MEMORANDUM

To: Joint Committee on Pensions, Investments, and Benefits

From: Alan D. Conroy, Executive Director

Date: December 8, 2021

Subject: KPERS Actuarial Investment Return Assumption

KPERS annual actuarial valuation uses a number of assumptions to calculate the liabilities of the System each year. The most important assumption in terms of impact on liabilities is the investment return assumption. The current investment return assumption is 7.75% and was selected by the KPERS Board of Trustees at the recommendation of KPERS' consulting actuary and KPERS' general investment consultant. The Legislature delegated the authority to set the investment return assumption to the KPERS Board of Trustees in 1998. The investment return assumption has been changed over time, most recently from 8% to 7.75% in the 12/31/2016 actuarial valuation. Prior to 2016, the investment return assumption had been at 8% since 1986.

During the October Education and Planning session the Board took a deeper look at the investment return assumption and requested follow-up information at future meetings to continue the discussion and ultimately decide if the current investment return is still appropriate. Just a reminder, the following discussion focuses only on the KPERS State/School Group (the largest in the Trust).

The Board last reviewed the investment return assumption in the 2019 actuarial experience study. The next time actuarial experience study is scheduled for 2023, but the Board has the statutory authority to have a study completed as early as 2022.

Investment Return Assumption

The investment return assumption is comprised of two pieces, price inflation rate (currently 2.75%) and real rate of return (currently 5.0%). The investment return assumption is the sum of these pieces. The investment return assumption is used as the discount rate when calculating actuarial liabilities in the annual actuarial valuation.

A lower investment return assumption means the System's assets are expected to earn less investment income in the future, which increases the present value of future benefits (i.e. liabilities).

An increase to the total liabilities will increase the unfunded actuarial liability and thereby decrease the funded ratio (actuarial assets/actuarial liabilities). The increase in liabilities will also increase employer contributions without adjustments to the funding plan.

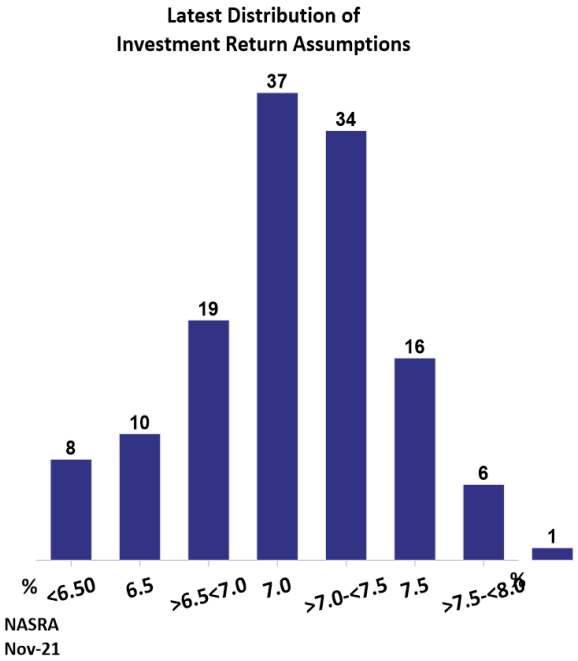
KPERS

Of the economic assumptions, the investment return assumption has the largest impact on the actuarial funding calculations.

Current Recommendations and Public Pension Trends
The KPERS Board of Trustees most recently reviewed the investment return assumption as part of the 2019 actuarial experience study. At the time KPERS' general investment consultant had a 10-year expected investment return of 7.1%. The Board elected not to make a changed from the 7.75% investment return assumption at that time.

Since the completion of that experience study, the 10-year expected investment return has dropped to 6.0% in 2021. At 7.75% KPERS investment return assumption is currently 1.75% higher than the 10-year expected return. The long-term actuarial assumption and the near-term expected return would not necessarily be expected to be equal, but the increasing gap is a concern.

In the public pension universe, many plans are reviewing and lowering investment return assumptions. Since 2010, the median investment return assumption has fallen from 8.0% to 7.0%. Out of the 131 plans reported, KPERS was one of two plans using an investment return assumption of 7.75% or higher. The graph to the right shows the distribution of return assumptions reported by the National Association of State Retirement Administrators (NASRA) as of November 2021.



Intergenerational Equity
Using assumptions that have a high probability of occurring helps to ensure that the System is funded appropriately over time. An investment return assumption that is too high will push employer costs to future generations and vice versa if the assumption is set too low.

Board of Trustees Discussion
The Board of Trustees is in the process of reviewing the appropriateness of continuing to use 7.75% as the investment return assumption. The Trustees are still gathering information at this stage and have not recommended any specific changes but lowering the investment return assumption is a real possibility. The Board has not set a specific deadline for this decision. The discussions will continue during the scheduled Board meetings this winter and spring (January, March and May) and the Board could take action at any of those meetings.

Funding Impacts
Lowering the investment return assumption increases the calculated liabilities in the actuarial valuation. However, a lower investment return assumption does not change the assets. Since the funded ratio is calculated by dividing total assets by total liabilities, a lower investment return assumption will also lower the funded ratio.

KPERS consulting actuary completed a cost study on the impact of reducing the investment return assumption to 6.75%. Rough estimates for other assumptions can be provided for the general cost impact by assuming the change in the liabilities and contribution rates are proportional to the change in the investment return assumption. While these estimates are helpful, the actual projection results may look different due to the complexity of the actuarial calculations involved.

The estimated impact of lowering the investment return assumption by 0.25% is an increase in the total liability of $610 million and a 2% reduction in the funded ratio. The following table is a summary of the estimated impact of lowering the investment return assumption in 0.25% increments.

	Unfunded Actuarial Liability on 12/31/2021	Funded Ratio on 12/31/2021
7.75% Projection	$5.3 billion	76%
7.5% Estimate	$5.9 billion	74%
7.25% Estimate	$6.5 billion	72%
7.0% Estimate	$7.1 billion	70%
6.75% Projection	$7.7 billion	68%

If the total liability increases but there is no change to the funding plan (amortization) then employer contributions will increase to ensure that the unfunded actuarial liability is fully funded in the existing amortization (11 years remaining). However, the Legislature has delegated amortization decisions to the Board of Trustees.

When the Board establishes the appropriate investment return assumption, they will review the funding projections and may make changes to the amortization method (i.e., level dollar or level percent of pay) and the amortization length to ensure that the plan can remain on a sustainable path to being 100% funded. Although the impact will be much smaller, the Board may also review other actuarial assumptions that impact the calculation of liabilities, which may work to offset some of the funding losses caused by a lower investment return assumption.

I would be pleased to answer any questions the Committee has regarding KPERS investment return assumption.