



MEMORANDUM

To: Investment Committee, CalPERS

From: Stephen McCourt, Steven Hartt,
Meketa Investment Group

Date: April 26, 2017

Re: Private Equity Base Index Change

OVERVIEW

As part of CalPERS' Asset-Liability Management (ALM) process, Staff periodically examines and re-affirms the strategic role of each asset class, including Private Equity. Staff had previously noted a number of issues related to Private Equity investing, including controlling exposures and identifying sources of risk. Staff believes that consolidating Private Equity with Global Equity into a combined growth-related asset class will improve CalPERS' ability to manage exposures to the economic growth factor and will enable Staff to explicitly manage idiosyncratic company or industry exposures within Private Equity. At the April Board Meeting, Staff made three recommendations regarding Private Equity:

- i) simplification of the role statement for Private Equity,
- ii) consolidation of Private Equity with Global Equity to form a growth-related asset class, and
- iii) adoption of the FTSE All World All Capitalization as the base index for the benchmark.

These changes would be incorporated, along with others, with adoption targeted for the February 2018 Board Meeting, and implementation targeted for July 1, 2018 for the 2018-2019 fiscal year. Staff has asked Meketa Investment Group to prepare an opinion on Staff's recommendation to change the base index of the Private Equity benchmark.

BASE INDEX CHANGE

Currently, CalPERS uses a private equity benchmark that includes a base index composed of 67% FTSE US Total Market and 33% FTSE All World (ex-U.S.) (Current Base Index). Staff has proposed changing the base index to the FTSE All World All Capitalization index (Proposed Base Index) for Private Equity going forward. The FTSE All World All Capitalization index is currently used as the benchmark for Global Equity. Both the Current Base Index and the Proposed Base Index are customized for CalPERS, including the elimination of certain exposures such as tobacco, firearms, Iran, and Sudan. Staff has yet to propose a change to the target premium (currently 300 basis points) that would be applied to the Proposed Base Index to account for the additional risks of Private Equity.

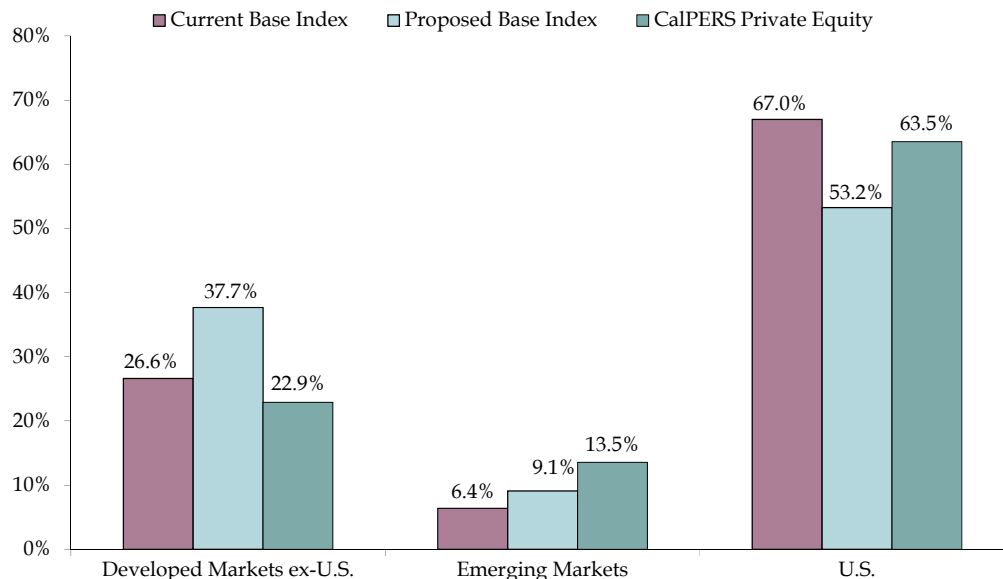
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IMPLICATIONS OF BASE INDEX CHANGE

With the Current Base Index, Staff had attempted to reflect the actual geographic exposures within the Private Equity portfolio as well as the broader private equity opportunity set. As part of Staff's proposal to consolidate Private Equity and Global Equity, the Proposed Base Index is designed to reflect the opportunity cost of Private Equity investing, specifically the alternative of maintaining growth-related exposure through the Global Equity portfolio.

As of 3/31/17	CalPERS Private Equity	Current Base Index ¹	Proposed Base Index ¹
Trailing Period Performance (%)			
1 Year	10.0	16.9	16.2
3 Year	8.3	6.7	5.5
5 Year	11.7	10.4	9.2
10 Year	9.7	5.7	4.9
Standard Deviation (%)	NA	17.7	18.0
Correlation to CalPERS Private Equity Portfolio ²	1.00	0.77	0.77

Regional Exposure^{3,4} As of 3/31/17



¹ Data for each Base Index pertains to the CalPERS customized index. Source: CalPERS.

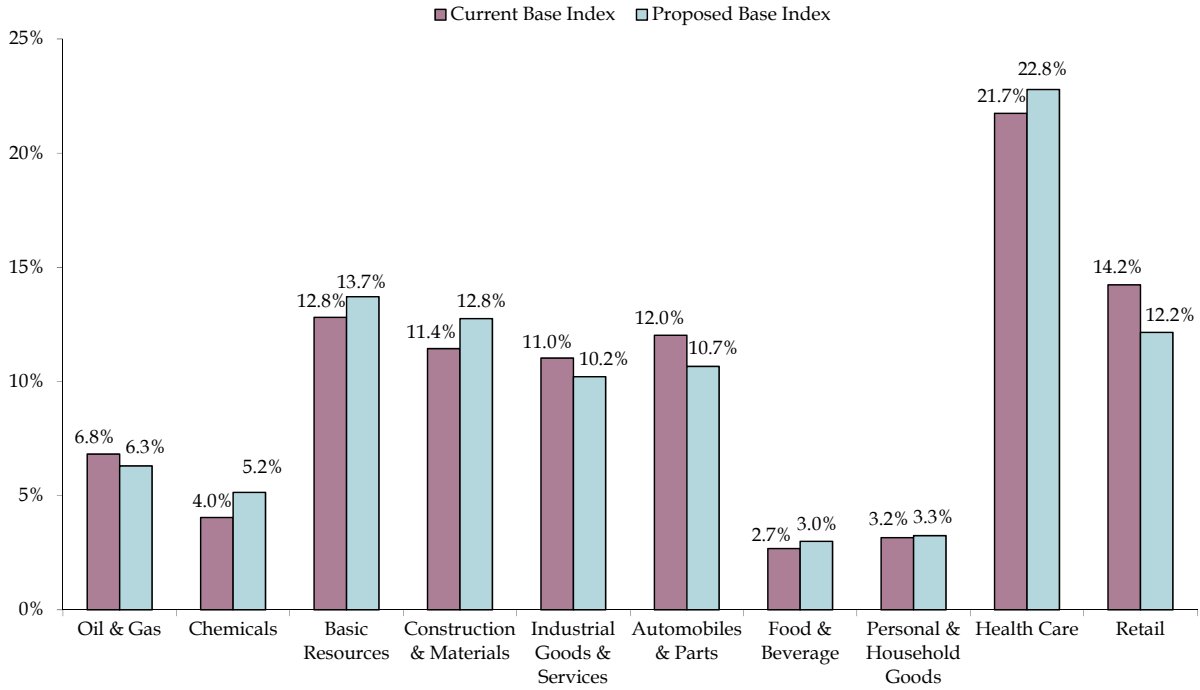
² Base index performance is lagged 3 months and converted to quarterly returns.

³ Data for each Base Index pertains to the non-customized index. Source: FTSE Russell.

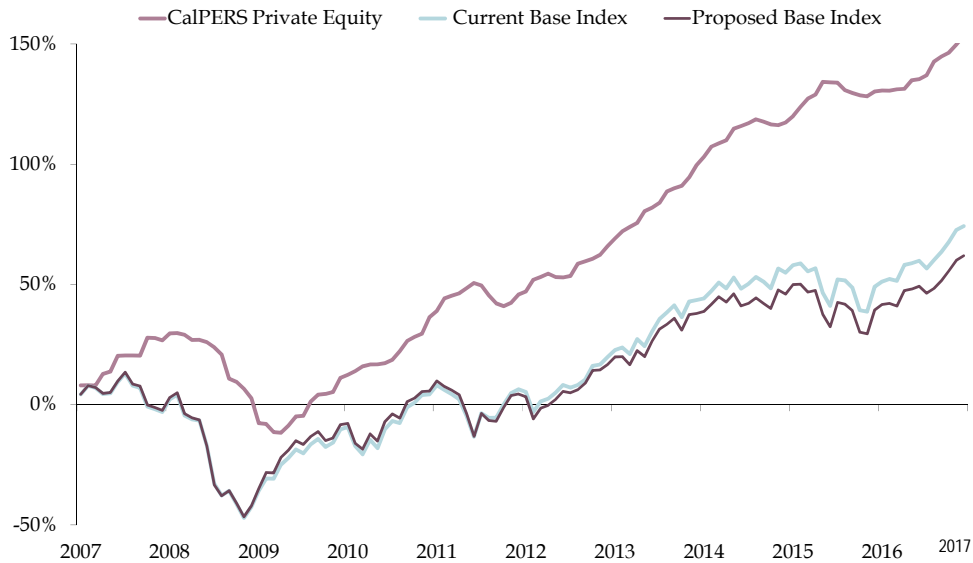
⁴ CalPERS Private Equity regional exposure based on NAV as of 3/31/16. Source: CalPERS Private Equity Program Review, November 16, 2016.

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Industry Exposure¹ As of 3/31/17



Cumulative Returns² January 2007 to March 2017



¹ Data for each Base Index pertains to the non-customized index. Source: FTSE Russell.
² Data for each Base Index pertains to the CalPERS customized index. Source: CalPERS.

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The Proposed Base Index returned slightly less than the Current Base Index for each of the 1-, 3-, 5-, and 10-year time periods. This modest difference has been driven by the stronger recent performance of the U.S. equity market, as compared to international equity markets. Correlation of each Base Index performance to the Private Equity program was the same. The industry sector exposures for each base index were quite close to each other. The significant difference between the Current and Proposed Base Index is in their country exposure, with the Current Base Index having a higher weighting to the U.S. than the Proposed Base Index.

On a forward looking basis, Meketa Investment Group would expect the Proposed Based Index to have a slightly higher expected return and a slightly higher level of volatility, due largely to the higher emerging markets allocation.

	20 Year Expected Return (Geometric)	Expected Standard Deviation
Proposed Base Index ¹	7.9%	19.0%
Current Base Index ¹	7.6%	18.7%

RECOMMENDATION

Meketa Investment Group concurs with Staff's recommendation to adopt the Proposed Base Index for measuring the performance of the Private Equity portfolio. As shown in the analysis above, the portfolio characteristics and historical performance patterns of each base index are very close to each other. Further, we note that no public equity benchmark will effectively match all of the characteristics of CalPERS' Private Equity portfolio. We believe the rationale for the change, namely for the benchmark to represent the opportunity cost of investing in Private Equity, to be compelling.

We note that while the current Private Equity benchmark has a 300 basis point return premium above the Base Index, Staff has yet to suggest a return premium for any new benchmark. Staff's presentation at the April Board meeting included information on the historical private equity premium CalPERS' Private Equity portfolio has earned, both on a rolling 10- and 5-year basis. These charts showed a general downward trend with recent periods showing premiums below 300 basis points against certain public equity indexes. A reduction in the premium merits further analysis and discussion.

SPM/SH/PO/nca

¹ Projected performance for each Base Index based on non-customized index. Source: Meketa Investment Group.