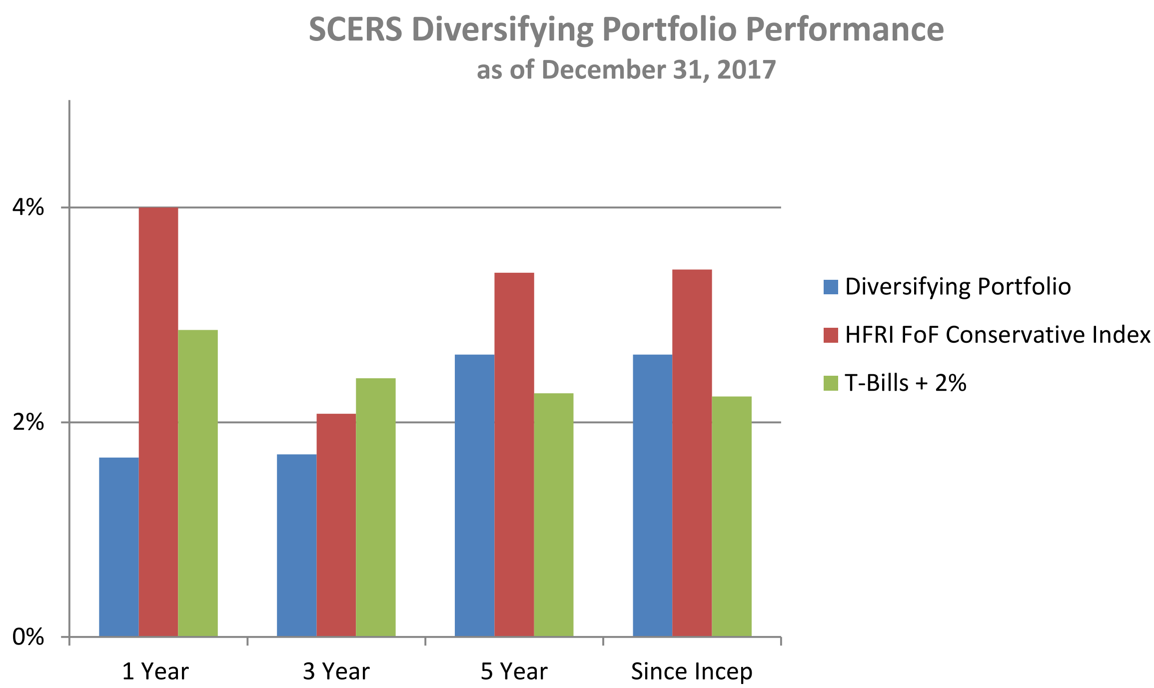
2017 ACTIVITY

- Revised the Absolute Return asset class structure to align with SCERS' strategic asset allocation
  - Established separate Diversifying and Growth Oriented segments within the Absolute Return portfolio
  - Identified parameters for the Diversifying and Growth Oriented segments, including the portfolio objective, benchmark, and risk targets
  - Identified guidelines for Diversifying and Growth Oriented segments, including the target allocation and range, number of funds, and non-U.S. exposure
- Invested $35 million in the Graham Tactical Trend Fund (systematic global macro strategy) within the Diversifying portfolio
- Oversaw, monitored, and met with SCERS' Absolute Return managers

PERFORMANCE AND ATTRIBUTION



SCERS' Growth Oriented Absolute Return portfolio returned 11.3% in 2017, outperforming its policy benchmark (HFRI FoF Composite Index +1%), which returned 8.7%. The portfolio also outperformed the long-term objective (T-Bills + 5%), which returned 5.9% in 2017. Over the three-year and five-year periods, the Growth Oriented portfolio has mixed results, returning 4.4% and 6.7%, respectively. This compares to the policy index benchmark returns of 3.6% and 5.0%, and T-Bill +5% returns of 5.4% and 5.3%, for the respective periods.



SCERS' Diversifying Absolute Return portfolio returned 1.7% in 2017, underperforming its policy benchmark (HFRI FoF Conservative Index), which returned 4.0%. The portfolio also underperformed the long-term objective (T-Bills + 2%), which returned 2.9% in 2017. Over the three-year and five-year periods, the Diversifying portfolio has trailed its policy benchmark, returning 1.7% and 2.6%, respectively, compared to the benchmark returns of 2.1% and 3.4%. The long term objective (T-Bill + 2%) returned 2.4% and 2.3%, for the three and five year periods.

2018 Annual Plan

- Implement the new Absolute Return structure for Growth Oriented and Diversifying strategies according to the annual plan below, as recommended by Cliffwater
  - Reduce Growth Oriented portfolio to target allocation of 3% of total assets
  - Increase Diversifying portfolio to target allocation of 7% of total assets

SCERS Absolute Return Annual Investment Plan

	Target	Range	
		Minimum	Maximum
Number of Funds	**2**	1	3
Diversifying Strategies	**2**	1	3
Growth Strategies	**0**	0	1
Investment per Fund	**$45 MM**	$35MM	$75MM

  - Target two direct investments within the Diversifying Absolute Return segment, with a range of 1 to 3 funds
    - Target an average investment size of $45 million, and a range between $35 million and $75 million
- Revise and upsize the current SCARF-B interim solution mandate with strategic partner Grosvenor Capital Management (GCM) to bring SCERS' Diversifying Absolute Return portfolio closer to the target allocation of 7%, while the direct portfolio is being implemented
  - The GCM interim solution would be in addition to any direct absolute return investments targeted in the annual plan
- Continue to oversee and monitor SCERS' Absolute Return portfolio and managers

Private Equity

Market Overview

The private equity markets continued with strong performance in 2017. Similar to prior years, returns were solid and valuations continued to increase; however, investment and fundraising activity showed signs of slowing later in the year. A good gauge to evaluate discipline of investment managers when deploying capital, is the average entry multiples that are being paid. This measure increased in 2017, with the average price/EBITDA multiple within U.S. buyout at 10.6x, compared to 10.0x in 2016, and 9.7x at the prior peak in 2007. Investment managers are reacting to the higher pricing environment by adding to their highest conviction investment ideas through complementary add-on acquisitions in order to reduce their all-in purchase price multiples, and by operationally investing in their underlying companies to expand growth and profitability within these companies. While entry multiples are higher than those of the prior peak in 2007, investment managers are using less leverage, with average buyout equity contributions of 41.3% in 2017, versus 30.9% in 2007.

Transaction activity within the U.S. buyout space totaled $194 billion in 2017, which was 9% lower than in 2016; peak activity occurred in 2015 at $262 billion. While the macroeconomic environment has been on solid footing in the U.S., investment managers are showing signs of being more cautious given the high entry valuations and the competitive landscape for potential investment opportunities. European buyout transaction activity totaled €96.6 billion in 2017, a 59% increase from the prior year, but in line with 2015 levels. U.S. venture capital investment deal volume fell 4% in 2017, as measured by the number of deals, although the dollar value per deal was higher than that of 2016. Private equity fundraising remained robust in 2017. Total fundraising activity in 2017 totaled $369 billion, a 5% decrease compared to 2016, but still the second highest historical total. At the strategy level, fundraising within buyout saw an increase of 11%, while venture capital, distressed debt, and other private equity strategies declined during the year.

High entry valuations and robust transaction activity and fundraising within private equity demonstrate that investment managers will have a difficult time relying on multiple expansion as a source of value creation going forward. Instead, they will need to have the operational expertise to grow a portfolio company's revenues and profits to create value and justify higher valuations. These are the types of strategies and funds that SCERS targets within the Private Equity portfolio, particularly within the current environment.

Private Equity Portfolio

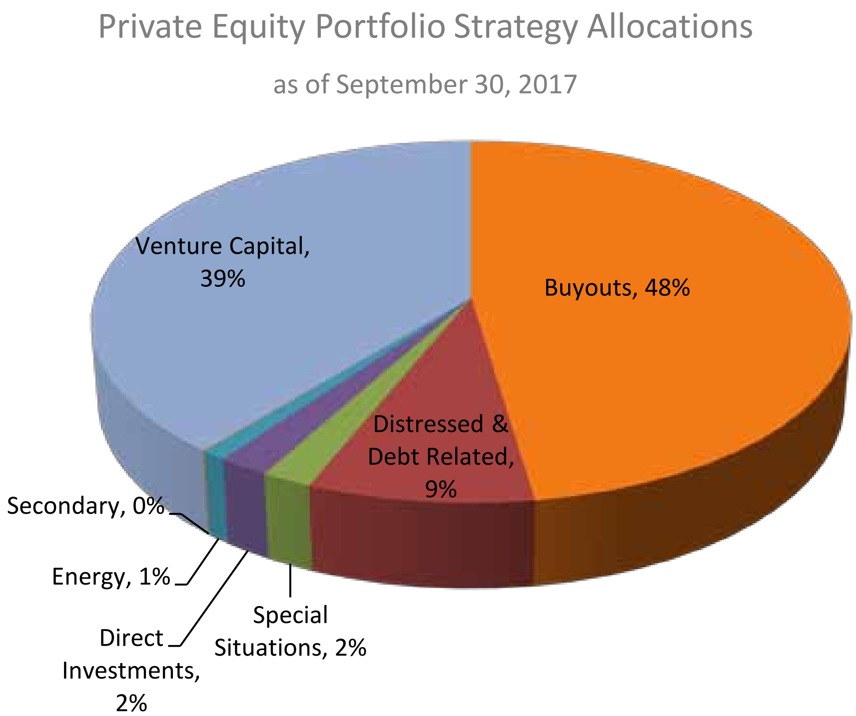
SCERS' Private Equity portfolio is broken out by strategy, including buyout, venture capital, distressed debt, and 'other' less defined strategies, as well as by region. The targeted range of investment exposures within Private Equity include:

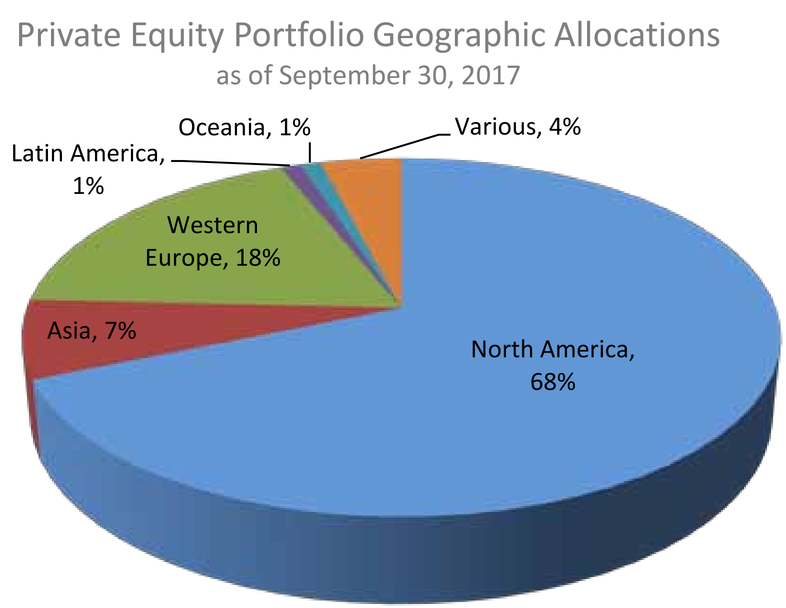
SCERS Private Equity Portfolio Construction				
	Minimum	Target	Maximum	Policy Index Benchmark
Total Private Equity Portfolio	**7%**	**9%**	**11%**	**Cambridge Associates PE/VC Index**
U.S Focused				
Buyout	30%	**50%**	70%	
Distressed Debt	0%	**10%**	20%	
Venture Capital	10%	**20%**	30%	
Other	0%	**0%**	15%	
Non-U.S Focused				
Buyout	10%	**15%**	20%	
Distressed Debt	0%	**2%**	10%	
Venture Capital	0%	**3%**	10%	
Other	0%	**0%**	5%	

Over the past several years, SCERS has been building the direct Private Equity program by making commitments consistent with the asset class's investment plan and investment structure. These direct commitments complement SCERS' legacy Private Equity fund-of-funds, which were established during the 2006-2008 time period. SCERS' target allocation to private equity reduced from 10% to 9% within SCERS' new strategic asset allocation, which didn't have a significant impact on SCERS' multi-year plan to reach and maintain the target allocation in Private Equity. SCERS' current Private Equity allocation as of December 31, 2017 stands at 7.1%. The policy index benchmark that SCERS uses to assess the performance of the Private Equity asset class is the Cambridge Associates LLC Global Private Equity & Venture Capital Pooled Index. The longer-term objective of the Private Equity portfolio is to earn equity-like returns with an additional premium to compensate for the liquidity risk undertaken by investing in the asset class. Therefore, on a longer-term basis, SCERS compares the performance of the Private Equity portfolio to the Russell 3000 Index + 3%. SCERS changed the policy index from the Russell 1000 Index + 3% to the Cambridge Associates LLC Global Private Equity & Venture Capital Pooled Index in 2017 as part of the revised Private Equity asset class structure.

Private Equity (Continued)

SCERS invests across various strategies and regions within the Private Equity structure, and the current exposure breakdown is shown below:

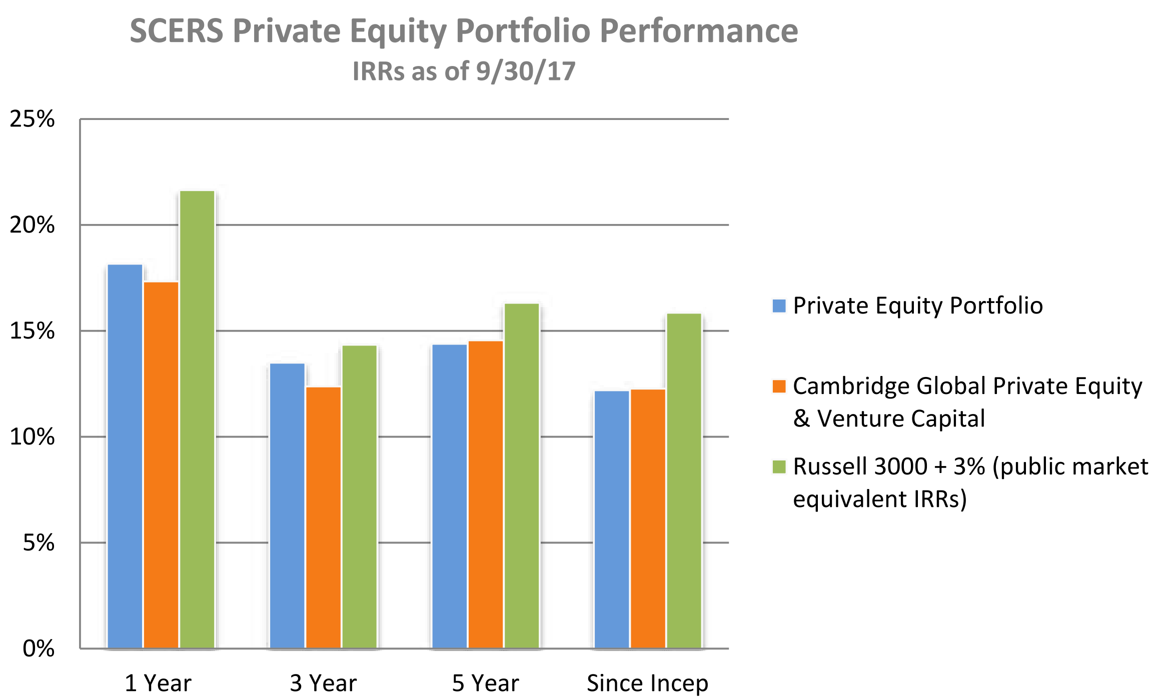




2017 ACTIVITY

- Revised the Private Equity asset class structure to align with SCERS' strategic asset allocation
  - Changed the policy index benchmark from the Russell 1000 + 3% to the Cambridge Associates LLC Global Private Equity & Venture Capital Pooled Index
  - Modified the investment policy statement for Private Equity
- Presented the annual report on Private Equity and developed the 2017 Private Equity annual investment plan
- SCERS made six private equity commitments in 2017 - four follow-on fund investments and two new fund investments
  - Aggregate ~$165 million in commitments – budget for 2017 was $220 million, with a range of $170 million to $270 million
    - $20 million to Marlin Equity Partners V, L.P. (middle market buyout)
    - $15 million to Marlin Heritage II, L.P (U.S. small/lower-middle market buyout)
    - $35 million to New Enterprise Associates 16, L.P. (venture capital)
    - $35 million to Summit Partners Europe Growth Equity Fund II, L.P. (European growth equity)
    - $35 million to Davidson Kempner Long Term Distressed Opportunities Fund IV, L.P. (distressed debt)
    - $25 million to Spectrum Equity Fund VIII, L.P. (growth equity)

PERFORMANCE AND ATTRIBUTION



SCERS' Private Equity portfolio continues to progress through the J-curve and is generating increasing levels of positive performance. For the 1-year period ending September 30, 2017, SCERS' Private Equity portfolio generated a net IRR of 18.2%, which outperformed the policy index Cambridge Global Private Equity & Venture Capital benchmark return of 17.3%. The Private Equity return trailed SCERS' public market benchmark, the Russell 3000 + 3%, which returned 21.7%. SCERS' since inception net IRR of 12.2% is in-line with the policy index benchmark and trails the public market benchmark return of 15.9%. While SCERS' fund-of-funds commitments made in 2006 and 2008 were a significant contributor to returns early in the Private Equity portfolio, the direct private equity portfolio represents an increasing component of SCERS' overall historical Private Equity returns.

2018 Annual Plan

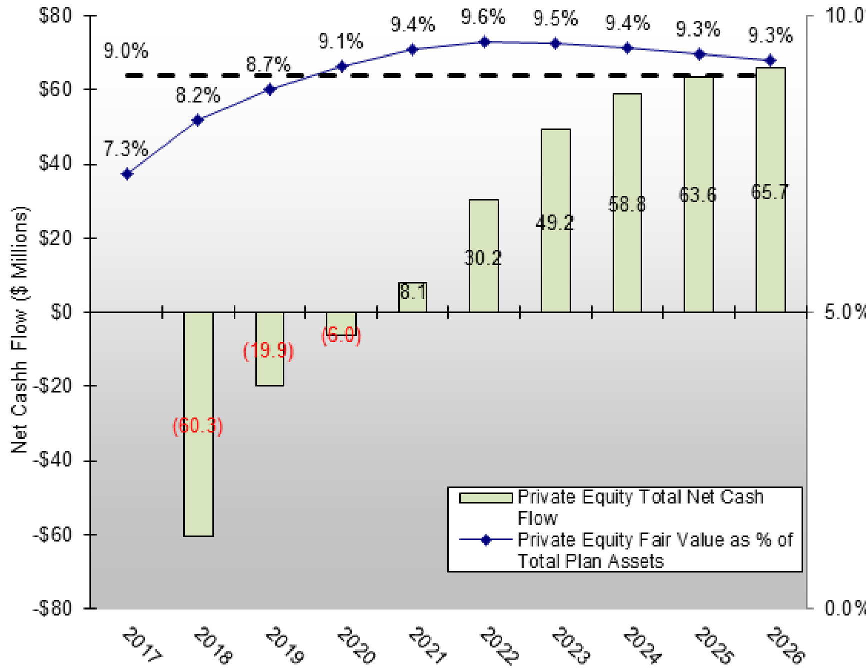
Below is the annual plan for the Private Equity asset class, as recommended by Cliffwater:

SCERS Private Equity Annual Investment Plan			
	Target	Range	
		Minimum	Maximum
Commitment Level	**$250 MM**	$150 MM	$300 MM
Number of Funds	**6**	4	9
Buyout fund(s)	**2**	2	6
Distressed fund(s)	**1**	0	3
VC fund(s)	**1**	0	3
Other fund(s)	**1**	0	2
Non-U.S. fund(s)	**1**	0	2
Commitment per Fund	**$45 MM**	$10 MM	$100 MM

- Cliffwater and Staff recommend a $250 million commitment budget for 2018, with a range of $150 million to $300 million
  - Expect to make 6 fund commitments with an average commitment size of $45 million, and a range between $10 million and $100 million
  - The budget includes any funds that a commitment has already been made to, or is in the process of being made to, in 2018

2018 ANNUAL PLAN (CONTINUED)

- Private Equity capital pacing
  - Allocation to continue increasing toward the 9% target over the next few years
  - Expect to reach the 9% target allocation in 2020



- Areas of focus
  - Investment opportunities across buyout, venture capital, and distressed debt
  - Focus on select new manager relationships, and follow-on investments with existing funds that will be in the market fundraising
  - Remain cognizant of risks later in the cycle, including increasing valuations and fund sizes, while maintaining vintage year diversification
  - Place particular focus on sector-specific funds where a fund manager has differentiated expertise, experience managing multiple cycles, and access to proprietary deal flow
- Continue to oversee, monitor, and assess the existing manager lineup
- Evaluate potential strategic partners and fund-of-funds to complement SCERS' direct portfolio, and to manage the number of investment managers and funds in SCERS' overall Private Equity portfolio
  - Areas of focus include co-investments/secondaries; small market buyout; venture capital; non-U.S. (Emerging Markets) investment strategies

Private Credit

Market Overview

Private credit as a separate investment strategy has garnered significant investor attention over the last five years. It is understandable given the attractive returns that the strategy generates. Institutional investors are finding several alluring characteristics within private credit including, a high income profile through contracted coupon payments, loan covenants, and loan security to offer downside protection, shorter duration loan terms, and added diversification. With the economic cycle in its later stages, investors are looking to private credit as a more consistent and stable investment compared to public credit, one which can also provide an attractive current yield.

Banks, which were the traditional lenders for small to middle-market companies, began to scale back in the aftermath of the GFC in response to regulatory constraints brought about by Dodd-Frank. As banks retrenched from lower-middle market lending, private credit, and non-regulated finance firms began filling the void. Private credit began to take off in 2013, when $14.6 billion in capital was raised, exceeding the $5.5 billion raised in 2012, a near tripling of capital. 2017 was a record year for fund raising, reaching $54 billion raised across 61 funds, double the $24 billion raised in 2016. A majority (63%) of private credit is targeted at the U.S. given that the U.S. is the largest and most developed private debt market. According to Prequin, an industry research firm, there are 152 new funds seeking to raise $63 billion within direct lending at the start of 2018. With the rapid ramp up in private credit fund raising, it is not surprising that Prequin reported private credit managers are sitting on $65 billion in available capital.

In a survey conducted of fund managers in early 2017 by Prequin, the greatest challenges managers expect in 2018 are access to deal flow, increasing competition, and the abundance of capital within the segment, followed closely by deal pricing. In this highly competitive private credit market, it is ever important that Staff and Cliffwater identify top tier differentiated managers who seek to deploy capital in areas where there are fewer competitors.

Private Credit Portfolio

The Private Credit portfolio was established in 2017 as a component of SCERS' new strategic asset allocation within the Growth asset category. Private credit is an illiquid, lending strategy focused on private loans to performing companies. Investments are primarily loans and credit instruments, with the majority of return generated from loan interest and principal payments. To compensate for the illiquidity, SCERS' Private Credit portfolio is expected to generate a return exceeding the returns of publicly traded bank loans. The policy index benchmark for SCERS' private credit portfolio is the Credit Suisse Leveraged Loan Index + 2% benchmark, which is an index of 1,600 publicly-traded bank loans.

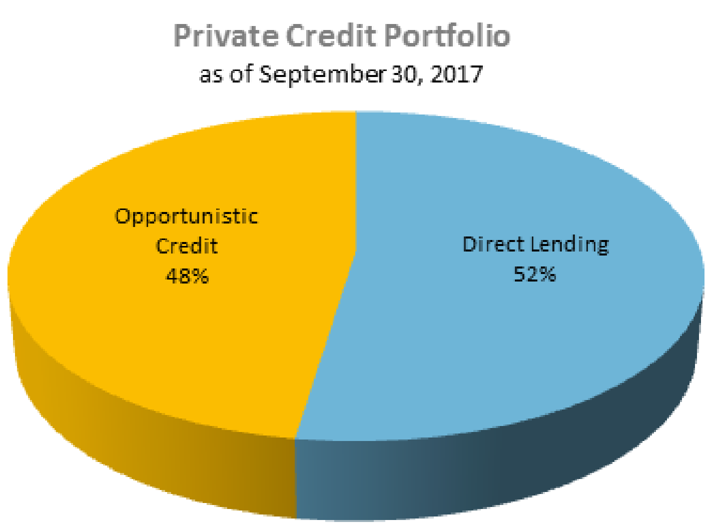
SCERS' Private Credit portfolio has a target allocation of 4%, with a range of 2% - 6%. As of December 31, 2017, the actual allocation was 0.6% with 2.8% committed. A portion of the current allocation is the result of the private equity reallocation. With the new asset allocation plan, several of SCERS' private equity credit/lending commitments were reallocated to Private Credit. It is not expected that the Private Credit target allocation of 4% will be reached until 2020.

The targeted range of investment exposures within Private Credit include:

SCERS Private Credit Portfolio Construction				
	Minimum	Target	Maximum	Policy Index Benchmark
Total Private Credit Portfolio	**2%**	**4%**	**6%**	**CS Leverage Loan Index + 2%**
Direct Lending	50%	**70%**	100%	
Opportunistic Credit	0%	**30%**	50%	
U.S. Private Credit	75%	**85%**	100%	
Non-U.S. Private Credit	0%	**15%**	25%	

Since the implementation of the Private Credit mandate, Staff and Cliffwater have been reviewing investment opportunities, with a near focus on direct lending to middle-market companies. During 2017, SCERS made two commitments totaling $125 million, including a $100 million commitment to Tennenbaum Capital Partners Direct Lending Fund VIII-S (TCP) in a separate account, fund of one structure. The fund of one structure provides for an evergreen investment where SCERS is able to reinvest its capital with TCP on a long term basis. With the relatively shorter investment holding period of direct lending investments (3-year average loan life), the evergreen structure reduces the need to underwrite subsequent investment funds with the same strategy from TCP.

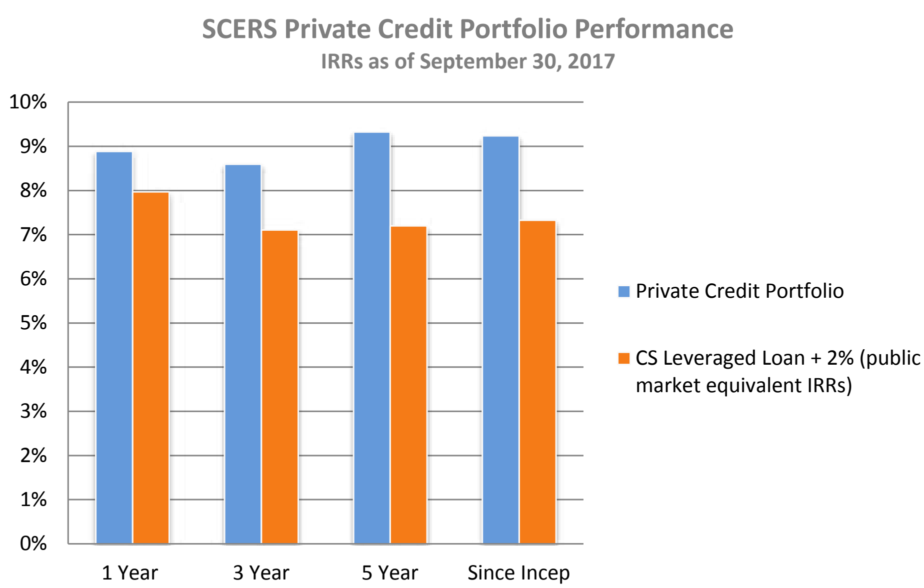
The current strategy diversification for SCERS' Private Credit portfolio is shown below, as of September 30, 2017:



2017 ACTIVITY

- Established the Private Credit asset class to align with SCERS' strategic asset allocation
  - Set the policy index benchmark as the Credit Suisse Leveraged Loan Index + 2%
  - Approved the Private Credit sub-strategy and geographic allocation targets and ranges
  - Targeted a total of 8 - 10 total manager relationships within the asset class
- Presented the 2017 Private Credit annual investment plan
  - A target of 4 fund commitments (3 - 5 range)
  - $60 million per fund
  - $200 million in total commitments, with a range of $150 - $250 million
- SCERS made two private credit commitments in 2017 totaling $125 million (1 follow-on fund investment and 1 new fund investment)
  - $25 million to Athyrium Opportunities Fund III, L.P. (opportunistic credit)
  - $100 million to Tennenbaum Capital Partners Direct Lending Fund VIII, LLC-S (direct lending)

PERFORMANCE AND ATTRIBUTION



As a newly established dedicated asset class, SCERS' Private Credit portfolio is early in its development; however, four existing credit funds from SCERS' Private Equity portfolio were reallocated to Private Credit in 2017, which provides the Cliffwater track record above. Compared to private equity, private credit has a significantly less J-curve effect. The short term nature of private credit loans, which typically have three- to five-year loan terms, means investors receive capital back quicker than private equity, which limits the J-curve.

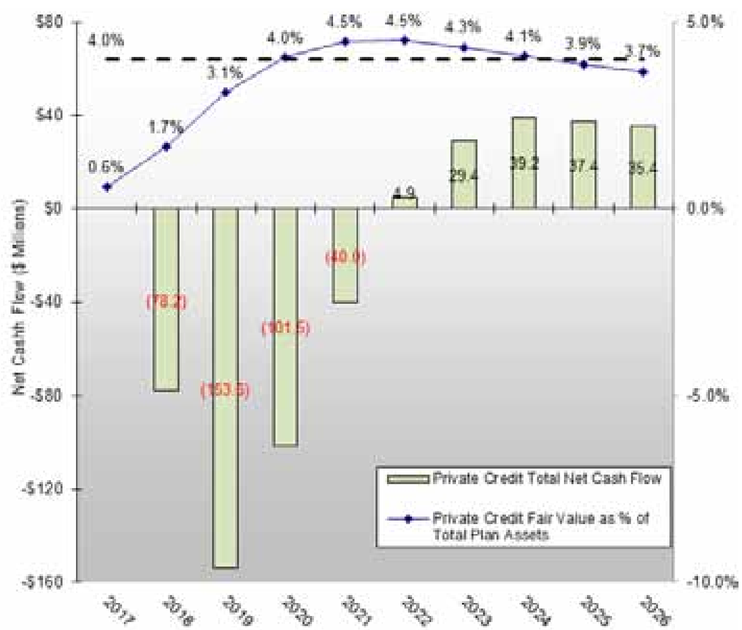
SCERS' Private Credit portfolio has earned a net IRR of 9.2% since inception, which compares to SCERS' policy index benchmark (Credit Suisse Leverage Loan Index + 2%) return of 7.3%. Over the 1-, 3-, and 5-year holding periods, SCERS' Private Credit portfolio has outperformed the benchmark, as shown in the chart above.

2018 ANNUAL PLAN

Below is the annual plan for the Private Credit asset class, as recommended by Cliffwater

SCERS Private Credit Annual Investment Plan			
	Target	Range	
		Minimum	Maximum
Commitment Level	**$220 MM**	$150 MM	$290 MM
Number of Funds	**4**	3	5
Direct Lending fund(s)	**3**	2	4
Opportunistic Credit fund(s)	**1**	0	2
Commitment per Fund	**$60 MM**	$25 MM	$100 MM

- Cliffwater and Staff recommend a $220 million commitment budget for 2018, with a range of $150 million to $290 million
  - Expect to make 4 fund commitments with an average commitment size of $60 million, and a range between $25 million and $100 million
  - The budget includes any funds that a commitment has already been made to, or is in the process of being made to, in 2018
- Private Credit capital pacing
  - Allocation will continue increasing toward the 4% target over the next few years
  - Expect to reach the 4% target allocation in 2020



- Areas of focus
  - Direct lending opportunities in the U.S. and non-U.S. (Europe and Asia)
  - Review opportunistic and special situation credit investment opportunities
- Continue to oversee, monitor, and assess the existing manager lineup

Market Overview

The energy industry, both upstream and midstream, are key components of the Real Assets portfolio, and the price of oil has an impact on the performance of the funds in which SCERS invests. The price of oil reached $56 per barrel to start 2017 off of extended production cuts by OPEC and a corresponding reduction in the supply overhang that plagued the oil markets in 2015 and 2016, when oil prices dropped to as low as $28 per barrel. U.S. shale producers, who spent the past couple of years cutting costs and improving drilling efficiencies, were now able to break even at much lower levels, around $40 - $50 per barrel, and with the increasing price of oil, U.S. oil producers ramped up production. As U.S. production gained momentum, oil prices began to retreat, reaching a low of $46 by June 2017. Not having clear sight into supply and demand, investor sentiment swayed during much of 2017, which saw oil sit within a $45 - $55 range. However, the overhang of inventory began to recede quicker than the market was expecting, and industry data instilled greater levels of bullish expectations as oil prices entered 2018 at above $60 per barrel.

Infrastructure assets such as ports, public buildings, and roadways, which are also a key part of the Real Assets portfolio, have enjoyed high investor demand. As an asset class, infrastructure continues to grow, with record amounts of capital raised over the past couple of years. In 2017, there were 66 funds that raised a total of $65 billion, nearly the same amount as the $66 billion raised in 2016. Preqin, an industry data provider, estimates there is $150 billion in available capital entering 2018, a record level, and fundraising levels will remain robust. Given high investor demand and competing capital, it is not surprising that infrastructure values, particularly core assets, are high. With the competitive environment and high valuations, 2017 transaction activity dropped by 6%, although the total transaction amount increased 8%.

Similar to what is playing out in private equity, the high entry valuations and fundraising within infrastructure will require investment managers to have the operational expertise to create value at the asset level, rather than relying on multiple expansion as a source of value creation, in order to justify higher valuations. These are the types of strategies and funds that SCERS targets within infrastructure, particularly within the current environment.

Where energy and infrastructure focused funds are raising record amounts of capital, the agriculture asset class is lacking capital. A total of 9 funds were raised in 2017, globally, totaling $9 billion. Nearly 50% of the funds raised are targeted at North American agriculture, followed by Europe. Staff, working with Cliffwater, recognizes the lack of capital and the unmet demand, and continues to search for opportunities. SCERS made its first agriculture investment in 2017, with ACM Fund II, a U.S. permanent crop closed end fund.

Real Assets Portfolio

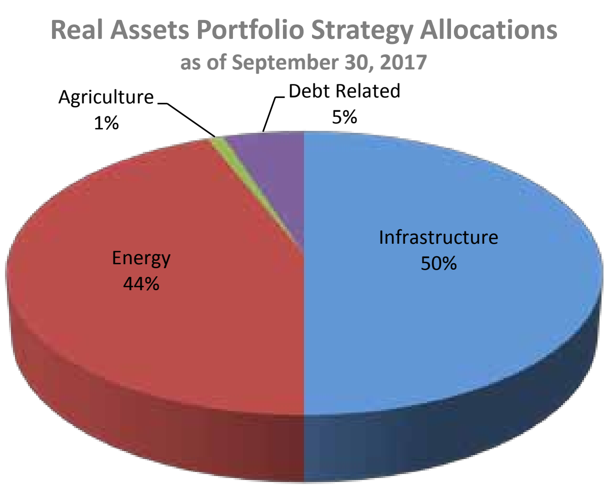
The structure of SCERS' Real Assets asset class was revised in 2017 to align with SCERS' strategic asset allocation. The asset class is comprised of investments in infrastructure, energy, agriculture, timber, and other natural resources, through a combination of equity and debt investments. Within the new strategic asset allocation, the target allocation to Real Assets was increased from 6% to 7%. Objectives of the Real Assets portfolio are to protect against inflation through the generation of real returns, generate moderate income, and provide added diversification.

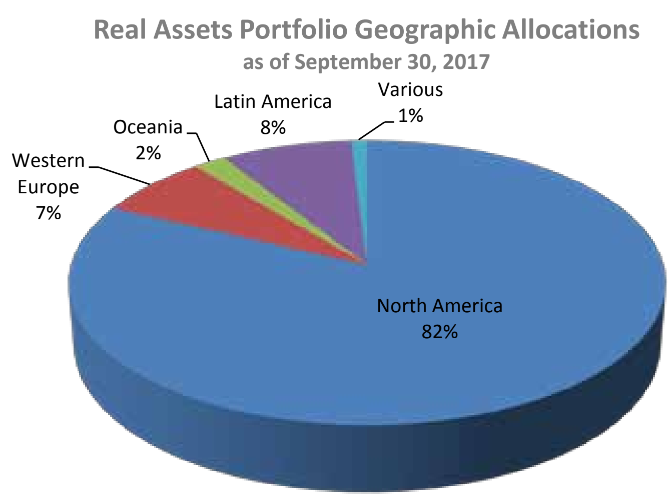
The targeted range of investment exposures within Real Assets include:

SCERS Real Assets Portfolio Construction				
	Minimum	Target	Maximum	Policy Index Benchmark
Total Real Assets Portfolio	**5%**	**7%**	**9%**	**Custom blend of benchmarks below:**
Infrastructure	30%	**45%**	60%	Cambridge Associates Private Infrastructure Index
Energy	20%	**35%**	50%	Cambridge Associates Private Energy Index
Agriculture, Timber, Other	10%	**20%**	30%	NCREIF Agriculture/Timber Index

SCERS continues to make progress in building the Real Assets portfolio, and is projected to be fully allocated to the asset class in 2020. The current Real Assets allocation as of December 31, 2017 stands at 3.8%, versus the target allocation of 7.0%. Staff and Cliffwater have been focused on real assets investment opportunities with a risk-return profile where a higher portion of the return is generated from consistent levels of contracted income that is less sensitive to the macro economy. During the year, Staff and Cliffwater focused on several real assets themes and investment strategies, including private-public infrastructure and global agriculture.

The current sub-asset type and geographic diversification for SCRES' Real Assets portfolio is shown below:



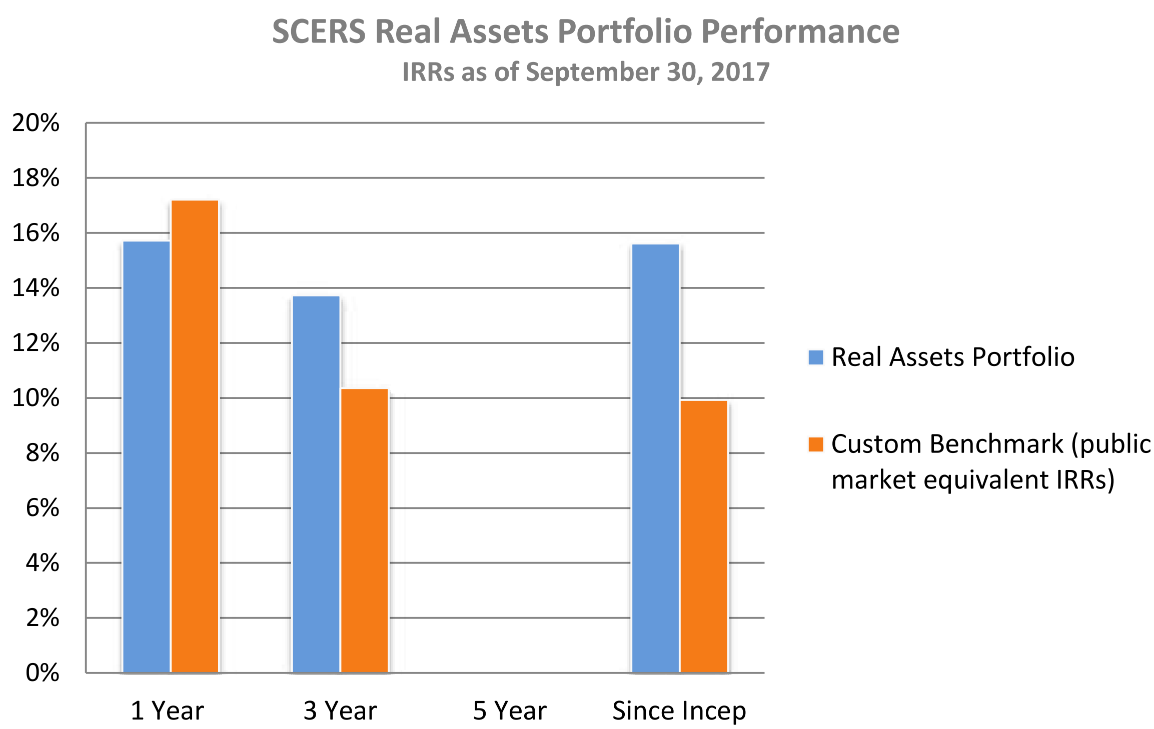


2017 ACTIVITY

- Revised the Real Assets asset class structure to align with SCERS' strategic asset allocation
  - Changed the policy index benchmark to a custom benchmark made up of a blend of real assets exposures referenced earlier
- SCERS made two real assets fund commitments in 2017 totaling $90 million (1 follow-on fund investment and 1 new fund investment) - budget for 2017 was $150 million, with a range of $100 million to $200 million
  - $50 million to Meridiam Infrastructure North American III, L.P. (core infrastructure)
  - $40 million to Quantum Energy Partners VII, L.P. (midstream energy)

- SCERS continues to build out its customized separate accounts with Atalaya and Pantheon and made a number of investments as follows:
  - Atalaya (real asset backed loan originations)
    - J&J Farms recapitalization of $7 million
    - Tucson Electric Power critical equipment lease of $10 million
  - Pantheon (real assets secondaries and co-investments)
    - KKR Energy & Infrastructure secondary in UK electric metering of $2 million
    - KKR Evergreen co-investment in renewable energy assets of $2 million
    - Goldman Sachs Global Infrastructure secondary in Mexican toll roads of $2.5 million
    - Heartland Forestland secondary in U.S. timber portfolio of $3.5 million

PERFORMANCE AND ATTRIBUTION



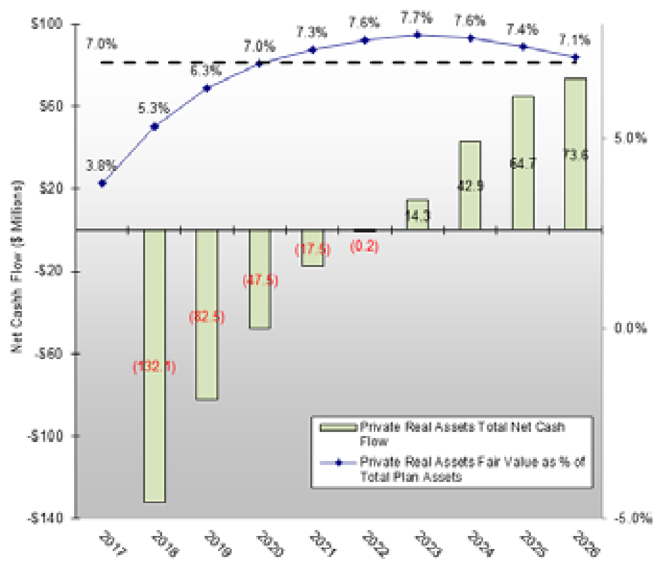
Similar to SCERS' Private Equity portfolio, the Real Assets portfolio continues to progress through the J-curve and is generating increasing levels of positive performance. For the 1-year period as of September 30, 2017, SCERS' Real Assets portfolio, excluding the SSGA Real Assets overlay, generated a net IRR of 15.7% versus the policy index benchmark return of 17.2%. The since inception net IRR of 15.6% has outperformed SCERS' policy index benchmark return of 9.9%.

2018 ANNUAL PLAN

Below is the annual plan for the Real Assets asset class, as recommended by Cliffwater

SCERS Real Assets Annual Investment Plan			
	Target	Range	
		Minimum	Maximum
Commitment Level	**$220 MM**	$150 MM	$290 MM
Number of Funds	**6**	3	7
Energy Related	**2**	0	3
Infrastructure	**2**	0	2
Ag, Minerals, Timber	**2**	0	3
Other	**0**	0	1
Commitment per Fund	**$40 MM**	$20 MM	$100 MM

- Cliffwater and Staff recommend a $220 million commitment budget for 2018, with a range of $150 million and $290 million
  - Expect to make 6 fund commitments with an average commitment size of $40 million, and a range between $20 million and $100 million
  - The budget includes any funds that a commitment has already been made to, or is in the process of being made to, in 2018
- Real Assets capital pacing
  - Allocation will continue increasing toward the 7% target over the next few years
  - Expect to reach the 7% target allocation in 2020



- Areas of focus
  - Identify investment opportunities along the agriculture value chain both in the U.S. and the top global agriculture countries
  - Identify timber investment opportunities
  - Review opportunities in capital equipment leasing
- Continue to oversee, monitor, and assess the existing manager lineup

Market Overview

Global real estate has benefited from global economies experiencing accelerating, albeit varying levels of growth. Given its attractive yield characteristics, real estate has become a sought after investment. Nearly every real estate market has investor demand exceeding supply as capital desperately seeks returns. The high investor demand has driven real estate valuations in nearly all of the core global markets to exceed pre-GFC peaks. In the U.S. and UK real estate market, 2015 was an inflection point where investors and lenders became more cautious. While the European region is performing strongly, particularly in southern Europe and the Nordics, investors believe that it is reaching a mature point in the cycle, and may be reaching an inflection point in 2018. The Asia Pacific region is experiencing urbanization and positive demographics, which is driving GDP growth above market forecasts.

From the standpoint of real estate fundamentals, in the U.S. there is a considerable slowing, if not a downward trend, due to new supply incrementally exceeding demand, particularly for apartments. The logistics sector experienced another solid year of tightening fundamentals, primarily in the core distribution markets. With historical new supply being delivered in 2017, occupancy is generally flat but at record lows, and rent growth has slowed. Slowing job growth and new supply is dampening office conditions, which are teetering between steady to contraction.

In Europe, real estate fundamentals continue to tighten, especially in the core cities. Europe is experiencing the same urbanization that the U.S. has been undergoing. However, in many of the European cities, there is a wide demand-supply imbalance, which is keeping residential fundamentals tight. Just like in the U.S., the European logistics sector has strong tailwinds and ever tightening fundamentals. For the sixth year, 2017 saw demand exceeding supply in the majority of the European distribution markets, which has led to record low vacancy and accelerating rent growth. Despite the disruption of e-commerce, retail in Europe is performing relatively well. Unlike the U.S., Europe has built considerably less retail per capita. Although e-commerce is having an effect on traditional European retailer’s space needs, including some downsizing, it is not experiencing the mass closures as is in the U.S.

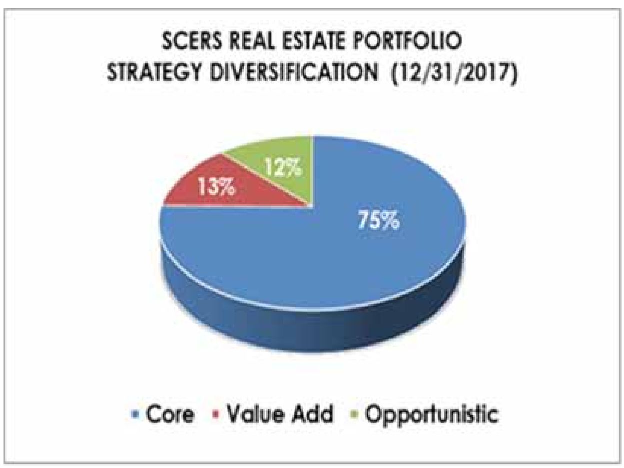
Real Estate Portfolio

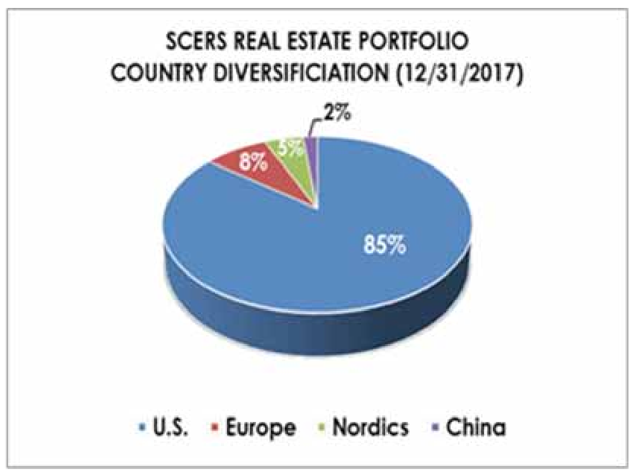
SCERS’ Real Estate asset class was revised in 2017 to align with SCERS’ new strategic asset allocation. The asset class is comprised of U.S. and non-U.S. core exposure, as well as non-core real estate exposure. Prior to the new strategic asset allocation, SCERS’ Real Estate core portfolio was included in Real Assets and non-U.S. and non-core real estate were included in Opportunities. SCERS now has a dedicated Real Estate asset class, which includes all real estate exposures, including core, non-core, U.S., and non-U.S. A key component of the revised Real Estate structure was the decision to unwind SCERS’ separate account real estate portfolio, in which SCERS owns underlying real estate assets, by exchanging these assets for shares in an Open-End Core Fund (OECF), to complement SCERS’ existing OECF exposure. The Real Estate structure also incorporated revised policy index benchmarks for core and non-core real estate. The objectives of the Real Estate portfolio are to provide an attractive real return with moderate volatility, generate current income, and provide diversification for SCERS’ portfolio.

The targeted range of investment exposures within Real Estate include:

SCERS Real Estate Portfolio Construction				
	Minimum	Target	Maximum	Policy Index Benchmark
Total Real Estate Portfolio	**5%**	**7%**	**9%**	**Custom blend of benchmarks below:**
Core Real Estate	50%	**65%**	80%	NFI ODCE
Non-Core Real Estate	20%	**35%**	50%	NFI ODCE + 1%
U.S. Real Estate	60%	**70%**	100%	
Non-U.S. Real Estate	0%	**30%**	30%	

The current Real Estate allocation as of December 31, 2017 stands at 8.6%, versus the target allocation of 7.0%. Staff and Townsend have been rebalancing SCERS' Real Estate portfolio over the past few years by disposing of unattractive separate account assets, adding non-U.S. exposure, investing in top-tier open-ended core funds, and adding exposure to differentiated non-core strategies. As the U.S. real estate market entered into the later part of the cycle, Staff and Townsend found core U.S. real estate values becoming uneconomical. Working with Townsend, Staff focused its efforts on better relative investment opportunities outside of the U.S. and among niche investment strategies globally. SCERS' real estate portfolio has become more diversified across countries and investment strategies as shown by the current exposures below:





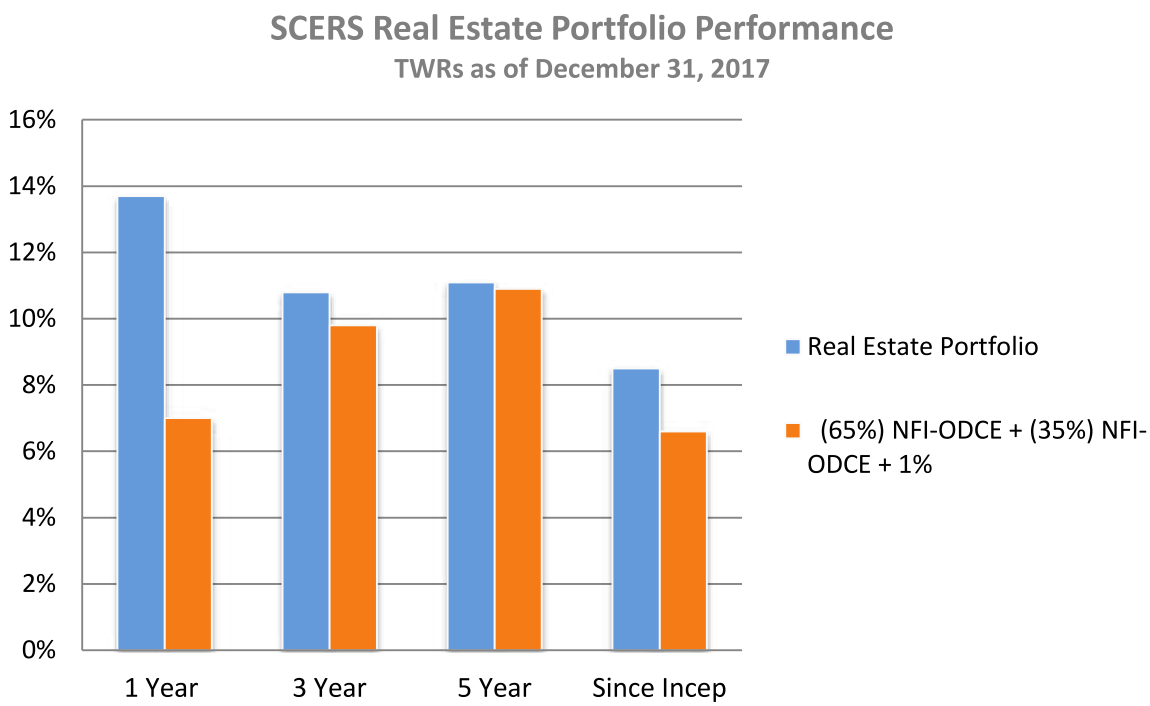
2017 ACTIVITY

- Revised the Real Estate asset class structure to align with SCERS' strategic asset allocation
    - Approved the Real Estate portfolio allocation targets and ranges
    - Changed the policy index benchmark to a blend of 65% NFI-ODCE/35% NFI-ODCE + 1% to align with SCERS' allocation targets
        - Added a customized supplementary global benchmark, a blend of U.S. and non-U.S. (GREFI) indexes

- Approved the unwinding of SCERS' separate account real estate portfolio through the exchange of SCERS' core separate account assets for shares in an OECF

- SCERS made three real estate fund commitments in 2017 totaling $76 million (2 follow-on fund investments and 1 new fund investment) - budget for 2017 was $80 million, targeting three funds
  - $31 million to Hammes Partners III, L.P. (ambulatory/medical office)
  - $30 million to Carlyle China Realty, L.P. and Project Rome Co-Investment (China logistics)
  - $15 million additional investment to Prologis Targeted U.S. Logistics Fund, L.P. (U.S. logistics)
- Developed the implementation plan for the unwinding of SCERS' separate account real estate portfolio through the exchange of SCERS' core separate account assets for shares in an OECF
- Continue to oversee, monitor, and assess the existing manager lineup

PERFORMANCE AND ATTRIBUTION



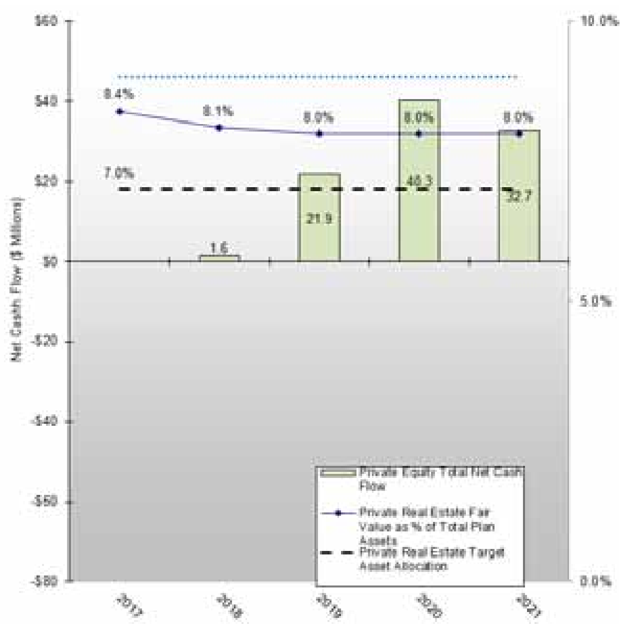
For the one-year period ending December 31, 2017, SCERS' Real Estate portfolio generated a time-weighted net return of 13.7%, exceeding SCERS' policy index blended NFI-ODCE benchmark time-weighted net return of 7.0%. SCERS' Real Estate portfolio return over the 3- and 5-year period have been impacted by several non-core real estate funds committed before the GFC and two underperforming open-ended core funds, which have since been liquidated. Since inception, SCERS' Real Estate portfolio net time-weighted return of 8.5% exceeds the blended benchmark return of 6.6%.

2018 Annual Plan

Below is the annual plan for the Real Estate asset class, as recommended by Townsend:

SCERS Real Estate Annual Investment Plan			
	Target	Range	
		Minimum	Maximum
Commitment Level	**$70 MM**	$35 MM	$105 MM
Number of Funds	**2**	1	3
Energy Related	**0**	0	0
Infrastructure	**2**	1	3
Commitment per Fund	**$35 MM**	$20 MM	$50 MM

- Townsend and Staff recommend a target annual allocation of $70 million, with a range of $35 million to $105 million
  - Expect to make 2 fund commitments with an average commitment size of $35 million, and a range between $20 million and $50 million
  - The budget includes any funds that a commitment has already been made to, or is in the process of being made to, in 2018
- Real Estate capital pacing
  - Expect allocation to stay in 8% to 9% range over the next few years
  - Allocation to non-core will increase marginally, but well within the 35% limit



- Areas and themes of focus
  - European student housing
  - Cold storage
  - Manufactured housing
  - Japan value-add
- Finalize the exchange of SCERS' core separate account portfolio for shares in an OECF

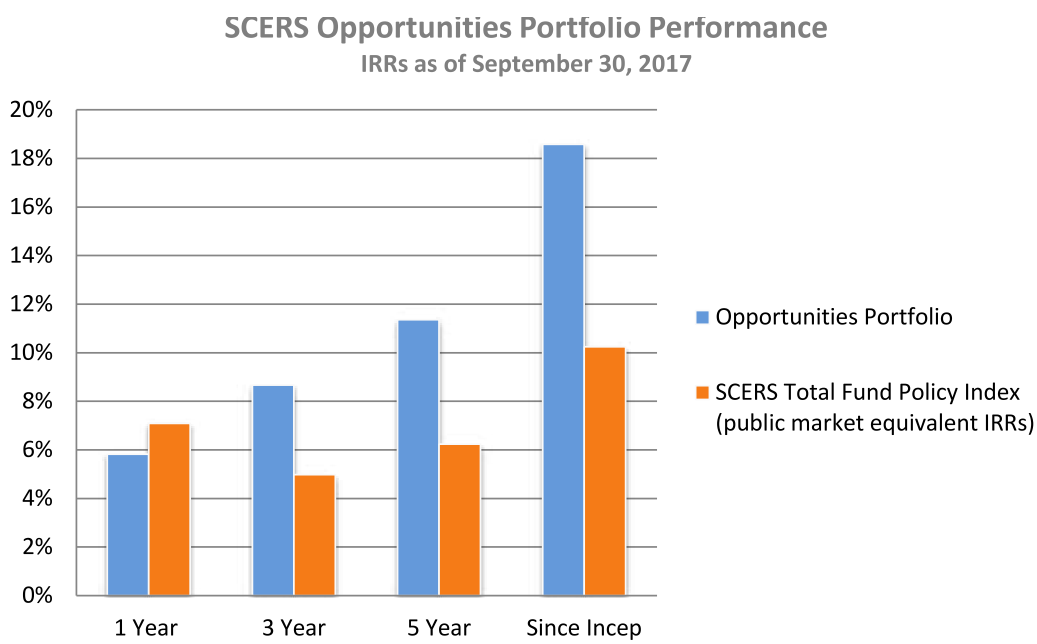
Opportunities Portfolio

The Opportunities portfolio does not have a fixed allocation, but instead has a permissible range of 0% to 5%. As of December 31, 2017, the actual allocation is 0.1%. This portfolio had been holding SCERS' non-core and non-U.S. Real Estate exposures within the prior asset allocation; however, within the new strategic asset allocation, these exposures have been moved to the Real Estate asset class. The Opportunities portfolio is designed to invest in tactical investment opportunities with attractive risk and return attributes. Such opportunities may be short-term, niche, non-traditional, or opportunistic in nature and may exist across a wide range of asset categories. When an Opportunities investment is identified, the investment draws its capital allocation from the asset class with the most comparable risk and return characteristics as the investment being made. In this way, the potential Opportunities investment is measured against and competes for an allocation relative to comparable investment opportunities among asset classes. Based on this assessment, it is possible that no investments will be made in the Opportunities asset class in some years, which occurred in 2016 and 2017.

2017 ACTIVITY

- Continued to oversee, monitor, and assess the existing manager lineup

PERFORMANCE AND ATTRIBUTION



As of September 30, 2017, SCERS' Opportunities portfolio generated a net IRR of 18.6% since inception, outperforming against SCERS' total policy index return of 10.2%. Over the 3- and 5-year reporting periods, SCERS' Opportunities portfolio outperformed against the benchmark with a net IRR of 8.7% and 11.4% versus the benchmark return of 5.0% and 6.2%, respectively. The strong long-term performance of the Opportunities portfolio is positively influenced by several distressed debt funds that SCERS invested in the aftermath of the GFC, which have since been liquidated.

2018 Annual Plan

- Continue to identify and evaluate tactical opportunities in unique/differentiated investment strategies offering an attractive risk-return prospect
- Evaluate potential distressed investment opportunities in the real estate and corporate sector

Other Investment Activities

2017 ACTIVITIES

In addition to the activities within SCERS' investment program at the asset allocation and asset class levels, a number of enhancements and efforts were made in the day-to-day management of the investment program.

- Restated SCERS' Master Investment Policy Statement (IPS)
- Restructured SCERS' Overlay Program to align with the new strategic asset allocation (approved in January 2018)
- Oversaw, monitored, and met with existing managers
- Monitored and reviewed SCERS securities lending program
- Monitored and reported on SCERS' securities trading costs and commission re-capture program
- Conducted transition management for a new international equity manager
- Conducted a review of the manager research budgets and a soft dollars audit of SCERS' public equity and fixed income managers
- Hired Brian Miller as an Investment Officer
- Sent letter to SCERS' alternative assets managers for compliance with California Government Code Section §7514.7, which requires public disclosure of information regarding fees, expenses, and returns for alternative investment funds in which SCERS invests
- Conducted Board education on investment matters

2018 OBJECTIVES

- Convert SCERS' individual asset class IPS's into three asset category IPS's (Growth; Diversifying; Real Return)
- Research liquidity and cash management needs
- Implement SCERS' newly approved Overlay Program structure
- Fill SCERS' vacant Deputy Chief Investment Officer position
- Oversee, monitor, and visit with investment managers
- Assist in the development of a revised investment accounting system
- Evaluate risk management and portfolio management software needs for SCERS' total portfolio and asset categories/classes
- Review SCERS' securities lending and commission recapture programs

Investment Education

2017 BOARD EDUCATION

- Education on available structures in Private Credit
- Education on alternative investment fund fee and expense disclosures required by state law (California Government Code §7514.7)
- Education on a SCERS Real Assets investment in agriculture
- Education on Markets in Financial Instruments and Directive II (MiFID II)

ANTICIPATED 2018 BOARD EDUCATION

- SCERS investment manager presentations
- Educational presentations by Consultants and Staff

Appendix

Verus

Memorandum

To: Sacramento County Employees' Retirement System Board (SCERS)

From: Verus

Date: March 5th, 2018

RE: 2017 Review and Outlook

Executive Summary

In 2017, SCERS benefited from positive returns across all asset classes, with the exception of commodities. Global Equity markets continued to rally with the MSCI ACWI gaining 24% for the year. Fixed income indices also gained ground in 2017 with the Bloomberg US Aggregate up 3.5%. Growth outperformed value during the calendar year by over 15% in U.S. Large Cap which was a reversal from 2016. Risk assets broadly appreciated.

This year we will be focused on the final implementation of SCERS' asset allocation plan adopted in 2016. The new approach is more oriented toward asset class functionality to better diversify the Plan from harsh drawdowns while preserving the opportunity to realize the financial rewards of participating in economic growth.

In this memo we will review the investment environment in 2017 in the major asset classes, detail 2017's initiatives and outline the work plan for 2018.

U.S. Equity

U.S. equities markets enjoyed a historically strong year in 2017, driven by positive economic fundamentals, earnings growth momentum, and the possibility of fiscal stimulus from the new administration. The S&P 500 returned 21.8% during the calendar year. In addition to posting high returns, equity markets were extremely calm, possibly influenced by low volatility in economic data. The annualized standard deviation of the S&P 500 was 6.6%, well below historical averages. An upward trending market with low volatility led to the significant outperformance of momentum strategies.

An acceleration in economic growth, which began prior to the presidential election in late 2016, and continued low inflation provided a positive environment for equities. The rest of the world also experienced a pickup in economic growth that started at the beginning of the year. This synchronized pickup in global growth created strong external demand for multinational U.S. companies, which helped lead to an improvement in corporate earnings growth. According to FactSet, the S&P 500 registered double-digit year-over-year earnings growth in all four quarters this year – larger companies with more exposure to international markets had the highest relative earnings growth.

At the end of the summer, increased tensions on the North Korean peninsula helped cause a short period of elevated volatility for the first time in the year. The political jawboning calmed down, however, and investors turned their attention to the potential of Congress passing tax reform by year end. While many were skeptical that any legislation would be passed in 2017, investors' views seemed to change towards the beginning of November. During the negotiations in Congress, the market began pricing in potential tax cuts with increasing likelihood. Equities rallied to close the year, led by companies and sectors that stood to benefit the most from proposed tax cuts.

International Equity

High earnings growth, as well as a weaker U.S. dollar, helped propel international equity markets to outperform domestic markets. Within international equities, emerging markets were especially strong. The MSCI EAFE and MSCI EM Indexes returned 25.0% and 37.3%, respectively. An improvement in economic growth and low inflation were important factors that drove returns. Emerging market equities bounced back after several years of lackluster performance, driven by Asia and Latin America. Fears over a stronger U.S. dollar and higher interest rates following the U.S. election soon faded. Growth stabilized in China and several markets including Brazil and Russia emerged from deep recessions. Developed central banks, including the ECB and BOJ, continued to provide significant stimulus that finally showed signs of flowing through to the economy. Investors in the Eurozone avoided any potential political disruptions to the European Union for the time being after Marine Le Pen was defeated in the French election in April. Elsewhere in Europe, U.K. markets underperformed slightly amid uncertainty surrounding Brexit negotiations, although the economy held up better than some had initially feared.

Fixed Income

After raising interest rates only once in the previous year, the Fed took a more aggressive stance on monetary tightening in 2017 with three rate hikes. Officials pointed towards improving economic growth and a tight labor market as reasons to justify tighter monetary policy, although inflation remained below the 2% target. The Fed also announced the long-anticipated plan to unwind its $4 trillion balance sheet, which began in the fourth quarter. The unwind started slowly with $6 billion in Treasuries and $4 billion in MBS coming off the balance sheet each month, but the pace will step up commensurately ($12 billion of Treasuries and $8 billion of MBS in Q1 2018) each quarter until a total of $50 billion in securities are not reinvested every month. Despite the step up in monetary tightening leading to higher short-term interest rates, long-term rates were mostly unchanged over the course of the year and the yield curve flattened. Due to the stability on the long end of the curve, Treasury performance was mainly driven by carry – the Bloomberg U.S. Treasury Index returned 2.3%. Other developed central banks remained well behind the Fed in the monetary policy cycle. Both the ECB and BOJ made no changes to negative deposit rates and continued to purchase large quantities of assets in the open market. Mainly for this reason, sovereign developed rates stayed at historic low levels.

U.S. credit markets outperformed Treasuries as credit spreads tightened further during the year. The Bloomberg Corporate High Yield and Bloomberg Corporate Investment Grade Indexes returned 7.5% and 6.2%, respectively. Following the spike in energy related defaults in 2016, default rates fell back to very low levels, consistent with the economic and earnings growth environment. Within the high yield market, the riskiest (CCC rated) borrowers outperformed.

Outlook

Improving economic conditions around the globe should continue to support risk assets moving forward, albeit with greater volatility than in 2017. In the U.S., corporate tax cuts and fiscal stimulus may provide a modest boost to the economy in the short-term. Tax savings and repatriation of foreign profits have given companies even more cash to buyback equities, pay down debt, and increase investment. If history is any indication, the majority of tax savings are likely to be used to return capital to shareholders. Other components of the tax bill, such as immediate expensing of short-term assets, could lead to more corporate investment than during periods following past tax cuts. The current environment is not without risks, however, as economies move later into the cycle with elevated asset valuations. A further tightening of labor markets and the emergence of inflationary pressures are potential headwinds to economic growth at this stage of the cycle. The ability of central banks to successfully navigate monetary policy tightening without moving too quickly will play a crucial role in how assets perform over the next few years. The potential for interest rates to rise faster than anticipated is a concern since the market is pricing in only moderate monetary tightening, especially in international developed markets.

Portfolio Initiatives

Asset Allocation Study

In 2017 we began implementation of the new asset allocation that was approved in 2016. The new policy with highlighted changes can be found below. First steps in our implementation plan involved Staff and Verus providing education around fixed income structuring and public equity structuring which provided a series of recommended action items. Those included conducting a search for a new Treasury portfolio manager which resulted in SCERS hiring an existing fixed income manager, Neuberger Berman, to manage the 5% allocation to Treasuries. Based on the public equity structure presentation, we will be reviewing and making recommendations to the SCERS Board to adjust both international and domestic equity portfolios in 2018.

The absolute return portfolio was broken out into diversifying absolute return and growth-oriented absolute return in order better align each of those asset classes with the risk/return characteristics of their asset category. In addition, private credit managers were given their own allocation within the portfolio. As a result, some private credit managers, formerly categorized as private equity, seeded this new asset class. SCERS' consultants in real estate, private equity, private credit and absolute return provided updates to the Board around implementation plans in their respective asset classes.

The portfolio will also be rebalanced to the new targets, and the portfolio overlay will also be adjusted to reflect the new policy allocation. Staff and Verus have been reviewing the overlay structure with State Street, the overlay provider, to ensure we utilize the most appropriate and cost-effective asset class proxies across the portfolio.

Policy Changes

Asset Class	SCERS' Old Policy	SCERS' New Policy	Changes
Growth	**63.0%**	**59.0%**	**-4.0%**
Public Equities	45.0%	41.0%	-4.0%
Private Equity	10.0%	9.0%	-1.0%
Public Credit	2.0%	2.0%	0.0%
Private Credit	0.0%	4.0%	4.0%
Growth Oriented Absolute Return	6.0%	3.0%	-3.0%
Diversifying	**22.0%**	**25.0%**	**3.0%**
Core/Core Plus Fixed Income	15.0%	10.0%	-5.0%
U.S. Treasury	0.0%	5.0%	5.0%
Global Fixed Income	3.0%	3.0%	0.0%
Diversifying Absolute Return	4.0%	7.0%	3.0%
Real Return	**15.0%**	**16.0%**	**1.0%**
Real Estate	7.0%	7.0%	0.0%
Private Real Assets	6.0%	7.0%	1.0%
Commodities	2.0%	2.0%	0.0%
Opportunities	**0.0%**	**0.0%**	**0.0%**
	100.0%	100.0%	

CLIFFWATER LLC

To: Sacramento County Employees' Retirement System
From: Cliffwater LLC
Date: March 7, 2018
Regarding: **Alternative Assets 2017 Year in Review**

Equity markets around the globe produced sharp gains in 2017 as investor sentiment was boosted by increased corporate earnings, robust global economic growth, benign inflation, modest monetary tightening, and expanding fiscal policy in the U.S. Unlike 2016, which represented a highly volatile year for capital markets around the globe, 2017 featured exceptionally low capital market volatility, particularly for equities. U.S. equity markets continuously posted new closing highs throughout the year, with the S&P 500 recording gains each month before ending the year up 21%. Non-U.S. equities performed even better, led by a more than 30% gain in emerging market equities. Fixed income performance was much more muted though still positive on the year. Investment grade bonds in the U.S. were up nearly 4% despite three small rate hikes by the Federal Reserve; high yield bonds generated a solid return of nearly 8% in 2017. Private equity followed the overall strength found in equity markets and produced solid double digit returns during the year, led by buyouts. Performance among Absolute Return strategies rebounded in 2017 with returns of roughly 8% for broadly diversified portfolios. Performance across real assets was mixed as most asset classes produced positive returns despite a decline in MLPs.

The biggest changes in the Sacramento County Employees' Retirement System ("SCERS") portfolio during the year were driven by the new asset allocation framework that SCERS adopted in early 2017. The new strategic asset allocation featured new categorizations of asset classes and a new approach to evaluating the role of certain asset types within the portfolio. This framework was applied across the SCERS portfolio, including within the alternative investments. The Absolute Return strategies, for example, were further segmented into growth-oriented strategies and diversifying strategies. SCERS also created a new asset class for private credit that incorporated some existing investments previously held in the private equity portfolio while allowing for new commitments to lending-oriented private funds. SCERS adjusted the strategic target allocations for the remaining alternative asset classes and refined the roles and portfolio structures for each asset class.

Absolute Return Portfolio

As mentioned, SCERS further segmented its Absolute Return portfolio by creating the Growth Oriented portfolio and the Diversifying portfolio in connection with its new asset allocation. Existing investments within the Absolute Return portfolio were allocated to each of the newly created sub-portfolios based upon each fund's characteristics and portfolio expectations. These same criteria govern the types of funds that are appropriate for each of the sub-portfolios prospectively. Growth oriented strategies include funds that are more geared towards growth and positive market performance, although the funds still maintain an absolute return profile. Funds in the diversifying strategies portfolio should display low sensitivity to broad market movements. This category should include more relative value/arbitrage and global macro strategies while avoiding long-biased investment strategies. SCERS developed new sub-category parameters for defining and monitoring these portfolios that include portfolio objectives, benchmarks, risk targets, and desired market sensitivity. SCERS likewise developed additional diversification guidelines for the new sub-portfolios that include allocation targets and ranges, expected strategy allocations, and number and type of funds for each portfolio. These new categories will allow SCERS to more precisely structure its exposure within the Absolute Return strategies to better align with the portfolio's new asset allocation framework and total portfolio objectives.

Performance among Absolute Return strategies rebounded in 2017, with the pickup in performance driven more by beta (market exposure) than by alpha generation. We estimate that alpha generation in 2017 approached 2% across Absolute Return strategies. This level of alpha generation still trails historical averages but does represent a continued recovery since mid-2016. The biggest winners of 2017 were equity-oriented strategies that benefitted from exposure to rising equity markets and improved alpha generation. Equity long/short strategies produced low-to-mid double digit returns while event driven strategies generally produced high single digit returns with a large degree of dispersion across sub-strategies. Credit managers produced respectable returns of roughly 7% during the year. Long-biased and distressed managers generally outperformed long/short credit managers as short positions and hedges detracted. High level themes that drove performance for long-biased and distressed managers included post-reorg equity exposure, lower rated credits outperforming, energy-related positions, and idiosyncratic distressed situations. Market neutral strategies continue to produce consistent returns though lagged strategies with positive beta exposure given the strong rally in risk assets during the year. Global macro strategies were underperformers for the year. Discretionary macro strategies saw slight declines driven by flattening global yield curves and mistimed currency trades. Systematic macro strategies posted modest gains as long equity exposure offset declines in other parts of the portfolio.

The SCERS Growth Oriented Absolute Return portfolio performed well in 2017, delivering double-digit returns in the aggregate, with most of the underlying funds performing equally strongly. The Diversifying Absolute Return portfolio produced much more muted returns during the year, given its lower beta profile and exposure to certain global macro strategies that lagged during the year. Longer term results for both portfolios are meeting performance expectations. The risk-adjusted performance of the SCERS Absolute Return portfolios has also been strong as the portfolios have delivered solid returns with little volatility. Importantly, each portfolio is structured to meet its respective objectives for overall risk reduction and lowering the market sensitivity of the entire SCERS portfolio while still generating solid returns. SCERS should continue to adjust the allocations in the Growth Oriented and Diversifying portfolios to move closer to its targeted sub-allocations. SCERS should also target new direct fund investments within the Diversifying portfolio in 2018.

Private Equity

Private equity activity in 2017 remained largely consistent with trends formed in recent years. 2017 marked the fifth consecutive year of fundraising activity above $400 billion, with capital raised in 2017 being the closest to the previous high of $588 billion raised in 2007. Consistent levels of fundraising have buoyed the availability of capital for new investments despite strong distributions and steady capital deployment. Private equity deal pricing remains elevated relative to average levels over the past decade – pricing for leveraged buyouts in the U.S. and Europe increased during 2017 to 10.6 and 10.4 times EBITDA, respectively. Worldwide investment activity increased during 2017 with Europe and Asia generating the largest increases in investment activity. Exit activity remained robust during 2017 for both buyout and venture focused funds despite a decline in the number of transactions over the year.

SCERS further refined its private equity portfolio as part of its new asset allocation structure by creating a new asset category for private credit and moving a small number of current investments from private equity to the new private credit portfolio. SCERS also made a slight reduction in its long-term targeted allocation to private equity in connection with this change. New private equity fund commitments in 2017 were primarily "re-ups" made to new funds of general partners already managing capital for SCERS. These new commitments spanned investment strategies from venture capital to turnaround and distressed oriented strategies. Once again, most of the new funds will target smaller and mid-market investment opportunities within specific areas of focus. These funds in the aggregate will invest globally, though primarily within the U.S. and European developed markets. The geographic, strategy, and sub-sector composition of SCERS' private equity commitments is important as SCERS maintains a diversified private equity portfolio that is not over-reliant on the success of a particular investing style or strategy.

SCERS has remained disciplined in its pacing of new commitments, recognizing that vintage year diversification is an important characteristic of successful private equity programs. SCERS has continued to look for attractive opportunities over varying market conditions while complementing the private equity portfolio's existing exposures. SCERS has also been careful to manage the breadth of its private equity manager relationships by committing to successive funds of proven existing managers ("re-ups"), supplemented with new relationships as needed. The approach SCERS has taken in selectively allocating to its targeted funds has benefitted the private equity portfolio as several of the primary fund investments have generated strong performance gains thus far, which has continued to enhance the overall private equity portfolio's performance.

Private Credit

The SCERS private credit allocation is intended to produce attractive risk-adjusted returns and generate current cash flow, with most of the expected return to be generated by cash flow yield. SCERS created its dedicated private credit portfolio as part of its new asset allocation framework and further refining of its private equity portfolio exposures. The private credit portfolio will include lending-oriented strategies focused on performing companies where the manager expects to receive principal and interest payments. The portfolio has a strategic target allocation of 4%.

Direct lending investments will comprise the majority of the private credit portfolio. These investments are directly originated, non-traded loans to middle market companies. Other performing lending-oriented strategies will be considered Opportunistic Credit investments and will also be included within the private credit portfolio. Investment types within Opportunistic Credit can vary but may include royalty investments, other asset-based lending, or consumer lending. The private credit portfolio will not include distressed oriented strategies. These strategies will continue to be included within the private equity portfolio. SCERS is likely to invest through private Business Development Companies, private commingled funds, and separate accounts when making allocations to the private credit portfolio. We believe that private credit represents an attractive investment opportunity that should provide high single digit returns with low volatility relative to other asset classes with similar expected returns, more immediate returns in the form of current yield with mitigated J-curve effects versus typical private equity investments, and minimal interest rate risk due to the floating rate structures of the majority of these investments.

SCERS had exposure to both direct lending and opportunistic credit investments when it created the private credit portfolio. These investments were previously included within the private equity portfolio and were subsequently transferred to the newly created portfolio. Beyond the three fund investments SCERS transferred into its private credit portfolio, SCERS made new allocations to private credit funds during 2017. SCERS made a commitment to a new opportunistic credit fund managed by one of the SCERS current general partners and committed to a new direct lending separate account.

Real Assets

Private energy fundraising during 2017 increased slightly when compared to 2016, though remained materially below the amount of capital raised in 2015. Investor appetite has declined for upstream (exploration and production) oil and gas investments because of slow investment paces and declining realizations. Fundraising among midstream energy funds, or funds that are focused on processing, transportation, or storage of energy related resources, remains strong. Private energy investment activity more than doubled in 2017 compared to the prior year. Large high-quality transactions generated the most buyer interest with the Permian Basin commanding the most activity and the best pricing. Energy investors have focused on crude oil related investments rather than natural gas as natural gas assets remain out of favor in most regions. Midstream energy investment activity remains strong as an increase in production in the Permian Basin and other low-cost production areas requires new energy infrastructure. Oil prices gained through the second half of 2017, after falling for the first two quarters of the year, settling at $60 per barrel by the end of the year.

Infrastructure fundraising remained high in 2017 and nearly equaled the amount of new capital raised in the prior year. Investor demand for infrastructure investment continues to grow and investment managers are responding with larger funds or new managers launching new fund strategies. Global infrastructure deal activity declined in 2017 as compared to 2016. Despite large amounts of available capital focused on the infrastructure sector, deal flow has remained low, specifically in North America. However, several new funds have had transaction backlogs that are expected to be executed in 2018. Investor interest in other private real asset funds, such as agriculture related investments, continued to increase through the year, though these funds represent a smaller portion of the private real assets marketplace.

The SCERS real assets portfolio saw fewer changes than the other alternative asset portfolios as a result of SCERS' new asset allocation study. However, SCERS did slightly increase the portfolio's strategic target allocation from 6% to 7%. SCERS also more formally defined target allocations and ranges for the real assets portfolio sub-strategies of Infrastructure, Energy, and Agriculture, Timber, and Other. SCERS continued to build out its real assets exposure during the year with commitments to an infrastructure fund and an energy-focused fund. SCERS also continued to evaluate a number of opportunities and execute on new transactions within two of its dedicated separate accounts – one of these accounts is focused on unique infrastructure investments; the second is focused on debt-related investments backed by real assets.

SCERS' ongoing investment activity within the real assets portfolio reinforces SCERS' approach to invest across a variety of investment strategies and structures to increase the allocation and meet the real assets portfolio objectives of income generation, inflation protection, and risk factor diversification. Although the real assets portfolio remains young, with the first investments being made in 2013, performance has thus far been strong.

Continuing the Path Forward

While many of the alternative asset classes require considerable time to reach their intended allocations, SCERS has been investing directly in these asset classes for several years and has made significant progress towards meeting its targets. We are projecting that SCERS will reach its strategic target allocations for each of the private alternative asset classes – private equity, private credit, and real assets – in 2020 by continuing its disciplined approach to commitment pacing as SCERS has done since it began making primary private fund investments.

We believe that including diversified alternatives allocations into institutional investment portfolios can improve the return and risk profile of these portfolios and provide investors with increasingly better opportunities to meet their return objectives. SCERS has developed a well-defined, rigorous investment process that remains nimble in its ability to target unique opportunities within the alternative asset classes. SCERS has remained diligent in its implementation and has maintained investment discipline investing in these asset classes over a variety of environments. The well-structured and thoughtful approach that SCERS has taken within its alternative investments portfolios should position SCERS to continue to meet its investment objectives through a variety of market environments and help facilitate the continued evolution of the SCERS portfolio.

TOWNSEND GROUP

MEMORANDUM

TO: **Sacramento County Employees' Retirement System**

DATE: March 21, 2018

SUBJECT: Real Estate Investment Year in Review

FROM: **The Townsend Group**

SCERS' Real Estate Portfolio (RE Portfolio) performed remarkably well through calendar-year 2017, and achieved a Net Time Weighted Return of 13.7% (compared to the benchmark of 7.0%). The Real Estate Portfolio has benefited from long-term strategies designed to provide stable core returns and attractive non-core returns that offer diversification advantages.

As of 4Q2017, Private Real Estate was 8.4% of Total Plan Assets which is below the upper target limit of 9.0%. In 2017, Sacramento County Employees' Retirement System (SCERS) adopted a series of changes to the Real Estate Investment Policy Statement, including:

a) Re-categorizing both Core and Non-Core Private Real Estate under the Real Return asset category,
b) Re-categorizing Real Estate Investment Trusts under Equity,
c) Establishing target allocations for Core, Non-Core and Non-U.S. Real Estate,
d) Removing parameters that required 40% to 100% of Core Real Estate to be invested through Separate Account Vehicles, and
e) Establishing a Global Ancillary Benchmark.

In reviewing the 2017 calendar year, we once again reflect upon the active role that the SCERS Staff and Consultants have played in identifying tactical investment opportunities that offer unique characteristics, selling down existing assets and positioning the core portfolio for a transition to co-mingled funds that will help SCERS to perform well across future real estate cycles.

Real Estate Return and Risk Forecasts

Long range expectations for real estate have decreased since 2017. The following are Townsend's Private Real Estate Return Forecasts as of January 2018:

Risk and Return	ODCE	Value-Add	Opportunistic	REITs	Timber	Row Crop	Perm Crop	Private Infrastructure
Expected Return	6.5%	7.0%	10.0%	6.5%	5.8%	6.0%	11.0%	7.0%
Standard Deviation	8.7%	11.0%	11.3%	26.1%	4.7%	4.1%	8.6%	8.3%

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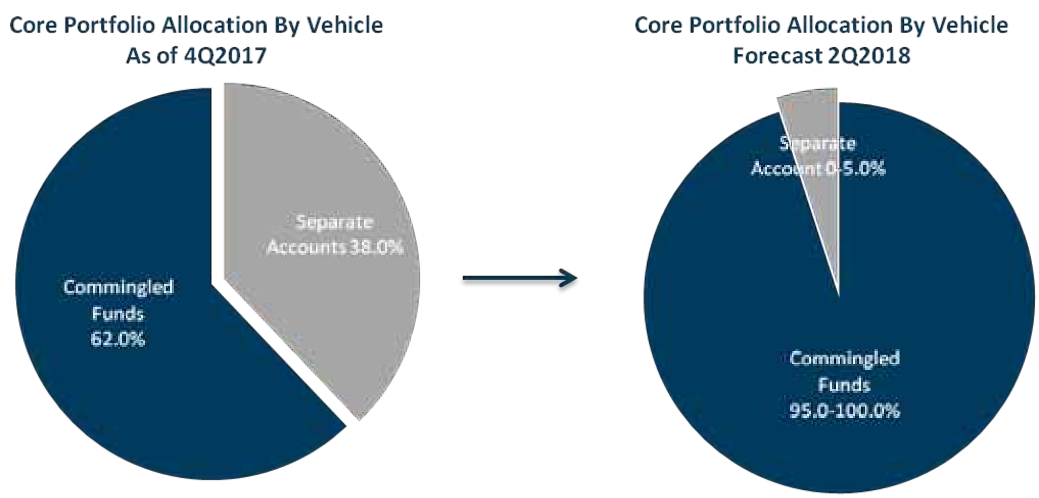
Core Real Estate

The SCERS Core Portfolio represents 6.3% of the Total Plan which is well within the established range of 4.0% to 9.0%. The change to the IPS approved in July 2017 removed the previous restriction on core investment vehicles to allow for future execution flexibility and reflect the intention of the SCERS real estate program to focus on open-end core commingled funds going forward.

As assets housed in the Separate Account program are liquidated, the projection for Separate Account assets as of fiscal year-end is 0.0% to 5.0%. Up to 5.0% of Core assets may remain in a separate account structure due to the stabilization of Leland James Center, which may or may not be excluded from transference into open-end core commingled funds.



Non-Core Real Estate

Non-core real estate represents 2.1% of the Total Plan which is within the established range of 0.0%-5.0% of Total Plan. SCERS made two non-core investments in 2017, a $20 million co-investment to Carlyle China Project Rome and a $10 million investment to Carlyle China Realty Fund. These commitments represent targeted ex-US investment that offer strong thematics in the logistics sector.

SCERS Private Real Estate Forecasts – 2018 to 2021

Private Real Estate is forecasted to fall by 20 bps to 8.0% of Total Plan Assets by year-end 2018, and to 7.8% by 2021. Core real estate currently comprises 75.0% of the RE Portfolio, with the balance of 25.0% in non-core. By 2021, core real estate is projected to be 69.0% of the RE Portfolio, which is above the target of 65%

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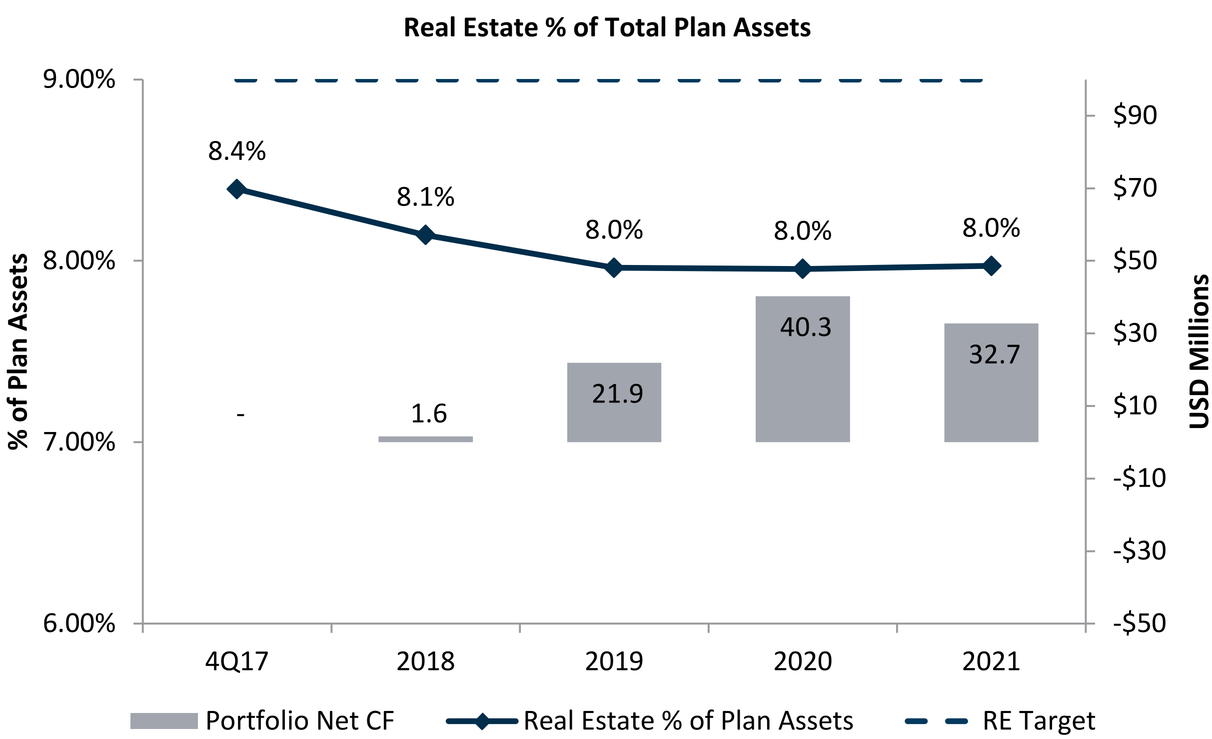
(but within the acceptable range of 50% to 80%), and non-core real estate is projected to be 31.0% of the RE Portfolio.

Based upon forecasts, SCERS is projected to have capacity for an additional $200 to $225 million of Private Real Estate investments through 2020 in order to maintain exposure between 8.0% and 9.0% of Total Plan Assets. SCERS should consider investing predominantly in non-core real estate in order to rebalance the RE Portfolio and bring the mix of core v. non-core real estate closer to targets.



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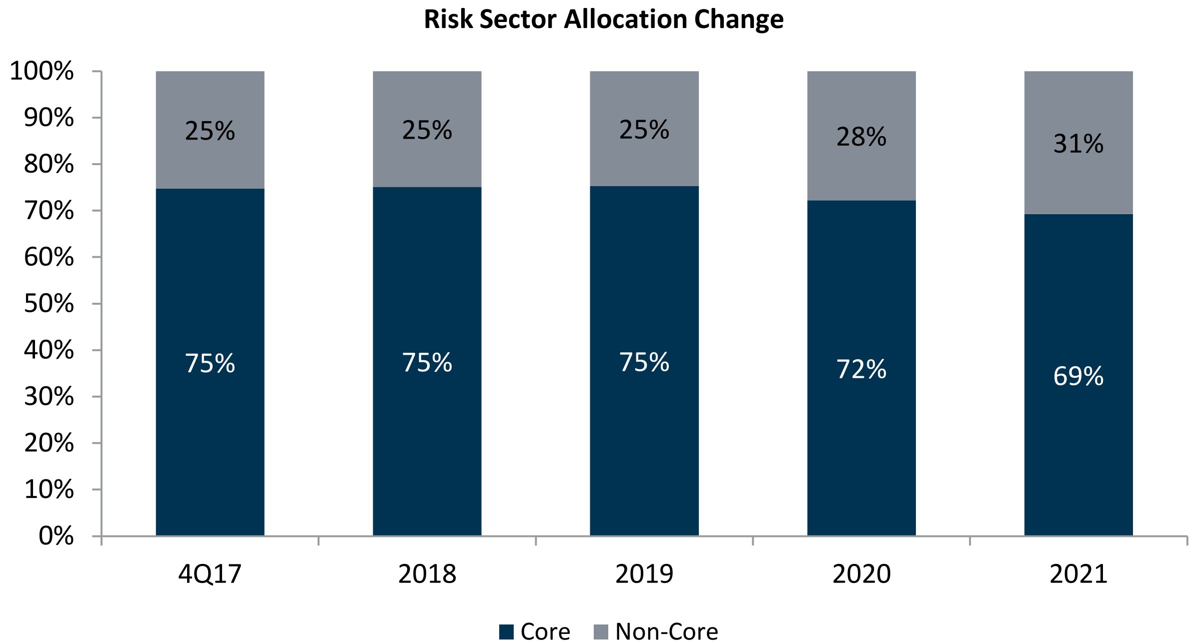

Global Diversification

SCERS international exposure has grown steadily since 2013. As of 4Q2017, 84.2% of the SCERS Private Real Estate Portfolio is invested within North America (including <1% within Mexico through CIM VIII). 15.8% of the RE Portfolio is invested in ex-US markets, of which 98.9% is in Europe. The majority of SCERS' international exposure is housed in the Non-Core Portfolio, which was 45.4% ex-US as of 4Q2017 and projected to be 51.9% ex-US by 2020.

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).

Due to the increasing importance of ex-US to the SCERS RE Portfolio, the Board adopted an ancillary benchmark in July 2017. The ancillary Custom Global Benchmark is made-up of the NFI-ODCE (Core), NFI-ODCE + 100bps (Non-Core), GREFI Europe Core and GREFI Europe Non-Core to create a global blended benchmark based on weighted average invested capital for each strategy.

Private Real Estate Considerations for 2018

Townsend proposes the follow considerations to SCERS for its Real Estate Portfolio:

1. Complete the liquidation of SCERS' Core Separate Account assets, and reinvest proceeds into the selected core open-end fund.

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2. Reevaluate the portfolio with respect to geographic and sector diversification relative to SCERS' primary NFI-ODCE benchmark.
   - Current underweight positions to office and northeast may improve with the broader diversification offered through an open-end fund.
3. Consider any existing core investments that are underperforming, and rationalize 'hold' v. 'sell.'
4. Consider future re-ups to existing positions that are performing well.
   - An example is the $15 million re-up to Prologis USTLF made in 2017.
5. Maintain par with current levels of core capital invested.
6. Commit between $70 and $75 million per annum to non-core strategies (2018-2020).
7. Continue to use non-core funds as a mechanism to access strategies that are underweight in the RE Portfolio.
8. Further explore niche investment opportunities that are expected to generate outsized risk-adjusted returns, and/or provide a level of diversification to the portfolio (downside protection, sector exposure, etc.).
   - Staff continues to conduct research in such niche opportunities such as medical office, student accommodation, manufactured housing, emerging market logistics and cold storage.
9. Consider further investments with vertically-integrated owner-operators.
10. Control risk by investing in durable capital structures and by avoiding interest-rate sensitive investments.
11. Mindfully consider future investments for 2019 and 2020; increasing non-core exposure is appropriate, but capital could be preserved for out-years in order to take advantage of a possible correction.

Recap and Vision for 2018

SCERS achieved much in 2017 by way of amending and adopting new provisions to the Investment Policy Statement, adopting an ancillary Global Benchmark and initiating the process to sell down remaining core separate account assets and transfer capital to core open-end commingled funds that offer broader diversification and liquidity advantages (over separate account vehicles).

Looking ahead to 2018, we are mindful that real estate enters into the ninth year of a recovery/expansion cycle. There are various uncertainties that may impact the global real estate returns; yet fundamentals

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remain stable to strong. The past eight years have delivered outstanding returns, and SCERS has certainly benefited. Townsend's long-term return and standard deviation forecasts have been revised to the downside.

Townsend will continue to work with Staff, on the Board's behalf, to pursue SCERS's plan objectives. On the sell-side, we will complete the sale of remaining separate account assets and transfer funds to appropriate core open-end commingled fund(s). On the buy-side, we will continue to exercise disciplined underwriting standards and negotiate favorable terms on predominantly non-core opportunities that add unique characteristics to SCERS' RE Portfolio.

Appendix 4 - 2017/2018 Road Map

Topic	2017 Preview	2017 Actual	2018 Preview
Consultants	• Assess the need for specialty consultants including operational due diligence in alternative assets		
		• Worked with investment consultants Verus, Cliffwater, and Townsend to revise asset class structures and policy index benchmarks inline with strategic asset allocation	
		• (1) Updated consultant contracts with Verus, Cliffwater, and Townsend; and (2) Put process in place to formally review investment consultants on a recurring basis	• Formally review Verus consulting mandate inline with conclusion of current contract expiration in June 2019
Asset Allocation	• Implement the recently approved asset allocation	• Revised asset class structures and policy index benchmarks inline with the new strategic asset allocation	
	• Continue implementation on current asset allocation structure; especially within private markets	• Allocated to several funds within the absolute return, private equity, private credit, and real assets asset classes	• Implement the recently approved asset allocation to bring physical exposures toward their respective target allocations
Equities	• Restructure and implement the Domestic and International Equity portfolios to reflect SCERS' new asset allocation	• Approved revised domestic and international equity asset class structures in January 2018	• Implement domestic and international equity asset class structures by making any manager changes, and rebalancing exposures toward new target allocations
	• Conduct transition of assets into newly hired Walter Scott international large cap developed growth strategy	• Transitioned assets into Walter Scott international large cap developed growth strategy in March 2017	
	• Evaluate levels of passive exposure within SCERS' public equity portfolio, including alternative forms of passive equity exposure	• Approved an active systematic factor based equity mandate to slot in between SCERS' domestic equity passive and active exposures	• Conduct a manager search for an active systematic factor based equity strategy within SCERS' revised domestic equity structure
Fixed Income	• Restructure and implement the Fixed Income portfolio to reflect SCERS' new asset allocation	• Retained Neuberger Berman to manage a dedicated U.S. Treasury allocation within the revised Fixed Income structure	• Perform a physical rebalance of SCERS' fixed income managers, which are underweight to their respective target allocations

Appendix 4 - 2017/2018 Road Map (Continued)

Topic	2017 Preview	2017 Actual	2018 Preview
Absolute Return	• Restructure and implement the Absolute Return portfolio to reflect SCERS' new asset allocation	• Revised investment guidelines and risk targets within Absolute Return structure across Growth Oriented and Diversifying segments, including creation of new policy index benchmarks	• Progress in the implementation of the Absolute Return structure, especially within Diversifying Absolute Return, by identifying and investing in absolute return funds
	• Evaluate additional potential direct absolute return investments and invest in 2 to 4 funds directly	• Finalized an investment with a systematic macro strategy within the Diversifying Absolute Return segment	• Identify and invest in 1-3 potential absolute return funds with an average investment size of $45 million per fund
			• Add to interim absolute return solution portfolio managed by Grosvenor Capital Management, while direct program is being implemented
	• Bring in 1-2 current direct absolute return managers for Board education		• Bring in current absolute return managers for Board education
	• Deepen expertise and capabilities in operational due diligence		
Private Equity	• Restructure and implement the Private Equity portfolio to reflect SCERS' new asset allocation	• Revised the Private Equity structure and Investment Policy Statement, including revision to the Private Equity policy index benchmark	
	• Identify and commit to 5-10 potential direct private equity investments	• Made 6 private equity investments	• Identify and commit to 4-9 potential private equity investments with an average commitment size of $45 million per fund; $250 million in total with a range of $150 to $300 million
	• Continue to assess strategic partners to assist SCERS in fully building out its private equity portfolio within niche segments	• Assessed the landscape for strategic partners to assist SCERS in fully building out its private equity portfolio, but no conclusions were reached	• Continue to assess strategic partners to assist SCERS in fully building out its private equity portfolio within niche segments
	• Present annual report on Private Equity and approve 2017 Private Equity annual investment plan	• Presented annual report on Private Equity and approved 2017 Private Equity annual investment plan	
	• Bring in 1-2 current direct private equity managers to educate SCERS' Board		• Bring in current private equity managers to educate SCERS' Board

Appendix 4 - 2017/2018 Road Map (Continued)

Topic	2017 Preview	2017 Actual	2018 Preview
Private Credit	• Initiate implementation of the Private Credit asset class	• Approved the Private Credit structure and Investment Policy Statement, including a Private Credit policy index benchmark	
		• Made 3 private credit investments	• Identify and commit to 3-5 potential priate credit investments with an average commitment size of $60 million per fund; $220 million in total with a range of $150 to $290 million
			• Bring in current private credit managers to educate SCERS' Board
Real Assets	• Restructure and implement the Real Assets portfolio to reflect SCERS' new asset allocation	• Revised the Real Assets structure and Investment Policy Statement, including revision to the Real Assets policy index benchmark	
	• Identify and commit capital to 1-3 private real assets funds	• Committed capital to 3 real assets funds	• Identify and commit to 3-7 potential real assets investments with an average commitment size of $40 million per fund; $220 million in total with a range of $150 to $290 million
	• Continue to underwrite investment opportunities within customized separate accounts in the Real Assets portfolio; using 'veto rights' where appropriate	• Completed 6 investments in real assets secondary/coinvestment separate account and 2 investments in debt backed by real assets separate account	• Continue to underwrite investment opportunities within customized separate accounts in the Real Assets portfolio; using 'veto rights' where appropriate
	• Present annual report on Real Assets and approve 2017 Real Assets annual investment plan	• Presented annual report on Real Assets and approved 2017 Real Assets annual investment plan	
		• An existing agriculture investment manager provided education to SCERS' Board on its permanent crop strategy	• Bring in current real assets managers to educate SCERS' Board

Appendix 4 - 2017/2018 Road Map (Continued)

Topic	2017 Preview	2017 Actual	2018 Preview
Real Estate		• Revised the Real Estate structure and Investment Policy Statement, including revision to the Real Estate policy index benchmark	
		• Committed capital to 3 real estate funds	• Identify and commit to 1-3 potential real estate investments with an average commitment size of $35 million per fund; $70 million in total with a range of $35 to $105 million
		• Approved selling of separate account SCERS property assets for shares in an open end commingled real estate fund	
		• Developed the implementation plan for selling SCERS' separate account portfolio of assets in exchange for shares in an open end commingled fund	• Execute separate account portfolio asset sales in exchange for shares in an open end commingled fund
			• Bring in current real estate managers to educate SCERS' Board
Opportunities		• Did not make any additional Opportunities investments in 2017; monitored and oversaw existing investments	

Appendix 4 - 2017/2018 Road Map (Continued)

Topic	2017 Preview	2017 Actual	2018 Preview
Other Investment Activity	• Subsequent to the asset allocation study, revise overall investment policy, including incorporating individual asset class policies	• Restated SCERS' Master Investment Policy Statemnt (IPS) and several asset class IPS's inline with the new strategic asset allocation	• Convert SCERS' individual asset class IPS's into three asset category IPS's (Growth; Diversifying; Real Return)
		• Restructured SCERS' Overlay Program to align with the new strategic asset allocation	• Implement SCERS' restructured Overlay Program
	• Conduct onsite due diligence of existing managers and real estate property investments	• Oversaw and monitored existing managers and visited two real estate properties	• Conduct onsite due diligence of existing investment managers
	• Seek to expand SCERS' portfolio management/risk management/ investment accounting capabilities	• Assisted in evaluating investment accounting systems as part of a larger investment account project	• Assist in the implementation of a new investment accounting system for SCERS
			• Evaluate risk management and portfolio management software needs for SCERS' total portfolio and asset categories/classes
			• Research liquidity and cash management needs
		• Sent letter to SCERS' alternative assets managers for compliance with California Government Code Section 7514.7, which requires public disclosure of information regarding fees, expense and returns for alternative investment funds that SCERS is invested in	
		• Conducted a review of the manager research budgets and a soft dollars audit of SCERS' public equity and fixed income managers	• Followup with SCERS' equity and fixed income investment managers based on results of the manager research budget and soft dollars audit
		• Executed one equity transition-international equity manager hire	

SCERS

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