

**AGENDA ITEM DETAILS**

**Subject:** Consideration of Quarterly Report from Chief Investment Officer

**BACKGROUND:**

As required by the ERS Investment Policy Statement (IPS), this agenda item provides a report from the Chief Investment Officer (CIO) regarding the performance, risk, and costs of the Trust. All figures cited in this report represent annualized figures as of December 31, 2021 unless otherwise specified.

**Investment Objective**

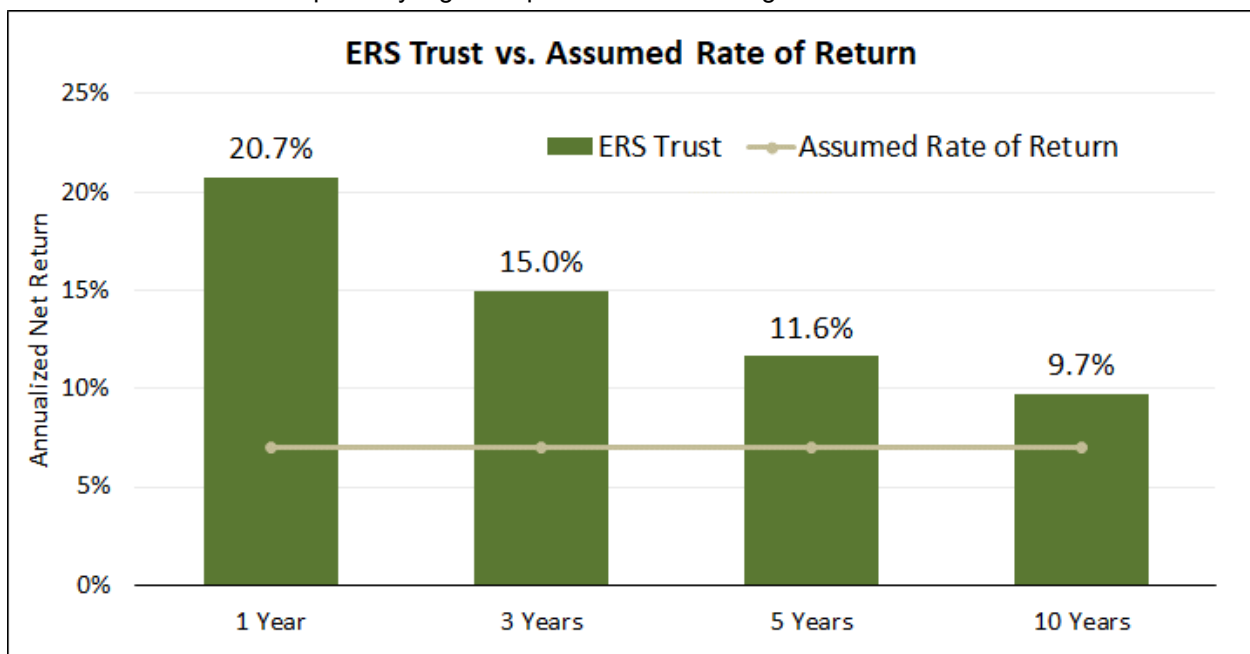
The overall objective of the ERS investment program is to invest prudently in a diversified portfolio of securities at a reasonable and predictable cost in order to maximize the probability that earned benefits are provided to members, retirees, and beneficiaries. To that end, the IPS specifies the following investment performance objectives for the Trust:

- Obtain returns in excess of the adopted benchmark, and
- Achieve returns commensurate with the amount of active risk assumed.

Performance is to be measured primarily over rolling five-year periods, and returns are expected to at least exceed benchmark returns or the stated return objective net of investment expenses.

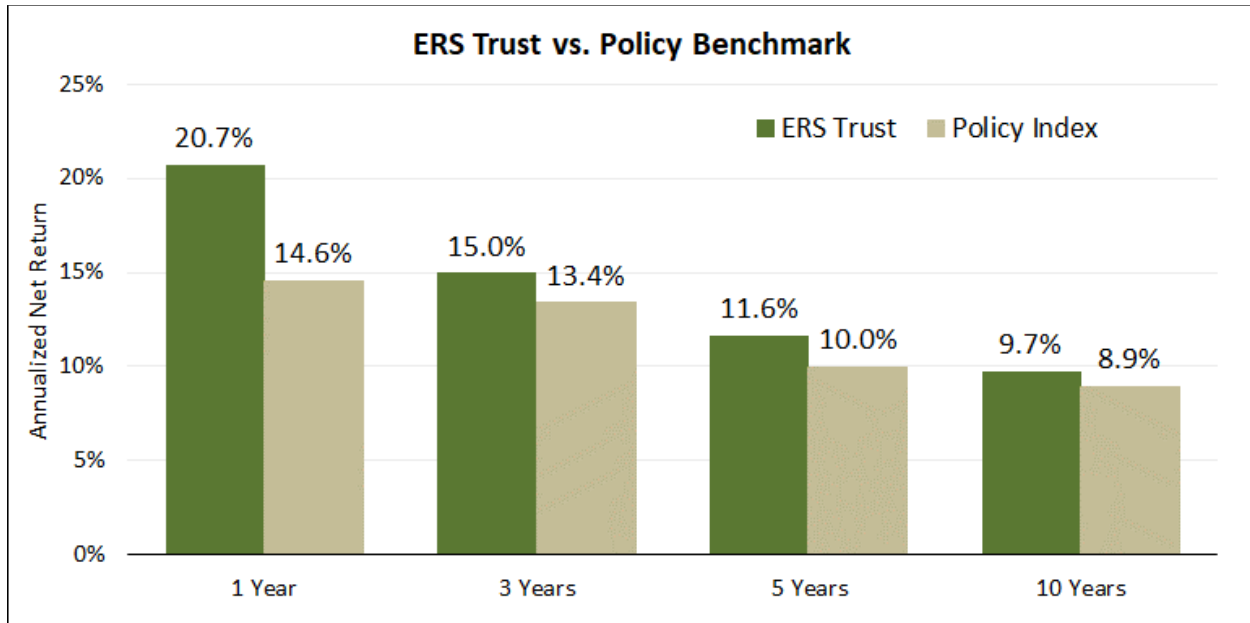
**Absolute Returns**

The Trust has outperformed the actuarially assumed rate of return (currently 7%) over all horizons as shown in the table below, including excess returns of 4.6% over the trailing five-year period. As a result, Trust assets are now valued at \$36.2 billion, the highest level in the history of ERS. The rolling five-year return figure of 11.6% represents a 10.5% premium to the 1.1% return on risk-free assets over the period, which is indicative of exceptionally high compensation for bearing risk over that time.

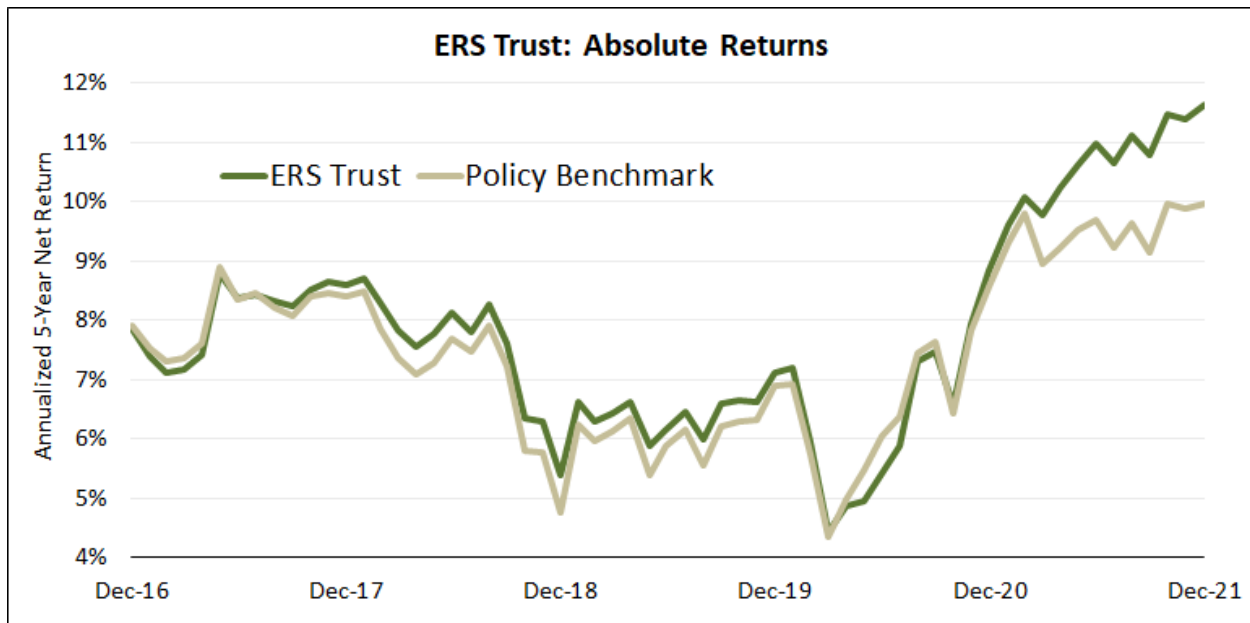


## Relative Returns

Trust performance has been consistently above the Policy Benchmark across 1-, 3-, 5- and 10-year horizons. On a rolling five-year basis, the Trust has delivered 166 basis points of excess return net of external management fees. Attribution suggests that this difference is derived from the overweight to private equity and the strong performance within that asset class, as well as strong investment selection within the real estate and global credit portfolios.

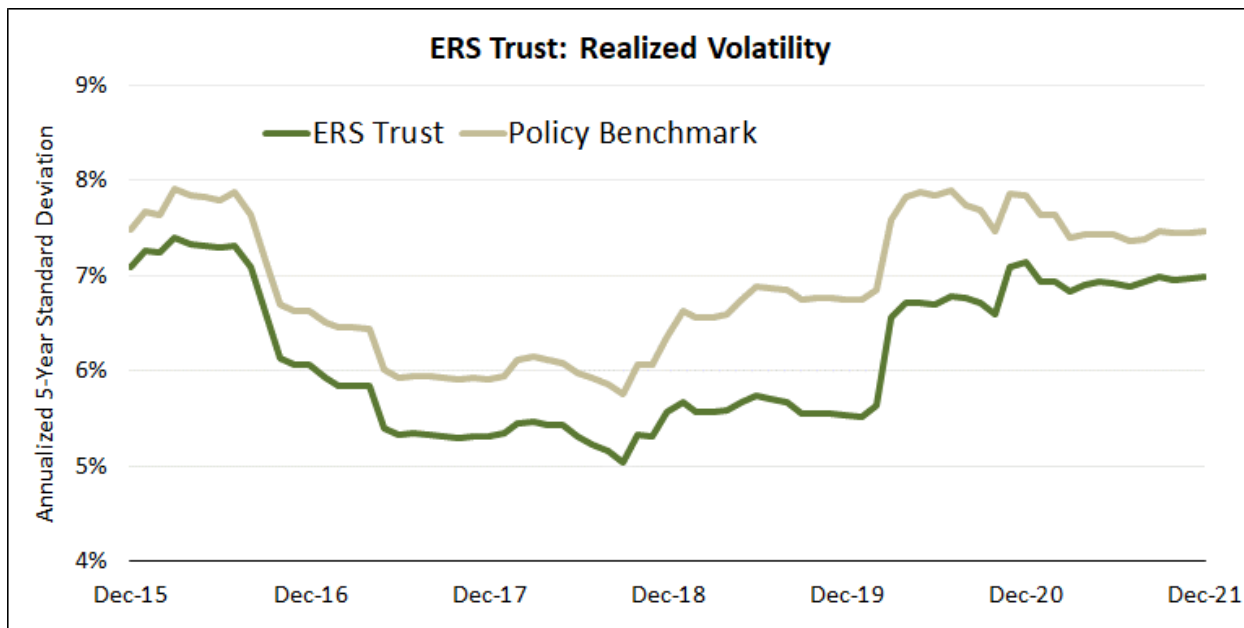


The chart below provides context for this level of outperformance by depicting the rolling five-year absolute returns of the ERS Trust and the Policy Benchmark. The current level of +166 basis points of excess return (11.63% for the Trust vs. 9.97% for the Benchmark) is well above the historical average of 34 basis points and represents the highest level during this period. Such strong performance translates into about \$3 billion of value added to the Trust over the last five years, including almost \$2 billion over the last year.

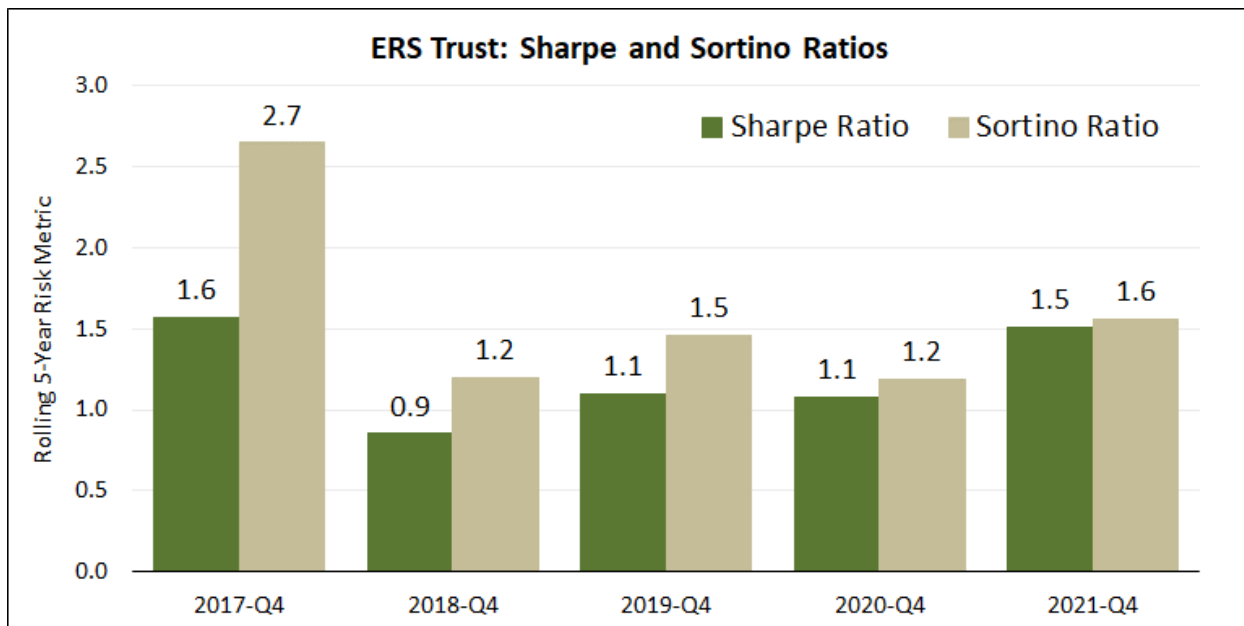


## Risk Measures

Absolute risk for the Trust as measured by realized volatility has risen over the last 24 months and is now at 7%. Volatility (also called standard deviation) is the most commonly used measure of absolute risk and aims to quantify the amount of variability in the historical return stream of a portfolio. Though this level represents an increase from pre-pandemic levels near 5%, it remains below the long-term average of 8%. This metric for the Trust remains below the realized volatility of the Policy Benchmark and well below that of the Long Term Public Benchmark due to smoothing exhibited in private market valuations.



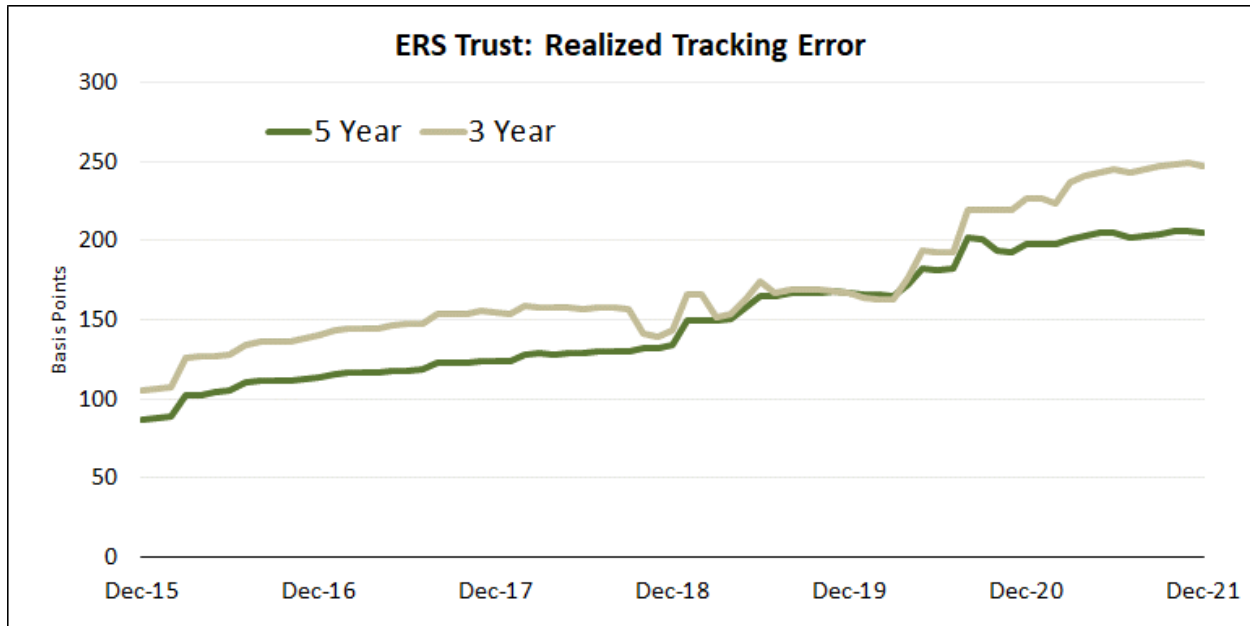
The recent rise in Trust volatility is the result of larger fluctuations in the equity market than was the case before the onset of the pandemic. It is also reflective of a greater tendency by stocks and bonds to move together, which reduces the level of diversification provided by the holdings in the portfolio.



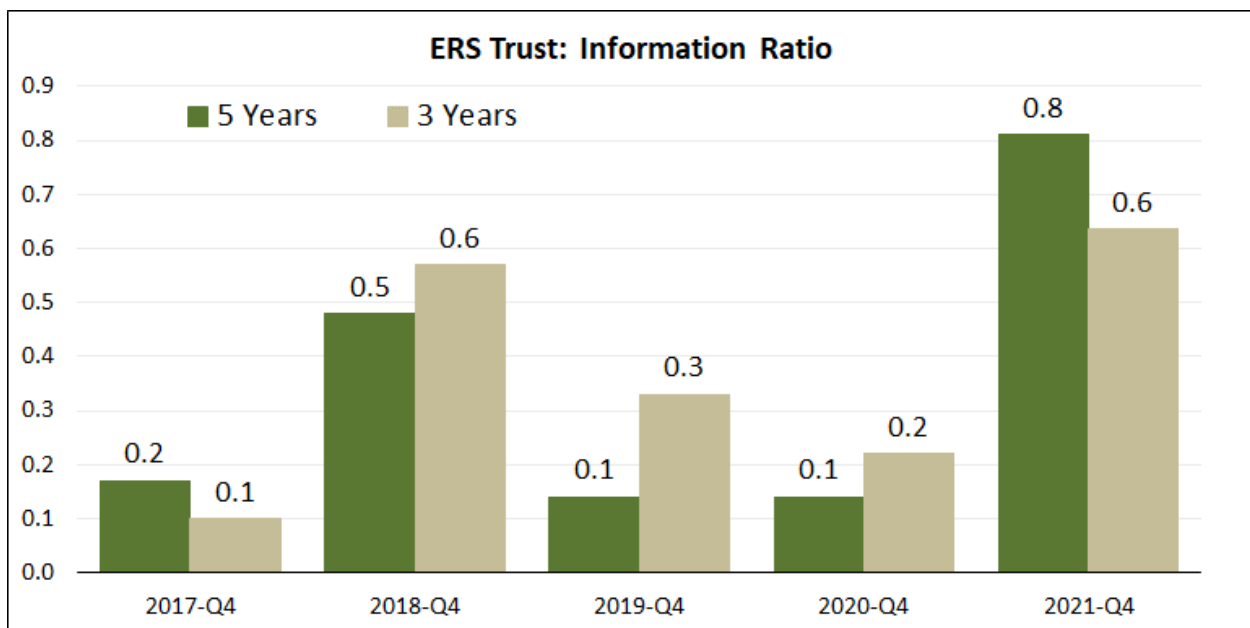
Relative to the amount of absolute risk taken, the performance of the Trust has been good, as evidenced by high Sharpe and Sortino ratios. (Recall that Sharpe ratio measures the amount of return per unit of absolute risk, whereas Sortino ratios measure the amount of return per unit of downside risk.) As

measured over the last five years the Sharpe ratio was 1.5 and the Sortino Ratio was 1.6, both of which are above the typical threshold values of 0.4 and 1.0 respectively. The smoothing of the return stream implicit in private market valuations noted earlier also affects these metrics favorably.

Relative risk (also commonly called active risk) for the Trust as measured by realized tracking error has reached a new plateau. Recall that tracking error aims to quantify how different a return stream has been or is expected to be from that of its benchmark. The current realized level of 205 basis points on a trailing five-year basis is above the historical average of 105 basis points. Rising tracking error reflects greater allocations to private markets where the implementation differs materially from the benchmark.

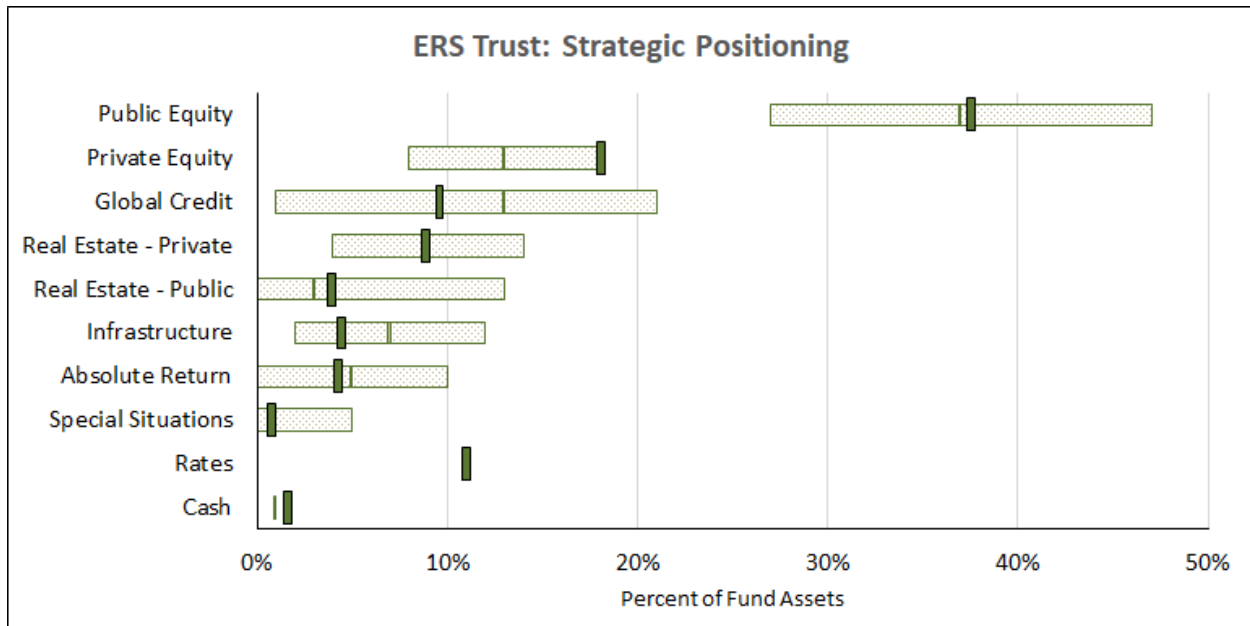


As compared to the amount of active risk taken, the relative performance of the Trust versus the Policy Benchmark has been good. As measured over the last five years the information ratio was 0.8 at the end of 4Q21, above the threshold value of 0.5 for the first time in several years. The strong relative performance of asset classes including private equity helped produce these results. The smoothing of the returns stream implicit in private market valuations noted earlier also affected these metrics favorably.

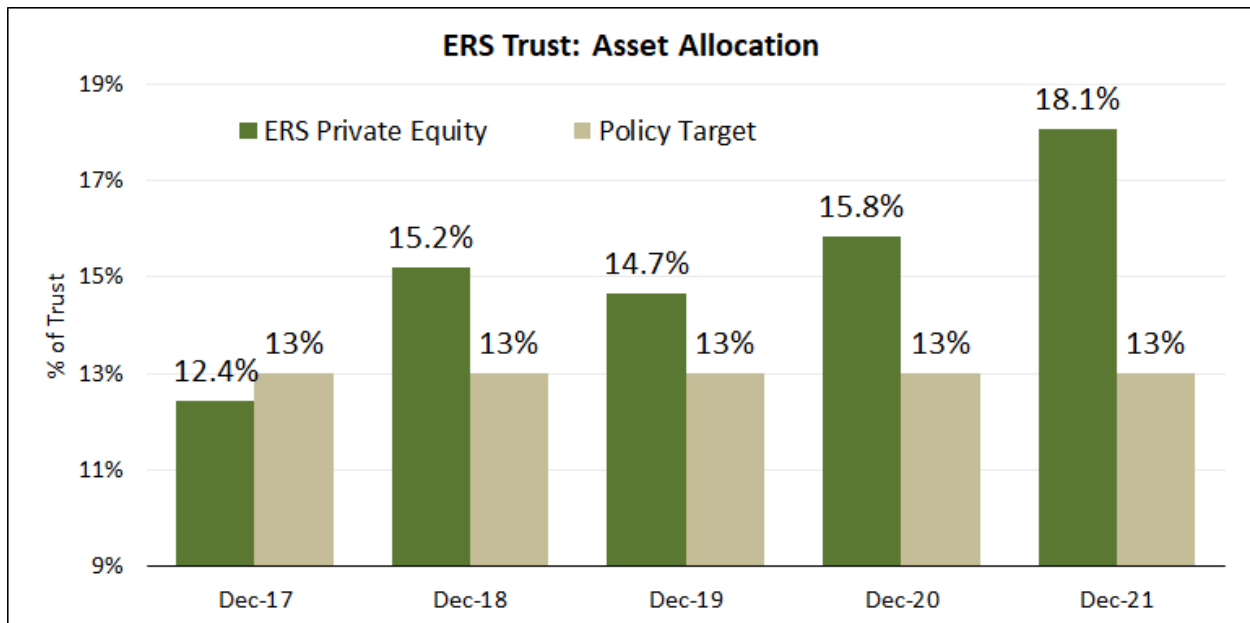


## Strategic Positioning

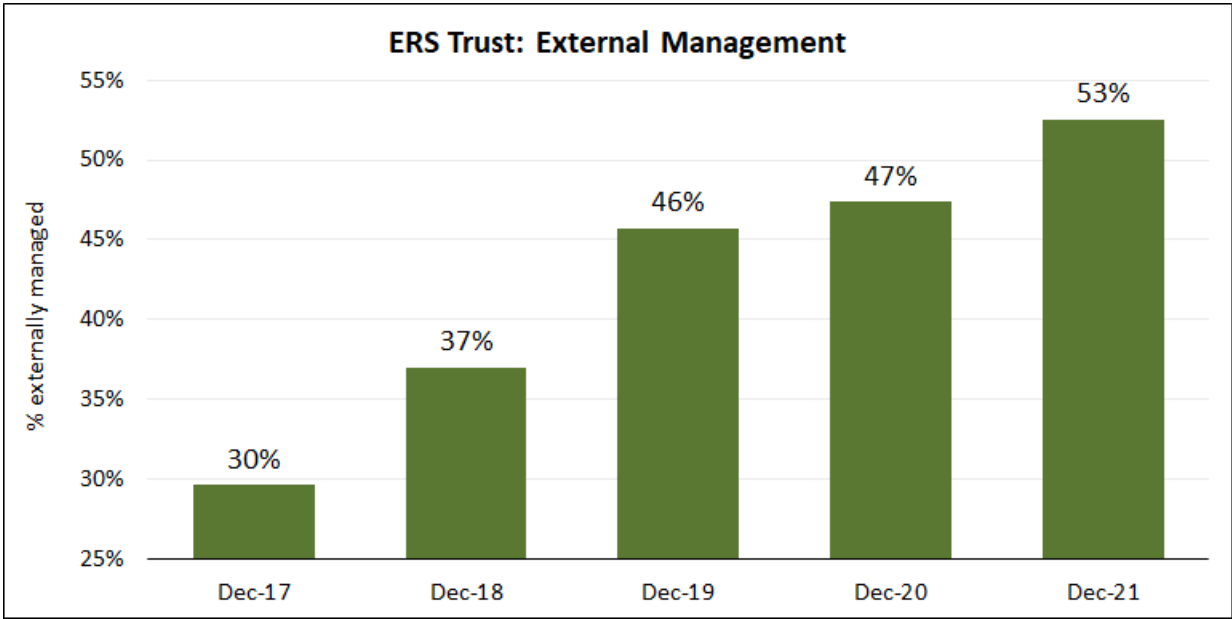
As of December 31, 2021, the Trust was positioned within the asset allocation parameters established in the IPS. Trust liquidity remains healthy and includes a 12.6% allocation to the Rates Portfolio plus Cash & Equivalents as compared to a combined target of 12%. This level of liquidity equates to more than two years of net benefit payments for the System based on recent levels of \$1.6 billion per year.



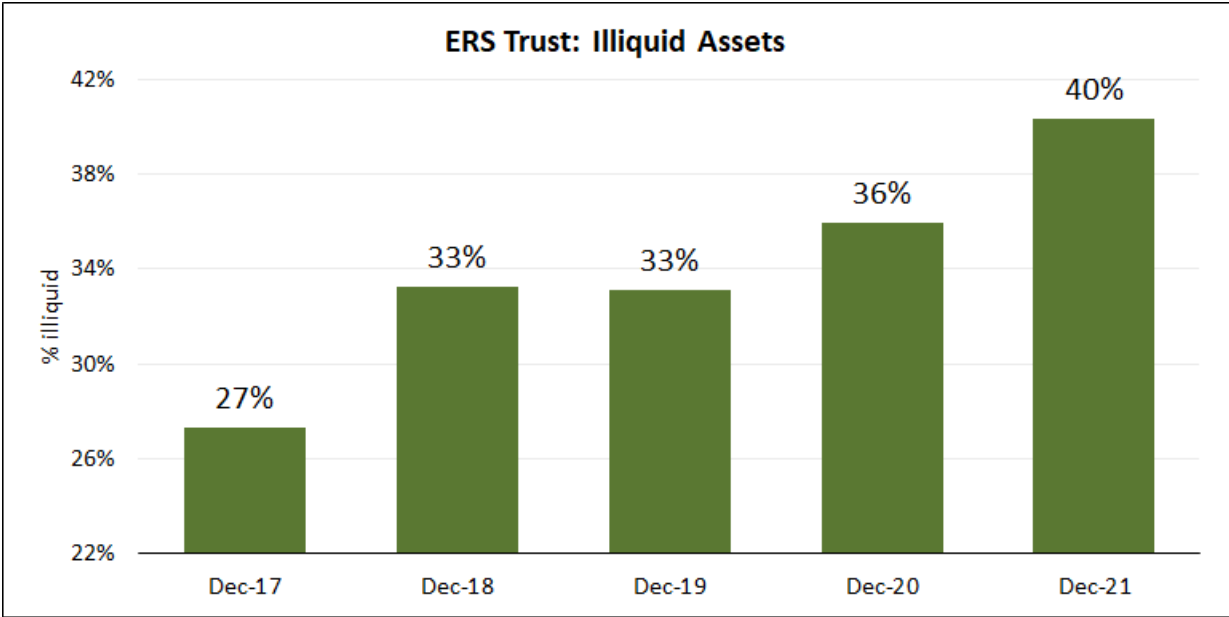
Also of note is that the private equity allocation has reached 18.1%, which is above the 13% long-term target set forth in policy and the 18% policy maximum. This positioning is the result of a 34% year-over-year gain in the value of private equity investments from \$4.9 billion to \$6.5 billion, and extends a multi-year period of realized growth above the policy target that came despite secondary sales totaling more than \$400 million in net asset value since 2019. This increase came within the context of a 32% increase in the total value of the private market portfolio during 2021 to above \$14.6 billion, which was driven by higher valuations for existing investments and continued net deployment of new capital.



Due in large part to this ongoing mix shift toward private markets, the proportion of Trust assets that are externally managed has steadily risen over time. The substantial increase in the value of the Trust's private market assets during 2021 caused this figure to exceed 50% for the first time.



The significant increase in the value of the Trust's private market investments has decreased the liquidity of the Trust. In recent years, around one-third of the Trust was allocated to illiquid strategies, defined as asset types where access to the invested capital would take more than 30 days. This figure has risen steadily over time and saw a significant increase in the last year to 40%.

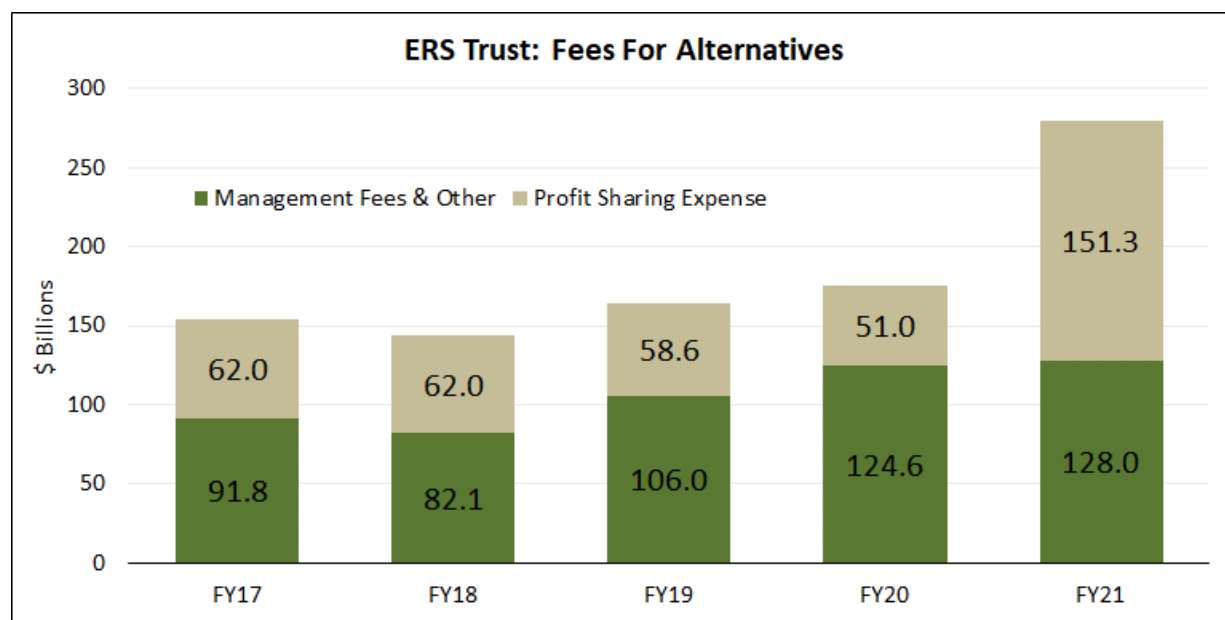


The allocation to illiquid assets is best considered in view of the Trust's liquidity needs since cash must be available to pay benefits regularly and consistently. It is notable that the Trust maintains a 12% target allocation to liquidity assets (i.e., the Rates portfolio plus Cash & Equivalents), which makes the current level of illiquidity much more manageable. As noted earlier, Trust liquidity remains healthy and includes a 12.6% allocation to the Rates portfolio and cash as compared to the combined target of 12%.

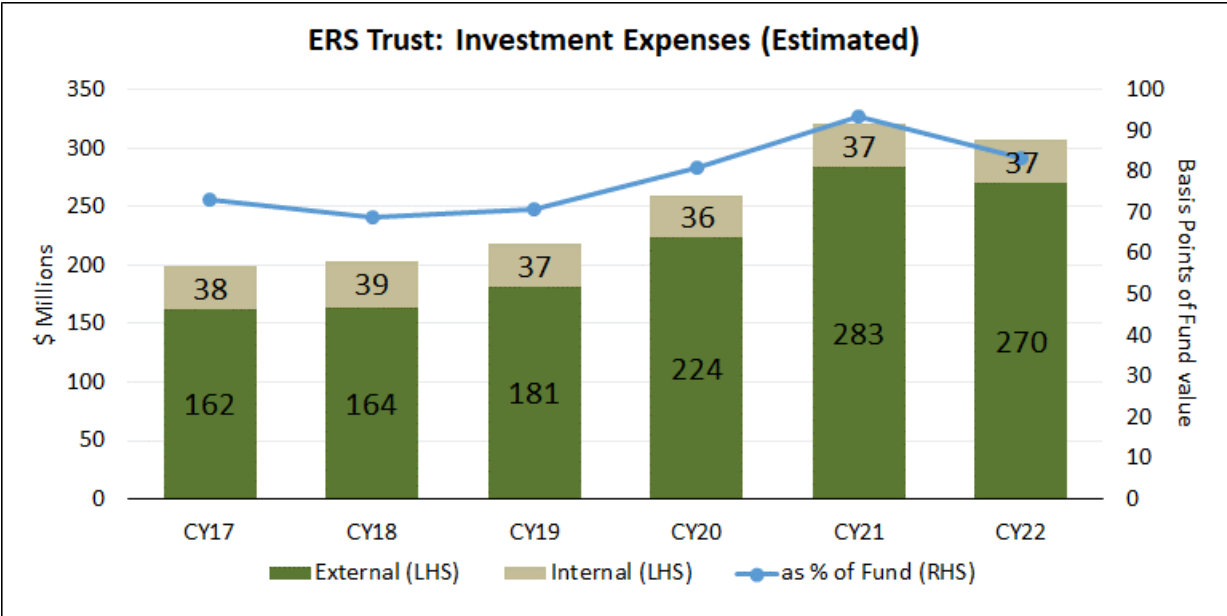
## Investment Expenses

The significant gains in the private market portfolio in recent years has been accompanied by an associated increase in fees and expenses paid by the Trust. From 2016 through 2019, investment expenses for the ERS Trust averaged 70 basis points of Trust assets, a figure that rose to 80 basis points in 2020 due to the shift toward private markets. During this time, expenses associated with private markets (which include a significant profit sharing component) averaged 160 basis points of the associated assets. Please note these figures are quantified only at the end of a fiscal year and therefore must be estimated by ERS Staff for all other periods.

During 2021, exceptionally strong returns across most asset classes had the effect of materially increasing the amount of profit share paid from \$51 million in FY20 to \$151 million in FY21 as shown in the chart below. Whereas profit share had historically represented ~25% of total investment expenses, this line item increased to almost 50% of the total during FY21. As a result, investment expenses within private markets averaged 190 basis points of Trust assets for FY21. Given the exceptionally strong level of gains seen during 2021, ERS Staff does not expect this level of profit sharing expense to be sustained and believes it will revert to typical levels in the years ahead.



In view of these factors, ERS Staff believe the increase in overall fee levels seen during 2020 and 2021 will moderate in future years. ERS Staff estimates that investment expenses totaled an estimated \$330 million during 2021, which represents an average of 95 basis points of Trust assets for the period. Looking ahead to 2022, expectations are that the absolute dollar figure will decline to around \$300 million as the Trust continues to grow such that fees will represent ~83 basis points of Trust assets for the year.



As previously noted, this projection is based on the assumption that investment returns are more consistent with the actuarially assumed rate of 7% annually. Results above or below that level would change the estimate of investment expenses significantly, particularly as it relates to the profit share component. As such, the expense amounts forecast in the chart above should be considered dynamic estimates that depend heavily on the trajectory and timing of returns within the asset classes.

**Conclusion**

Investment performance for the Trust continues to compare well against its stated objectives. The amount of risk borne by the Trust has been rising but the returns earned for bearing that risk have been generous. Investment expenses have risen in absolute dollar terms due to strong performance in private markets and the mix shift toward external management trends have contributed meaningfully toward the fulfillment of the Trust’s performance objectives. Liquidity risk remains well managed and looks to remain so in coming years.

An asset-liability study will be undertaken in the months ahead to evaluate the liquidity profile of the Trust, including the long-term effects of SB321 (including the advent of Group 4) on the Trust’s liquidity position and strategic asset allocation parameters. The goal of the Asset Liability Study is to examine carefully the long-term dynamics of the System’s assets and liabilities, including how they interact over time to determine the long-term financial status of the System.

To do so, NEPC will incorporate projections of key long-term trends including benefit payments, contribution levels, pension liabilities, and asset growth. NEPC will use multiple models to evaluate the expected progress of liabilities and cash flows, which will in turn assess the suitability of the current asset allocation and its ability to balance long-term growth with the continued provision of liquidity to pay benefits.

ERS has provided NEPC all of the requested initial information to begin the asset liability study including the latest valuation report, recent actuarial projections, projected benefit payments, and contact information for the external actuarial consultants for ERS. The process will begin in April 2022 and NEPC expects to provide a draft set of findings to the Board during the May meeting with a final report in August.

This is not an action item and is intended for discussion purposes only.

**ATTACHMENTS:**

- 1. Slides – Chief Investment Officer Update