Wilshire

Thomas Toth, CFA
Managing Director

March 1, 2021

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

Dear Ms. Taylor:

You requested Wilshire's opinion regarding the Long-Term Care (LTC) asset allocation recommendation presented by Staff. Through the RFP process, Staff narrowed the number of asset allocations for comparison down to the current allocation and two alternatives. Wilshire has reviewed these portfolios through the lens of our capital market assumptions. The strategic asset allocation modeling 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.

For insight to the (much) longer-term potential returns of a given portfolio, such as within the valuation work conducted by actuaries, a ten-year horizon might be viewed as somewhat short-term. To facilitate these longer-term perspectives, Wilshire has developed a set of "equilibrium" assumptions that can be blended with our ten-year forecasts to generate expectations for holding periods greater than ten years. These equilibrium assumptions are created using a building block approach that starts with very long-term inflation and real yield assumptions, and then adds various risk premia to estimate investor compensation for taking on market risks (duration, credit, equity, etc.). While forecasting over extended periods of time is inherently filled with estimation error, the relative attractiveness when comparing portfolios provides a helpful lens for evaluating the impact of asset allocation changes.

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Asset Allocation Modeling Results

The alternative allocations utilize an expanded number of liquid market strategies with an objective of improving projected outcomes for the LTC portfolio. These strategies include a more granular view of securitized fixed income, an increase in below investment grade credit, and exposure to emerging market debt. Wilshire's independent modeling of the three asset allocation scenarios suggests that the portfolio return can be increased from 3.0% to between 3.8% and 4.1% over a 10-year horizon in the expected case and up to 5.8% over a longer term 30-year time horizon. The alternative allocations would increase the portfolio's expected risk level from the current level of 6.8% to between 8.5% and 9.5%, which is in-line with the guidance provided previously by the Investment Committee. This increase in risk is driven by a reduction in exposure to low yielding Treasuries and an increase in more credit-oriented assets. While additional strategies such as interest rate overlays and private assets were contemplated in the initial RFP review, the allocations under consideration do not include either of these segments.

Portfolio 1 exhibits higher risk-adjusted expected returns than both the Current and alternative Portfolio 2. It is also important to consider the potential distribution of returns over multiple time horizons. Below is a comparison of the distribution of expected returns over 10 years. Portfolio 1 has both a higher expected outcome as well as a tighter distribution. In fact, the downside 95th percentile return of -0.22% is higher than the Current downside case return of -0.48%, which indicates that the higher expected return can provide compensation for the increased level of volatility compounded over the forecast horizon.

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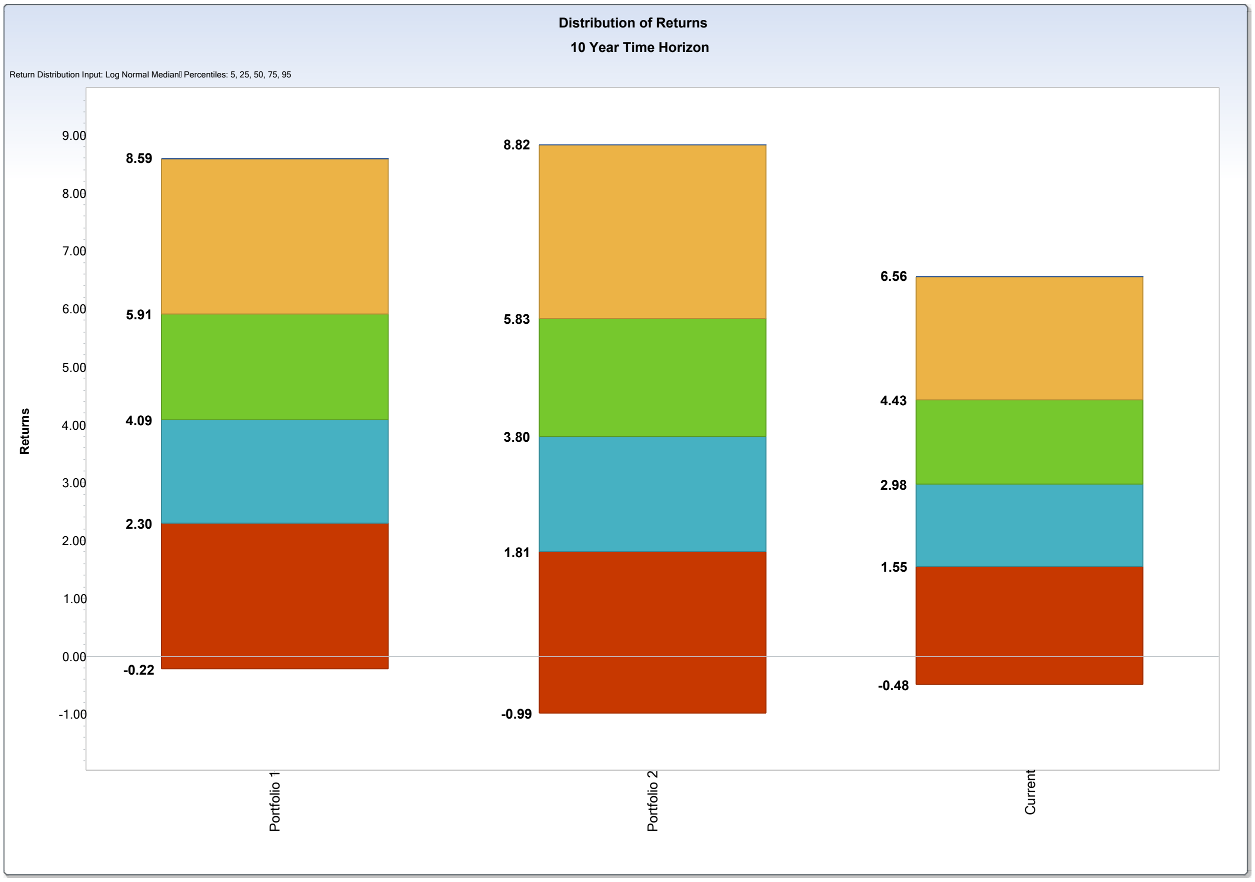
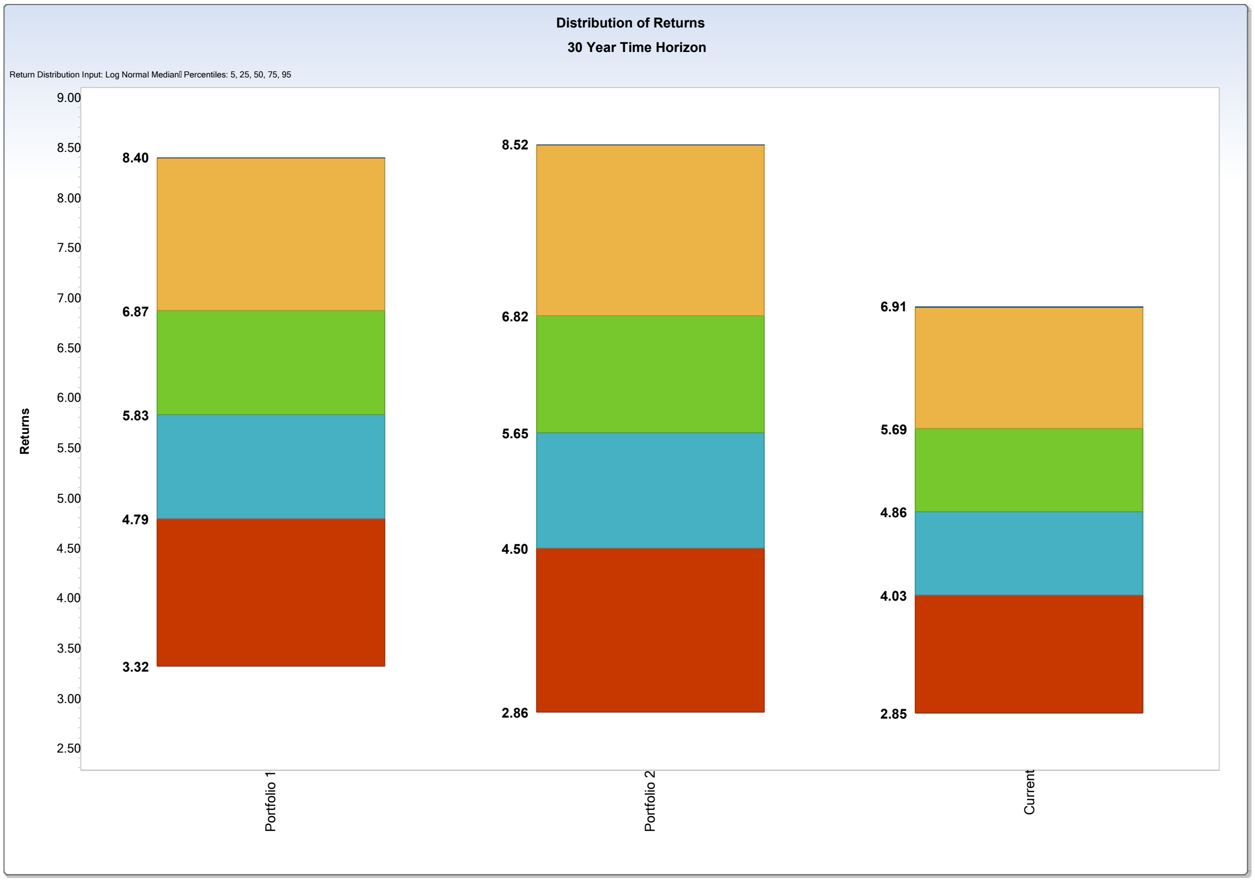


The 30-year horizon return distributions tell a similar story. Of note, Portfolio 1 has a better than 75% probability of returning more than 4.75% over the 30-year forecast horizon.



Conclusion

Examining the asset allocation modeling results over the 10 and 30-year time horizons along with an assessment of the return distributions across the modeled portfolios are all important data points to consider. Wilshire's analysis indicates that the recommended asset allocation has the potential to deliver enhanced long-term returns, albeit at a higher expected risk level than with the current portfolio. Over long-term strategic horizons, the Long-Term Care portfolio results would be expected to benefit from adopting the recommended allocation of Portfolio 1.

Sincerely,