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RE: Tracking Error of the Vanguard Target Retirement Date Suite

Vanguard offers a Target Retirement Date suite ("suite") as an investment option for use within defined contribution plans, allowing participants to invest in an asset allocation that is managed to remain age-appropriate for those intending to retire around the year embedded in the fund's name (e.g. Vanguard Target Retirement 2030). The suite is composed of index funds from US and International Stock and Bond asset classes. While performance remains generally competitive versus peers, the suite has experienced challenges in tracking its custom benchmark for the past several years. From 2019-2023 for example, the mutual fund shares of the Income and 2020 through 2065 funds have lagged their benchmarks by an average of -0.43% per calendar year. In no instance has any fund within the suite tracked by closer than -0.14%. For the trailing three-year period ending 12/31/2023, these funds trailed their benchmarks by an annual average of -0.34% despite having investment expenses of 0.08%. Such continuous underperformance is not to be expected from an index-offering. This memo summarizes the causes of such tracking error and provides the Hyas Group's outlook.

Performance Background:

The suite experienced a substantial amount of tracking error and execution cost during the rapid market decline and rebound at the start of the pandemic caused by Covid-19 in 2020. This experience prompted Vanguard to perform a multi-quarter risk analysis to identify ways to reduce tracking error, execution costs, market disruption, and the potential for inopportune timing. In February of 2021 and in conclusion to these analyses, Vanguard established management policies with greater latitude; including widening rebalancing thresholds relative to targets, moving to a monthly rebalancing approach, and allowing limited use of futures to gain market exposure. The Hyas Group reviewed these changes and concluded that they provided Vanguard with increased but still constrained flexibility and did not warrant investment action.

Implementation has been challenging for Vanguard however and appears to be responsible for the bulk of underperformance. For example, for the three-year period ending 9/30/2023 (the most recent attribution on hand as of this memo), the "Allocation Impact" which Vanguard describes as "Out/Underperformance due to differences in the strategic asset allocation of the funds versus their benchmarks. These differences can be particularly notable at times of significant market volatility as portfolio managers work to balance transaction costs against a daily rebalanced benchmark" had subtracted -0.12% to -0.31% of annual performance. Secondarily, the "Fair Value Pricing Impact", which is a pricing adjustment mutual funds with international exposure put in place to prevent market timing, has subtracted -0.03% to -0.07% from annual returns for this period.

While Vanguard believes that its current approach may have better long-term investment outcomes, it acknowledges the unintended consequences of the past few years and is undergoing a cross-departmental working group to refine and improve its rebalancing procedures and reduce short-term tracking error.

Outlook:

Vanguard's tracking challenges over the past few years are likely a source of substantial internal focus and furthermore appear fixable considering that prior years generally had lower tracking error and that such underperformance is uncommon among index funds or fund-of-funds. As such, the Hyas Group will be monitoring Vanguard's performance closely to evaluate if new policies emerge and lead to improved outcomes. No pertaining investment action is intended by the Hyas Group at the moment, but this topic remains a source of increased interest.

Sources: Vanguard and Morningstar.