CalPERS

Investment Committee
Agenda Item 5a

December 18, 2017

Item Name: Selection of Strategic Asset Allocation for the Public Employees' Retirement Fund

Program: Trust Level Portfolio Management

Item Type: Action

Recommendation
Select Candidate Portfolio C for the Strategic Asset Allocation to recommend to the full CalPERS Board for Asset Liability Management adoption. Candidate Portfolio C maintains the existing 7% discount rate plan and minimizes turnover relative to the other alternatives.

Executive Summary
Throughout 2017, the Investment Committee (IC) has provided feedback and direction on an array of parameters associated with the Asset Liability Management (ALM) process. This agenda item presents four possible strategic asset allocations (Table 1) representing blended return levels from 6.50% to 7.25% in 0.25% increments. The expected annual volatility of the alternatives ranges from 9.1% to 12.8% respectively. While all alternative portfolios are believed to be prudent, the Investment Office (INVO) believes Candidate Portfolio C represents the best balance between the market opportunity set and conditions of the plan.

Consultant opinion letters from Wilshire Associates, Pension Consulting Alliance, and Meketa Investment Group are provided as Attachments 1, 2, and 3, respectively.

Strategic Plan
This agenda item supports CalPERS Strategic Plan goal to strengthen the long-term sustainability of the pension fund. The CalPERS ALM process culminates in the selection of a Policy Portfolio which guides and defines the strategic asset allocation across the Public Employees' Retirement Fund (PERF) for the next four years, with the ultimate goal of ensuring that CalPERS is able to effectively manage assets to meet the benefit promises made to the System's participants.

Investment Beliefs
This agenda item supports the following CalPERS Investment Beliefs:

- Investment Belief 2, that a long term investment horizon is a responsibility and an advantage.
- Investment Belief 3, that CalPERS investment decisions may reflect wider stakeholder views, provided that they are consistent with its fiduciary duty to members and beneficiaries.
- Investment Belief 6, that strategic asset allocation is the dominant determinant of portfolio risk and return.

- Investment Belief 8, that costs matter and need to be effectively managed.

Background

Governed by CalPERS Statement of Policy for Asset Liability Management, the ALM analysis is conducted by a collaborative data collection and assessment effort from the Actuarial Office (ACTO), Finance Office (FINO), and Investment Office (INVO). This analysis provides an integrated view of the assets and liabilities that includes reviews of demographic, actuarial, and economic assumptions. ALM related material has been presented to the Board, IC, and Finance and Administration Committee (FAC) over the past two years; and, more recently during the November 2017 ALM Workshop.

ALM information has been utilized by the Communications & Stakeholder Relations (CSR) to elicit feedback from the wide array of stakeholders impacted by this decision. Over the last year, CSR has orchestrated nearly two dozen meetings with associations, public agencies, and city councils. In addition, there was substantial feedback and comments provided by a number of stakeholders at the 2017 ALM Workshop in November.

Analysis

Table 1 illustrates alternative strategic asset allocation combinations as discussed at the ALM Workshop (Candidate Portfolios A, B, C and D). These alternatives represent blended (short and long term combined) expected return levels ranging from 6.50% to 7.25% in 0.25% increments. Staff believes that all of the alternatives constitute reasonable and implementable choices. The placement of these alternatives along the modeled efficient frontier, demonstrates an increase in expected volatility of more than 4 basis points for each 1 basis point increase to expected return. Table 1 also shows the current interim policy as established in September 2016, and an additional relevant piece of information which shows the actual Global Equity weight of approximately 50% as of the November 2017 workshop.

INVO staff recommends Candidate Portfolio C because it maintains the existing 7.0% discount rate target and plan from the December 2016 Board decision. It is also the most similar to our current allocation and therefore allows for reduced transactional activity and costs to implement.

At the November workshop, information was presented regarding the market valuation status as reflected in information from Pension Consulting Alliance (PCA). The PCA metrics reflected the categories of US Equity, Private Equity and Private Real Estate as being in the top decile (unfavorable) of their historic range. Non-US Equity and Corporate Debt were viewed as a bit more favorably valued. The Candidate Portfolio C recommendation is believed to be a reasonable balance given CalPERS Global Equity benchmark which includes significant exposure to non-US equity.

Table 1 – Strategic Asset Allocation Alternatives

Candidate Portfolios					Sep 2016
Asset Class Component	Portfolio A	Portfolio B	Portfolio C	Portfolio D	Interim Policy
Global Equity	34%	42%	50%	59%	46%
Private Equity	8%	8%	8%	8%	8%
Fixed Income	44%	36%	28%	19%	20%
Real Assets	13%	13%	13%	13%	13%
Inflation Assets	0%	0%	0%	0%	9%
Liquidity	1%	1%	1%	1%	4%
Expected Compound Return (1-10 yrs.)	**5.6%**	**5.8%**	**6.1%**	**6.4%**	**5.9%**
Long Term Expected Return (11-60 yrs.)	**7.8%**	**8.0%**	**8.3%**	**8.5%**	**8.0%**
Blended Return (1-60 yrs.)	**6.50%**	**6.75%**	**7.00%**	**7.25%**	**6.77%**
Expected Volatility	**9.1%**	**10.2%**	**11.4%**	**12.8%**	**11.0%**
Cash Yield:	**3.1%**	**3.0%**	**2.9%**	**2.7%**	**2.9%**

Budget and Fiscal Impacts
Any fiscal impact is dependent on the outcome of the asset allocation decision and the resulting degree of asset turnover expense derived from capital movement between the asset classes. Relative to the other Candidate Portfolio options, the recommended Candidate Portfolio C represents the lowest transactional activity and costs to implement.

Benefits and Risks
A summary of the pros and cons associated with each alternative was provided at the November workshop and is repeated in Table 2.

Table 2 – Pros/Cons Relative to Current Interim Policy

Portfolio	+/-	Context
A and B	+	• Shift to less speculative sources of return • Diversification of equity risk • Reduced volatility • Increased cash flow
	-	• Exposure to interest rate risk • Reduced overall expected blended return • Discount rate reduction • Material transition activity required
C	+	• Maintain discount rate at the target 7% from December 2016 Board decision • Does not increase exposure to interest rate risk • Reduces transition activity
	-	• Retains current concentration of equity risk • Maintains current expected volatility and potential for contribution changes
D	+	• Increased expected blended return • Supports increase in discount rate or maintain at 7% (December 2016 Board decision) with a margin for adverse deviation
	-	• More equity risk concentration • Subject to more drawdown in an equity sell-off • Material transition activity required

Attachments

Attachment 1 – Wilshire Associates Opinion Letter
Attachment 2 – Pension Consulting Alliance Opinion Letter
Attachment 3 – Meketa Investment Group Opinion Letter

Eric Baggesen
Managing Investment Director
Trust Level Portfolio Management

Theodore Eliopoulos
Chief Investment Officer

W Wilshire

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:***

[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).

Wilshire

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,

November 28, 2017

Mr. Henry Jones, Chairman
Investment Committee
California Public Employees' Retirement System
Sacramento, California 95814

Re: Strategic Allocation Recommendation

Dear Mr. Jones,

The purpose of this letter is to provide the Investment Committee (IC) with Pension Consulting Alliance's (PCA's) opinion regarding Agenda Item 5a for the December Investment Committee meeting. In summary, PCA supports the Staff's recommendation of adopting Candidate Portfolio C (Portfolio C) among the four alternative portfolios being considered.

Discussion

Item 5a is a continuation and culmination of the CalPERS Asset Liability Management process, where the primary objective has been to select an appropriate strategic allocation mix for the overall CalPERS asset portfolio. As discussed in Staff's memo, PCA concurs that Portfolio C: (i) is appropriate for meeting CalPERS' longer-term 7% assumed rate of return, (ii) was developed utilizing a process that incorporated several key CalPERS investment beliefs, and (iii) is a cost-effective solution when compared to the other alternatives.

We look forward to addressing any questions or comments on these matters at the Investment Committee meeting.

Respectfully,

Allan Emkin

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December 18, 2017

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

RE: STRATEGIC ASSET ALLOCATION

Dear Mr. Jones:

Meketa Investment Group has been asked in its capacity as Board Consultant for Private Equity (the "Program") to opine on the proposed adoption of Candidate Portfolio C ("Portfolio C") as the Policy Portfolio for the Strategic Asset Allocation. The Policy Portfolio guides and defines the strategic asset allocation across the Portfolio for the next four years and should reflect a balance between the market opportunity set and the conditions of the Plan. The development and recommendation of the Candidate Portfolio C is a result of the CalPERS Asset Liability Management review process conducted over the past several months and was most recently discussed at the November Board meeting during the ALM Workshop. The Strategic Asset Allocation and Candidate Portfolio C as proposed by Staff are described in Item 5a.

Meketa Investment Group participated in several discussions with Staff and other CalPERS' consultants in this process, with our particular focus on the private equity asset class. We note that all candidate portfolios provide for an 8% allocation to the private equity asset class. Overall, we support the Staff's recommendation to adopt Candidate Portfolio C.

Sincerely,

Stephen P. McCourt, CFA
Managing Principal

Steven Hartt, CAIA
Principal

SPM/SKH/nca