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Steven J. Foresti
Chief Investment Officer, Wilshire Consulting

November 29, 2017

Mr. Henry Jones
Chair of the Investment Committee
California Public Employees' Retirement System
400 Q Street
Sacramento, CA 95814

Re: Asset Allocation Candidate Portfolio Selection

Dear Mr. Jones:

You requested Wilshire's opinion with respect to Staff's recommended candidate portfolio selection within CalPERS' 2017-2018 Asset Liability Management (ALM) process. The importance of the ALM process is directly addressed by CalPERS Investment Belief 6, which recognizes that **strategic asset allocation is the dominant determinant of portfolio risk and return.** Indeed, establishing the fund's strategic asset allocation targets is a key committee decision and one that will serve as the primary driver of the PERF's future investment returns. Consistent with its importance to the organization, the asset allocation decision also touches upon several of CalPERS' other core Investment Beliefs. Most notably, Belief 2: a long-term investment horizon is a responsibility and an advantage, Belief 3: investment decisions may reflect wider stakeholder views provided they are consistent with its fiduciary duty to members and beneficiaries, and Belief 8: costs matter and need to be effectively managed.

Candidate Portfolios

Staff has recommended Candidate Portfolio C from the four options presented during the November ALM Workshop and have been provided in Table 1 of Staff's letter ("Strategic Asset Allocation Alternatives"). The four alternative strategic asset allocation mixes – Candidate Portfolios A, B, C and D - represent expected return levels[1] of 6.50%, 6.75%, 7.00% and 7.25%, respectively.

Wilshire is supportive of Staff's recommendation to select Candidate Portfolio C – the 7.00% blended return portfolio. While all four portfolios are appropriate as they represent efficient expressions of the approved capital market assumptions (CMAs) subject to basic and appropriate constraints, ***Candidate Portfolio C has the following advantages:***

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[1] The return targets represent a blended discounting of short-term return forecasts (i.e. the next 10 years) and long-term return forecasts (i.e. for years 11 and beyond).

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1. _Maintains the existing 7.0% discount rate target,_ **which is consistent with the plan set forth at the December 2016 Board meeting and with the general feedback received from CalPERS' various constituents during the November 2017 ALM Workshop.**
2. _Is the most similar to the PERF's current allocation,_ **which streamlines the implementation process with limited transactional activity and their related costs.**

The Process

Selecting and eventually implementing an appropriate strategic asset allocation mix is the culmination of an extensive and robust ALM process. Importantly, the four candidate portfolios reflect the Committee's input and preferences that were collected during earlier steps in the process, including:

- Portfolio priorities (January 2016 Board Offsite, etc.)
- Asset Class Description/Benchmarks (January 2017 Board Offsite, May 2017 IC, etc.)
- Approval of Capital Market Assumptions and corresponding discussion of asset class constraints (June 2017 IC)
- ALM Workshop (November 2017 IC)

**By systematically stepping through this process in a disciplined way, allowing guidance from each step to drive the direction of future steps and by including feedback from key stakeholders, the Investment Committee can be comfortable that the final Candidate Portfolios are consistent with its portfolio preferences, return objectives and appetite for various forms of risk.**

Conclusion

As noted above, Wilshire agrees with Staff's recommendation to select Candidate Portfolio C. This decision is consistent with the template and objectives articulated by the Investment Committee throughout the ALM process. Though the expanded use of leverage was discussed during the 2017-2018 ALM Process – most notably during the July 2017 Board Offsite – explicit leverage was not ultimately included within the final candidate portfolios. _**In preparation for the next ALM cycle, Wilshire recommends that CalPERS continue to research the broader use of financial leverage as we believe it may serve as a valuable tool in helping CalPERS meet its return objectives while providing greater portfolio balance/diversification.**_

Should you require anything further or have any questions, please do not hesitate to contact us.

Best regards,