Total Fund Portfolio Management Annual Program Review

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Total Fund Portfolio Management
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Program Overview

Role

- Maintain total fund risk and liquidity at target levels while financing all investment strategies
- Research and development supporting strategic asset allocation and active strategies
- Risk budgeting and value add planning for the Total Fund
- Monetizing the balance sheet

Key Metrics

- Portfolio completion and rebalancing tracking error < 5bps
- Total current gross financing of strategic and active exposures ~ \$34B
- Facilitating design of Active Portfolio, with current target of \$800M of net dollar value add (DVA), and with 5-year objective to scale towards \$3B per year of net DVA

Investment Beliefs

- Strategic Asset Allocation is the dominant determinant of portfolio risk and return
- Liabilities must influence the asset structure: Strategic Asset Allocation
- A long-time investment horizon lets us invest in illiquid assets, opportunistic strategies
- CalPERS must articulate its investment goals and performance measures and ensure clear accountability for their execution: SAA, Risk Budgets
- CalPERS will take risk only where we have a strong belief we will be rewarded for it
- Strong processes and teamwork and deep resources are needed to achieve CalPERS goals and objectives



Total Fund Portfolio Management

Areas of Responsibility

Function	Description
Strategic Asset Allocation	Support Investment Committee (IC) in establishing Strategic Asset Allocation targets via research, portfolio modeling, and portfolio options
Strategy Development & Research	Research and propose new cross-asset strategies, including both strategic allocation and value add opportunities
Economics	Provide macro-economic analytics and commentary to support Investment Committee, CIO, and Programs
Financing and Trading	Oversee PERF funding desk and conduct majority of PERF trading activities
Active Risk Budgeting	Support CIO and Deputy CIOs in integrated management of value add (benchmark-relative) investment activities
Portfolio Rebalancing	Maintain total portfolio risk by selling high and buying low
Allocation Implementation	Manage daily exposure of PERF allocation toward strategic and tactical targets including cashflows and completion activities
Portfolio Analytics	Provide integrated perspectives on portfolio positioning and risk to internal and external stakeholders



Key Accomplishments Fiscal Year FY 2022-23

- Upgraded liquidity and financing infrastructure and operating models
- Coordinated trading process across public markets to implement new SAA
- Executed Active Risk Innovation (ARI) Business Initiative
- Developed and socialized new risk budgeting framework
- Led Midterm ALM Planning and Portfolio Optimization





Strategy and Portfolio Positioning

Positioning

- Maintaining total portfolio risk
 - Portfolio completion
 - Rebalancing
 - Financing

Strategy

- Recommending strategic asset allocation to harvest long-term risk premia
- Designing and facilitating a value adding total active portfolio





Current Concerns

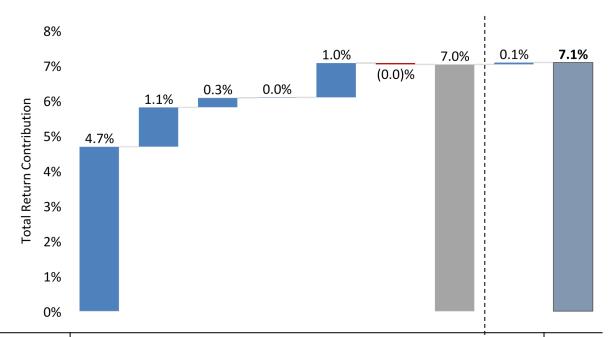
- · Ensuring pacing of private asset commitments is aligned with absolute and relative return assumptions
- Geopolitical environment
- Inflation and growth assumptions, and potential for disappointment of future returns

Investment Themes

- Maintain total portfolio risk to harvest risk premia
- · Make the best possible use of the balance sheet to generate dollar value add
- Incorporating sustainable Working with Sustainable Investment team and asset classes



10-Yr Total Return Contribution as of 6/30/2023



	Contribution from Policy Benchmark Components] 	
	Public Equity	Private Equity	Income	Private Debt ¹	Real Assets	Other ²	Total Policy BM	Value Added	Total Fund
Average Weight	49.5%	9.4%	23.4%	0.2%	12.3%	5.2%	100%	 - 	-
Return	8.8%	11.4%	2.0%	-	8.0%	-	7.0%	! ! ! - !	7.1%
Cumul Dollar Return (bn)	\$155. 1	\$37.7	\$9.2	\$0.4	\$32.8	\$(1.2)	\$234.0	¦ ¦ \$2.8	\$236.8

TFPM team primary areas of focus are highlighted in the red outlined box

Policy Portfolio:

- Our asset allocation is the primary driver of long-term risk and return profile. TFPM supports the Investment Committee (IC) in establishing Strategic Asset Allocation targets via research, portfolio modeling, and portfolio options. This results in the adoption of a Total Policy benchmark to help guide our investment activities
- TFPM coordinates top-down risk management activities including rebalancing, liquidity management, financing, and completion to help maintain our risk exposures vs the desired policy targets over time

Value Added:

- TFPM supports the CIO and Deputy CIOs in integrated management of value add (benchmark-relative) investment activities
- TFPM leads an annual risk budgeting and value add planning exercise across the Total Fund to arrive at an overall desired active portfolio



All performance reported net of investment expenses and annualized unless noted as cumulative

¹ Private Debt was part of the Opportunistic Strategies Program prior to 7/1/2022

² Other includes impact from benchmark leverage and historical Policy Benchmark allocations that are not part of the current Policy Benchmark

Total Fund Risk Profile as 6/30/2023

			Current ¹	Last Qtr	Last Year
		Policy Limit	6/30/2023	3/31/2023	6/30/2022
Total Fund Volatility (%)		-	13.7	13.3	12.9
Policy Benchmark Volatility (%)		-	12.5	12.2	11.7
Tracking Error (%)					
	Actionable	< 1.00	0.14	0.15	0.10
	Total Fund	-	1.84	1.68	1.63
	Allocation		0.01	0.04	0.00

Actionable and Total Fund Tracking Error:

- TFPM monitors the utilization of overall risk budget relative to the policy portfolio, leading reviews with INVO management on current positioning and strategy contributions to overall risk
- Current utilization of actionable active risk is relatively low vs. the policy limit, 14bps out of 100bps. TFPM is helping to facilitate internal risk budgeting discussions to drive additional value add. We expect that the average utilization of active risk will increase over the coming years

Allocation Tracking Error:

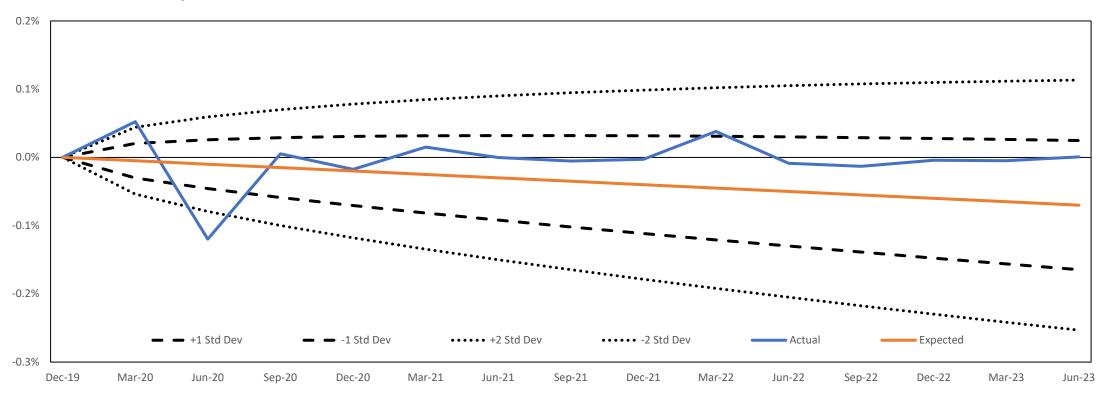
 Our objective over time is to manage allocation rebalancing and completion activities on the Total Fund with low or passive tracking error. Our current expected TE range for this activity is 0 to 5 bps





Allocation and Implementation (Jan'20 – June'23)

Expected Annual Costs = 2 bps Volatility = 5 bps

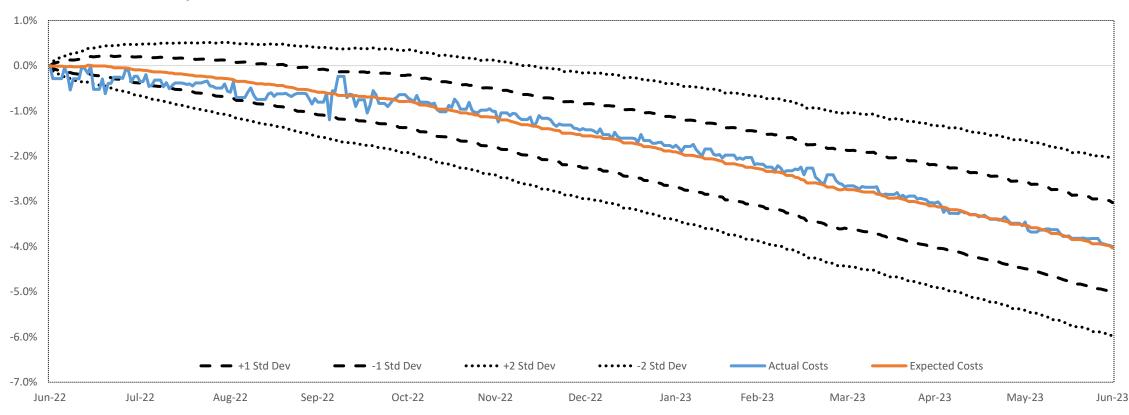






Total Fund Financing (July'22 – June'23)

Expected Annual Costs = 3 Month T-Bill +50 bps Volatility = 100 bps







Operational Updates and Key Initiatives | Evaluation

What Worked



- Established 2023/2024 risk budget
- Enhanced liquidity management
- Enhanced treasury and balance sheet management
- Completed phase 1 of the Active Risk Innovation initiative

Areas for Refinement



- Improve operational capabilities
- Enhance total portfolio diversification
- Facilitate growth of active portfolio
- Continue to increase financing channels





Key Initiatives | Fiscal Year 2023-24

- Mid-Cycle Asset Liability Management: Working with FINO and ACTO to review the current SAA and, if necessary, recommend changes
- **PERF Liquidity Planning:** Develop investment approach, management processes, and analytics to maximize effective long-term use of PERF liquidity within acceptable risk thresholds
- Risk Budgeting: Establish 23/24 Risk Budget. Further enhance risk budgeting process
- Liquidity and Allocation Management Processes: Continue to advance supporting operating structure, financing strategy, and governance
- **Diversification and Resilience:** Continue the research and development of scalable, repeatable Total Fund diversifying investment strategies

