SCERS
SACRAMENTO COUNTY
EMPLOYEES' RETIREMENT SYSTEM

ITEM 18

For Agenda of:
April 19, 2017

April 14, 2017

TO: President and Members
Board of Retirement

FROM: Steve Davis
Chief Investment Officer

SUBJECT: Proposed Modifications to the Private Equity Investment Policy Statement, Private Equity Investments Annual Review, and Recommended 2017 Investment Plan

RECOMMENDATION:

It is recommended that your Board approve the recommended modifications to the Private Equity Investment Policy Statement, receive and file the annual report on the Private Equity asset class, and approve the recommended 2017 Private Equity annual investment plan.

BACKGROUND:

The Private Equity asset class approach and policy approved by SCERS' Board includes three components: (1) The asset allocation structure, which establishes long-term target allocations and ranges for investment strategies and geographies; (2) The annual investment plan, which establishes the level of commitments and investment priorities for the year; and (3) The implementation protocol, which delegates investment decision making responsibilities among the Board, SCERS' investment staff ('Staff') and alternative assets consultant ('Consultant'). To keep the Board updated on the status of the asset class, Cliffwater and Staff present an annual review of the Private Equity investment program, and recommend an annual Private Equity investment plan for the forward year. For this year's report, Staff and Cliffwater are also including the strategic changes that were made to the Private Equity asset class as a result of the new asset allocation model, as well as a recommendation for modifications to SCERS' Investment Policy Statement ('IPS') for Private Equity.

The objective of the attached presentation is to: (1) Review the strategic changes to Private Equity as a result of the recently approved asset allocation model; (2) Recommend changes to SCERS' Private Equity IPS; (3) Review SCERS' current Private Equity portfolio and compare it to the asset class's investment objectives; (4) Discusses the commitment activity that has occurred since the 2016 Private Equity annual review; and (5) Provide a recommended investment plan for 2017.

Please note that the Board is being asked to approve the recommended modifications to the IPS for Private Equity, in addition to the recommended 2017 Private Equity annual investment plan, which details the investment priorities and is summarized on page 9 of the attached Cliffwater presentation.

PRIVATE EQUITY STRATEGIC CHANGES:

SCERS' Board approved a new asset allocation model for SCERS in early 2017. The new asset allocation resulted in the Private Equity target allocation being reduced from 10% to 9%. This was in conjunction with the creation of a new asset class for Private Credit, which will have a 4% target allocation. Private credit investments have historically been made within SCERS' Private Equity portfolio. A small number of existing Private Credit investments will be moved to the new Private Credit asset class. These include investments in (1) Summit Partners Credit Fund I, LP ($16.4 million; vintage year 2011); (2) Summit Partners Credit Fund II, LP ($35 million; vintage year 2014); and (3) Athyrium Opportunities Fund II, LP ($32 million; vintage year 2015). The aggregate market value of these three funds is approximately $54 million as of September 30, 2016. Excluding these investments, SCERS' current allocation to Private Equity is 6.8%, compared to 7.4% if these investments were included in Private Equity.

The reduction in the target allocation to Private Equity, from 10% to 9%, is not expected to have a material impact on expected pacing for new private equity commitments going forward. A revised commitment pacing schedule is shown on slide 10 of the Cliffwater presentation, and will be discussed in greater detail during the 2017 investment plan section of this memo.

RECOMMENDED PRIVATE EQUITY IPS MODIFICATIONS:

SCERS created a comprehensive IPS for Private Equity in 2011. The IPS is broken out into four major sections, including: (1) Investment Objective; (2) Investment Guidelines; (3) Monitoring; and (4) Implementation Protocol.

Staff and Cliffwater reviewed the existing IPS for potential modifications in the context of the revisions to the strategic changes that occurred in Private Equity, and also as it related to having six years of implementation experience in private equity since the IPS was created in 2011. For the most part, the IPS for Private Equity requires very few changes. Most of the included changes are to better clarify existing language or general updates to the IPS. Included with this memorandum and the Cliffwater presentation, are two versions of the IPS for the Board to review. One is the proposed revised IPS, and the other is the same proposed revised IPS, but a 'redline' version that tracks all of the changes between the original IPS and the modified IPS.

There are two proposed changes to the Private Equity IPS that are worth noting here.

Private Equity Benchmark Revision:

First, is a proposed change to the benchmarks for Private Equity. The current benchmarks for Private Equity are: (1) Long-term benchmark (5-10 years), public market index plus a premium (Russell 1000 Index + 3%), which has historically been the policy index benchmark within Private Equity for SCERS; and (2) Medium-term benchmark (3-5 years), private market peer universe index (Venture Economics Pooled IRR). See the Investment Objective section and the Performance Evaluation paragraph with the Investment Guidelines section with the Private Equity IPS for reference.

The Russell 1000 Index is a publicly traded equity index, and private equity is often measured against the returns of public equities, as this is generally the source of funds for a targeted allocation to the segment. The '+3%' benchmark equates to a liquidity premium that is expected to be earned in private equity over public equity, for taking on illiquid private market investments.

The private market peer universe index pools the universe of institutional private equity funds. This index had been the Venture Economics Pooled IRR, but Venture Economics was purchased by Thompson Reuters, which also owns Cambridge Associates LLC. Venture Economics has since been dropped and the most widely used private market peer universe index is now the Cambridge Associates LLC Global Private Equity & Venture Capital Pooled IRR, which compiles data from more than 1,200 institutional buyout, growth equity, venture capital, private equity energy and mezzanine funds.

The benchmark recommendation for SCERS' portfolio is two-fold. First, it is recommended that SCERS' policy index benchmark convert to the private market peer universe index (Cambridge Associates LLC Global Private Equity & Venture Capital Pooled IRR) from the public market index plus a premium (Russell 1000 Index + 3%). The private market peer universe index is very representative of what SCERS invests in within private equity. The public market index plus a premium is more of a long-term objective of the Private Equity program, and is not as efficient at measuring the actual performance of the Private Equity portfolio over the shorter- and medium-term.

For purposes of the policy index benchmark, SCERS is seeking to move away from objective based benchmarks, as there can often be significant divergences between actual returns and benchmark returns, especially over shorter- and medium-terms. Over long-term periods, objective based benchmarks serve as a good measure of performance, as well as private market peer universe indexes. As long as there are viable and representative private market peer universe indexes available, which the Cambridge Index is, then this is the preferred option for SCERS' policy index benchmark.

Second, it is recommended that the long-term index change from the Russell 1000 Index + 3% to the Russell 3000 Index + 3%. The Russell 1000 includes only large capitalization companies, while the Russell 3000 includes a combination of large and small capitalization companies. SCERS' Private Equity portfolio is more representative of a range of capitalizations, and even tends to be more akin to small capitalization equities, which makes the Russell 1000 Index a bit of a mismatch.

Investment category exposure range revision:

Within the Risk and Diversification section of the Investment Guidelines category in the Private Equity IPS, the targeted and range of investment exposures to the various private equity investment categories and geographies are presented. The investment categories include (1) Buyout; (2) Venture Capital; (3) Distressed Debt; (4) and Other. The 'Other' category includes investments that do not fall in the buyout, venture capital and distressed debt categories. Private equity funds are typically fairly clear cut as to which category they should fall into, but there are situations where it is not as clear cut. As an example, SCERS currently has exposure to two funds that are in a bit of a grey area, where they could be labeled as a Buyout strategy or an 'Other' strategy. The two funds are Dyal Capital Partners II, LP and Dyal Capital Partners III, LP, which acquire minority, non-control stakes in hedge fund management firms and private market management firms, respectively.

The current target to the 'Other' category is 0%, and can range between 0% and 5% for both U.S. and non-U.S. The Dyal funds, which are U.S. funds, bring SCERS to the maximum exposure to the U.S. 'Other category. Therefore, Staff and Cliffwater recommend adjusting the range for the U.S. 'Other' category from the current range of 0% to 5%, to a wider range of 0% to 15%, in order to provide greater flexibility for future investments. The target allocation to the 'Other' category will still remain at 0%.

PRIVATE EQUITY PORTFOLIO REVIEW:

As you will recall, the investment objective of the Private Equity asset class is to enhance the total fund performance through investments in non-publicly traded securities. Private equity investments are illiquid and long-term in nature, and seek to compensate investors for the illiquidity and the higher risks of the private equity market. The Private Equity program is expected to generate a rate of return that exceeds the return of publicly traded equities over the long-term. As previously discussed, SCERS' Private Equity program is expected to exceed the return of the Russell 1000 Index (recommended change to Russell 3000 Index) by 3%, net of fees and expenses. Along with earning a 'liquidity premium' to public equity markets as described above, SCERS also strives to achieve additional excess returns through the selection of top-tier investment managers, in order to exceed the returns of the private market peer universe index.

While the target allocation for SCERS' Private Equity program is 10%, currently the fair market value of SCERS' Private Equity program is approximately 6.8% (as of September 30, 2016), even though SCERS has committed approximately 13.4% in capital between its legacy Fund of Funds ('FoF') investments and its direct private equity investments. Due to the cash flow characteristics of private equity, a private equity investment often never reaches the value of its initial commitment level at any point in its cycle, since cash is being distributed back to investors as investments progress. Therefore, it is typically necessary to commit approximately 1.5x the target allocation in order to reach a given target allocation. As a result, SCERS will need to commit (and has to date) more than 9% to the asset class in order to ultimately achieve its target allocation of 9%. Given this dynamic, Cliffwater and Staff anticipate that SCERS will reach its 9% target fair market value in 2019, which is consistent with previous years' projections. Please see slide 10 of the attached Cliffwater presentation for the Capital Budget Detail, which shows the projected annual investment pace for SCERS' Private Equity program.

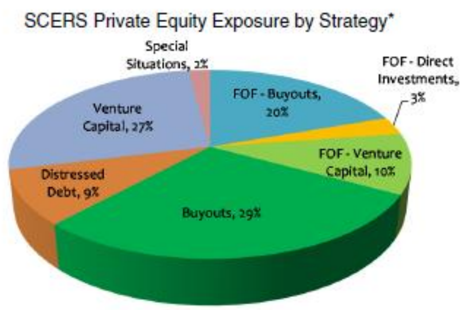
The pace at which SCERS achieves its target allocation can be affected by multiple variables. These include: (1) The growth of SCERS' total plan assets; (2) Staff and Cliffwater's level of conviction in a fund and the subsequent sizing of the commitment; (3) The allocation amount that SCERS receives, as SCERS can often be pared back in its allocation based on the supply and demand dynamics of the fund, which is a function of the amount of capital being raised by the General Partner ('GP') of a fund versus Limited Partner ('LP') demand; (4) The supply of private equity funds in the market in a given year; and (5) The hit ratio of the number of funds that Staff performs due diligence on versus the number of funds that Staff decides to move forward with. It is important to understand that reaching the target allocation is a dynamic process, and therefore the allocation plan and capital budget forecasts within the asset class should be revisited on an ongoing basis.

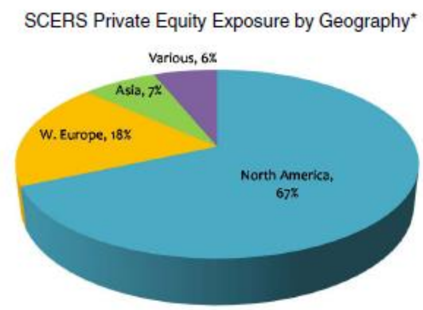
SCERS' Private Equity portfolio target and allocation ranges are shown below, and are also presented on page 4 of the attached presentation. These guidelines are established to achieve diversification across the primary private equity strategies, including buyout investments, venture capital investments, distressed debt investments, as well as other strategies that do not fall within the aforementioned categories. Diversification is also expected to be achieved across geography, vintage year, investment manager and industry. The target allocation and ranges include the proposed revisions identified in the modifications to the Private Equity IPS.

SCERS Private Equity Portfolio Targets and Allocation Ranges

	Target Range	Target %
U.S. Focused		
Buyout	30% - 70%	50%
Distressed Debt	0% - 20%	10%
Venture Capital	10% - 30%	20%
Other	0% - 15%	0%
Non-US Focused		
Buyout	10% - 20%	15%
Distressed Debt	0% - 10%	2%
Venture Capital	0% - 10%	3%
Other	0% - 5%	0%

SCERS' current portfolio is reasonably diversified, given the earlier (but maturing) stage of the program (see chart below).





*Exposures are based on the market values of the portfolio's underlying investments as of September 30, 2016; excludes funds moved to Private Credit.
Source: Cliffwater

2016 PRIVATE EQUITY INVESTMENT ACTIVITY:

SCERS is currently invested in four legacy FoF investments that were made during vintage years 2006 and 2007. These include HarbourVest Partners VIII (93% drawn); Abbott Capital Private Equity Fund VI (89% drawn); Goldman Sachs Private Equity Partners X (83% drawn); and HarbourVest International Private Equity Partners VI (87% drawn).

Since the direct private equity program was instituted in 2011, SCERS has made a total of 33 commitments. Since March 2016 and the last private equity annual review, SCERS has made 6 direct commitments (all follow-on investments – new commitments to existing GP relationships), which are described in more detail within the attached Cliffwater presentation, and are listed below. Full Staff and Cliffwater reports for each investment can also be found on the Board website. Two additional direct commitments are slated to close by the end of April 2017.

- $25 million to Atalaya Special Opportunities Fund VI (special situation debt fund, 2016 vintage year);
- $30 million to Thoma Bravo Fund XII (technology focused buyouts, 2016 vintage year);
- €13 million to Marlin Heritage Europe (European lower-middle market control oriented buyout, 2016 vintage year);
- $35 million to Dyal Capital Partners III (minority investments in private markets firms, 2016 vintage year);
- $10 million to Marlin Equity Partners V (middle market control oriented buyout, 2017 vintage year);
- $25 million to Marlin Heritage II (U.S. lower-middle market control oriented buyout, 2017 vintage year)

SCERS has been investing directly within the Private Equity asset class since 2011, and several of the funds for which SCERS is currently an LP are raising capital for follow-on funds. As you will recall, Private Equity is an asset class where it is important to establish long-term relationships with top-performing funds, which is where Staff and Cliffwater have focused SCERS' commitments. SCERS often targets funds that are oversubscribed, and as a result can receive a smaller allocation as a first time investor, with the expectation to receive larger allocations over future funds. An objective in building out the private equity portfolio is to secure one to two new GP relationships on an annual basis to complement follow-on investments with existing GPs. Making follow-on investments with existing managers also helps SCERS in controlling the number of manager relationships to manage. Given that SCERS typically allocates to between 5 and 10 funds on an annual basis, follow-on investments are an important component of the asset class to avoid 'manager proliferation'.

However, making a follow-on investment with a fund is not automatic. Both Cliffwater and Staff run through the same level of due diligence whether it is a first-time investment or a follow-on investment. Also, while SCERS expects to make follow-on investments with several of its managers, there will be funds where SCERS chooses not to for a host of reasons. These can include: (1) The size of the fund that the manager is raising has become too large relative to the investable opportunity set; (2) The fund has experienced organizational changes including key man succession issues; (3) The opportunity set has changed for the strategy of the fund; or (4) There becomes a misalignment in the structure and terms of the fund between the General Partner and the Limited Partners.

Given the dispersion of returns that exist between top-tier and lower-tier managers in private equity, SCERS has focused on the former, though these funds can be difficult to access. Cliffwater has been a valuable partner in achieving access to these funds, but top-tier funds are in high demand, and oftentimes are oversubscribed (investor demand exceeds the amount of capital being raised), therefore SCERS might receive a reduced allocation below SCERS' typical target allocation of $35 million, but within its target range.

As SCERS continues making subsequent commitments within the Private Equity portfolio, it is important to understand that while private equity is a cyclical asset class, in order to maintain vintage year diversification, investors typically make consistent investment allocations on a yearly basis. This means that investors like SCERS will be making investments throughout a cycle, including towards the end of a cycle. Given the maturation point of the current cycle, Staff and Cliffwater have been cognizant of inherent risks, including increasing valuations (particularly for entry multiples), larger amounts of investor capital pursuing the top rated funds, larger fund sizes to accommodate increased investor interest, and the correlation of more cyclical sectors to the cycle. These are similar risks to those identified last year, and Staff and Cliffwater continue to factor these considerations in private equity fund analysis.

Staff and Cliffwater often target sector specific funds where managers have differentiated expertise and a proven ability to make operational improvements for underlying portfolio companies. This is especially important in an environment where entry valuations are high, and it becomes more important for a fund to demonstrate its ability to generate returns more through top- and bottom-line growth, and less through multiple expansion and leverage.

2017 PRIVATE EQUITY INVESTMENT PLAN:

For 2017, the recommended Private Equity annual investment plan is presented on page 9 of the Cliffwater presentation, and is shown below.

		Range	
	Target	Min	Max
Commitment Level	$220 MM	$170 MM	$270 MM
Number of Funds	6	5	9
Buyout fund(s)	3	2	6
Distressed fund(s)	1	0	3
VC fund(s)	1	0	3
Other fund(s)	0	0	2
Non-U.S. fund(s)	1	0	2
Commitment per Fund	$35 MM	$10 MM	$50 MM

Source: Cliffwater

The investment plan calls for SCERS to target fund commitments, with a range between 5 and 9, and a target commitment size per fund of $35 million, with a typical range between $20 and $45 million (though the range can fall between $10 and $50 million). The aggregate target commitment level is $220 million, with a range between $170 and $270 million. These are lower than the target and ranges of last year's investment plan, reflective of the reduced target allocation to private equity, from 10% to 9%. The long-term forecast for the Private Equity asset class can be found within the Capital Budget Detail within page 10 of the Cliffwater presentation. The Capital Budget Detail calls for SCERS reaching the 9% target allocation in 2019, which is consistent with previous years' projections.

The pace by which SCERS achieves its target allocation can be affected by the multiple variables described above. As an example, one factor that can affect pacing is the actual growth in SCERS' total plan assets relative to the forecasts in the model. Given muted returns within the financial markets in 2014 and 2015, SCERS' total plan assets have not grown at the same level as the assumed growth rate of 7% within Cliffwater's Capital Budget Detail.

Therefore, while the targets above are helpful to set a long-term pace for building SCERS' private equity program, it is important to add flexibility around the annual commitment amount, which is why the annual plan incorporates broad ranges around the targets. The objective of the investment plan is to provide a roadmap for achieving the targeted allocations in a prudent fashion, while managing vintage year, strategy, geography and investment manager diversification. As mentioned previously, it is important to understand that reaching the target allocation is a dynamic process, and therefore the allocation plan and capital budget forecasts within the asset class should be revisited on an ongoing basis.

Private equity investments are illiquid and long-term in nature. In making investments within the asset class, SCERS is seeking to earn a 'liquidity premium' above publicly traded equities, while also striving to achieve additional excess returns through the building of long-term relationships with, and the selection of top-tier investment managers. SCERS is comfortable adjusting its pace within the ranges during a given year to achieve these objectives.

We would be happy to address any questions.

Respectfully submitted,	Concur:
Steve Davis Chief Investment Officer	Richard Stensrud Chief Executive Officer

Attachments

Los Angeles • New York

Sacramento County Employees' Retirement System

Private Equity Annual Review

April 19, 2017

Private Equity Program Strategic Changes

SCERS is in the process of modifying/restructuring its private equity program

- Driven by SCERS' most recent asset allocation study

Creating a new asset class for Private Credit

- Represents a further segmentation of the SCERS private equity portfolio
- Private Credit will include lending-oriented strategies to performing companies
  - Private Credit will not include Special Situations or distressed oriented strategies
- SCERS is moving a small number of current investments from Private Equity to Private Credit
  - Moving Summit Credit I & II, and Athyrium II (total market value of $54 million as of 9/30/16)
  - All other previously included strategies and investments will remain within private equity

Private equity target allocation reduced from 10% to 9%

- No material impact on expected pacing for new private equity commitments

Recommended Private Equity IPS Changes

Proposing modest changes to the SCERS Private Equity IPS

- Changes to Private Equity benchmarks
  - SCERS currently uses two Private Equity benchmarks
    - Long-term benchmark – Russell 1000 + 3% (public market index plus a premium)
      - » policy index benchmark
    - Medium-term benchmark – Cambridge Associates Global PE & VC Pooled IRR (private market peer universe index)
  - Recommend changing policy index benchmark from the public market index plus a premium (Russell 1000 + 3%) to the private market peer universe index (Cambridge)
    - Private market peer universe index is more representative of what SCERS invests in within PE
    - Public market index plus a premium is more of a long-term objective
  - Recommend changing the long-term benchmark from Russell 1000 + 3% to Russell 3000 + 3%
    - Intended to better align the private equity objective with the SCERS overall equity allocation
  - Benchmark changes will have no impact on how the private equity portfolio is implemented or invested
- Increasing max range for “U.S. Other” strategy from 5% to 15%
  - The target allocation remains 0%
  - No changes to any other strategy ranges or targets
- Remaining changes include clarifying language or general updates since 2011
  - SCERS Staff is providing the Board with a redline version of the new IPS highlighting all proposed changes

Private Equity Program Summary

The SCERS' private equity program is intended to enhance the total fund performance

- Expect to outperform public equities by 3% annually over the long-term

9% target allocation for private equity

- Represents a long-term target as the private equity program takes several years to prudently implement
  - Expect to reach 9% target allocation by 2019

Have also implemented strategy diversification guidelines for the private equity portfolio

- Targets are most applicable when the private equity portfolio is fully invested
- Below are the current proposed strategy targets and ranges

SCERS Private Equity Portfolio Targets
and Allocation Ranges

	Target Range	Target %
U.S. Focused		
Buyout	30% - 70%	50%
Distressed Debt	0% - 20%	10%
Venture Capital	10% - 30%	20%
Other	0% - 15%	0%
Non-US Focused		
Buyout	10% - 20%	15%
Distressed Debt	0% - 10%	2%
Venture Capital	0% - 10%	3%
Other	0% - 5%	0%

Private Equity Portfolio Allocations

The SCERS private equity portfolio is diversified by strategy and geography

- Investments remain focused in North America, with meaningful exposure to Europe

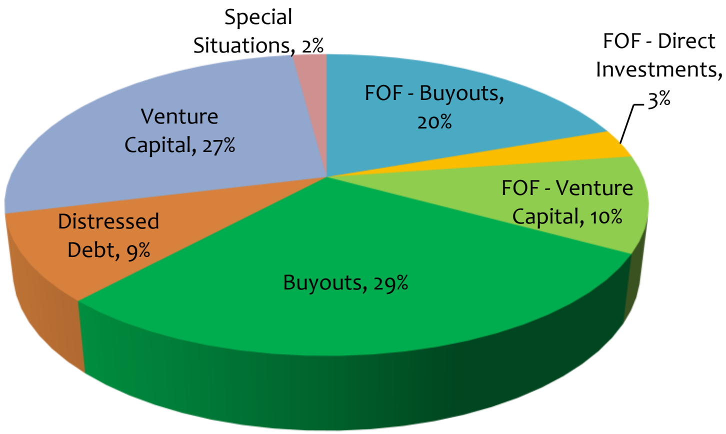
The private equity allocation is still ramping up to its 9% target allocation

- 6.8% current allocation, projecting reaching 9% target allocation by 2019

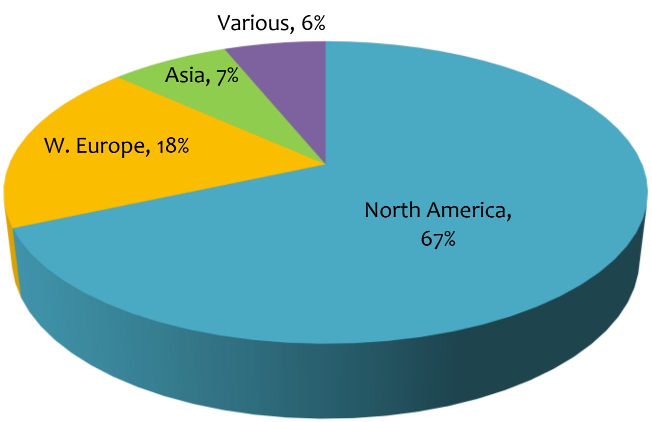
New commitments are intended to complement existing investments while maintaining diversification

- Also mindful of sub-strategy allocations (e.g. large, mid, and small buyouts; emerging markets)

SCERS Private Equity Exposure by Strategy*



SCERS Private Equity Exposure by Geography*



*Exposures are based on the market values of the portfolio's underlying investments as of September 30, 2016; excludes funds moved to Private Credit.

SCERS Private Equity Commitment Activity

New private equity commitments since March 2016 have been “re-ups” with existing GPs

- New commitments to existing GP relationships include:
  - $25 million to Atalaya SOF VI (special situation debt fund, 2016 Vintage Year)
  - $30 million to Thoma Bravo Fund XII (technology focused buyouts, 2016 Vintage Year)
  - €13 million to Marlin Heritage Europe (small European turnaround investments, 2016 Vintage Year)
  - $35 million to Dyal III (minority investments in private equity firms, 2016 Vintage Year)
  - $10 million to Marlin Heritage II (small technology focused turnaround investments, 2017 Vintage Year)
  - $25 million to Marlin Equity V (mid-market technology focused turnaround investments, 2017 Vintage Year)
- Some of these funds represent new strategies managed by SCERS’ existing GPs

SCERS continues to access oversubscribed funds with top-tier GPs

- “Oversubscribed” refers to investor demand exceeding the amount of capital being raised
  - Many of these funds were also only offered to select investors
- Commitments over the last year have been varied across strategies and geographies
  - Intended to complement existing exposures

2016 commitment activity was consistent with the 2016 Private Equity Annual Investment Plan

- $214 million in 2016 Vintage Year commitments
  - Slightly lower than the $225 million expected minimum; still on pace to reach target allocation by 2019
- Committed to 9 funds, compared to an expected 8 funds in the 2016 Annual Plan

Private Equity Fund Descriptions – Recent Commitments

Atalaya Special Opportunities Fund VI

- Investments in primarily U.S. distressed financial assets, real estate, and corporate debt securities
- The fund will focus on acquiring performing, sub-performing, and non-performing assets from financial institutions seeking to shed troubled or non-core assets
- Will also directly originate debt or purchase stressed/distressed debt in the secondary market
- SCERS committed $25 million to Atalaya SOF V in 2013

Thoma Bravo Fund XII

- Control investments in software and technology enabled service companies, primarily targeting middle market and large businesses
- The fund will pursue a buy-and-build strategy of investing in platform companies and working with management teams to grow businesses organically and through add-on acquisitions
- Focused on implementing operating, financial, and strategic improvements in portfolio companies to increase efficiency and revenues
- SCERS committed $30 million to Thoma Bravo Fund XI in 2014

Dyal Capital Partners III

- The fund will acquire minority, non-control stakes in private equity firms
- Dyal will target purchasing minority equity interests in 10 to 12 leading private equity managers that manage commitments of at least $3 billion
- Focus on private equity managers that have built lasting businesses capable of attracting inflows from large, sophisticated investors
- SCERS committed $35 million to Dyal Capital II, a strategy focused on hedge fund stakes, in 2014

Private Equity Fund Descriptions – Recent Commitments

Marlin Equity V

- Control-oriented equity investments in stressed or distressed middle market businesses, primarily in the U.S. and Europe
- Target opportunities where Marlin can implement operational improvements and pursue add-on investments
- Will focus on less capital intensive industries, including technology, healthcare IT, business services, and consumer products, targeting companies with predictable revenue streams, scalable cost structures, and an ability to grow both organically and inorganically
- SCERS committed $20 million to Marlin Equity IV in 2013

Marlin Heritage II

- Marlin Heritage funds apply the same investment strategy as that pursued by the flagship Marlin Equity funds, although the Heritage funds pursue investments in smaller companies (small and lower middle-market companies)
- Marlin Heritage II will invest only in North America
- SCERS committed $10 million to Marlin Heritage in 2014

Marlin Heritage Europe

- The fund will apply the same investment strategy as that pursued by Marlin Heritage II, although Marlin Heritage Europe will invest only in Europe

Recommended 2017 Private Equity Annual Investment Plan

The table below shows the recommended 2017 investment plan for the SCERS PE portfolio

- Recommending a $220 million commitment budget for 2017, with a range of $170 million to $270 million
  - Expect SCERS will make 5 to 9 commitments for 2017, at $20 million to $45 million each
- The investment plan provides additional parameters for the recommended 2017 commitment budget

		Range	
	Target	Min	Max
Commitment Level	$220 MM	$170 MM	$270 MM
Number of Funds	6	5	9
Buyout fund(s)	3	2	6
Distressed fund(s)	1	0	3
VC fund(s)	1	0	3
Other fund(s)	0	0	2
Non-U.S. fund(s)	1	0	2
Commitment per Fund	$35 MM	$10 MM	$50 MM

The budget is based upon fund vintage year, not when SCERS makes its commitments

- The expectation is for SCERS to target $220 million for 2017 vintage year funds

SCERS' existing 2017 vintage year commitments total $35 million

- $185 million remaining to reach the target

Private Equity Capital Budget Projections

Shown below are the details of the proposed private equity capital budget, completed in March 2017

– Typically update the capital budget projections annually; update more frequently as warranted

	SCERS - Capital Budget Model		12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
1	Forecast Plan Total Assets		8,094,141	8,660,731	9,266,982	9,915,670	10,609,767	11,352,451	12,147,123	12,997,421	13,907,241	14,880,747
2	New Commitments			220,000	220,000	230,000	230,000	280,000	280,000	280,000	280,000	280,000
	Private Equity Fair Value by Sector:											
	U.S. Focused		12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
3	Buyout		171,088	237,196	302,858	376,447	443,198	501,080	554,085	602,609	643,737	676,884
4	Venture Capital		168,139	210,202	237,960	259,869	275,604	286,882	298,658	312,800	328,211	344,399
5	Distressed Debt		77,890	119,236	125,365	120,302	117,345	121,722	127,879	130,890	131,680	131,676
6	Other		12,791	10,379	7,536	4,834	2,695	1,289	534	209	92	57
7	U.S. Focused Total		429,908	577,014	673,719	761,451	838,843	910,973	981,156	1,046,508	1,103,721	1,153,015
	Non-U.S.		12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
8	Buyout		73,821	91,468	104,936	118,766	132,668	147,391	161,565	173,987	183,834	190,871
9	Distressed Debt		17,090	20,615	13,853	4,991	214	63	19	6	2	1
10	Other		31,030	26,722	20,799	14,472	8,860	4,684	2,107	820	310	140
11	Non-U.S. Total		121,940	138,805	139,588	138,229	141,742	152,138	163,691	174,813	184,145	191,011
12	Private Equity Total		551,848	715,819	813,307	899,680	980,585	1,063,110	1,144,847	1,221,321	1,287,866	1,344,027
	Strategy Diversification:	Target Range	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
13	Buyout	30%-70%	31.0%	33.1%	37.2%	41.8%	45.2%	47.1%	48.4%	49.3%	50.0%	50.4%
14	Venture Capital	10%-30%	30.5%	29.4%	29.3%	28.9%	28.1%	27.0%	26.1%	25.6%	25.5%	25.6%
15	Distressed Debt	0%-20%	14.1%	16.7%	15.4%	13.4%	12.0%	11.4%	11.2%	10.7%	10.2%	9.8%
16	Other	0%-5%	2.3%	1.5%	0.9%	0.5%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%
17	Non-U.S.	5%-25%	22.1%	19.4%	17.2%	15.4%	14.5%	14.3%	14.3%	14.3%	14.3%	14.2%
			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
18	Private Equity Fair Value as % of Total Plan Assets		6.8%	8.3%	8.8%	9.1%	9.2%	9.4%	9.4%	9.4%	9.3%	9.0%
19	Private Equity Target Asset Allocation		9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
	Unfunded Commitments and Fair Value		12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
20	Private Equity Unfunded Commitments		430,036	466,786	484,753	497,478	505,568	555,898	590,210	608,852	618,940	624,372
21	Unfunded Commitments + FV		981,884	1,182,604	1,298,060	1,397,158	1,486,153	1,619,008	1,735,057	1,830,173	1,906,807	1,968,399
22	Unfunded Commitments + FV as % of Assets		12.1%	13.7%	14.0%	14.1%	14.0%	14.3%	14.3%	14.1%	13.7%	13.2%
23	Ratio of Unf Com + FV to Target Allocation		1.35x	1.52x	1.56x	1.57x	1.56x	1.58x	1.59x	1.56x	1.52x	1.47x
	Net Cash Flow Requirements			12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
24	Total Net Cash Flow to Private Equity			(114,830)	(32,489)	(11,612)	2,493	8,802	17,444	30,360	47,414	64,010

Total Plan Assets assumed to grow at 7.0% per annum

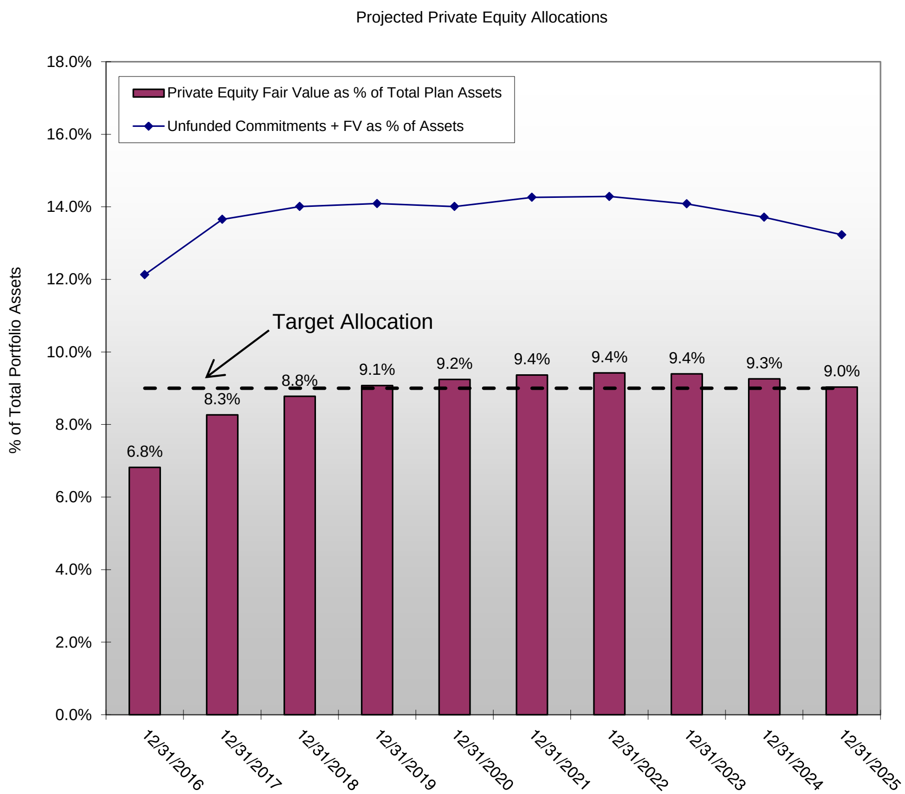
Portfolio Construction – Importance of Time Diversification

Multi-year commitment plans are critical to achieving vintage year diversification

- Use proprietary capital budgeting model to set a targeted annual commitment pace
- Vintage year diversification is important for several reasons
  - Access to select partnerships occurs only every few years, requiring investors to have “dry powder” to invest when desired
  - Private equity performance is cyclical, so investors want to avoid inadvertent concentrations in underperforming vintage years

Cash flow dynamics of private equity funds further necessitates patience when building a private equity program

- Prudent implementation is a multi-year process



The graph above shows the projected fair value exposure for SCERS’ private equity investments

CLIFFWATER LLC

SCERS’ Private Equity Selection Process

Staff and Cliffwater discuss the forward calendar of funds coming to market in the next 12 months

- Narrow down to funds of particular interest for the SCERS portfolio
- Prioritize highest conviction funds with near-term fundraisings

Cliffwater conducts investment, operations, and legal due diligence on its highest conviction funds

- Provides Staff with written due diligence reports once approved by Cliffwater’s Investment Committee

Staff reviews Cliffwater reports and contacts funds to arrange meetings or conference calls

- Staff may contact funds earlier in the process for particularly hard to access opportunities
- Staff then conducts its own assessment of the funds most appropriate for SCERS
- Staff and Cliffwater discuss issues and questions following Staff meetings with funds

Funds passing these screens are identified to the SCERS Board for review and comment

- Staff and Cliffwater reports posted to the Board website
- The SCERS Board has the ability to raise questions on funds targeted for investment

SCERS completes its own legal review of fund documents prior to making commitments

- Utilizes internal and external counsel
- Includes execution of side letters between SCERS and each fund as necessary

This process provides thorough vetting of potential investments while enabling SCERS to move quickly

- Focuses Staff resources on the funds that are most appropriate for the SCERS portfolio
- Has resulted in funds being removed from consideration
- Process is inclusive of investment opportunities sourced by Staff

General Disclosures

Important Notice

This presentation was prepared exclusively for information and discussion purposes, and is not meant to be, nor shall it be construed as, an attempt to define all information that may be material to you. All information including opinions or facts expressed herein are current as of the date appearing in this presentation and is subject to change without notice. All third party information has been obtained from sources believed to be reliable. No representation, warranty, or undertaking, express or implied, is given as to the accuracy or completeness of the information or opinions contained in this presentation. Past performance does not guarantee future performance.

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References to market or composite indices (such as the S&P 500), benchmarks or other measures of relative market performance over a specified period of time (each, an “index”) are provided for information only. Reference to an index does not imply that a portfolio will achieve returns, volatility or other results similar to the index. The composition of an index may not reflect the manner in which a portfolio is constructed in relation to expected or achieved returns, portfolio guidelines, restrictions, sectors, correlations, concentrations, volatility or tracking error targets, all of which are subject to change over time.

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Private Equity Investment Policy Statement
October 20, 2011
As Amended April 19, 2017

A. Investment Objective

The investment objective of the Private Equity Program is to enhance the total fund performance through the investment in non-publicly traded securities. Private equity investments are illiquid and long-term in nature. To compensate for the illiquidity and the higher risks of the private equity market, the Private Equity Program is expected to generate a rate of return that exceeds the return of publicly traded equities over the long-term. Along with earning a 'liquidity premium' as described above, SCERS shall strive to achieve additional excess returns primarily from the selection of investment managers.

Given the above investment objective, the performance of the Private Equity Program will be compared against the following benchmarks:

1. Over the long-term (5-10 years), performance of the Private Equity Program is expected to exceed the Russell ~~1000~~ 3000 Index by 3%, net of fees and expenses.
2. Over the medium-term (3-5 years), after the program is fully invested, performance of the Private Equity Program is expected to exceed the return of the ~~Venture Economics Pooled IRR~~Cambridge Associates LLC Global Private Equity & Venture Capital Pooled IRR for the respective vintage years. The Cambridge Associates LLC Global Private Equity & Venture Capital Pooled IRR will also serve as SCERS' Policy Index.
3. ~~Over the short-term (program's first 3 years), the Private Equity Program will be incorporated into the SCERS' policy index at its actual weight and performance.~~

~~4.~~3. Individual partnerships will be compared to the appropriate Cambridge Associates LLC Global Private Equity & Venture Capital Pooled IRR ~~Venture Economics~~ Universe category, adjusted for vintage year.

B. Investment Guidelines

1. **Private Equity Investments:** Private equity investments primarily involve the purchase of unlisted, illiquid common and preferred stock, and to a lesser degree, subordinated and senior debt of companies that are typically privately held. Investment is authorized in vehicles and investment strategies that invest in a broad array of various ~~non-publicly traded~~ securities, including but not limited to:

a. *Buyout Investment.* Investments include acquisitions, growth equity, recovery investments, subordinated debt, and special situations (a category which represents a diversified strategy across many sub-categories). Investments are made across the market capitalization spectrum and typically involve the purchase of a control position (primarily majority positions, with some minority positions) in an established company and may include the use of leverage. Investments are typically made in years one through six and returns typically occur in years three through ten. The potential for fund term extensions of up to three years is typically structured into most buyout funds. Investments may be made in companies that are either U.S. or non-U.S. domiciled.

b. *Venture Capital Investments.* Investments include companies in a range of stages of development from start-up/seed-stage, early stage, and later/expansion stage. Investments are typically made in years one through six and returns typically occur in years four through ten. The potential for fund term extensions of up to three years is typically structured into most venture capital funds. Investments may be made in companies that are either U.S. or non-U.S. domiciled.

c. *Distressed Debt Investments.* Investments include the debt instruments of companies which may be publicly traded or privately held that are financially distressed and are either in bankruptcy or ~~likely~~ potential candidates for bankruptcy. Typical holdings are senior and subordinated debt instruments and bank loans. Equity exposure is acceptable as debt positions are often converted to equity during the bankruptcy reorganization process. Investments are typically made in years one through five and returns typically occur in years three through ten. The potential for fund term extensions of up to three years is typically structured into most distressed debt funds. Investments may be made in companies that are either U.S. or non-U.S. domiciled.

d. *Other Investments.* Investments include ~~corporate finance~~ strategies that do not fall in the above three categories or do not justify a separate long-term allocation.

2. **Risk and Diversification:** Private equity investments, like investments in most asset classes, bear ~~With private equity investments, there is~~ an inherent risk that the actual return of capital, gains, and income will vary significantly from the return and amounts expected. The expected volatility of private equity investments is often the highest among major asset classes. ~~For example, the expected volatility in SCERS' 2011 capital market returns developed by Strategic Investment Consultants, Inc for Private Equity is the~~

~~highest among the asset classes at 35%.~~ The investment risk associated with private equity shall be addressed in several ways:

a. *Diversification by stage risk, geography and investment strategy*. SCERS shall endeavor to limit the potential for stage risk associated with the investment strategy to negatively impact the long-term results of the Private Equity program. Stage risk occurs when the supply and demand of capital from institutional investors varies for the different stages of financing (for example, venture capital is early stage financing) and adversely affects the underlying strategy's performance.

For the Private Equity Program, the targeted and range of investment exposures to the various private equity investment categories and geographies are shown in the table below. These exposures should be measured on a fair value basis, once the Private Equity Program is fully invested. SCERS shall endeavor to limit the potential for any concentration in a type of investment strategy or geography to negatively impact long-term returns in the Private Equity Program by adhering to these targets and ranges. It is expected that the Non-U.S. investments will be further diversified across different regions.

	Target Range	Target %
U.S. Focused		
Buyout	30% - 70%	50%
Distressed Debt	0% - 20%	10%
Venture Capital	10% - 30%	20%
Other	0% - 15%	0%
Non-US Focused		
Buyout	10% - 20%	15%
Distressed Debt	0% - 10%	2%
Venture Capital	0% - 10%	3%
Other	0% - 5%	0%

		Range	
	Target	**Min**	**Max**
U.S.			
Buyout	50%	**30%**	**70%**
Distressed	10%	**0%**	**20%**
Venture Capital	20%	**10%**	**30%**
Other	0%	**0%**	**5%**
Non-U.S.			
Buyout	15%	**10%**	**20%**
Distressed	2%	**0**	**10%**
Venture Capital	3%	**0**	**10%**
Other	0%	**0**	**5%**

Note: Non-U.S. exposure refers to private equity funds with a primary investment focus outside of the U.S. and/or significant operations outside of the U.S., rather than to where the underlying investments are domiciled.

b. *Diversification by vintage year.* SCERS shall strive to limit the potential for investments during any given year in the business cycle to negatively impact the long-term results of the Private Equity Program by investing across business cycles and vintage years. It is anticipated that SCERS will commit to private equity over multiple years as a long-term asset class. Accordingly, commitments to private equity investments will be allocated over time, whereby the aggregate amount will be spread across the entire business cycle. This will serve to limit the exposure or risk to investing and relying on the performance of private equity funds in any given year of the business cycle. The Board will determine with Staff and Consultant the funding allocation for private equity each year in conjunction with its annual review of the Private Equity Asset Allocation Structure and Twelve Month Private Equity Investment Plan.

c. *Diversification by industry or business sector.* SCERS shall attempt to limit the potential for any one industry or business sector to negatively impact the long-term results of the Private Equity Program by investing across a variety of industries at the aggregate Private Equity portfolio level. At the individual fund level, investments can be made in industry/sector diversified funds or in industry/sector specific funds. The latter can occur if the investment manager demonstrates differentiated expertise and experience managing investments within a particular industry/sector over multiple cycles. F~~However, f~~or investments in venture capital, it is recognized that opportunities may be most readily available in a relatively limited number of industries and geographies.

d. *Diversification by investment manager and general partner.* On the one hand, investing with too many managers and funds will make it difficult to achieve the primary investment objective of enhanced returns in the Private Equity program. However, too few managers may create a greater than acceptable level of volatility in the program. Overall, in order to balance the goal of achieving enhanced returns against the risk of loss, SCERS will favor a concentrated approach by allocating approximately 3%-6% of the total Private Equity target allocation to each fund. ~~with a 3-5% allocation to each fund (out of the total private equity commitment allocation)~~ SCERS will strive to maintain ongoing long-term relationships with approximately ~~and a target of~~ 25 private equity managers with an expected range of 20-30 manager~~s~~ relationships. No single investment manager will exceed 10% of SCERS' total active commitment level, unless the vehicle is a fund of funds or separate account advisory relationship. The optimum number of investment vehicles in the portfolio and the maximum exposure to any one investment vehicle varies with time and will be evaluated as part of the Private Equity Asset Allocation Structure.

3. **Investment Vehicles:** The vehicles for private equity investments are typically private equity limited partnerships, but may also include other entities such as limited liability companies or offshore corporations. It is anticipated that the majority of SCERS' Private Equity investments will be made through direct investments into private equity limited partnerships.

   SCERS may also invest directly in fund-of-funds (FoF) vehicles. In these vehicles, the FoF invests in private equity partnerships on a discretionary basis. FoFs will own the underlying private equity partnerships and SCERS obtains contractual rights to the FoFs' portfolio through a limited partnership. A FoF will have investors other than SCERS.

   SCERS may also invest in separate account relationships established with one or more fiduciary oversight managers. These managers will make commitments to private equity limited partnerships, or other entities such as limited liability companies or offshore corporations, either on a discretionary or advisory basis.

4. **Secondary Investments and Co-investments:** Secondary investments are made when an investor purchases the limited partnership interest of another investor in an existing fund. A co-investment is a direct investment in an underlying portfolio company where a private equity manager offers investors the opportunity to invest directly in an underlying company alongside the fund investment. Investments may be made in companies that are either U.S. or non-U.S. domiciled. Neither secondary investments nor co-investments are considered separate investment strategies within private equity. For example, a secondary or co-investment could be in any of the strategies including buyout, VC, distressed, or other. Therefore, secondary and co-investments will be categorized according to the underlying strategy and geography and will conform to the guidelines outlined in the above section on risk and diversification. SCERS will seek to allocate to secondary investments and co-investments on an opportunistic basis. It is expected that these investments will constitute a small portion of the overall Private Equity program.

5. **Investment Vehicle Concentration:** SCERS shall not comprise more than 20% of any one investment vehicle at the initiation of the investment that is a limited partnership, limited liability company, or offshore corporation. The exception to this guideline is an investment in a FoF or a separate account, whereby SCERS may be the sole investor. In these circumstances, SCERS will make reasonable efforts to ensure that it does not generate a majority of the firm's profits.

6. **Liquidity:** Private equity investments are illiquid and typically have long expected holding periods such as 10-13~~2~~ years. Investments are typically

held until maturity and selling prior to maturity may result in realizing a sales price that reflects a discount to fair market value. Liquidity risk is managed by minimizing the possibility of forced sales that may arise from exceeding maximum exposure limits or lowering asset allocation targets to private equity investments. In order to better assess liquidity needs, a capital budget and cash flow forecast will be developed over a ten year horizon and updated as necessary. The assumptions of this forecast are stress tested in the context of the total fund to assess the ~~affect~~ effect of worst case liquidity scenarios.

7. **Distributed Securities:** SCERS shall seek to avoid the direct receipt of distributed securities from individual private equity funds. However, if such receipt is unavoidable, the SCERS shall ordinarily direct the sale of securities distributed by its investment vehicles as soon as practically possible and strive to not impair the value of the security.

8. **Performance Evaluation:**

   a. Performance of the Private Equity Program, as measured by internal rate of return ('IRR'), will be evaluated quarterly against the following benchmarks and assessed against the investment return objectives:

      i. The Russell ~~1000~~ 3000 Index plus 3%.

      ii. The ~~Venture Economics~~Cambridge Associates LLC Global Private Equity & Venture Capital Pooled IRR and multiple of total value paid in capital ('TVPI') for the respective vintage years.

         ~~ii.~~1. The Cambridge Associates LLC Global Private Equity & Venture Capital Pooled IRR will serve as SCERS' Policy Index.

   b. Individual investment vehicle performance, as measured by the IRR and the multiple of TVPI, will be evaluated on a quarterly basis compared to the performance of respective peer universes and vintage years, as provided by ~~Venture Economics~~Cambridge Associates LLC Global Private Equity & Venture Capital, a recognized private equity services provider. Individual partnerships will be compared to the appropriate ~~Venture Economics~~Cambridge Associates LLC Global Private Equity & Venture Capital Universe category, adjusted for vintage year.

   c. It is recognized that immature private equity investments will ordinarily have a "J-curve effect" whereby there are low to negative returns in the initial years due to the payment of investment management fees during a period when investments are typically carried at cost and returns have not been realized.

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9. **Investment period to ramp-up:** It is recognized that it may take five years or more for a~~the~~ Private Equity Program to be fully invested and that there may be deviations from ~~the~~ previously mentioned targets during a~~the~~ Private Equity Program's ramp-up period. During the Private Equity Program's ramp-up period, exposures can be estimated using percentages of committed capital. During the ramp-up period for the Private Equity Program, and subsequent to reaching the target allocation, SCERS' Overlay Program will re-balance the Private Equity Program to the target allocation, using the designated Private Equity proxy within the investment guidelines for the Overlay Program.

10. **Rebalancing to guidelines:** It is anticipated that the majority of changes to rebalance the Private Equity portfolio will be made on a long-term basis due to: (1) The illiquidity of the Private Equity asset class with typical investment horizons of 10-13~~2~~ years; and, (2) The significant discount that is applied if and when Private Equity holdings are liquidated in the secondary market. Accordingly, ~~when~~ if these guidelines are exceeded, it is anticipated that reducing exposures will be carried out within a long-term time frame and over a period that is as soon as is practical to reflect the illiquidity of the private equity vehicles.

C. Monitoring

Through the monitoring process, Staff and consultant will extend the initial due diligence into a formal quarterly, semi-annual, and annual process which regularly seeks to determine whether the manager is meeting the Private Equity program's investment objectives and other requirements. In the broadest sense, the monitoring process is intended to determine whether the initial reasons for selecting the strategy and investment vehicle remain valid. The monitoring process should disclose whether there has been any material deviation from the investment philosophy and process; the personnel responsible for managing the investment vehicle are still in place; the organization continues to be stable; performance and risk meet expectations; and the investment vehicle manager adheres to its investment and other requirements. The underlying principle of the monitoring program is to determine whether all risks to which SCERS is exposed through the use of outside investment advisors have been identified, understood, and, to the extent possible, controlled. The monitoring process focuses on four areas:

- Compliance with reporting and valuation requirements;
- Continuity of investment philosophy and process;
- Stability of personnel and organization; and
- Performance and risk management.

Staff and consultant will aggregate investment vehicle data and perform analysis on the overall private equity portfolio, paying careful attention to individual investment vehicle allocations and strategy/sector concentrations to strive to achieve proper diversification across the Private Equity Program. Staff and consultant also will conduct due diligence with the respective investment vehicle managers to understand the underlying drivers of performance. Additionally, Staff and consultant shall conduct portfolio reviews and on-site due diligence as necessary. Site visits will also be performed to confirm that appropriate infrastructure is in place to support the investment process. Staff and consultant shall provide the Board with regular performance reports and advise the Board of other matters as appropriate.

If during the monitoring process, SCERS identifies areas of the Private Equity Program that are not compliant with the objectives, guidelines and constraints, identified in this investment policy statement, then reasonable efforts will be made to cure the deficiency. These reasonable efforts will consider the illiquidity of the asset class and transaction costs to be incurred compared to the risk of non-compliance.

D. Implementation Protocol

The following implementation protocol designates the responsibilities shared between SCERS' Board, Staff and consultants. Overall, the Private Equity implementation protocol delegates the most time intensive elements of the process including development of the long-term and short-term investment plans and the screening and selection process of investment managers to Staff and consultant, while preserving the Board's oversight of the overall Private Equity Program.

On an annual basis, the Board will approve the long-term Private Equity Asset Allocation Structure and Twelve Month Private Equity Investment Plan as developed and presented by Staff and Consultant. The long-term Private Equity Asset Allocation Structure will articulate the long-term direction and objectives of the Private Equity Program including elements such as: (1) An asset allocation target and ranges by strategy, geography, vintage year and stage risk; (2) A target range for the number of investment managers and types of vehicles; (3) A level of commitments to achieve and maintain SCERS' asset allocation target; (4) A capital budget and long-term forecast of cash flows; and, (5) The role of Fund of Funds, Co-investments and Secondaries. The Twelve Month Investment Plan will articulate the direction over the next year in taking the necessary steps to achieve the above long-term Asset Allocation Structure.

The execution of the long-term Asset Allocation Structure and Twelve Month Investment Plan including the selection of investment managers will be delegated to Staff, subject to the Board's ability to review, discuss and object to the recommendations of Staff and Consultant during the investment protocol process.

The key features of the proposed private equity investment protocol are as follows:

- Staff and consultant will identify the most qualified candidates for a prospective private equity investment commitment based on: (a) The Private Equity asset allocation structure approved by the Board; and (b) The twelve month private equity investment plan approved by the Board (which takes into account SCERS' existing private equity investments and prioritizes and targets optimal new investment opportunities expected to come to market in the next twelve months).

- Staff and consultant will prepare a report for the Board outlining why a given private equity manager has been identified for closer scrutiny for a possible private equity commitment.

- Staff and consultant will pursue more extensive due diligence on the manager candidate, including conducting extended interviews with the portfolio managers and other key members of the investment team. The consultant will complete the investment strategy and operational due diligence reports, if they have not done so already. Legal counsel will begin reviewing the documentation for the possible commitment and preliminary negotiation of deal terms will take place.

- If/When: (a) The due diligence process is completed; (b) Deal terms have been determined; (c) Staff and consultant have concluded that a commitment should be made; then (d) Staff will prepare a report outlining the basis for the decision, the proposed commitment amount, and the target date for closing on the commitment. This report will include an assessment of investment strategy and operational due diligence.

- At any point in the process, questions or concerns by any trustee regarding a proposed investment or proposed manager will be communicated to the Chief Executive Officer ('CEO'). The CEO will be responsible for assuring that a prompt response is provided. The CEO will also provide the full Board with the response. If the Board member is not satisfied with the response, the Board member can request that the matter be brought to the full Board for consideration. In such a case, the CEO will refer the matter to the Board President who will determine whether the manager search process should be suspended until the matter is resolved. As a general rule, it is anticipated that the process of identifying and vetting a proposed investment will take place over a period of time sufficient to allow, if necessary, for full Board consideration of questions or concerns before a commitment is finalized.

- Absent questions or concerns by the Board, the proposed investment will be finalized and the necessary documentation executed.

- Staff and consultant will then prepare an updated status report on SCERS' private equity portfolio for the Board.

Private Equity Investment Policy Statement
October 20, 2011
As Amended April 19, 2017

A. Investment Objective

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Given the above investment objective, the performance of the Private Equity Program will be compared against the following benchmarks:

1. Over the long-term (5-10 years), performance of the Private Equity Program is expected to exceed the Russell 3000 Index by 3%, net of fees and expenses.
2. Over the medium-term (3-5 years), after the program is fully invested, performance of the Private Equity Program is expected to exceed the return of the Cambridge Associates LLC Global Private Equity & Venture Capital Pooled IRR for the respective vintage years. The Cambridge Associates LLC Global Private Equity & Venture Capital Pooled IRR will also serve as SCERS' Policy Index.
3. Individual partnerships will be compared to the appropriate Cambridge Associates LLC Global Private Equity & Venture Capital Pooled IRR Universe category, adjusted for vintage year.

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1. **Private Equity Investments:** Private equity investments primarily involve the purchase of unlisted, illiquid common and preferred stock, and to a lesser degree, subordinated and senior debt of companies that are typically privately held. Investment is authorized in vehicles and investment strategies that invest in a broad array of various securities, including but not limited to:

   a. *Buyout Investment.* Investments include acquisitions, growth equity, recovery investments, subordinated debt, and special situations (a category which represents a diversified strategy across many sub-categories). Investments are made across the market capitalization spectrum and typically involve the purchase of a control position (primarily majority positions, with some minority positions) in an established company and may include the use of leverage. Investments are typically made in years one through six and returns typically occur in years three through ten. The potential for fund term extensions of up to three years is typically structured into most buyout funds. Investments may be made in companies that are either U.S. or non-U.S. domiciled.

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d. *Other Investments.* Investments include strategies that do not fall in the above three categories or do not justify a separate long-term allocation.

2. **Risk and Diversification:** Private equity investments, like investments in most asset classes, bear an inherent risk that the actual return of capital, gains, and income will vary significantly from the return and amounts expected. The expected volatility of private equity investments is often the highest among major asset classes. The investment risk associated with private equity shall be addressed in several ways:

   a. *Diversification by stage risk, geography and investment strategy*. SCERS shall endeavor to limit the potential for stage risk associated with the investment strategy to negatively impact the long-term results of the Private Equity program. Stage risk occurs when the supply and demand of capital from institutional investors varies for the different stages of financing (for example, venture capital is early stage financing) and adversely affects the underlying strategy's performance.

For the Private Equity Program, the targeted and range of investment exposures to the various private equity investment categories and geographies are shown in the table below. These exposures should be measured on a fair value basis, once the Private Equity Program is fully invested. SCERS shall endeavor to limit the potential for any concentration in a type of investment strategy or geography to negatively impact long-term returns in the Private Equity Program by adhering to these targets and ranges. It is expected that the Non-U.S. investments will be further diversified across different regions.

	Target Range	Target %
U.S. Focused		
Buyout	30% - 70%	50%
Distressed Debt	0% - 20%	10%
Venture Capital	10% - 30%	20%
Other	0% - 15%	0%
Non-US Focused		
Buyout	10% - 20%	15%
Distressed Debt	0% - 10%	2%
Venture Capital	0% - 10%	3%
Other	0% - 5%	0%

Note: Non-U.S. exposure refers to private equity funds with a primary investment focus outside of the U.S. and/or significant operations outside of the U.S., rather than to where the underlying investments are domiciled.

b. *Diversification by vintage year.* SCERS shall strive to limit the potential for investments during any given year in the business cycle to negatively impact the long-term results of the Private Equity Program by investing across business cycles and vintage years. It is anticipated that SCERS will commit to private equity over multiple years as a long-term asset class. Accordingly, commitments to private equity investments will be allocated over time, whereby the aggregate amount will be spread across the entire business cycle. This will serve to limit the exposure or risk to investing and relying on the performance of private equity funds in any given year of the business cycle. The Board will determine with Staff and Consultant the funding allocation for private equity each year in conjunction with its annual review of the Private Equity Asset Allocation Structure and Twelve Month Private Equity Investment Plan.

c. *Diversification by industry or business sector.* SCERS shall attempt to limit the potential for any one industry or business sector to negatively impact the long-term results of the Private Equity Program by investing across a variety of industries at the aggregate Private Equity portfolio level. At the individual fund level, investments can be made in industry/sector diversified funds or in industry/sector specific funds. The latter can occur if the investment manager demonstrates differentiated expertise and experience managing investments within a particular industry/sector over multiple cycles. For investments in venture capital, it is recognized that opportunities may be most readily available in a relatively limited number of industries and geographies.

d. *Diversification by investment manager and general partner.* On the one hand, investing with too many managers and funds will make it difficult to achieve the primary investment objective of enhanced returns in the Private Equity program. However, too few managers may create a greater than acceptable level of volatility in the program. Overall, in order to balance the goal of achieving enhanced returns against the risk of loss, SCERS will favor a concentrated approach by allocating approximately 3%-6% of the total Private Equity target allocation to each fund. SCERS will strive to maintain ongoing long-term relationships with approximately 25 private equity managers with an expected range of 20-30manager relationships. No single investment manager will exceed 10% of SCERS' total active commitment level, unless the vehicle is a fund of funds or separate account advisory relationship. The optimum number of investment vehicles in the portfolio and the maximum exposure to any one investment vehicle varies with time and will be evaluated as part of the Private Equity Asset Allocation Structure.

3. **Investment Vehicles:** The vehicles for private equity investments are typically private equity limited partnerships, but may also include other entities such as limited liability companies or offshore corporations. It is anticipated that the majority of SCERS' Private Equity investments will be made through direct investments into private equity limited partnerships.

   SCERS may also invest directly in fund-of-funds (FoF) vehicles. In these vehicles, the FoF invests in private equity partnerships on a discretionary basis. FoFs will own the underlying private equity partnerships and SCERS obtains contractual rights to the FoFs' portfolio through a limited partnership. A FoF will have investors other than SCERS.

   SCERS may also invest in separate account relationships established with one or more fiduciary oversight managers. These managers will make commitments to private equity limited partnerships, or other entities such as limited liability companies or offshore corporations, either on a discretionary or advisory basis.

4. **Secondary Investments and Co-investments:** Secondary investments are made when an investor purchases the limited partnership interest of another investor in an existing fund. A co-investment is a direct investment in an underlying portfolio company where a private equity manager offers investors the opportunity to invest directly in an underlying company alongside the fund investment. Investments may be made in companies that are either U.S. or non-U.S. domiciled. Neither secondary investments nor co-investments are considered separate investment strategies within private equity. For example, a secondary or co-investment could be in any of the strategies including buyout, VC, distressed, or other. Therefore, secondary and co-investments will be categorized according to the underlying strategy and geography and will conform to the guidelines outlined in the above section on risk and diversification. SCERS will seek to allocate to secondary investments and co-investments on an opportunistic basis. It is expected that these investments will constitute a small portion of the overall Private Equity program.

5. **Investment Vehicle Concentration:** SCERS shall not comprise more than 20% of any one investment vehicle at the initiation of the investment that is a limited partnership, limited liability company, or offshore corporation. The exception to this guideline is an investment in a FoF or a separate account, whereby SCERS may be the sole investor. In these circumstances, SCERS will make reasonable efforts to ensure that it does not generate a majority of the firm’s profits.

6. **Liquidity:** Private equity investments are illiquid and typically have long expected holding periods such as 10-13 years. Investments are typically held until maturity and selling prior to maturity may result in realizing a sales price that reflects a discount to fair market value. Liquidity risk is managed by minimizing the possibility of forced sales that may arise from exceeding maximum exposure limits or lowering asset allocation targets to private equity investments. In order to better assess liquidity needs, a capital budget and cash flow forecast will be developed over a ten year horizon and updated as necessary. The assumptions of this forecast are stress tested in the context of the total fund to assess the effect of worst case liquidity scenarios.

7. **Distributed Securities:** SCERS shall seek to avoid the direct receipt of distributed securities from individual private equity funds. However, if such receipt is unavoidable, the SCERS shall ordinarily direct the sale of securities distributed by its investment vehicles as soon as practically possible and strive to not impair the value of the security.

8. **Performance Evaluation:**

    a. Performance of the Private Equity Program, as measured by internal rate of return (‘IRR’), will be evaluated quarterly against the following benchmarks and assessed against the investment return objectives:

i. The Russell 3000 Index plus 3%.

ii. The Cambridge Associates LLC Global Private Equity & Venture Capital Pooled IRR and multiple of total value paid in capital ('TVPI') for the respective vintage years.

1. The Cambridge Associates LLC Global Private Equity & Venture Capital Pooled IRR will serve as SCERS' Policy Index.

b. Individual investment vehicle performance, as measured by the IRR and the multiple of TVPI, will be evaluated on a quarterly basis compared to the performance of respective peer universes and vintage years, as provided by Cambridge Associates LLC Global Private Equity & Venture Capital, a recognized private equity services provider. Individual partnerships will be compared to the appropriate Cambridge Associates LLC Global Private Equity & Venture Capital Universe category, adjusted for vintage year.

c. It is recognized that immature private equity investments will ordinarily have a "J-curve effect" whereby there are low to negative returns in the initial years due to the payment of investment management fees during a period when investments are typically carried at cost and returns have not been realized**.**

9. **Investment period to ramp-up:** It is recognized that it may take five years or more for a Private Equity Program to be fully invested and that there may be deviations from previously mentioned targets during a Private Equity Program's ramp-up period. During the Private Equity Program's ramp-up period, exposures can be estimated using percentages of committed capital. During the ramp-up period for the Private Equity Program, and subsequent to reaching the target allocation, SCERS' Overlay Program will re-balance the Private Equity Program to the target allocation, using the designated Private Equity proxy within the investment guidelines for the Overlay Program.

10. **Rebalancing to guidelines:** It is anticipated that the majority of changes to rebalance the Private Equity portfolio will be made on a long-term basis due to: (1) The illiquidity of the Private Equity asset class with typical investment horizons of 10-13 years; and, (2) The significant discount that is applied if and when Private Equity holdings are liquidated in the secondary market. Accordingly, if these guidelines are exceeded, it is anticipated that reducing exposures will be carried out within a long-term time frame and over a period that is as soon as is practical to reflect the illiquidity of the private equity vehicles.

C. Monitoring

Through the monitoring process, Staff and consultant will extend the initial due diligence into a formal quarterly, semi-annual, and annual process which regularly seeks to determine whether the manager is meeting the Private Equity program's investment objectives and other requirements. In the broadest sense, the monitoring process is intended to determine whether the initial reasons for selecting the strategy and investment vehicle remain valid. The monitoring process should disclose whether there has been any material deviation from the investment philosophy and process; the personnel responsible for managing the investment vehicle are still in place; the organization continues to be stable; performance and risk meet expectations; and the investment vehicle manager adheres to its investment and other requirements. The underlying principle of the monitoring program is to determine whether all risks to which SCERS is exposed through the use of outside investment advisors have been identified, understood, and, to the extent possible, controlled. The monitoring process focuses on four areas:

- Compliance with reporting and valuation requirements;
- Continuity of investment philosophy and process;
- Stability of personnel and organization; and
- Performance and risk management.

Staff and consultant will aggregate investment vehicle data and perform analysis on the overall private equity portfolio, paying careful attention to individual investment vehicle allocations and strategy/sector concentrations to strive to achieve proper diversification across the Private Equity Program. Staff and consultant also will conduct due diligence with the respective investment vehicle managers to understand the underlying drivers of performance. Additionally, Staff and consultant shall conduct portfolio reviews and on-site due diligence as necessary. Site visits will also be performed to confirm that appropriate infrastructure is in place to support the investment process. Staff and consultant shall provide the Board with regular performance reports and advise the Board of other matters as appropriate.

If during the monitoring process, SCERS identifies areas of the Private Equity Program that are not compliant with the objectives, guidelines and constraints, identified in this investment policy statement, then reasonable efforts will be made to cure the deficiency. These reasonable efforts will consider the illiquidity of the asset class and transaction costs to be incurred compared to the risk of non-compliance.

D. Implementation Protocol

The following implementation protocol designates the responsibilities shared between SCERS' Board, Staff and consultants. Overall, the Private Equity implementation protocol delegates the most time intensive elements of the process including development of the long-term and short-term investment plans and the screening and selection process of investment managers to Staff and consultant, while preserving the Board's oversight of the overall Private Equity Program.

On an annual basis, the Board will approve the long-term Private Equity Asset Allocation Structure and Twelve Month Private Equity Investment Plan as developed and presented by Staff and Consultant. The long-term Private Equity Asset Allocation Structure will articulate the long-term direction and objectives of the Private Equity Program including elements such as: (1) An asset allocation target and ranges by strategy, geography, vintage year and stage risk; (2) A target range for the number of investment managers and types of vehicles; (3) A level of commitments to achieve and maintain SCERS' asset allocation target; (4) A capital budget and long-term forecast of cash flows; and, (5) The role of Fund of Funds, Co-investments and Secondaries. The Twelve Month Investment Plan will articulate the direction over the next year in taking the necessary steps to achieve the above long-term Asset Allocation Structure.

The execution of the long-term Asset Allocation Structure and Twelve Month Investment Plan including the selection of investment managers will be delegated to Staff, subject to the Board's ability to review, discuss and object to the recommendations of Staff and Consultant during the investment protocol process.

The key features of the proposed private equity investment protocol are as follows:

- Staff and consultant will identify the most qualified candidates for a prospective private equity investment commitment based on: (a) The Private Equity asset allocation structure approved by the Board; and (b) The twelve month private equity investment plan approved by the Board (which takes into account SCERS' existing private equity investments and prioritizes and targets optimal new investment opportunities expected to come to market in the next twelve months).

- Staff and consultant will prepare a report for the Board outlining why a given private equity manager has been identified for closer scrutiny for a possible private equity commitment.

- Staff and consultant will pursue more extensive due diligence on the manager candidate, including conducting extended interviews with the portfolio managers and other key members of the investment team. The consultant will complete the investment strategy and operational due diligence reports, if they have not done so already. Legal counsel will begin reviewing the documentation for the possible commitment and preliminary negotiation of deal terms will take place.

- If/When: (a) The due diligence process is completed; (b) Deal terms have been determined; (c) Staff and consultant have concluded that a commitment should be made; then (d) Staff will prepare a report outlining the basis for the decision, the proposed commitment amount, and the target date for closing on the commitment. This report will include an assessment of investment strategy and operational due diligence.

- At any point in the process, questions or concerns by any trustee regarding a proposed investment or proposed manager will be communicated to the Chief Executive Officer ('CEO'). The CEO will be responsible for assuring that a prompt response is provided. The CEO will also provide the full Board with the response. If the Board member is not satisfied with the response, the Board member can request that the matter be brought to the full Board for consideration. In such a case, the CEO will refer the matter to the Board President who will determine whether the manager search process should be suspended until the matter is resolved. As a general rule, it is anticipated that the process of identifying and vetting a proposed investment will take place over a period of time sufficient to allow, if necessary, for full Board consideration of questions or concerns before a commitment is finalized.

- Absent questions or concerns by the Board, the proposed investment will be finalized and the necessary documentation executed.

- Staff and consultant will then prepare an updated status report on SCERS' private equity portfolio for the Board.