CalPERS

Investment Committee

Agenda Item 5c

September 15, 2025

Item Name: Asset Liability Management: First Reading of Public Employees' Retirement Fund Recommendations

Program: Total Fund

Item Type: Information

Executive Summary

This asset liability management (ALM) cycle brings a newly proposed investment governance model, Total Portfolio Approach (TPA), that evolves and builds on the Public Employees' Retirement Fund's (PERF) existing Strategic Asset Allocation (SAA) model. Fundamentally, Total Portfolio Approach enshrines the belief that the portfolio is best managed as a whole, that every investment strategy and decision is made for its potential contribution to the overall, or total portfolio, and will lead to better investment performance and system funding.

There are a variety of ways to implement a Total Portfolio Approach. We think the most suitable form for CalPERS is to establish a new Formal Total Fund Risk for the PERF. There will be two components to it.

First, an equity-bonds Reference Portfolio that sets the market risk exposure, captures passive returns, and becomes the singular total fund performance benchmark. Here, we are recommending an equities-bonds Reference Portfolio mix of 75/25, respectively.

The second is to set an Active Risk Limit, so management is provided the ability to make non-Reference Portfolio active management investments. Here, we are recommending a 400 basis points (bps) Active Risk Limit.

Lastly, we recommend no change to the current Discount Rate of 6.8% if the 75/25 Reference Portfolio is adopted.

Strategic Plan

This agenda item supports the CalPERS Strategic Plan goal of strengthening the long-term sustainability of the pension fund. As defined in CalPERS ALM policy, ALM is the process of balancing the expected cost of future pension payments with the expected future investment returns. The periodic review and evaluation of investment and actuarial assumptions are intended to strengthen the sustainability of the pension fund.

This agenda item additionally supports the Strategic Plan goal of Stakeholder Engagement by promoting collaboration, support, and transparency, as stakeholder input is a critical component to the ALM process.

Investment Beliefs

- Investment Belief 2: a long-term investment horizon is a responsibility and an advantage.
- Investment Belief 7: CalPERS will take risk only where we have a strong belief we will be rewarded for it.
- Investment Belief 8: costs matter and need to be effectively managed.

Background

ALM is governed by the CalPERS ALM Policy, and the ALM process is a collaborative effort between the Actuarial Office (ACTO), the Financial Office (FINO), and the Investment Office (INVO), with stakeholder engagement a critical input. ALM operates on a four-year cycle with a mid-cycle review and is the primary process by which investment portfolio and actuarial assumptions evolve to reflect the investment risks and framework, the market opportunity set, demographic assumptions and experience, and plan status. The ALM decision frequency is supported by ACTO's annual actuarial valuation process that determines subsequent employer and employee contribution levels. This process establishes an amortization of each fiscal year's actual experience versus the assumptions underlying the ALM decisions, thus correcting annually for forecast and estimation uncertainty.

This is the first reading of the following PERF ALM Recommendations:

1. Adopt the capital market assumptions (CMAs) that are the basis for the expected return projections.
2. Adopt a new investment governance model of Total Portfolio Approach and a new Formal Total Fund Risk consisting of a Reference Portfolio and Active Risk Limit, replacing the current investment governance model of a Strategic Asset Allocation.
    a. Adopt a Reference Portfolio with a 75/25 mix of equities and bonds, respectively.
    b. Adopt an Active Risk Limit of 400 bps for management's non-reference portfolio investments.
3. No change to the current Discount Rate of 6.8% if adopting the recommended 75/25 Reference Portfolio.

Analysis

Investment Governance Model Change

The recommendation to adopt Total Portfolio Approach poses a meaningful change to the investment governance model, however, there are no other changes to the Board of Administration's (Board) oversight role or authority, nor would the ALM process change. Currently, the Board adopts a Strategic Asset Allocation that sets asset class allocation targets and provides management a range of discretion around those targets. Under Total Portfolio Approach, the Board will adopt a Formal Total Fund Risk that sets the PERF's risk profile and be periodically reviewed within the normal ALM cycle. The Formal Total Fund Risk will consist of two components, (1) Reference Portfolio and (2) Active Risk Limits.

Reference Portfolio

The Reference Portfolio will set PERF's market risk exposure and capture passive returns through its specific mix of equities and bonds. Equity risk is the predominant risk and return driver, so the more equity in a Reference Portfolio, the higher potential returns, and critically, the more volatility and investment risk. As the Reference Portfolio captures the passive returns the market provides, it further serves as the singular total fund benchmark for evaluating the Investment Office's performance of non-reference portfolio investment decisions.

The below table shows the expected returns and volatilities by the candidate Reference Portfolios.

Table 1: Expected returns by Reference Portfolio

Equity / Bonds Asset Mix	***Current SAA Portfolio 72/28**	**70/30**	**Recommended 75/25**	**80/20**
Total Return – Survey Median	6.8%	6.8%	**6.9%**	7.0%
Total Return – Survey Range	5.4% - 8.4%	5.0% - 8.1%	**5.0% - 8.3%**	5.1% - 8.4%
Total Portfolio Volatility	12.0%	11.9%	**12.7%**	13.5%
Expected Tail Risk (95%)	-25.0%	-23.3%	**-25.8%**	-28.4%
Max Drawdown Great Financial Crisis 2007-09	-41%	-40%	**-43%**	-45%
Loss for Hypothetical $500 bn Portfolio	-204 bn	-$199 bn	**-$213 bn**	-$226 bn

*Note: All return estimates are net of fees. Total returns include Reference Portfolio passive returns plus the use of 300 bps of active risk (midpoint of expected active risk operating range of 250-350 bps). *Current portfolio risk is estimated based on a preliminary TPA risk model applied to fiscal year 2024-25 interim SAA targets.*

Active Risk Limit

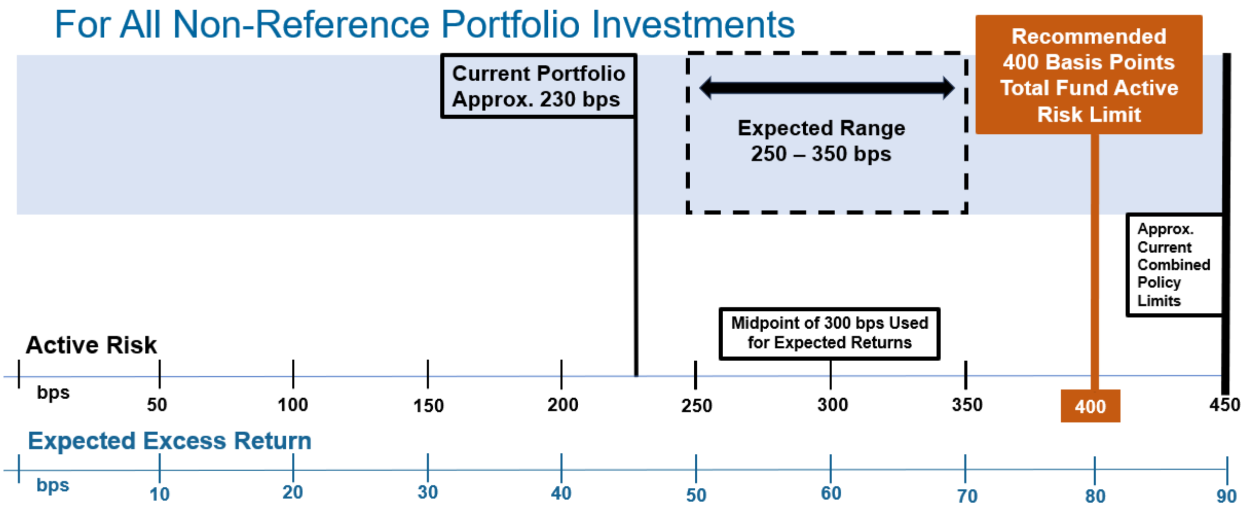
Like SAA's asset class ranges and discretion, Total Portfolio Approach will provide management the needed flexibility to diversify and add value to the portfolio by making active management investments, or simply, non-reference portfolio investments. Use of active risk will be easily distinguishable from the Reference Portfolio, meaning that management's decisions will be clear and transparent. Total Portfolio Approach does not require more flexibility or discretion to management than currently exists.

To establish a proposed Active Risk Limit, current SAA asset class ranges and policy discretion were consolidated and converted into a single total fund active risk metric, totaling approximately 450 bps.

The current portfolio has approximately 230 bps of active risk.

Under Total Portfolio Approach, the expected operating range is 250 bps to 350 bps. We think 400 bps is a reasonable limit based on where the portfolio is today and our long run risk tolerance.

Figure 1: Visualization of Active Risk Limit Recommendation



Note: Current policy max limit includes ranges across asset classes, liquidity, and leverage.

Notably, current SAA policy requires Board notification when asset class ranges and policy discretion may be or is exceeded. This will not change under Total Portfolio Approach.

The Formal Total Fund Risk Recommendation

Management is recommending the 75/25 Reference Portfolio with a 400 bps Active Risk Limit because it best balances the following:

- The Board's expressed tolerance for more risk when we have high conviction.
- The desire to offset future required employer contributions through higher investment returns.
- The increased volatility and drawdown risk that comes with higher equity exposure.
- Minimizing employer cost volatility and maximizing the likelihood of improved system funding.

The 75/25 Portfolio and associated Active Risk recommendation represents a moderate increase in investment risk from the current SAA. This increased risk is expected to result in moderately higher investment returns which would lower employer costs. Based on extensive analysis of projected actuarial results, this increase in investment risk does not significantly increase the risk of contribution spikes or severe funded status declines.

The 70/30 Portfolio option and associated Active Risk Limit would result in a slight reduction in investment risk and an increase in near-term employer and member contributions due to the recommended 6.7% discount rate. While this is prudent option, the benefits of this slight reduction in investment risk do not appear to adequately compensate for the required contribution increases.

The 80/20 Portfolio and associated Active Risk Limit is also a prudent option. However, the increase in investment volatility would increase from 0.7% (12.7% - 12.0%) under the 75/25 option to 1.5% (13.5% - 12.0%). While this option offers higher expected long-term returns, near-term contributions are not expected to decrease materially nor is the funded status expected to improve materially faster than under the 75/25 Portfolio.

Performance Reporting

Overall, there will be minor changes to performance reporting under Total Portfolio Approach that will simplify and be additive to current reporting. The Board will receive the same reports at the same frequency it does now, such as the quarterly and annual Trust Level Reviews, Annual Program Reviews, ad hoc reports, and closed session strategy reviews. The Chief Investment Officer will lead a discussion with the Board about potential opportunities to streamline the reporting.

Standards based reports like the Annual Comprehensive Financial Report, and others, will have minor formatting updates with additional disclosures and commentary about the shift to Total Portfolio Approach, but otherwise will not change.

The most noticeable change will be simplifying from 11 asset class benchmarks to one singular total fund benchmark, the Reference Portfolio. Active management decisions will be reported independently and easily distinguished from the Reference Portfolio. This feature simplifies the evaluation of management's performance by making it more transparent, which in turn will drive greater accountability throughout the Investment Office.

Discount Rate Selection

The Chief Actuary considers many factors to arrive at a Discount Rate recommendation. Among these are expectations regarding the future allocation of PERF assets among asset classes, prevailing capital market assumptions for the next ten to twenty years, and current actuarial metrics of the system's individual plans such as funded status and the current level of required employer contributions.

Under the proposed Total Portfolio Approach, the Board will not be adopting a specific Strategic Asset Allocation as in past years. However, based on the recommended Reference Portfolio and associated active risk level, the near-term allocation of PERF assets is expected to have a long-term investment return of 6.8% or slightly higher. Therefore, a 6.8% Discount Rate is recommended for the 75/25 Reference Portfolio and assumed 300 bps of active risk.

Table 2: Candidate Reference Portfolios and Associated Discount Rates

Candidate Reference Portfolio	Associated Discount Rate
70/30	6.7%
75/25*	6.8%*
80/20	6.8%

*Note: 300 bps active risk is assumed across all candidate Reference Portfolios. *ALM Recommendation.*

Given the risks associated with increasing the Discount Rate assumption, and explained below under Benefits and Risks, a 6.8% Discount Rate is also recommended for the 80/20 Reference Portfolio. Should the board select the 70/30 Reference Portfolio, which reflects a lower level of investment risk than the current allocation, we recommend the Discount Rate be lowered to 6.7%.

Budget and Fiscal Impacts

There are no expected budgetary or fiscal impacts in changing to a Total Portfolio Approach.

Benefits and Risks

The ALM cycle always brings important Board decisions with systemwide implications, and this cycle is no different with a proposed new investment governance model and Discount Rate selection. The Board has a decision whether to keep PERF's current investment governance model of a Strategic Asset Allocation, with asset class policy targets, ranges, and discretion, or adopt a Total Portfolio Approach model that establishes a Formal Total Fund Risk consisting of a Reference Portfolio and Active Risk Limits. In addition to the investment governance model, the Board will adopt a Discount Rate that impacts employer and member contributions.

Governance Change

Maintaining the current SAA governance and framework would provide continuity to CalPERS and our stakeholders. The Board's ALM decisions would remain status quo, specifically its role in adopting asset allocation targets. Maintaining the SAA means investment decisions remain at the asset class level rather than the total portfolio level, leading to potential overdiversification and no Board adopted formal total fund risk standard.

Changing to Total Portfolio Approach creates new Board ALM decisions but otherwise has no impact on Board authority, oversight, and the ALM process. Under Total Portfolio Approach, the Board forgoes adopting asset class allocation targets to instead set the overall Formal Total Fund Risk, consisting of two new Board decisions on a Reference Portfolio and Active Risk Limit. To the organization, there would be operational and cultural changes to implement and manage, the most significant being to how investment decisions are made. Otherwise, the benefits of Total Portfolio Approach can be found in the above Analysis section.

Discount Rate Selection

There is not a single correct selection of a Discount Rate for the PERF as actual future investment returns are extremely difficult to predict. Setting the Discount Rate higher than actual future returns, generally results in a lack of desirable funded status improvement and higher overall costs to employers. In addition, when it is realized that the Discount Rate is too high, it is very difficult to lower it since that immediately increases employer and member contributions. If future returns turn out higher than the Discount Rate, it could be argued that employers and members paid higher than necessary contributions during that period. However, the funded status would likely be higher, and subsequent required contributions can be lowered if the board elects to increase the Discount Rate after years of over performance. In such a scenario, employers will generally pay lower overall contributions due to the acceleration of funding.

Attachments

Attachment 1 – Asset Liability Management: First Reading of Recommendations Presentation

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