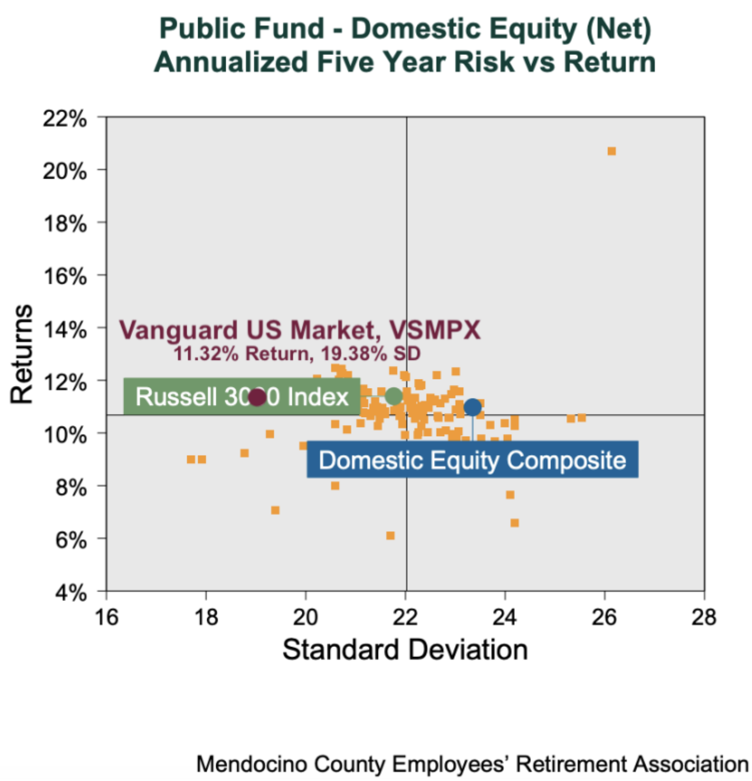
Date: March 17, 2024
To: MCERA staff, Callan and the MCERA Board
From: Dan Gjerde, MCERA Board Member

Re: **Three fiduciary questions, submitted in advance of the March 20, 2024 MCERA board meeting, for agenda items 4B & 4C**

As a follow-up to a recent conversation with the chair and vice chair, I spent as much time as I could spare in the past 42 hours to review the agenda packet published Thursday afternoon, so I could provide the research in this memo, and these questions, as early as possible for MCERA staff and for Callan to be prepared to answer these questions at next Wednesday morning's MCERA Board meeting. Thank you, in advance of the meeting.

1) According to the Callan June 30, 2023 Investment Measurement Service Quarterly Review, page 26 appears to say MCERA's US equities had a 5-year return of 10.97% and standard deviation of approximately 23.5%. The chart shows the MCERA total portfolio and its US equities and had elevated standard deviation over its comparative benchmark, the total US stock market (Russell 3000). Vanguard's total US stock market ticker for Institutional Investors (over $100 million) is VSMPX. Applying data from Portfoliovisualizer.com, I have spotted the 5-year performance of VSMPX with an annualized 5-year return of 11.32% over this same period, with a standard deviation of just 19.38%. I understand MCERA FIO Robert Reveles and Callan have access to additional sources for historical returns beyond Portfoliovisualizer.com. Can MCERA staff or Callan confirm or correct these numbers for the MCERA board?



2) Page 22 of the above referenced June 30 Callan report also appears to say MCERA's total portfolio had a 5-year return of 6.66% and a standard deviation (volatility rate) of 16.0% or more. On page 76, the report also appears to show MCERA's fixed income investments had a 5-year return of 1.44% and a standard deviation of roughly 6%. Can MCERA staff or Callan confirm or correct these numbers for the MCERA board?

3) If numbers cited above are substantively accurate, then it appears MCERA's domestic equity sleeve of funds was 21% more volatile than the Vanguard Total US Market Index fund, VSMPX, with a return that was lower by 35 basis points. Results from this Portfoliovisualizer.com link shows MCERA could have reduced the standard deviation of the total portfolio from roughly 16% to 15.30%, even after shifting 6% of the total portfolio from fixed income to VSMPX. While still maintaining 15% in fixed income (the target of Mix 5, on page 26 of Callan's 2-23 asset liability study) a portfolio with 43% allocated to VSMPX would have raised MCERA's total portfolio return from 6.66% to 7.35% in the five years ending June 30, 2023, while reducing volatility of the total portfolio. That would have been a boost in the performance of the total MCERA portfolio of more than 10%, while reducing volatility of the fund by more than 4%. Can MCERA staff or Callan confirm or correct these numbers for the MCERA board?