AGENDA ITEM DETAILS

Subject: 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 expenses of the Trust. Unless otherwise specified, all figures cited in this report represent annualized figures net of external investment expenses as of June 30, 2022.

Investment Objective

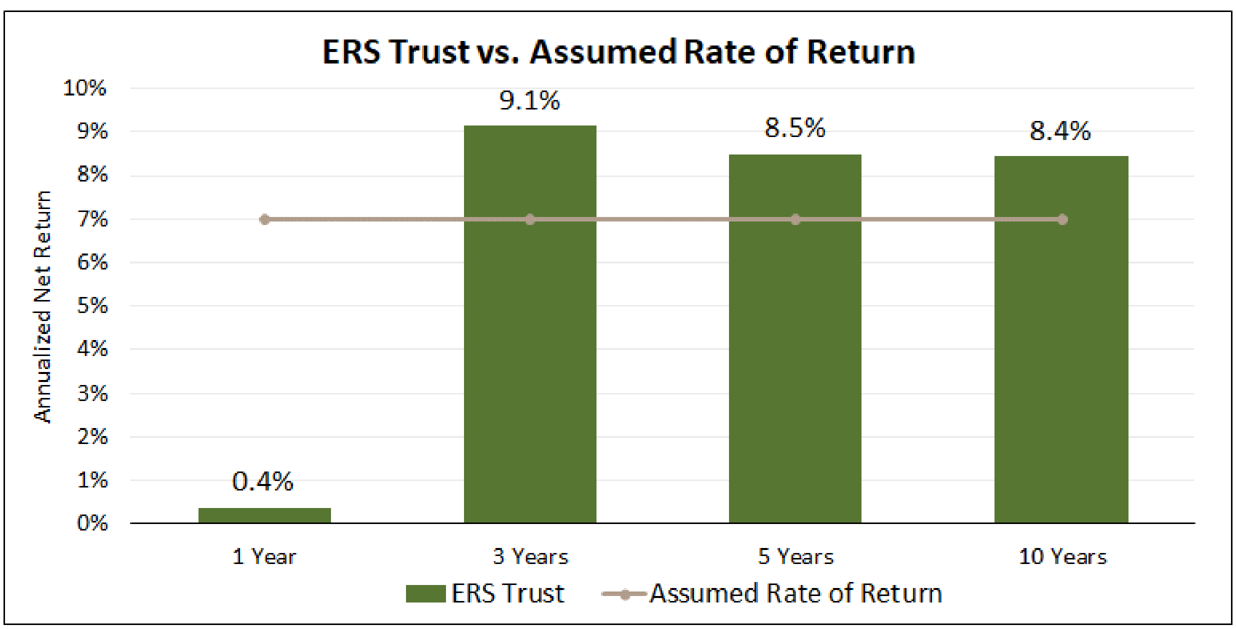
The overall objective of the ERS investment program is to invest prudently in a well-diversified portfolio of securities at a reasonable and predictable cost in order to maximize the probability that earned benefits are provided to members, retirees, and beneficiaries. To that end, the IPS specifies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

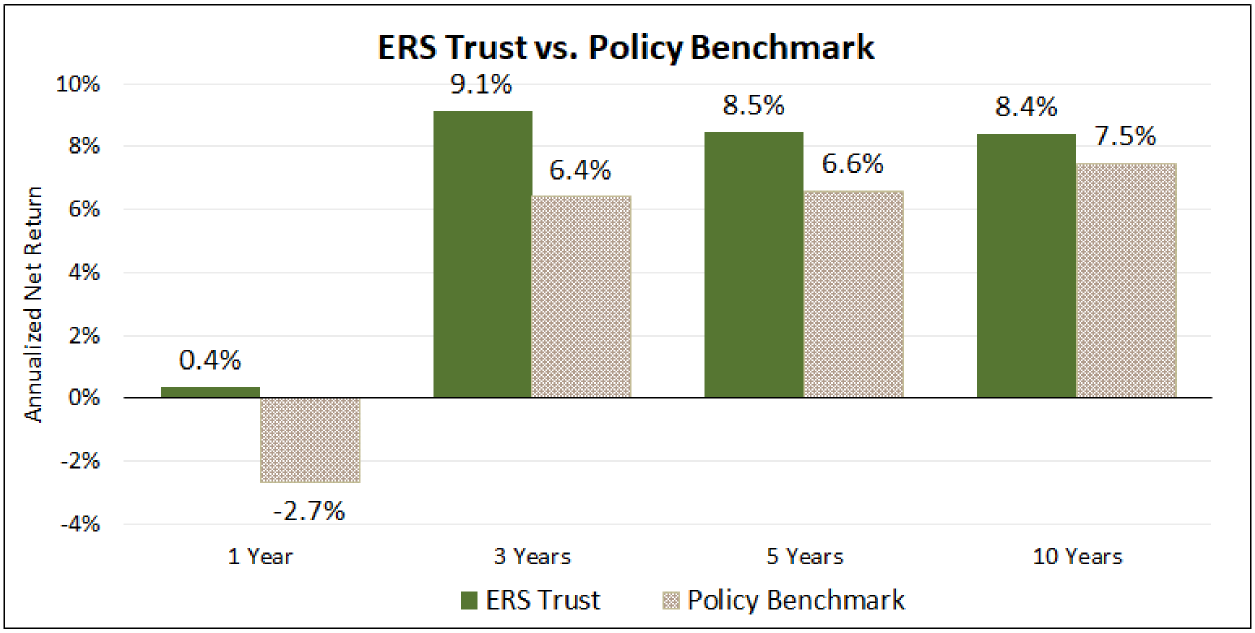
Absolute Returns

The Trust has outperformed the actuarially assumed rate of return over longer-term time horizons as shown below, including excess returns of 1.5% over the trailing five-year period. As a result, Trust assets are now valued at $33.0 billion. Five-year returns of 10.4% represent a 7.8% premium over risk-free returns during the period, which indicates that the Trust has earned high rewards for bearing market risk.

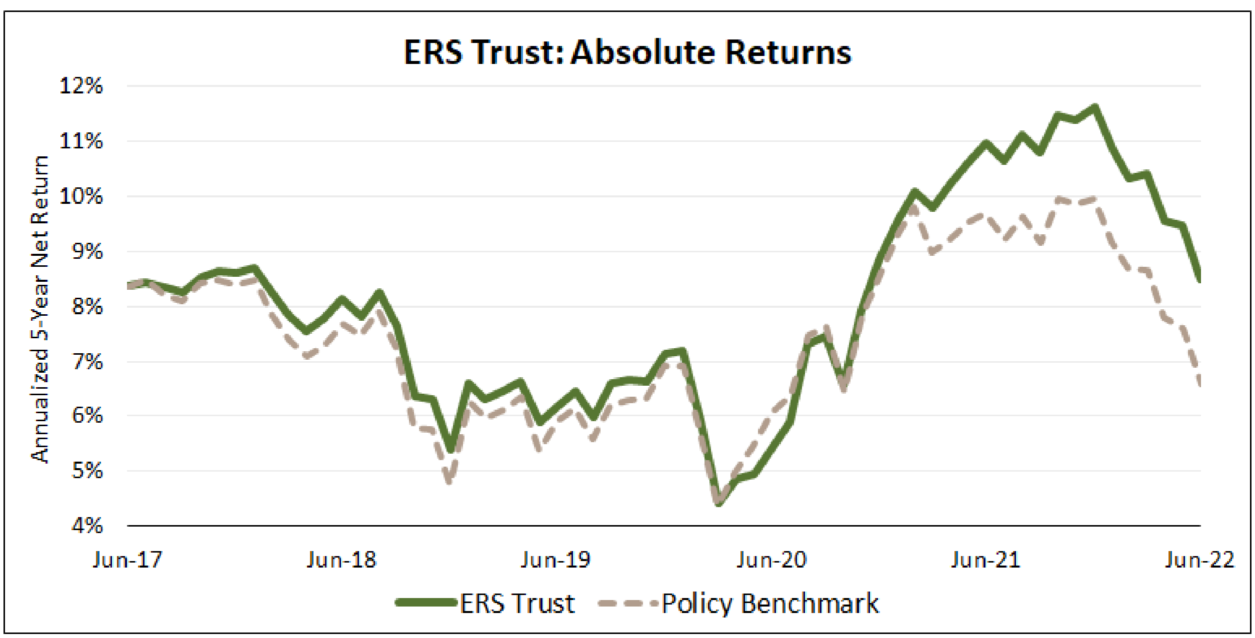


Relative Returns

Trust performance has remained above the Policy Benchmark across 1-, 3-, 5- and 10-year horizons. On a rolling five-year basis, the Trust has delivered 189 basis points of excess return net of external management expenses, which staff believes to be among **the highest level in the history of the Trust**. Performance attribution shows that this gain was garnered from the overweight to private equity and strong performance from the investments within that asset class, as well as excellent investment selection within the real estate and global credit portfolios.

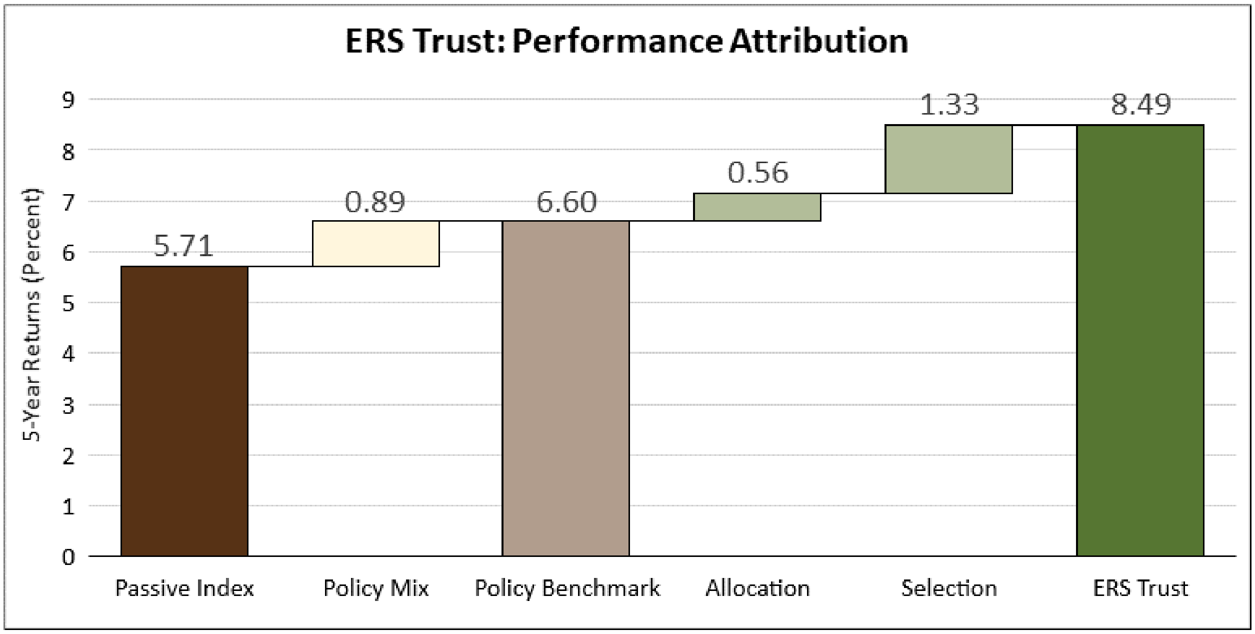


The chart below provides context for this level of outperformance by depicting the rolling five-year absolute returns of the Trust and the Policy Benchmark. The current level of +189 basis points of excess return (8.49% for the Trust vs. 6.60% for the Policy Benchmark) is well above the 20-year average of +35 basis points and represents the highest level during this period. Such strong performance translates into more than $3 billion of value added to the Trust over the last five years, including approximately $1 billion over the last year. For Fiscal Year 2022 to date, Trust returns are +237 basis points over the Policy Benchmark as absolute returns have fallen into negative territory for the first time since September 2022.

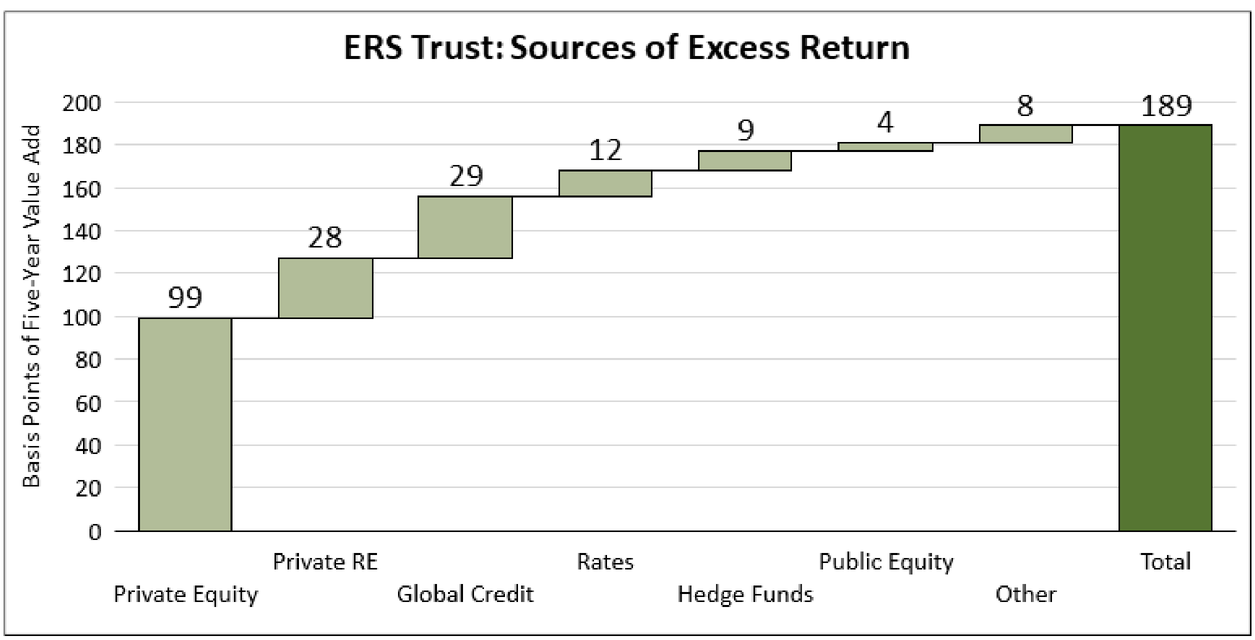


Attribution Analysis

Identifying the key sources of excess return over the trailing five-year period is accomplished through attribution analysis. As shown in the chart below, the 189 basis points of excess return for the Trust versus the Policy Benchmark has come primarily from security selection, which has accounted for 133 basis points of that amount or 70% of the total. Allocation has also contributed significantly to the outperformance, representing 56 basis points of value added over the period. The chart also shows that the Policy Benchmark has outperformed the Passive Index, which represents the performance of a passive liquid 80/20 mix of stocks and bonds.

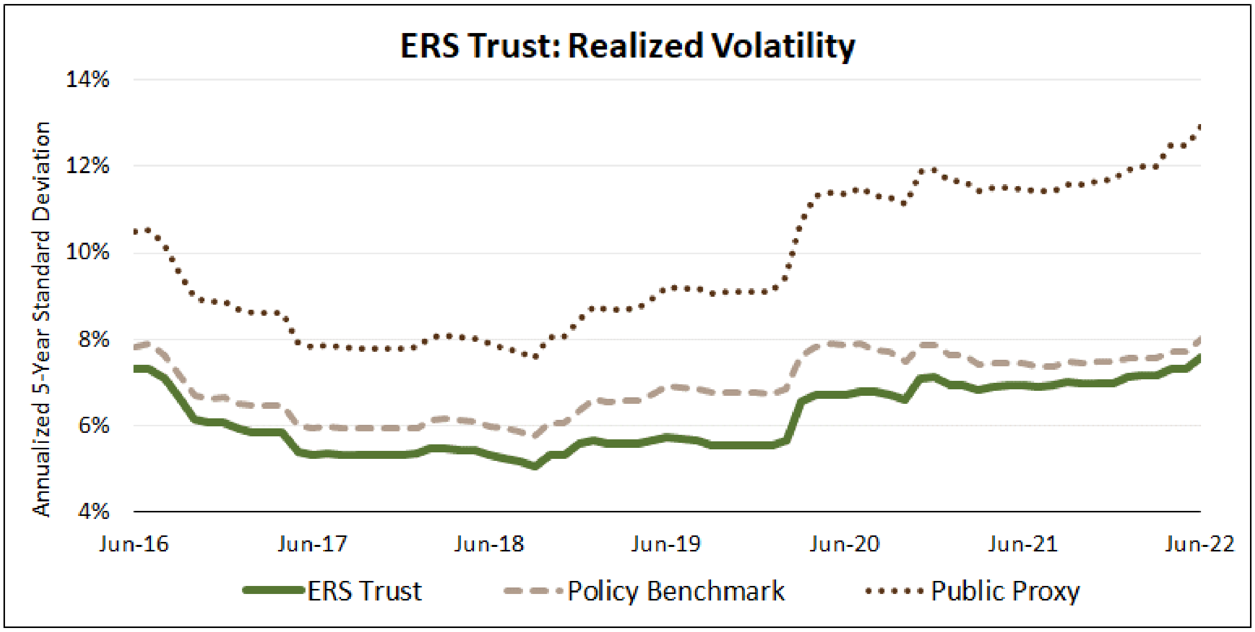


The chart below further breaks down the +189 basis points of five-year excess return by asset class. Private equity represents the single largest contributor to the excess return, contributing 99 basis points to Trust-level excess returns during this period. Strong contributions also came from global credit (+29 basis points), private real estate (+28 basis points), rates (+12 basis points), hedge funds (+9 basis points) and. The only asset class that detracted value was private infrastructure (-3 basis points), which was the result being underweight this asset class during a time when it has performed well.

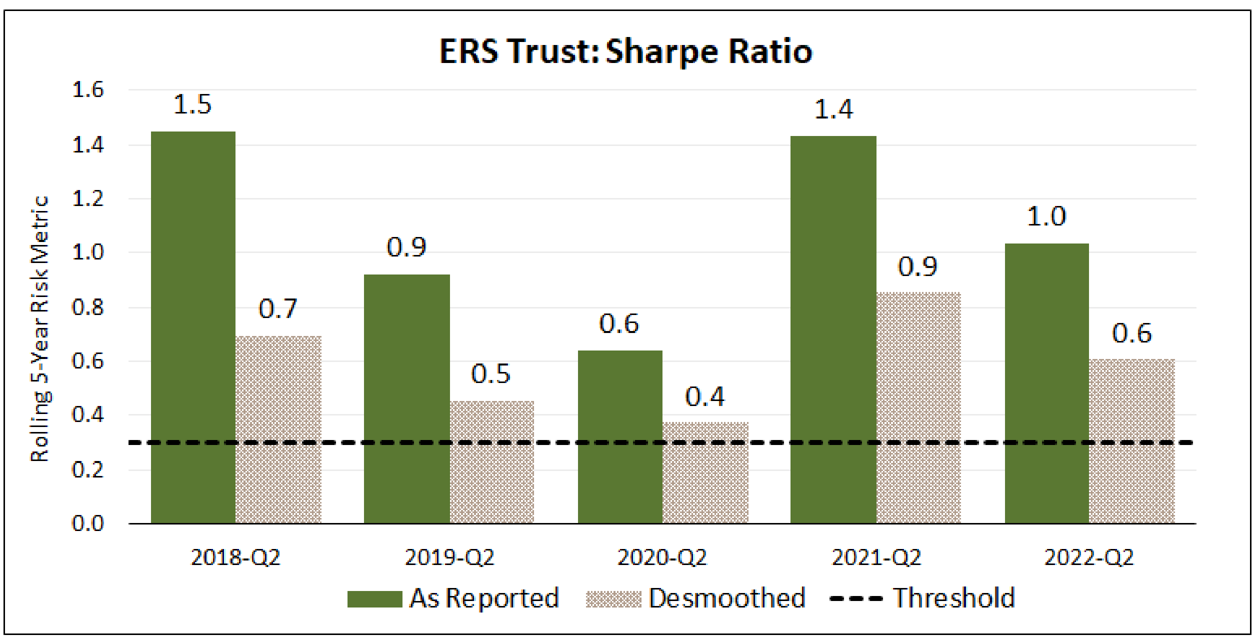


Risk Measures

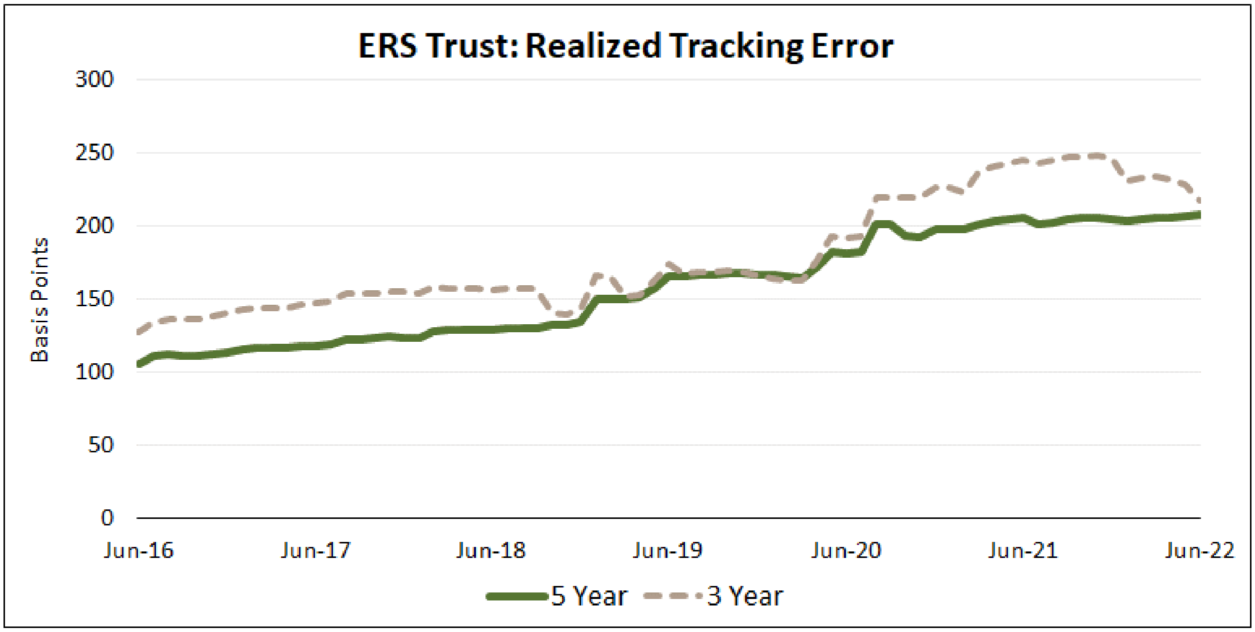
Absolute risk for the Trust as measured by realized volatility has risen over the last 24 months and is now at 7.6%. Volatility (also called standard deviation) is the most commonly used measure of absolute risk and aims to quantify the amount of variability in the historical return stream of a portfolio. Though this level represents an increase from pre-pandemic levels of 5-6%, 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 Public Proxy near 13% due to the smoothing effects of private market valuations.



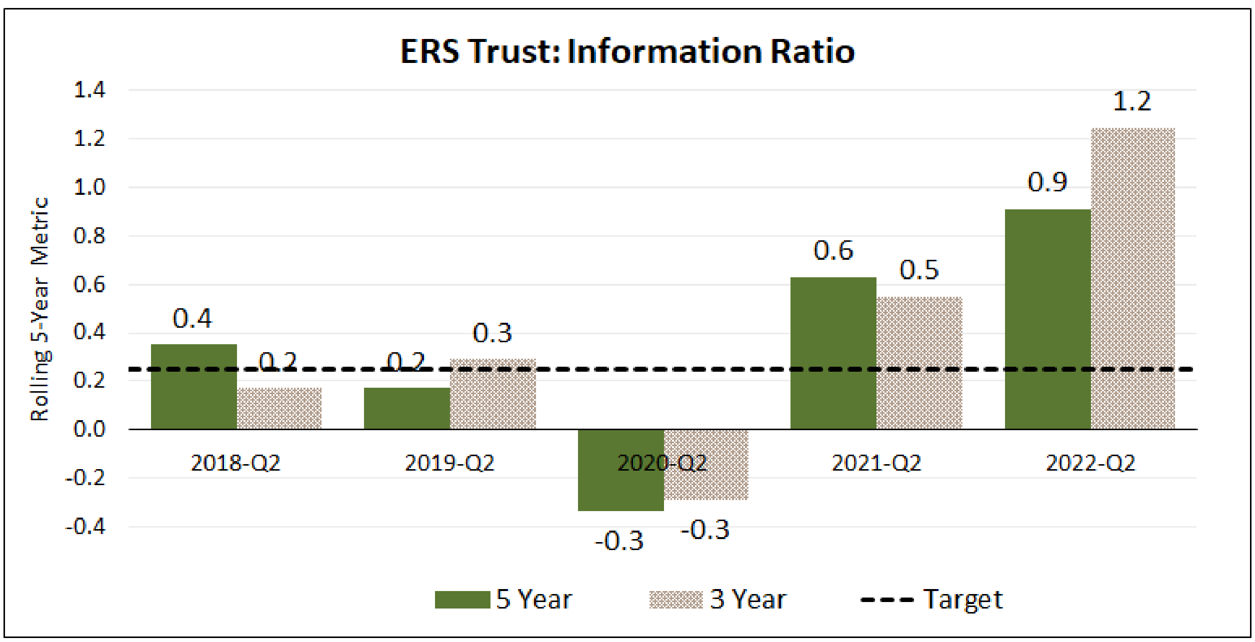
Relative to the amount of absolute risk taken, the performance of the Trust has been good, as evidenced by high Sharpe ratios. (Sharpe ratio measures the amount of return per unit of absolute risk.) As measured over the last five years the Sharpe ratio was 1.0, well above the long-term expected threshold value of 0.3. Even after adjusting for the effects of smoothing from private market valuations (by “desmoothing” the return stream by using the Public Proxy to measure market risk), the Trust has exhibited a five-year Sharpe ratio of 0.6, which remains well above that long-term expected threshold.



Relative risk (also commonly called active risk) for the Trust as measured by realized tracking error remains at a new, higher plateau. 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, which reflects greater allocations to private markets where the implementation differs materially from the benchmark.

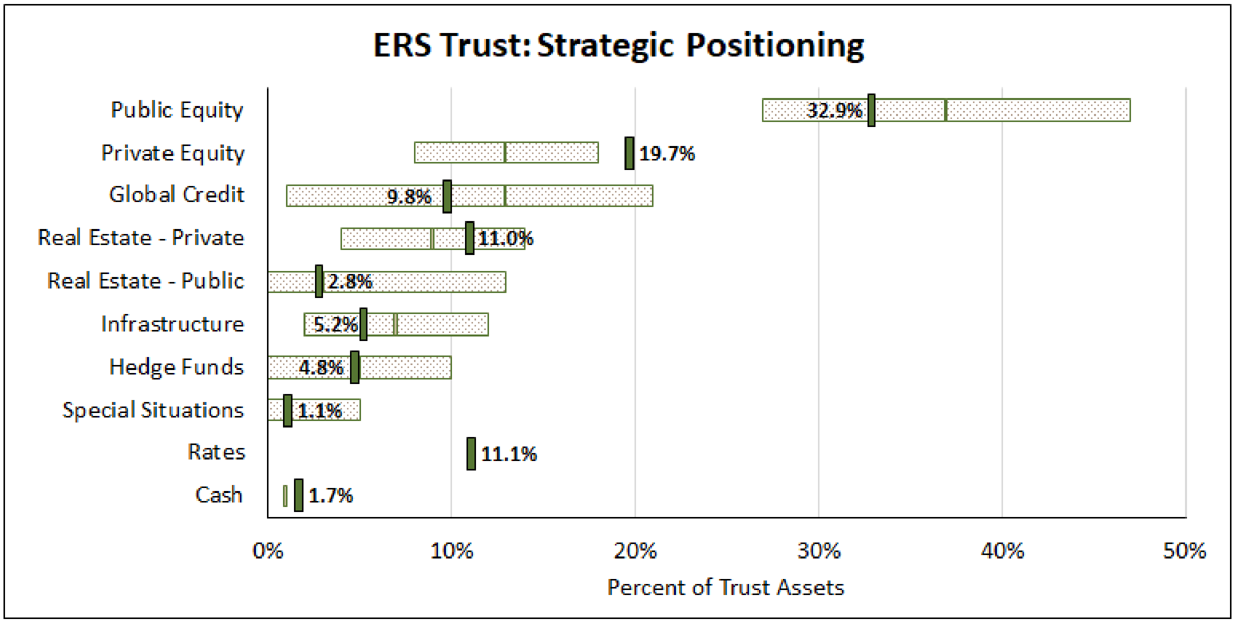


As compared to the amount of active risk taken, the relative performance of the Trust versus the Policy Benchmark has been good. As measured over the last five years the information ratio was 0.9 at the end of the quarter, the highest level in many years. The strong relative performance of asset classes including private equity helped produce these results. The smoothing of the returns stream implicit in private market valuations noted earlier also affects these metrics, though often for the worse since less frequent marks can produce higher tracking error even when the underlying economic exposures are similar.



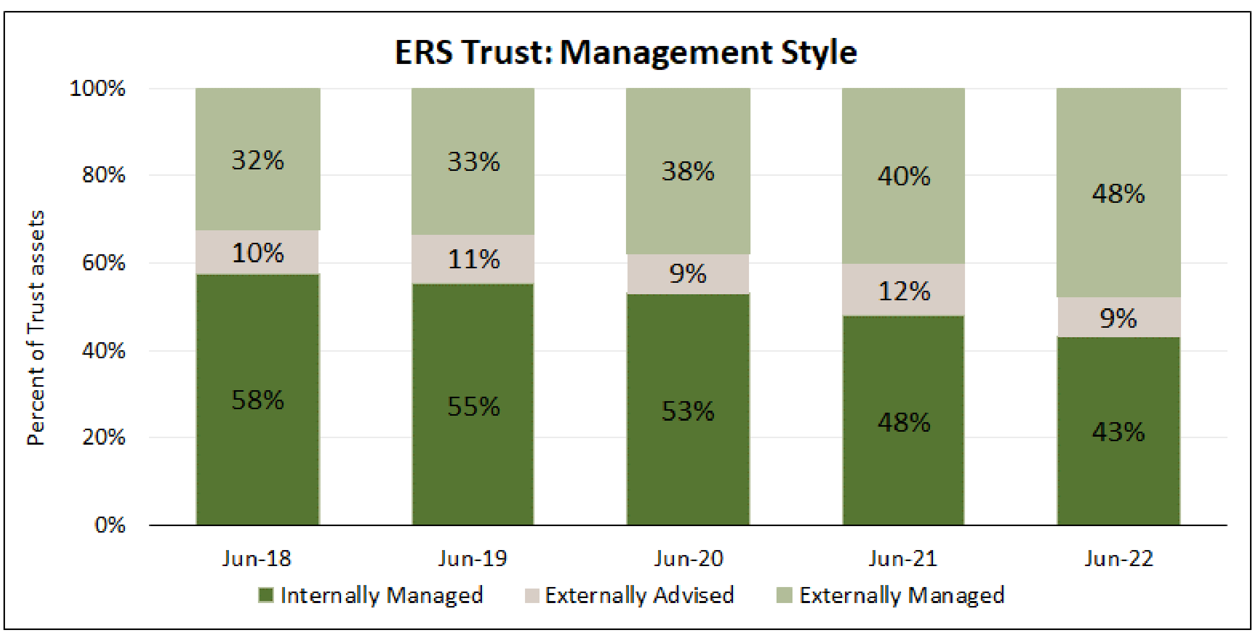
Strategic Positioning

As of June 30, 2022, the Trust was positioned within the asset allocation parameters established in the IPS with the exception of private equity. The private equity allocation has reached 19.7%, which is above the 13% long-term target set forth in policy and the 18% policy maximum. This positioning is the result of a 28% year-over-year gain in the value of private equity investments and extends a multi-year period of realized growth above the policy target. This growth came despite secondary sales totaling more than $400 million in net asset value since 2019.

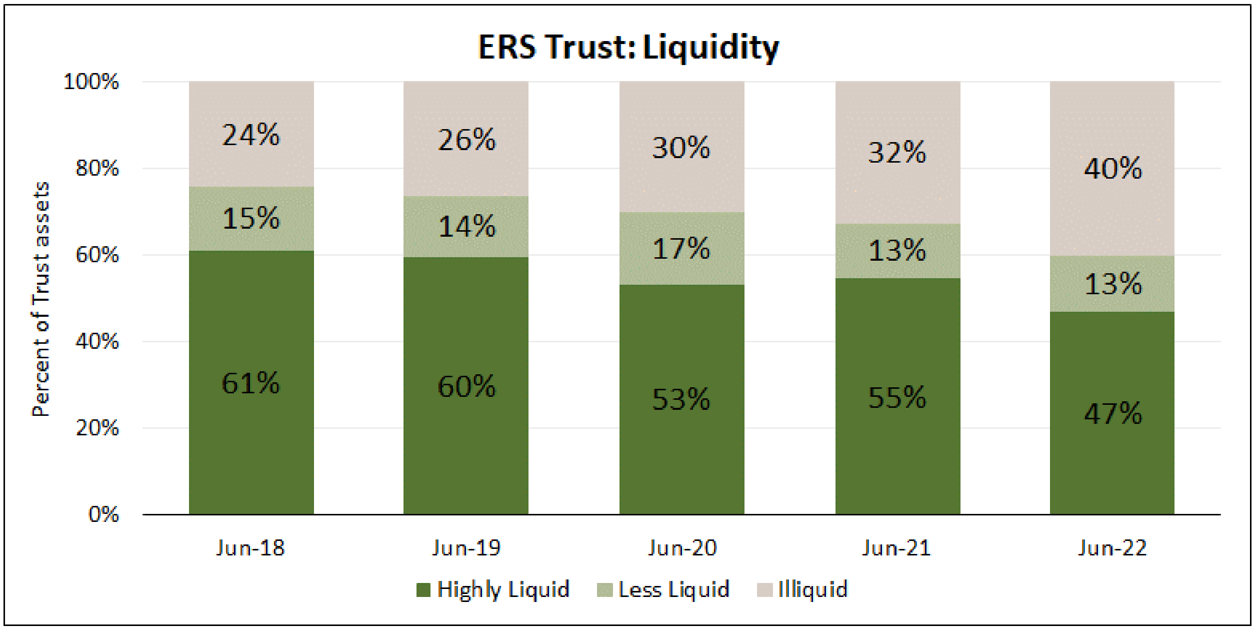


Trust liquidity remains healthy and includes a 12.8% allocation to the Rates Portfolio plus Cash & Equivalents as compared to a combined target of 12%. This level of liquidity equates to more than two years of net benefit payments for the System based on recent levels of $1.6 billion per year.

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 subtantial increase in the value of the Trust's private market assets during 2021 caused this figure to exceed 50% for the first time, and the recentr decline in value among public traded assets has caused that level to decline further to 43%.



The significant increase in the value of the Trust's private market investments has decreased the liquidity of the Trust. In recent years, ERS allocated more than 60% of the Trust to liquid strategies, defined as asset types where access to the invested capital would take less than 30 days. This figure has fallen steadily over time and in the last year declined to below 50%. At present 40% of the Trust is allocated to illiquid assets such as private equity and real estate, while 13% is allocated to less liquid strategies such as hedge funds and high yield bonds.

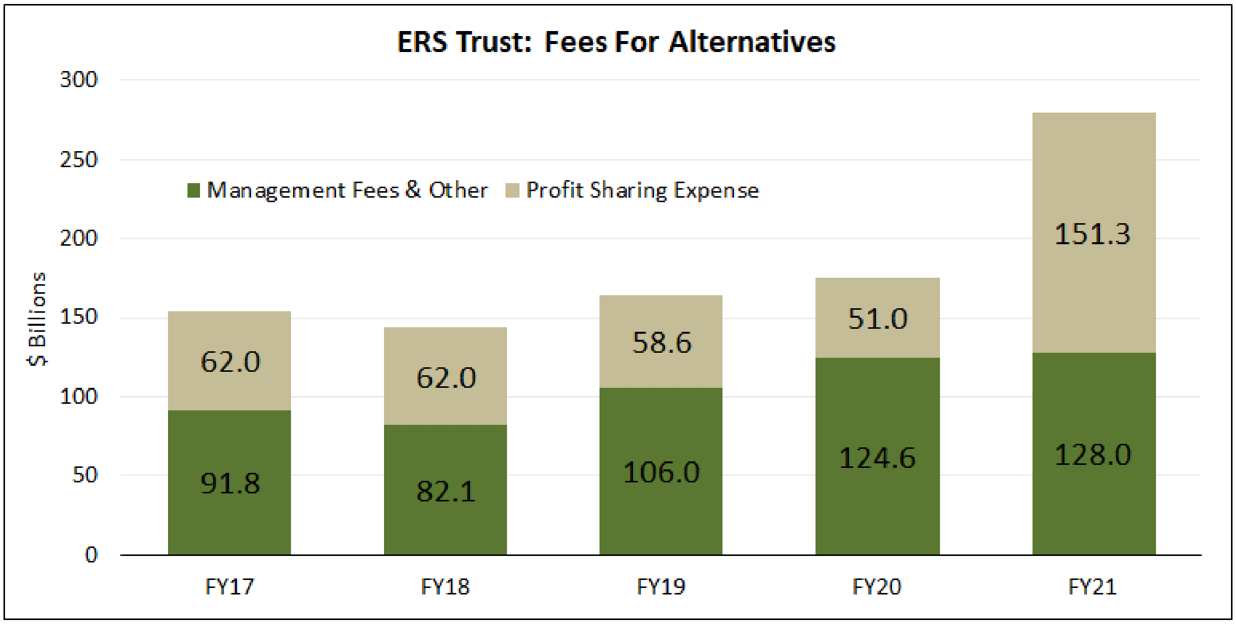


The allocation to liquid assets is best considered in view of the Trust's liquidity needs since cash must be available to pay benefits regularly and consistently. Staff believes the ability of the Trust to meet its short-tem liquidity needs remains healthy since the portfolio maintains a 12.7% combined allocation to the Rates portfolio and cash as compared to a combined target of 12%.

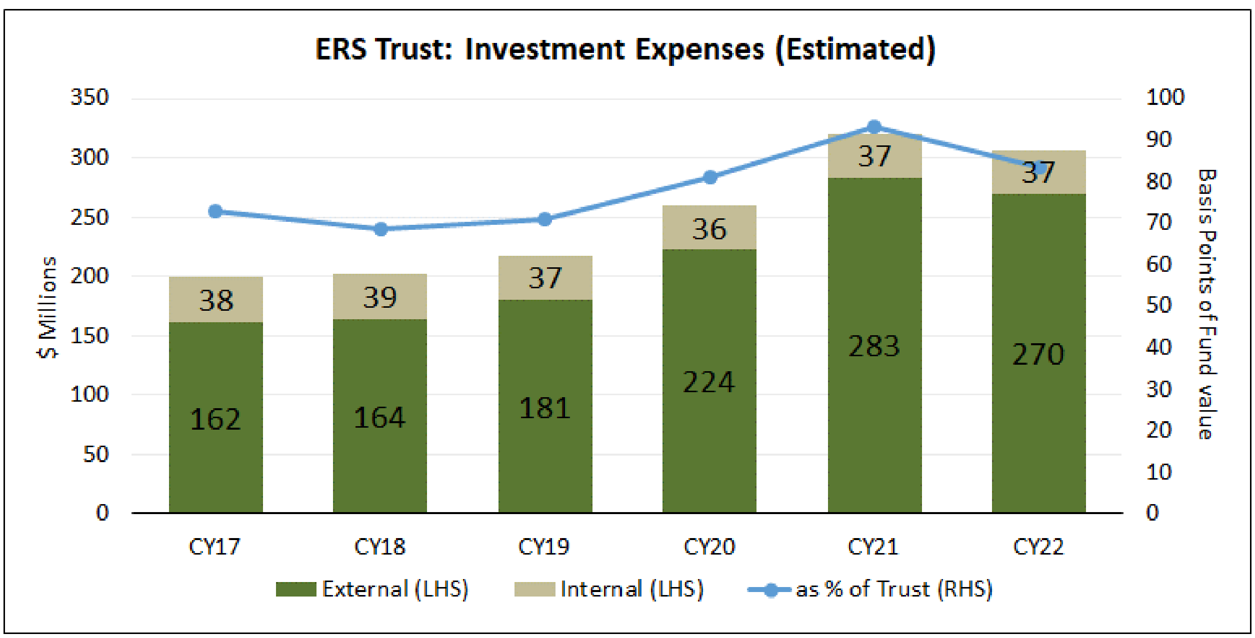
Investment Expenses

The significant gains in the private market portfolio in recent years coincides with an associated increase in investment expenses. From 2016 through 2019, investment expenses for the 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 within private markets (which include a significant profit sharing component) averaged 160 basis points of those assets. Please note that these figures are quantified only at the end of a fiscal year and must therefore be estimated by staff for all other periods.

During 2021, exceptionally strong returns had the effect of materially increasing the amount of profit share expense 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 item increased to almost 50% of the total during FY21 and caused investment expenses within private markets to average 190 basis points of assets for FY21. Given the exceptionally strong level of gains seen during 2021, staff believes that in the years ahead this level of profit sharing expense will revert to levels that are more typical.



In view of these factors, staff believes that the increase in overall fee levels seen during 2020 and 2021 will moderate in future years. 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.

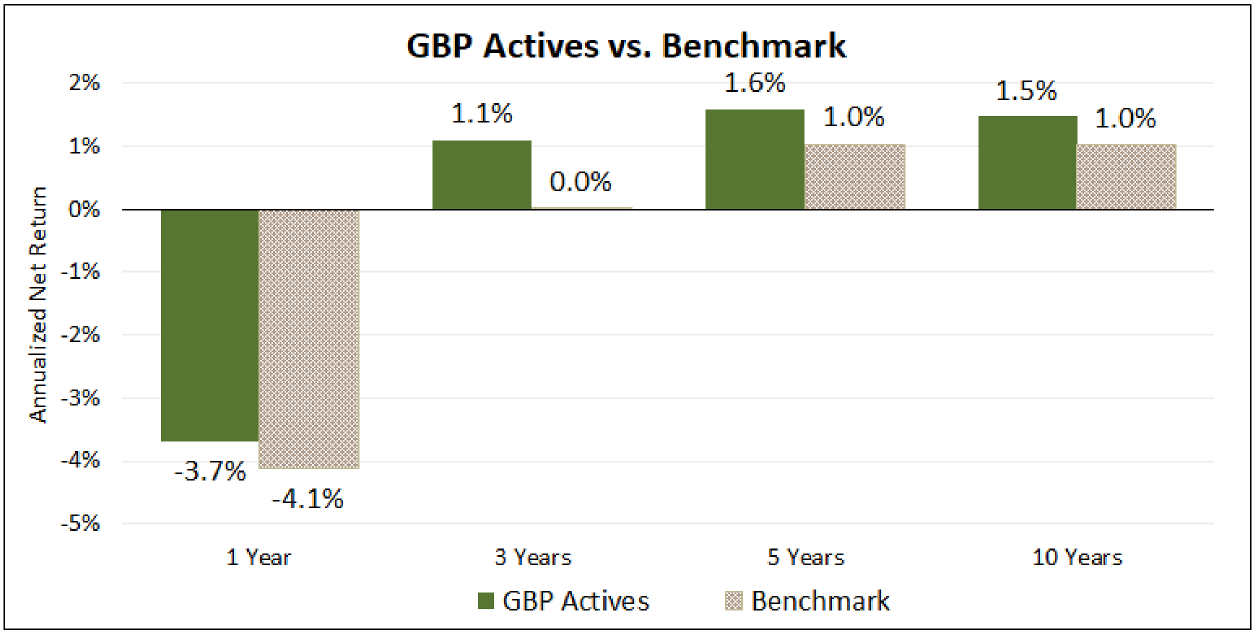


As previously noted, this projection assumes that investment returns are more consistent with the actuarially assumed rate of 7% annually. Results above or below that level would change the estimate of investment expenses significantly, particularly as it relates to the profit share component. As such,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

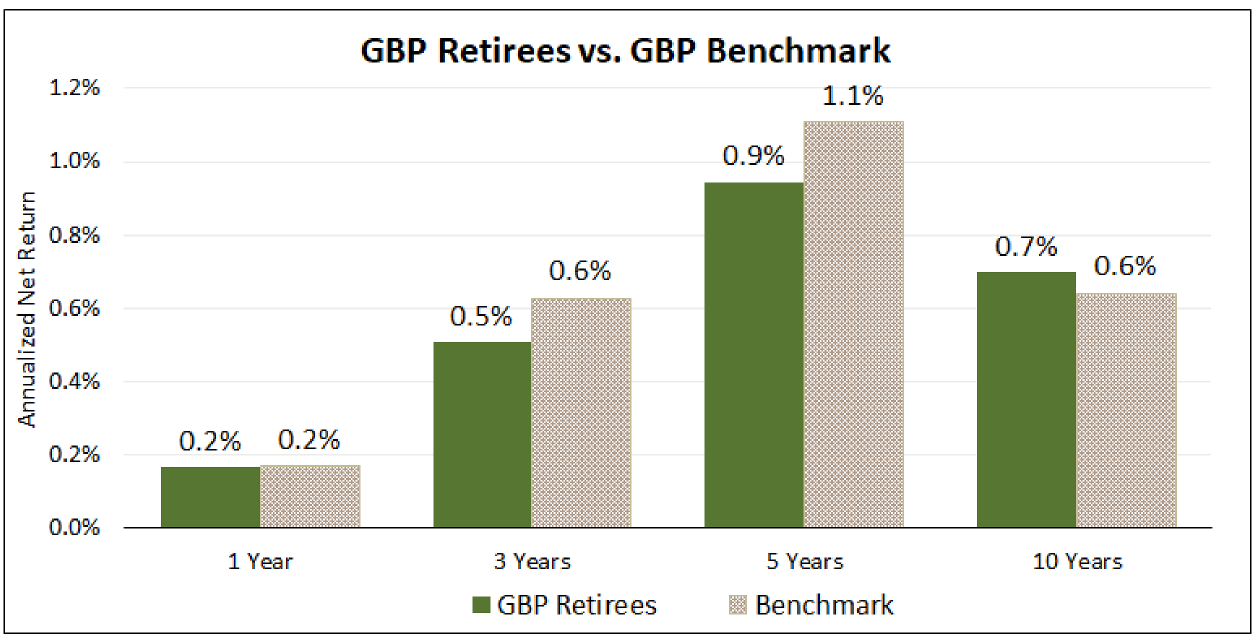
FUNDS MANAGED FOR TEXAS EMPLOYEES GROUP BENEFITS PLAN (GBP)

Funds managed on behalf of the active employee programs of the GBP totaled $3.3 billion, up from $3.2 billion one year ago. Since these insurance funds have a different purpose than the retirement funds in the Trust, they are assigned a different set of asset allocation parameters in Chapter VIII of the

Investment Policy Statement. As of quarter end, the asset mix was 42% rates, 41% cash, and 17% credit as compared to long-term targets of 50%, 30%, and 20% respectively. As shown below, the returns on this pool of capital has been above the assigned benchmark over all relevant periods.



Funds managed on behalf of the retiree programs of the GBP totaled $610 million, up from $480 million one year ago. Since these insurance funds have a different purpose than the retirement funds in the Trust, they are assigned a different set of asset allocation parameters in Chapter VIII of the Investment Policy Statement. As of quarter end, the asset mix was 100% cash, in line with the long-term target of 100% cash. As shown below, the returns on this pool of capital has been mixed relative to the assigned benchmark over relevant periods.



As noted below, the IPS revisions proposed for Fiscal Year 2023 would include a comprehensive review of the guidelines for managing these capital pools. These proposed revisions include more updated asset allocation parameters and more regular reporting on these assets. If approved, the funds of the programs for active employees would be referred to as the Insurance Benefits Fund (IBF) and for the funds of the programs for retirees referred to the Retiree Health Fund (RHF).

STRATEGIC INITIATIVES FOR 2022 AND BEYOND

As part of its ambitions to maintain a best-in-class investment program, staff continues to pursue a number of significant projects, including:

- **2022 Asset-Liability Study:** The goal of an 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. The 2022 Asset-Liability Study was undertaken to evaluate the liquidity profile and asset allocation parameters of the Trust when considering the long-term effects of SB321, including the advent of Group 4. This analysis has resulted in proposed changes to the asset allocation parameters established by the Board, which coincides with the annual update to the Investment Policy Statement in August.

- **Investment Policy Statement (IPS) Annual Review:** the IPS requires that the Board review it at least annually to ensure that it continues to reflect the Board's objectives and meet the needs of the Beneficiaries. Staff is required to assess whether the modifications are necessary or desirable, and to make recommendations to the Board accordingly. Staff is proposing several revisions to the IPS for consideration at the August meeting of the Board. Staff has provided Board and IAC members with a redline version of the existing policy that incorporates all of the proposed changes, and has incorporated feedback from that process into the document.

- **Reorganization of Public Equity:** Weak long-term performance by the Public Equity allocation has led management to undertake a reorganization of that team. Attribution analysis suggests that stock selection skill exists within this team but that allocation decisions among the 26 constituent portfolio has offset all of most of that value added. As such, the reorganization has focused on simplifying the portfolio structure by reducing the number of internal portfolios from eight to one while also paring back the number of external advisors by roughly half. Lauren Honza serves as Managing Director of Public Equity and Keith Lyons has been appointed to lead the internal equity team in pursuit of strong long-term performance for this important allocation.

- **Process Improvement:** Staff has been diligently reviewing recommendations from consultants and auditors to find areas of potential improvement for the Investment program. This process has led to updates in the Risk Committee charter and the incorporation of the Asset Class Guidelines into a new document called the Investment Implementation Plan. Every week, an internal Strategy Forum is convened to consider Trust positioning, asset allocation and liquidity needs. The new monthly All Hands Gathering provides a forum to review investment performance, build team culture, and recognize star performers on a regular basis.

- **Governance Review:** Section 802.109 of Texas Government Code requires ERS to engage a consultant every three years to conduct an independent evaluation of the appropriateness, adequacy and effectiveness of ERS' investment policies, procedures and practices. Such reports covers five Evaluation Topics that are broadly defined in statute:

    1. An analysis of any investment policy or strategic investment plan adopted by the system;

    2. A detailed review of the system's investment asset allocation;

    3. A review of the appropriateness of investment fees and commissions;

    4. A review of the system's governance processes related to investment activities; and

    5. A review of the system's investment manager selection and monitoring process.

  NEPC conducted the first such review in 2019-2022 and delivered the associated report to the Board in March 2020. Another such report is due in calendar year 2023, though in October the Pension Review Board may extend the deadline for all such reports by a year such that they would be due on June 1, 2024. In any case, this process will kick off in late 2022/early 2023 and will proceed at a pace that is appropriate to meet the required deadlines.

- Attracting and Retaining Talent. At present the Investments Division has a total of nine personnel vacancies across eight of its internal teams, and recruitment efforts continue for all of these positions. This number has increased significantly during the quarter with four departures to the private sector and the retirement of a longtime colleague. Program directors are being encouraged to reach out to their networks proactively to source candidates and to consider how candidates with less traditional backgrounds might be trained for a particular investment position over time.

CONCLUSION

Investment performance for the Trust continues to compare well against its stated objectives and includes record levels of five-year excess returns. 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 that have both contributed meaningfully toward the fulfillment of the Trust's performance objectives. Liquidity risk remains well managed and looks to remain so in coming years.

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

ATTACHMENTS:

1. Slides – Chief Investment Officer Update