Wilshire

Thomas Toth, CFA
Managing Director

November 5, 2020

Ms. Theresa Taylor
Chair of the Investment Committee
California Public Employees' Retirement System
400 P Street
Sacramento, CA 95814

Re: Agenda Item 7a: Long-Term Care: Asset Allocation and Discount Rate

Dear Ms. Taylor:

You requested Wilshire's opinion regarding the Long-Term Care (LTC) asset allocation and discount rate. In reviewing the LTC agenda item, Wilshire focused on two questions. First, is the Investment Committee providing an appropriate level of oversight in setting the overall risk tolerance of the LTC portfolio through an asset allocation process? The Investment Committee is being asked to establish a limit on total portfolio risk as an important element of oversight for the portfolio. Further, a goal of utilizing the RFP process discussed earlier this year was to gather information and examine whether additional strategies could be incorporated into the LTC allocation to improve portfolio outcomes. Wilshire views this information gathering process positively to drive better-informed discussion around achieving the portfolio goals of LTC. Wilshire believes the Investment Committee is providing a suitable level of oversight through the process thus far, with additional decisions to be debated in early 2021 to formally approve a target asset allocation.

Second, is the proposed discount rate range of 4.75% - 5% reasonable given prevailing asset class return expectations? While the setting of liability discount rates falls under the domain of actuaries rather than within the investment office and/or investment consultants, in order to assist the Committee on this issue we have analyzed the question through the lens of Wilshire's asset class assumptions. Wilshire has independently modeled 14 different asset allocation scenarios (submitted via the RFP process), utilizing more than 30 asset classes and strategies. The strategic asset allocation work that Wilshire provides to CalPERS considers underlying economic and market conditions as well as a discounting of how those conditions might change in the future. Wilshire has been formulating long-term return, risk and correlation assumptions since the early 1980s and now updates asset class forecasts on a quarterly basis.

The asset class assumptions are utilized to provide long-term strategic direction, but that is complicated by the current level of market volatility and economic uncertainty. The pandemic sell off and subsequent rally across risk assets has shifted asset class expectations markedly,

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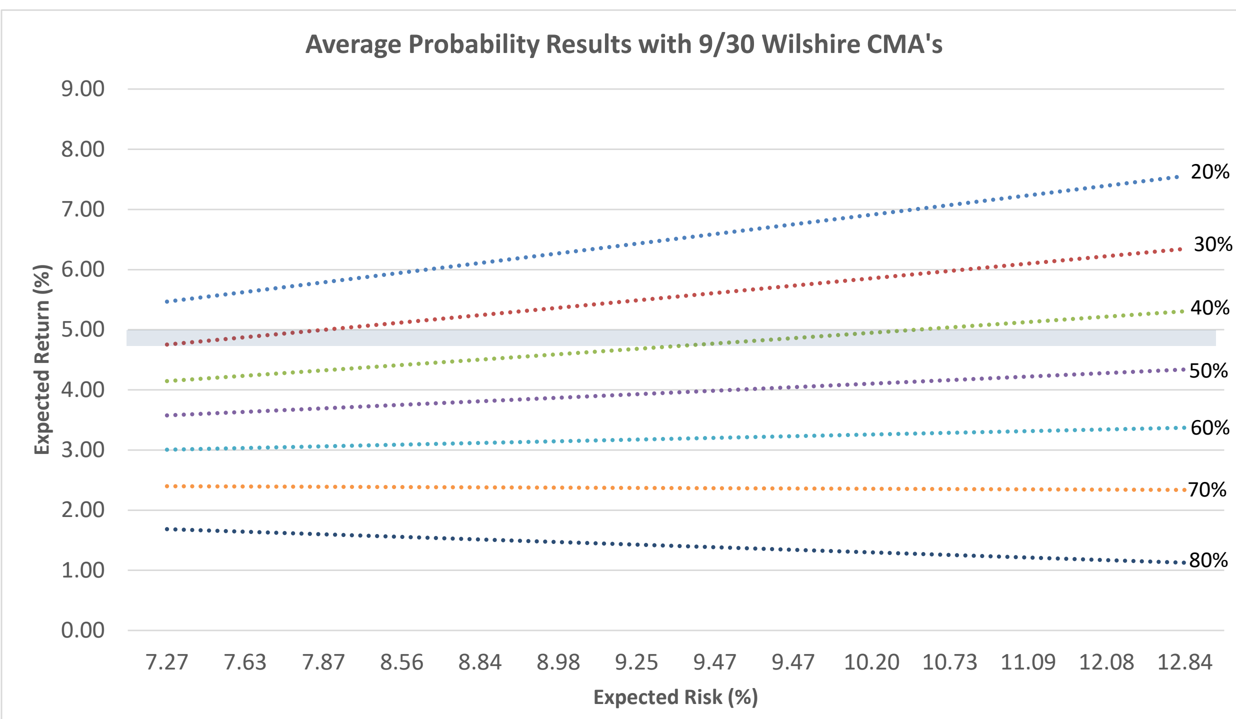
which makes relying on a point in time estimate of expected returns more challenging. That said, given Wilshire's September 30th, 2020 asset class expectations, the current portfolio is forecast to return 2.9% over 10 years. This is a material shift from March 31st, when expected return stood at 3.5%, and 4.1% at the start of the year. This drop in expected return is primarily a reflection of the extraordinarily low interest rate environment brought on by the pandemic, which we have discussed a number of times with the Investment Committee. Falling interest rates have positively impacted the performance of the LTC portfolio in the last few months, but comes at the expense of reduced forward expected returns. This "Investor's Challenge" impacts how institutional investors of all types are thinking about portfolio positioning, and necessitates continued evaluation of portfolio strategies.

Additional strategies being contemplated within the LTC portfolio include interest rate overlays, higher levels of credit oriented fixed income, and private opportunities. The expansion of strategies contemplated through the process can help improve the projected outcomes for the LTC portfolio. Wilshire's modeling of the 14 asset allocation scenarios suggests that, on average, the return can be increased to about 4% over a 10-year horizon in the expected case and 5.85% over a longer term 30-year time horizon. On average, the alternative allocations would significantly increase the portfolio's expected risk level from the current portfolio's expected risk of 6.6% to 9.6% (i.e. a nearly 50% increase in expected risk) driven by a reduction in exposure to low yielding Treasuries and an increase in more credit-oriented assets. The average probability of achieving different returns across different risk levels is plotted in the chart below.



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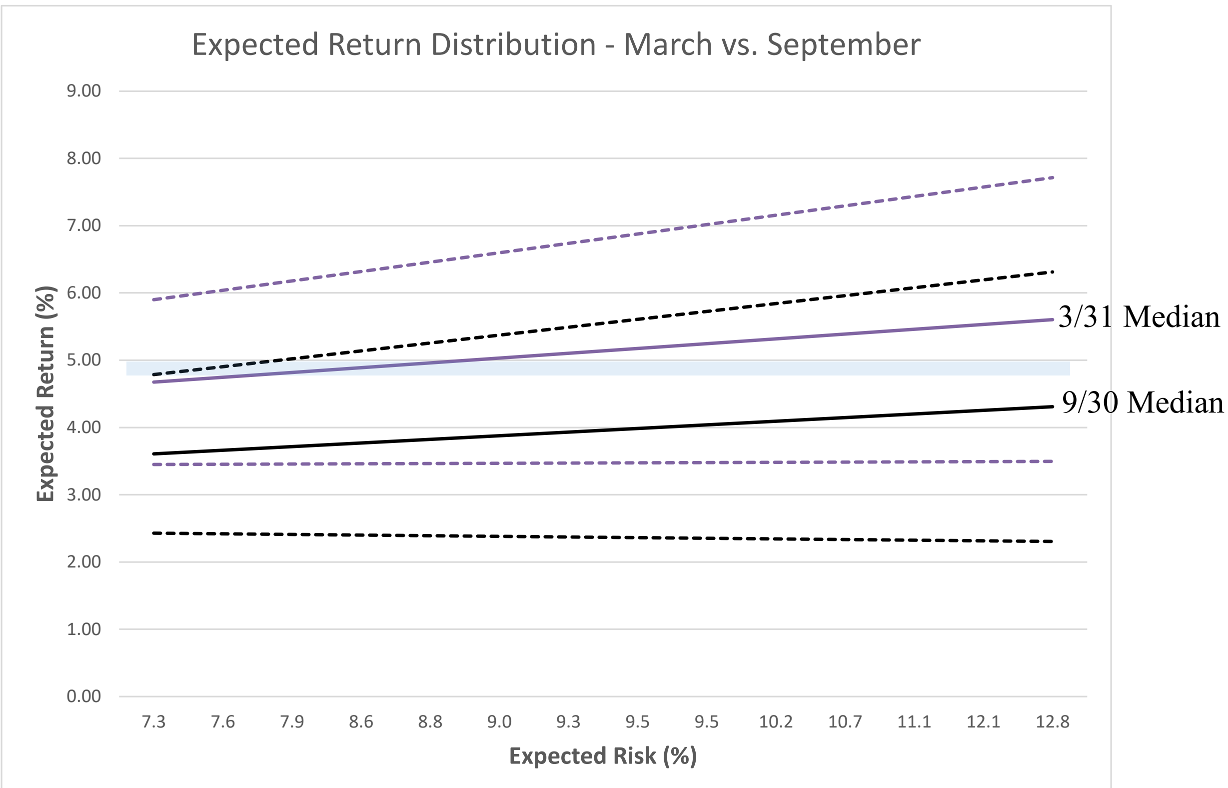
It is also important to understand that focusing on only the median outcome at one point in time is not advisable when the short-term market environment is particularly volatile. As the chart below illustrates, the probabilities have shifted meaningfully from March (purple) to September (black), suggesting that the Committee should not solely focus on one particular set of date-specific assumptions in setting the discount rate, though we would defer further guidance on that point to your actuarial staff.



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Conclusion

Wilshire has taken a multi-faceted view in addressing the primary questions set out initially. It is important to clearly note that Wilshire does not provide actuarial services to CalPERS and cannot, therefore, opine on a specific liability discount rate. We do believe that the process used to assess potential long-term portfolio returns underpinning the proposed discount rate range was reasonable, with multiple inputs, and supports the appropriate level of Investment Committee oversight for the Long-Term Care portfolio. Examining the modeling results over the 10 and 30-year time horizon, an assessment of the extraordinary rate environment, and a view of the return distributions across the modeled portfolios are all important data points to consider. Our analysis indicates that the asset allocations under discussion have the potential to deliver long-term returns in the range of 4.75% - 5%, albeit at higher expected risk levels than are expected in the current portfolio.

Sincerely,