

2013 Investment Year in Review



## 2013 Investment Year in Review

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## Introduction

As Chief Executive Officer of the Sacramento County Employees' Retirement System (SCERS), I am pleased to present this report on SCERS' 2013 Investment Year in Review (the 'Report').

The purpose of the Report is to:

- Summarize the major events and developments of the past year, including investment performance;
- · Serve as a reminder of what has been accomplished over the year;
- Highlight the decisions that were made, the rationale for those decisions, and the direction going forward; and
- Preview the investment program's projects, issues and objectives for the year to come.

Overall, it is hoped that this annual report on SCERS' investment program will be helpful for tracking SCERS' progress toward achieving its near-term and long-term investment objectives, and in particular, meeting the fundamental goal of providing the bulk of the funding for the benefits paid to SCERS' members.

In 2013, SCERS leveraged the expertise of its internal investment staff, investment consultants and key investment partners to continue to implement the asset allocation structure adopted in 2011, which was designed to reduce risk, increase diversification and improve investment performance across economic environments. The primary focus of SCERS' investment team in 2013 was to apply those same objectives to the construction and implementation of the individual asset classes, by establishing a customized investment manager structure for each asset class designed to meet the investment objectives of the asset class and assure that the asset class performs its assigned role relative to the overall investment portfolio.

Virtually every asset class was impacted by these activities in 2013, with SCERS' investment team analyzing numerous investment strategies and opportunities for potential consideration in the different asset classes. Those decisions also reflected another important premise in SCERS' investment program: While it is critical to remain disciplined and true to SCERS' asset allocation model, the portfolio cannot remain static, but rather, it must have the capacity to adjust within the parameters of the allocation model based on the status of the investment market cycle.

Asset class construction and implementation will continue in 2014, and for the alternative asset classes in particular, implementation will require a few years before the manager structure is fully in place. That being said, the investment program continues to see the benefit of greater diversification and reduced risk, with 2013 calendar year investment performance of 16.5%, which is 2.5% above the investment portfolio benchmark, and well above SCERS' long term investment return assumption of 7.5%. The investment performance continues to be strong over the long term, with a return of 8.7% for the last twenty-seven years.

The success of SCERS' investment program since the collapse of the global financial markets in 2007-2009 has enabled SCERS' assets to grow to more than \$7.5 billion, which is more than \$1.3 billion higher than the asset level before the market collapse. Over this period, the strong investment performance has minimized the impact of the market collapse on employer pension costs, saving employers millions of dollars. Today, due to the strength of the investment program, the impact of the market collapse has largely been erased.

## Introduction (Continued)

The success of SCERS' investment program also led to recognition by the institutional investor community in 2013, with the international financial publication *aiCIO* selecting SCERS from a roster of global nominees as the runner-up for its annual 'Industry Innovation Award' for public pension funds with \$15 billion or less in assets. The *aiCIO* recognition demonstrates that SCERS' investment program is viewed as a worldwide leader among public pension fund investors.

While this success and recognition is gratifying, the work is not done. Going forward, SCERS will remain focused on identifying ways in which value can be added to the investment program so that it continues to be the funding engine for the benefits SCERS provides.

Respectfully Submitted,

Richard Stensrud

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. In making these decisions, the SCERS Board receives guidance 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. Strategic Investment Solutions (SIS) serves as SCERS' general investment consultant; 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 sub-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 will serve as an 'extension of staff' in those areas where they have greater expertise, capabilities and/or resources, but Staff remains 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 construction/implementation activities and other investment program undertakings that occurred in 2013. In addition, as noted in the Introduction, the collective work of SCERS' investment team led to recognition by the institutional investor community in 2013, with the international financial publication *aiClO* selecting SCERS

### STAFF, CONSULTANTS, AND STRATEGIC PARTNERS (CONTINUED)

from a roster of global nominees as the runner-up for its annual 'Industry Innovation Award' for public pension funds with \$15 billion or less in assets.

Asset class construction and implementation will continue in 2014, and as in 2013, SCERS' investment team will seek to:

- Eliminate the overlap of risk factors across the investment portfolio and create greater diversification;
- Combine investment strategies which produce lower correlation and covariance;
- Minimize uncompensated risk;
- Lower volatility;
- Create competition for investment allocations by comparing the relative value and risk/return profiles of assets and investment strategies;
- Identify areas where active engagement with the investment manager adds value;
- · Align the interests of investment managers with the interests of SCERS; and
- Understand the status of the investment market cycle and position the portfolio accordingly.

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 2014 will be to fully build out and maintain a high quality internal investment Staff. As a further reflection of their pivotal contributions to the success of SCERS' investment program, SCERS' investment Staff members have been recognized as 'Rising Stars' by the respected financial publication *Institutional Investor* and named to the 'Power 100' of influential asset allocators by *aiCIO*. If SCERS is to continue to achieve a comparable level of success in 2014 and beyond, it is imperative that SCERS 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 SIS and Cliffwater can be found in Appendix 1 and Appendix 2 of this Report.

## PORTFOLIO OVERVIEW

#### **Market Overview**

For the calendar year ended December 31, 2013, the Sacramento County Employees' Retirement System ("SCERS") achieved a 16.5% gross return. Studies have shown that earning excess returns is not easily accomplished over the long-term because approximately 80% of active investment managers underperform market indices. However, SCERS' return exceeded its policy index by 2.5% and contributed approximately \$155 million of additional value to SCERS in this calendar year alone, over and above the performance of the markets, net of all fees. Due to the significant increase in the value of global assets and the excess returns achieved by SCERS' investment staff, consultants and investment managers, SCERS has made a strong recovery since the Credit Crisis of 2007-2009 ('Crisis').

Globally, developed nations were coordinated in providing monetary easing, with Japan finally participating. Japan took unprecedented steps by committing to a seemingly unlimited amount of stimulus until growth returns and deflation reverses, targeting 2% inflation. While increased liquidity levels were synchronized globally, the developed nations differed in regards to the stage and quantity of stimulus. Europe has provided the least amount of stimulus, focusing instead on lowering interest rates and imposing austerity measures. On the other hand, Japan is still in the beginning stages of perhaps the largest program on a relative basis. And, the U.S. completed its third quantitative easing program, dubbed 'QE3'. The globally coordinated monetary stimulus continued to lead investors, regardless of fundamentals, more and more, into assets with historically higher risk premiums as the cycle matures. Accordingly, SCERS' Domestic Equity, International Equity, Hedge Funds, Private Equity, and Opportunities asset classes were up 33.1%, 18.2%, 14.8%, 14.8% and 15.0%, compared to SCERS' benchmarks, the Russell 1000 Index, MSCI ACWI ex-US Index, HFRI Fund-of-Funds Index, Venture Economics and SCERS' policy benchmark, which were up 33.6%, 15.8%, 12.0%, 18.5% and 14.0%, respectively. However, as asset prices have increased significantly since the Crisis, the short- and mid-term return of many asset classes is shrinking, while valuations and risk naturally rises.

In the U.S., consumer confidence and slow gross domestic product ("GDP") growth have been buoyed by increasing stock markets and a significant recovery in housing prices. While employment has grown more slowly exiting a recession compared to past cycles, it continues to improve at a steady pace and inflation remains in check (the core Consumer Price Index, which strips out volatile food and energy prices, was up 1.7%). Due to the positive signals from the U.S. economy, (former) Federal Reserve President Ben Bernanke announced a modest level of tapering by yearend. Markets interpreted the announcement as a 'watershed' event and several asset classes have been in transition since then as investors determine potential effects.

After a thirty-year bond rally and declining U.S. interest rates, one effect of tapering could be the triggering of the inflection point where interest rates rise, reversing the long-term favorable trend and creating a poor environment for bonds. Evidence of this is that U.S. interest rates, including yields on the 10-year and 30-year Treasury bonds, increased significantly and the yield curve steepened and shifted up through the year. However, despite the rise, interest rates remain low by historic standards.

In addition, many emerging market countries, including the 'fragile five' (Turkey, Brazil, India, South Africa and Indonesia), are suffering from slowing growth, significant current account deficits and dependence on sovereign debt inflows; problems which could be exacerbated by increases in

U.S. interest rates. As a result, many emerging market nations were forced to raise interest rates to help stave off inflation and currency risks. These effects began to be reflected in performance of asset classes exposed to emerging markets and interest rates, with SCERS' Fixed Income, Emerging Market Equities, and Commodity performance of -1.5%, 0.6% and -9.1%, compared to the benchmark performance of the Barclays Aggregate Index, MSCI Emerging Markets Index and the Dow Jones UBS Commodity Index of -2.0%, -2.3% and -8.5%, respectively.

As investors consider the future, risks appear balanced between the upside and downside. The majority of developed nations have successfully 'kicked the can down the road' by shifting debt to sovereign balance sheets, but over the long-term significant issues and risks remain, including: (1) Developing a plan to solve significant fiscal imbalances and reduce high levels of debt; (2) Europe (through its 'Outright Monetary Transactions' system) has created a safety net, but they still need to provide greater liquidity and generate sustained growth; (3) Emerging markets such as China are slowing; (4) It is unclear whether there will be sustained growth in developed nations such as Japan apart from the unprecedented quantitative easing and monetary stimulus; and (5) A rise in interest rates and tapering could negatively affect fixed income, emerging markets and ultimately all asset classes via a rise in the discount rate.

#### Portfolio Overview

While 2013 saw many asset prices, and particularly, U.S. equities increase significantly, the history of market cycles counsels that asset prices will not continue their upward trajectory forever. What was particularly notable in the increase in equity prices was that the earnings or the fundamentals of companies domestically did not improve in lock-step, or in other words, the valuation multiples of equities simply increased. This is consistent of many asset prices because opportunities to find cheaply valued assets are shrinking as the economic cycle matures and instead many asset classes are becoming fairly valued and even overvalued.

The issues and risks outlined in the previous section combined with the rapid ascent of asset prices since the Crisis, serve as a reminder of the importance that SCERS remain disciplined in its investing philosophy: (1) Diversify across asset classes; (2) Add value through asset class structure and investment manager structure; and (3) Build a manager selection process to achieve excess returns, regardless of market environment.

#### **Diversify Across Asset Classes**

In 2011, SCERS established the long-term asset allocation mix outlined in Table 1, which reduces risk by increasing diversification across asset classes. In particular, the asset allocation structure was developed to achieve the following goals: (1) Perform well across different economic environments and risk factors (such as interest rates, duration, foreign exchange, the equity risk premium, and inflation); and (2) Maximize risk-adjusted returns (optimize returns given a level of volatility). SCERS' current asset allocation is projected to increase returns with a similar level of volatility as compared to the prior asset allocation.

As anticipated, SCERS' portfolio performed very well in 2013 as many growth assets increased. Importantly, while the environment has not turned down yet, it would also be expected that SCERS' portfolio will perform better in a variety of economic environments beyond a growth market compared to the previous asset allocation.

Because the asset allocation changed target allocation levels for various asset classes, the focus of 2013, similar to 2012, was successfully designing and implementing the structure of asset classes. Full implementation is anticipated to take several more years. The progress in investing and moving SCERS' physical portfolio closer to the target allocation is displayed in Table 1. Table 1 compares the actual physical asset allocation as of the end of 2013 to the target asset allocation. Please note that SCERS utilizes an Overlay Program managed by State Street Global Advisors in order to bring SCERS' fund in line with its target asset allocation.

Table 1 - SCERS' Actual Asset Allocation Versus Target Policy Allocation							
Asset Class	Actual Allocation	Target Policy Allocation	Variance				
Domestic Equity	26.5%	22.5%	4.0%				
International Equity	24.3%	22.5%	1.8%				
Fixed Income	17.7%	20.0%	-2.3%				
Hedge Funds	8.8%	10.0%	-1.2%				
Real Assets	9.1%	15.0%	-5.9%				
Private Equity	3.0%	10.0%	-7.0%				
Opportunities	1.0%	0.0%	1.0%				
Cash	9.6%	0.0%	9.6%				

#### Add Value Through Asset Class Structure and Investment Manager Structure

The Market Overview section outlined how one effect of tapering could be in marking the inflection point for a rise in interest rates, reversing the long-term favorable trend and creating a poor environment for bonds. Accordingly, in 2013 SCERS implemented plans created in 2012 to restructure its Fixed Income asset class by diversifying the portfolio into multiple bond segments, geographically and by underlying risk factors. This was accomplished by creating two new allocations to complement SCERS' existing core and core plus bond allocations including: (1) A global opportunistic fixed income mandate (15% of the total Fixed Income allocation), and (2) A strategic credit mandate (10% of the total Fixed Income allocation).

The Market Overview section also noted that as asset prices have increased significantly, the short- and mid-term return of many asset classes is shrinking, while valuations and risk naturally rises. Besides Fixed Income, SCERS' Staff and consultants have been adapting to changes in asset values across the portfolio by avoiding purchasing expensive assets and continuing to identify and invest in assets with the best risk-adjusted returns. For example, as core real estate values have increased significantly and are achieving valuations above the peaks set in 2006-2007, SCERS is finding value investing in debt backed by core real estate in Europe, where the estimated investment rates of return are higher compared to U.S. core real estate equity and risk is lowered by being somewhat insulated to pricing moves and being in a position that is higher in the capital structure. As another example, SCERS' Hedge Fund portfolio began the year with an overweight to U.S. distressed structured credit as values were low, and ended the year with an equal weight position because many of the investments were successful and returned capital.

In addition, as the economic cycle matures (we are now moving into the sixth year of recovery post Crisis), SCERS Staff and consultants are focusing more attention on building customized separate account structures with the objective to increase Staff engagement and become 'strategic partners' with SCERS' investment managers. These partnerships have the goal of increasing communication of the manager's investment insights and knowledge for the benefit of SCERS' total fund, as well as to gain greater control in the investment guidelines, terms and portfolio holdings. In particular, there is a tendency for investment managers to be solely focused on their investment niche and asset class to the degree that the view becomes biased, and in the worst case, the investment manager may perpetually view their asset class as a 'bargain'. Accordingly, there has been a greater focus for SCERS to increase its investment discretion and build-in 'veto' rights or the ability to turn investments down for inclusion in SCERS' portfolio. For example, in 2013, as core real estate values increased, SCERS' Staff and consultants rejected the majority of real estate projects proposed by its managers.

#### Add Value Through Manager Selection

The crux of manager selection is hiring and maintaining the investment managers that will outperform, while terminating managers that will underperform over the long-term. Over the past four years, Staff and consultants have developed and continue to refine a process to identify persistent performance in the manager selection process which is detailed in Appendix 3.

There are three areas that distinguish SCERS' manager selection process:

- Staff and consultants have the ability to assess risk management processes, perform analysis
  at the security level and gather external references or analysis to validate the manager's
  capabilities;
- 2. Due diligence focuses not only on the investments and investment strategy, but also on the operational risks and negotiation of appropriate business terms in the contract; and,
- 3. While many pension funds rely more exclusively on consultant recommendations, SCERS' process is integrated and relies on both Staff and consultants each independently performing the continuous individual components of manager selection, including sourcing, vetting and interviewing, legal review, negotiation of terms, determination of allocation of capital, monitoring existing investments, and determination to terminate an investment.

Because the process involves both Staff and consultant independently performing due diligence, it is time-intensive, thorough, and naturally leads to fewer managers selected and a large number of investment managers vetted and rejected for investment. However, SCERS believes that a more exhaustive due diligence process by both Staff and consultants leads to the superior selection of investment managers and a source of investment value over the long-term.

To test this thesis, Staff and consultants have been tracking and monitoring the results of the decisions to hire and terminate investment managers over the past four years. The results indicate that the investment due diligence process is working well, with the managers SCERS has hired outperforming benchmarks collectively, and the managers SCERS has terminated underperforming benchmarks as a group.

#### Portfolio Performance and Attribution

SCERS' performance in 2013 supports SCERS' belief in the ability to add value through the asset class structure, manager structure and manager selection processes. SCERS' total gross fund return of 16.5% outperformed the policy index by 2.5%, and importantly, the majority of SCERS' asset classes exceeded their policy benchmarks including International Equities by 2.4%, Fixed Income by 0.5%, Hedge Funds by 9.8% and Opportunities by 1.0%. Domestic Equities broadly kept pace but lagged its benchmark by 50 basis points with a 33.1% return. SCERS' Private Equity portfolio underperformed the policy benchmark, but it is still in the early stages and meaningful comparisons cannot be drawn until the portfolio is built out in 2017-2018. SCERS' Real Assets asset class also underperformed its benchmark by 2.9% due primarily to the large difference of 5.9% between the current and target allocation and a sub-optimal Real Assets proxy in the portfolio overlay program. As will be discussed more in the Real Assets section of this report, SCERS' Staff and consultants will be targeting Real Assets investments in 2014 which will help to close this gap. SCERS' results are summarized in Table 2.

Over the past four years, SCERS' Staff, consultants and strategic partners have been building an investment program that has the potential to add value and be a source of additional returns to SCERS' portfolio, regardless of the market environment. The success of the program is reflected in the generation of excess returns at an increasing rate over the time period, with the 5-year, 3-year, and 1-year total fund performance of 12.3%, 10.0% and 16.5%, achieving increasing excess returns above SCERS policy index of 0.3%, 0.7% and 2.5%, respectively. While it has clearly been a beneficial market environment over the intermediate time frame (SCERS has posted returns of 12.3% per year post the Crisis), the excess returns reflect additional value to SCERS over and above the market index returns.

#### **Investment Results**

	For the Period Ended December 31, 2013  Annualized		
	1 Year	3 Years	5 Years
Domestic Equity			
Total Domestic Equity	33.1%	15.9%	18.5%
IFx All DB US Eq Gross Median	34.4	16.2	19.1
Benchmark: Russell 3000 Index	33.6	16.2	18.7
International Equity			
Total International Equity	18.2	6.1	13.9
IFx All DB ex-US Eq Gross Median	18.0	6.8	13.0
Benchmark: MSCI ACWI ex-US Index	15.8	5.6	13.3
Fixed Income			
Total Fixed Income	(1.5)	4.5	8.0
IFx All DB Total Fix Inc Gross Median	(1.3)	4.9	7.0
Benchmark: Barclays Aggregate Index	(2.0)	3.3	4.4
Hedge Fund			
Total Hedge Funds	14.8	6.8	7.8
IFx All DB Hedge Funds Gross Median	12.0	5.2	7.3
Benchmark: 91 day Treasury Bill + 5%	5.0	5.1	5.1
HFRI Fund-of-Funds Index	8.7	2.4	4.8
Private Equity			
Total Private Equity	14.8	10.5	(1.9)
IFx All DB Private Equity Net Median	8.9	9.5	8.3
Benchmark: Russell 1000 + 3% 1 Quarter Lag	23.9	19.4	12.6
Real Assets			
Total Real Assets	3.0	N/A	N/A
Benchmark: CPI-U Headline + 5%	5.9	N/A	N/A
Opportunistic			
Total Opportunistic	15.0	14.5	18.7
Benchmark: Policy Index ***	14.0	11.7	9.5
Total Fund			
SCERS Total Fund Gross	16.5	10.0	12.3
SCERS Total Fund Net	16.2	9.7	11.9
IFx Public DB > \$1B Gross Median	15.0	9.6	12.6
Allocation Index*	14.8	N/A	N/A
Policy Index**	14.0%	9.3%	12.0%

Notes: Unless noted, returns were prepared by Strategic Investment Solutions, Inc., and shown on a gross of fee basis. Return calculations were prepared using a time weighted rate of return.

<sup>\*</sup> Allocation Index return is the weighted average performance of SCERS' actual allocation across the asset class benchmarks.

<sup>\*\*</sup> Policy Index consists of 22.5% Russell 3000, 22.5% ACWI ex U.S., 20% Barclays Aggregate, 10% T-Bill plus 5%, 10% Russell 1000 plus 3% and 15% CPI-U Headline plus 5%. From 1/1/2008 to 12/31/11, the Benchmark consisted of 30% Russell 3000 Index, 20% ACWI ex U.S., 20% Barclays Aggregate, 12% NCREIF Property, 3% NAREIT Property, 5% T-Bill plus 5%, 5% Dow Jones UBS Commodities, and 5% S&P 500 plus 2%.

<sup>\*\*\*</sup> Opportunities benchmark was the Barclays Capital Aggregate Index until 12/01/2012 when it changed to SCERS' Policy Index.





## Domestic Equity

#### U.S. Equity Market Overview

U.S. equity markets generated robust returns during 2013, and significantly outpaced non-U.S. equity returns. For the year, the S&P 500, the Russell 1000, and NASDAQ returned 32.4%, 33.1% and 38.3%, respectively. Investors continued to gravitate toward equities, as the effects of the Federal Reserve's ("Fed") multi-year quantitative easing measures continued to significantly influence equity markets. The impact of monetary policy reduced bond yields, which made equities more attractive on a relative basis during 2013. Corporate profits grew steadily during the year, with S&P 500 earnings growing at approximately 6%, as companies have reaped most of the benefits of cost cutting and operational improvements, and are now more reliant on top-line revenue growth to increase profits. However, the big driver of U.S. stock gains during the year was due to an increase in valuations, which was a result of a rise in consumer confidence and the reasonable attractiveness of stocks compared to bonds. The relative value of stocks versus bonds has moved toward normalization with the significant run up in stock prices, which has likely reduced return expectations for equities going forward.

During the year, the U.S. equity markets were led by the consumer discretionary, health care and industrial sectors, though all sectors generated positive returns. Also, small-capitalization stocks outperformed mid-capitalization stocks, which outpaced large-capitalization stocks. Growth stocks slightly outperformed value stocks during the year.

#### **Domestic Equity Portfolio**

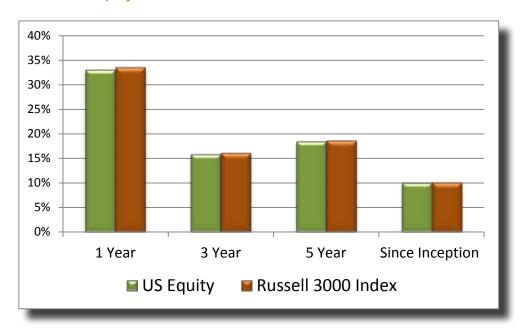
SCERS' Domestic Equity portfolio is structured with a combination of large cap and small cap, as well as active and passive mandates. A large cap passive allocation makes up over 50% of the portfolio, which is complemented by a meaningful allocation to a group of active large cap managers who run concentrated, high conviction, benchmark agnostic and higher tracking error mandates. The Domestic Equity small cap portfolio is comprised of active mandates. Domestic REITs also fall within SCERS' Domestic Equity portfolio. 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 using a passive allocation in those segments that are more efficient, and where active returns are more difficult to generate. Utilizing a higher passive equity component also reduces aggregate management fees and tracking error risk.

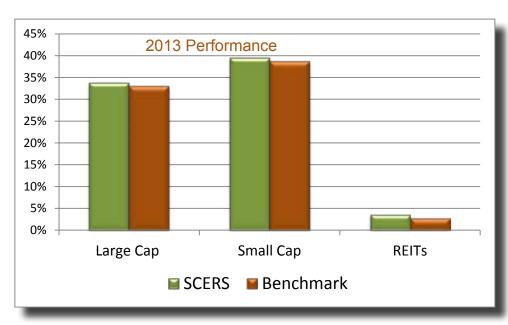
#### 2013 ACCOMPLISHMENTS

- Completed the implementation of the Domestic Equity manager structure, which called for reducing SCERS' aggregate Domestic Equity exposure and reducing manager redundancies
  - Terminated two managers within sub-asset classes
  - Implemented multiple partial redemptions from existing mandates
- Oversaw, monitored and met with SCERS' existing Domestic Equity managers

#### **Domestic Equity Performance and Attribution**



SCERS' Domestic Equity portfolio generated very strong absolute returns of 33.1% during 2013. Relative to SCERS' U.S. equity benchmark, the Russell 3000, SCERS underperformed by 50 basis points. One reason for the under-performance is the over-weight to REITs compared to the benchmark. Over longer time periods, the Domestic Equity portfolio is generating returns similar to the benchmark.



In 2012, SCERS implemented structure and manager changes to the U.S. large cap portfolio by increasing its passive exposure and adding managers who run concentrated high conviction portfolios in an attempt to increase excess returns while maintaining similar levels of risk to the prior portfolio. These changes have been validated with early success as the new manager structure drove the outperformance of SCERS' U.S. large cap portfolio by 0.8% over its benchmark, while the managers who were terminated continue to underperform benchmarks. In addition, SCERS'

## Domestic Equity (Continued)

U.S. small cap equity portfolio outperformed its benchmark index by 0.8%. SCERS' U.S. REIT exposure was a detractor to SCERS' overall Domestic Equity performance for the year, as REITS underperformed equities in 2013.

#### **2014 GOALS**

- Continue to assess investment manager lineup
- Evaluate alternative forms of passive equity exposure
  - Low volatility/ low beta equity
  - · Diversified factor exposure
- · Conduct a 'soft dollar' audit of SCERS' equity managers

## International Equity

#### **Market Overview**

In 2013, international equity markets experienced a significant bifurcation of returns between developed and emerging markets. Within developed markets, the MSCI EAFE Index returned 22.8%, which lagged U.S. equity returns. From a regional perspective, Europe rallied due to the continuance of structural reforms, the reduction of rates by the European Central Bank, and some improvement in macroeconomic indicators. The MSCI Europe ex-UK IMI Index was up 29% for the year. Germany posted strong returns of 32%, while European peripheral nations such as Ireland and Spain outpaced Europe as a whole. Japan was up 54% on the hopes of aggressive monetary stimulus, but rose only 27% in USD terms, due to significant depreciation in the Yen. Emerging markets fell 2.6%, significantly underperforming developed market equity returns. Emerging markets returns were impacted by a number of factors, including Fed tapering, currency weakness among those countries with negative current account deficits, and concerns around China's prospective growth trajectory.

#### International Equity Portfolio

SCERS' International Equity portfolio is comprised of a combination of developed and emerging markets exposure, as well as a combination of large capitalization and small capitalization mandates. Large cap developed markets comprise the bulk of SCERS' portfolio, and international REITs also fall within the International Equity portfolio. Similar to SCERS' domestic equity portfolio, International Equity maintains neutral style risk, between growth and value.

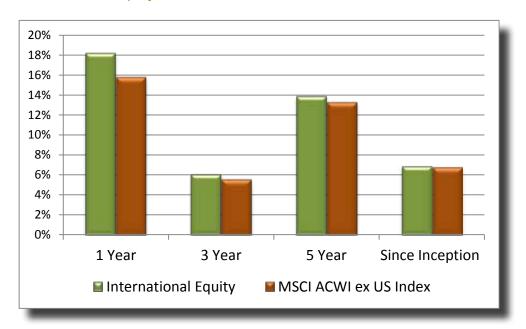
Active mandates make up the entire allocation to the asset class, as SCERS believes that there are more stock selection in-efficiencies within the international equity markets. Investing in global equity markets introduces greater complexities when factoring in regions, countries and currencies, so incorporating a greater degree of flexibility into investment manager mandates is an important component of SCERS' International Equity portfolio (for example, by giving the manager the flexibility to allocate to both developed and emerging markets, and latitude within these ranges).

#### **2013 ACCOMPLISHMENTS**

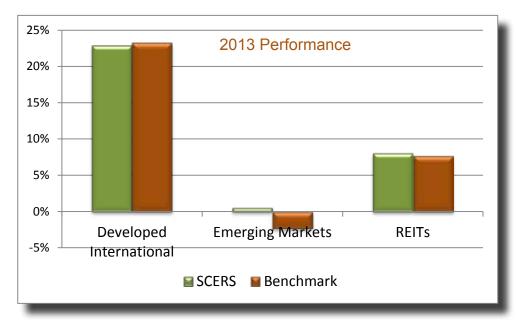
- Modified the International Equity structure to include a dedicated emerging markets small cap mandate to give SCERS greater diversification and exposure to consumer demand driven themes within the emerging markets
- Completed the implementation of the International Equity manager structure, which called for reducing SCERS' aggregate International Equity exposure and reducing manager redundancies
- Oversaw, monitored and met with SCERS' existing International Equity managers

### International Equity (Continued)

#### International Equity Performance and Attribution



Though non-U.S. equity markets trailed their U.S. equity counterparts, SCERS' International Equity portfolio produced a robust return of 18.2% during the year, and significantly outperformed SCERS' benchmark, the MSCI ACWI ex-US Index return of 15.8%.



Looking closer at International Equity returns for the year, SCERS' developed International Equity managers performed roughly in-line with the benchmark. SCERS implemented several manager changes within this space over the past year and a half. Since these changes were made two of the managers have generated strong relative returns, while another has not. Emerging markets equities generated poor absolute returns due to the reasons described previously, but SCERS' managers outperformed on a relative basis. Similar to domestic REITS, SCERS' international REIT exposure was a detractor to SCERS' overall international equity performance for the year, as REITS underperformed developed market equities in 2013.

### **2014 GOALS**

- Evaluate SCERS' all-cap emerging markets exposure
- Continue to assess investment manager lineup
- Conduct a 'soft dollar' audit of SCERS' equity managers
- Review of global currency exposures

#### **Market Overview**

During 2013, fixed income returns varied widely, with shorter duration holdings outperforming longer duration holdings in a rising interest rate environment. The highest performing sector was high yield, with the Merrill Lynch 1-3 year High Yield Index returning 6.5%. While bank loans also performed well, most other spread sectors generated muted returns during the year. Yield spreads narrowed significantly during the year within spread sectors, including investment grade credit, high yield, and agency and non-agency mortgage backed securities ("MBS"). The worst performing fixed income sector was a -8.8% return generated by the Barclays Long Gov/Credit Index. Treasury Inflation Protected Securities ("TIPS") also underperformed, and were impacted by the rise in rates combined with modest inflation. The widely held Barclays Aggregate Index posted a -2.0% return during 2013. Emerging markets debt was down over 3% for the year, but especially suffered during the second half of the year due to concerns over Fed tapering, a slowdown in China and falling commodity prices.

The yield curve steepened, as short-term rates remained anchored by the Fed's Fund Rate policy, while intermediate and longer-term rates increased by over 100 bps off of generally positive economic data and expectations for Fed tapering. The 10-year Treasury yield ended the year at 3.03% compared to 1.76% to end the prior year. After hinting at tapering its asset purchase program early in the year, the Fed announced at its December FOMC meeting that it will steadily wind down its quantitative easing ("QE") policy by \$10 billion per month through 2014 (split evenly between MBS and Treasury securities). During the year, the Fed also announced that it would no longer explicitly tie the Fed Funds rate to a 6.5% unemployment rate. Overall, the Fed appears to be shifting away from QE and placing a greater emphasis on guidance related to short-term rates. The low interest rate environment combined with credit expansion has been the catalyst for economic growth and asset price appreciation. With the gradual winding down of QE measures within the U.S., many market participants are focusing on the potential impact on credit growth, and ultimately economic and asset price growth going forward.

#### SCERS' Portfolio

SCERS' Fixed Income portfolio was re-structured in 2013 to add two new dedicated strategies to complement SCERS' existing core and core plus exposure. This included (1) A global opportunistic fixed income mandate (15% of the total Fixed Income portfolio) and (2) A strategic credit mandate (10% of the total Fixed Income portfolio). Both of these strategies are designed to give SCERS differentiated and diversified exposure to multiple segments of the fixed income market, as well as underlying macro risk factors.

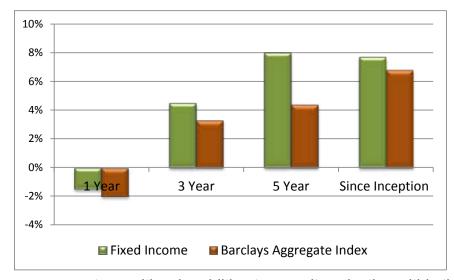
The global opportunistic fixed income mandate gives the manager the flexibility to allocate across the most opportune segments of the global bond markets, including developed markets, emerging market debt, sovereign bonds, corporate bonds and currencies. This mandate is particularly useful in providing SCERS with diversified global bond exposures in a rising U.S. interest rate environment, as the U.S. fixed income markets experienced in 2013 off of Fed tapering.

The strategic credit mandate gives the manager the flexibility to allocate across the most opportune segments of the credit sectors, including high yield corporate bonds, bank loans, investment grade corporate bonds, structured credit and distressed debt. This mandate also has the flexibility to add significant levels of macro portfolio hedges to protect capital at inopportune points in the credit cycle. With the credit markets experiencing several years of strong returns, SCERS believes that we are in the later stages of the credit cycle, and thus the ability to add high meaningful levels of macro portfolio hedges is an important component of this mandate.

#### 2013 ACCOMPLISHMENTS

- Implemented the new manager structure approved in 2012
  - Conducted a manager search for and selected a manager for the global opportunistic fixed income mandate
  - Conducted a manager search for and selected a manager for the strategic credit mandate
  - Created custom benchmarks for each new mandate, reflecting the investment objectives of each
- Oversaw, monitored and met with SCERS' existing Fixed Income managers

#### Fixed Income Performance and Attribution



Though SCERS' aggregate Fixed Income portfolio, and fixed income as an asset class, experienced negative returns on an absolute basis for 2013, SCERS' Fixed Income portfolio outperformed the Barclays Aggregate Index benchmark by 50 bps. SCERS has outperformed the benchmark ove r all measurable time periods, and much of this performance over recent years has been driven by the relative performance of the spread sectors, where SCERS has had an overweight versus

government securities, in addition to security selection within the various bond sectors. The recent addition of the global opportunistic fixed income and strategic credit mandates will give SCERS more diversified exposure to the global bond markets and sectors, and will be more fully reflected in future performance.

#### **2014 GOALS**

- Create a customized benchmark for the broad Fixed Income asset class to match the risk and return characteristics of the new structure
- Continue to assess the investment manager lineup

## Hedge Funds

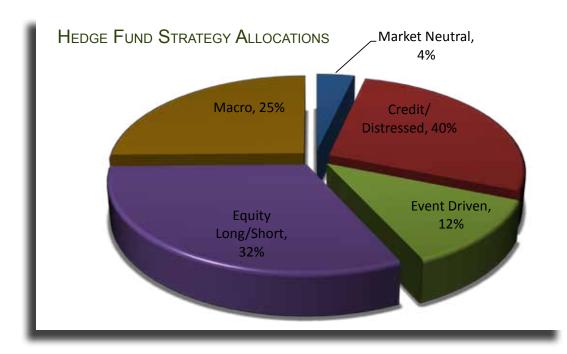
#### **Market Overview**

Overall, Hedge Fund performance was strongly positive in 2013 on the back of higher equity markets and credit markets, as well as strong security selection by managers. Similar to prior recent years, corporate credit hedge funds generated profits in distressed, liquidation, and post-restructured equity, while structured credit hedge funds continued to see gains in RMBS, CMBS and CLO positions. Equity hedge funds benefitted from strong developed equity markets and corporate events, including dividends, stock repurchases, mergers and acquisitions, REIT conversions, spinoffs and other idiosyncratic events. Multi-strategy hedge funds benefitted from the trends in both credit and equities. With lower volatility, particularly in developed sovereign rates, global macro hedge funds had mixed performance. Global macro hedge funds saw mixed performance due to low volatility in sovereign rates and declining commodity markets.

#### Hedge Funds Portfolio

SCERS' Hedge Fund allocation is structured as a broadly diversified program of multiple hedge fund strategies, which has historically produced enhanced returns with reduced risk. The asset allocation structure includes four components: (1) SC Absolute Return Fund ('SCARF'), a multistrategy hedge fund separate account portfolio managed by strategic partner, Grosvenor Capital Management; (2) SCARF – B, an interim hedge fund component consisting of a more liquid version of SCARF, which is intended to provide diversified exposure to a multi-strategy hedge fund portfolio and be drawn down over three years to fund direct hedge fund investments (also managed by Grosvenor Capital Management); (3) A strategy-based replication component; and (4) A direct hedge fund component.

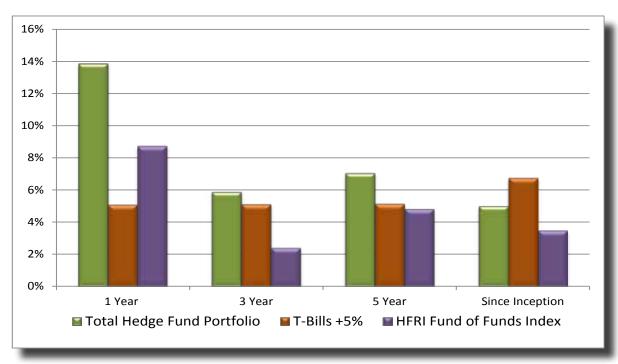
SCERS' Hedge Fund program has been structured to accomplish the dual objective of achieving near the total fund return objective while at the same time reducing total fund risk. SCERS has been developing its direct hedge fund program to help reduce costs and eliminate the use of fund-of-funds where possible. The progress in diversification across hedge fund strategies is outlined in the chart below.



#### 2013 ACCOMPLISHMENTS

- Cliffwater and Staff identified candidates for direct Hedge Fund investments
  - Performed extensive due diligence on candidates, including onsite manager visits and consultations with hedge fund strategic partner, Grosvenor Capital Management
  - Prepared multiple reports for the Board evaluating potential investments
  - Finalized three direct investments in 2013
- Created an interim hedge fund component to fill the gap between SCERS'
  10% target Hedge Fund allocation and actual allocation of approximately
  5% by hiring Grosvenor Capital Management to execute a second separate
  account of diversified hedge fund strategies with similar characteristics to
  SCARF, but with greater liquidity

#### SCERS Hedge Fund Performance



SCERS' Hedge Fund portfolio generated strong absolute performance of 13.9% in 2013. SCERS' Hedge Fund portfolio also outperformed SCERS' benchmarks, the HFRI Fund-of-Funds Index by 5.2% and the absolute return benchmark of T-Bills + 5% by 8.8%. The Hedge Fund portfolio benefitted from strong contributions across multiple strategies, including structured credit, multi-strategy, event-driven and equity strategies. The relative outperformance of SCERS' Hedge Fund portfolio compared to benchmarks over the 1-year and 3-year periods suggests the restructuring to diversify SCERS' Hedge Fund portfolio completed in 2011 and 2012 is helping SCERS better achieve its goals.

## Hedge Funds (Continued)

#### **2014 GOALS**

- Identify, perform due diligence and make investments in four to six funds within the direct Hedge Fund program
- Continue to monitor and assess the manager lineup
- Deepen expertise by increasing capabilities in operational due diligence

# Private Equity

#### **Market Overview**

The private equity market experienced a strong year in 2013, highlighted by robust performance, improved M&A activity, successful fundraising, increased IPO exits for private equity backed companies, and high levels of distributions for limited partners. Global buyout investment activity increased 14% over the prior year and totaled its highest level since 2007. U.S. buyout funds saw a 28% increase in investment activity compared to the prior year, and the highest level since 2007. U.S. venture capital experienced a less robust 8% increase in activity compared to 2012.

Private equity firms worldwide raised 23% more in capital compared to the previous year, and the largest amount since 2008. This increase was heavily driven by buyout funds, which increased 45% compared to the prior year. Venture capital fund raising decreased by 2% from 2012, and distressed debt funds raised 72% less capital compared to the prior year, as default rates and distressed situations have become less opportune at this point in the cycle. Private equity fundraising has become more concentrated toward the larger and more well-known firms over the last several years, with the 50 largest private equity funds accounting for 59% of the capital raised during the year. This is up from 51% in 2008.

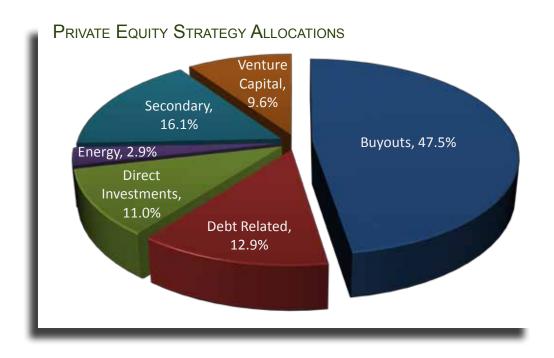
Private equity firms were able to leverage the accommodative public equity markets to take many of their portfolio companies public. Buyout-backed companies accounted for approximately 80% of the IPO activity, compared to venture capital, which has historically accounted for a significant portion of IPO activity.

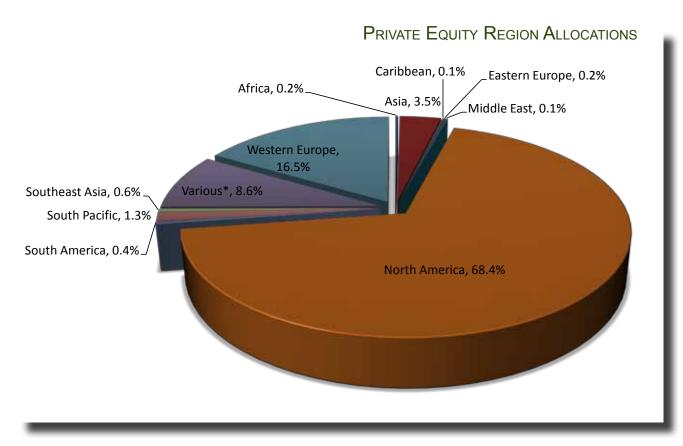
#### Private Equity Portfolio

SCERS' Private Equity portfolio is broken out between buyout, venture capital, distressed debt and 'other' less defined strategies. Since the asset class was re-structured in 2011, SCERS has been building a direct Private Equity program by making commitments consistent with the asset class's investment plan and investment structure. These direct commitments complement SCERS' existing Private Equity fund-of-funds, which were established during the 2006-2008 time period. SCERS' Private Equity investments are based on a multi-year plan to reach and maintain the 10% target allocation in Private Equity, by investing across the various strategies and regions within the Private Equity structure. The longer-term objectives of the Private Equity portfolio are to earn equity-like returns with an additional premium to compensate for the liquidity risk undertaken by investing in the asset class. The benchmark that SCERS uses to assess long-term performance of the Private Equity asset class is the Russell 1000 + 3%.

## PRIVATE EQUITY (CONTINUED)

#### **Allocation Summary**

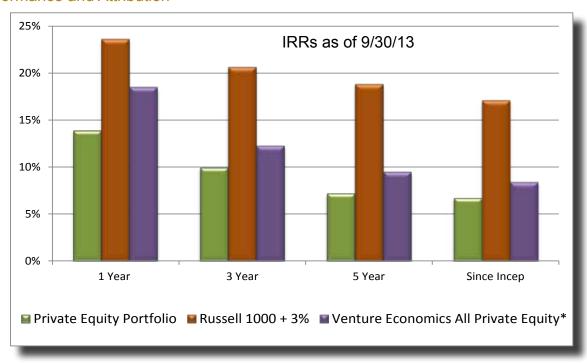




#### **2013 ACCOMPLISHMENTS**

- Presented the annual report on Private Equity and developed the 2013 private equity annual investment plan
- Cliffwater and Staff identified candidates for direct Private Equity commitments.
  - Performed extensive due diligence on candidates, including consultations with current private equity fund of funds managers and SIS
  - Prepared multiple reports for the Board evaluating potential investment opportunities
  - Finalized five direct Private Equity commitments in 2013:
- Accepted invitation to join the Advisory Board for Dyal Capital Partners II, L.P.

#### Performance and Attribution



\*Pooled Point-to-Point IRR

Performance numbers for SCERS' Private Equity investments are not comparable to the benchmark at this point, due to SCERS being in the earlier phase/cycle of investments within this assets class, and the unique cash flow characteristics within private equity. Once a commitment is made to a private equity fund, capital is not drawn down at once, but rather, over a 5-6 year investment period. Returns within private equity typically follow a 'j-curve', where negative returns are generated initially followed by increasing levels of positive returns over time.

### Private Equity (Continued)

However, while trailing the benchmark, SCERS' Private Equity portfolio is progressing through the j-curve and is generating increasing levels of positive performance. For the 1-year period ending September 30, 2013, SCERS' Private Equity portfolio generated a net IRR of 13.9%, and since inception has generated a net IRR of 6.7%. SCERS' fund-of-funds commitments made in 2006 and 2008 have contributed to most of the returns, while SCERS' direct commitments that have been made since 2011 are in aggregate too early in the j-curve to generate positive performance.

#### **2014 GOALS**

- Identify, perform due diligence and make commitments to seven to ten funds within the direct Private Equity program
  - Fund candidates include buyout, venture capital and distressed debt.
  - Particular interest in European distressed exposure and opportunistic funds with a multi-strategy approach to manage across the economic and credit cycles
- Continue to identify segments of the Private Equity portfolio where it could
  potentially be challenging to build a full portfolio of direct commitments,
  including venture capital, emerging markets and special situations
  segments, and, assess the addition of a strategic partner to assist in
  filling these gaps, and to provide strategic value-add advice
- Present the annual report on Private Equity and the annual investment plan, including a reassessment of the cash flow model due to market conditions

## <u>Real Assets</u>

#### **Market Overview**

Accommodative monetary policy kept U.S. interest rates near historic lows, which produced favorable spreads to the risk-free rate and continued to lead investors into higher yielding assets such as core real estate, infrastructure, energy partnerships and other real assets.

In many cases, core real estate values have exceeded pre-Crisis peak valuations set in 2006/2007. As real estate prices have increased, return opportunities in core assets have become muted and expected 10-year unlevered returns range between 6% and 7%. While all commercial real estate values have increased, the market remains bifurcated with more favorable pricing, value upside and attractive risk-adjusted returns in non-core real estate investment opportunities.

The global outlook for private real assets, including energy and infrastructure remains robust. In the U.S., horizontal drilling and "fracking" technologies have increased supplies and lowered the cost of production and pricing. Accordingly, while oil prices remain high globally, natural gas prices in the U.S. remain low due to the difficulty in transporting natural gas outside of the U.S. Energy infrastructure appears poised to benefit from a multi-year expansion as demand adjusts to take advantage from low natural gas costs, as well as efforts improve to transport natural gas offshore. Commodity indices were down sharply in 2013 due to slowing growth from emerging markets, in particular China, which had accounted for much of the incremental growth in demand over the past decade. Going forward, this decrease in demand could be exacerbated by slowly adjusting supply as significant amounts of fixed capital expenditures and mine projects have been placed online during the last boom cycle and will be difficult to curtail quickly. Accordingly, commodity prices could remain volatile and mixed for some time.

#### Real Assets Portfolio

The Real Assets asset class is comprised of several sub-asset classes: (1) Core real estate; (2) Private real assets (infrastructure, energy, agriculture, timber, and other natural resources); (3) Commodities; and (4) Inflation-linked bonds (TIPS) (currently there is no allocation to TIPS). The objectives of the Real Assets portfolio are to generate moderate income, serve as an inflation hedge, and diversify the total fund, particularly compared to equity risk.

SCERS' core real estate structure consists of a mix of core separate accounts ('CSAs') and core open-end commingled funds ('COEFs'). The CSAs have historically outperformed the benchmark over every rolling five-year period due to increasingly active engagement between the separate account managers, Staff and consultants. For example, as core real estate prices have increased past previous peaks during 2013, SCERS' Staff and Townsend have maintained pricing discipline by rejecting proposed acquisitions of properties with IRRs below the expected preferred rate of return for core real estate. The COEFs help diversify SCERS' core real estate portfolio, but have historically underperformed benchmarks. Accordingly, in 2013, Staff and Townsend focused on restructuring the COEFs lineup by terminating a \$50 million COEF due to poor performance and committing to three new COEFs.

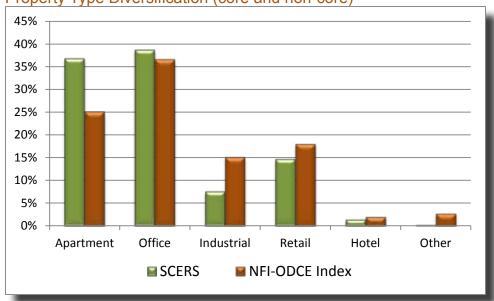
Due to the higher valuations in core real estate and lower expected future returns, in 2013 SCERS began to shift into debt backed by real estate and non-core real estate opportunities, including: (1) Debt backed by European real estate with lower expected risk due to the higher position in the capital structure and higher expected returns, compared to U.S. core real estate; and (2)

### REAL ASSETS (CONTINUED)

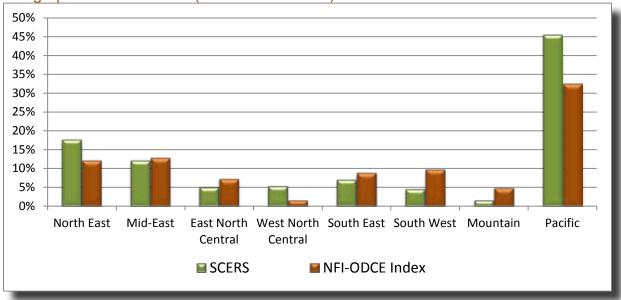
Opportunistic real estate where more attractive values exist. Non-core real estate investments are allocated to SCERS' Opportunities portfolio.

SCERS' Real Assets allocation stands at 9.1% with a target of 15%, with the gap primarily due to the need to make additional commitments to private real assets. Accordingly, SCERS committed to one infrastructure fund during the year. Given the relative value and expected higher risk-adjusted returns, infrastructure and energy investments will continue to be a focus for 2014.









#### **2013 ACCOMPLISHMENTS**

- Completed a strategic real estate review and allocation plan, which recommended rebalancing core holdings, adding more non-core investments, and adding the capability to invest in non-US opportunities
  - Restructured core open-end commingled funds, including terminating an underperforming fund representing \$50 million
  - Improved core separate account portfolio occupancy levels (89.4% to 91.8%)
  - Continued to capitalize on low interest rates through selective leverage
  - Sold several core real estate properties at favorable prices
- Conducted extensive due diligence on core and non-core real estate investment opportunities, including onsite manager visits, in-office meetings, and consultation with SCERS' strategic partners, leading to commitments of \$85 million to three core real estate commingled funds and two non-core investments
- Conducted extensive due diligence on infrastructure primary and secondary investment opportunities, including onsite manager visits, inoffice meetings, and consultation with SCERS' consultants, leading to a commitment to an core infrastructure fund

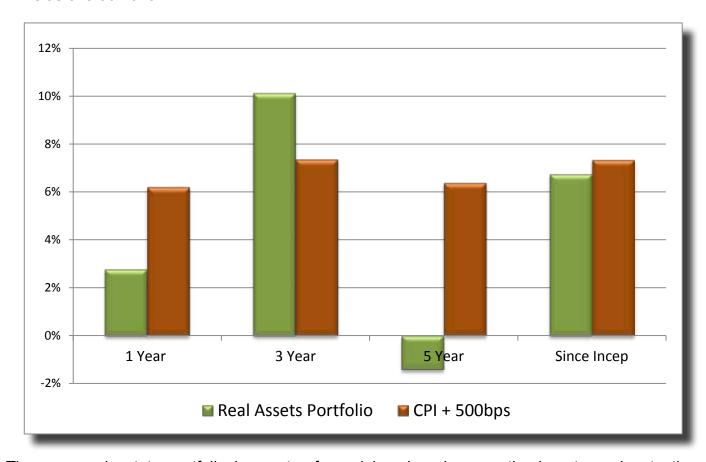
### REAL ASSETS (CONTINUED)

#### Performance and Attribution

SCERS' Real Asset Class underperformed its benchmark by 2.9% due primarily to the large difference of 5.9% between the current and target allocation. Therefore, SCERS' liquid proxy used to replicate the Real Assets asset class underperformed the benchmarks. SCERS' Staff and consultants will be targeting Real Assets investments in 2014 which will help to close this gap.

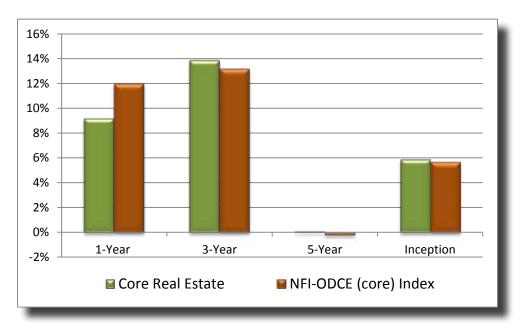
#### SCERS Real Assets Portfolio Performance

IRRs as of 9/30/2013



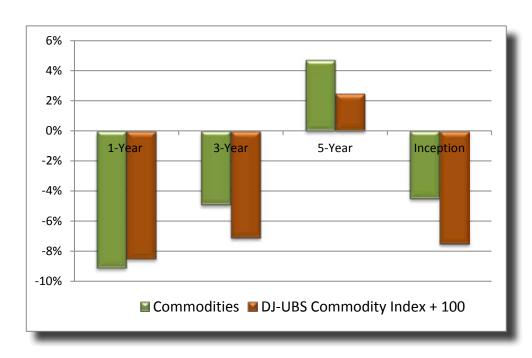
The core real estate portfolio has outperformed benchmarks over the long-term due to the performance of SCERS' core separate accounts where there has been an increasingly active engaged partnership between Staff, consultants and separate account managers. The long-term performance has been offset by underperformance by the core open-end commingled funds. However, in 2013, SCERS CSAs underperformed due to decreased property occupancy levels in certain separate accounts, which have since improved (89.4% to 91.8%). Additionally, SCERS' investment in one COEF significantly underperformed and was negatively impacting portfolio returns, which contributed to the decision to fully redeem SCERS' investment. The core portfolio is expected to improve with the addition of three new core open-end commingled fund investments.





While SCERS' commodities portfolio has outperformed its benchmark over long-term periods, it underperformed in 2013 and was down sharply with the index on slowing growth in emerging markets, particularly China.

# Commodities Performance (ending September 30, 2013)



# **2014 GOALS**

- Identify, perform due diligence and make commitments to seven to ten funds within the direct Private Equity program
  - · Fund candidates include buyout, venture capital and distressed debt.
  - Particular interest in European distressed exposure and opportunistic funds with a multi-strategy approach to manage across the economic and credit cycles
- Continue to identify segments of the Private Equity portfolio where it could
  potentially be challenging to build a full portfolio of direct commitments,
  including venture capital, emerging markets and special situations
  segments, and, assess the addition of a strategic partner to assist in
  filling these gaps, and to provide strategic value-add advice
- Present the annual report on Private Equity and the annual investment plan, including a reassessment of the cash flow model due to market conditions

# **OPPORTUNITIES**

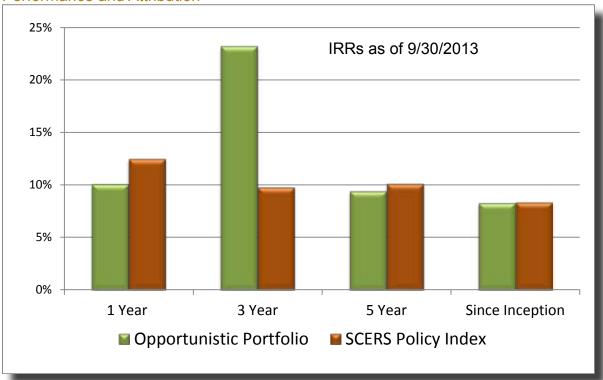
### SCERS' Portfolio

The Opportunities asset class does not have a fixed allocation, but instead has a permissible range of 0% to 5%. The asset class is designed to invest in a tactical investment theme if and when the investment markets present an opportunity with attractive risk and return attributes. Such opportunities may be short-term in nature and may exist across a wide range of asset categories. If and when an Opportunities investment is identified, the Opportunities asset class draws the capital from the asset class with the most comparable risk and return characteristics as the investment. In this way, the potential Opportunities investment is measured against and competes for an allocation relative to comparable investment opportunities in other asset classes. Based on this assessment, it is possible that no investments will be made in the Opportunities asset class in some years.

# **2013 ACCOMPLISHMENTS**

- Cliffwater, Townsend and Staff identified candidates for direct Opportunities investments
  - Performed extensive due diligence on candidates
  - Prepared multiple reports for the Board evaluating potential investment opportunities
  - Finalized three Opportunities investments in 2013
    - A distressed debt fund capital drawn from Private Equity.
    - A debt fund backed by European core real estate capital drawn from Real Assets
    - An opportunistic real estate fund capital drawn from Real Assets

# Performance and Attribution



SCERS' 1-year performance is mostly made up of SCERS' value-add real estate funds. Longer-term performance is reflective of the value-add real estate funds, in addition to several closed end distressed debt funds that SCERS invested in during the global credit crisis. These latter funds have returned all capital to investors, and SCERS generated a net IRR of approximately 20% on these investments. The value-add real estate funds are vintage year 2006 and 2007 funds that invested at a stressed point in the real estate cycle, and therefore have delivered returns that are below expectations to date. The funds that were committed to in 2013 are closed end funds that are too early in the j-curve to have generated representative performance figures.

# **2014 GOALS**

 Tactical investments with the right risk/return profile will continue to be evaluated in 2014.

# OTHER INVESTMENT ACTIVITIES

# 2013 Accomplishments in Other Investment Activities

In addition to the substantial changes that were made to 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.

- Oversaw and monitored existing relationships
  - Met with most managers at least once
  - Utilized State Street compliance monitoring system as 'check and balance' on manager guidelines
- Continued to monitor and assess the direction of securities lending
- Implemented modifications to Overlay program
  - Brought the Overlay targets in-line with current portfolio target allocations
  - Re-evaluated proxies for each asset and sub-asset class created several new proxies
    - SSgA Real Assets Strategy for private real assets
    - Multi-asset class futures exposure for hedge funds gap not covered by SCARF B
    - Investment grade credit ETF for credit component of fixed income
    - Flexibility to used total return swaps in fixed income and private equity
- Encouraged existing managers to utilize SCERS' commission recapture program.
- Wrote real estate Investment Policy Statement (IPS)
- Transition management
  - Large transition completed in 2013 equity manager terminations and partial redemptions to bring allocations in-line with target allocations

# 2014 Goals for Other Investment Activities

- Revise and update the overall IPS to reflect changes and incorporate individual asset class IPS's
- · Conduct 'soft dollar' review and analysis of SCERS' equity managers
- Increase capabilities in operational due diligence for alternative investments
- · Conduct on-site due diligence on existing managers and existing real estate holdings
- Research risk management and software management systems for SCERS' total portfolio and asset classes
- · Continue to assess the securities lending

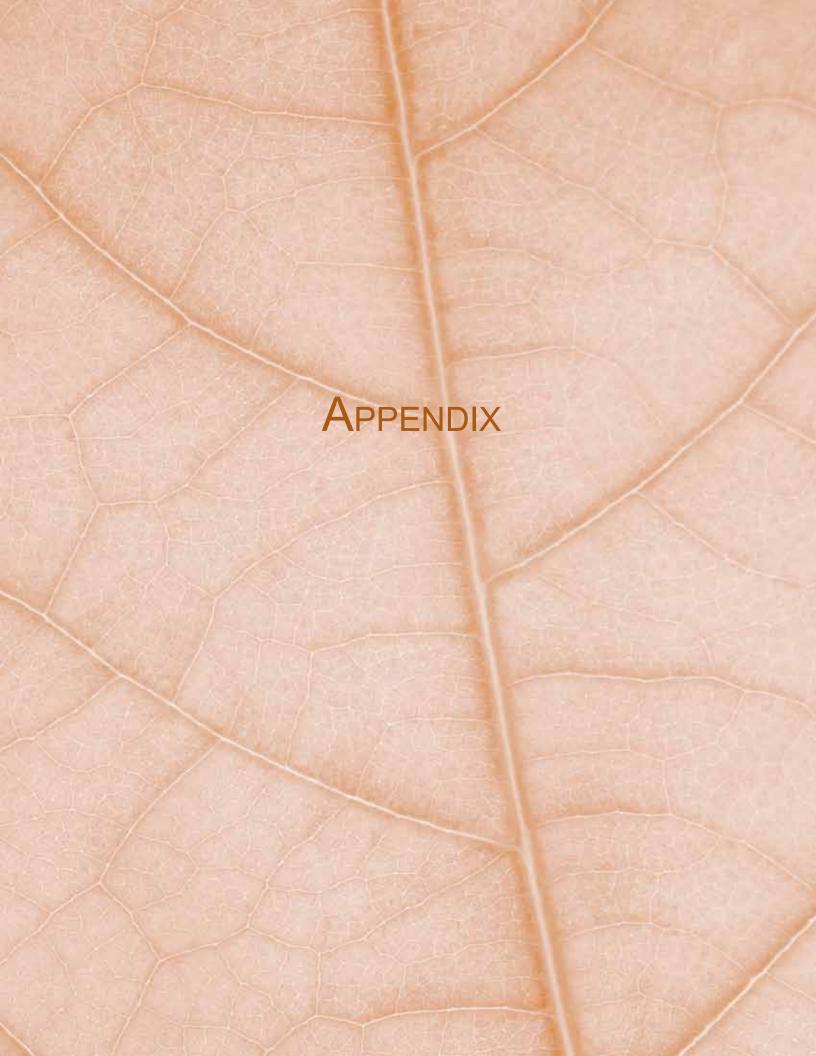
# Investment Education

# 2013 BOARD EDUCATION

- Presentation by Claren Road Asset Management on the long/short credit hedge fund portfolio they manage for SCERS
- Real estate sub-asset class presentation by Townsend and Staff
- · Global fixed income educational presentation by SIS and Staff
- Educational presentation on 'shorting' by Cliffwater
- Educational presentation on 'derivatives' by Cliffwater
- Opportunistic credit education presentation by SIS and Staff
- Presentation by Trinity Ventures on the venture capital private equity fund portfolio they manage for SCERS
- Educational presentation on secondary investments in infrastructure by SIS and Staff
- Presentation by Summit Partners on the credit and growth equity funds that they manage for SCERS
- · Educational presentation on 'global macro' hedge fund strategy by Cliffwater

# 2014 BOARD EDUCATION

- · Hedge fund investment manager presentations
- · Private equity fund investment manager presentations
- Educational presentations by consultants and Staff
- · Development of an investment Board retreat



# Appendix 1 - 2011 Asset/Liability Study

# STRATEGIC INVESTMENT SOLUTIONS, INC.

333 Bush Street, Ste. 2000 San Francisco, California 94104

TEL 415/362-3484 = FAX 415/362-2752

Scott Chan, CFA Chief Investment Officer Sacramento County Employees' Retirement System (SCERS) 980 9th Street, Suite 1900 Sacramento, CA 95814

July 14, 2011

Dear Scott:

This memo outlines the major changes being considered as part of the 2011 SCERS Asset/Liability Study ("ALS") and their justification. As reported to the SCERS board during the asset allocation education session, we anticipate continuing to rely on Mean-Variance Optimization as the basis for asset allocation, but with an eye towards other, relatively new, asset allocation models increasingly being utilized by large institutional investors such as SCERS, such as the Endowment and Risk Parity models.

The purpose of this memo is to provide SCERS with documentation of the ALS process and an understanding of the roles of the various asset classes being considered.

#### **Real Assets**

One of the objectives of the 2011 ALS is to assess the primary risks SCERS faces in managing the plan's assets relative to its liabilities. One of these risks is unanticipated inflation: if inflation is higher than expected over an extended period, wage inflation and higher cost-of-living adjustments ("COLAs") may cause the value of liabilities to increase. In addition, assets that respond negatively to inflation may lose value, which would also cause the plan's funded status to deteriorate. We believe it would be beneficial for SCERS to establish a dedicated Real Asset investment program to hedge this risk by initiating or adding exposure to assets that are expected to respond *positively* to unanticipated inflation. These assets are known as "Real Assets" or, alternatively, "Real Return Assets", as they are expected to provide attractive returns on a real (net of inflation) basis.

Real Assets are comprised of equity and fixed income oriented strategies. Real return fixed income performance is generally more closely tied to changes in CPI and/or short-term interest rate changes. However, with investment grade fixed income securities generally offering yields in the low single digits, investing in these strategies would make it more difficult for SCERS to achieve its long-term return target of 7.75%.

The fixed income sub-categories included in Real Assets are:

TIPS

SCERS Asset Allocation Review July 14, 2011

- Non-US Inflation-Linked Bonds
- Bank Loans and other floating-rate bonds and notes

While returns from equity oriented Real Assets are less directly tied to changes in CPI, and therefore provide a less optimal hedge against inflation risk, they can potentially generate more attractive returns and also diversification relative to other equity-oriented strategies.

The equity asset sub-categories included in Real Assets are:

- Real Estate
- Commodities
- Infrastructure (ports, toll roads, power generation, etc.)
- Hard Assets (Oil & Gas, Metals & Mining, Agricultural Land, Timberland, etc.)

# **Reduction to Core Real Estate Target Allocation**

We believe Core Real Estate has both positive and negative characteristics. Positive attributes include:

- Potential hedge against unanticipated inflation (many investors include real estate in their Real Assets allocation)
- Expected return greater than bonds
- Expected risk lower than equity
- A smoothed, appraisal based return series; thus "observed" and reported risk is low relative to other private asset classes
- Low correlation to equity and bonds

Conversely, negative attributes include:

- High specific, non-diversifiable, risk
- Low price transparency
- Low liquidity
- High Cost of Implementation (Fees, Commissions, etc.)

At this point in the cycle, SIS is drawn to Core Real Estate's potential inflation hedging characteristics and, given price declines experienced since 2007, its perceived cheapness relative to other asset classes. However, we recommend establishing a more diversified Real Asset program with other asset types that are expected to provide inflation hedging benefits but better diversification than Core Real Estate alone. The net of these cross-currents leads the optimizer to an initial target allocation of about 9% of the total fund, which would be a reduction from the current Real Estate target allocation of 15%.

Note that the current real estate allocation includes non-Core Real Estate investments (value-added/opportunistic strategies and publicly-traded real estate securities, or REITs). For the purposes of the 2011 ALS, both of these sub-categories were kept the Real Estate asset class, though it is not expected that SCERS will increase exposure to these strategies over the near term. REITs were reclassified into the public equity asset class, as they tend to have a high beta relative to public equities and are included in some widely used public equity benchmarks, including the S&P 500 Index.

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#### **Bond Sub-Asset Class Structure**

The group of instruments that investors commonly refer to simply as "bonds" or "fixed income" is in reality a very broad class of investments with highly differentiated sub-categories. We believe each of these sub-categories has a unique role within the SCERS portfolio. These sub-categories include:

- Nominal US Core Bonds (Treasuries, Agencies, Mortgage-Backed Securities, Asset-Backed Securities, and Investment Grade Corporates)
- Real Return US Government Bonds (Treasury Inflation-Protected Securities, or TIPS)
- US High Yield Bonds (Below Investment Grade Corporates)
- International Developed Bonds (Non-US, predominantly Sovereign, or foreign government-issued, bonds)
- Emerging Market Debt (both Sovereign and Corporate issues)

These different bond instruments perform a full range of different functions with in the portfolio, including inflation hedging (TIPS); deflation and crisis hedging (Nominal Treasuries); return enhancement and income (High Yield Bonds); and both return enhancement and currency hedging (Emerging Market Debt). Mean-Variance Optimization is not well suited to make the fine allocation distinctions among the fixed income sub-categories, as it would tend to magnify small differences in expected Sharpe Ratios and, therefore, potentially over- or under-represent the various sub-categories.

This limitation of the optimization process leads SIS to recommend carving out dedicated allocations for the important subsectors of the bond market to ensure each receives adequate representation in the portfolio to perform its function. TIPS are included as part of the Real Return Fixed Income pool, and both High Yield and Emerging Market Debt will be allotted dedicated allocations (typically around 10% each of the Core Fixed Income asset class). The size of the allocations to High Yield and Emerging Market Debt are judgmental compromises between their representation in the bond market (which is small) and their usefulness as return-enhancement and diversifying inputs to the bond portfolio (which is large).

Additionally, a dedicated US Government bond allocation can be useful in managing SCERS's liquidity needs. We have found that bond managers systematically under-weight US Government bonds relative to the broad fixed income indexes, even during periods when credit spreads are relatively narrow and investors are not adequately paid to take credit risk(such as during the 2005-2007 period). This need for liquidity and the usefulness of a dedicated US Government bond allocation will be addressed as part of the fixed income manager structure analysis.

# **Global Public Equity Structure**

The current public equity target allocations of 30% Domestic Equity / 20% International Equity overweight Domestic Equity relative to the most commonly used global equity benchmark, the MSCI All-Country World Index ("ACWI"). We believe it would be beneficial for SCERS to consider reducing or eliminating this "home country bias" with a more balanced allocation between these two asset classes,

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as it would improve diversification within public equities and broaden SCERS's investment opportunity set.

As with the Fixed Income portfolio, we will work with SCERS upon the completion of the ALS to conduct a manager structure study to look at the optimal mix of active and passive strategies and whether any changes to the manager line-up are warranted.

# **Increase in Hedge Funds**

While SIS does not believe that Hedge Funds qualify as an asset class per se, but instead represents a type of investment vehicle allowing short positions and an incentive-based fee structure, we do believe that, if carefully selected and implemented, Hedge Funds can potentially improve SCERS's risk-adjusted returns. This is because of the combination of unique market exposures or "exotic betas" and/or management skill or "alpha" that good Hedge Funds provide. These attributes can lead to superior riskadjusted returns and improved asset diversification relative to the more traditional asset classes that comprise the rest of the SCERS portfolio. Our expected (net-of-fees) return for Hedge Funds is 6%, with an expected risk of 10%. This results in the highest reward to risk ratio (Sharpe Ratio) of any class of investments in the SCERS portfolio, with a fairly low correlation of returns relative to both public equities and bonds.

Given these characteristics, our asset allocation model naturally favors Hedge Funds over most other investments. Therefore the appropriate allocation to Hedge Funds becomes a function of the board's comfort level with these strategies, as well as the staff's and consultants' capacity to implement a successful Hedge Fund program. Other SIS clients that have approved Hedge Fund investments generally have target Hedge Fund allocations ranging from 5% to 10%. SIS believes that SCERS has the internal and external resources to implement a direct Hedge Fund program and that a target allocation of up to 10% is appropriate. This would be an increase to the 5% current SCERS Hedge Fund allocation.

Additionally, we expect SCERS to move from the current reliance on long-short equity funds-of-funds to a more direct model. This would entail building a more concentrated and high-conviction portfolio of single-strategy Hedge Funds across all strategy types, resulting in better diversification across the Hedge Fund landscape and also potentially improved returns. SCERS has recently added investment staff and contracted with an alternative investment consultant; we expect these additional resources to enable SCERS to pursue this strategy.

# **Increase in Private Equity**

We believe Private Equity offers the potential to enhance the returns of the Total Fund. As return expectations for most asset classes have come down in the past two years, we believe it is appropriate for SCERS to increase its exposure to Private Equity to enable the fund to achieve its overall return hurdle. We are anticipating a target allocation of up to 10% of the total fund, compared with the current target of 5%.

Additionally, as with Hedge Funds, SCERS will be moving to a more concentrated, high-conviction direct partnership investment model and away from the fund-of-funds structure currently in place. We believe the internal and external resources recently added by SCERS will enable them to pursue this strategy successfully, which should improve their long-term risk-adjusted Private Equity returns.

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# **Opportunistic Portfolio**

SCERS currently has an Opportunistic Portfolio allocation target of 5%, with several investments already included in this program. The purpose of this portfolio is to provide SCERS with the ability to pursue investment strategies that are either expected to be relatively short-term in nature, with the goal of pursuing strategies taking advantage of temporary market dislocations and anomalies, or strategies that are unique and do not readily fit the definition of SCERS's other asset classes, or have cash flow characteristics and/or a risk profile inconsistent with the other asset classes. An example of the former would be TALF and PPIP strategies raised in the aftermath of the US government's efforts to resurrect the structured credit market in late 2008 and early 2009; SCERS did invest in a TALF strategy managed by Metropolitan West and a credit opportunity strategy managed by Stone Tower. Since these strategies were funded, prices improved dramatically as these markets returned to a more normal environment and, therefore, the opportunity to capture outsized returns disappeared.

With the establishment of the Real Assets portfolio, we expect to reclassify the commodity related Opportunistic Portfolio investments into that asset class and change the Portfolio benchmark from being a commodity benchmark to one with an absolute return hurdle. Since we are unable to predict when these opportunities will arise, we believe a range of 0-5%, with no strategic target allocation, is more appropriate than the current 5% target, as there may be times where no attractive opportunities exist.

While the ALS is still ongoing and we do not yet have a recommended policy target mix, we believe the ideas outlined in this memo will help SCERS improve its long-term risk-adjusted returns and provide the flexibility to better position the fund to achieve its return objectives. We will present a range of proposed mixes to the Board during the July and August meetings based on the asset allocation structure described in this memo.

Once the ALS is complete, the next step would be to conduct a manager structure study within Fixed Income, Global Equities, and Real Assets to determine how to optimally structure these broad asset classes.

We look forward to working with the SCERS Staff and Board to complete the ALS and implement the fund's new investment strategy.

Sincerely,

Pete Keliuotis
Managing Director
Strategic Investment Solutions, Inc.

# APPENDIX 2 - REVIEW OF SCERS' ALTERNATIVE ASSETS CLIFFWATERIC

To: Richard Stensrud, Chief Executive Officer, SCERS

From: Jamie Feidler, Cliffwater LLC

Date: February 13, 2014

Regarding: Reviewing 2013 in SCERS' Alternative Assets
CC: Scott Chan, Chief Investment Officer, SCERS

Steve Davis, Deputy Chief Investment Officer, SCERS

The focus in 2013 for SCERS' alternative assets was execution and continued implementation of the investment plan that SCERS has developed over the last few years. In reviewing all of the achievements SCERS made in 2013, it is important to reflect upon the steps that SCERS has taken to facilitate all of the activity during the last year. SCERS' ability to access top tier managers, improve the total portfolio's return and risk profile, and be creative and flexible in its investment approach are all a result of not only the work that was done throughout 2013, but in prior years as well. Below I have included the memo I wrote in February 2012 that highlighted all of the accomplishments SCERS made within its alternative assets in 2011. Although it is too early to judge the long-term impact of SCERS' recent activity, it is gratifying to see how SCERS has continued to successfully execute and implement the investment vision that the SCERS staff, Board, and Cliffwater have developed over the last few years.

## February 22, 2012 memo on Accomplishments in SCERS' Alternative Assets

The Sacramento County Employees' Retirement System ("SCERS") made numerous changes throughout 2011 to better position SCERS to meet its near-term and long-term investment objectives. As you know, these changes covered virtually all aspects of the system's investment program, from asset allocation to manager selection, and encompassed all asset classes. This memo will summarize the changes made within SCERS' alternative assets, including hedge funds, private equity, real assets, and opportunistic investments.

SCERS' primary accomplishments in alternative assets fall into six categories:

- 1. Increasing the allocation to alternative assets.
- 2. Better defining the roles and objectives of the alternatives sub-asset classes.
- 3. Improving diversification within the alternatives sub-asset classes.
- 4. Reducing reliance on fund of funds and investing directly in alternative asset partnerships.
- 5. Implementing a more efficient manager selection process for alternative investments.
- 6. Hiring an experienced consultant that specializes in alternative assets.

# Increasing the Allocation to Alternative Assets

The decision to increase SCERS' allocation to alternative assets was made in the context of a total portfolio asset allocation study. Although the asset allocation study was conducted by SIS, the resultant asset allocation recommendations reflected input from both SIS and Cliffwater, particularly for the alternative assets. SCERS' decision to include input from both consultants, despite the segregation of duties, was a smart choice given the complexities of the asset allocation study and the unique nature of alternative investments. The alternative asset classes most impacted by the new strategic asset allocation policy were hedge funds and private equity; the long-term target allocations for each of these asset classes were increased from 5% to 10% of the total SCERS portfolio. These changes, combined with the recommended changes for the

# Appendix 2 - Review of SCERS' Alternative Assets (Continued)

other asset classes, are intended to improve the expected return of the SCERS total portfolio, while maintaining roughly the same level of expected portfolio risk.

Increasing the allocations to private equity and hedge funds also reflects a common view among institutional investors that these asset classes provide some of the best opportunities to generate alpha, reduce portfolio risk, and help pension systems meet their actuarial return targets. Specifically, increasing these allocations from 5% to 10% is in-line with allocation changes being made by many other mid-size and large public retirement systems. SCERS, like many of its peers, started with small allocations to alternative asset classes initially. Increased familiarity with assets like private equity and hedge funds, combined with the relatively modest return expectations for most traditional asset classes today, has led many of the largest and most sophisticated pension systems to increase allocations to hedge funds and private equity. Increasing these allocations to 10% each in the SCERS portfolio is prudent when viewed against alternate asset allocation policies and when comparing its decisions to those being made by its peers. SIS can provide a broader assessment of the benefits of SCERS' new asset allocation targets.

#### More Defined Roles and Objectives

Although SCERS had well-defined roles and objectives for the majority of its asset classes, some of the alternative asset classes were either less well-defined or could benefit from incorporating updated objectives. The creation of the real assets asset class provides the best example. While SCERS has been investing in various types of real assets for many years (TIPS, commodities, real estate investments), these assets were previously categorized within more traditional asset classes. This type of approach was common among pension systems. By creating a dedicated real assets asset class, which includes core real estate, commodities, TIPS, and private real assets investments, SCERS is able to better focus its exposure to these assets and better define the role of these assets. SCERS also took a fresh look at these assets and developed a multifaceted objective for the new asset class. Rather than simply being viewed as a hedge against inflation (a common definition of "Real Assets"), SCERS broadened the objective to include a goal of providing additional total portfolio diversification in all inflation environments, as well as providing a stable income component for the portfolio. SCERS reinforced this "all-weather" objective by establishing target allocations and permissible ranges for each of the real assets sub-asset classes that reflected the multi-faceted objective of the asset class.

SCERS similarly redefined the objective of its Opportunistic allocation, and expanded the types of investments that should be considered for this allocation. The Opportunistic allocation previously had a commodities orientation, with an ability to include other, more tactical investment opportunities. SCERS recast the primary objective of the allocation to allow SCERS to tactically take advantage of unique opportunities without being constrained by singular definitions of traditional asset classes. SCERS replaced the previous commodities based return objective for Opportunistic investments with a total portfolio oriented benchmark. The new return objective reflects the tactical intent of this allocation and the ultimate role of the allocation to enhance the overall portfolio return and risk profile. SCERS also replaced the 5% long-term target allocation with a long-term target allocation of 0% and a permissible range of 0% to 5% of total assets. The revised allocation parameters allow SCERS to take advantage of unique opportunities without being forced to invest when opportunities are less compelling.

Having better defined roles and objectives for all asset classes is prudent. However, SCERS' approach to structuring many of these asset classes additionally reflects a more modern view of portfolio management. It also reflects a willingness to depart from traditional definitions in favor of more progressive thinking that is better suited for the current investment environment confronting investors today.

# Improving Sub-asset Class Diversification

Another important step taken by SCERS during 2011 was to begin increasing the diversification within the sub-asset classes of alternative investments. The focus for hedge funds was to

# APPENDIX 2 - REVIEW OF SCERS' ALTERNATIVE ASSETS (CONTINUED)

increase strategy diversification. SCERS' hedge fund investments, which were being made through investments in two fund of funds, were focused almost exclusively on equity long/short strategies. A more diversified approach that includes investing in hedge funds across different strategies improves the expected return and risk profile of the hedge fund portfolio. Reducing the reliance on equity long/short strategies also reduces the equity beta of the portfolio, and improves the hedge fund portfolio's ability to generate alpha under various market conditions. Terminating both equity long/short fund of funds, creating a diversified separately managed account, and constructing a diversified direct hedge fund portfolio, are all actions SCERS took to achieve this important goal of maintaining exposure to a more diversified, global, multi-strategy hedge fund portfolio.

Improving diversification was not limited to hedge funds. As previously mentioned, SCERS expanded the potential candidates for inclusion within opportunistic investments. SCERS also established an explicit target allocation for private real assets such as energy, infrastructure, or other natural resource partnerships. Finally, although SCERS' private equity fund of funds provided good initial diversification, SCERS has taken steps to reduce undesired concentrations (e.g. large buyout exposure), retain better control over sub-strategy and geographic exposures, and maintain appropriate vintage year diversification, primarily by reducing its reliance on fund of funds and investing directly in private equity partnerships (discussed in more detail in the following section).

Prudent diversification is one of the cornerstones of portfolio management. The steps SCERS took to improve diversification should help to further improve SCERS' risk-adjusted returns. SCERS' improved diversification could prove to be particularly beneficial in the coming years, given the heightened volatility seen in global financial markets since the financial crisis of 2008.

# "Going Direct"

SCERS' initial investments in alternatives were made via fund of funds. This approach was common among public pension systems which typically did not have the in-house expertise or resources to adequately manage portfolios of alternative investments. SCERS' increased experience with alternatives, combined with its knowledgeable investment staff and decision to hire a specialist consultant, gave SCERS the resources and expertise to bypass fund of funds in favor of building its own portfolios of direct partnership investments. This move to "going direct" should provide multiple benefits for SCERS, including reducing fees and providing SCERS with better control over its investments.

The ability to terminate the fund of funds relationships in SCERS' hedge funds is providing immediate fee savings for SCERS. The longer duration of private equity investments will necessitate remaining with the existing fund of funds, thus the fee savings will be more gradual to appear on the private equity side. However, with the healthy investment pace of new private equity investments now being made directly into partnerships, SCERS is realizing an immediate "opportunity savings" by not relying on fund of funds for these new investments. SCERS is also able to gain better control over its alternative investments since it controls each new partnership investment being made in the portfolio. The number of partnership investments, type of managers selected, amount of each investment, and timing of partnership investments are just a few characteristics that are now being controlled directly by SCERS, as opposed to being delegated to multiple fund of funds.

The opportunity to reduce costs and obtain better control over these investments, without sacrificing return potential, has been a powerful draw for many retirement systems. This has been reflected in their reduced use of fund of funds while maintaining, or increasing, their allocations to alternatives. The evolution of SCERS' alternative investment program has mirrored that of many of the most sophisticated institutional investors. The decision to "go direct" is yet another example of steps being taken by SCERS that should help to improve the portfolio's risk and return characteristics in an environment of reduced return expectations and increased volatility.

# Appendix 2 - Review of SCERS' Alternative Assets (Continued)

# Implementing a More Efficient Manager Selection Process

As part of its decision to "go direct", SCERS recognized the importance of having an efficient manager selection process. SCERS realized the limitations of adhering to a typical governance structure that requires a retirement system's Board, or a sub-committee, to vet and approve individual partnership investments. Rather than following the traditional approach, SCERS moved to get discretion for the staff and consultant to make these individual partnership investments. This approach ultimately improves SCERS' ability to both evaluate and access potential alternative investment opportunities. It also helps to focus the Board's attention on strategy and policy decisions, and not on the relatively small allocations being made to individual partnership investments.

Implementing a more efficient manager selection process is particularly beneficial in alternatives. First, accessing top tier managers is more challenging in alternative investments where fund sizes are typically smaller than traditional stock and bond funds, and where the managers may only raise assets for a limited amount of time. In many instances, potential investors may have limited time to complete their due diligence, assess their interest, and execute legal documents. These situations can prove particularly problematic for public retirement systems if the timing of a decision is dependent upon the schedule of Board meetings or the Board's ability to consider the opportunity. Many of the best alternative managers, unlike many traditional investment managers, are also quite limited in their willingness to travel offsite to make presentations to potential investors. This could once again be a limitation for systems that require managers to present to a Board.

SCERS is able to gain these benefits without sacrificing its ability to adequately vet their alternative investments. Cliffwater performs extensive due diligence on potential investment opportunities prior to recommending an opportunity to SCERS. SCERS staff is also able to meet with these funds, often onsite at the fund's offices, to perform its own independent assessment of the manager's capabilities. This combination of a thorough due diligence process and a more streamlined approval process should provide SCERS better access to top tier alternative investment opportunities. This improved selection is particularly important with alternative assets, where wider dispersion between top and bottom quartile funds makes selection a critical determinant of a program's success.

#### Hiring an Experienced Alternatives Consultant

SCERS understood that implementing a more robust, diversified alternatives program would require greater resources to adequately source, evaluate, and monitor the alternative investments. Having access to additional expertise in structuring and implementing diversified alternatives programs would also help SCERS avoid mistakes that many of the earlier adopters of alternatives had made. Hiring Cliffwater as a specialist consultant gave SCERS the required resources and expertise that were needed to prudently implement such a program. SCERS has been able to successfully leverage Cliffwater's resources, experience in alternative investing, and experience with large public retirement systems as it has begun to implement its enhanced alternatives program.

# Concluding Observations

The changes SCERS has made within its alternative investments, numerous as they are, were made in a thoughtful and prudent manner. The SCERS staff, Board, and Cliffwater spent a significant amount of time evaluating these changes and assessing the expected impact on the overall SCERS portfolio. The SCERS staff and Cliffwater took considerable care to discuss with the Board all of the proposed changes prior to making any recommendations. In many cases, this education evolved over a period of several months, eventually culminating in a recommended action. Providing the Board with significant education and time to evaluate and question the recommendations is critical to the long-term success of alternative investment programs.

SCERS has also developed thoughtful implementation plans for all of its alternative asset classes. These implementation plans provide for adequate control and Board oversight, without

# APPENDIX 2 - REVIEW OF SCERS' ALTERNATIVE ASSETS (CONTINUED)

limiting SCERS' ability to access the best alternative investment opportunities. SCERS has also thoroughly documented all of these changes and the rationale for making these decisions. As stated throughout this memo, the changes SCERS has made should not only help SCERS to meet its near-term and long-term investment objectives; they also reflect industry best practices and a willingness by SCERS to adopt more advanced approaches to meeting the challenges presented by current capital markets.

# Appendix 3 - Manager Search Process

#### 1 - Public Markets

- a. Staff and SIS develop a list of initial manager candidates.
- b. Staff and SIS select a pool of semi-finalist managers to interview at SCERS' office. The number of semi-finalist managers tends to be between 6 and 10, and each interview lasts approximately two hours.
- c. Staff writes a comprehensive initial report to SCERS' Board communicating the background of the search and giving a description of each manager, including the strengths and weaknesses of each.
- d. Staff and SIS select and recommend to SCERS' Board finalist candidate(s) for the mandate.
- e. Staff and SCERS' fiduciary counsel develop an investment management agreement ("IMA") and negotiate terms with the new manager(s), including fees.
- f. Staff writes a comprehensive final report to SCERS' Board, communicating the decision to recommend the final candidate(s).
- g. The final candidate(s) present to SCERS' Board. SCERS' Board votes on the approval of the manager recommendation, in addition to potential terminations of existing managers.
- h. Staff communicates the hiring and termination decisions to the respective managers.
- Staff and SCERS' fiduciary counsel finalizes the negotiation of IMA terms with the new manager(s).
- j. Staff develops a plan to transition assets (often with assistance from a transition consultant Zeno Consulting) from terminated managers to newly hired managers. Components of the transition include:
  - i. The development of cash flow movement projections among the relevant managers.
  - ii. The coordination with SCERS' custodian, State Street, to transition all assets within one transition account.
  - iii. The selection and hiring of a transition manager to transition all assets in aggregate within SCERS' transition account.
  - iv. The coordination with the transition manager, custodian, investment managers and transition consultant.
  - v. The overseeing of the execution of the transition.
  - vi. The reporting of the results from Staff to SCERS' Board.
- k. Staff coordinates with the new manager(s) to file Form 700, provide necessary reporting to SCERS on an ongoing basis and to participate in SCERS' commission recapture program.
- I. The newly hired manager(s) take control of the custodied account(s), and initiates active management of the account(s).

# Appendix 3 - Manager Search Process (Continued)

#### 2 - Alternative investments

- a. Staff and Cliffwater identify strategies and managers that fit within SCERS' strategic allocation in hedge funds, private equity, or real assets and twelve-month investment plan, for inclusion within SCERS' alternatives program.
- b. Staff reviews Cliffwater investment and operational due diligence reports, as well as investment documentation provided by prospective managers.
- c. In the case of hedge funds, Staff travels to prospective manager offices for comprehensive due diligence meetings, where Staff meets with several key members of a manager's investment and operations staff. The meetings typically last over two hours.
- d. Staff furthers the due diligence process by leveraging other strategic partners within the investment program. An example is SCERS' hedge fund strategic partner Grosvenor or SCERS' private equity fund of funds manager Harbourvest. Partners provide Staff with their viewpoints on managers that Staff is considering within SCERS' alternative asset program.
- e. Staff and Cliffwater identify manager(s) that SCERS seeks to make an allocation to as a limited partner. Several managers in the due diligence process get eliminated from consideration due to a lack of fit within SCERS' existing alternatives portfolio, investment-related issues with a manager or operational-related issues with a manager.
- Staff writes an initial due diligence report to SCERS' Board, identifying a manager under consideration.
- g. Staff reaches out to the manager for all investment documentation, including the private placement memorandum, the limited partnership agreement and the subscription documents. These documents are reviewed by SCERS' outside legal counsel, internal legal counsel, as well as SCERS' Staff.
- h. Negotiations are entered into with the manager's counsel by SCERS' outside legal counsel, internal counsel and Staff. The negotiations include the development of a side letter to the fund's legal documents.
- Staff writes a comprehensive final due diligence report to SCERS' Board communicating the decision to allocate to the fund, and the reasons why an allocation is being made.
- SCERS' Board has the opportunity to express questions or concerns throughout this process.
- k. Staff arranges for signature and counter-signature of all documents, followed by the wiring of funds to the manager in the case of a hedge fund.

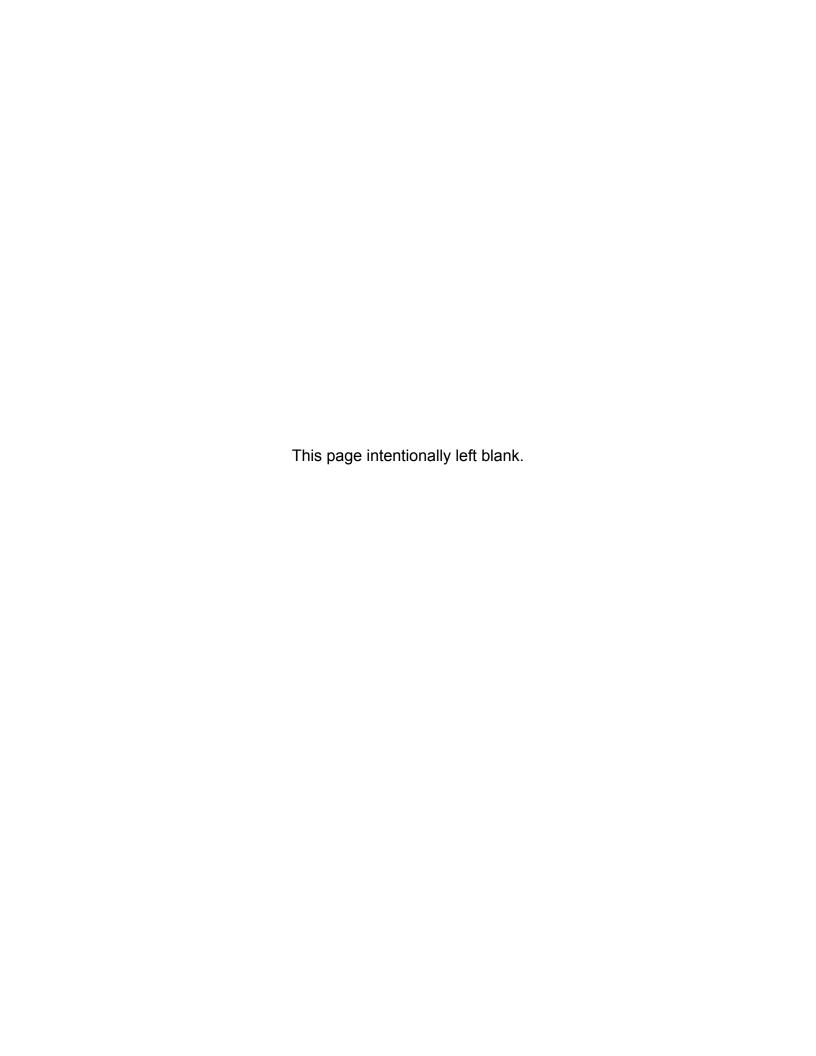
# APPENDIX 4 - 2012/2013/2014 ROAD MAP

Topic	2013 Preview	2013 Actual	2014 Preview
Consultant Roster	- Complete integration of Townsend into the consulting platform	- Integrated Townsend into the consulting  -Assess the need for specialty consul- platform in alternative assets	-Assess the need for specialty consul- tants including operational due diligence in alternative assets
Asset Liability Study	- Work toward private equity and real assets target allocations	<ul> <li>Reached target asset allocation in equities by completing transitions</li> </ul>	- Work toward private equity and real assets target allocations
	- Complete equity asset transitions to bring equity allocation in line with target	-Reduced SCERS' aggregate domestic equity exposure by eliminating redundancies and terminating two managers, as well as implementing multiple partial redemptions from existing mandates	-Evaluate alternative forms of passive equity exposure including low volatility/ low beta and diversified factor exposures
Equities		-Reduced SCERS' aggregate international equity exposure by eliminating redundan- cies and implementing a partial redemp- tion from an existing mandate	
	- Evaluate a dedicated emerging market mandate, in particular small cap emerging market exposure redundancies in international manager lineup	ging market - Modified the international equity cap emerging structure to include a dedicated emergagedReduce ing markets small cap mandate and hired al manager Mondrian Investment Partners and William Blair & Company	-Evaluate SCERS' all-cap emerging mar- kets exposure
			-Evaluation of global currency exposures

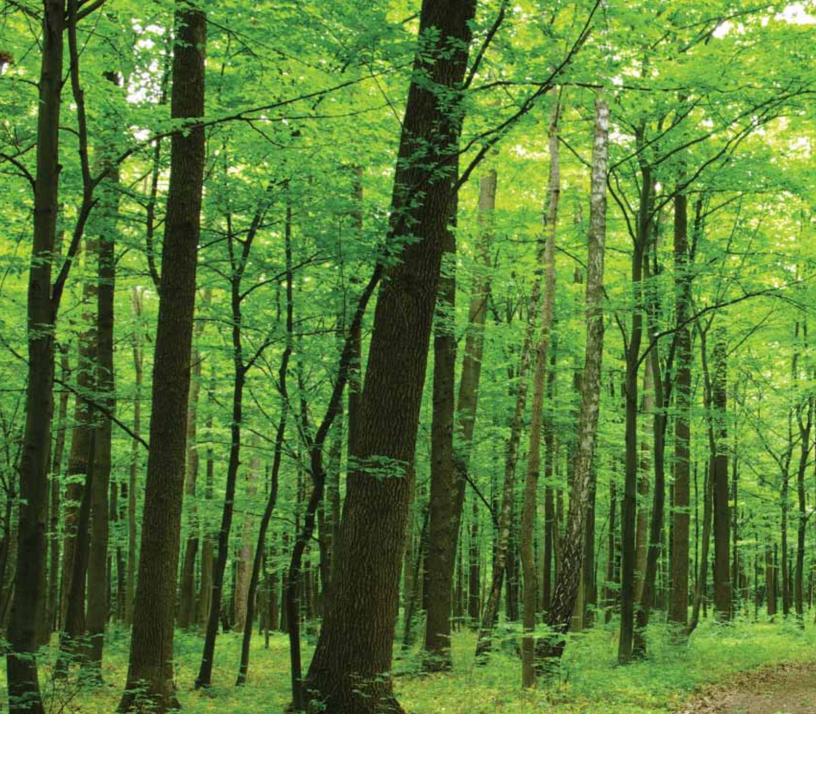
	APPENDIX 4 - 2012/2013	.012/2013/2014 ROAD MAP (CONTINUED)	(UED)
	- Complete manager searches for the two new fixed income mandates	- Hired Brandywine Global Investment Management for the global opportunistic fixed income mandate	
		- Hired Brigade Capital Management for the strategic credit mandate	
Fixed Income	- Amend guidelines for exisiting managers - Recommended two new fixed income for greater flexibility to invest in non-core mandates, which were approved by the sectors and opportunistic credit mandate and a non-US mandate	- Recommended two new fixed income mandates, which were approved by the Board, an opportunistic credit mandate and a non-US mandate	
	- Create custom benchmarks for the new mandates	- Created custom benchmarks for the investments in strategic credit and global opportunistic fixed income	-Create a customized benchmark for the broad fixed income asset class to match the risk and return characteristics of the new structure
	- Evaluate additional potential direct hedge fund investments and invest in 6-8 funds directly	- Made 3 direct hedge fund investments	- Evaluate additional potential direct hedge fund investments and invest in 4-6 funds directly
Hedge Funds	- Execute and fund interim hedge fund component	-Created an interim hedge fund compo- nent to bring allocation closer to target and hired Grosvenor to fill the mandate	
		-Created a hedge fund strategy replica- tion component and hired AQR to fill the mandate	
		-Arranged for current direct hedge fund managers to educate SCERS' Board	-Bring in 1-2 current direct hedge fund managers to educate SCERS' Board

	APPENDIX 4 - 2012/2013	2012/2013/2014 ROAD MAP (CONTINUED)	(UED)
	- Identify and commit to 6-9 potential direct private equity investments	- Made 5 direct private equity invest- ments	- Identify and commit to 7-10 potential direct private equity investments
Private Equity	- Assess the need for strategic partners and advisors for private equity segments such as emerging markets, venture capital, etc.		- Assess the need for strategic partners and advisors for private equity segments such as emerging markets, venture capi- tal, etc.
		- Presented annual report on private equity and approved 2013 Private Equity annual investment plan	- Present annual report on private equity and approve 2014 Private Equity annual investment plan
		-Arranged for current direct private equity-Bring in 3-5 current direct private equity managers to educate SCERS' Board	-Bring in 3-5 current direct private equity managers to educate SCERS' Board
	- Develop the long-term strategy and asset class structure with consultant Townsend and begin to implement the investment plan	-Completed strategic plan and asset class structure for real estate with consultant and began to implement the plan including reassessing and rebalancing core holdings, as well as adding non-core real estate and non-US debt opportunities	
Real Assets		-Sold several core properties at favorable prices	-Continue to identify core properties to sell at favorable prices
		-Committed to three core commingled real estate funds and terminated one	-Assess core real estate commingled fund lineup
	- Identify and commit to 2-3 primary private real assets funds (infrastructure and energy)	- Made second private real assets invest- ment, in an energy infrastructure fund	- Identify and commit to 2-3 primary private real assets funds (infrastructure and energy)
			- Identify and commit to 1-3 secondary private real assets funds
	- Reassess commodity managers		- Reassess commodity managers

	APPENDIX 4 - 2012/2013	2012/2013/2014 ROAD MAP (CONTINUED)	(UED)
	-Investigate potential distressed European - Implementation protocol modified debt and structured credit investments	- Implementation protocol modified	-Investigate potential distressed Euro- pean debt
Opportunities		-Committed capital to a debt fund backed by core plus real estate in Europe and drew capital from the Real Assets asset class	
		-Committed capital to a opportunistic real estate fund and drew capital from the Real Assets asset class	
		-Committed capital to an opportunistic distressed debt fund and drew capital from the Private Equity asset class	
	- Conduct on-site due diligence of exisit O ing managers and real estate investments ers	- Oversaw and monitored existing managers	- Conduct on-site due diligence of exisit- ing managers and real estate invest- ments
	- Complete modification of Overlay Pro- gram	- Modified Overlay Program	
Other Investment Activity	- Assess securities lending program	- Retained a consultant to analyze equity investment manager currency trading	-Conduct a soft dollar audit of SCERS' equity managers
	- Research risk management systems	- Executed complex asset transitions	- Research risk management systems
	-Revise overall investment policy to incor Created and modified several invest-porate individual asset class policies		-Revise overall investment policy, including incorporating individual asset class policies
			-Deepen expertise by increasing capabili- ties in operational due diligence









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