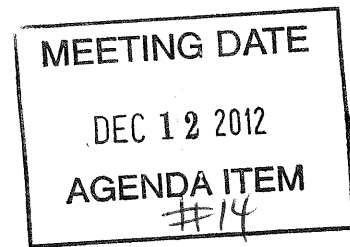


Memorandum



Date: December 5, 2012
To: CCCERA Board of Retirement
From: Timothy Price, Retirement CIO; Chih-chi Chu, Investment Analyst
Subject: Alternative Investment Funding

Overview

In June, 2011 the Board adopted the most recent asset allocation study (Mix 8) conducted by Milliman. Among other changes resulting from the study, the allocation to Alternative Investments was increased from 7% to 10%. Due to the private partnership structures of most alternative investments, assets are committed and then drawn down over the investment period, typically several years. During the course of the investment period, some early investments may be maturing, resulting in a return of capital. The net result is that in order to achieve the 10% allocation, CCCERA must over-commit by 50-100% of the intended capital amount.

CCCERA's Alternative Investment program is anchored by two private equity fund of funds (Adams Street and Pathway). CCCERA has typically committed to each firm's offerings every two years. Complementing the fund of funds anchors have been a series of niche-oriented strategies, including EIF (energy), Paladin (homeland security), Carpenter (community banking), Bay Area Equity Funds (Bay Area venture capital) and Nogales (California-centric buyout). These have been direct investments into focused strategies and have been approved by the Board on a one-off basis.

Recommendation

This memo outlines a number of steps to bring CCCERA's Alternative Investments up to the long-term target of 10% over the next several years. We believe the following structure would best serve to diversify and expand the alternative investment program.

- Step 1 Maintain the strategic partnerships with both Adams Street and Pathway, and increase the commitment size moderately, subject to ongoing due diligence.

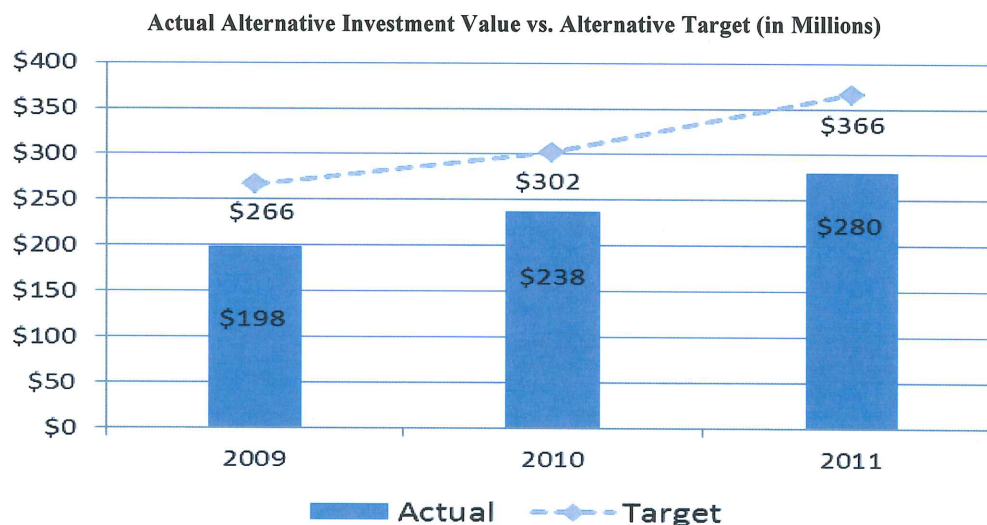
- Step 2 Add a third fund-of-funds to the "anchor" portion of the program to provide further diversification. We recommend that this allocation focus on small to middle market opportunities, complementing the more blue chip nature of the Adams Street and Pathway funds. Instruct Milliman to issue an RFP for this strategy in early 2013. Maintain exposure to this offering by re-subscribing every 2-3 years.

- Step 3 Monitor new fund offerings from the other existing managers in the Alternative Investment allocation. Consider committing to follow-on funds on a case-by-case basis. In 2013, Paladin will be raising a cybersecurity-focused fund and Carpenter will be raising a follow-on community banking fund.
- Step 4 Provide Board education on dedicated non-US strategies. This education would encompass growth opportunities in emerging and developed markets as well as turnaround opportunities which today are primarily in Europe.
- Step 5 Provide Board education on niche-oriented venture capital and fixed income alternatives including long/short credit funds, bank loan funds and direct lending funds.

Recent History of CCCERA Actual Alternative Investments (vs. Target Allocation)

For Alternative Investments, which are mostly private partnership in nature, there is a significant lag period from when a commitment is made to private equity funds until actual dollars are invested. The majority of CCCERA's alternative investments are fund-of-funds. In this area of alternatives, when a dollar is committed by CCCERA, it can take up to six to seven years before the final committed dollar is invested. Meanwhile, partnership commitments made in the first few years begin distributing capital.

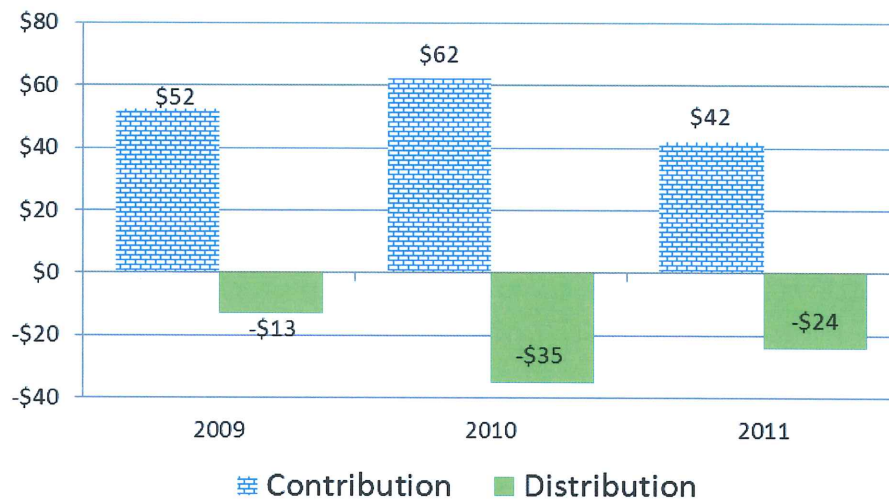
The chart below compares CCCERA's actual (dollar) value of alternative investments to the target value of 7% mandated by the previous asset allocation (2008-2011).



CCCERA's actual allocation (running on a 100% over-commitment schedule) to Alternative Investments over this period was about 5% of total assets, compared to the 7% target.

The following chart shows the contribution and distribution histories of CCCERA's alternative investments during the past three years. (In the context of determining asset values, a contribution generally increases asset valuation whereas a distribution decreases the asset valuation.)

Recent Contribution/Distribution Summary of Alternative Investments



CCCERA's actual allocation to the alternative investment program has been due both to the growth of Total Fund Assets and the contribution/distribution characteristics of the Alternative Investments private partnerships. The next section will review the most current spending target of CCCERA's Alternative Investments program.

CCCERA Available Commitments to Alternative Investments

Based on the October 31, 2012 market value of \$5.6 billion and CCCERA's 10% target allocation to Alternative Investments, CCCERA has a target allocation of \$563 million to alternative investments. CCCERA's alternative investments had a market value of approximately \$362 million as of October 31, 2012. Outstanding commitments to alternative investments that have not yet been drawn total \$242 million. The market value plus outstanding commitments total \$604 million, \$41 million greater than the dollar target of \$563 million.

However, taking into account the lag time of deploying private equity investments and distribution characteristics of our mature private equity program, CCCERA needs to over-commit relative to the desired target of \$563 million to alternative investments. Historically CCCERA has been over-committing 100% of its target allocation. Based upon this over-commitment amount threshold, the total amount available for CCCERA to commit to alternative investments is \$522 million. These figures are illustrated in the table on page 6 of this memo.

Options to Increase Alternative Investments Allocation

We recommend the following steps for reaching the alternative investment target allocation.

- 1) Increase the commitment amount to the existing fund of funds managers.

This is the simplest component of increasing our exposure, but it does not increase the diversification of the overall alternative investment program. Also, Adams Street and/or Pathway might place limits on future CCCERA commitments based upon their internal capacity. We recommend that meaningfully larger allocations to Adams Street and Pathway going forward, but these larger allocations should not be the primary means of growing the alternative investment program invested assets.

- 2) Add a third anchor to the fund of funds program, with an emphasis on small to middle market funds.

This area has traditionally generated very strong returns (IRR ranging from mid to high teens) yet has been overlooked by many institutional investors who focus mostly on the larger buyout space (IRR ranging from high single digit to low teens) where they can deploy large amounts of capital. The higher return in this space can be attributed to lower entry multiple due to less competition, broader exit opportunities (buyers from larger buyout firms), more operation and marketing levers to pull by professional managers due to less sophisticated business owners, etc. The risk/volatility in this space can also be somewhat lower due to less leverage applied in the investments and more control from the investors. A typical portfolio company in this space would have \$10~\$100 million in revenues. These small private companies represent 95% of the investment universe yet the capital raised to invest in these companies represents only 4% of the universe in the last four years.

- 3) Consider the Emerging Markets/Global Non-U.S. private equity strategy.

This strategy would provide increased exposure for CCCERA to private equity firms that invest in the growing areas such as emerging markets or distress areas such as developed Europe. We are aware of US-based firms that have fund of funds based upon the US private equity model to access these markets.

- 4) Consider additional program enhancements.

Look at the potential of adding niche-oriented venture capital and/or private debt funds. Specifically, look at venture capital firms with strong track records that may not be investible through Pathway or Adams Street due to strategy, size or other factors. The Bay Area is home to many boutique venture capital firms.

Additionally, when the opportunities arise the Board may also want to consider looking into floating rate debt strategies such as bank loans, long-short fixed income strategies (potential loss on shorting fixed income is limited, unlike shorting the equities) or direct lending opportunities.

Conclusion

Currently, to maintain exposure to Alternative Investments, CCCERA relies mostly on re-subscribing (re-upping) with the existing alternative managers as new funds are launched. As noted in our recommendation, we would like to continue doing just that with Adams Street and Pathway, but also expand into a third fund of funds option that would focus on smaller and mid-sized opportunities. Additionally, we will provide education to the Board on dedicated non-US strategies, venture capital and/or alternative debt-oriented strategies.

The table below lays out our proposed investment calendar for the next three years. We will use this as a roadmap to identify new investment strategies and work towards deploying more capital within the alternative investment category to reach the long-term target allocation of 10%.

Proposed Three Year Alternative Investment Roadmap

	2013	2014	2015
Adams Street		Increase Allocation	
Pathway	Increase Allocation		Increase Allocation
Energy Investors		Consider	
Nogales			
Bay Area Equity			Consider
Paladin	Consider		
Carpenter	Consider		
<i>New Small/Mid FoF</i>	<i>RFP</i>		<i>Re-commit</i>
<i>New Non-US Strategies</i>	<i>Board Education</i>		
<i>New Venture Capital/ Alternative Debt Strategies, etc.</i>	<i>Board Education</i>	<i>Board Education</i>	
Projected Annual Commitments	~\$200 mm	~\$200 mm	~\$120 mm

CCCCERA Alternative Investment Positions as of 9/30/12

Fund	Commitment	Called Capital	Distribution	Net Asset Value	Uncalled Capital
Adams Street Partners	180,000,000	120,643,000	86,259,000	87,049,000	48,088,000
Adams Street Secondary II	30,000,000	14,142,000	0	26,319,000	15,112,000
Adams Street Secondary V	40,000,000	2,600,000	0	2,600,000	37,400,000
Pathway	125,000,000	101,341,000	62,107,000	74,841,000	21,395,000
Pathway 2008	30,000,000	8,485,000	198,000	9,870,000	20,647,000
Pathway 6	40,000,000	1,062,000	0	2,120,000	38,055,000
EIF USPF I	30,000,000	39,035,000	63,094,000	1,848,000	0
EIF USPF II	50,000,000	59,092,000	28,862,000	40,564,000	0
EIF USPF III	65,000,000	64,337,000	17,122,000	46,636,000	663,000
EIF USPF IV	50,000,000	10,506,000	573,000	8,929,000	39,494,000
Nogales Investment	15,000,000	18,026,000	7,896,000	3,223,000	1,651,000
Bay Area Equity Fund	10,000,000	10,000,000	11,187,000	9,215,000	0
BAEF II	10,000,000	4,916,000	0	4,773,000	4,732,000
Paladin III	25,000,000	17,058,000	6,016,000	12,391,000	8,343,000
Carpenter	30,000,000	24,054,000	278,000	31,095,000	7,157,000
Total	730,000,000	495,297,000	283,592,000	361,473,000	242,737,000

Estimated Available to Commit

Target to Alternatives	\$563 mm (10% total of Total Fund target)
Less Current Value	\$362 mm
Less Uncalled Commitments	<u>\$243 mm</u>
Available to Commit	-\$41 mm
Plus 100% Over-Commitment	<u>\$563 mm</u>
Estimated Available to Commit	<u>\$522 mm</u>