November 12, 2023

Mr. David Miller
Chair of the Investment Committee
California Public Employees' Retirement System
400 P Street
Sacramento, CA 95814

Re: Consultant TFPM Program Review

As it currently stands, the TFPM program consists of the following functions:
- Investment Treasury and Trading
- Research (Economics)
- Portfolio Strategies
- Portfolio Design

The Allocation Management function has been moved under the Portfolio Design team leaving the four primary functions mentioned above, while maintaining the same work stream coverage.

In total the TFPM program has 44 FTE including the MID (5 positions are currently open). In contrast, last year there were 48 FTE with 7 open positions. The ability to recruit and maintain team staffing continues to be challenging for INVO, but particularly within TFPM and the Research (Economics) function. Our scoring this year reflects a reduction for the overall Team and Information Gathering scores given the decreased staffing within the Economics team. This team is meant to be a centralized function supporting all of INVO and provides important Board level communication and support.

The **Research (Economics)** group supports PERF by driving thought leadership and assisting with support on various projects for other programs within the broader INVO team. Research (Economics) (FTE) – Currently stands at 7 which is a decrease of 2, however there are three open positions which leaves the current staff of 4 FTE actively managing this area.
This team has been impacted by turnover and is low in resources relative to past years (with some open positions). Given that this team is designed to provide analysis and commentary across all investment programs, dealing with staffing in this area should be a high priority. We have decreased our depth and breadth of resources scoring to reflect the current resources.

Portfolio Strategy serves as a complement to research and their work can generally be separated into the following components:

1. Strategic Asset Allocation – Led Midterm ALM planning and portfolio optimization.
2. Strategy Development & Research – research and propose new cross-asset strategies for strategic and value add opportunities.
3. Asset Class Support – research related to the asset class programs.

In addition to these strategic objectives the Strategy team has also lead on the development of the Active Risk Innovation (ARI) initiative. The group currently has 13 FTE, which is the same as last year, with one position currently open. The stability within this team has been solid and our scoring in the forecasting component is unchanged and reflects an above average grade.

Investment Treasury and Trading has overseen the PERF funding desk and managed the majority of PERF trading. Some of the key initiatives for the team over the last year involved the enhancement of overall Treasury and balance sheet management to increase the potential to add some alpha.

Currently, FTE stands at 10, which is a decrease of 3 from last year. However, the role of the team has changed with some of the trading moving to the specific asset class programs. Given a shift in resources from TFPM to the various asset classes, the trading going forward for this unit will primarily center around Treasuries, however the team will still be responsible for managing all financing needs and assisting with liquidity management. Our scoring here has shifted resources to an average ranking – however that should not be viewed as a downgrade but more of a reflection of the narrowed trading scope for the unit.

Portfolio Design was introduced as a carve out under TFPM last year, with the intention of complementing the portfolio construction process by helping to guide how the approved asset segments come together. Additional structural reorganization has resulted in folding several other areas in under portfolio design going forward and those are listed below:

1. PERF Allocation Management
2. Market Risk Management
3. Liquidity and Counterparty Risk Management

Portfolio Design (FTE) – Currently stands at 12 which reflects an expansion from 2 dedicated FTE last year. This expansion reflects shifting of existing teams under Portfolio Design previously mentioned.

A large focus of Portfolio Design resources as well as the broader TFPM team have been spent working on implementation of the approved strategic asset allocation. Implementing a portfolio as large as PERF requires thoughtful planning and anticipation of complications that arise during the process. However, in parallel to the focus on the SAA, the team has also worked on making progress to the development of the new risk budgeting framework, which is related to the view of expressing more active risk across the portfolio.

Utilizing Wilshire's standard manager research scoring framework, Wilshire's qualitative assessment of the Program places it in the 4th decile which is similar to last year's ranking. However, we should note that the scoring has decreased overall due to some of the staffing issues and remains on the low end of the 4th decile. Stability within the Portfolio Design and Strategy functions provided ballast to the overall team score as those areas continue to be highly ranked.

CalPERS Trust Level Portfolio Management	Tier	Letter
Total Qualitative Score	4th	B

	Weight	Tier	Letter
Organization	20%	5th	C
FIRM	*50%*	6th	C
Quality and Stability of Senior Management			
Quality of Organization			
Ownership/Incentives			
TEAM	*50%*	5th	C
Stability of Investment Professionals			
Quality of Team			
Commitment to Improvement			
Information Gathering	20%	5th	C
Information Resources			
Depth of Information			
Breadth of Information			
Forecasting	20%	4th	B
Clear & Intuitive Forecasting Approach			
Repeatable Process			
Strength, Clarity, and Intuitiveness of Valuation Methodology			
Forecasting Success			
Unique Forecasting Approach			
Portfolio Construction	20%	2nd	A
Risk Budgeting/Control			
Defined Buy/Sell Discipline			
Consistency of Portfolio Characteristics			
Implementation	10%	3rd	B
Resources			
Liquidity			
Compliance/Trading/Monitoring			
Attribution	10%	3rd	B
Depth of Attribution			
Integration of Attribution			