CalPERS

Investment Committee

California Public Employees' Retirement System

Agenda Item 6a

October 14, 2013

ITEM NAME: Adoption of Revised Capital Market Assumptions for Global Fixed Income and Low Volatility

PROGRAM: Asset Allocation and Risk Management

ITEM TYPE: Asset Allocation, Performance & Risk – Action

RECOMMENDATION

Approve the revised capital market assumptions (CMAs) for the Global Fixed Income asset class and low volatility equity strategy, as initially presented at the September 2013 Investment Committee (IC) workshop, for use in the November 2013 Asset Liability Management (ALM) Workshop.

EXECUTIVE SUMMARY

As presented in the September 2013 IC workshop, the CMAs for the Global Fixed Income (GFI) asset class have been updated to reflect recent interest rate changes. Additionally, CMAs for a low volatility Global Equity component have been estimated with the assistance of Wilshire Associates and Pension Consulting Alliance (PCA). The updated CMAs are provided as Attachment 1. Consultant opinion letters from PCA and Wilshire are provided as Attachments 2 and 3.

STRATEGIC PLAN

This agenda item supports the CalPERS Strategic Plan goal of improving long-term pension and health benefit sustainability. The information being provided supports the ALM process which is currently expected to be completed by the end of calendar year 2013. A key deliverable of the ALM process is setting the target allocations to the various asset classes and portfolio segments that underlie the asset allocation framework. These target allocations are the predominant drivers of the overall return and risk results that are generated from the CalPERS investment portfolio.

BACKGROUND

Updated CMAs for GFI: Staff's estimation of expected returns for GFI is based on yield-to-maturity, and then adjusted for yield curve, roll and credit spread. The previous estimates were based on yield-to-maturity as of December 31, 2012. Recent interest rate increases, which have raised the yield-to-maturity component by 73 basis points, constitute the recommended adjustment pending any benchmark change for the asset class.

Updated CMAs for Low Volatility Global Equity: A substantial body of academic literature and research produced by asset managers and index providers has documented risk-adjusted outperformance by a subset of Global Equity securities: securities with low volatility of returns. Staff has concluded that a low volatility equity component may constitute a scalable alternative to market capitalization weighting, which could improve the risk and return characteristics of the Global Equity asset class. Tilts such as low volatility, demonstrate performance patterns significantly different from market capitalization-weighted benchmarks. However, scaling a sufficient degree of exposure to impact the outcome for the Total Fund would require either a dramatic increase in the active risk limits for the asset class, or the incorporation of these tilts into the strategic asset allocation.

ANALYSIS

Updated CMAs for GFI: Attachment 1 contains updated CMAs for the GFI asset class. Estimation of expected returns for fixed income begins with current yield-to-maturity. When work was initiated for the 2013 ALM Workshop, it utilized yield-to-maturity numbers as of December 31, 2012, which were at historical lows. Although adjustments were made on the yield curve based on historical averages, uncertainty remained on the potential for interest rate increases. Year-to-date, interest rates have increased which constitutes the basis for the adjustment of the CMAs for GFI.

Updated CMAs for Low Volatility Global Equity: Attachment 1 also contains information related to a low volatility equity alternative. Both academic literature and research pieces from asset managers and index providers have documented a market anomaly where securities with lower price volatility have been used to construct strategies with superior risk-adjusted returns. Various derivations of these strategies have reduced portfolio volatility within a range of 20% to 30%, compared to a parent universe of market capitalization-weighted public equity, while returns actually outperformed by 1% to 2%. These results are inconsistent with conventional market efficiency theories, but there are several hypotheses proposed to explain this abnormal phenomenon.

Volatility based strategies may have the capability of improving the risk-adjusted returns of the Total Fund, but caution and additional diligence in the actual implementation of this strategy are warranted. Implementation alternatives are being examined by staff with particular attention being focused on position concentration and turnover. Staff conferred with Wilshire Associates and Pension Consulting Alliance to estimate CMAs for this asset class segment. Should a target allocation to low volatility Global Equity result from the 2013 ALM Workshop in November, staff shall bring an implementation plan to the IC in early 2014.

BUDGET AND FISCAL IMPACTS

Not Applicable

BENEFITS/RISKS

CMAs are an essential part of the ALM Process. All subsequent analyses depend on their identification, making the timing of adoption important. Staff recommends adoption of the revised CMAs for the following reasons:

1. Our procedure is time-tested and consistent with industry standards;
2. There are no pending issues nor unresolved concerns;
3. Our consensus was reached through open and thorough discussions;
4. Inherent uncertainty has been adequately noted and will be incorporated into our subsequent analyses.

Adopting these CMAs will allow staff to proceed with the ALM Process and prepare for the ALM Workshop, currently scheduled for one and a half days, November 12-13, 2013. Failure to adopt the revised CMAs would severely impact the preparation schedule for the November ALM Workshop.

ATTACHMENTS

Attachment 1 – CMAs for Low Volatility Global Equity and GFI
Attachment 2 – PCA Opinion Letter
Attachment 3 – Wilshire Associates Opinion Letter

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ERIC BAGGESEN
Senior Investment Officer
Asset Allocation and Risk Management

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JOSEPH A. DEAR
Chief Investment Officer